

ESTABLISHED 1866.

CHAS. LENTZ & SONS,  
...  
ILLUSTRATED CATALOGUE

.. AND ..

PRICE LIST

.. OF ..

**SURGICAL INSTRUMENTS,**

ORTHOPÆDICAL APPARATUS, MICROSCOPES, ETC.

18 & 20 N. ELEVENTH ST.,

PHILADELPHIA, PA.

FOURTH EDITION.

23. B. 82




*A. D. Fisch*

1700 Girard Avenue,  
PHILADELPHIA.









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CHARLES LENTZ & SONS

# ILLUSTRATED CATALOGUE

AND

—PRICE LIST—

—OF—

## Surgical Instruments,

ORTHOPAEDICAL APPARATUS, TRUSSES, ETC.

Fine Microscopes,

Medical Batteries,

Physicians' and Hospital Supplies.

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FOURTH EDITION.  
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CHARLES LENTZ & SONS,

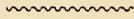
SALESROOMS AND FACTORY,

Nos. 18 & 20 NORTH ELEVENTH STREET.

Philadelphia, Pa.

10295

## To the Medical Profession.



In presenting herewith the Fourth Edition of our Illustrated Catalogue, we give the assurance that we have spared neither time nor expense to make it the most complete of its kind ever issued. Not only have we thoroughly revised our former editions, but added a great many illustrations of the new and latest improved instruments, and also of Hospital and Invalid supplies.

We ask a careful examination of our list of goods which, for excellence of manufacture, quality, and low standard of prices, are unsurpassed by any manufacturer of first-class goods. We respectfully solicit your patronage, guaranteeing the execution of all orders in a satisfactory manner as to quality, finish, durability and price.

Special instruments and appliances after patterns or directions have always our best attention.

In order to meet the demands of our increasing business, we have at various times enlarged our salesrooms and factory. We aim to keep up with the times, and shall continue to carry on hand a large and most varied assortment of goods, so that we shall be able to fill all orders with the promptness for which our firm has been noted in the past.

As a matter of convenience, we have made the prices in this catalogue strictly net, except on certain goods specified on the next page. As this does away with useless calculation, we believe this method of listing our goods will commend itself to the judgment of every practitioner.

As supplements to this catalogue, until a new edition will again be published, we shall from time to time issue circulars of New and Improved Instruments, which we hope will be received favorably.

Thanking for past favors, we solicit future patronage, assuring that we shall make best efforts to justify the same.

**CHAS. LENTZ & SONS.**

2/11/1891 - see page 257



## NOTICE.

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The prices of Surgical Instruments in this Catalogue are *strictly net*.

On certain lines of goods, and on a number of single articles, which the physician purchases more or less for his patients, we allow discount as indicated by signs as follows :

¶ 15%

‡ 20%

†† 25%

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| Rubber Goods,                      | - - - -                         | †† | "     | 259 to 263  |
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| Crutches and Crutch-Bottoms,       | - - - -                         | †† | "     | 484         |

## NOTICE.

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As this issue of our catalogue contains numerous cuts of instruments which do not appear in our last edition, we have deemed it necessary (to save mistakes) to begin the figures of this book in advance of where we left off in last edition, so that any order by number of either book, cannot be misunderstood by us.

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### Please Do Not Mutilate this Book.

Sending us clippings or leaves therefrom, will not make anything plainer to us. By mentioning number of page, and number of individual article, we will always understand your order.

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## ERRATA.

Page 22, Fig. 2200, Illustration should be reversed.

" 65, " 2559, should read Fig. 2561.

" 65, " 2561, " " " 2559.

" 121, " 3168, " " - - - - \$ 7 00

" 129, " 3261, " " - - - - 1 00

" 199, " 4015, " " - - - - 22 00

" 199, " 1, 2, 3, 4 and 5, should read - - - - each, 7 50

" 249, " 4773, should read - - - - 3 50

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Goods may be sent to us, plainly addressed, by mail or other conveyance. As we frequently receive similar articles on the same day, in order that we may recognize each and avoid mistakes, besides our address, senders will please write "from," followed by their own address on each parcel. (Nothing besides the above should be written upon or within the package, if sent by mail, parcel post.) A letter or postal card should be mailed at the same time, stating number and kind of instruments sent, and kind of repairs required.



# Directions for Ordering Goods.

**\*\* All Instruments Illustrated are Designated by a Star.**

1. Write the name of your Town, County and State, and your own name distinctly.

2. State carefully how you wish your goods forwarded, by mail, express, or otherwise.

3. Parties not having a credit already established will understand the necessity of giving reliable references (New York or Philadelphia preferred), or of enclosing remittance to cover amount of purchase. Any orders unaccompanied by either references or cash will be declined or sent by express, C. O. D., including the charges for returning the money. If goods are ordered to be shipped C. O. D., sufficient money should be sent, as part payment, to cover expressage both ways. In remitting with the order, you will save the expense of collection.

4. Remittances can be made without risk, by Money Orders, Checks or Drafts to our order.

5. Goods not exceeding four pounds may be sent by mail, at the cost of one cent per ounce, when the remittance is made with the order.

6. Articles sent by mail cannot be traced and are only sent at customers' risk, unless registered, and as this costs only 10 cents additional, we request our customers to instruct us to have their packages registered; for otherwise, in no case will we be responsible for their loss.

7. Instruments can be ordered by Catalogue of any manufacturer or dealer in Surgical Instruments, care being taken to designate the edition of Catalogue. In referring to any article in Medical Books or Periodicals, state edition and page where it is to be found.

8. When you re-order an article do not say "same as last," but refer to your invoice and word your order the same as the invoice, and in referring to back invoices give the date.

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10. All goods will be carefully packed, and can be safely transported to any part of the country; therefore, for all delays or damages the purchaser must look to the transporters of the goods, who alone are legally responsible for their prompt and safe delivery.

11. Should there be any mistake or overcharge on our part, in filling an order, it will afford us much pleasure to correct it on receiving prompt notice of the same, as it is our desire to give entire satisfaction in every transaction.

12. When Instruments for Repairing, Sharpening, Polishing or Nickel-plating are sent to us, the name and address of the person sending them should accompany the package, to enable us to return them to their owner.

13. The privilege of changing the prices in this Catalogue is reserved, as the fluctuations in the cost of materials and wages may require.

14. Prices in this Catalogue are **STRICTLY NET**, except where otherwise stated. (See page IV.)

Attention to the foregoing directions, will enable us to fill all orders, large or small, as satisfactorily to the purchaser, as though he were present to make his own selections.

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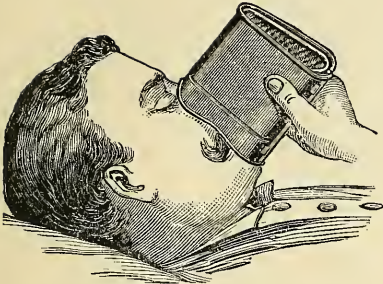
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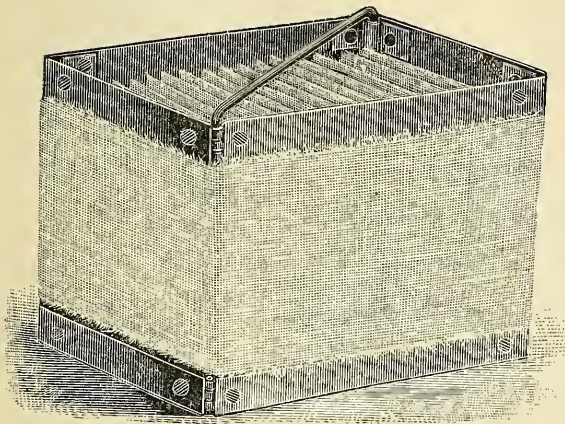
## General Surgical Necessities.



2001



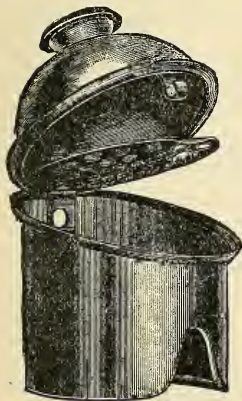
2007



2002



2005

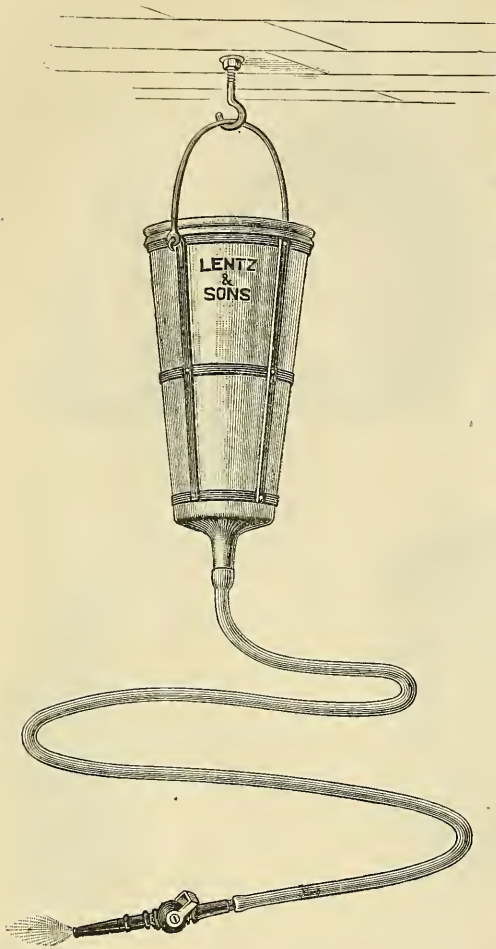


2003

|        |                                                                                                    |        |
|--------|----------------------------------------------------------------------------------------------------|--------|
| 2000.  | Ether Inhaler, Allis', with patent leather cover.....                                              | \$2 75 |
| 2001.* | “ “ “ “ nickel-plated metal cover,<br>(latest).....                                                | 2 75   |
| 2002.* | Ether Inhaler, Fowler's (folding) for the convenience<br>of carrying in the pocket or satchel..... | 2 75   |
| 2003.* | Ether Inhaler, Perfection.....                                                                     | 2 50   |
| 2004.  | “ “ Ormsby's.....                                                                                  | 7 50   |
| 2005.* | “ Bottle, Roberts' Philadelphia Polyclinic.....                                                    | 1 00   |
| 2007.* | Chloroform Inhalers, Esmarch's, with Bottle.....                                                   | 2 50   |
| 2008.  | “ “ Junker's.....                                                                                  | 9 00   |

*All Instruments Illustrated are designated by a \*.*

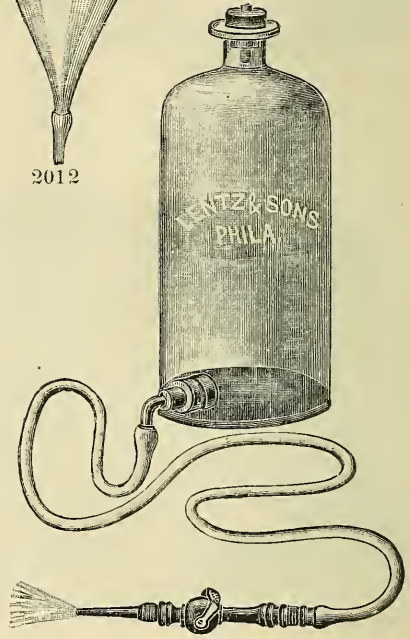
## General Surgical Necessities.



2010



2012



2011

2010 \* Irrigator Glass, with metal frame to suspend from ceiling, complete with six feet of tubing and stop-cock,

1 Gallon, \$3 75

2 Gallon, \$4 50

3 Gallon, \$5 50

2011.\* Irrigating Jars, glass bottle form, complete with six feet of tubing and stop-cock,

1 Gallon, \$4 00

2 Gallon, \$5 00

3 Gallon, \$6 00

5 Gallon, \$8 50

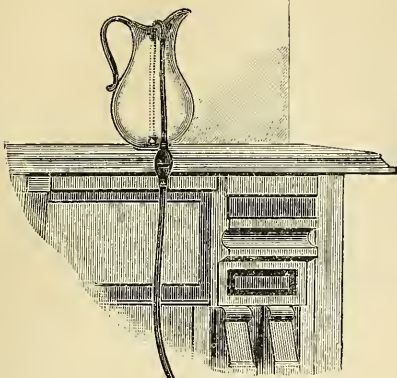
2012.\* Irrigator, German glass, not graduated, 2 quart.....\$1 25

2013.     "     "     "     graduated, 2     "     ..... 1 85

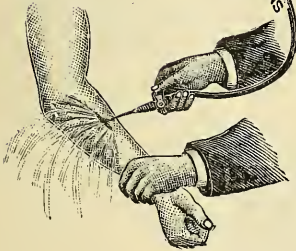
*All Instruments Illustrated are designated by a \*.*



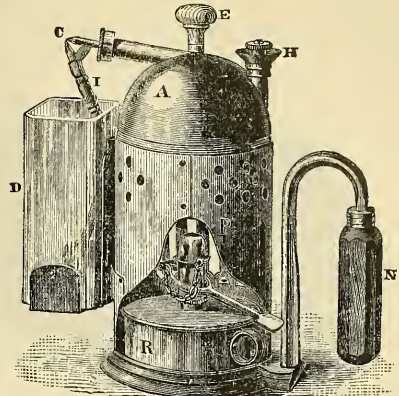
## General Surgical Necessities.



LENTZ &amp; SONS



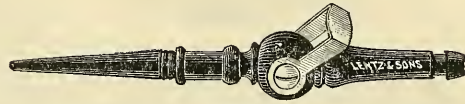
2014



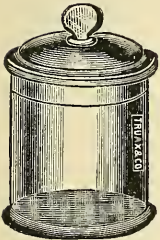
2017



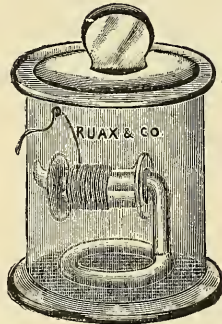
2016



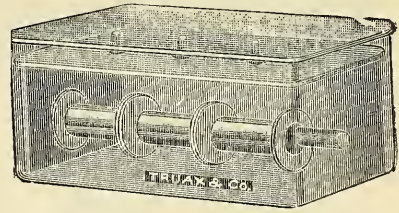
2015



2018



2019



2020

- 2014.\* Irrigator, with air-bulb, five feet tubing and stop-cock.....\$2 00  
This Irrigator answers every purpose of a fountain syringe ; it is more portable and more easily kept clean.
- 2015.\* Irrigator Stop-cock, Esmarch's, plain.....\$1 00 ; best, 1 25
- 2016.\* Syringe, hard Rubber, with Conical Point, for irrigating wounds,  
2½ oz., \$2 00 ; 3½ oz., \$2 35 ; 6 oz., 2 60
- 2017.\* Antiseptic Spray Apparatus, C. & S .....11 00
- 2018.\* Ligature Box, German glass, various sizes.....\$1 00, \$1 60 and 2 25
- 2019.\* " " " " with one large reel and frame.....1 25
- 2020.\* " " " " Hagedorn's, consisting of two glass boxes, one within the other,  
both with covers, and made from extra strong glass. The ligatures are easy to  
unwind. and the spools may be removed easily.....6 00
2021. Ligature Box, same as above, but larger, for hospitals.....9 00

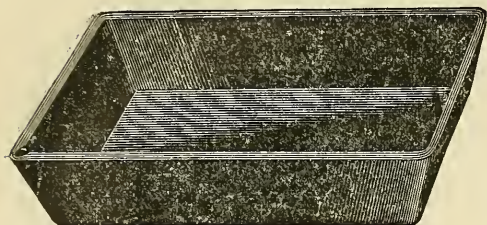
*All Instruments Illustrated are designated by a \*.*

## General Surgical Necessities.

### ASEPTIC TRAYS FOR IMMERSION OF INSTRUMENTS.

(Sizes of all trays are given according to inside bottom dimensions.)

#### 2022.\* Papier Mache Trays.



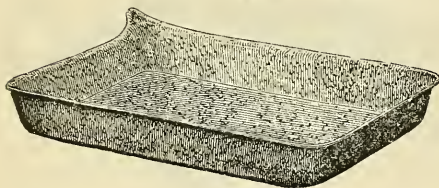
2022

|                |       |
|----------------|-------|
| 5½ x 8½.....   | \$ 55 |
| 7 x 9 .....    | 70    |
| 8½ x 10½.....  | 1 00  |
| 10½ x 12½..... | 1 50  |
| 12½ x 14½..... | 2 00  |

2023.\* Celluloid Trays, same shape as Papier Mache Trays, No. 2022, very light and strong.

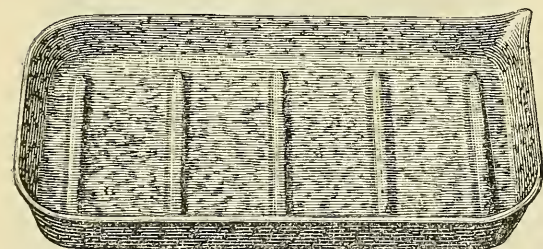
4½ x 5½, 75c.; 5½ x 8½, \$1.00; 7 x 9, \$1.25, 8½ x 10½, \$1.50.

#### 2024.\* Enameled or Agate Iron Trays.



2024

|                | Deep.  | Shallow |
|----------------|--------|---------|
| 5 x 7 .....    | \$1 00 | \$ 80   |
| 7 x 9 .....    | 1 25   | 1 00    |
| 8½ x 10½.....  | 1 60   | 1 25    |
| 10½ x 12½..... | 2 25   | 2 00    |
| 11½ x 14½..... | 3 50   | 3 00    |



2025

2025.\* Enameled Iron Tray,  
with lip, width, 9 in.; length, 15 in.;  
depth, 1½ in.....\$3.50

2026. Hard Rubber Trays, same shape as No. 2022, 1½ x 5 x 8½, \$1.75; 1⅞ x 6 x 10½, \$2.50;  
2 x 6½ x 12½, \$3.00.

2027. Nickel Plated Metal Trays, same shape as No. 2022, 1½ x 5 x 8½, \$1.75; 1⅞ x 6 x 10½,  
\$2.15; 2 x 6½ x 12½, \$2.50.

2028.\* Porcelain Trays with Lip, same as No. 2024.

|              | Shallow. | Deep. |
|--------------|----------|-------|
| 5 x 7 .....  | \$ 45    | \$ 60 |
| 5½ x 8½..... | 60       | 75    |
| 7 x 9 .....  | 65       | 85    |
| 8 x 10.....  | 85       | 1 00  |
| 10 x 12..... | 1 35     | 1 65  |
| 11 x 14..... | 2 15     | 2 00  |
| 14 x 17..... | 5 00     | 6 50  |
| 15 x 19..... | 6 25     | 8 00  |

2029. Metal Instrument Racks, to place in trays.

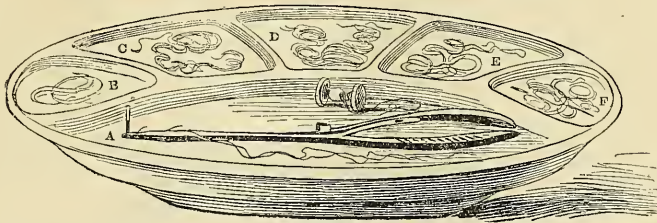
Various sizes, \$1.50 to \$2.50.

*All Instruments Illustrated are designated by a \*.*

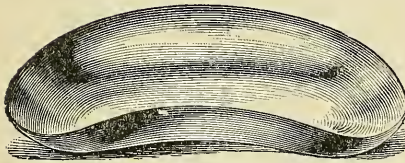


## General Surgical Necessities.

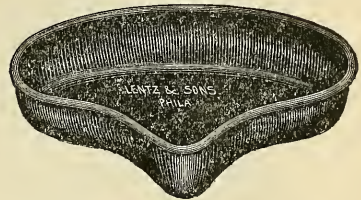
### LIGATURE TRAY AND PUS BASINS.



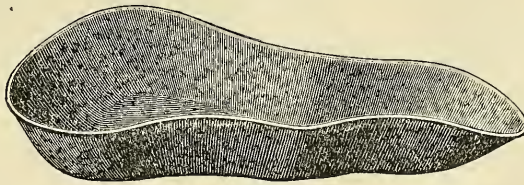
2030



2031-2032



2035



2036

|        |                                                                  |                    |
|--------|------------------------------------------------------------------|--------------------|
| 2030.* | Porcelain Ligature Tray, with compartments.....                  | \$1 00             |
| 2031.* | Pus Basins, Metal, nickel-plated, three sizes.....               | 75c. 90c. and 1 10 |
| 2032.* | “ “ Enameled Iron, two sizes.....                                | \$1 00 and 1 25    |
| 2033.  | “ “ Hard Rubber.....small, \$1 25 ; medium, \$1 50 ; large, 1 75 |                    |
| 2034.  | “ “ Papier Mache.....small, 40c. ; medium, 50c. ; large, 60      |                    |
| 2035.* | “ “ “ “ triangular, capacity, 50 ozs.....                        | 1 00               |

This form is very useful after operations on women as a urinal, as its shape is such that it can be substituted for a bed pan in the administration of rectal and vaginal injections ; it fits close against the inner surface of thighs and perineum and behind the anus, thereby prevents wetting the bed, without the disturbance of placing the patient on a bed pan. It is also useful in general surgery in the washing of surface wounds on any part of the body, as it will fit close against most of the body curves.

|        |                         |      |
|--------|-------------------------|------|
| 2036*. | Pus Basin, Smith's..... | 1 50 |
|--------|-------------------------|------|

Made of sheet iron, pressed into shape and coated with a pure vitreous enamel, which, for tenacity and power of resisting the action of acids, has no equal. The surface is smooth, and as easily cleaned as china, while the article is very light and practically indestructible.

|       |                                      |      |
|-------|--------------------------------------|------|
| 2037. | Pus Basin, Smith's Papier Mache..... | 1 00 |
|-------|--------------------------------------|------|

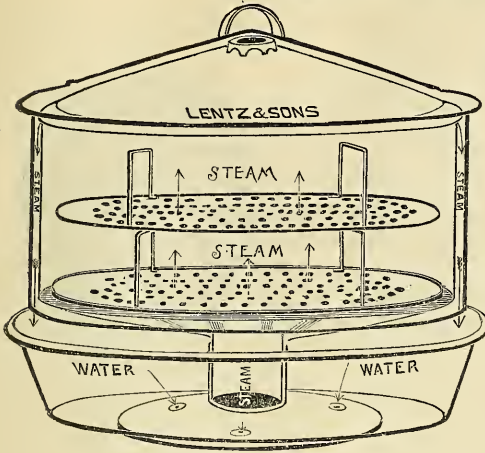
*All Instruments Illustrated are designated by a \*.*



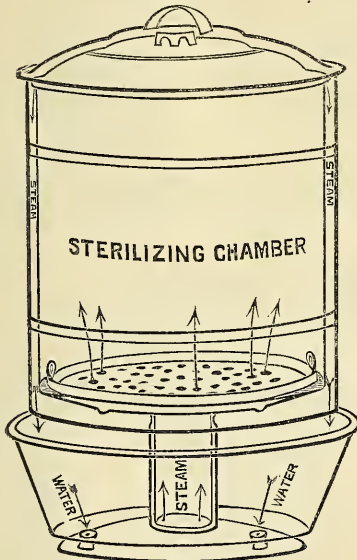


## General Surgical Necessities.

### ARNOLD'S STERILIZERS.




2041



2040\*. General Purpose Sterilizers.

Used for Instruments, Bandages, Gauzes, and Linens.

|        | Height. | Diameter. | Heavy Tin.<br>Copper<br>Bottom. | All<br>Copper. |
|--------|---------|-----------|---------------------------------|----------------|
| No. 2. | 7½ in.  | 8½ in.    | \$2 50                          | \$7 00         |
| " 3.   | 10½ in. | 9½ in.    | 3 00                            | 8 00           |
| " 4.   | 11½ in. | 10½ in.   | 3 50                            | 9 00           |
| " 5.   | 12½ in. | 11½ in.   | 4 00                            | 10 00          |

 SPECIAL SIZES TO ORDER.

SEND FOR CIRCULAR GIVING FULL DIRECTIONS.

*All Instruments Illustrated are designated by a \*.*

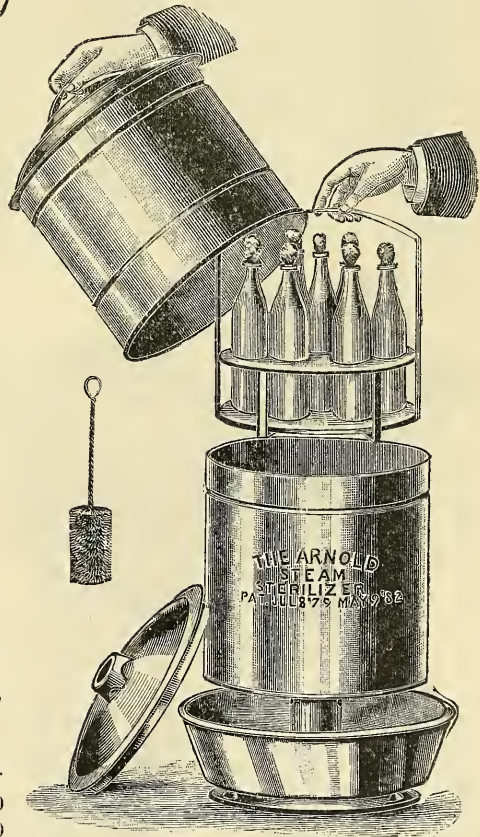
These Sterilizers are inexpensive apparatus, which maintains an unvarying temperature of 100 C. (212 F.) in all parts of the Chamber, without needing any care or attention. For this reason they are rapidly displacing all other methods heretofore employed by prominent Institutions throughout the country. They are also extensively used by physicians in their offices, and the Family size is recommended by them to their patients for sterilizing milk.

#### 2041\*. Special Instrument Sterilizer.

Oval in shape. Size of Chamber, 14 inches long, 9½ inches wide, 6 inches deep, with two racks for Instruments.

Heavy Tin, Copper Bottom, \$ 5 00

All Copper..... 12 50



2039\*. Family Sizes.  
FOR STERILIZING MILK.

- No. 1. Heavy Tin, Copper Bottom, with Rack and 7 Bottles.....\$3 00  
 No. 2. Heavy Tin, Copper Bottom, with Rack and 8 Bottles..... 3 25  
 Extra Bottles, 75 cents per dozen.  
 Croup Attachment, with 10 in. Tube, 30 cts.  
 Additional Lengths, 10 cents each.

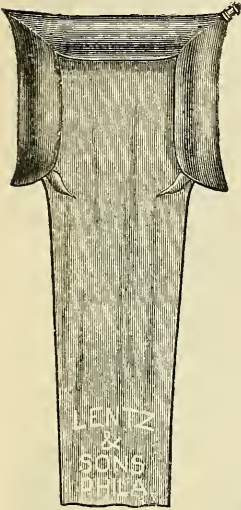


## General Surgical Necessities.

### 2042\*. KELLY'S SURGICAL CUSHIONS.

For General Use in all Perineal, Cervical, Rectal and Ovariectomy Operations.

I.



I.—For general use in Perineal, Cervical and Rectal Operations Extreme length, 34 inches ; width at top for Buttocks, 14 inches.....\$3 50

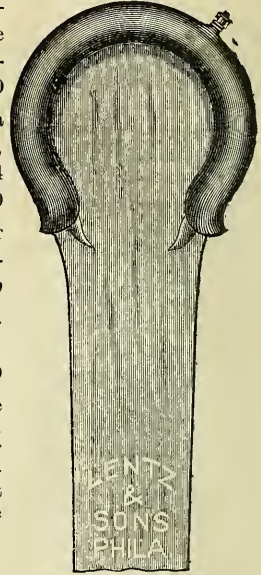
II.—Used in Ovariectomy work ; has a narrow inflatable rim. Extreme length, 50 inches ; width at broadest of rim, 24 inches.....\$5 00

III.—Used in Obstetrical work ; similar in style to Fig II. but with a broad inflatable rim, and long, broad apron.....\$5 50

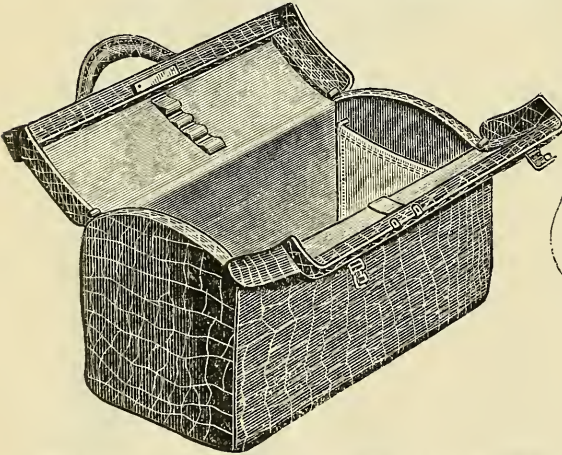
IV.—Used for General Surgical Work. Similar in style to Fig. II. Extreme length, 44 inches ; width, 20 inches.....\$4 50

These cushions are now in constant use for all operations, as described above. Can be used on office table, operating chair, or bed without soiling either clothes or bedding ; at the same time can have constant irrigation, while all fluids pass down the apron into a vessel.

II.



### 2043\*. SURGEON'S CABIN BAG.



2044

This cut illustrates a Cabin Bag used by Surgeons as an emergency bag ; it opens in the centre, which leaves the sides perfectly square ; it is leather lined, with two pockets, and loops inside of lid ; the lock and clasps are made of brass, of the best material throughout.

They are used by Surgeons for carrying their operating instruments, Ether, Aseptic Trays, and all Antiseptic Dressings.

Made of either black grain or alligator leather, in the following sizes :

|                           |         |                        |         |
|---------------------------|---------|------------------------|---------|
| 13 in. Grain Leather..... | \$ 8 00 | Alligator Leather..... | \$10 75 |
| 14 " " ".....             | 8 50    | " " ".....             | 11 25   |
| 15 " " ".....             | 9 25    | " " ".....             | 11 75   |
| 16 " " ".....             | 10 00   | " " ".....             | 12 50   |
| 17 " " ".....             | 10 50   | " " ".....             | 13 25   |
| 18 " " ".....             | 11 25   | " " ".....             | 13 75   |

2044\*. Surgeon's Operating Coat, white linen.....\$1 50

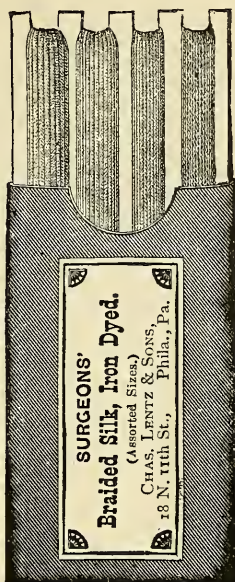
Give bust measure and length of sleeve.

All Instruments Illustrated are designated by a \*.

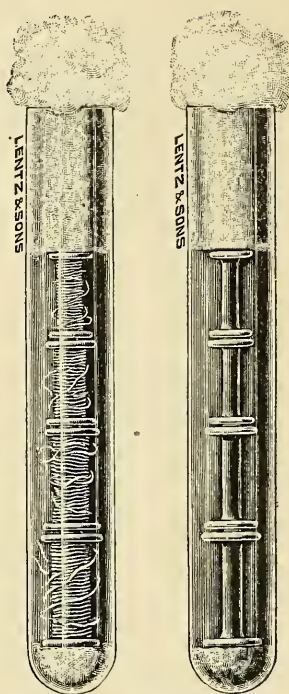
General Surgical Necessities.



2050-2051



2052-2053



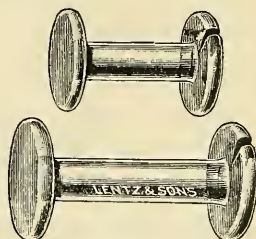
2069



2056



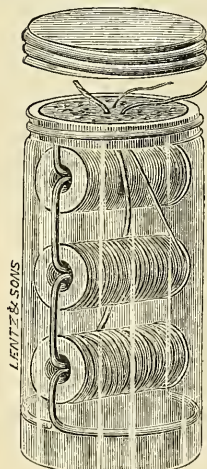
2071



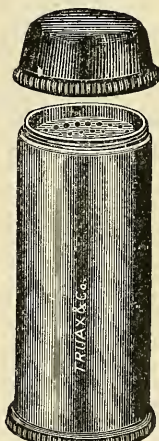
2068



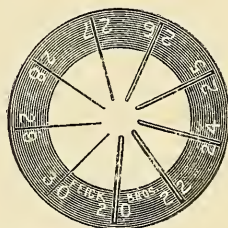
2072



2060



2074



2067



2073



## General Surgical Necessities.

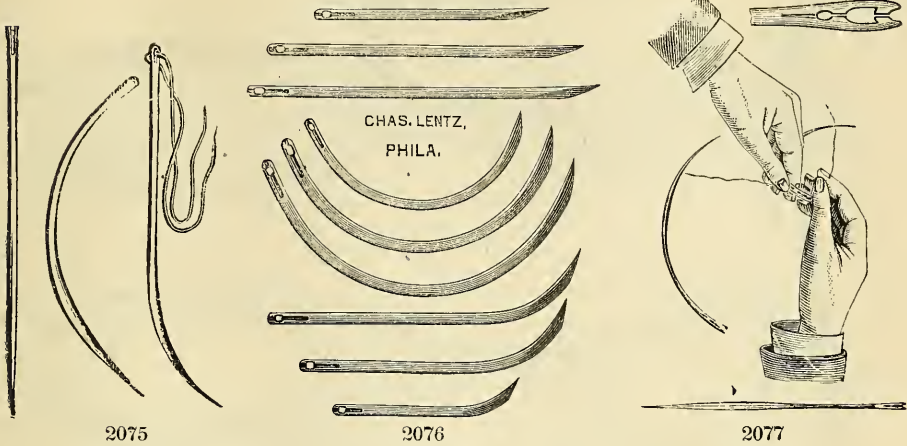
|                                                                                  |                                                                                                                                          |                   |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 2050.*                                                                           | Surgeons' Twisted Silk, White, sizes, from 1 to 14 per reel, 10c. per doz.....                                                           | \$ 90             |
| 2051.*                                                                           | “ “ “ Iron dyed, sizes, from 1 to 14 per reel, 10c. per doz.....                                                                         | 1 00              |
| 2052.*                                                                           | “ “ “ White, 4 sizes, on a tablet in slip case, each.....                                                                                | 30                |
| 2053.*                                                                           | “ “ “ Iron dyed, 4 sizes, on a tablet in slip case, each.....                                                                            | 35                |
| 2054.                                                                            | “ Braided. “ White, sizes, from 1 to 14 per reel, each.....                                                                              | 20                |
| 2055.                                                                            | “ “ “ Iron dyed, sizes, from 1 to 14 per reel, each.....                                                                                 | 25                |
| 2056.                                                                            | “ “ “ White, 4 sizes, on a tablet in slip case, each.....                                                                                | 45                |
| 2057.                                                                            | “ “ “ Iron dyed, 4 sizes, on a tablet in slip case, each.....                                                                            | 50                |
| Silk of all sizes furnished on spools of 100 to 500 yds. each, for hospital use. |                                                                                                                                          |                   |
| 2058.*                                                                           | “ Cable Twist” Silk, 4 sizes, small skein, 20c.; large skein, each.....                                                                  | 35                |
| 2059.                                                                            | “ “ “ 4 sizes, large skeins, dozen.....                                                                                                  | 4 00              |
| 2060.*                                                                           | Three sizes, White or Iron dyed, Twisted Silk, in Antiseptic solution, each.....                                                         | 50                |
| 2061.                                                                            | “ “ “ “ “ “ Braided “ “ “ “ “ “ .....                                                                                                    | 60                |
| 2062.                                                                            | “ “ Catgut, 30 feet, in Antiseptic solution, each.....                                                                                   | 60                |
| 2063.                                                                            | “ “ “ large size, 90 feet, in Antiseptic solution, each.....                                                                             | 1 50              |
| 2064.                                                                            | Catgut Ligatures, dry, in coils of 10 feet each, six sizes.....                                                                          | 15c., 20c. and 25 |
| 2065.                                                                            | Silk Worm Gut Ligatures. 15c. per doz., bunch of 100 Ligatures.....                                                                      | 85                |
| 2066.                                                                            | Pure Silver Wire, per ounce.....                                                                                                         | 2 75              |
| 2067.*                                                                           | “ “ “ 9 sizes. In 1½ yard coils, Nos. 20, 22, 24, 35c.; in 2 yard coils,<br>Nos. 25, 26, 27, 30c.; in 2 yard coils, Nos. 28, 29, 30..... | 25                |
| 2068.*                                                                           | Glass Spools for Silk or Catgut, very strong, 2 sizes, each, 12c.; dozen.....                                                            | 1 25              |
| 2069.*                                                                           | “ Tubes 6 inch long, very strong, for holding glass spools, each, 15c.; dozen...                                                         | 1 50              |
| 2070.                                                                            | Rubber Drainage Tubing, best quality not perforated, 4 sizes, per yard. 20c. 30c.<br>40c. and.....                                       | 50                |
| 2071.*                                                                           | Rubber Drainage Tubing, best quality perforated, 4 sizes, per yard, 25c. 35c.<br>45c. and.....                                           | 55                |
| 2072.*                                                                           | Rubber Drainage Tubing, perforated in Antiseptic solution, six 6 inch pieces, as-<br>sorted sizes.....                                   | 40                |
| 2073.*                                                                           | Glass Drainage Tubing, perforated Gross', 7 sizes and lengths, each, 10c. 12c. 15c.<br>18c. and.....                                     | 20                |

Thomas' and other Drainage Tubes, see Ovariectomy Instruments

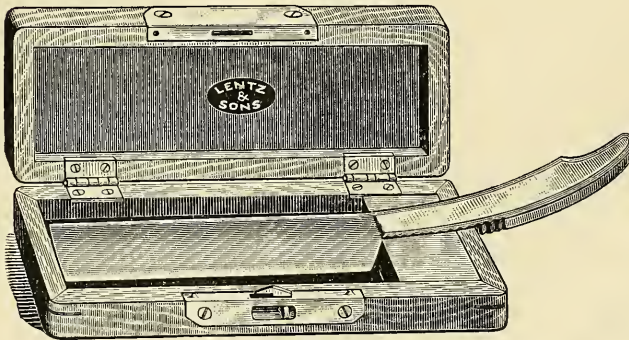
2074.\* Iodoform Dusting Box, hard rubber, three sizes, small, 65c.; medium, 80c.; large, 1 25

*All Instruments Illustrated are designated by a \*.*

## General Surgical Necessities.



2078



2079

- 2075.\* Surgical Needles, curved, half-curved and straight, each, 8 cents; per dozen.....\$ 60  
 2076.\* " " Hagedorn's, curved, half-curved and straight, 10 cents; per doz. 1 00  
 2077.\* " " Patent Eye, " " " " 10 " " 1 00

These Needles have a patent spring eye, allowing a suture to be pressed through the slot.

Perineal and Cervix Needles, see Gynæcological Instruments.

- 2078.\* Aseptic Razor, Robb's.....\$1 75  
 2079.\* " " " in Mahogany Wood Case..... 2 25

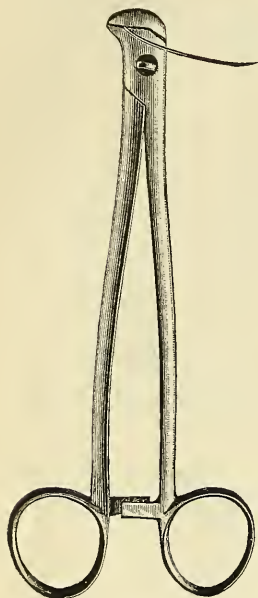
The razor has now become an essential instrument in surgery. The razors generally employed have a jointed handle attached, which it is difficult to clean and keep free from rust.

It can be easily sterilized and readily cleaned and dried, and recommends itself for its lightness and ease of manipulation in shaving.

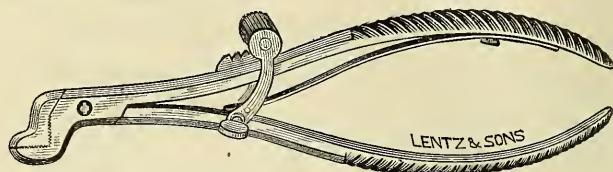
*All Instruments Illustrated are designated by a \*.*

## General Surgical Necessities.

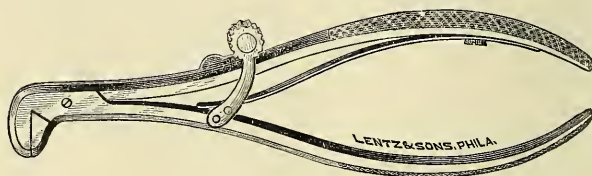
## NEEDLE HOLDING FORCEPS.



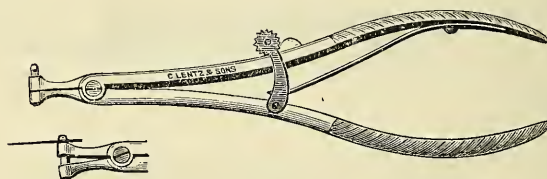
2081



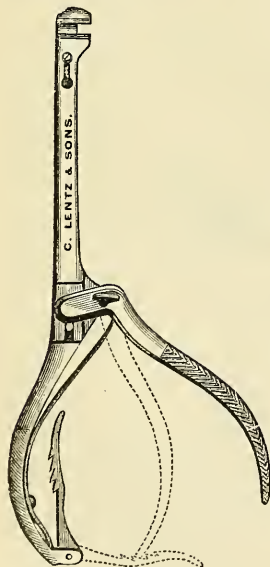
2080



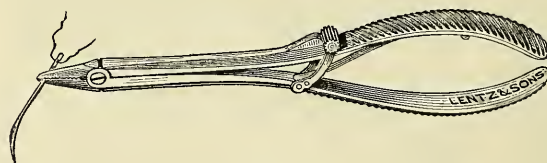
2082



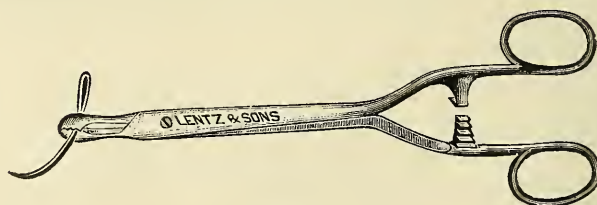
2084



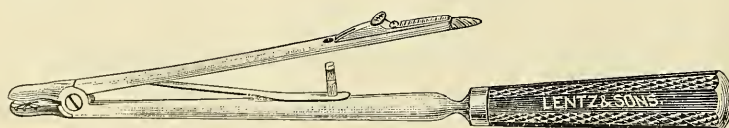
2083



2085



2087

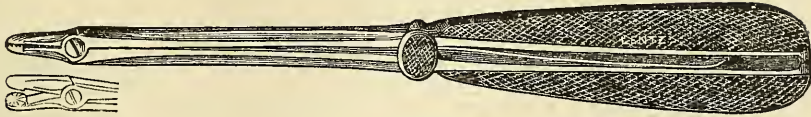


2089

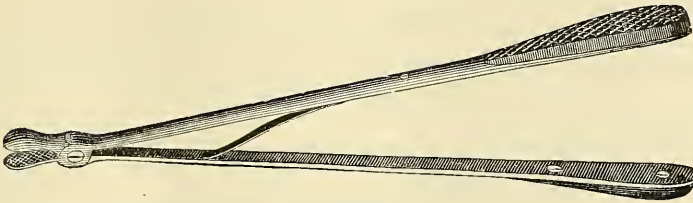


## General Surgical Necessities.

## NEEDLE HOLDING FORCEPS.



2091



2090



2097

|        |                                                                                                                                   |        |
|--------|-----------------------------------------------------------------------------------------------------------------------------------|--------|
| 2080.* | Lentz's Improved, for flat or round needles, Aseptic.....                                                                         | \$4 25 |
| 2081.* | Fowler's, for Hagedorn's flat " " .....                                                                                           | 2 75   |
| 2082.* | " Improved, for Hagedorn's flat needles, Aseptic.....                                                                             | 4 00   |
| 2083 * | Hagedorn's, 6½ in. long, \$5 00 ; 8 in. long.....                                                                                 | 6 00   |
| 2084.* | Fritsch's Universal, Needle is held in a hook which can be turned in any direction, 3 50                                          |        |
| 2085.* | Reiner's Automatic, 6½ in. long, \$3 00; 8 in. long.....                                                                          | 3 25   |
| 2086.  | Russian, with catch, all metal.....                                                                                               | 3 50   |
| 2087.* | Sims', Aseptic, plain, \$1 75 ; with catch.....                                                                                   | 2 00   |
| 2088.  | Stimson's Needle Holder and Wire Cutter.....                                                                                      | 2 75   |
| 2089.* | Goodell's, heavy, with slide catch, hollow, metal handle.....                                                                     | 5 00   |
| 2090.* | Emmet's, all metal, Aseptic, corrugated handles.....                                                                              | 2 75   |
| 2091.* | Philadelphia, with automatic lock, hard rubber handles, \$4 50; metal handles....                                                 | 5 50   |
| 2092.  | Skene's.....                                                                                                                      | 4 00   |
| 2093.  | Wyeth's.....                                                                                                                      | 3 75   |
| 2094.  | Keen's Aseptic, with catch.....                                                                                                   | 2 75   |
| 2097.* | Hollow Needle for Wire, one half-curved and one full-curved, secured in solid steel handle, and Coil of Silver Wire, in case..... | 3 25   |

*All Instruments Illustrated are designated by a \*.*

## General Surgical Necessities.

### WOUND DRESSING MATERIALS.

#### 2100. Unbleached Roller Bandages.

|                                    |      |                                      |      |
|------------------------------------|------|--------------------------------------|------|
| 1 inch by 1 yard.....per dozen, \$ | 10   | 2½ inch by 8 yards.....per dozen, \$ | 1 25 |
| 1 " " 3 " .....                    | 25   | 3 " " 8 " .....                      | 1 50 |
| 1½ " " 3 " .....                   | 35   | 3½ " " 8 " .....                     | 1 70 |
| 2 " " 3 " .....                    | 50   | 4 " " 6 " .....                      | 1 50 |
| 2½ " " 3 " .....                   | 60   | 4 " " 8 " .....                      | 2 00 |
| 2 " " 8 " .....                    | 1 00 |                                      |      |

#### 2101. Pure White Muslin Bandages.

|                                   |      |                                   |      |
|-----------------------------------|------|-----------------------------------|------|
| 2 inches by 3 yards.....dozen, \$ | 45   | 3 inches by 4 yards.....dozen, \$ | 1 00 |
| 2 " " 8 " .....                   | 1 20 | 3 " " 8 " .....                   | 1 75 |
| 2½ " " 3 " .....                  | 55   |                                   |      |
| 2½ " " 8 " .....                  | 1 45 |                                   |      |

#### 2102. All-Wool Flannel Bandages.

|                                        |    |                                       |    |
|----------------------------------------|----|---------------------------------------|----|
| 1½ inches by 3 yards long.....each, \$ | 12 | 2 inches by 8 yards long.....each, \$ | 35 |
| 2 " " 3 " " .....                      | 15 | 2½ " " 8 " " .....                    | 40 |
| 2½ " " 3 " " .....                     | 18 | 3 " " 8 " " .....                     | 45 |

#### 2103. Antiseptic Gauze Bandages.

##### PLAIN.

|                                   |      |
|-----------------------------------|------|
| 2 inches by 8 yards.....dozen, \$ | 70   |
| 2½ " " 8 " .....                  | 85   |
| 3 " " 8 " .....                   | 1 00 |
| 4 " " 8 " .....                   | 1 30 |

##### BICHLORIDE OR CARBOLATED.

|                                    |      |
|------------------------------------|------|
| 2 inches by 10 yards.....dozen, \$ | 1 00 |
| 2½ " " 10 " .....                  | 1 15 |
| 3 " " 10 " .....                   | 1 25 |
| 4 " " 10 " .....                   | 1 50 |

|                                                                      |       |
|----------------------------------------------------------------------|-------|
| 2104. Gauze, plain, 1 yard by 5 yards.....                           | \$ 40 |
| 2105. " " 1 " " 25 " .....                                           | 1 50  |
| 2106. " Sublimatized, 1-2000 1 yard by 5 yards in glass jar.....     | 60    |
| 2107. " Borated, 10 per cent. 1 " 5 " " " .....                      | 65    |
| 2108. " Carbulated, 10 per cent. 1 yard by 5 yards in glass jar..... | 60    |
| 2109. " Iodoform, 10 " 1 " 5 " " " .....                             | 1 25  |
| 2110. " " 20 " 1 " 5 " " " .....                                     | 1 75  |

#### 2111. Absorbent Cotton.

|                          | Size of Packages. | 1 lb. | ½ lb. | ¼ lb. |
|--------------------------|-------------------|-------|-------|-------|
| Plain Absorbent.....     |                   | \$ 50 | \$ 30 | \$ 15 |
| Borated .....            |                   | 60    | 35    | 20    |
| Carbulated .....         |                   | 60    | 35    | 20    |
| Corrosive Sublimate..... |                   | 60    | 35    | 20    |
| Salicylated .....        |                   | 80    | 45    | 25    |

|                                         |       |
|-----------------------------------------|-------|
| 2112. Iodoform in one ounce bottle..... | \$ 25 |
| 2113. Styptic " " .....                 | 20    |

Bandage Rollers, Plaster of Paris Bandages, and Bandage Shears, see Splints.

## General Surgical Necessities.

|       |                                                                  |                |
|-------|------------------------------------------------------------------|----------------|
| 2115. | Lint Absorbent, per pound.....                                   | \$ 65          |
| 2116. | Jute, plain, " .....                                             | 28             |
| 2117. | " Sublimated " .....                                             | 35             |
| 2118. | Oakum, plain, " .....                                            | 20             |
| 2119. | Absorbent Lamb's Wool, Antiseptic, 1 pound package.....          | 2 00           |
|       | " " " " $\frac{1}{2}$ " .....                                    | 1 10           |
|       | " " " " $\frac{1}{4}$ " .....                                    | 60             |
| 2120. | Lintine, $\frac{1}{2}$ pound package, 40c.; 1 pound package..... | 70             |
| 2121. | Sponges, Antiseptic, No. 1, small.....dozen,                     | 40             |
|       | " " " 2, medium.....                                             | " 60           |
|       | " " " 3, large.....                                              | " 1 00         |
| 2122. | " " 1 dozen in a N. P. screw cap bottle, per bottle.....         | 1 00           |
| 2123. | " " Flat for Abdominal Surgery, according to size.....           | \$1.00 to 2 50 |
| 2124. | Oiled Muslin, 36 inches wide.....yard,                           | 65             |
| 2125. | " Silk, 28 inches wide.....                                      | " 90           |
| 2126. | " " protective green, 28 inches wide.....                        | " 1 50         |
| 2127. | Gutta Percha Tissue, best, 36 " .....                            | " 50           |
| 2128. | Mackintosh Cloth, 36 inches wide.....                            | " 90           |
| 2129. | Antiseptic Dressing Paper, Sublimatized, 5 yards in tin can..... | 60             |
| 2130. | " Tablets, Corrosive Sublimate, 25 in bottle.....                | 20             |

### 2131. SURGEON'S RUBBER ADHESIVE PLASTER.

#### READY CUT ON SPOOLS.

|                                                     |       |
|-----------------------------------------------------|-------|
| $\frac{1}{2}$ inch by 10 yards long, per spool..... | \$ 30 |
| 1 " " " " " .....                                   | 40    |
| 2 " " " " " .....                                   | 55    |
| 3 " " " " " .....                                   | 75    |
| 7 " wide, 1 yard roll, per roll.....                | 40    |
| 12 " " 5 " " .....                                  | 1 50  |

### SURGEONS' ANTISEPTIC DRESSING CASES MADE TO ORDER.

Antiseptic Dressings not listed can always be furnished at lowest  
Market Prices.

## Amputating and General Operating Instruments.



2146



2145



2138



2139



2141



2140



2143



2137



2142



2135

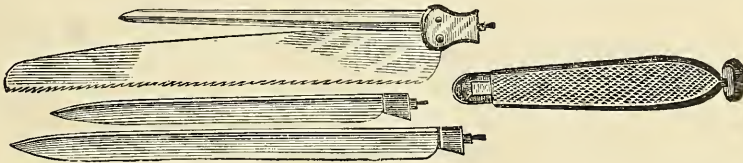


## Amputating and General Operating Instruments.

The demand for aseptic instruments (especially cutting) has so steadily increased that now very few surgeons care to use the old style of wood handle knives, as it is considered impossible to render them thoroughly aseptic. The aseptic knives devised by Esmarch, consisting of one piece of steel, are heavy and unbalanced; this has induced us to make hollow metal handles of various patterns, suitable for all kinds of instruments on which wooden handles were formerly used. The cuts illustrate two styles of hollow, German silver, nickel-plated handles, into which the blades are soldered, insuring strength, and are seamless, as if one piece of metal, rendering them thoroughly aseptic, and can be sterilized in boiling water or dry heat without injury to the instruments.

These instruments are made with handles of two styles, as shown in illustrations, one being oval with concave sides, and the other flat with beveled corners. Prices the same in either style.

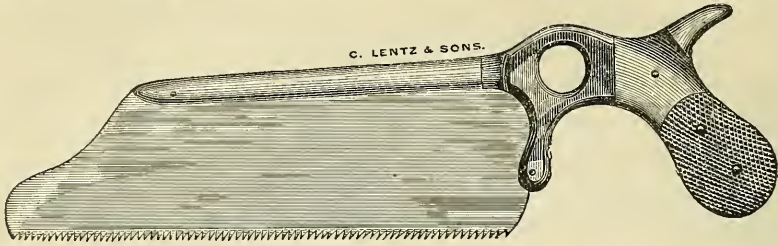
|        |                                                                                         |        |
|--------|-----------------------------------------------------------------------------------------|--------|
| 2135.* | Amputating Knife, long, 10 inch blade, Aseptic handle.....                              | \$3 25 |
| 2136.  | “ “ medium, 8 inch blade, Aseptic handle.....                                           | 2 75   |
| 2137.* | “ “ small, 6 “ “ .....                                                                  | 2 25   |
| 2138.* | “ “ long, 10 “ ebony wood handle.....                                                   | 2 60   |
| 2139.* | “ “ medium, 8 “ “ “ .....                                                               | 2 25   |
| 2140.* | “ “ small, 6 “ “ “ .....                                                                | 1 90   |
| 2141.* | “ Catling, ebony handles, 6 inch, \$1.90; 8 inch, \$2.25; 10 inch.....                  | 2 75   |
| 2142.* | “ “ long, 10 inch blade, Aseptic handle.....                                            | 3 25   |
| 2143.* | “ “ medium, 8 inch “ “ “ .....                                                          | 2 75   |
| 2144.  | “ “ small, 6 “ “ “ .....                                                                | 2 25   |
| 2145.* | “ Knife, Neil's short stout blade, \$1.15; Aseptic handle.....                          | 1 50   |
| 2146.* | “ Scalpel, ebony handle, 90c.; Aseptic handle.....                                      | 1 35   |
| 2147.  | “ Tenaculum, ebony handle, 75c.; Aseptic handle.....                                    | 1 25   |
| 2148.  | “ Aneurism Needle, ebony handle, 75c.; Aseptic handle.....                              | 1 25   |
| 2149.* | “ Knives, Conant's Set, consisting of large and medium Knives and lifting back Saw..... | 7 00   |
| 2150.  | Amputating Knives, Conant's Set, Knife, Saw with movable back, and Chisel.....          | 5 00   |
| 2151.  | “ Knife, Parker's, with handle to unscrew, ebony, \$4.00; metal .....                   | 5 00   |



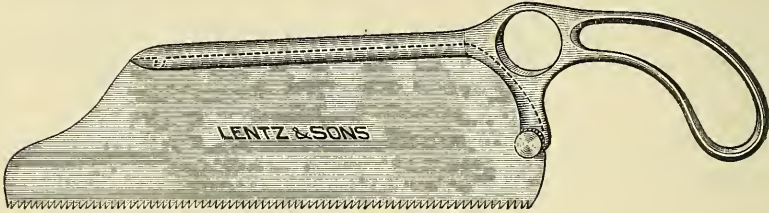
2149

*All Instruments Illustrated are designated by a \*.*

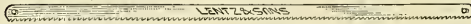
## Amputating and General Operating Instruments.



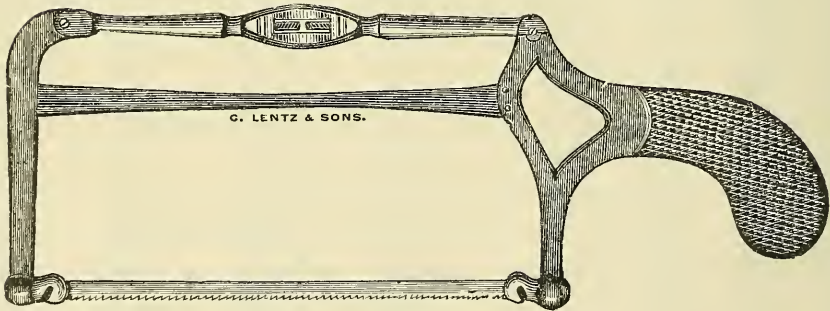
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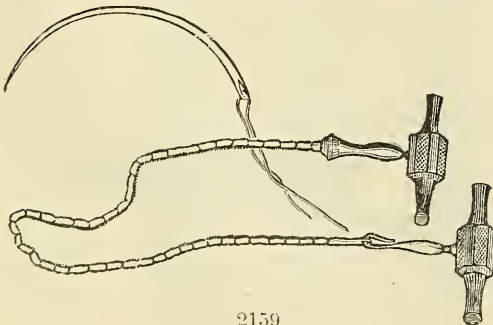
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2157



2158



2159



2168

## Amputating and General Operating Instruments.



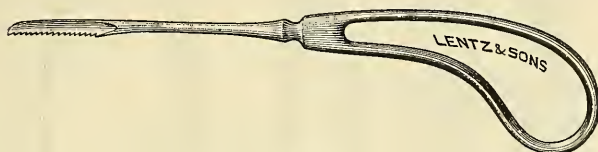
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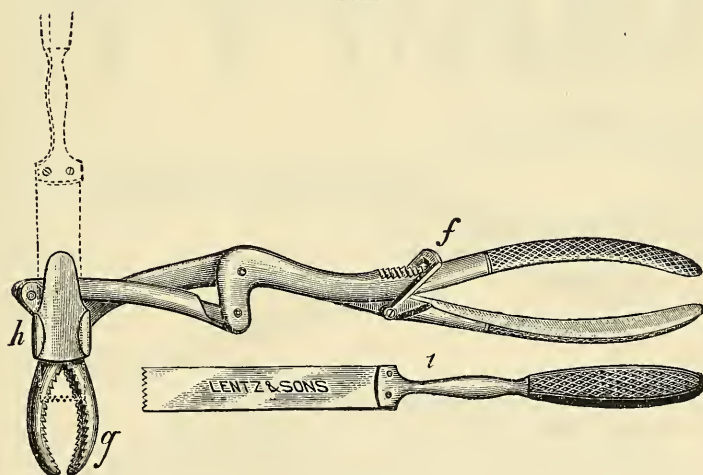
2161



2163



2164



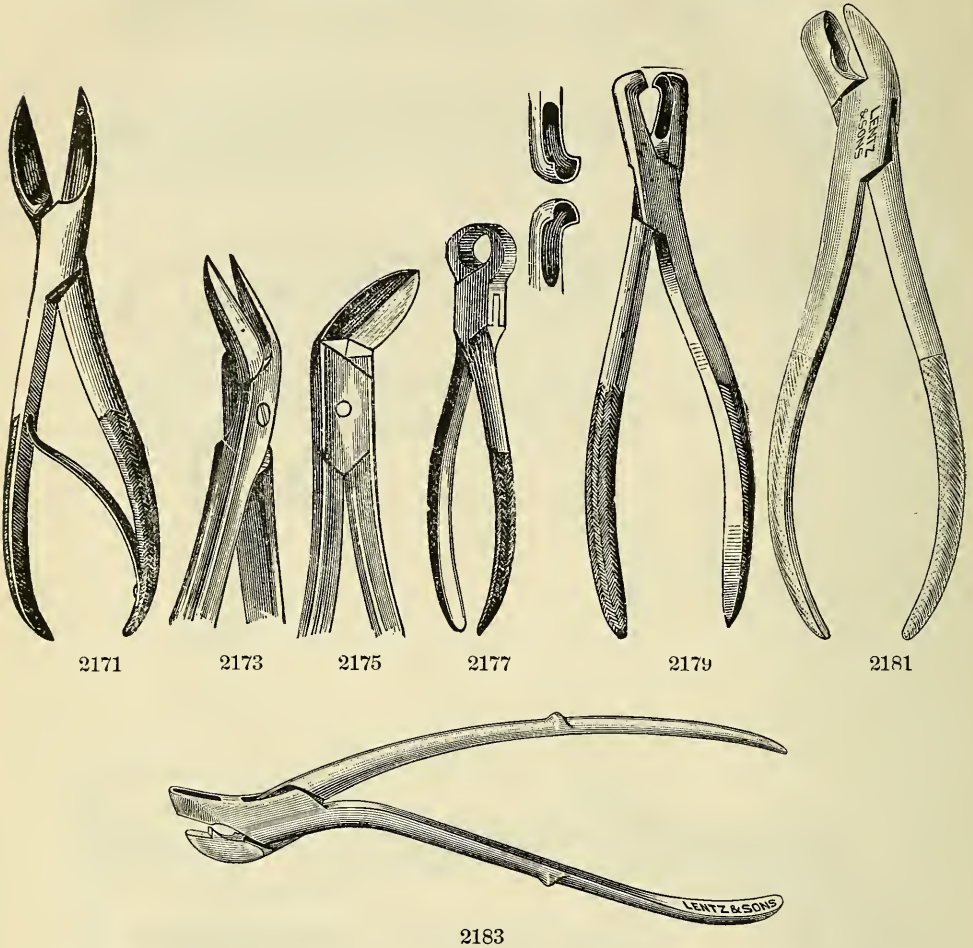
2166

|        |                                                                                      |                 |
|--------|--------------------------------------------------------------------------------------|-----------------|
| 2154.* | Satterlee's Saw, solid blade.....                                                    | \$3 25          |
| 2155.* | “ “ Lentz's improved Aseptic.....                                                    | 3 75            |
| 2156.  | Movable Back Saw, with detachable handle, Aseptic as in No. 10, operating case, 3 25 |                 |
| 2157.* | Bow Saw, with automatic lever, Aseptic, two blades.....                              | 5 00            |
| 2158.* | Butcher's Resection Saw, with three blades, Aseptic.....                             | 12 00           |
| 2159.* | Chain Saw, with Rotating metal handles.....                                          | 7 50            |
| 2160.* | Metacarpal Saw, with plain Ebony handle.....                                         | 1 00            |
| 2161.* | “ “ “ hollow metal “ .....                                                           | 1 50            |
| 2162.  | “ “ “ convex and concave metal handle, each.....                                     | 1 50            |
| 2163.* | “ “ lifting back, two sizes.....                                                     | \$1.50 and 1 80 |
| 2164.* | Adams' Subcutaneous Saw, Aseptic metal handle.....                                   | 2 00            |
| 2165.  | Shrady's “ “ and Trocar, latest improved.....                                        | 6 00            |
| 2166.* | Wyeth's Exsection Saw, Aseptic.....                                                  | 15 00           |
| 2167.  | Adams' Subcutaneous Knife, Aseptic.....                                              | 1 40            |
| 2168.* | Arched Frame for protecting stumps.....                                              | \$1.50 to 2 50  |

*All Instruments Illustrated are designated by a \*.*



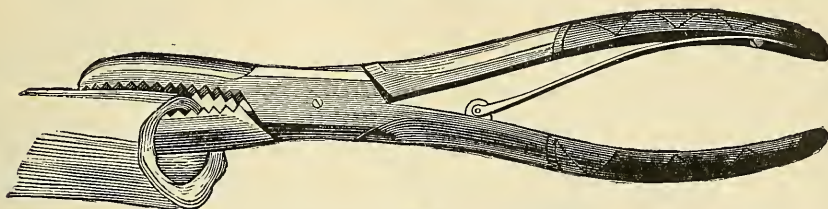
## Amputating and General Operating Instruments.



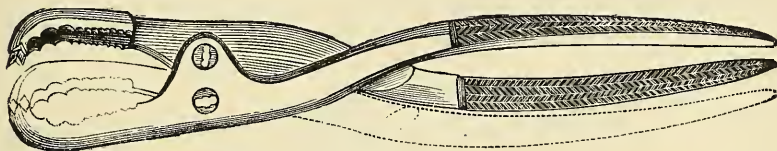
|        |                                                                  |        |
|--------|------------------------------------------------------------------|--------|
| 2170.  | Bone Cutting Forceps, straight, small, \$1 65 ; with spring..... | \$1 90 |
| 2171.* | “ “ “ “ medium, \$1 75 ; with spring.....                        | 2 10   |
| 2172.  | “ “ “ “ Aseptic, medium, \$2 50 ; with spring.....               | 3 00   |
| 2173.* | “ “ “ curved on flat, “ 2 10 ; “ .....                           | 2 40   |
| 2174.  | “ “ “ “ “ Aseptic, “ 2 90 ; “ .....                              | 3 40   |
| 2175.* | “ “ “ angular, medium, 2 10 ; “ .....                            | 2 40   |
| 2176.  | “ “ “ straight, large, according to size, \$3 50 to .....        | 5 00   |
| 2177.* | “ “ “ Satterlee’s.....                                           | 1 85   |
| 2179.* | “ Gnawing “ straight or curved, \$2 25 ; with spring.....        | 2 50   |
| 2180.  | “ “ “ “ “ Aseptic joint, with spring.....                        | 3 25   |
| 2181.* | Trephining Gouge Forceps, Hopkins, straight.....                 | 3 25   |
| 2182.  | “ “ “ “ curved to side.....                                      | 3 50   |
| 2183.* | Rongeur Forceps, Keen’s, for Linear Craniectomy.....             | 4 75   |

*All Instruments Illustrated are designated by a \*.*

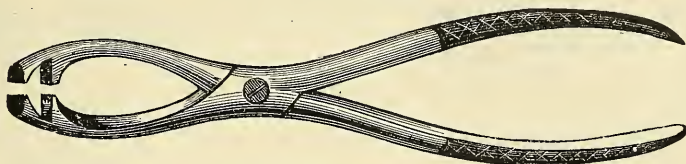
# Amputating and General Operating Instruments.



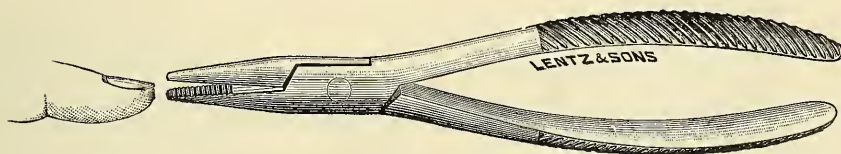
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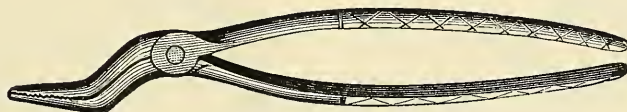
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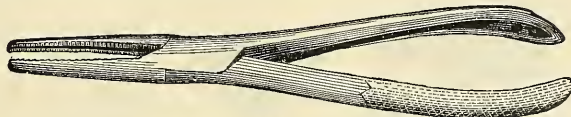
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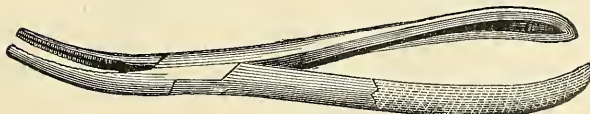
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2191



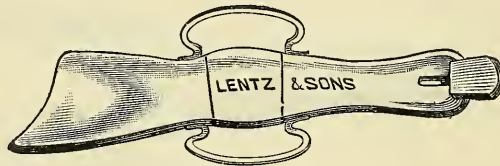
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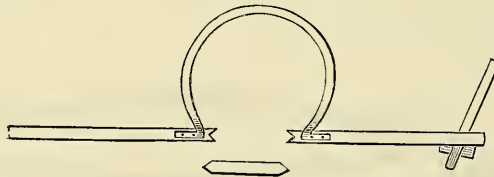
2195

## Amputating and General Operating Instruments.

|        |                                                                                         |                |
|--------|-----------------------------------------------------------------------------------------|----------------|
| 2186.* | Bone Holding Forceps, Hamilton's.....                                                   | \$3 00         |
| 2187.* | “ “ “ Farabeuf's .....                                                                  | 5 25           |
| 2188.* | “ “ “ Ferguson's.....                                                                   | 2 00           |
| 2189.  | “ “ “ “ Aseptic joint corrugated handles.....                                           | 2 75           |
| 2190.* | Toe Nail Forceps, Post's Aseptic joint corrugated handles.....                          | 2 25           |
| 2191.* | Sequestrum Forceps, Van Buren's, plain, \$1.75 ; Aseptic joint corrugated handles, 2 25 |                |
| 2192.  | “ “ Gross', straight, plain. \$1.75 ; “ “ “ “ 2 25                                      |                |
| 2193.  | “ “ “ curved, “ 1.75 ; “ “ “ “ 2 25                                                     |                |
| 2194.* | “ “ “ straight with spring, Aseptic joint, corrugated handles, 2 65                     |                |
| 2195.* | “ “ “ curved “ “ “ “ 2 65                                                               |                |
| 2196.  | “ “ Markoe's curved Aseptic joint, corrugated handles.....                              | 2 25           |
| 2199.* | Packard's Splint, for Knee Resection.....                                               | 4 50           |
| 2200.* | Ashurst's Wire Splint, for Knee Resection.....                                          | \$3.50 to 5 00 |
| 2201.  | Esmarch's Interrupted Splint for Wrist Excision.....                                    | 3 00           |
| 2202.  | “ “ “ Elbow “ .....                                                                     | 3 00           |

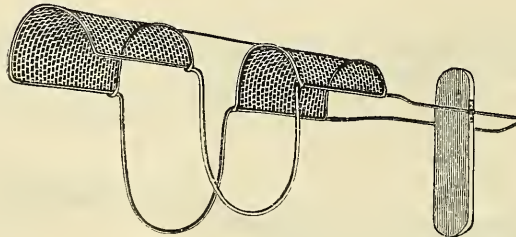


From above.



From the side (slide removed.)

2199

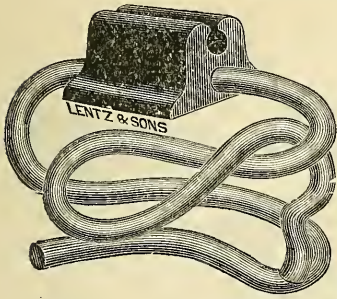


2200

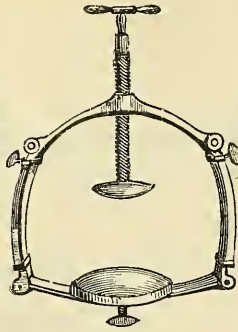
*All Instruments Illustrated are designated by a \**



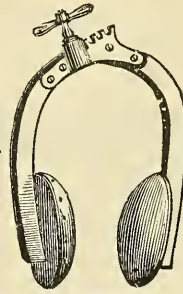
## Amputating and General Operating Instruments.



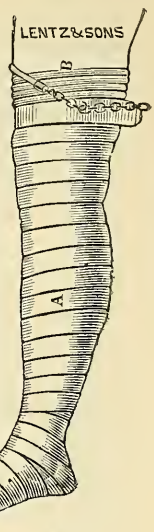
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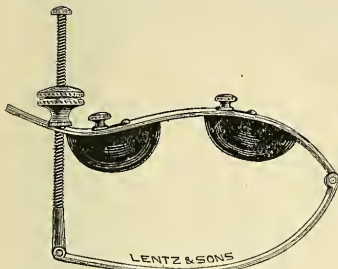
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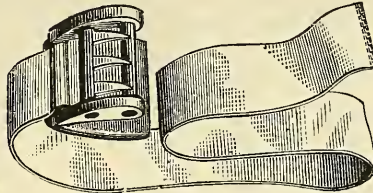
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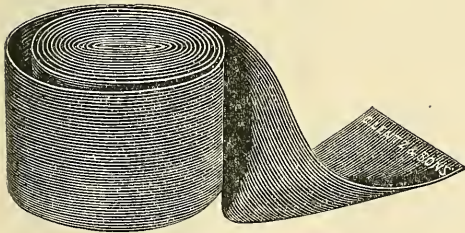
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2210



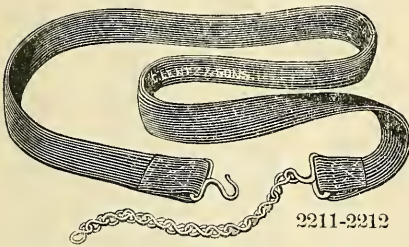
2207



2213-2214



2208

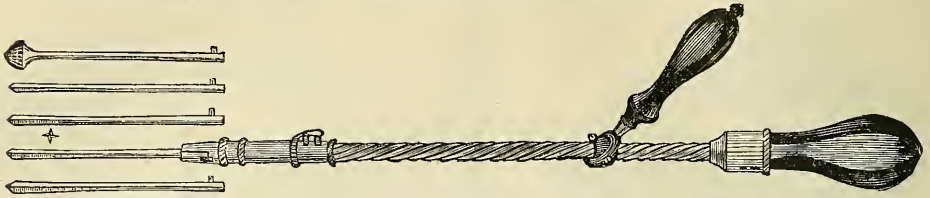


2211-2212

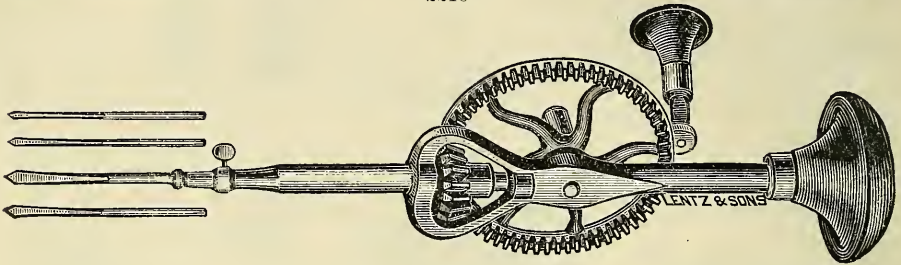
|        |                                                                          |         |
|--------|--------------------------------------------------------------------------|---------|
| 2205.* | Tourniquet, Skey's Aortic.....                                           | \$20 00 |
| 2206.* | " Signorini's .....                                                      | 10 00   |
| 2207.* | " Field .....                                                            | 75      |
| 2208.* | " Petit's .....                                                          | 1 50    |
| 2209.* | " Esmarch's Hard Rubber Compress, with Elastic Cord.....                 | 50      |
| 2210.* | " for Wrist, Steel, Nickel Plated, with Adjustable Hard Rubber Pads..    | 4 00    |
| 2211.* | " Esmarch's Flat Rubber, 1 in. wide and 3½ ft. long, with Chain and Hook | 1 15    |
| 2212.* | " " " 1½ in. wide, 4½ ft. " " " " "                                      | 1 50    |
| 2213.* | Esmarch's Bandage, Pure Gum, Heavy, 2½ inch wide, 4 yards long.....      | 1 25    |
| 2214.* | " " " 2½ " " 5 " " " " "                                                 | 1 50    |
| 2215.* | " " and Tourniquet applied.....                                          |         |

*All Instruments Illustrated are designated by a \*.*

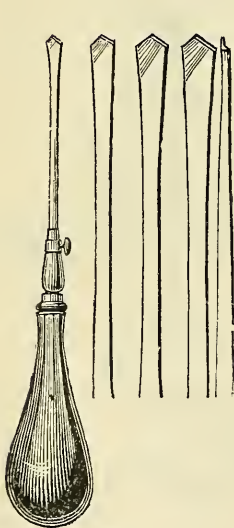
# Amputating and General Operating Instruments.



2216



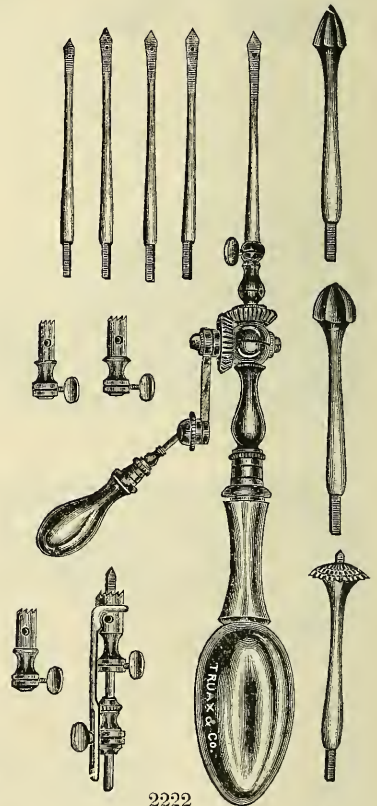
2217



2218



2220



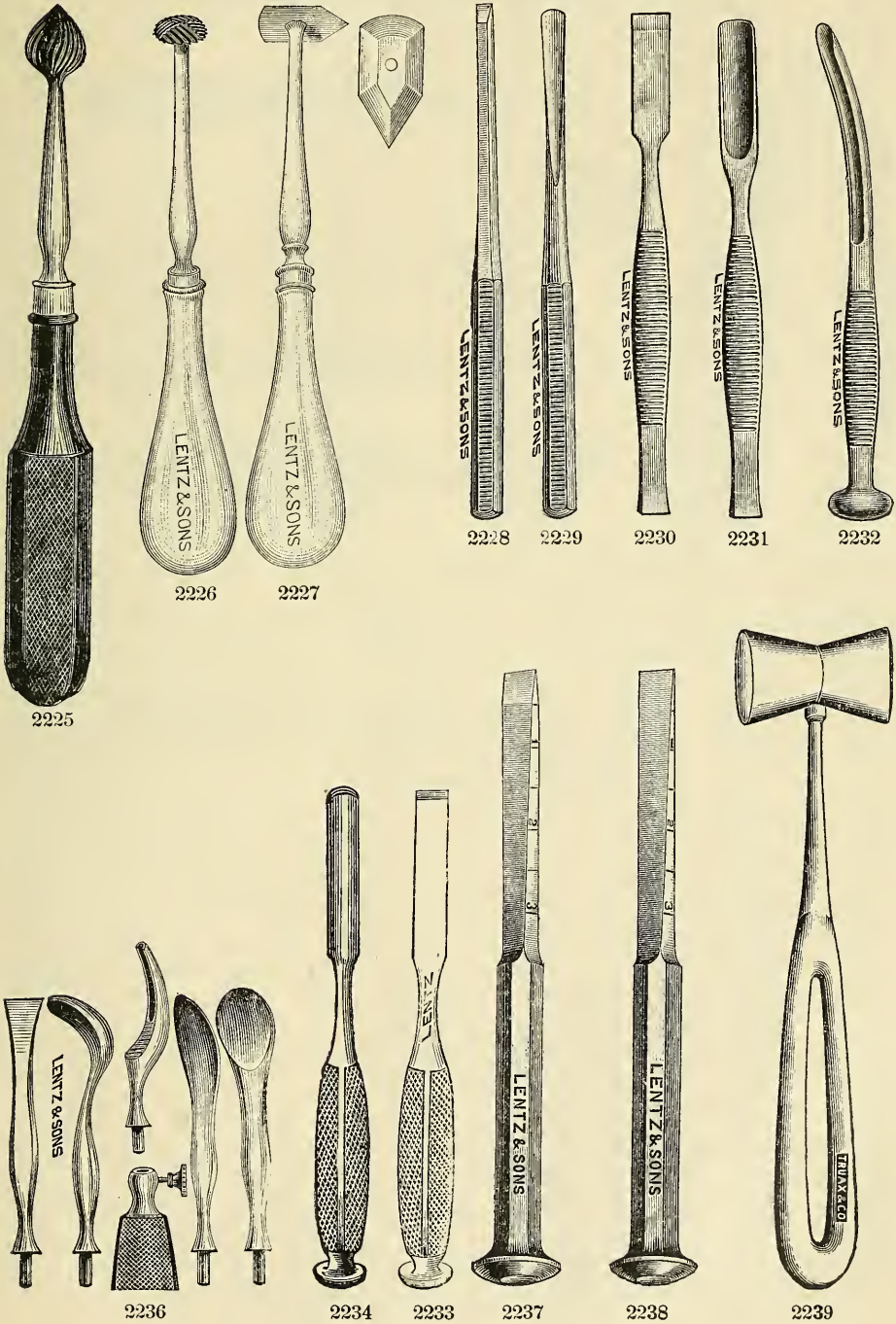
2222

|        |              |                                                         |        |
|--------|--------------|---------------------------------------------------------|--------|
| 2216.* | Bone Drills. | Hamilton's.....                                         | \$5 25 |
| 2217.* | "            | Tiemann's Drill Stock.....                              | 5 25   |
| 2218.* | "            | Brainard's, set of three, metal handles.....            | \$2 50 |
| 2219.  | "            | " " five " " .....                                      | 3 00   |
| 2220.* | "            | Gaillard's.....                                         | 1 90   |
| 2221.  | "            | Wyeth's, with adjustable metal handle.....              | 5 25   |
| 2222.* | "            | and Bone Trephines, Collins', complete set in case..... | 25 00  |
| 2223.  | "            | Pope's Antrum, metal handle.....                        | 2 60   |

*All Instruments Illustrated are designated by a \*.*



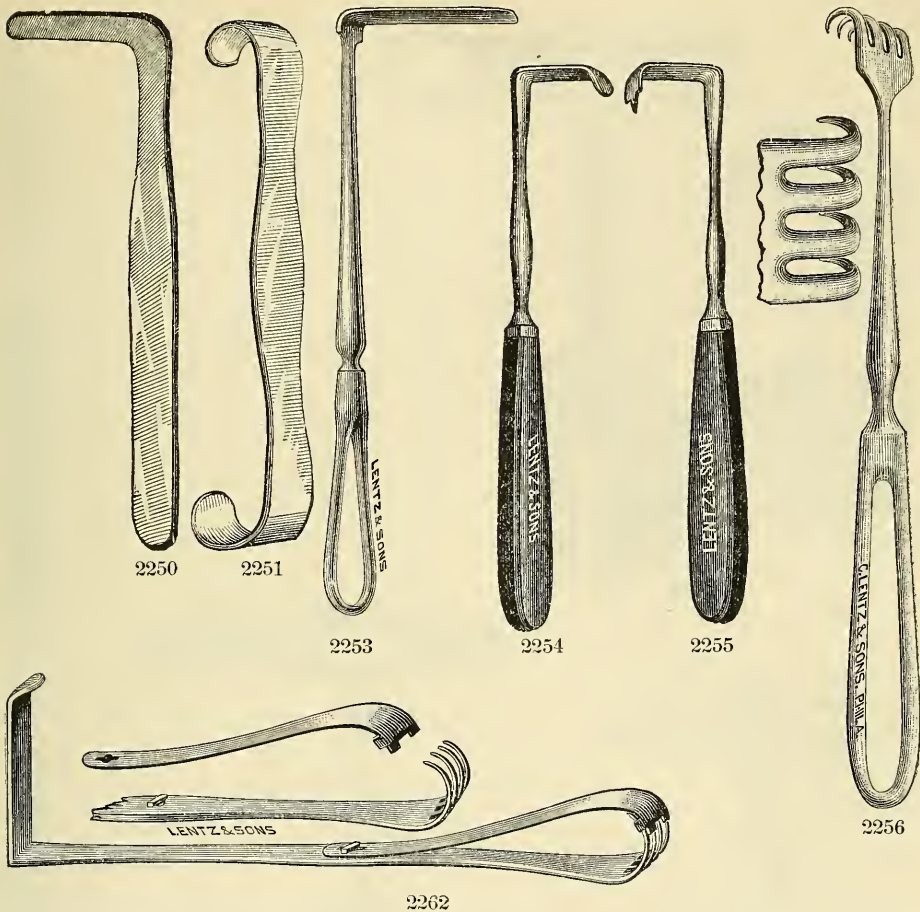
# Amputating and General Operating Instruments.







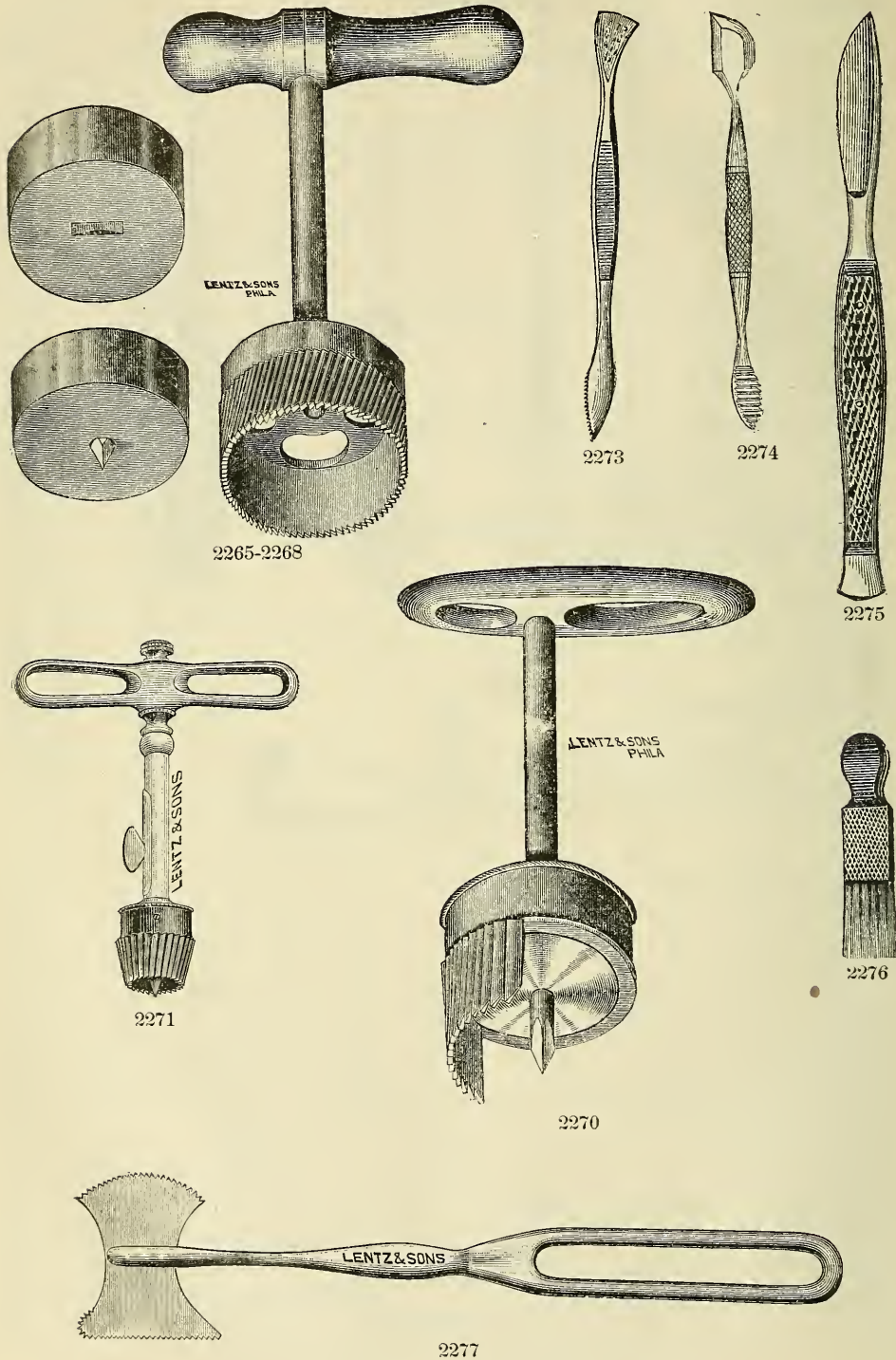
## Amputating and General Operating Instruments.



|        |                                                          |        |
|--------|----------------------------------------------------------|--------|
| 2250.* | Retractors, Mott's, pair.....                            | \$1 10 |
| 2251.* | “ Parker's “ .....                                       | 1 10   |
| 2252.  | “ Collins' fenestrated, pair.....                        | 1 85   |
| 2253.* | “ Flat blade, 3 sizes.....each, \$1.50 ; \$1.75 and 2 00 |        |
| 2254.* | “ Langenbeck's blunt, metal handles..... “ .....         | 1 75   |
| 2255.* | “ “ sharp “ “ .....                                      | 1 75   |
| 2256.* | “ Volkman's sharp or blunt, four prongs..... “ .....     | 2 00   |
| 2257.  | “ “ “ three “ .....                                      | 1 75   |
| 2258.  | “ “ “ two “ .....                                        | 1 50   |
| 2259.  | “ Billoth's two prongs..... “ .....                      | 1 75   |
| 2260.  | “ “ three prongs..... “ .....                            | 2 00   |
| 2261.  | “ Giant (Riesenhaken) large ring handle..... “ .....     | 3 00   |
| 2262.* | “ Deaver's double, with protected prongs..... “ .....    | 2 50   |

*All Instruments Illustrated are designated by a \*.*

Trepanning Instruments.





## Trepanning Instruments.

### ROBERTS' ASEPTIC TREPHINE.

All surgeons, probably, have experienced difficulty in keeping the Trephines aseptic during operations, and preserving them free from rust subsequent to use, particularly at the present time, when solutions are so largely used during operative procedures.

To remedy this difficulty Dr. John B. Roberts has devised an "Aseptic Trephine," which is so made as to avoid the necessity of a sliding centre-pin and hollow stem, which afford such a convenient place for accumulation of septic material and rust.

The cut shows how this has been accomplished. It is easily seen that the instrument with its centre-pin upon a disc fitting into the crown can readily be cleaned. The necessity of having a very thick stem is avoided, because there is no tube needed for the sliding centre-pin. The crown of the trephine is made thin and slightly conical, in fact almost cylindrical; because in this manner the furrow surrounding the disc of bone removed is made a very narrow one. The operator who desires to replace the button of bone can do so and even suture it to the periosteum of the surrounding bone without leaving a very wide intervening groove. A slight degree of conicity is desirable, because otherwise the trephine is apt to become jammed in the osseous wound when the thickness of the bone is very slight, and especially if the portion of the bone cut out by the trephine varies in thickness at different points in its circumference.

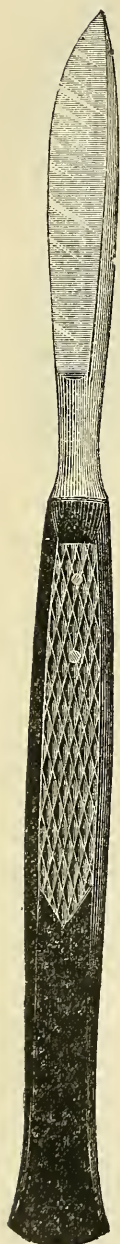
|        |                             |                                                                                                                                          |        |
|--------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 2265.* | Trephine, Roberts',         | $\frac{1}{2}$ inch and $\frac{3}{4}$ inch, each.....                                                                                     | \$5 00 |
| 2266.  | "                           | " 1 "                                                                                                                                    | 6 00   |
| 2267.  | "                           | " $1\frac{1}{4}$ "                                                                                                                       | 7 00   |
| 2268.  | "                           | " $1\frac{1}{2}$ "                                                                                                                       | 8 00   |
| 2269.  | "                           | " three sizes, $\frac{1}{2}$ inch, 1 inch and $1\frac{1}{2}$ inch, with one adjustable handle, in a handsome, compact mahogany case..... | 18 00  |
| 2270.* | Trephine Segment, Roberts', | two sizes, $1\frac{1}{4}$ inch, \$7.00; $1\frac{1}{2}$ inch.....                                                                         | 8 00   |

Roberts' "Segment Trephine," is a convenient instrument with which to enlarge the first opening made in the skull, in operations for removing tumors of the brain. It is also valuable when it is desired to deepen a portion of the groove surrounding the button of bone to be removed in trephining, without cutting around the entire circumference. This necessity not infrequently arises when larger discs are removed from regions of the skull of irregular thickness.

|        |                                                  |        |
|--------|--------------------------------------------------|--------|
| 2271.* | Trephine, Galt's conical, 3 sizes, each.....     | \$3 00 |
| 2272.  | “ “ “ large and small, both with one handle..... | 5 50   |
| 2273.* | “ Elevator, plain.....                           | 65     |
| 2274.* | “ “ and Raspatory.....                           | 1 00   |
| 2275.* | “ Scalpel “ “ all steel.....                     | 1 25   |
| 2276.* | “ Brush.....                                     | 35     |
| 2277.* | Skull Saw, Hey's.....                            | 1 50   |

*All Instruments Illustrated are designated by a \*.*

## Amputating and Minor Operating Instruments.



2292



C. LENTZ &amp; SONS



2280



C. LENTZ &amp; SONS



2281

C. LENTZ &amp; SONS



2283



2284

C. LENTZ &amp; SONS



2285



2286

C. LENTZ &amp; SONS



2287



2289

C. LENTZ &amp; SONS



2290

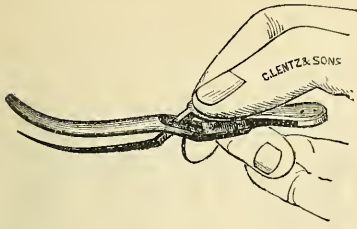
LENTZ  
& SONS

2294

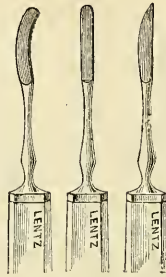


2293

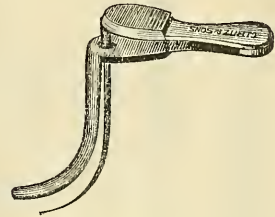
## Amputating and Minor Operating Instruments.



2294



2293



2297-2298



2296



2299

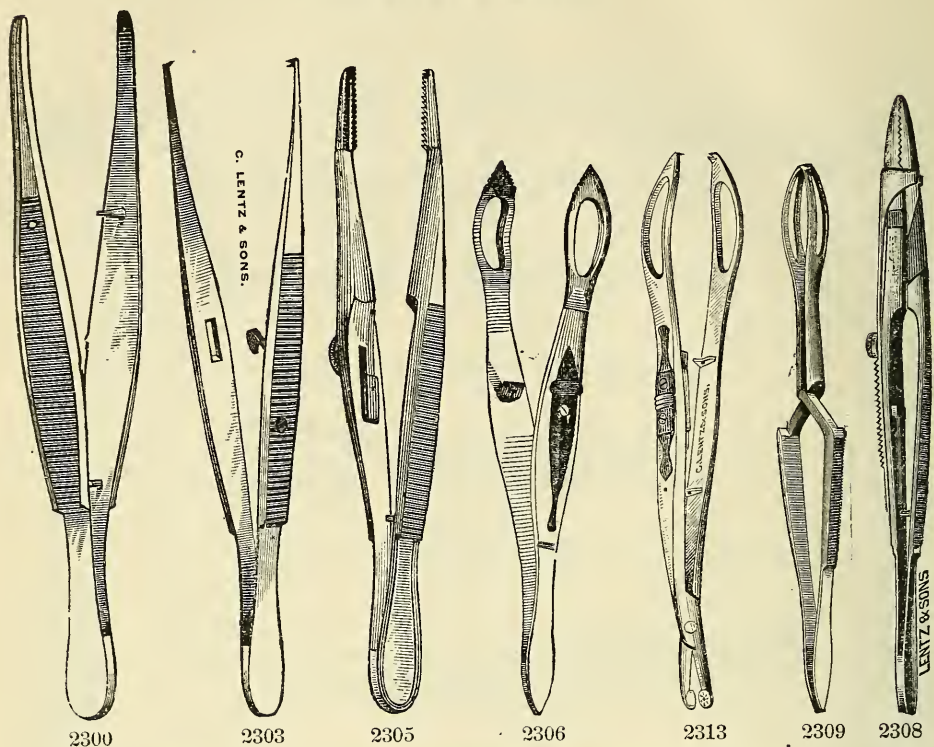
|        |                                                             |                                                                                  |
|--------|-------------------------------------------------------------|----------------------------------------------------------------------------------|
| 2280.* | Minor Operating Scalpels, 4 sizes.....                      |                                                                                  |
| 2281.* | " " Bistoury, straight, sharp pointed.....                  | In riveted Ebony handles,<br>like fig. 2292, each.....\$ 65                      |
| 2282.  | " " " " probe " .....                                       |                                                                                  |
| 2283.* | " " " " curved, sharp " .....                               | In ferruled Ebony handles,<br>like fig. 2293, each..... 85                       |
| 2284.* | " " " " probe " .....                                       |                                                                                  |
| 2285.* | " " Hernia Knife.....                                       | In solid metal handles,<br>plain ..... 85                                        |
| 2286.* | " " Tenotome, straight, sharp pointed.....                  |                                                                                  |
| 2287.* | " " " " probe " .....                                       | In solid metal handles,<br>grooved, like fig. 2294..1 25                         |
| 2288.  | " " " " Convex or concave, probe p'td                       |                                                                                  |
| 2289.* | " " Aneurism Needle.....                                    | In hollow metal handles,<br>like figs. 2280-2291,<br>either style, each.....1 25 |
| 2290.* | " " Tenaculum.....                                          |                                                                                  |
| 2291.  | " " Metacarpal Saw.....                                     |                                                                                  |
| 2293.* | Tenotomes, Allis' Set of Three, metal handles, in case..... | \$4 00                                                                           |
| 2294.* | Allis' Acupressure Forceps, curved.....                     | 1 25                                                                             |
| 2295.  | " " " " straight.....                                       | 1 25                                                                             |
| 2296.* | " " " " needle points.....                                  | 1 25                                                                             |
| 2297.* | " " " " Tenaculum Forceps small.....                        | 1 50                                                                             |
| 2298.* | " " " " " " large.....                                      | 1 85                                                                             |
| 2299.* | " " Suture Forceps.....                                     | 1 75                                                                             |

*All Instruments Illustrated are designated by a \*.*



# Amputating and Minor Operating Instruments.

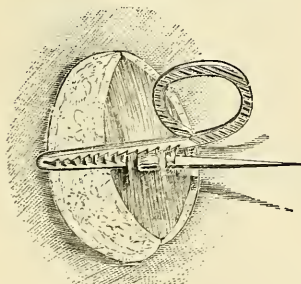
## ARTERIAL FORCEPS.



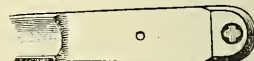
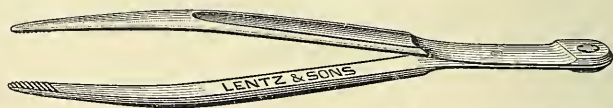
2321



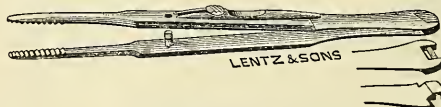
2322



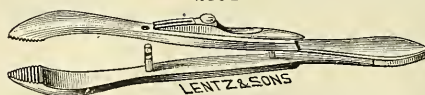
2322



2301



LENTZ &amp; SONS



2304

LENTZ &amp; SONS

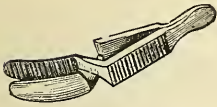
2307



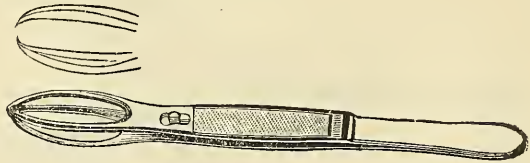
2320

## Amputating and Minor Operating Instruments.

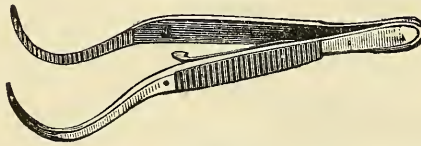
## ARTERY FORCEPS.



2319



2311



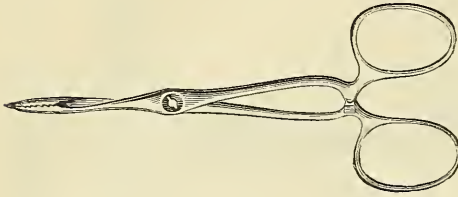
2314

|        |                                                                |       |
|--------|----------------------------------------------------------------|-------|
| 2300.* | Artery Forceps, plain, 4 inch, 4½ inch and 5 inch, each.....   | \$ 60 |
| 2301.* | “ “ Aseptic (separating blades) 4½ inch, \$1.50 ; 5½ inch..... | 2 00  |
| 2302.  | “ “ mouseteeth, plain, 4½ inch.....                            | 75    |
| 2303.* | “ “ “ spring catch, 4½ inch.....                               | 1 10  |
| 2304.* | “ “ Schwabe's slide catch, Aseptic (separating blades).....    | 2 00  |
| 2305.* | “ “ Gross', “ “ .....                                          | 1 75  |
| 2306.* | “ “ fenestrated “ “ .....                                      | 1 85  |
| 2307.* | “ “ Wyeth's “ “ .....                                          | 1 90  |
| 2308.* | “ “ Wright's “ “ .....                                         | 2 25  |
| 2309.* | “ “ fenestrated, cross action, 4 inch, \$1.50 ; 5 inch.....    | 1 75  |
| 2310.  | “ “ “ slide catch, Aseptic (separating blades).....            | 2 25  |
| 2311.* | “ “ “ spring catch.....                                        | 1 50  |
| 2312.  | “ “ “ “ Hamilton's.....                                        | 1 75  |
| 2313.* | “ “ and Needle Holder combined, slide catch.....               | 2 00  |
| 2314.* | “ “ Wright's spring catch.....                                 | 1 40  |
| 2315.  | “ “ Andrew's slide “ .....                                     | 2 00  |
| 2316.  | “ “ Esmarch's bulbous slide catch.....                         | 2 00  |
| 2317.  | “ “ “ fenestrated slide catch.....                             | 2 25  |
| 2319.* | Artery Clamps, Langenbeck's. small.....                        | 50    |
| 2320.* | “ “ “ large.....                                               | 75    |
| 2321.* | Serresfin's Wire, straight or curved.....each, 20c. ; per doz. | 1 85  |
| 2322.* | Artery Compressor, Levis'.....each, 25c. ; per doz.            | 2 50  |
| 2322.* | “ “ applied.....                                               |       |

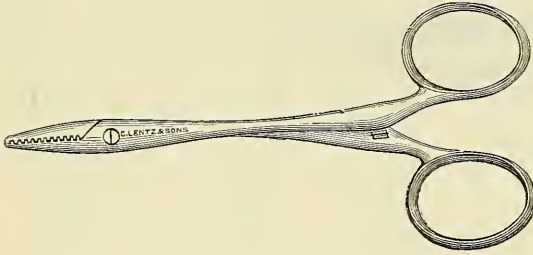
*All Instruments Illustrated are designated by a \*.*

# Amputating and Minor Operating Instruments.

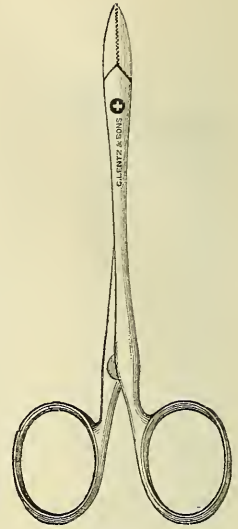
## ARTERIAL CLAMP FORCEPS.



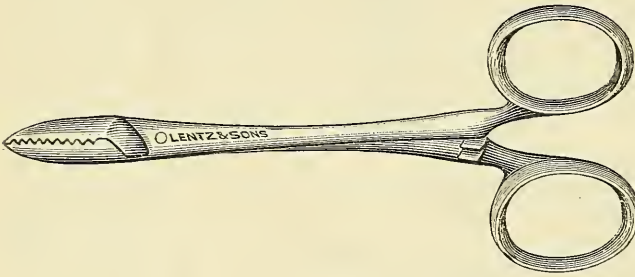
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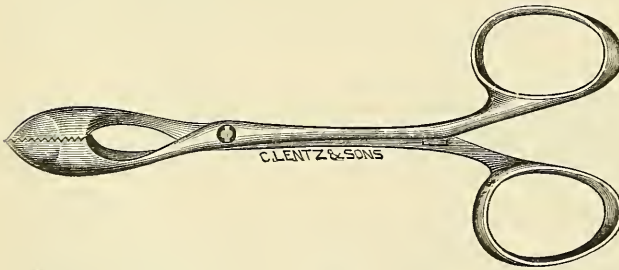
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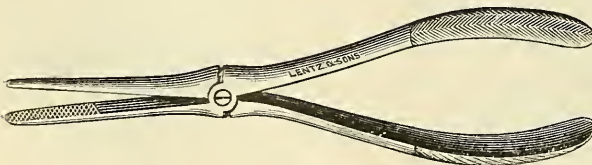
2328



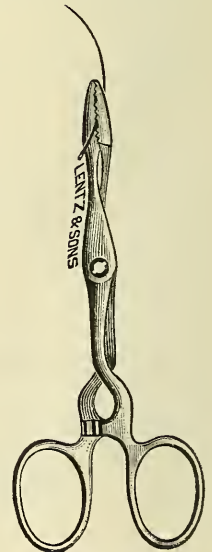
2329



2330



2336

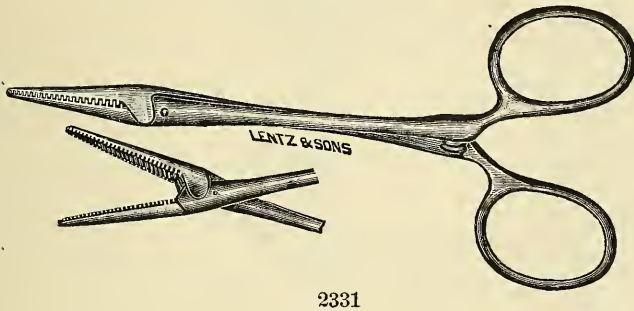


2333



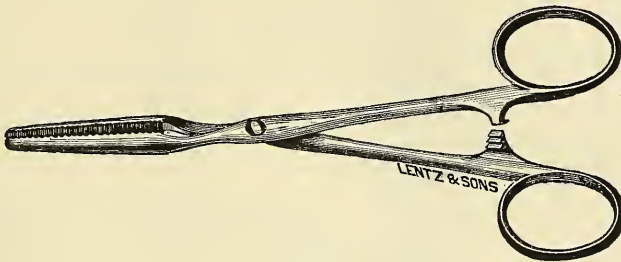
# Amputating and Minor Operating Instruments.

## ARTERIAL CLAMP FORCEPS.



2331

2334



2332

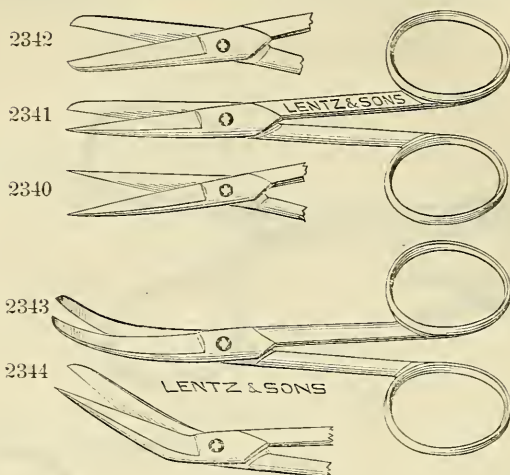


2335

|        |                                                                                       |        |
|--------|---------------------------------------------------------------------------------------|--------|
| 2325.* | Haemostatic Clamp Forceps, Pean's.....                                                | \$1 25 |
| 2326.* | “ “ “ Lawson Tait's.....                                                              | 1 50   |
| 2327.  | “ “ “ “ “ curved.....                                                                 | 1 75   |
| 2328.* | “ “ “ Spencer Wells'.....                                                             | 1 50   |
| 2329.* | “ “ “ Wells' with Collins' lock.....                                                  | 1 75   |
| 2330.* | “ “ “ Forbes'.....                                                                    | 2 25   |
| 2331.* | “ “ “ Jones' with Collins' lock.....                                                  | 2 00   |
| 2332.* | “ “ “ Wyeth's.....                                                                    | 1 75   |
| 2333.* | “ “ “ and Needle Holder combined, 5 inch.....                                         | 1 50   |
| 2334.* | “ “ “ Little's, scissors-handled.....                                                 | 1 75   |
| 2335.* | “ “ “ Pean's T-shape jaw.....                                                         | 2 25   |
| 2336.* | Artery Forceps, Gross', long pointed jaws, French lock, for deep-seated arteries..... | 1 65   |

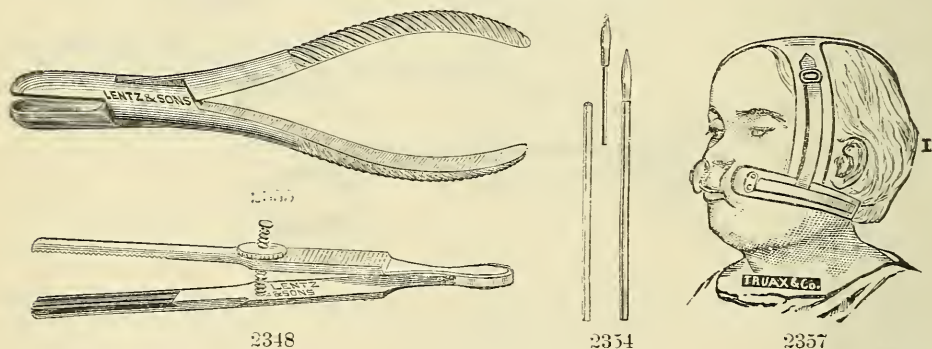
*All Instruments Illustrated are designated by a \*.*

## Minor Operating Instruments.



|        |                                                                   |       |
|--------|-------------------------------------------------------------------|-------|
| 2340.* | Scissors, straight, both points sharp, 5 inch, 80c.; 5½ inch..... | \$ 90 |
| 2341.* | " " one point sharp, one blunt, 5 inch, 80c.; 5½ inch.....        | 90    |
| 2342.* | " " both points blunt, 5 inch, 80c.; 5½ inch.....                 | 90    |
| 2343.* | " " curved on flat, 5 inch, 95c.; 5½ inch.....                    | 1 10  |
| 2344.* | " " angular, 5 inch, 95c.; 5½ inch.....                           | 1 10  |

## Harelip Instruments.

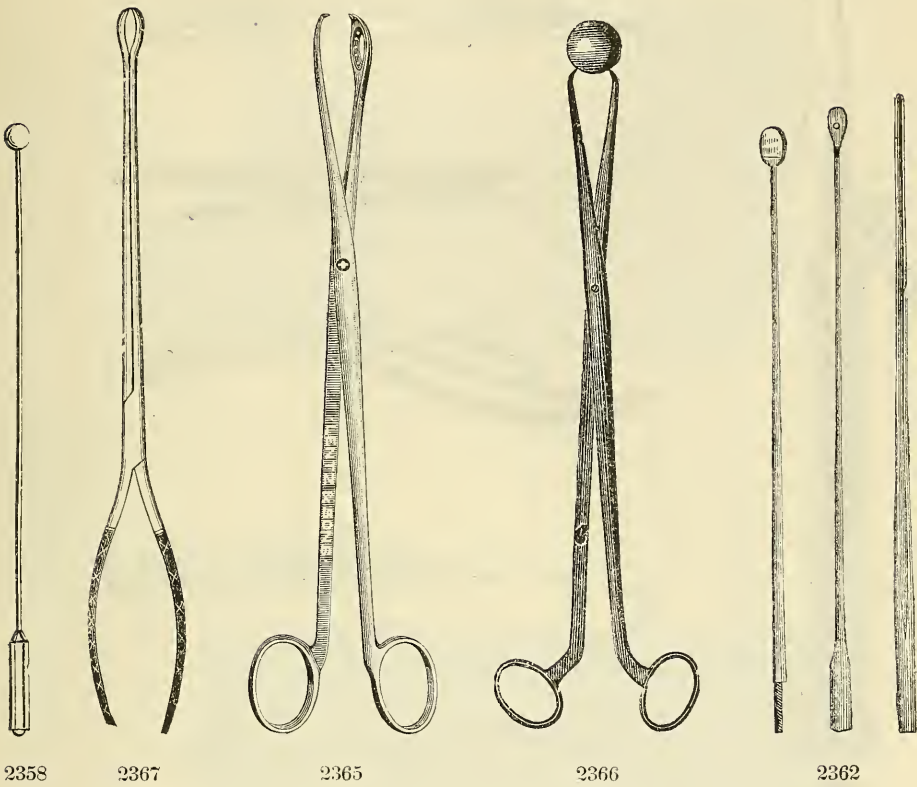


|        |                                               |                |
|--------|-----------------------------------------------|----------------|
| 2346.  | Hutchinson's Forceps.....                     | \$2 25         |
| 2347.  | Smith's " .....                               | 4 00           |
| 2348.* | Ziegler's " .....                             | 2 25           |
| 2349.  | Parallel Opening Forceps.....                 | 6 50           |
| 2350.  | Scissors, angular, 95 cts. and.....           | 1 10           |
| 2351.  | Scalpel, 85 cts. and.....                     | 1 25           |
| 2352.  | Harelip Pins, assorted sizes.....             | per hundred 15 |
| 2353.  | " " glass heads, 2 to 3 inches long.....      | per doz. 60    |
| 2354.* | " " silver canula, with removable points..... | 40             |
| 2355.* | Pin Cutting Forceps.....                      | 2 25           |
| 2356.  | " Conductor, Post's .....                     | 75             |
| 2357.* | Harelip Truss, Hainsby's (made to order)..... | 4 50           |

MEASUREMENTS REQUIRED.—Circumference of face and neck taken in an oblique direction.—Circumference of head under the chin and over the head.

*All Instruments Illustrated are designated by a \*.*

## Bullet Instruments.

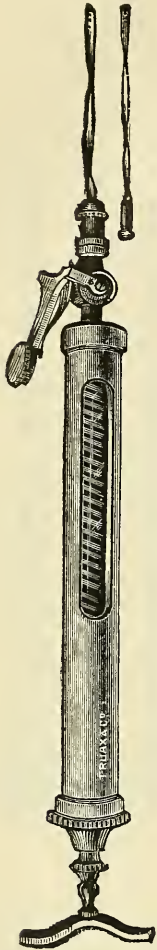


|        |                                                                 |       |
|--------|-----------------------------------------------------------------|-------|
| 2358.* | Bullet Probe, Nelaton's Porcelain Head, with handle, small..... | \$ 45 |
| 2359.  | " " " " " 9 inch.....                                           | 65    |
| 2360.  | " " " " " 9 " in two parts, to screw.....                       | 75    |
| 2361.  | " " Elastic, " " in two parts, to screw.....                    | 75    |
| 2362.* | " " Hamilton's, with Director, in three parts, to screw.....    | 90    |
| 2363.  | " " Long, silver, various sizes, 75 cents to.....               | 1 25  |
| 2365.* | Bullet Extracting Forceps, Gross'.....                          | 1 75  |
| 2366.* | " " " American.....                                             | 1 50  |
| 2367.* | " " " U. S. A.....                                              | 1 50  |
| 2368.  | " Screw.....                                                    | 1 50  |
| 2369.  | " Scoop.....                                                    | 1 50  |

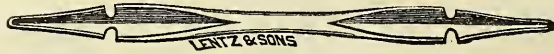
*All Instruments Illustrated are designated by a \*.*



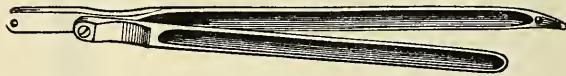
## Hernia Instruments.



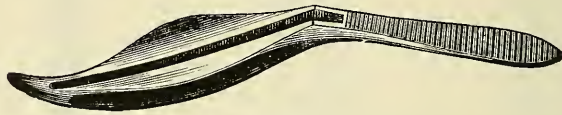
2378.



2372



2373



2374



C. LENTZ &amp; SONS

2375



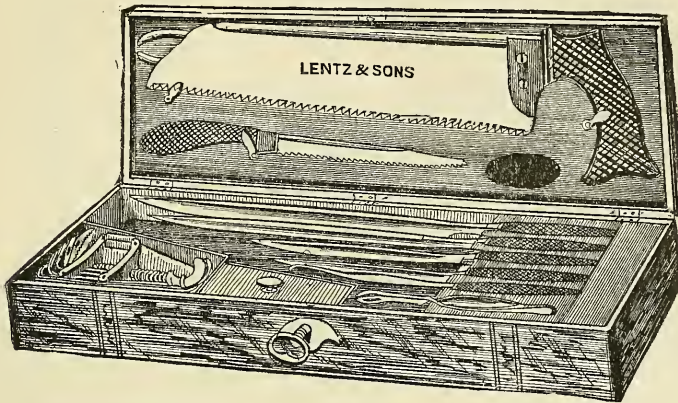
2376

|        |                                              |         |
|--------|----------------------------------------------|---------|
| 2372.* | Director, Levis'                             | \$ 1 10 |
| 2373.* | " Hinged                                     | 1 15    |
| 2374.* | " Peter's                                    | 1 60    |
| 2375.* | Hernia Knife, Cooper's.....85c. and          | 1 25    |
| 2376.* | " Needle, Warren's spiral                    | 1 50    |
| 2377.  | " " Dowell's                                 | 75      |
| 2378.* | " Syringe, Warren's spring and lever pattern | 13 50   |
| 2379.  | " " DeGarmo's                                | 5 00    |
| 2380.  | " " Heaton's                                 | 2 25    |
| 2381.  | " Instrument, Agnew's                        | 4 75    |

*All Instruments Illustrated are designated by a \*.*

## General Operating Cases.

## AMPUTATING CASES.



2400.\* Amputating Case, No. 1.

1 Liston's Knife, medium.

1 Catling " small.

1 Scalpel.

1 Tenaculum.

1 Artery Forceps, cross-action.

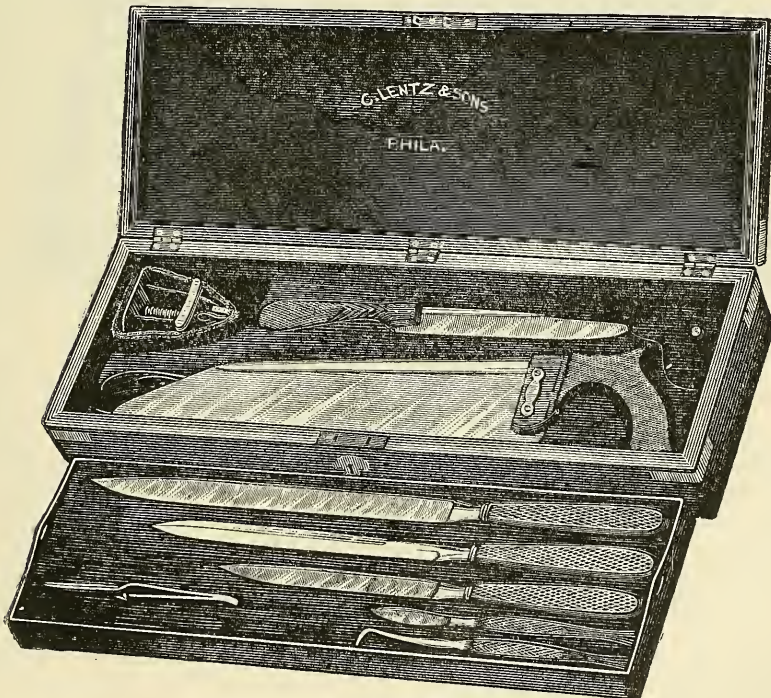
1 Metacarpal Saw, metal handle.

1 Bone Forceps.

1 Capital Saw, metal handle.

1 Petit's or Esmarch's Tourniquet.

Needles and Silk, in mahogany case, lined with velvet or leather with ebony handles,  
 \$18.50 : with hollow metal handles.....\$20 00



2401.\* Amputating Case, No. 2.

Contents and price on next page.



## General Operating Cases.

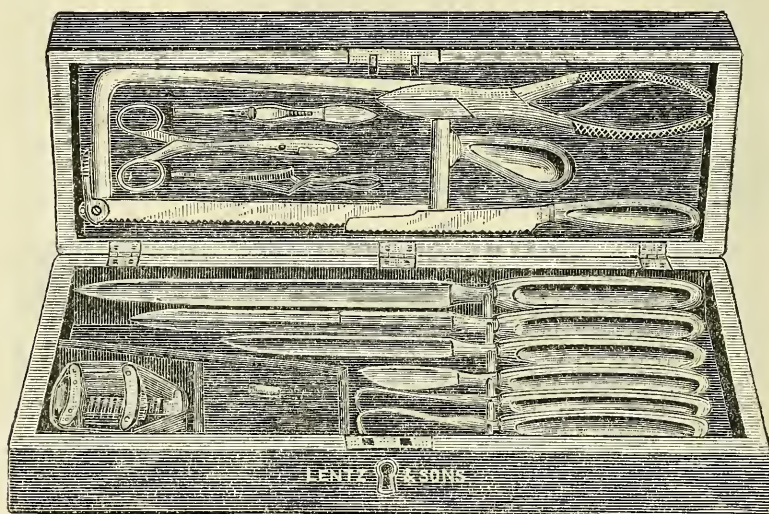
## 2401.\* AMPUTATING CASE. No 2.

- 1 Liston's Knife, long.
- 1 Liston's Knife, small.
- 1 Catling, medium
- 1 Scalpel.
- 1 Tenaculum.
- 1 Capital Saw, metal handle.

- 1 Metacarpal Saw, metal handle.
- 1 Artery Forceps, fenestrated, cross-action.
- 1 Petit's Tourniquet.
- 1 Liston's Bone Forceps.
- Needles and Silk.

In mahogany case, lined with velvet or leather, with ebony handles, \$20.00 ; with hollow metal handles.....\$22 50

NOTE.—This case is made with instruments fitted in top and bottom, instead as illustrated, making it more compact and convenient



2402

## 2402.\* AMPUTATING CASE, No. 3.

- 1 Liston's Knife, long.
- 1 Liston's Knife, small.
- 1 Catling, medium.
- 1 Scalpel.
- 1 Tenaculum.
- 1 Aneurism Needle
- 1 Bow Saw, two blades, improved.

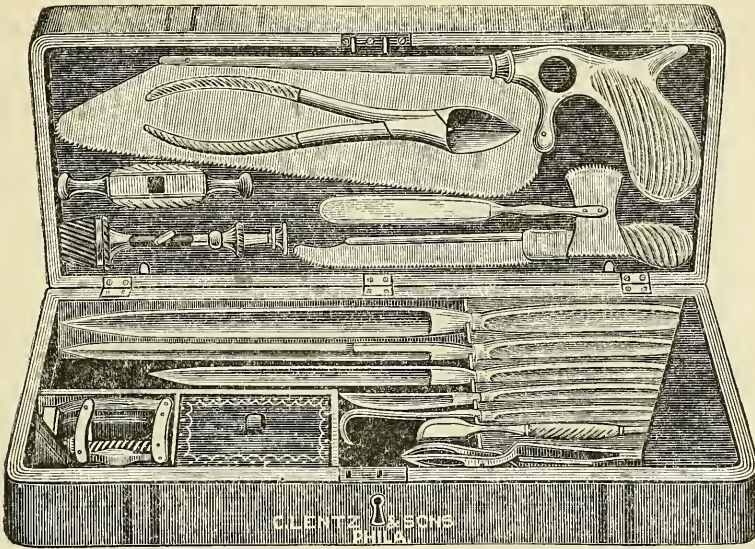
- 1 Metacarpal Saw.
- 1 Artery Forceps, fenestrated, cross action.
- 1 Artery and Needle Forceps, slide catch.
- 1 Haemostatic Forceps, Spencer Wells.
- 1 Liston's Bone Forceps, with spring.
- 1 Petit's or Esmarch's Tourniquet.
- Needles and Silk.

In mahogany case, lined with velvet or leather, with ebony handles, \$26 50 ; with hollow metal handles.....\$28 50

*All Instruments Illustrated are designated by a \*.*



## General Operating Cases.



2403

## 2403.\* AMPUTATING AND TREPHINING CASE, No. 4.

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| 1 Liston's Knife, long.         | 1 Tenaculum.                        |
| 1 Catling, medium.              | 1 Trephine and Handle.              |
| 1 Liston's Knife, small.        | 1 Skull Saw.                        |
| 1 Scalpel.                      | 1 Trephine Elevator and Raspatory.  |
| 1 Capital Saw, metal handle.    | 1 Brush.                            |
| 1 Metacarpal Saw, movable back. | 1 Tourniquet, Petit's or Esmarch's. |
| 1 Artery Forceps, fenestrated.  | Needles and Silk.                   |
| 1 Bone Forceps, with spring.    |                                     |

In mahogany case lined with velvet or leather with ebony handles, \$24.50; with hollow metal handles.....\$27 00

The same in brass-bound mahogany case, add to price..... 1 25

## 2404. C. M. THOMAS' GENERAL SURGICAL CASE, No. 5.

- |                                     |                                                   |
|-------------------------------------|---------------------------------------------------|
| 2 Scalpels.                         | 1 Raspatory and Elevator.                         |
| 1 Straight Bistoury, sharp pointed. | 1 Grooved Director.                               |
| 1 Tenotome, blunt pointed.          | 1 Pair Probes.                                    |
| 1 Cooper's Hernia Bistoury.         | 1 Trocar, medium.                                 |
| 1 Amputating Knife, medium.         | 2 Trachea Tubes.                                  |
| 1 Pair Scissors, straight.          | 2 Nelaton's Catheters, 16 and 20.                 |
| 1 " " curved.                       | 2 Mercier's " 14 and 18.                          |
| 1 Tenaculum.                        | 1 Silver " "                                      |
| 1 Packard's Needle.                 | 6 Filiform Bougies.                               |
| 1 Capital Saw, shifting handle.     | 1 Gouley Tunneled Catheter. "                     |
| 1 Bone Forceps, medium.             | 6 Steel Bougies, conical, 10, 14, 18, 22, 26, 30. |
| 2 Pean's " "                        | 3 Bulbous Explorers, 10, 18, 26.                  |
| 2 Artery " slide catch.             | 1 Thomas' Bladder Sound.                          |
| 1 Needle " "                        | 1 Nelaton's Bullet Probe.                         |
| 1 Volsella " "                      | 1 Bullet Forceps.                                 |
| 1 Polypus " "                       | 1 Stomach Tube.                                   |
| 1 Thomas' Tissue Forceps.           | 1 Esophagus Probang.                              |
| 1 Esmarch Bandage.                  | 1 doz. Assorted Needles.                          |
| 1 " Tourniquet, with chain.         | Silk, Silver Wire and Pins.                       |
| 1 Trephine.                         |                                                   |

## ALL ASEPTIC INSTRUMENTS.

Rosewood case, brass bound, lined with velvet or leather.....\$67 00

*All Instruments Illustrated are designated by a \*.*

## General Operating Cases.

### 2405. EDW. MARTIN'S "UNIVERSITY" GENERAL SURGICAL CASE, No 6.

|                                             |                                      |
|---------------------------------------------|--------------------------------------|
| 1 Amputating Knife, medium.                 | 1 Pin Cutting Forceps.               |
| 1 Catling, small.                           | 1 Bone Gnawing Forceps.              |
| 1 Finger Knife, stout.                      | 1 Bone Chisel.                       |
| 2 Scalpels.                                 | 1 Bone Gouge.                        |
| 1 Straight Bistoury, sharp point.           | 2 Langenbeck's Retractors.           |
| 1 Curved       "       "       "            | 1 Periosteotome.                     |
| 1 Curved       "       probe   "            | 1 Roberts' Trephine.                 |
| 1 Hernia       "                            | 1 Set of 4 Trocars, with Canulas.    |
| 2 Tenotomes.                                | 1 Esmarch Bandage.                   |
| 1 Tenaculum.                                | 1 Esmarch Tourniquet, with chain.    |
| 1 Aneurism Needle.                          | 1 Scissors, straight.                |
| 1 Scalpel and Raspatory.                    | 1 Scissors, curved on flat.          |
| 1 Capital Saw.                              | 1 Grooved Director.                  |
| 1 Metacarpal Saw.                           | 1 Pair Probes.                       |
| 1 Bone Forceps, with spring.                | 1 Bullet Forceps.                    |
| 1 Sequestrum Forceps, with spring.          | 1 Nelaton's Bullet Probe.            |
| 1 Ferguson's Bone Holding Forceps.          | 1 Stone Sound.                       |
| 6 Artery Clamp Forceps, Wells'.             | 1 Thompson's Urethral Forceps.       |
| 1 Vulcellum Forceps.                        | 6 Filiform Bougies.                  |
| 1 Dissecting       "                        | 2 Gouley's Tunneled Catheter.        |
| 1 Fenestrated Artery Forceps, cross-action. | 1 Soft Rubber Catheter.              |
| 1 Needle Holder, Reiner's.                  | Needles, Silk. Silver Wire and Pins. |

All Aseptic Instruments.

Mahogany case, brass-bound, lined with leather.....\$90 00

### 2406. GENERAL SURGICAL CASE, No. 7.

|                                  |                                           |
|----------------------------------|-------------------------------------------|
| 1 Liston's Knife, large.         | 4 Artery Clamp Forceps.                   |
| 1 Liston's Knife, small.         | 1 Artery and Needle Forceps, slide catch. |
| 1 Catling, medium.               | 1 Capital Saw.                            |
| 3 Scalpels.                      | 1 Metacarpal Saw.                         |
| 1 Finger Knife.                  | 1 Bone Forceps.                           |
| 1 Hernia.   "                    | 1 Sequestrum Forceps.                     |
| 1 Bistoury, curved, sharp point. | 1 Vulcellum       "                       |
| 1 Bistoury, curved, probe point. | 1 Polypus       "                         |
| 1 Tenotome.                      | 1 Grooved Director.                       |
| 1 Tenaculum.                     | 1 Trephine.                               |
| 1 Aneurism Needle.               | 1 Trephine Elevator.                      |
| 1 Scalpel and Raspatory.         | 1 Hey's Saw.                              |
| 1 Scissors, straight.            | 1 Brush.                                  |
| 1 Scissors, curved on flat.      | 1 Petit's Tourniquet.                     |

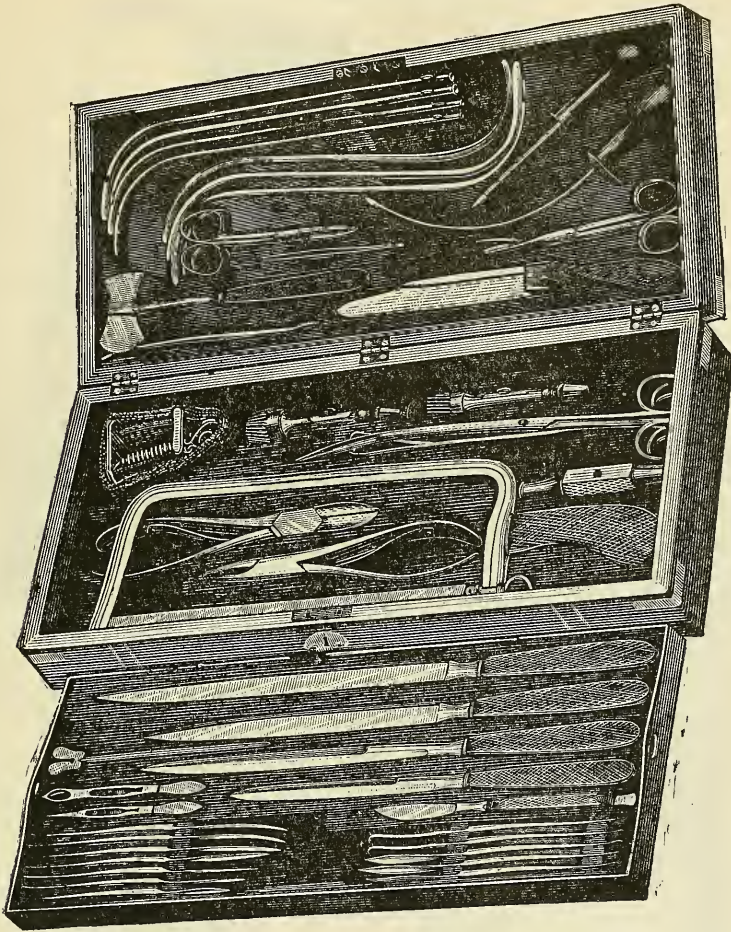
Needles, Silk, Silver Wire and Pins.

All Aseptic Instruments.

Mahogany case, lined with velvet or leather.....\$52 00



## General Operating Cases.



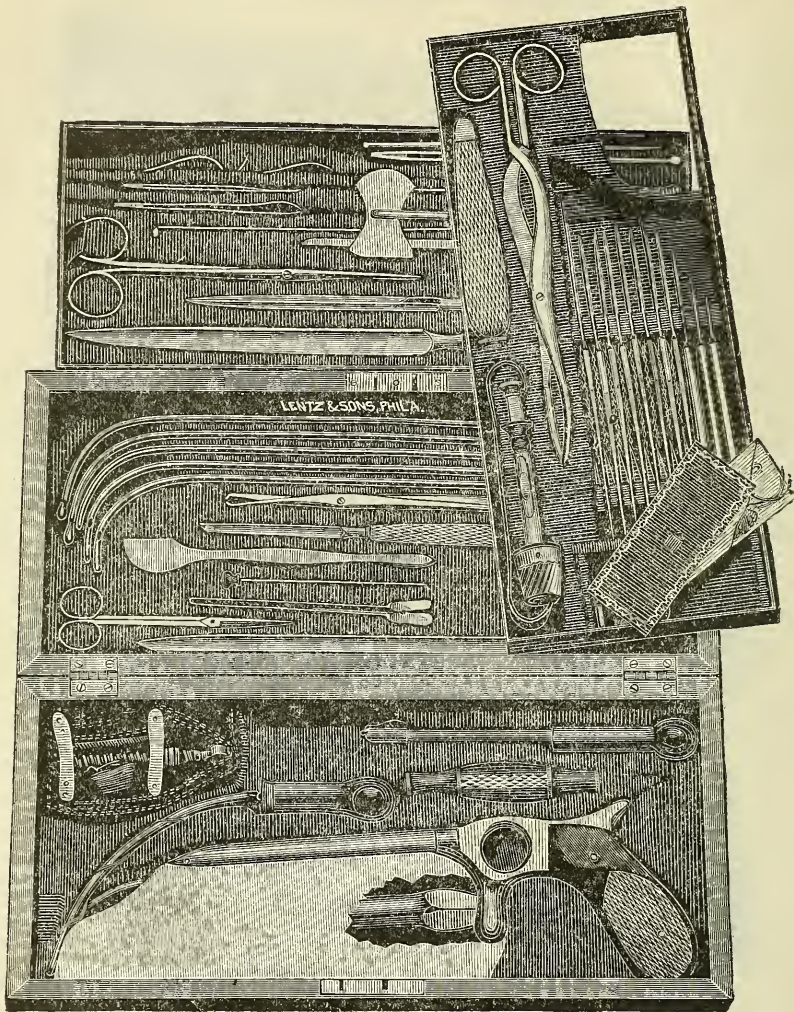
2407.\* General Operating Case, No. 8.

- |                                    |                                            |
|------------------------------------|--------------------------------------------|
| 1 Capital Knife, large.            | 3 Well's Artery Clamp Forceps.             |
| 1 " " medium.                      | 1 Straight Trocar.                         |
| 1 Catling, medium.                 | 1 Curved " "                               |
| 1 " " small.                       | 2 Trephines.                               |
| 4 Scalpels.                        | 1 Trephine Elevator.                       |
| 1 Bistoury, straight.              | 1 Pair Silver Probes.                      |
| 1 " " curved, sharp point.         | 1 Long Bullet Probe.                       |
| 1 " " " probe " "                  | 1 Bullet Forceps.                          |
| 1 Scalpel and Raspatory.           | 1 Dissecting Forceps.                      |
| 1 Cooper's Hernia Knife.           | 1 Fenestrated Artery Forceps, slide catch. |
| 1 Tenotome.                        | 1 Needle Forceps.                          |
| 1 Tenaculum.                       | 1 Polypus Forceps.                         |
| 1 Aneurism Needle.                 | 1 Scissors, straight.                      |
| 1 Bow Saw, 2 blades, improved.     | 1 " " angular.                             |
| 1 Metacarpal Saw.                  | 1 " " curved on flat.                      |
| 1 Hey's Skull Saw.                 | 1 Director.                                |
| 1 Bone Forceps, with spring.       | 4 Male Catheters, silver-plated.           |
| 1 Sequestrum Forceps, with spring. | 3 Double Curve Metal Bougies.              |
| 1 Vulcellum " "                    | 1 Petit's Tourniquet.                      |
| 1 Oesophagea " "                   | Needles, Silk, Silver Wire and Pins.       |

All Aseptic Instruments, rosewood, brass-bound case, lined with velvet or leather.....\$75 00



## General Operating Cases.



2408

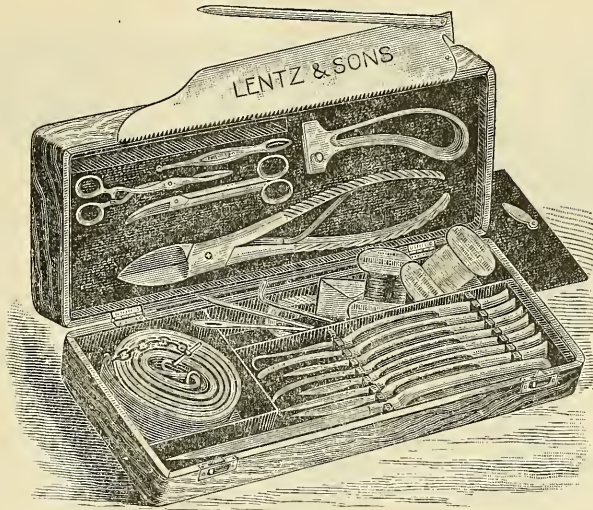
## 2408.\* Parker's General Operating Case, No. 9.

- |                                            |                                          |
|--------------------------------------------|------------------------------------------|
| 1 Liston's Amputating Knife, screw handle. | 1 Pair Parker's Retractors.              |
| 1 Liston's Amputating Knife, medium size.  | 1 Small Trocar, straight.                |
| 1 Catling, small.                          | 1 Rectum Trocar, curved.                 |
| 1 Capital Saw.                             | 1 Pair Artery Forceps, plain.            |
| 1 Metacarpel Saw.                          | 1 Pair Polypus Forceps.                  |
| 1 Hey's Saw.                               | 1 Steel Sound.                           |
| 1 Trephining Elevator and Raspatory.       | 2 Lithotomy Staffs.                      |
| 1 Galt's Trephining and Handle.            | 1 Lithotomy Bistoury.                    |
| 1 Finger Knife.                            | 1 Pair Lithotomy Forceps.                |
| 1 Curved Probe Pointed Bistoury.           | 1 Pair Liston's Bone Forceps.            |
| 1 Curved Sharp Pointed Bistoury.           | 1 Pair Eye Scissors, curved on the flat. |
| 1 Cooper's Hernia Knife.                   | 2 Silver Catheters.                      |
| 3 Scalpels, assorted.                      | 1 Spiral Tourniquet, Petit's.            |
| 1 Tenotome.                                | 1 Eye Needle, curved.                    |
| 1 Eye Speculum.                            | 1 Set Parker's Aneurism Needles.         |
| 1 Cataract Knife.                          | 1 Pair Strabismus Forceps.               |
| 1 Parker's Lachrymal Needle.               | 1 Pair Artery Forceps, spring-catch.     |
| 1 Exploring Trocar.                        | 1 Bullet Forceps.                        |
| 1 Director.                                | 1 Brush.                                 |
| 1 Pair Probes, Silver.                     |                                          |

Needles, Silk, Plastic Pins and Silver Wire, rosewood case, brass-bound, lined with silk velvet, or leather and patent-leather cover.....

All instruments in above set have Aseptic metal handles with exception of the eye instruments. \$72 00

## General Operating Cases.



2409

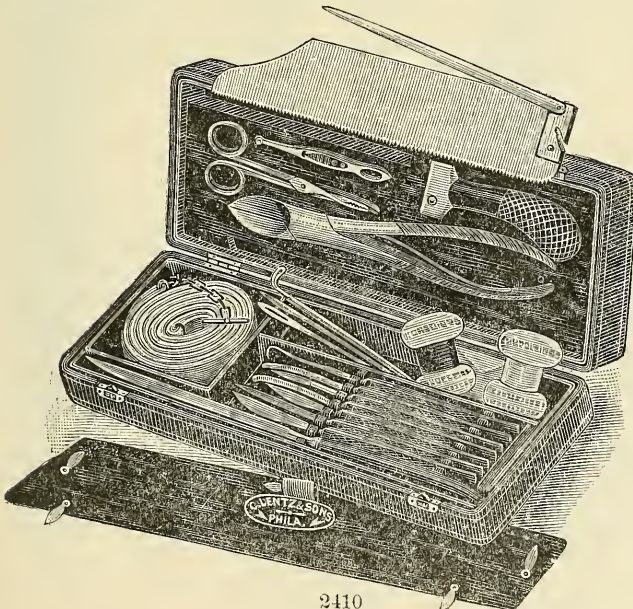
## 2409.\* LENTZ'S COMPACT OPERATING CASE, No. 10, STYLE A.

- 1 Amputating Knife, leg and arm.
- 1 Finger Knife.
- 1 Hernia Knife.
- 1 Sharp-curved Bistoury.
- 2 Scalpels.
- 1 Tenotome.
- 1 Tenaculum.
- 1 Pair Scissors, curved.
- 1 Saw, 9 inch blade.

- 1 Liston's Bone Forceps.
- 1 Artery and Needle Forceps, combined.
- 1 Pean's Artery Forceps.
- 1 Esmarch's Flat Rubber Tourniquet, with chain.
- 1 Director with Aneurism Needle.
- 1 Pair Probes.
- Needle, Silk and Silver Wire.

All the Knives with hollow metal handles, Forceps, Scissors and Saw, made so they can be separated easily.

In mahogany case, lined with leather, \$22.00; with Trephine and Trephine Elevator in addition.....\$25 50



2410

## 2410.\* LENTZ'S COMPACT OPERATING SET, No. 10.

Containing same instruments as above set in either mahogany wood or leather-covered case, lined with leather.

Style B.—Hard Rubber Aseptic Handles on Knives, .....\$20 00

All Steel Nickel-plated Aseptic Handles on Knives, .....\$20 00

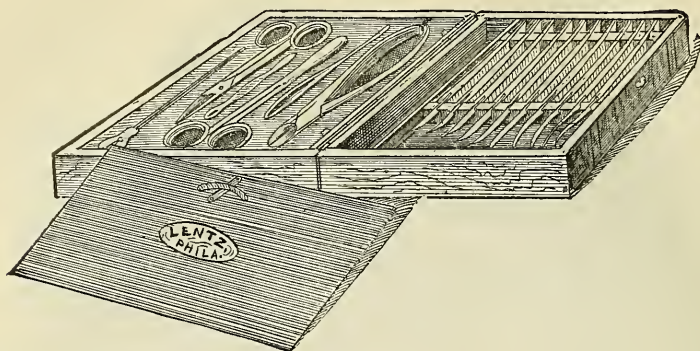
Style C.—Ebony Handles on Knives.....\$18 00

Any of the above sets with Trephine and Elevator, extra.....\$3 50

*All Instruments Illustrated are designated by a \*.*



## Minor Operating Cases.



2411

### 2411\*. Minor Operating Case, No. 11.

Three Scalpels, assorted sizes ; one curved Bistoury, sharp point ; one curved Bistoury, probe point ; one straight Bistoury, sharp point ; one Cooper's Hernia Knife ; one Tenotome ; one Tenaculum ; one Aneurism Needle ; two Pean's Artery Forceps ; one pair Dissecting Forceps ; one Artery and Needle Forceps, with slide catch ; one Vulcellum Forceps ; one Bone Forceps ; two Scissors, straight and curved ; one Grooved Director ; one-half dozen Suture Needles ; Silk and Wire.

All Aseptic Instruments.

Mahogany case, lined with velvet or leather.....\$21 25

### 2412. Minor Operating Case, No. 12.

Three Scalpels, assorted sizes ; one Scalpel, with Raspatory ; one straight Bistoury ; one curved Bistoury, sharp point ; one curved Bistoury, probe point ; one Cooper's Hernia Bistoury ; one Tenotome, sharp point ; one Tenotome, probe point ; one Tenaculum ; one Aneurism Needle ; one Metacarpal Saw ; one Hernia Director ; one Grooved Director ; two Volkman's 3-Prong Retractors ; one Bone Forceps ; one Pin-cutting Forceps ; one Sequestrum Forceps ; one straight Scissors ; one Scissors, curved on flat ; three Artery Clamp Forceps, Wells' ; one Volsella Forceps ; one Dissecting Forceps ; one Fenestrated Artery Forceps, slide catch ; three Langenbeck's Artery Clamps ; one Reiner's Needle-holding Forceps ; Needles, Silk, Wire and Pins.

All Aseptic Instruments.


Rosewood case, lined with velvet or leather.....\$45 00

### 2413. Minor Operating Case, No. 13.

Two Scalpels, assorted sizes ; one straight Bistoury, sharp point ; one curved Bistoury, sharp point ; one curved Bistoury, probe point ; one Hernia Bistoury ; one Tenotome ; one Tenaculum ; one Aneurism Needle ; one Metacarpal Knife ; one Grooved Director ; one Thumb Forceps ; one Artery Forceps, fenestrated, with Needle-holder slide catch ; two Pean's Artery Forceps ; one pair Retractors ; one Bone Forceps ; one Vulcellum Forceps ; one straight Scissors ; one curved Scissors ; one Metacarpal Saw, movable back ; Needles, Silk and Wire.

All Aseptic Instruments.

Rosewood case, lined with velvet or leather.....\$30 00

 The foregoing Amputating and Operating Cases will be furnished at the prices quoted only when taken complete, and without change of contents. They are priced very low and less than our regular Catalogue prices for contents when figured separately ; therefore, instruments contained in them, and not wanted, cannot be credited at regular prices.

We make to order any special desired cases, at lowest prices.

*All Instruments Illustrated are designated by a \*.*



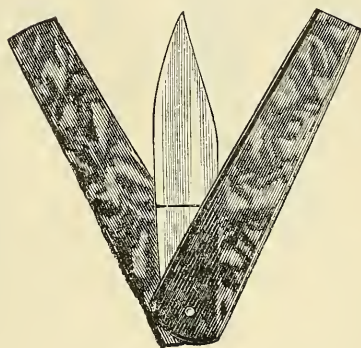
Pocket Case Instruments.



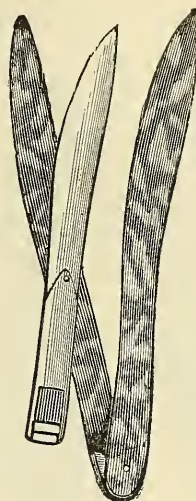
2421



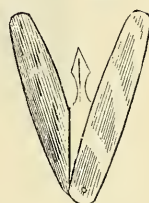
2418



2419



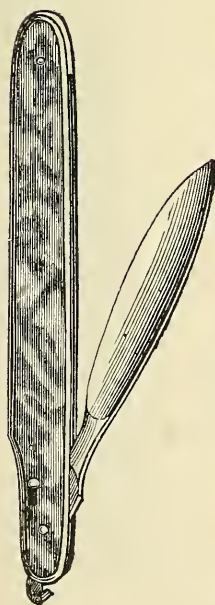
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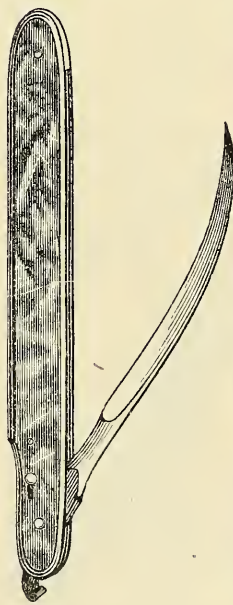
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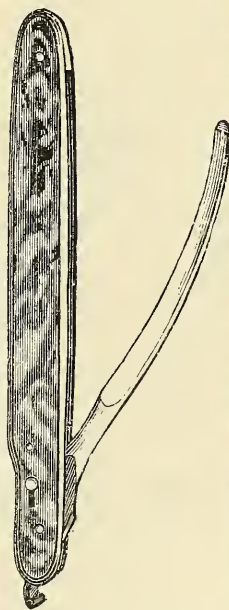
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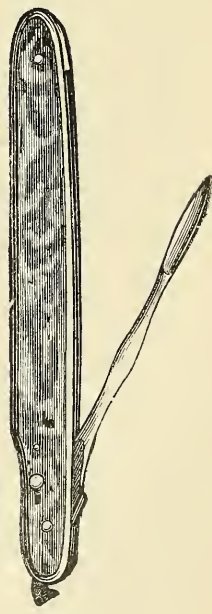
2424



2425

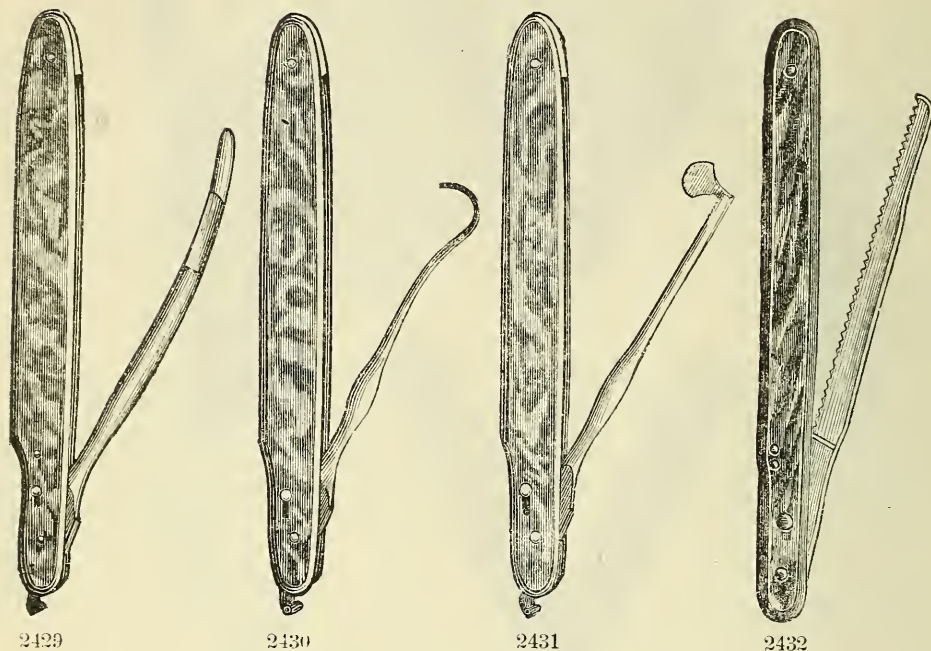


2426



2428

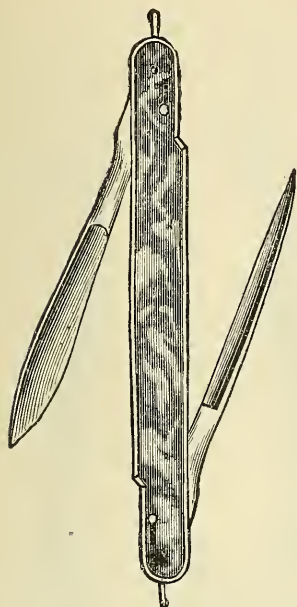
## Pocket Case Instruments.



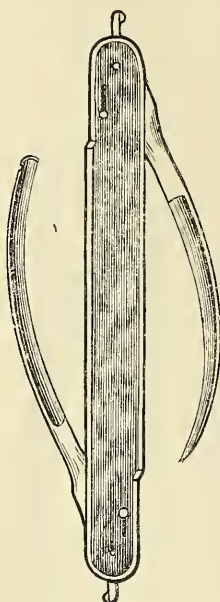
|        |                                                          |                                                    |      |
|--------|----------------------------------------------------------|----------------------------------------------------|------|
| 2418.* | Lancet Thumb, shell handles.....                         | \$                                                 | 50   |
| 2419.* | “ Abscess, “ “ .....                                     |                                                    | 50   |
| 2420.* | “ Vaccinating, spear point, shell handle.....            |                                                    | 50   |
| 2421.* | “ “ with Scratcher, shell handle.....                    |                                                    | 75   |
| 2422.* | Steel “ Scratcher.....                                   |                                                    | 25   |
| 2423.* | Seton Needle, in shell handle.....                       | 1                                                  | 00   |
| 2424.* | Scalpel.....                                             |                                                    |      |
| 2425.* | Bistoury, sharp pointed, curved.....                     | In hard rubber handles.<br>each.....               | 55   |
| 2426.* | “ probe “ “ .....                                        |                                                    |      |
| 2427.* | “ sharp “ straight.....                                  |                                                    |      |
| 2428.* | Tenotome, “ “ “ .....                                    | In shell handles with slide<br>catch, each.....    | 1 10 |
| 2429.* | Cooper's Hernia Knife.....                               |                                                    |      |
| 2430.* | Tenaculum .....                                          | In aluminum handles with<br>slide catch, each..... | 1 10 |
| 2431.* | Gum Lancet.....                                          |                                                    |      |
| 2432.* | Finger Saw, in shell handle, with slide catch.....       |                                                    | 1 50 |
| 2433.  | Hollow Needle for wire in shell handle, slide catch..... |                                                    | 1 30 |
| 2434.  | Perineal “ “ “ “ .....                                   |                                                    | 1 30 |

*All Instruments Illustrated are designated by a \*.*

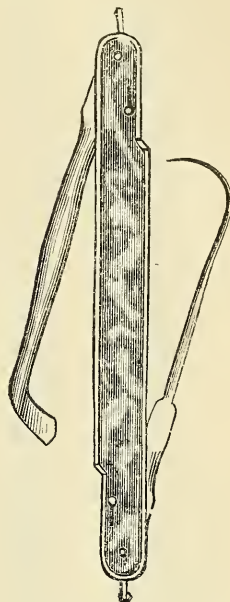
Pocket Case Instruments.



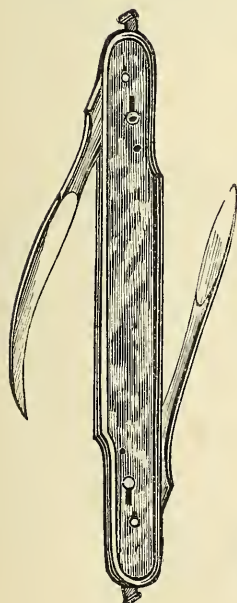
2437



2438



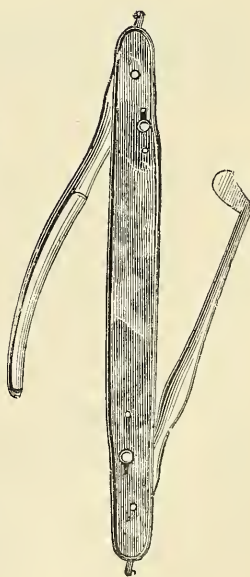
2442



2439



2449



2440



## Pocket Case Instruments.



2450



2451



2452



2453



2455

|        |                                                       |                                                        |
|--------|-------------------------------------------------------|--------------------------------------------------------|
| 2437.* | Scalpel and Straight Bistoury.....                    |                                                        |
| 2438.* | Bistouries, sharp and probe pointed.....              |                                                        |
| 2439.* | “ curved, sharp pointed and Tenotome....              |                                                        |
| 2440.* | “ “ probe “ and Gum Lancet                            | In shell handles with slide catches, each.....\$1 75   |
| 2441.  | Tenotome and Gum Lancet.....                          |                                                        |
| 2442.* | Tenaculum and Gum Lancet.....                         | In aluminum handles with slide catches, each..... 1 75 |
| 2443.  | Scalpel and Tenotome.....                             |                                                        |
| 2444.  | “ and curved Bistoury, sharp pointed.....             | In shell handles with spring catch, each..... 1 90     |
| 2445.  | Bistoury, curved, sharp point, and Bistoury straight. |                                                        |
| 2446.  | “ straight, sharp point, and Tenotome.....            | In shell handles without catches, each..... 1 10       |
| 2447.  | Tenotome and Tenaculum.....                           |                                                        |
| 2448.  | Gum Lancet and Hollow Needle.....                     |                                                        |

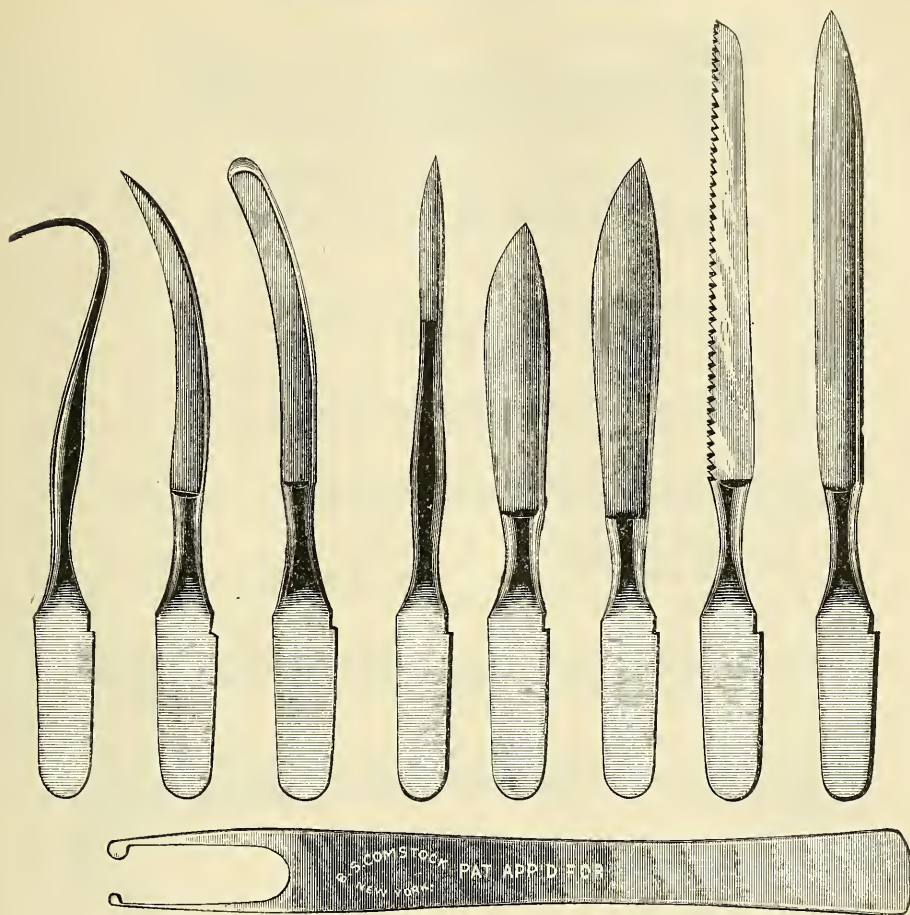
Any other combination that may be desired supplied at same prices.

|        |                                                                                              |      |
|--------|----------------------------------------------------------------------------------------------|------|
| 2449.* | Four-bladed Pocket Case Instruments, any combination of blades, with spring catch, each..... | 4 00 |
| 2450.* | Scalpel, two sizes, all steel, nickel-plated handle, each.....                               | 85   |
| 2451.* | Bistoury, straight, “ “ “ .....                                                              | 85   |
| 2452.* | “ curved, sharp point, all steel, nickel-plated handle.....                                  | 85   |
| 2453.* | “ “ probe point, “ “ “ .....                                                                 | 85   |
| 2454.  | Tenotome, all steel, nickel-plated handle.....                                               | 85   |
| 2455.* | Tenaculum, “ “ “ .....                                                                       | 85   |
| 2456.  | Aneurism Needle, all steel, nickel-plated handle.....                                        | 85   |
| 2457.  | Finger Saw, all steel, nickel-plated handle.....                                             | 1 00 |

These instruments are small enough for pocket cases, and handles are thin and light.

*All Instruments Illustrated are designated by a \*.*

## Pocket Case Instruments.



2460

The above illustrations show a set of Aseptic pocket case instruments (actual size) with detachable metal handle, the blades are larger than the regular size of cutting instruments usually fitted in cases. This pattern presents the following advantages.

1st.—The handle is entirely of one piece of metal, without any holes or internal springs or attachments whatever in which septic matter can possibly lodge.

2d.—It can be thrown into the antiseptic solution without damage and be wiped off dry as readily as any one of the blades.

3d.—The blades are held perfectly fast in the handle, but can be removed with ease when desired.

4th.—Owing to its simplicity of construction there is nothing about the handle which can get out of order.

|        |                                             |        |
|--------|---------------------------------------------|--------|
| 2460.* | Price of set of 8 blades, with handles..... | \$8 00 |
| " "    | " " blades, each.....                       | 90     |
| " "    | " " handles, each.....                      | 1 25   |

*All Instruments Illustrated are designated by a \*.*

## Pocket Case Instruments.



2470



2471



2472



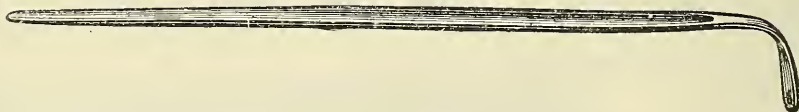
2473



2474



2475



2476



2479-2480



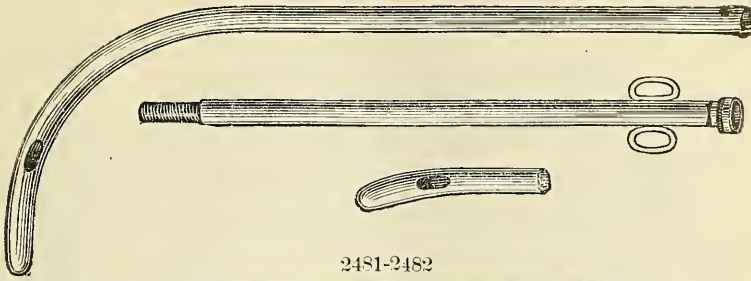
2481

|        |                                                                             |        |
|--------|-----------------------------------------------------------------------------|--------|
| 2470.* | Double Eye Instrument, for foreign bodies, in metal case.....               | \$1 60 |
| 2471.* | Exploring Needle, metal case.....                                           | 40     |
| 2472.* | Gross' Ear Spoon and Hook, steel.....                                       | 60     |
| 2473.* | Fenestrated Ear Spoon and Hook, steel.....                                  | 85     |
| 2474.* | Probes, silver-plated, per pair, 25 cts. ; pure silver, 50c.; aluminum..... | 40     |
| 2475.* | Director, with Tongue-tie, plated, 50 cts. ; silver.....                    | 1 10   |
| 2476.* | " " Aneurism Needle, plated, 45 cts. ; silver.....                          | 85     |
| 2477.  | " " Ear Scoop, " 45 " " .....                                               | 85     |
| 2478.  | Caustic Holder, hard rubber, 2 sizes, \$ 35 cts. and.....                   | 45     |
| 2479.* | " " aluminum, 2 " 1 25 and.....                                             | 1 50   |
| 2480.* | " " silver, 2 " 1 10 " .....                                                | 1 35   |
| 2481.* | " " ebony, with silver point.....                                           | 60     |

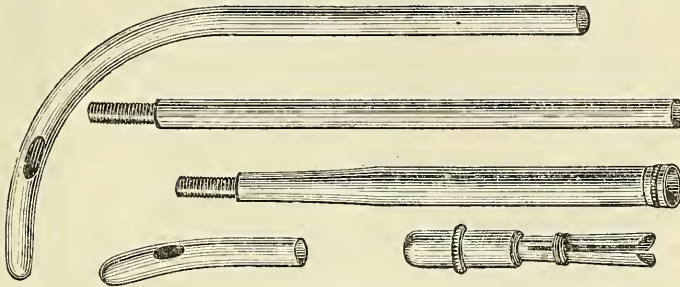
*All Instruments Illustrated are designated by a \*.*



## Pocket Case Instruments.



2481-2482

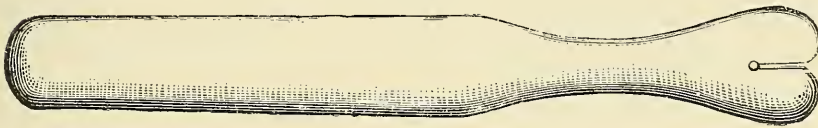


2483-2484

2487



2489

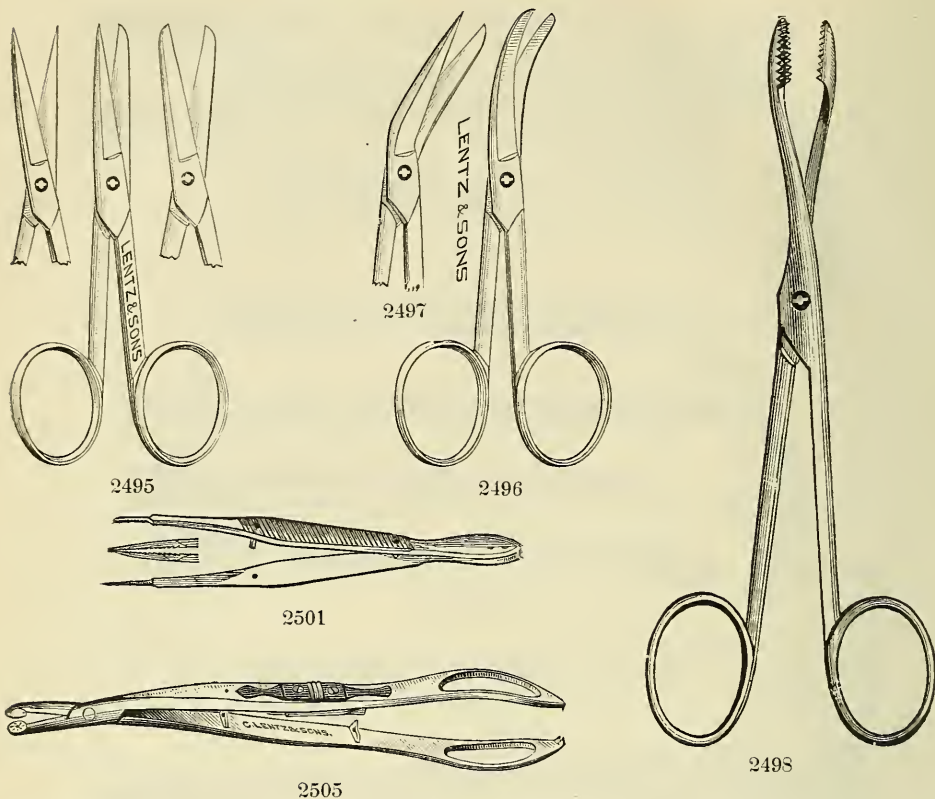


2490

|        |                                                                    |        |
|--------|--------------------------------------------------------------------|--------|
| 2481.* | Catheters Combined, male and female, plated.....                   | \$1 00 |
| 2482.* | “ “ “ “ silver.....                                                | 1 85   |
| 2483.* | “ “ Parker's, with Caustic holder, silver.....                     | 3 00   |
| 2484.* | “ “ “ plated with silver Caustic holder.....                       | 1 75   |
| 2485.  | “ “ “ “ with silver cover over Caustic holder.....                 | 2 10   |
| 2486.  | “ “ Female and Child, plated.....                                  | 1 15   |
| 2487.* | “ Female, plated, 35c.; silver.....                                | 60     |
| 2488.  | “ “ round holes in end, plated, 35c.; silver.....                  | 60     |
| 2489.* | Spatula, with Elevator, steel.....                                 | 75     |
| 2490.* | “ “ Tongue-tie, steel.....                                         | 45     |
| 2491.  | “ folding, in shell handle spring back.....                        | 85     |
| 2492.  | “ with knife blade, folding, spring back, plain, \$1.25; fine..... | 1 65   |

*All Instruments Illustrated are designated by a \*.*

## Pocket Case Instruments.



|        |                                                                                              |      |
|--------|----------------------------------------------------------------------------------------------|------|
| 2495.* | Scissors, straight, sharp, or blunt points, 4 inch, 60c. ; 4½ inch, 70c. ; 5 inch.....\$     | 80   |
| 2496.* | “ curved or flat, 4 inch, 70c. ; 4½ inch, 80c. ; 5 inch.....                                 | 95   |
| 2497.* | “ angular, 4½ inch, 80c. ; 5 inch.....                                                       | 95   |
| 2498.* | Dressing and Polypus Forceps.....                                                            | 90   |
| 2499.  | “ “ “ “ with catch.....                                                                      | 1 10 |
| 2500.  | “ “ “ “ catches, combining Needle and Artery Forceps, 4½ inch. (see page 34, Fig. 2333)..... | 1 35 |
| 2501.* | Splinter Forceps, short, 55c. ; long.....                                                    | 65   |
| 2502.  | Artery Forceps, plain, 4 inch, 4½ inch and 5 inch, each.....                                 | 60   |
| 2503.  | “ “ fenestrated, slide catch.....                                                            | 1 85 |
| 2504.  | “ “ Gross', with grooved jaw to hold Needles, slide catch.....                               | 1 75 |
| 2505.* | “ “ fenestrated, with Needle Holder at other end, slide catch.....                           | 2 00 |

Artery Forceps, see pages 32 and 33.

Hæmostatic Clamp Forceps, see pages 34 and 35.

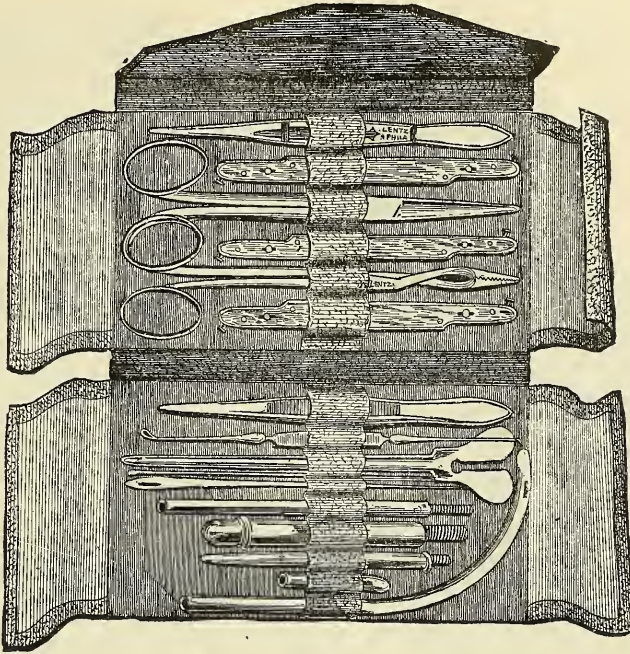
Needles, Silk, Silver Wire and Catgut, see Surgical Necessities, (pages 9 and 10.)

Needle Holders, see Eye Instruments and Surgical Necessities, (pages 12 and 13.)

*All Instruments Illustrated are designated by a \*.*

## Pocket Instrument Cases.

### 2507\*. Gross' Pocket Case, No. 1.

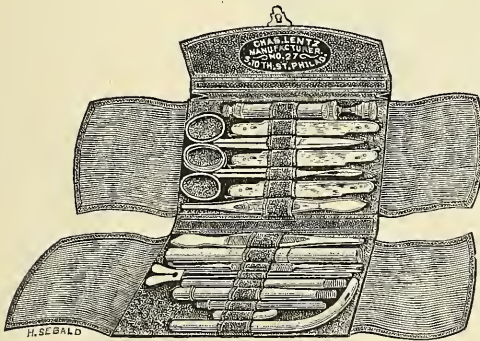


2507

One Scalpel and Straight Bistoury ; one Tenotome and Tenaculum ; two Bistouries, curved, sharp and probe pointed ; one Artery and Needle Forceps, combined ; one pair Spring Forceps ; one Scissors ; one Pean's Artery Forceps ; one Male and Female Catheter, with Caustic Holder ; one Gross' Ear Scoop and Hook ; one Grooved Director ; one Exploring Needle ; one pair Probes ; six Needles and Silk.

Double Knives, with tortoise shell or aluminum handles, with slide catch, fine morocco case, lined with velvet or leather.....\$13 50

### 2508\*. Gross' Improved Pocket Case, No. 2.



2508

One Scalpel and Straight Bistoury ; one Tenotome and Tenaculum ; two Bistouries, curved, sharp and probe pointed ; one Artery and Needle Forceps, combined ; one pair Spring Forceps ; one Scissors ; one Pean's Artery Forceps ; one Male and Female Catheter, with Caustic Holder ; one Gross' Ear Scoop and Hook ; one Grooved Director ; one Exploring Needle ; one pair Probes ; six Needles and Silk.

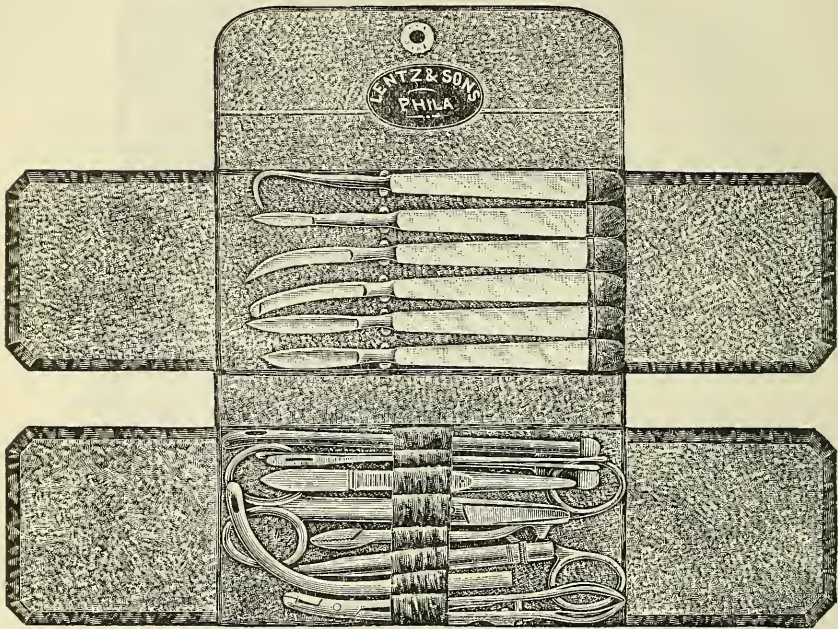
One Hicks' Indestructible Index Thermometer ; one Silver Barrel Hypodermic Syringe, with Needle in the end of piston rod. Double Knives, with tortoise shell or aluminum handles, with slide catch, fine morocco case, lined with velvet or leather.....\$16 50

*All Instruments Illustrated are designated by a \*.*



## Pocket Instrument Cases.

2509.\* GROSS' ASEPTIC POCKET CASE, No. 3.



2509

This case contains the same number of instruments as the No. 1 Gross' Case, and in respect the same with exception of the knives, instead of being double folding in handle, are single, and made of one piece of steel, and are held securely in their place by small steel clasps, instead of leather loops, the clasps are made of best watch spring steel. Contains : Scalpel, straight, curved sharp, and, curved probe Bistouries ; Tenotome ; Tenaculum ; Artery Forceps, fenestrated, combined with Needle Holder, (same as figure 2505) Plain Spring Forceps, Pean's Artery Forceps ; Scissors ; Combined Male and Female Catheter, with Caustic Holder ; Gross' Ear Spoon and Hook ; Pair Probes ; Grooved Director ; Exploring Needle ; Six Needles ; and assorted Silk. Morocco case, leather lined.....\$13 00

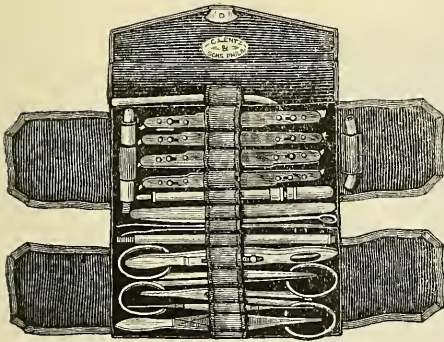
Physicians who already have the Scissors, Forceps Catheters, &c., we can furnish the above Pocket case with Knives, and the other side empty. and which they can fill with what they have, thus saving them considerable expense, as many of them have their instruments in good condition and are only desirous of having Aseptic knives.

Price of Pocket case, with the Six Steel handle instruments.....\$7 00

*All Instruments Illustrated are designated by a \*.*

## Pocket Instrument Cases.

### 2510.\* KEEN'S POCKET CASE, No. 4.



2510

One Scalpel and Straight Bistoury ; two Bistouries, curved, sharp and probe point ; one Tenotome and Tenaculum ; one Gum Lancet and Hollow Needle, one pair Dissecting Forceps ; one pair Fenestrated Bull-dog Forceps ; one pair Dressing Forceps, with catch ; one Gross' Ear Scoop and Hook ; one pair Scissors ; one Male and Female Catheter, with Caustic Holder and Exploring Needle ; one Grooved Director ; one pair Probes ; one Hypodermic Syringe, silver ; one Thermometer ; six Needles and Silk.

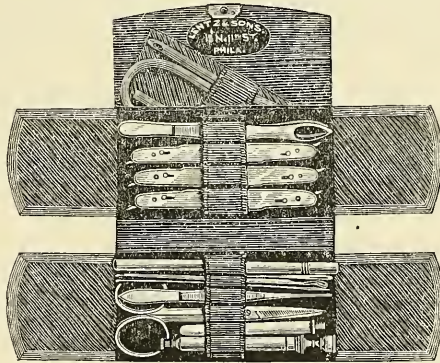
Double Knives with tortoise shell or aluminum handles with slide catch, morocco or Russia leather case.....\$18 50

### 2511. Agnew's Pocket Case. No. 5.

One Scalpel and Straight Bistoury ; two Curved Bistouries, sharp and probe pointed ; one Tenotome and Tenaculum ; one pair Artery and Needle-Forceps ; one pair Polypus Forceps ; one pair Scissors ; one pair Spring Forceps ; one Male and Female Catheter, with Caustic Holder ; one Grooved Director ; one Exploring Needle ; one Bellocq's Canula ; one Neill's Probe ; one pair Probes ; one Mercier's Catheter ; six Needles and Silk.

Double Knives with tortoise shell or aluminum handles with slide catch, morocco leather case.....\$16 00

### 2512.\* White's Pocket Case, No. 6.



2512

Contains one Scalpel and Straight Bistoury ; one Tenotome and Tenaculum ; two Bistouries, curved, sharp, and probe pointed ; one Artery Forceps, fenestrated, self-retaining ; one pair Spring Forceps, one Scissors ; one Exploring Needle ; one Ear Scoop and Grooved Director ; one Hypodermic Syringe, silver, with Needle in end of Piston Rod ; one Thermometer, Hick's best self-registering ; one pair Probes ; six Needles and Silk, and Jacques soft rubber Catheter.

Double Knives with tortoise shell or aluminum handles with slide catch, morocco leather case.....\$14 00

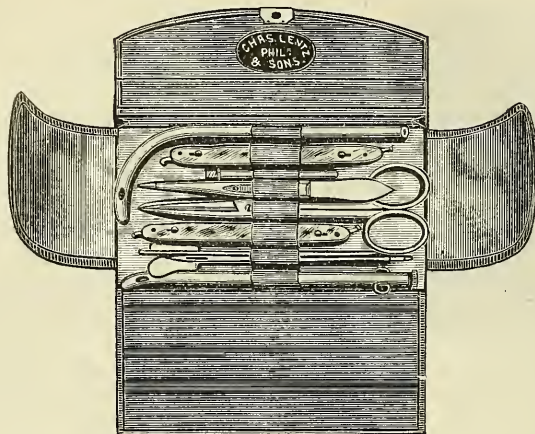
Pear's Artery Forceps can be substituted for either the Thermometer or Hypodermic Syringe.

*All Instruments Illustrated are designated by a \*.*



## Pocket Instrument Cases.

### 2513\*. Pocket Case, No. 7.



2513

Contains one Combined Catheter, Male and Female; one Scalpel and Straight Bistoury; one Curved Bistoury and Tenotome; one pair Scissors; one Grooved Director; one pair Probes; one Exploring Needle; one Artery and Needle Forceps; Needles and Silk.

Double Knives with tortoise shell or aluminum handles, with slide catch, one fold, morocco leather case.....\$9 75

### 2514. Deaver's Pocket Case, No. 8.

Contains one Scalpel and Straight Bistoury; two Bistouries, curved sharp and probe point; one Scissors; one Dissecting Forceps; one Exploring Needle; one Director; one Gross' Ear Spoon and Hook; one pair Pean's Artery Clamp Forceps; one pair Probes; six Needles and Silk.

Double Knives with tortoise shell or aluminum handles, with slide catch, one fold, morocco leather case, without lock.....\$9 00

### 2515. Thomas' Pocket Case, No. 9.

Contains one Straight Bistoury and Tenotome; one Scalpel and Curved Bistoury; one Artery and Needle Forceps, slide catch; one Scissors; one Director; one pair Probes; six Needles and Silk.

Double Knives with tortoise shell or aluminum handles, with slide catch, one fold, morocco or Russia leather case, with lock.....\$8 25

### 2516. Hunter's Pocket Case, No. 10.

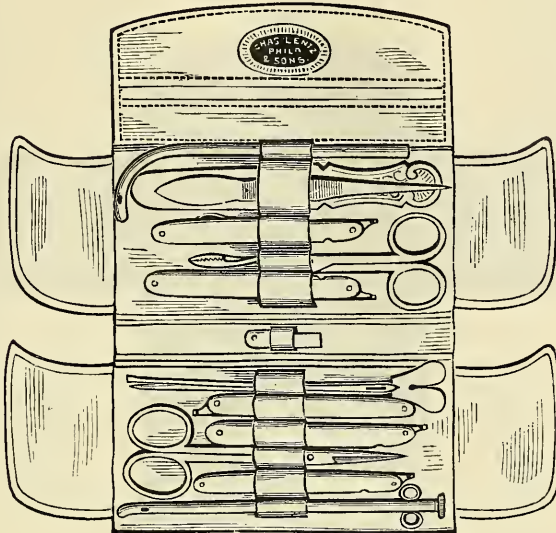
One Scalpel and Straight Bistoury with slide catch; one pair Scissors; one Exploring Needle; one Caustic Holder; one pair Artery and Needle Forceps combined; one Grooved Director, with Scoop; one Silver Probe; one Neill's Probe; Needles and Silk. Instruments of small size in Russia leather case, with lock.....\$7 00

*All Instruments Illustrated are designated by a \*.*



## Pocket Instrument Cases.

### 2517\*. Pocket Case, No. 11.



2517.

Contains one Scalpel ; one Bistoury, straight ; one Bistoury, curved, sharp point ; one Tenaculum ; one Gum Lancet ; one Thumb Lancet ; one pair Scissors ; one Dressing and Polypus Forceps ; one Dissecting Forceps ; one Director ; one Spatula ; two Probes ; one Combined Male and Female Catheter ; six Needles and Silk.

All Knives in rubber handles. In a morocco case, two folds, with lock.....\$8 00

Same Case as above, with Knives in shell handles..... 8 75

### 2518. Pocket Case, No. 12.

Contains one Straight Spear Bistoury ; one Gum Lancet ; one Tenaculum ; one Thumb Lancet, all in plain rubber handles ; one pair Dressing Forceps ; one Spatula ; one Director ; two Probes ; one pair Scissors ; six Needles and Silk. In a morocco case.....\$5 65

### 2519. Hughes' Pocket Case, No. 13.

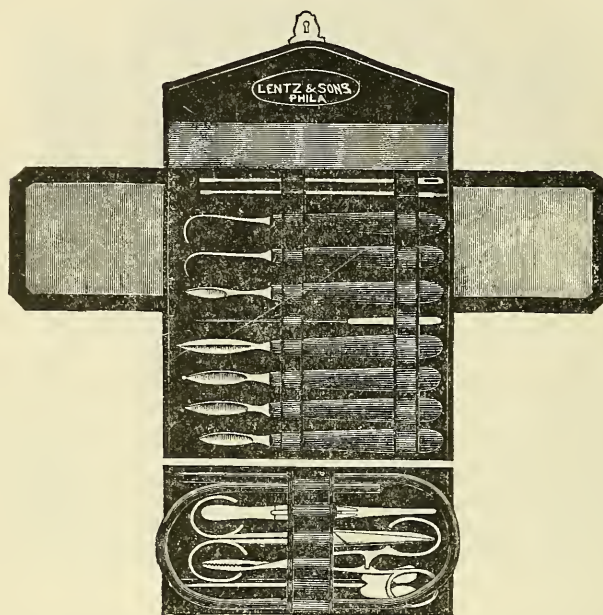
Contains Scalpel and Straight Bistoury ; two Bistouries, curved, sharp and probe pointed ; one Tenotome and Tenaculum ; one Artery and Needle Forceps combined ; one Dissecting Forceps ; one Scissors ; one Wells' Artery Clamp Forceps ; one Ear Scoop and Hook ; one Grooved Director ; one Pair Silver Probes ; one Double Eye Instrument, in metal case ; Needles and Silk.

Double Knives, with tortoise shell or aluminum handles, with slide catch ; one fold, Alligator leather case.....\$15 00

*All Instruments Illustrated are designated by a \*.*

## Pocket Instrument Cases.

### 2520.\* ASEPTIC POCKET CASE, No. 14.



2520

Contains two Scalpels, medium and small; one Probe Pointed Scalpel; one Lancet Shaped Abscess Knife; one Tenotome Knife; one Tenaculum; one Aneurism Needle; all steel nickel-plated Aseptic handles on knives; one Exploring Needle in flat steel handle; one pair Silver Probes; one Straight Scissors, with French Joint; one Dressings Polypus Forceps with Catch; one Artery and Needle Forceps, with slide catch; one Director and Tongue-Tie; one Soft Rubber Catheter; Needles and Silk.

Two-fold morocco case, leather-lined, size  $5\frac{1}{2} \times 2\frac{3}{4} \times \frac{3}{4}$ .....\$13 00

Bistouries can be substituted for any Scalpel not desired in the above case.

### 2521. ASEPTIC POCKET CASE, No. 15.

Contains one Scalpel; one Straight Bistoury; one Curved Sharp Point Bistoury; one Tenaculum; one Scissors; one Peau's Artery Forceps; one Dissecting Forceps; one Director and Aneurism Needle; one pair Probes, Needles and Silk.

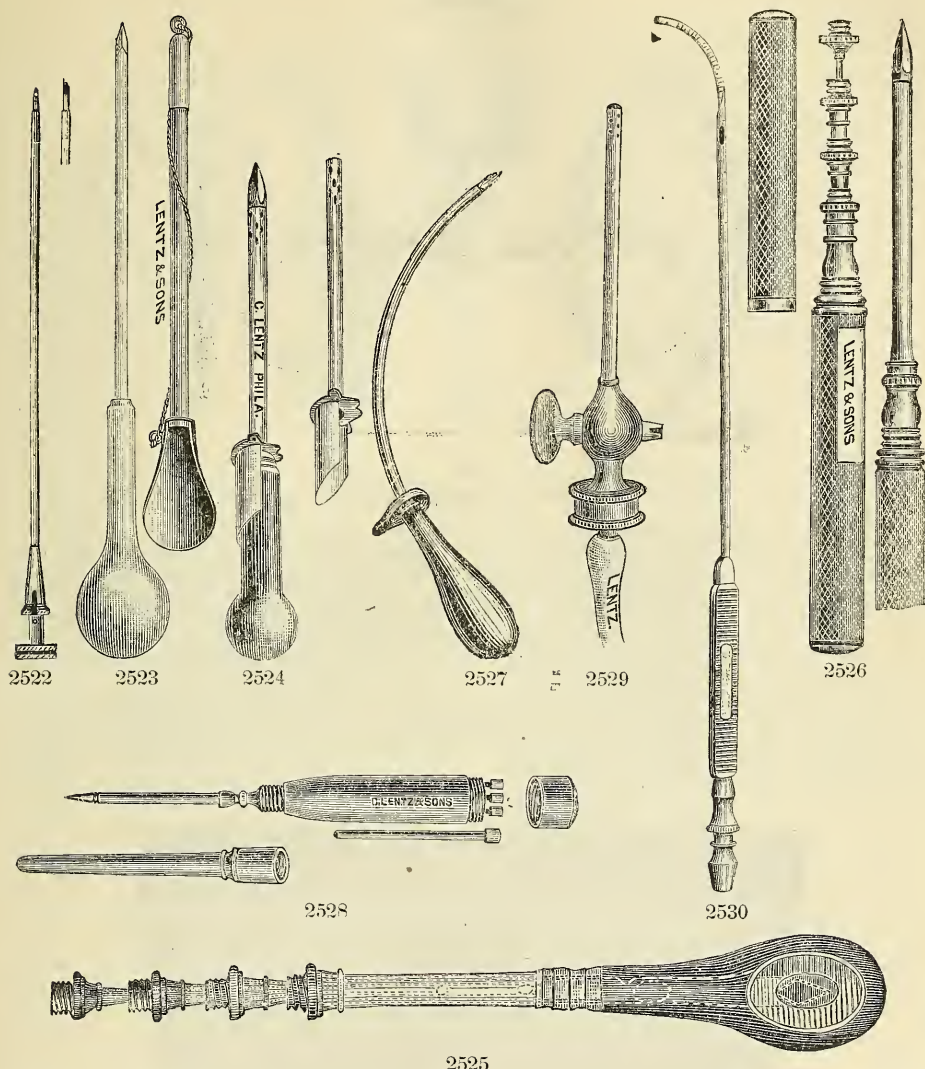
All Steel, nickel plated, Aseptic handles on knives.

Two-fold leather-lined case.....\$8 75

Pocket Cases made up according to order with any number and style of instruments desired.

*All Instruments Illustrated are designated by a \*.*

## Trocars.



|        |                                                                            |       |
|--------|----------------------------------------------------------------------------|-------|
| 2522.* | Trocars, Exploring, Silver Canula.....                                     | \$ 85 |
| 2523.* | “ metal handle, with Nickel-plated Canula, three sizes, each.....          | 90    |
| 2524.* | “ Birch's, metal handle, with Nickel-plated Canula, three sizes, each..... | 1 00  |

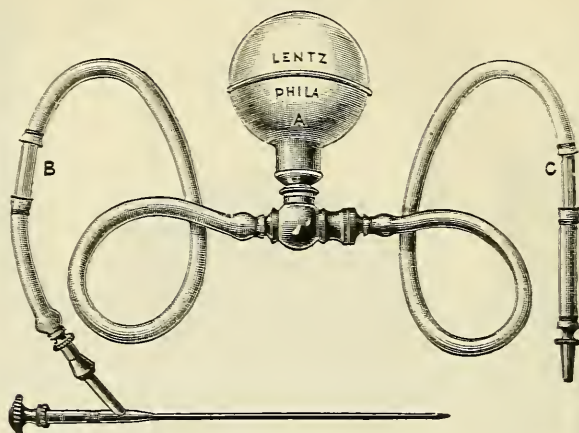
In all respects like the ordinary plain instrument, with the exception that one inch of the end of the Canula is fenestrated with as many oval apertures, similar to those in the end of a silver catheter, to prevent cessation of flow by occlusion of intestine or omentum.

|        |                                                                         |      |
|--------|-------------------------------------------------------------------------|------|
| 2525.* | Trocar and Canulas, set of four sizes, in metal handle and cover.....   | 4 50 |
| 2526.* | “ “ “ “ three “ “ case.....                                             | 3 50 |
| 2527.* | “ Curved for Rectum, metal handle, with Nickel-plated Canula.....       | 1 60 |
| 2528.* | “ Southey's for Anasarca, four Silver Canulas, in ivory case.....       | 3 00 |
| 2529.* | Paracentesis, Thoracis, Trocar and Canula, with stop-cock, Flint's..... | 2 75 |
| 2530.* | Pericardial Trocar, Roberts'.....                                       | 3 00 |

*All Instruments Illustrated are designated by a \*.*



## Aspirators.



2533.

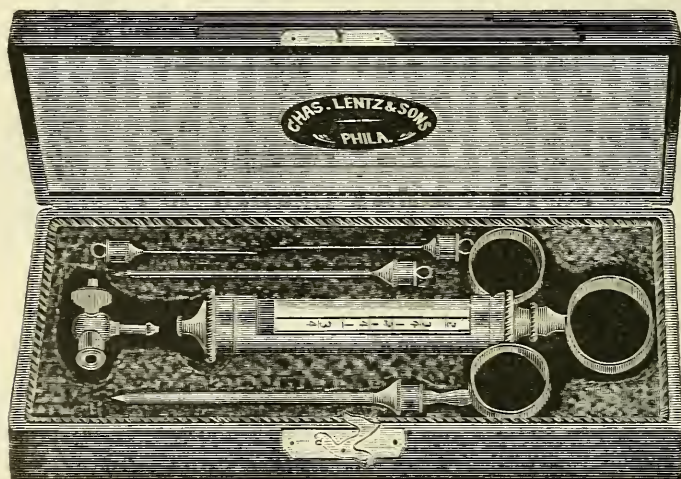
## 2533\*. The Perfect Aspirator and Injector.

This new Aspirator is made in the most durable and simple manner.

The above cut illustrates its construction. In place of an air-pump, a strong rubber suction ball *a* draws the fluid through the canula, a valve prevents regurgitation, and another valve discharges the fluid through the distal tube of rubber. Glass peep-tubes *b* and *c* enable you to observe the flow of fluid, while the distal end is, if you wish, kept immersed in the dejecta. After evacuating the sac, you can remove the tube from canula, and attach the other end of the tube, which will enable you to inject water, or a medical wash, into the cavity. Again reverse the tubes, and draw off the fluid as before.

The valves are brass, easily cleaned, and not injured by coming in contact with liquids. Metal fittings and trocar and canula are nickel-plated, the bulb and tubing are of very best quality rubber, of red color, so it will not soil readily.

Price, complete, with one Trocar and Canula, in Box.....\$3 50  
Extra sizes of Trocar and Canulas, each..... 1 25



2534.

## 2534\*. Aspirator and Hypodermic Syringe.

This Syringe is made in most improved form, holding 70 minims, with two way stop-cocks for use in aspirating, with two fine Hypodermic Needles, one Aspirating Needle, one Aspirating Trocar, in neat morocco case.....\$3 00

*All Instruments Illustrated are designated by a \*.*

## Aspirators.

### 2535.\* Potain's Aspirator.

With Universal Rubber Stopper, Indestructible Valves for both Aspiration or Injection, with three sizes of Needles, finely nickel-plated, in neat morocco case, velvet lined .....

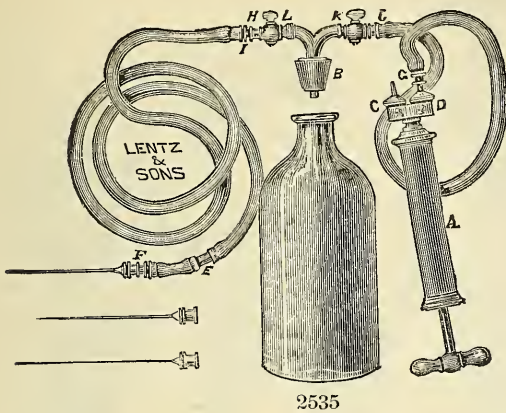
.....\$10 50

2536. Same as above with three Trocars and Canulas, with Stop-cock in addition, in large case.....\$15 00

Circular giving full description on application.

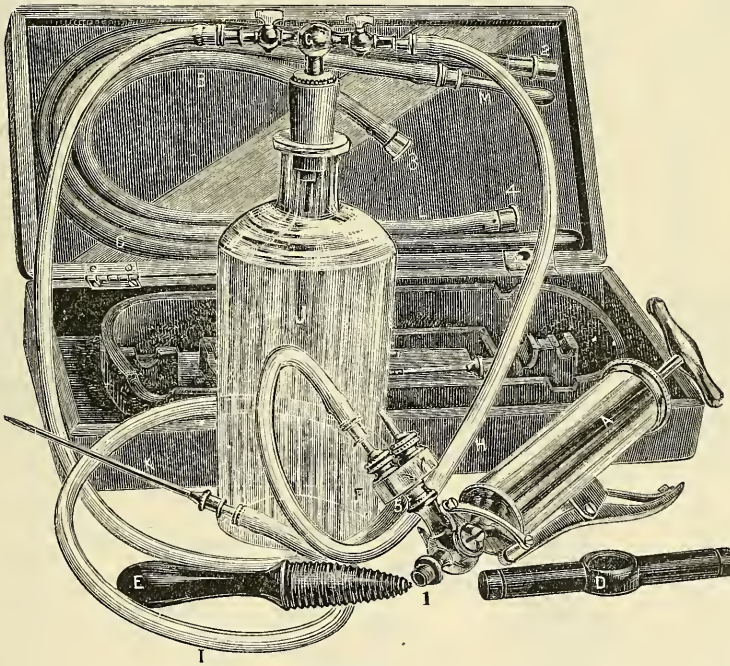
2537. Stomach Pump Attachment to Aspirator.....\$4 50

Consists of a Stomach Tube and a double Stop-cock, with a Stopper to fit larger vessels, and Tubing of larger calibre.



2535

### 2538.\* THE EXCELSIOR STOMACH PUMP, ASPIRATOR AND ENEMA SYRINGE.



2538

A complete Stomach Pump, Aspirator and Enema Syringe, combined, has long been sought for by the Medical Profession. In offering the Excelsior Pump and Aspirator we have combined three distinct instruments, each complete in itself, thus making one portable apparatus, and avoiding the necessity of purchasing each instrument separately. All the metallic parts are nickel-plated, and the whole is encased in a polished wood box, velvet lined.

Price.....\$15 00.

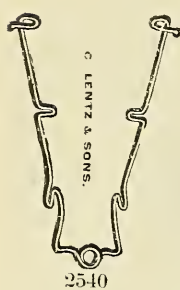
Circular giving full description on application.

*All Instruments Illustrated are designated by a \*.*

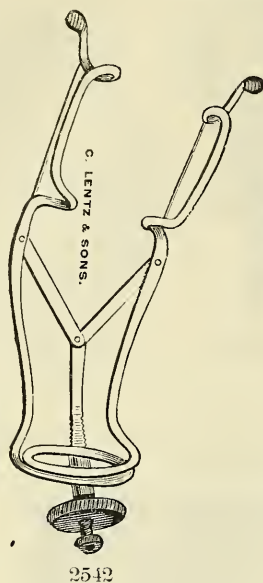


## Eye Instruments.

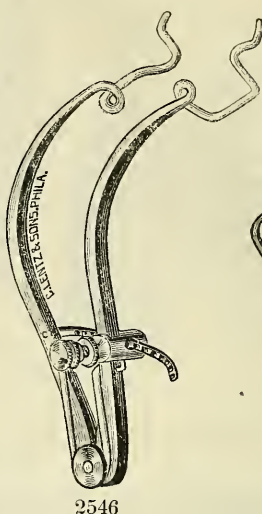
## SPECULUMS.



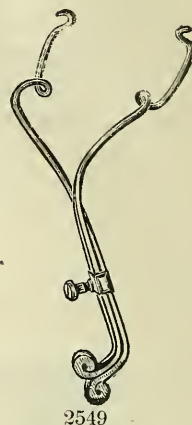
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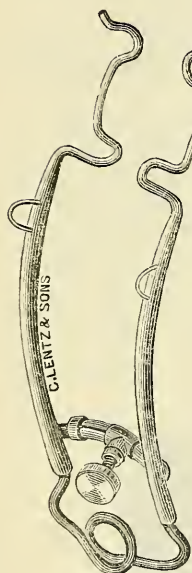
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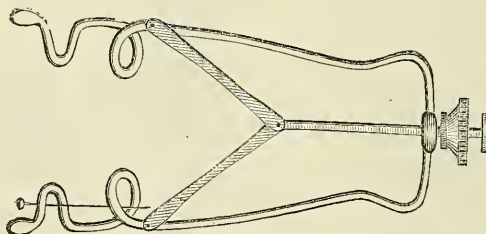
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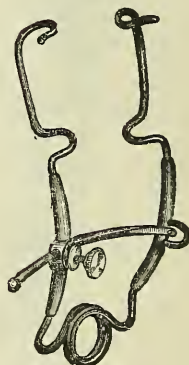
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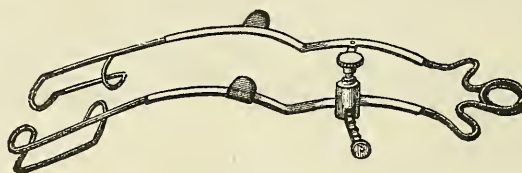
2547



2545



2541



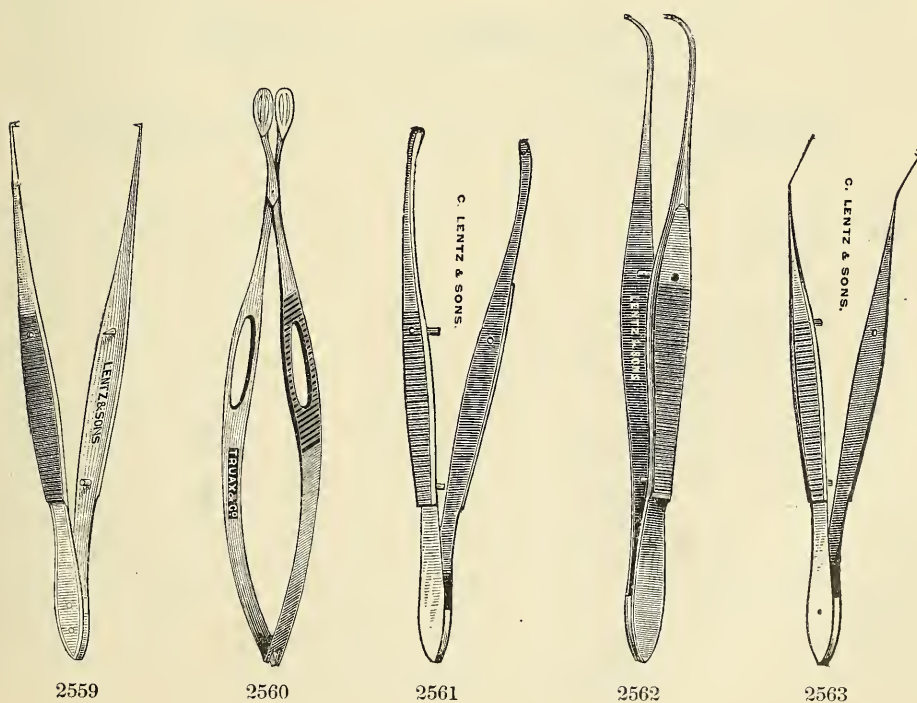
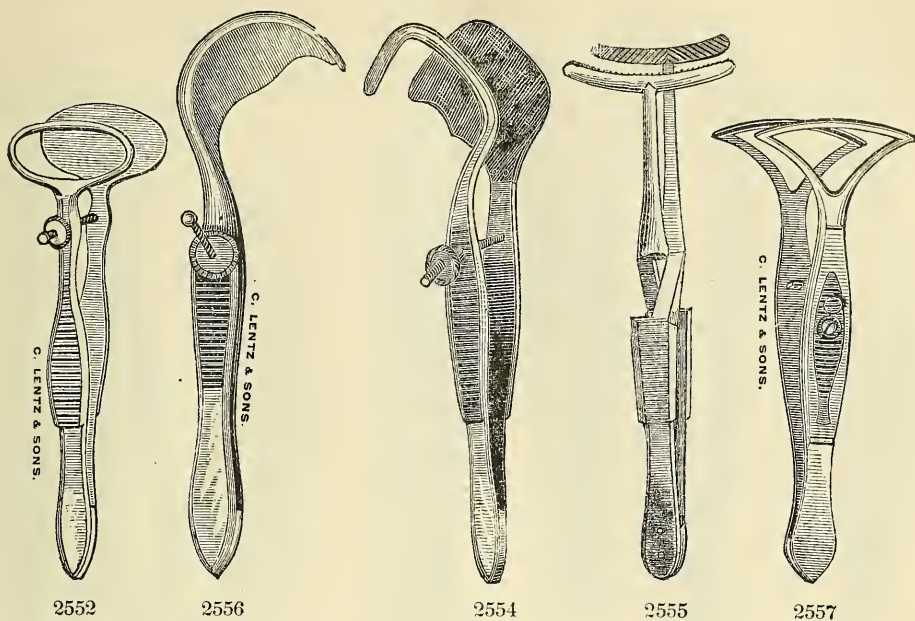
2548

|        |                                       |                       |       |
|--------|---------------------------------------|-----------------------|-------|
| 2540.* | Plain Wire                            | Speculum.....         | \$ 40 |
| 2541.* | “ “                                   | “ with set screw..... | 1 00  |
| 2542.* | Noyes' Improved                       | “ .....               | 1 75  |
| 2543.* | Lawrence's                            | “ .....               | 1 25  |
| 2544.* | Liebreich's                           | “ .....               | 1 50  |
| 2545.* | Galante's                             | “ .....               | 1 75  |
| 2546.* | Fox's                                 | “ .....               | 2 75  |
| 2547.* | Snowden's Improved                    | “ .....               | 1 50  |
| 2548.* | Graefe's Right and Left Speculum..... |                       | 1 75  |
| 2549.* | Liebold's Speculum.....               |                       | 1 75  |

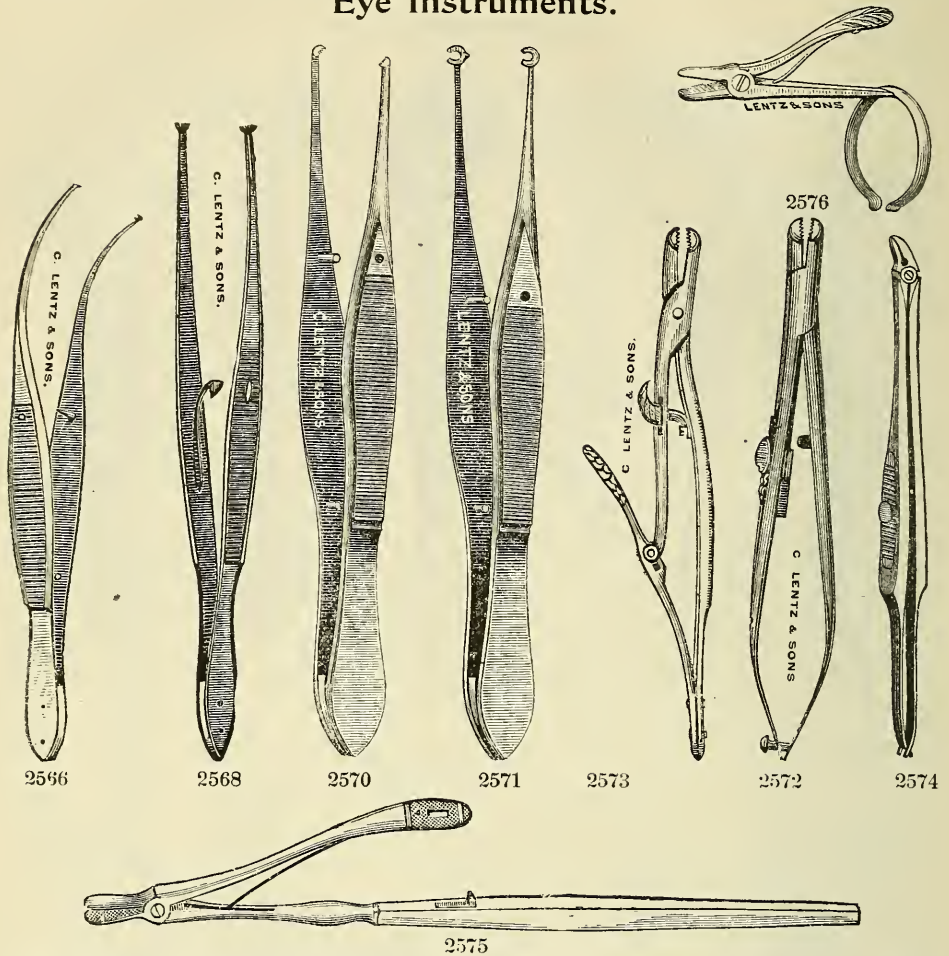
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# Eye Instruments.



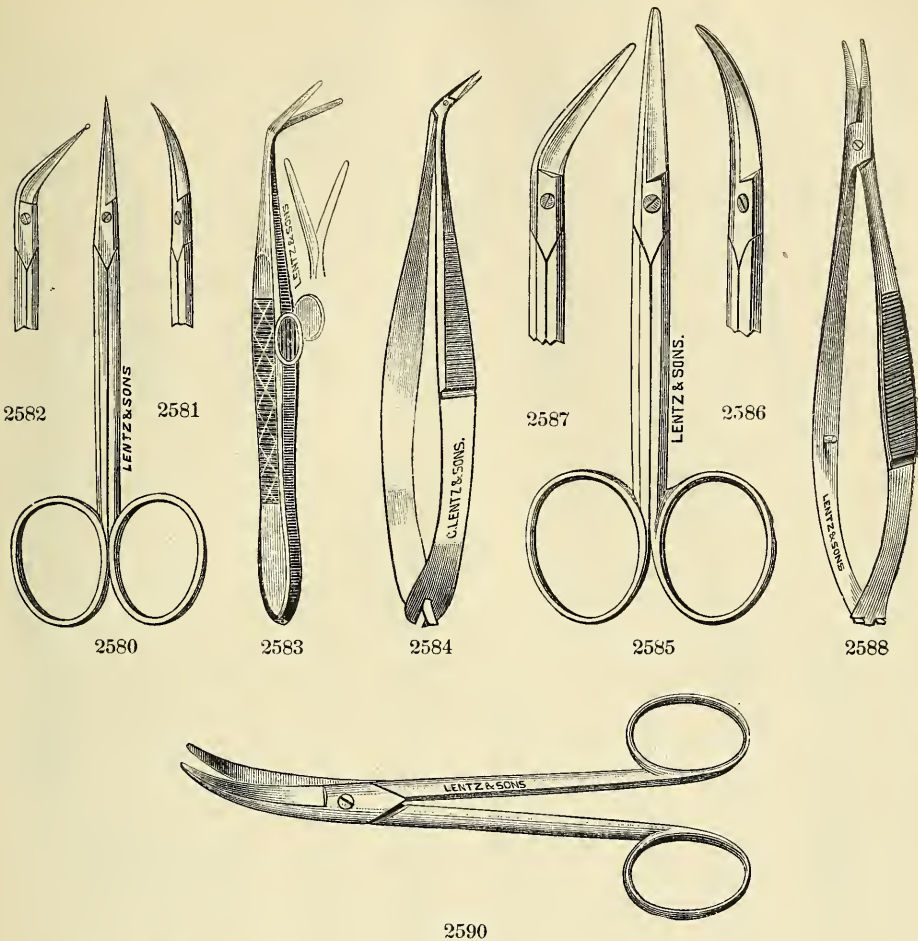
## Eye Instruments.



|        |                                      |        |
|--------|--------------------------------------|--------|
| 2552.* | Desmarre's Entropium Forceps.....    | \$2 25 |
| 2553.  | Knapp's " ".....                     | 3 00   |
| 2554.* | Snellen's " ".....                   | 2 25   |
| 2555.* | Cross-Action " ".....                | 2 00   |
| 2556.* | Lawrence's " ".....                  | 2 25   |
| 2557.* | Adams' " ".....                      | 2 50   |
| 2558.  | Depilating Forceps, Henry's.....     | 1 85   |
| 2559.* | Cilia Forceps.....                   | 75     |
| 2560.* | Lens and Foreign Body Forceps.....   | 2 60   |
| 2561.* | Iris Forceps, straight.....          | 1 10   |
| 2562.* | " " curved.....                      | 1 10   |
| 2563.* | " " angular.....                     | 1 10   |
| 2565.  | Strabismus Forceps, straight.....    | 1 00   |
| 2566.* | " " curved.....                      | 1 10   |
| 2567.  | Fixation " plain.....                | 1 10   |
| 2568.* | " " spring catch.....                | 1 50   |
| 2569.  | " " slide ".....                     | 2 00   |
| 2570.* | " and Strabismus Forceps, Fox's..... | 1 10   |
| 2571.* | Ligature Forceps, Fox's.....         | 1 50   |
| 2572.* | Needle Holder, Prout's.....          | 2 50   |
| 2573.* | " " Sand's.....                      | 3 25   |
| 2574.* | " " Levis'.....                      | 2 75   |
| 2575.* | " " Knapp's.....                     | 3 00   |
| 2576.* | " " Galezowsky's.....                | 2 25   |

*All Instruments Illustrated are designated by a \*.*

## Eye Instruments.



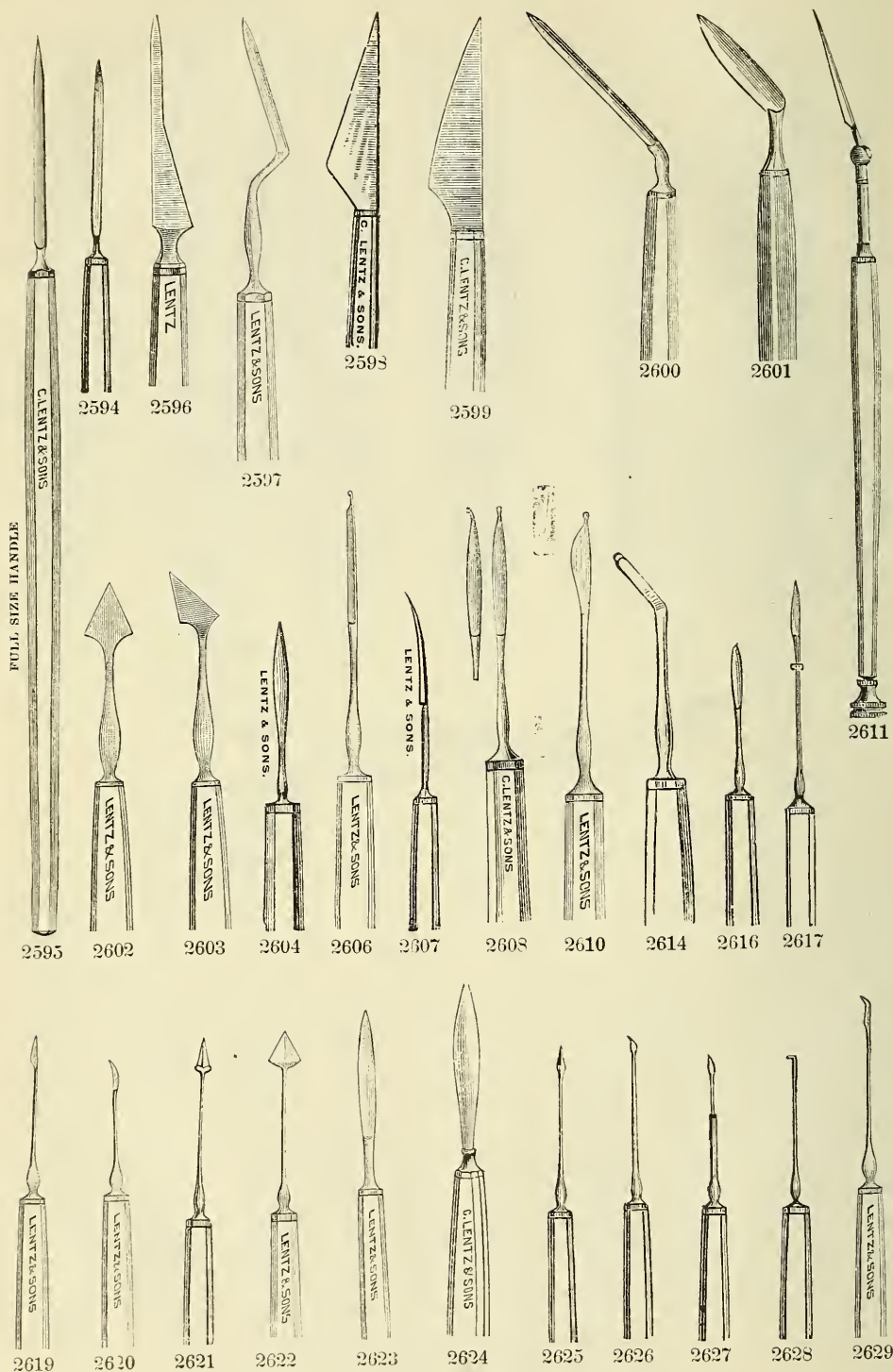
2590

|        |                                     |        |
|--------|-------------------------------------|--------|
| 2580 * | Iris Scissors, straight.....        | \$1 10 |
| 2581.* | “ “ curved.....                     | 1 10   |
| 2582.* | “ “ angular.....                    | 1 10   |
| 2583.* | “ “ Wecker's.....                   | 6 00   |
| 2584.* | “ “ McClure's.....                  | 4 50   |
| 2585.* | Strabismus Scissors, straight ..... | 1 10   |
| 2586.* | “ “ curved.....                     | 1 10   |
| 2587.* | “ “ angular.....                    | 1 10   |
| 2588.* | “ “ Jackson's.....                  | 3 50   |
| 2589   | Tendon “ Stevens'.....              | 2 25   |
| 2590.* | Enucleation Scissors, curved.....   | 1 10   |
| 2591.  | “ “ “ Norris'.....                  | 1 25   |

*All Instruments Illustrated are designated by a \*.*



## Eye Instruments.

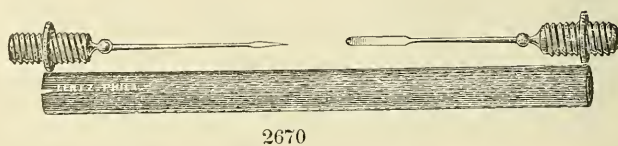
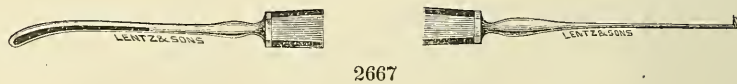
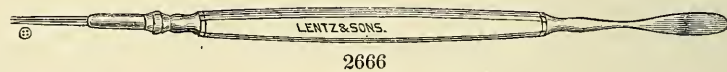
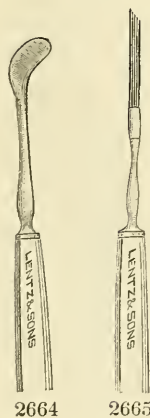
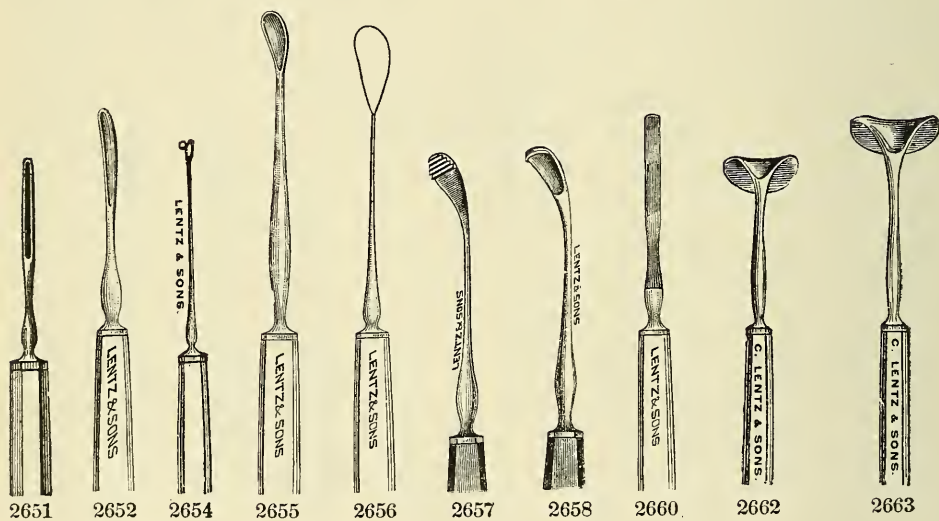
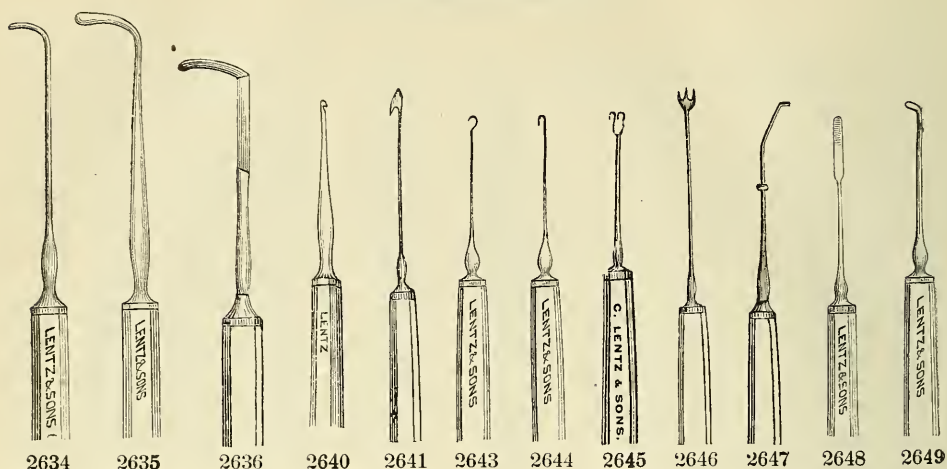


## Eye Instruments.

|        |                                                                          |           |
|--------|--------------------------------------------------------------------------|-----------|
| 2594.* | Cataract Knife, Graefe's, narrow.....                                    | \$1 15    |
| 2595.* | “ “ “ medium.....                                                        | 1 15      |
| 2596.* | “ “ Jackson's.....                                                       | 1 75      |
| 2597.* | “ “ Taylor's, modified by Fox, used in operation for conical cornea..... | 1 50      |
| 2598.* | “ “ Beer's, three sizes.....                                             | each 1 10 |
| 2599.* | “ “ Zehender's.....                                                      | 1 10      |
| 2600.* | “ “ Baeder's, right and left.....                                        | each 1 50 |
| 2601.* | Iridectomy Knife, Agnew's.....                                           | 1 30      |
| 2602.* | Keratome, straight, three sizes.....                                     | each 1 15 |
| 2603.* | “ angular “ “ .....                                                      | “ 1 30    |
| 2604.* | Scalpel, three sizes.....                                                | “ 1 10    |
| 2605.  | Bistoury, straight or curved.....                                        | 1 15      |
| 2606.* | Canalicula Knife, Weber's, straight.....                                 | 1 15      |
| 2607.* | “ “ “ curved, sharp or probe point.....                                  | 1 15      |
| 2608.* | “ “ Bowman's, straight or curved probe point.....                        | 1 15      |
| 2609.  | “ “ Agnew's, with long, pliable shank.....                               | 1 25      |
| 2610.* | “ “ Noyes'.....                                                          | 1 15      |
| 2611.* | “ “ “ movable blade.....                                                 | 3 00      |
| 2612.  | “ “ Stilling's.....                                                      | 1 10      |
| 2614.* | Secondary Knife, Desmarre's, angular.....                                | 1 25      |
| 2615.  | “ “ “ straight.....                                                      | 1 10      |
| 2616.* | Iris Knife.....                                                          | 1 10      |
| 2617.* | “ “ with stop.....                                                       | 1 25      |
| 2618.  | “ “ sickle-shaped.....                                                   | 1 25      |
| 2619.* | Knife Needle, Hayes.....                                                 | 1 10      |
| 2620.* | “ “ Knapp's, curved.....                                                 | 1 20      |
| 2621.* | Paracentesis Trocar, Desmarre's, narrow.....                             | 1 25      |
| 2622.* | “ “ “ broad .....                                                        | 1 35      |
| 2623.* | “ Needle, broad.....                                                     | 1 00      |
| 2624.* | “ “ extra broad.....                                                     | 1 00      |
| 2625.* | Cataract Needle, Beer's, straight.....                                   | 1 00      |
| 2626.* | “ “ “ curved.....                                                        | 1 00      |
| 2627.* | “ “ Bowman's, with stop.....                                             | 1 00      |
| 2628.* | Cystotome, Graefe's.....                                                 | 1 10      |
| 2629.* | “ Knapp's.....                                                           | 1 15      |
| 2630.  | “ Keyser's, hoe-shaped.....                                              | 1 15      |

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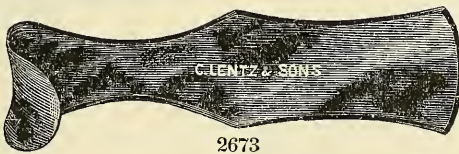
## Eye Instruments.



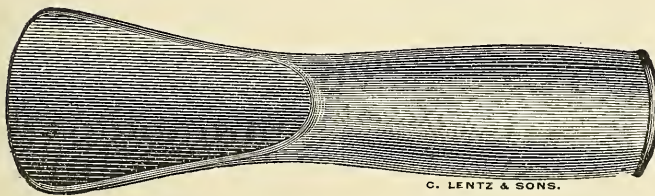


## Eye Instruments.

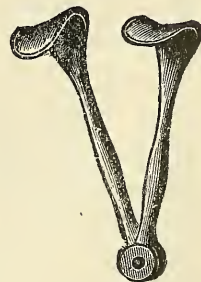
|        |                                                         |           |
|--------|---------------------------------------------------------|-----------|
| 2634.* | Strabismus Hook, small.....                             | \$ 90     |
| 2635.* | “ “ large.....                                          | 90        |
| 2636.* | “ “ Bistoury.....                                       | 1 75      |
| 2637.  | “ “ Weckers', double, for advancing the muscle.....     | 3 00      |
| 2638.  | Tenotomy “ Steven's.....                                | 1 15      |
| 2639.  | Traction “ “.....                                       | 1 50      |
| 2640.* | Streatfield's Ivory Hook.....                           | 1 00      |
| 2641.* | Lazardi's, Hooked Needle.....                           | 1 15      |
| 2642.  | Noyes' Barbed Hook.....                                 | 1 15      |
| 2643.* | Tyrell's Sharp Hook.....                                | 90        |
| 2644.* | “ Blunt “.....                                          | 90        |
| 2645.* | Double Fixation Hook.....                               | 1 15      |
| 2646.* | Ophthalmostate, three point.....                        | 1 10      |
| 2647.* | Graefe's Tractor.....                                   | 1 10      |
| 2648.* | Dix's Spud, for removing foreign bodies.....            | 90        |
| 2649.* | Schell's Spud, “ “ “.....                               | 1 10      |
| 2650.  | Knapp's Hook, “ “ “.....                                | 1 30      |
| 2651.* | Gonge, small, “ “ “.....                                | 1 15      |
| 2652.* | Daviel's Scoop, German-silver.....                      | 1 00      |
| 2653.  | Wecker's Scoop, steel, sharp edge.....                  | 1 30      |
| 2654.* | Graefe's Lens Scoop.....                                | 1 25      |
| 2655.* | Shell or Rubber Lens Scoop.....                         | 1 25      |
| 2656.* | Levis' Steel Lens Scoop, very delicate.....             | 1 25      |
| 2657.* | Critchett's Serrated Scoop, German-silver.....          | 1 15      |
| 2658.* | “ Concave “ “ “.....                                    | 1 15      |
| 2659.  | Schell's Chalazion “ “ “.....                           | 1 10      |
| 2660.* | Spatula, tortoise shell.....                            | 1 10      |
| 2661.  | “ German-silver.....                                    | 90        |
| 2662.* | Desmarre's Lid Retractor, small.....                    | 1 15      |
| 2663.* | “ “ medium and large.....                               | each 1 25 |
| 2664.* | Scarificator, for conjunctiva.....                      | 1 10      |
| 2665.* | Tattooing Needle, Baader's.....                         | 1 50      |
| 2666.* | “ “ with silver Spatula.....                            | 2 60      |
| 2667.* | Cystotome and Daviel's Scoop.....                       | 1 85      |
| 2668.  | Tyrell's Sharp Hook and Daviel's Scoop.....             | 1 85      |
| 2669.  | Critchett's Serrated and Concave “.....                 | 1 85      |
| 2670.* | Spud and Needle, in metal case, for pocket.....         | 1 60      |
| 2671.  | Gonge and Curved Needle, in ivory case, for pocket..... | 1 85      |
| 2672.* | Desmarre's Lid Retractor, two sizes, jointed.....       | 1 30      |
| 2673.* | Fox's Lid Retractor, tortoise shell, two sizes.....     | each 90   |
| 2674.* | Jaeger's Lid Holder, hard rubber, 50c.; shell.....      | 1 00      |



2673



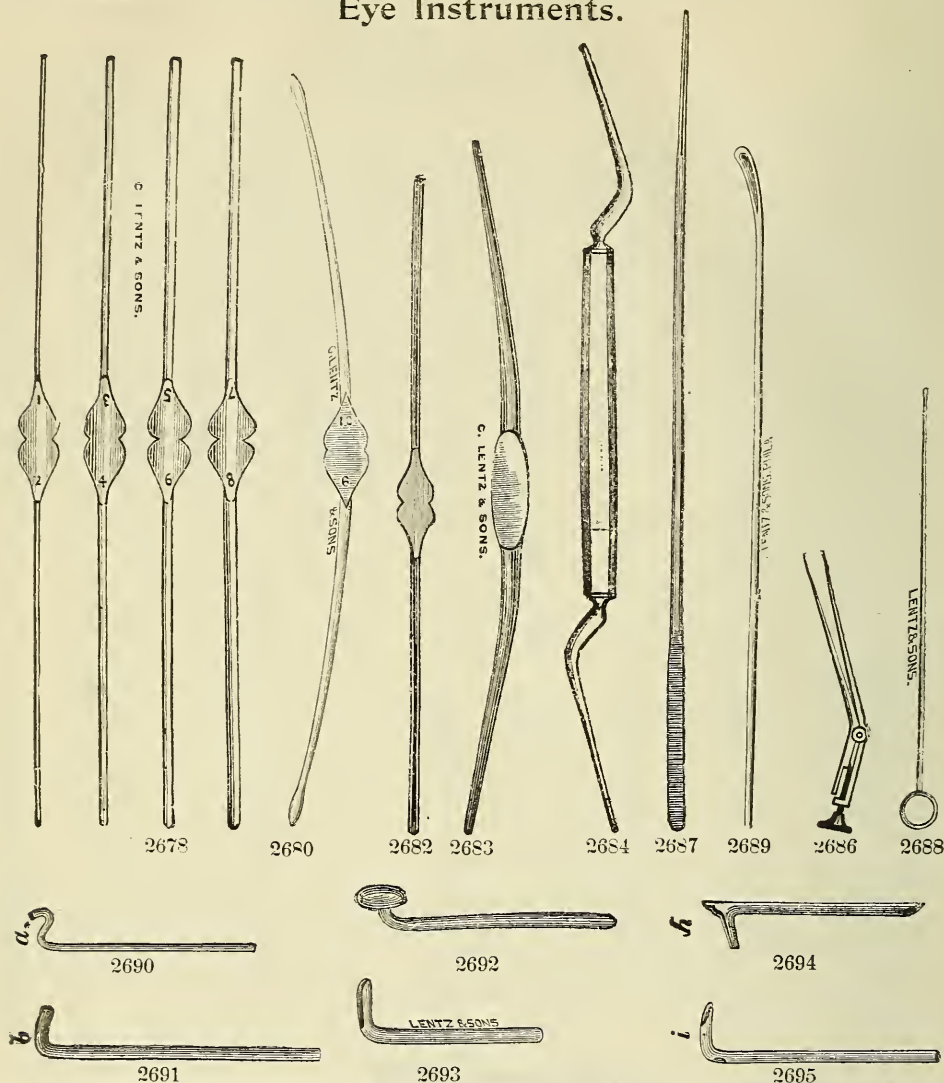
2674



2672

*All Instruments Illustrated are designated by a \*.*

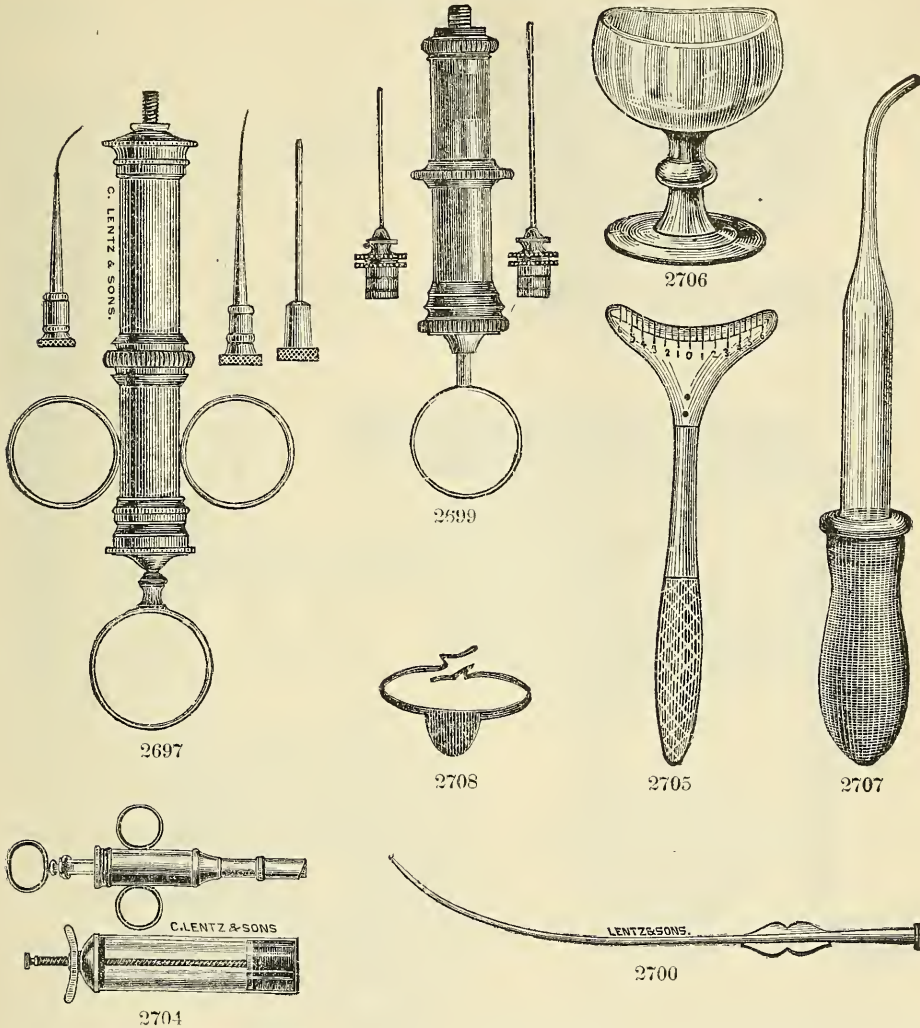
## Eye Instruments.



|        |                                                                   |           |
|--------|-------------------------------------------------------------------|-----------|
| 2678.* | Bowman's Lachrymal Probes, silver, each 55c.; set of 8 sizes..... | \$2 10    |
| 2679.  | William's " " " " 75c.; " 8 " .....                               | 2 25      |
| 2680.* | Fox's " " " " each, 75c.; set of 6 sizes.....                     | 2 25      |
| 2681.  | Theobald's " " " " plated, each, 50c.; set of 16 sizes.....       | 3 50      |
| 2682.* | Spier's " " " " grooved, silver.....                              | 75        |
| 2683.* | Weber's " " Dilator, plain, 65c.; graduated.....                  | 75        |
| 2684.* | Levis' " " " " two sizes, ivory handle.....                       | 1 50      |
| 2685.  | Peck's " " " " conical, silver.....                               | 40        |
| 2686.* | Galezowski " " " " steel.....                                     | 1 90      |
| 2687.* | Bowman's " " Director, silver.....                                | 55        |
| 2688.* | Anel's Probe, silver.....                                         | 35        |
| 2689.* | Meibomian Scoop, silver.....                                      | 55        |
| 2690.* | Lachrymal Style, " " " " .....                                    | 25        |
| 2691.* | " " " " " " .....                                                 | 25        |
| 2692.* | " " " " " " .....                                                 | 35        |
| 2693.* | " " " " Canulas, silver.....                                      | 50        |
| 2694.* | " " " " " " .....                                                 | 50        |
| 2695.* | " " " " " " .....                                                 | 40        |
| 2696.  | Lead Wire for Styles, per foot.....                               | 15 and 20 |

*All Instruments Illustrated are designated by a \*.*

## Eye Instruments.



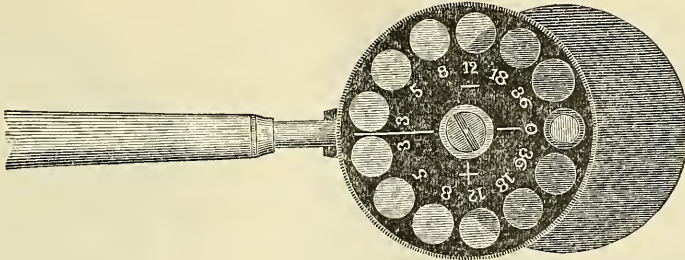
|        |                                                             |              |
|--------|-------------------------------------------------------------|--------------|
| 2697.* | Anel's Lachrymal Syringe, three silver points, in case..... | \$3 75       |
| 2698.  | “ “ “ silver, three gold points, in case.....               | 8 00         |
| 2699.* | Agnew's “ “ metal, two silver “ “ .....                     | 3 25         |
| 2700.* | Wecker's “ Canula, silver.....                              | 1 15         |
| 2701.  | “ “ “ “ with Bulb Syringe, tubing and fittings.....         | 2 75         |
| 2702.  | Bowman's Instrument for Exhausting Soft Cataract.....       | 2 00         |
| 2703.  | Teale's “ “ “ “ “ in case.....                              | 4 00         |
| 2704.* | Horteloup's Artificial Leech, improved, in case.....        | 8 00         |
| 2705.* | Strabometer, ivory.....                                     | 1 65         |
| 2706.* | Eye Bath, Glass.....                                        | 25           |
| 2707.* | Droppers, straight or curved point.....                     | per dozen 50 |
| 2708.* | Eye Shade, silk, single, two sizes.....                     | each 15      |
| 2709.  | “ “ “ double, “ “ “ .....                                   | “ 25         |
| 2710.  | Cantery Iron, Desmarre's.....                               | 2 25         |

*All Instruments Illustrated are designated by a \*.*



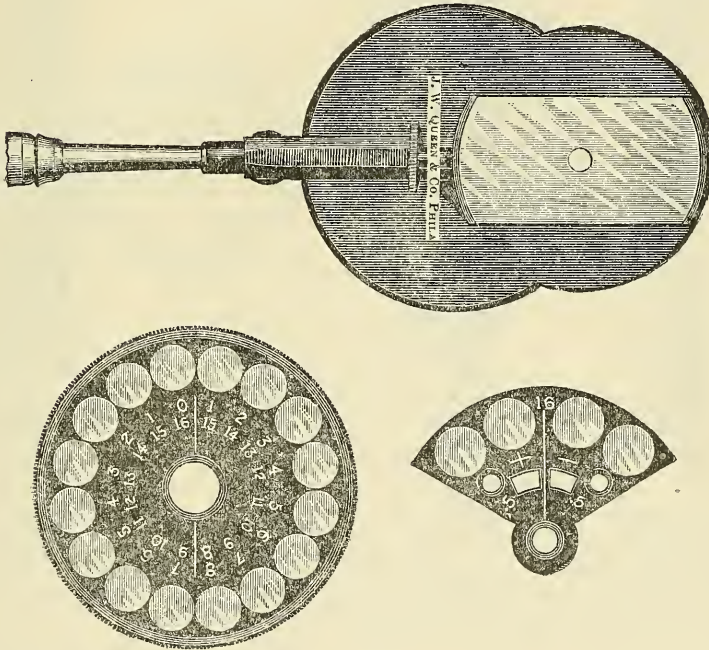


## Eye Instruments.



2731

|        |                                            |        |
|--------|--------------------------------------------|--------|
| 2730.  | Loring's Ophthalmoscope, seven Lenses..... | \$6 00 |
| 2731.* | “ “ twelve “ .....                         | 9 00   |
| 2732.  | “ “ fifteen “ .....                        | 11 00  |



2733

|        |                                  |         |
|--------|----------------------------------|---------|
| 2733.* | Loring's New Ophthalmoscope..... | \$20 00 |
|--------|----------------------------------|---------|

Consists of a single disc and a segment of a disc, as shown in the drawing.

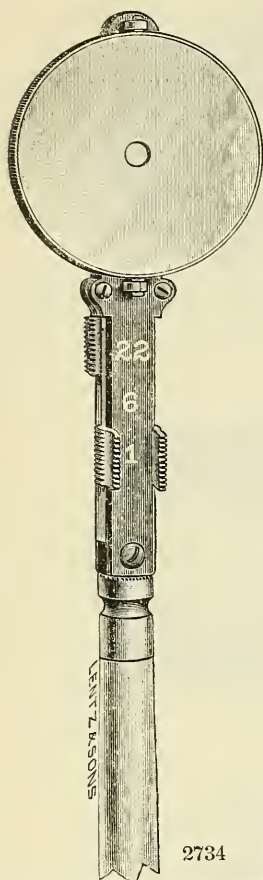
The single disc contains sixteen glasses on the metric system, the plus being numbered in white and the minus in red. The first row of numbers, or that just beneath the glass, shows the real value of the glass; the second or inner row shows the result of the combinations when the quadrant is in position. The quadrant rotates immediately over the disc and around the same centre, and contains four glasses,—5,—16, and  $\times 0.5$ ,  $\times 16$ . When it is not used the quadrant is beneath its cover. The instrument then represents a simple Ophthalmoscope with sixteen perforations, the series running with an interval of 1 D, and extending from 1 to 7 plus, and from 1 to 8 minus. This is ample for all ordinary work, as the interval of 1 D is as close as even an expert usually desires, and can, with a little experience, be used for even very minute discrepancies. From this glass we get successive half-dioptic from 1 to 8 plus and from 1 to 9 minus. In this way we have, so to speak, a fine and coarse adjustment, as in the microscope. If the higher numbers are desired, these are obtained by combinations with those of the quadrant. These progress regularly up to 16 D, every dioptric being marked upon the disc; above this, up to  $\times 23$  D and  $-24$  D, we have to simply add the glass which comes beneath the 16 D, turning always in the same direction. The latest form of this instrument is that of setting the lenses of the quadrant into a full disc which serves as a cover for the lenses of the lower disc.

The mirror shown in the drawing is the “tilting” mirror. If preferred, however, the “three-quarter” mirror or the common circular mirror can be employed.

*All Instruments Illustrated are designated by a \*.*



## Eye Instruments.



2734

2734.\* The Polyclinic Ophthalmoscope, devised by Dr. Jackson, has a full-sized circular tilting mirror, and the lenses arranged in two slides, controlled by a spring stop, that secures their accurate adjustment before the sight hole. By combination of the lenses, any in the following series can be obtained without taking the instrument away from the eye.

Convex, 1, 2, 3, 4, 6 and 12 dioptries.

Concave, 1, 2, 4, 6, 10 and 22 " "

A series sufficient to give the best view of the various parts of the interior of the eye in any case; and all that can be used to advantage for the measurement of refraction, except by the most accomplished experts. It is substantial, easy to use, possessing all the essentials of a first-class instrument, at a moderate price, with one Condensing Lens, in case, \$9 00

2735.\* Jackson's Ophthalmoscope, complete, form of refraction ophthalmoscope. It has the rectangular tilting concave mirror, with a back piece  $1\frac{1}{2}$  inches in diameter to shield the observer's eye from extraneous light. The lenses, instead of being placed in broad circular disks, are arranged in two narrow slides that move vertically just back of the mirror.

2735

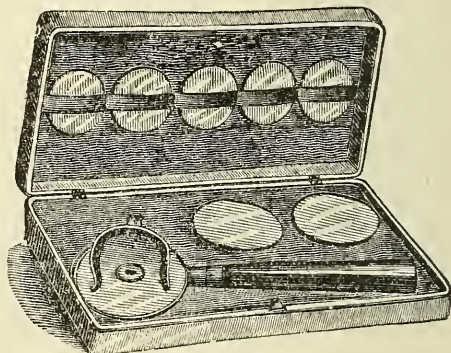
One of the slides contains plus lenses 1, 2, 3, 4 and 5 dioptries, the other contains plus 6 and minus 0.5, 6, 12 and 18 dioptries. These are capable of furnishing the following series: plus 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 7, 8, 9, 10 and 11 D, minus 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16,

17 and 18 D. Other series of lenses will be furnished if desired, for which see *Ophthalmic Review* for January, 1887. The slides extend down in the stem of the instrument and are moved by milled projections at the lower end. It is the thinnest tilting mirror ophthalmoscope and the lightest refraction ophthalmoscope yet offered. The method of moving the lenses is exceedingly simple and most convenient; all the different combinations can be made without taking the instrument from the eye. In using it the observer's hand does not have to come in front of the patient's face so much as in the use of instruments made with the Rekoss disc.

With convex lens,  $1\frac{1}{2}$  inches in diameter, in case.....\$17 50

2736.\* Liebreich's Ophthalmoscope, with two bi-convex condensing lenses,  $1\frac{1}{4}$  and 2 inches focus, and a series of five lenses of various foci, fitting on an arm behind the perforated mirror.

In morocco case.....\$3 00

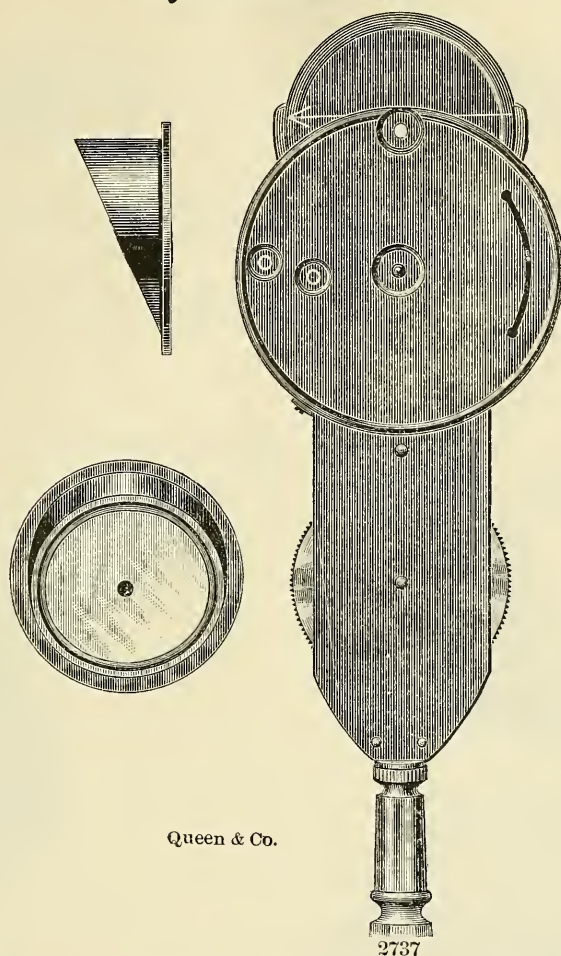


2736

Any other styles of Ophthalmoscopes  
furnished at lowest prices.



## Eye Instruments.



Queen &amp; Co.

2737

- 2737.\* Fox's Ophthalmoscope, with two mirrors.....\$28 00  
Complete description on application.

### 2739. Trial Cases.

Complete set of Spherical Trial Lenses, in silver and gold-plated rings; numbers stamped on handles.

Consisting of 24 pairs each, Spherical, Convex and Concave Lenses, from 5 to 80 inches, (0.50 to 8 Dioptrics); 1 Nickel-plated Trial Frame and Disc; all in handsome box, velvet lined \$30 00

### 2740. Complete Set of Trial Lenses.

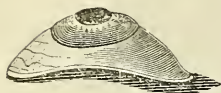
Consisting of 32 pairs each of Spherical, Convex and Concave, from 2 to 144 inches, (0.25 to 20 Dioptrics); 18 pairs each of Convex and Concave Cylindrical, from 6 to 144 inches; 10 Prisms, from 2° to 20°; 5 Colored Lenses; 1 Ground Lens; 1 Metal Disc, with round hole; 2 Stenopaic Metal Discs; 1 Solid Metal Disc; 1 Maddox Rod; 1 Adjustable Trial Frame, with revolving graduated fillings for holding the various lenses; 1 Plain Frame, all in a fine morocco velvet lined box.....\$60 00

The Trial cases described above are those most generally in use.

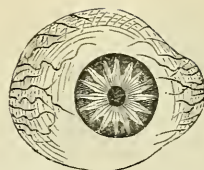
Any set desired can be furnished.

*All Instruments Illustrated are designated by a \*.*

## Artificial Eyes.



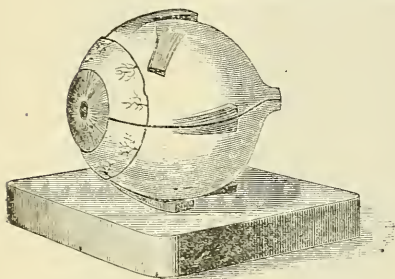
2741



2741.\* Artificial Eyes of all sizes and colors, finest quality, price to physicians.....each \$5 00  
In ordering Artificial Eyes the following questions should be answered :

1. If for right or left eye?
2. If eyeball has been shrunk or removed?
3. Has an artificial eye been worn?
4. Is the sound eye prominent, very full, or sunken?
5. Is the white of the eye a clear white, or of a dark or yellowish tinge?
6. Color of Iris?
7. Diameter of Iris?
8. Diameter of Pupil?
9. Distance from inner to outer canthus?

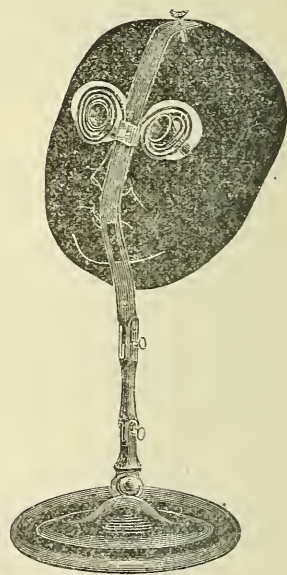
## ANATOMICAL MODELS OF THE EYE.



2743



2744



2745

- 2743.\* Bock-Stieger Model of Human Eyeball, made of plaster-of-paris,  $5\frac{1}{2}$  inches diameter. Can be taken to pieces, and then shows the cornea, iris, crystalline lens, vitreous humor, and the coatings, including the results of microscopic examination upon the retina...\$6 50
- 2744.\* Auzoux's Dissected Model of the Eye: the most perfect and accurate ever made. The material is Papier-Maché, and the whole is accurately dissected so as to be taken apart, showing successively the *Sclerotic* and *Choroid* coats, and *Cornea*, *Retina*, *Iris*, *Pupil*, *Crystalline Lens*, *Aqueous Vitreous*, *Humors*, also the *Muscles*, *Nerves* and *Blood Vessels* lying in the orbit around the eyeball; all parts having the natural colors, with full descriptive pamphlet.....\$30 00
- Same of German manufacture..... 25 00
- 2745.\* Waldau's Phantom Face for Experimental Operations of the Eye..... 10 00

*All Instruments Illustrated are designated by a \*.*

## Set of Eye Instruments.

### 2750. Eye Case, No. 1.

Contains one pair Strabismus Scissors ; one Strabismus Hook ; one pair Fixation Forceps ; one Double Hook ; one Wire Speculum, plain.

In a morocco case, lined with velvet.....\$6 00

### 2751. Eye Case, No. 2.

Contains two Graefe's Cataract Knives ; one Iris Knife ; one Iris Hook ; one Canalicula Knife ; one Keratome ; one Cystotome and Spoon ; three Iris Needles ; one Double Hook ; one Blunt Hook ; one Straight Scissors ; one Curved Scissors ; two Iris Forceps, straight and curved ; one Cilia Forceps ; one Speculum, with Set Screw ; Needles and Silk.

In morocco case, lined with velvet or leather..... 21 00

### 2752. Eye Case, No. 3. L. Webster Fox's.

Contains one Graefe's Cataract Knife ; one Beer's Cataract Knife ; one Weber's Canaliculus Knife ; one Angular Keratome ; one Bowman's Straight Stop-Needle ; one Broad Needle ; one Strabismus Hook ; one Tyrell's Sharp Hook ; one Critchet's Serrated and Concave Scoop ; one Daviel's Scoop and Cystotome ; two Shell Lid Retractors ; one Jaeger's Lid Spatula ; one pair Iridectomy Forceps, curved ; one pair Fixation Forceps ; one pair Ligature Forceps ; one Conical Lachrymal Dilator, silver ; two Lachrymal Probes, silver, four sizes ; one Iridectomy Scissors, angular ; one Strabismus Scissors, straight ; one Enucleation Scissors, curved on flat ; one Fox's Set Screw Speculum ; Needles and Silk.

In morocco case, silk-velvet or leather lined.....\$30 00

### 2753. Eye Case, No. 4. Edward Jackson's.

Contains one Beer's Knife ; two Graefe's Cataract Knives ; two Jackson's Cataract Knives ; one Canaliculus Knife ; one Scarificator ; one Knife-Needle ; one Bowman's Stop-Needle, curved ; one Corneal Spud ; one Strabismus Hook ; one Tortoise-Shell Lens Scoop ; one Levis' Wire Scoop ; one Corneal Spatula Shell ; one Desmarre's Lid Retractor ; two Bowman's Double Probes ; one Theobold's Double Probe ; one Jackson's Strabismus Scissors ; one McCluer's Iris Scissors ; one Enucleation Scissors ; one Iris Scissors, curved ; one Fixation Forceps ; one Strabismus Forceps, straight ; one Cilia Forceps ; one Iris Forceps ; curved ; one Desmarre's Entropium Forceps ; one Snowden's Stop Speculum ; one Prout's Needle Holder ; Lead Wire for Styles ; one Lachrymal Syringe, hard rubber with one silver point ; Needles and Silk.

In morocco case, silk-velvet or leather lined.....\$48 00

### 2754. Eye Case, No. 5. Agnew's.

Contains pair of Graefe's Speculums, right and left ; Desmarre's Double Lid Retractor ; set of Bowman's Probes ; Plain Weber's Probe ; Prout's Needle Forceps ; Agnew's Strabismus Hook ; Strabismus Forceps ; two Graefe's Linear Cataract Knives ; Beer's Cataract Knife ; Small Cataract Needle ; Delicate Iris Forceps, straight ; Tyrell's Sharp Hook ; Desmarre's Paracentesis Needle ; Spring Catch Fixation Forceps ; Agnew's Lachrymal Syringe ; Bowman's Lachrymal Director ; Agnew's Pliable Shank Lachrymal Knife ; Enucleation Scissors ; straight round point Scissors ; large, Straight Scissors ; Delicate Scissors, curved on flat ; Plain Strabismus Hook ; Agnew's Tatooing Needle ; Cystotome ; Hard Rubber Scoop ; two Stop Needles ; Angular Iridectomy Knife ; Needles and Silk.

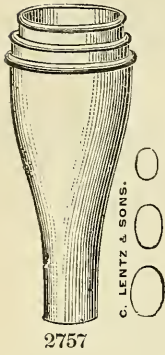
In fine morocco case, lined with velvet or leather.....\$49 00

Eye cases put up in any style, to order.

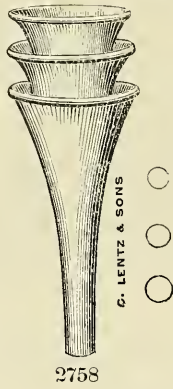


## Ear Instruments.

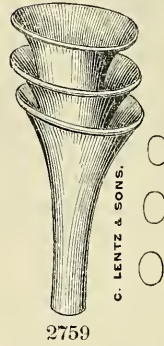
## SPECULUMS.



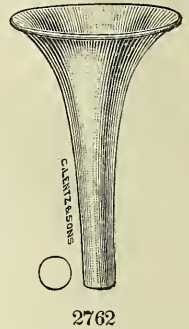
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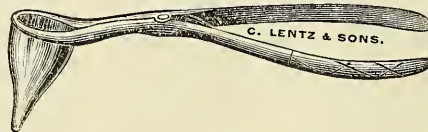
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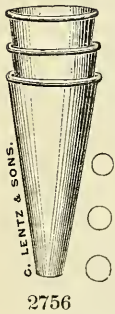
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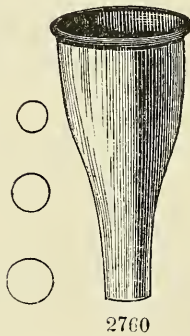
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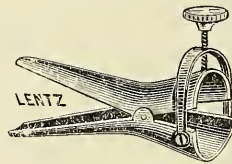
2764



2756



2760



2766



2763

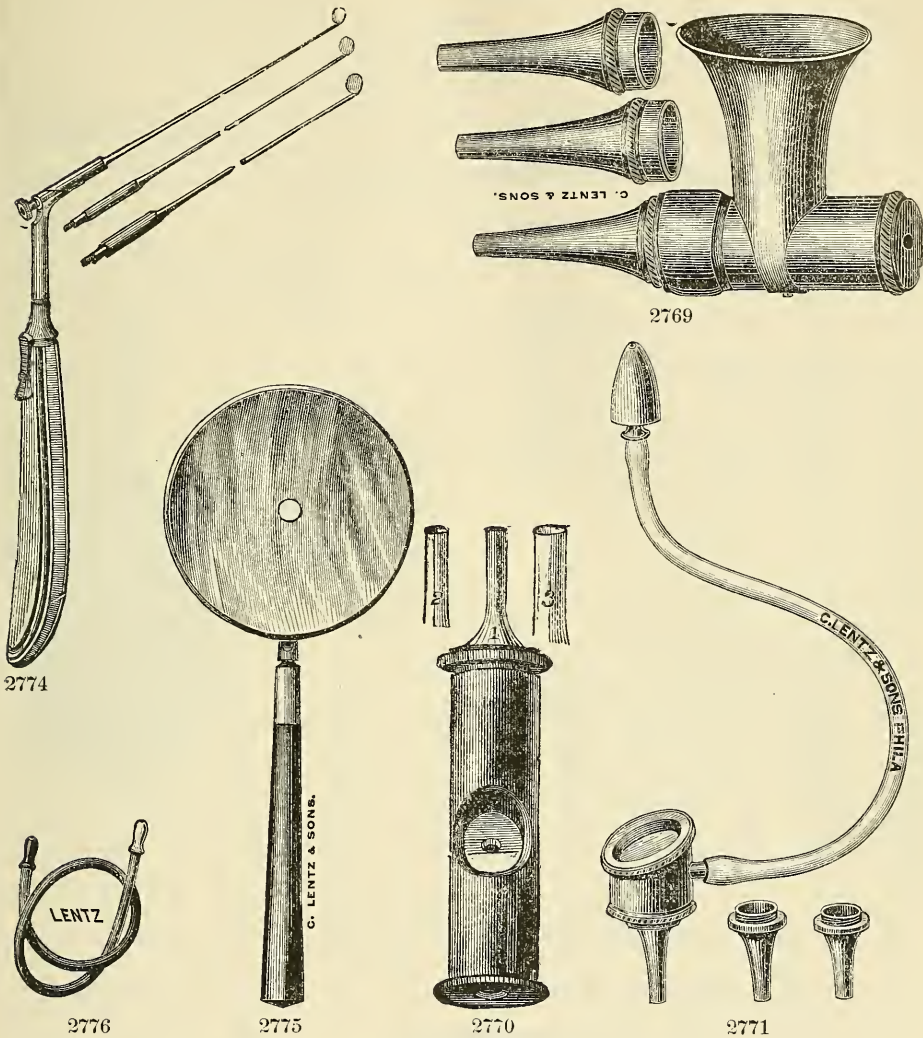
|        |                                                                |        |
|--------|----------------------------------------------------------------|--------|
| 2756.* | Speculums, Wilde's, three in set, plated, \$1 20 ; silver..... | \$2 50 |
| 2757.* | " Gruber's, " " " 1 50 ; " .....                               | 2 75   |
| 2758.* | " Toynbee's, " " " 1 50 ; " .....                              | 2 75   |
| 2759.* | " Turner's, " " " 1 50 ; " .....                               | 2 75   |

The above sets are in fine horn cases.

|        |                                                    |      |
|--------|----------------------------------------------------|------|
| 2760.* | " Gruber's, four in set, hard rubber.....          | 75   |
| 2761.  | " Toynbee's, " " " " .....                         | 75   |
| 2762.* | " Turnbull's, one size, plated, 65c. ; silver..... | 1 10 |
| 2763.* | " " child's size, " 65c. ; " .....                 | 1 10 |
| 2764.* | " Kramer's bivalve.....                            | 1 25 |
| 2765.  | " Plain " .....                                    | 1 00 |
| 2766.* | " Bonnafont's " self-retaining.....                | 1 60 |
| 2767.  | " Speir's " " " .....                              | 1 60 |

All Instruments Illustrated are designated by a \*.

## Ear Instruments.



|        |                                              |        |
|--------|----------------------------------------------|--------|
| 2769.* | Otoscope, Brunton's, in case.....            | \$4 50 |
| 2770.* | “ Hassenstein's, in case.....                | 3 00   |
| 2771.* | “ Siegle's Pneumatic.....                    | 3 00   |
| 2772.  | “ “ “ with rubber bulb.....                  | 3 35   |
| 2773.  | “ Simrock's, with magnifying lens.....       | 3 00   |
| 2774.* | Mirror, Blake's, for inner ear, in case..... | 6 00   |
| 2775.* | “ with handle, 3 inch, \$2 50; 3½ inch,..... | 2 75   |
|        | “ “ Headband, (see Laryngeal Instruments.)   |        |
| 2776.  | Diagnostic Tube, Toynbee's.....              | 60     |

*All Instruments Illustrated are designated by a \*.*

## Ear Instruments.

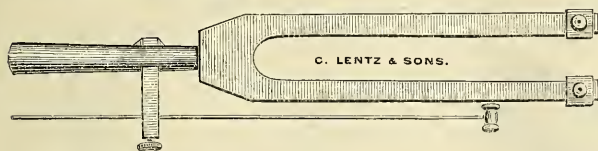
|        |                                                                                 |        |
|--------|---------------------------------------------------------------------------------|--------|
| 2779.* | Tuning Fork, small, \$1 25 ; medium, \$2 00; large.....                         | \$2 50 |
| 2780.  | “ “ Politzer's, with clamps, large.....                                         | 5 00   |
| 2781.* | “ “ “ “ “ and hammer, large.....                                                | 7 50   |
| 2782.  | “ “ small, plain.....                                                           | 35     |
| 2783.* | Acumeter, Politzer's.....                                                       | 2 65   |
| 2784.  | Manometer “ .....                                                               | 75     |
| 2785.  | Air Bag, Politzer's, maroon, rubber, plain, 6 oz., \$1 40 ; with valve.....     | 1 60   |
| 2786.  | “ “ “ “ “ “ 8 oz., 1 65 ; “ “ .....                                             | 1 85   |
| 2787.  | “ “ “ “ “ “ 10 oz., 1 90 ; “ “ .....                                            | 2 10   |
| 2788.* | “ “ “ “ “ extra heavy, 10 oz., with valve and improved<br>Catheter fitting..... | 2 35   |
| 2789.* | Air Bag Nozzle, oval, hard rubber.....                                          | 30     |
| 2790.* | “ “ “ Knapp's “ .....                                                           | 30     |
| 2791.* | “ “ “ Roosa's “ .....                                                           | 20     |
| 2792.* | “ “ “ Round “ .....                                                             | 20     |
| 2793.* | “ “ “ Glass.....                                                                | 15     |
| 2794.* | Ear Douche Nozzle, Buck's.....                                                  | 60     |
| 2795.* | Buttle's Inhaler, hard rubber.....                                              | 1 00   |
| 2796.* | Eustachian Catheter, hard rubber, 4 sizes.....each                              | 50     |
| 2797.* | “ “ German silver plated, 3 sizes..... “                                        | 60     |
| 2798.* | “ “ pure silver, 3 sizes..... “                                                 | 1 00   |
| 2799.* | “ “ Noyes' right and left, pure silver..... “                                   | 1 65   |
| 2800.* | “ Syringe, hard rubber, with silver Catheter, Seiss'.....                       | 2 52   |



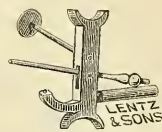
# Ear Instruments.



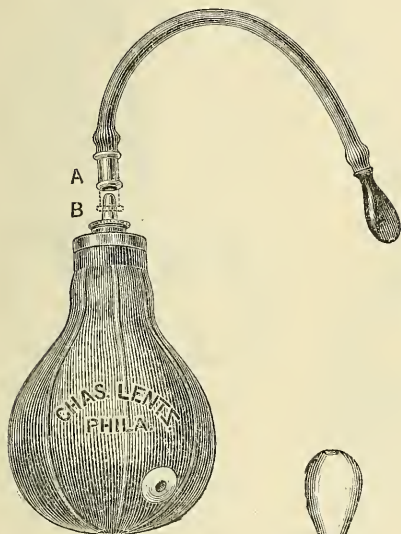
2779



2781



2783



2788



2794



2789



2790



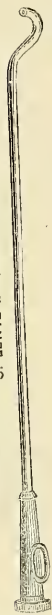
2793



2791



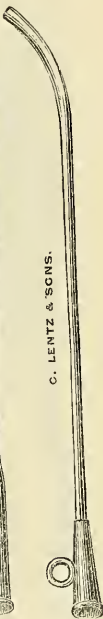
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2799



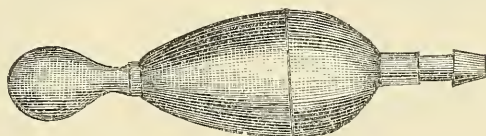
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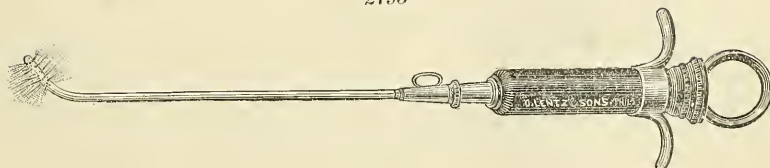
2798



2796

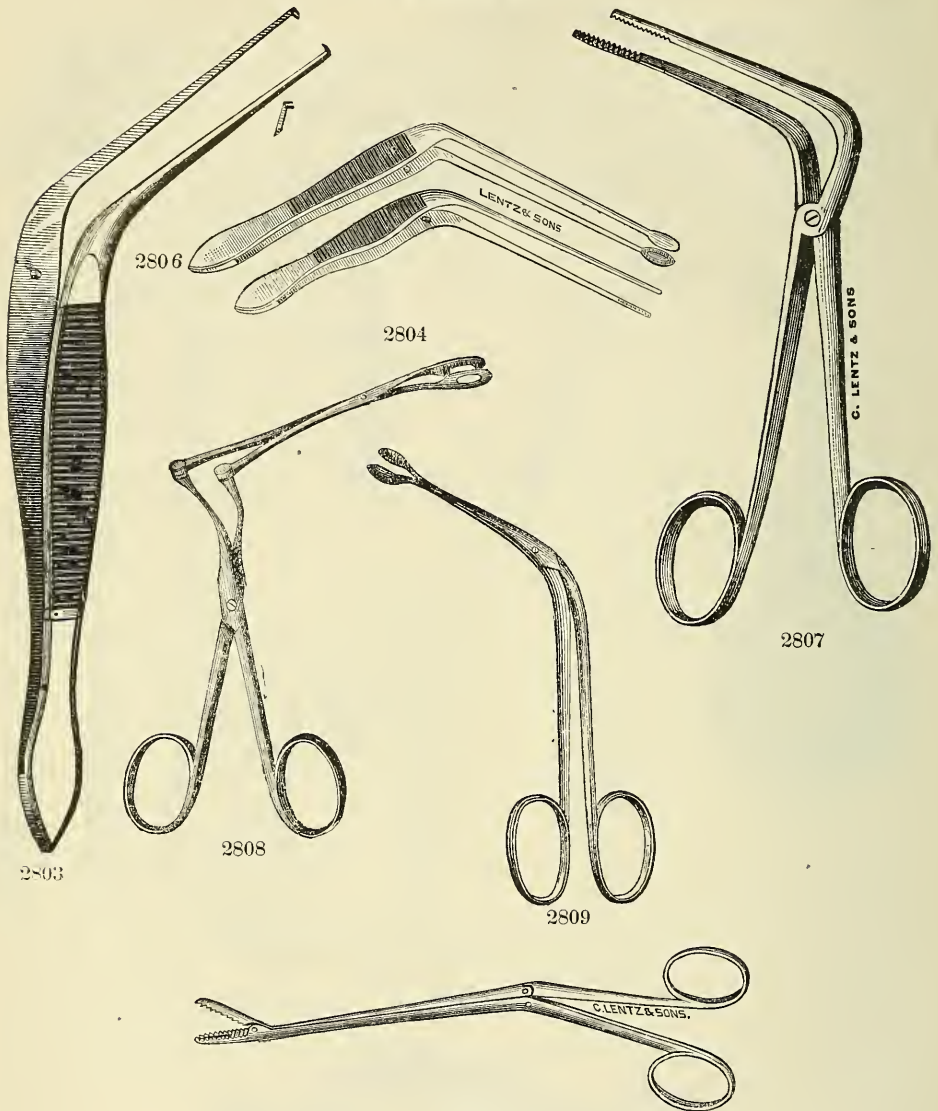


2795



2800

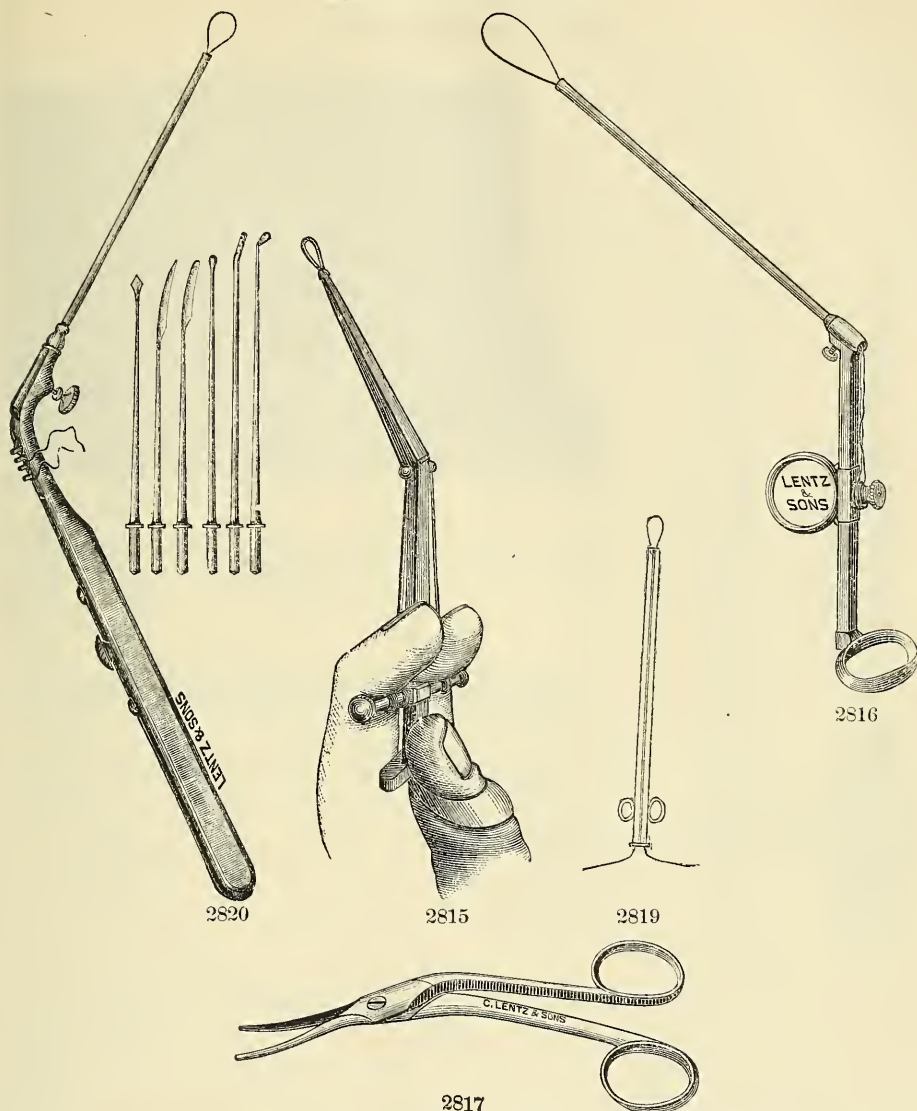
## Ear Instruments. FORCEPS.



|        |                                                |        |
|--------|------------------------------------------------|--------|
| 2803.* | Ear Forceps, Wilde's, mousetoothed points..... | \$1 10 |
| 2804.* | " " " serrated points.....                     | 1 10   |
| 2805.  | " " " self-retaining.....                      | 1 75   |
| 2806.* | " " Politzer's.....                            | 1 75   |
| 2807.* | " " Toynbee's.....                             | 1 50   |
| 2808.* | " " Hinton's Polypus.....                      | 3 00   |
| 2809.* | " " Politzer's ".....                          | 1 75   |
| 2810.* | " " Noyes' ".....                              | 3 25   |
| 2811.  | " " Bumstead's canulated.....                  | 3 00   |
| 2812.  | " " Pomeroy's.....                             | 1 85   |

*All Instruments Illustrated are designated by a\*.*

# Ear Instruments.



|        |                                                                                                                                                                                                                                                                   |        |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 2815.* | Polypus Snare, Wilde's.....                                                                                                                                                                                                                                       | \$2 25 |
| 2816.* | “ “ Blake's.....                                                                                                                                                                                                                                                  | 2 75   |
| 2817.* | “ Scissors, Gruber's.....                                                                                                                                                                                                                                         | 2 50   |
| 2818.* | Ear Scissors, Simrock's.....                                                                                                                                                                                                                                      | 3 50   |
| 2819.* | Double Canula for removing Polypi.....                                                                                                                                                                                                                            | 85     |
| 2820.* | Sexton's Handle, ivory, with Polypus Snare, Myringotome, Sharp-pointed Knife, Probe-pointed Knife, Stout Silver Probe, Hoe-shaped Scraper, in fine case.....                                                                                                      | 8 00   |
| 2821.* | Politzer's Pocket Ear Set, containing 1 handle with straight and bent sockets, 2 Sharp Curettes, 1 Spoon, 1 Tenaculum, 1 Cotton Carrier, 1 Probe, 1 Perforator, 1 Blunt and 1 Sharp Pointed Knife, 1 Paracentesis Needle and 1 Cystotome, all in a neat case..... | 10 00  |
|        | See illustration on next page.                                                                                                                                                                                                                                    |        |
| 2822.  | Politzer's Pocket Ear Set, containing 1 handle with straight and bent sockets, 1 Polypus Snare, 2 Sharp Curettes, 1 Tenaculum, 1 Probe, 1 Perforator, 1 Sharp-pointed Knife, 1 Blunt-pointed Knife, in neat compact case.....                                     | 10 00  |

*All Instruments Illustrated are designated by a \*.*



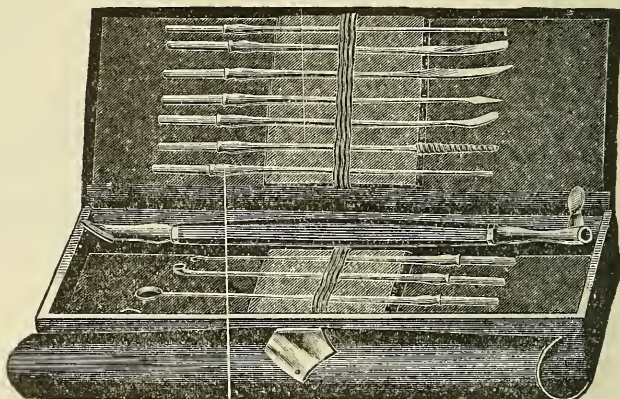
## Ear Instruments.



2826



2827



2821



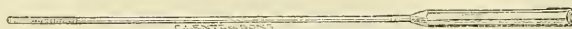
2823



2824



2828

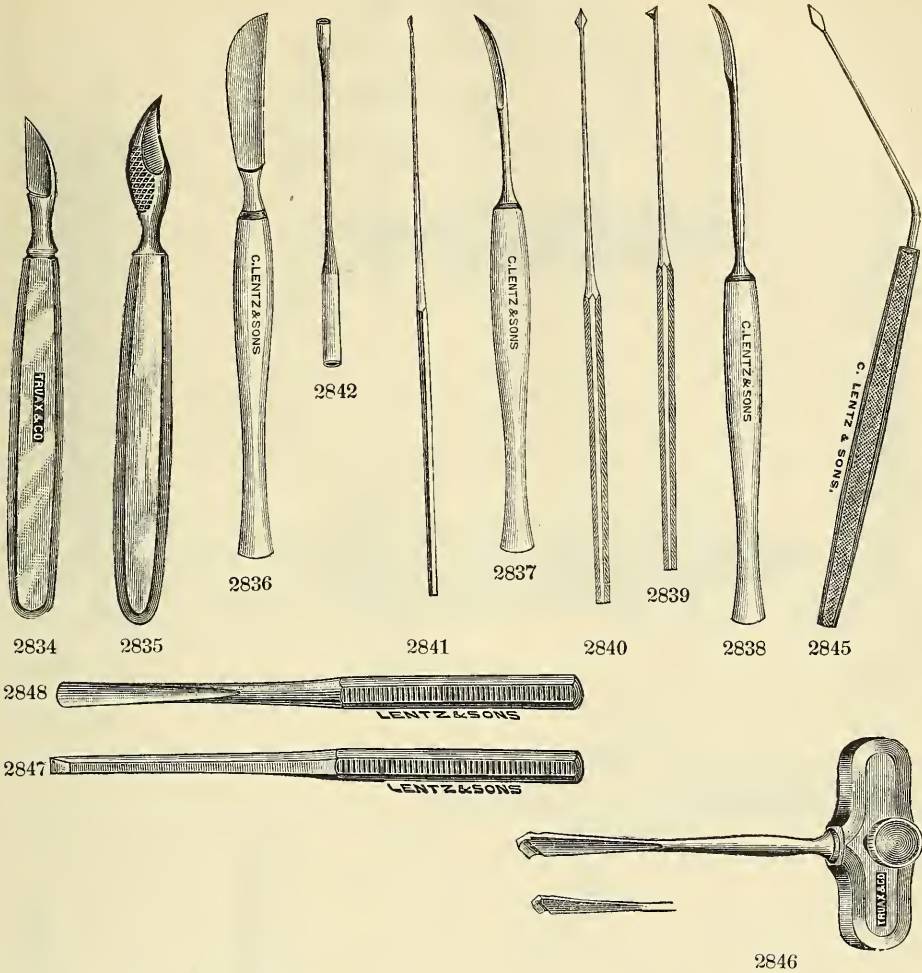


2829

|        |                                                             |         |
|--------|-------------------------------------------------------------|---------|
| 2823.* | Ear Scoop and Hook, Gross', steel.....                      | \$ 60   |
| 2824.* | “ “ fenestrated, with Hook, steel.....                      | 85      |
| 2825.  | “ “ with Eye Spud, steel.....                               | 75      |
| 2826.* | “ Curette, Buck's fenestrated, blunt, three sizes.....      | each 60 |
| 2827.* | “ “ “ “ sharp, “ “ .....                                    | “ 60    |
| 2828.* | Foreign Body Extractor, Quier's.....                        | 1 40    |
| 2829.* | Cotton Holder, steel, Allen's.....                          | 25      |
| 2830.  | “ “ aluminum.....                                           | 30      |
| 2831.  | “ “ Allen's, very fine, steel, with hard rubber handle..... | 30      |

*All Instruments Illustrated are designated by a \*.*

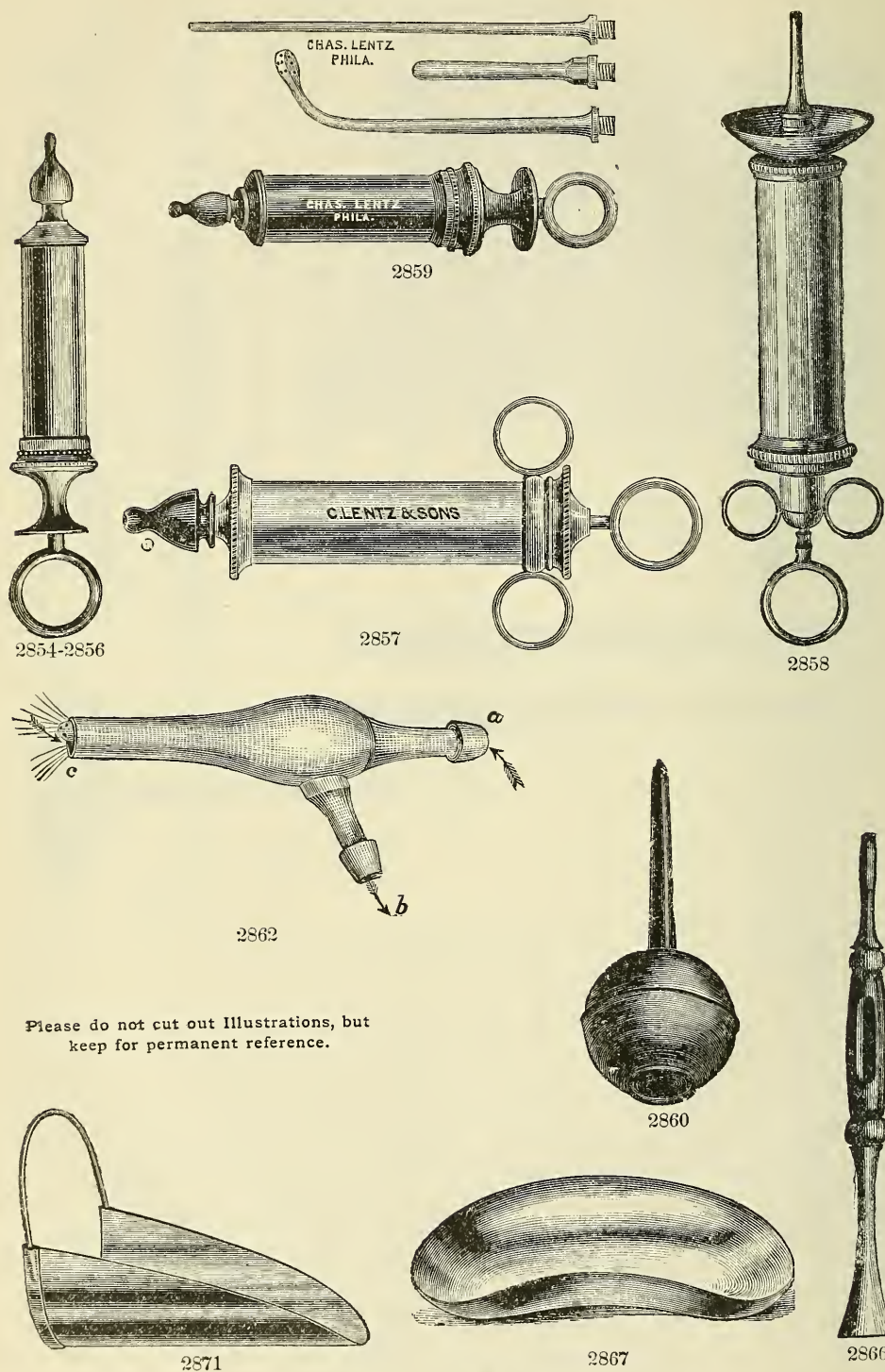
## Ear Instruments.



|        |                                              |        |
|--------|----------------------------------------------|--------|
| 2834.* | Burnett's Mastoid Knife.....                 | \$1 15 |
| 2835.* | Poltizer's " " .....                         | 1 15   |
| 2836.* | Buck's " " .....                             | 1 25   |
| 2837.* | " Sharp Pointed Bistoury.....                | 1 10   |
| 2838.* | " " or Probe Bistoury, long.....             | 1 25   |
| 2839.* | " Furuncle Knife.....                        | 85     |
| 2840.* | " Maryngotome.....                           | 75     |
| 2841.* | " Silver Probe, delicate, 50c.; heavy .....  | 65     |
| 2842.* | " Porte Acid.....                            | 10     |
| 2843.  | " Pipette, glass, with curved point.....     | 35     |
| 2844.  | Tympanum Perforator Politzers, straight..... | 75     |
| 2845.* | " " " angular.....                           | 75     |
| 2846.* | Mastoid Drills, Buck's, 3 sizes in set.....  | 2 25   |
| 2847.* | " Chisels, Schwarze's, three sizes.....each  | 75     |
| 2848.* | " Gouges, " " " " .....                      | 75     |
| 2849.  | " Drainage Tube, Gruening's.....             | 75     |
| 2850.  | " " " Knapp's.....                           | 60     |

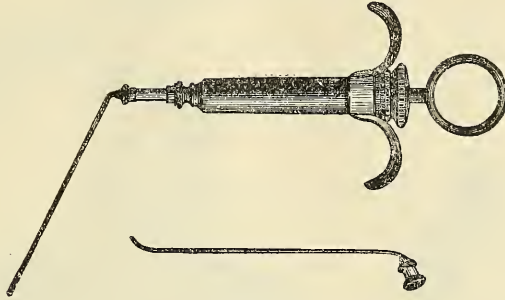
*All Instruments Illustrated are designated by a \**

## Ear Instruments.





## Ear Instruments.

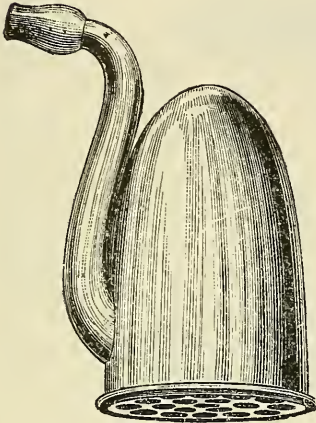


2861

|        |                                                                                     |       |
|--------|-------------------------------------------------------------------------------------|-------|
| 2854.* | Ear Syringe, hard rubber, $\frac{1}{2}$ ounce.....                                  | \$ 60 |
| 2855.* | “ “ “ “ 1 “ .....                                                                   | 90    |
| 2856.* | “ “ “ “ 2 “ .....                                                                   | 1 25  |
| 2857.* | “ “ Kramer's, metal, hard rubber point, 3 ounce.....                                | 2 25  |
| 2858.* | “ “ Pomeroy's, “ “ “ “ with shield.....                                             | 2 75  |
| 2859.* | Universal Syringe, hard rubber, with ear, post-nasal, uterine and rectal points.... | 2 00  |
| 2860.* | Ear and Ulcer Syringe, pure gum.....                                                | 25    |
| 2861.* | Blake's Inner Ear Syringe, with two silver points, in case.....                     | 3 25  |
| 2862.* | Ear Douche, Lucae's reflux.....                                                     | 1 00  |
| 2863.  | “ “ Clark's, tin.....                                                               | 1 00  |
| 2864.  | “ “ Buck's, rubber bulb.....                                                        | 1 15  |
| 2865.  | “ “ Nozzle, Buck's (see page 83, Fig 2794).....                                     | 60    |
| 2866.* | Powder Blower, Knapp's.....                                                         | 1 00  |
|        | “ “ see Throat Instruments.                                                         |       |
| 2867.* | Ear Basins, metal, nickel-plated, three sizes. 75c. 90c. and.....                   | 1 10  |
| 2868.  | “ “ enameled iron two sizes. \$1.00 and.....                                        | 1 25  |
| 2869.  | “ “ papier maché, three sizes, 40c. 50c. and.....                                   | 60    |
| 2870.  | “ “ hard rubber, “ \$1.25, \$1.50 and.....                                          | 1 75  |
| 2871.* | “ Spout, metal, nickel-plated.....                                                  | 35    |
| 2872.  | “ “ hard rubber, folding wire.....                                                  | 50    |

## Ear Instruments.

TO ASSIST THE HEARING.†



2873-2877



2879



2880

|        |                      |   |   |    |              |        |
|--------|----------------------|---|---|----|--------------|--------|
| 2873.* | London Hearing Horn, | 2 | x | 2½ | inches.....  | \$4 00 |
| 2874.* | “                    | “ | “ | 2¼ | x 3 “ .....  | 4 50   |
| 2875.* | “                    | “ | “ | 2¼ | x 3½ “ ..... | 4 50   |
| 2876.* | “                    | “ | “ | 2¼ | x 3¾ “ ..... | 5 00   |
| 2877.* | “                    | “ | “ | 2¼ | x 4½ “ ..... | 5 00   |

This Hearing Instrument is nearly universally used by those who are in any manner troubled with deafness. It is made on scientific principles, of bell metal, elegantly finished and coated in dead black or nickel-plated, and is of such size that it can scarcely be seen when held in the hand.

The largest size is especially recommended for use in church, lecture halls, &c., as it facilitates the hearing for long distance with comfort.

|        |                                                                                               |                  |
|--------|-----------------------------------------------------------------------------------------------|------------------|
| 2878.  | London Horn, large size, with tube. 9 inches long, allowing the arm to rest on table, &c..... | \$6 00           |
| 2879.* | Walking Cane Ear Trumpet, solid ebony cane and trumpet, nickle-plated, two sizes.....         | \$8 00 and 10 00 |

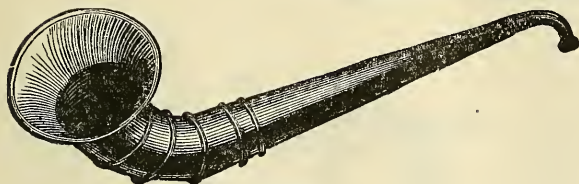
Very efficient and convenient for gentlemen.

|        |                                                        |      |
|--------|--------------------------------------------------------|------|
| 2880.* | Ear Trumpet, hard rubber, telescopic, three parts..... | 3 50 |
| 2881.  | “ “ “ “ “ two parts.....                               | 2 75 |
| 2882.  | Audiphone or Conversational Fan, hard rubber.....      | 6 00 |

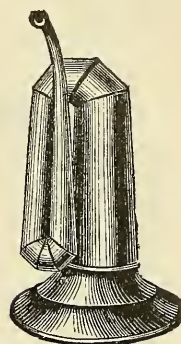
*All Instruments Illustrated are designated by a \*.*

## Ear Instruments.

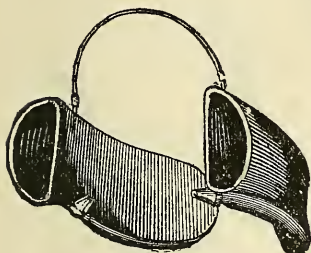
TO ASSIST THE HEARING. ‡



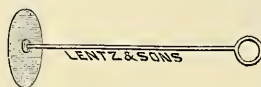
2887



2888



2889



2890

2887.\* Ear Trumpet, tin, japanned, made in five sizes.

|        |                                      |        |
|--------|--------------------------------------|--------|
| No. 1. | Diameter, $3\frac{3}{8}$ inches..... | \$1 25 |
| " 2.   | " $4\frac{1}{4}$ " .....             | 1 25   |
| " 3.   | " 5 " .....                          | 1 50   |
| " 4.   | " $5\frac{1}{4}$ " .....             | 1 50   |
| " 5.   | " $5\frac{3}{4}$ " .....             | 1 75   |

The Tin Trumpet is indeed a very efficient instrument to aid the hearing in general conversation or in public hall room. They are inexpensive and very widely used.

The greater the diameter of mouth or larger the opening is, the greater its power will be ; the length of the conical tube also adds to the power of the instrument.

2888.\* Ear Trumpet, tin, japanned, two sizes.....\$2 50 and \$3 00

This Trumpet is made with especial convenience to carry, and is equally as good as the plain Tin Trumpet.

2889.\* Auricles, three sizes, per pair.....each 5 00

The Auricles for those slightly deaf are a very unique contrivance. They are made to fit the sides of head in such a manner as to conceal them by the hair. They can be adjusted to fit any head, and are very suitable for those wishing to converse when their hands are in use. They are made of brass, covered with black silk.

2890.\* Artificial Tympanum, Toynbee's, with silver wire.....each 30c.; per doz. 2 50

2891. " " Cousins', assorted sizes... ..per box of 3 doz. 75

2891A. Combination Probe and Forceps, for inserting and extracting the artificial membranes..... 75

Dr. John Ward Cousins' Antiseptic Artificial Membrane Tympanum, in cases of perforation and disease of the middle ear, is used by the eminent Aural Surgeons of England.

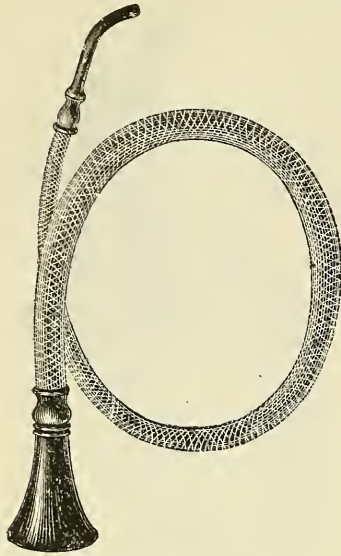
We give extract from Pamphlet, which says : " a patient 26 years of age lost hearing when 12 years of age. On examination both membranes were found destroyed. The ears were deodorized and the artificial membranes inserted. The Antiseptic Treatment was carried out for four months, daily, introducing artificial membranes. Patient can now hear well and exhibited no apparent deafness in conversation."

*All Instruments Illustrated are designated by a \*.*

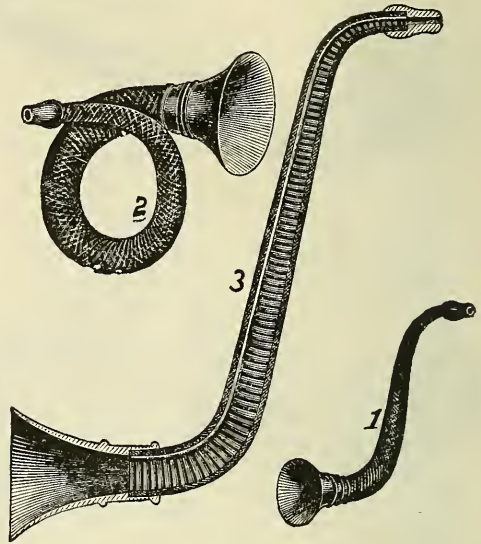


## Ear Instruments.

To Assist the Hearing.†



2893 to 2896



2899

The Conversation Tube is pre-eminently the most powerful of all Hearing Instruments, and is the most efficient for very deaf people. While the Conversation Tube is not suitable to convey the waves of sound to the ear from a distance, yet it excels all other Hearing Instruments for close conversation.

It is very suitable for a person who desires to converse in a low tone, and while the transmission of sound can be heard very clearly by the person using the ear-piece, yet it cannot be heard by any others near by. This is made of conical elastic spiral wire, forming the tube which is covered with rubber and the silk or mohair woven on the outside. It is flexible and can be made compact to carry in the pocket. Ear and mouth pieces are hard rubber.

|        |                                                                           |        |
|--------|---------------------------------------------------------------------------|--------|
| 2893.* | Conversation Tube, conical, medium size, 3 feet long, mohair covered..... | \$3 00 |
| 2894.* | “ “ “ “ “ 3 “ silk covered.....                                           | 4 00   |
| 2895.* | “ “ “ large “ 3 “ mohair covered.....                                     | 3 75   |
| 2896.* | “ “ “ “ “ 3 “ silk “ .....                                                | 5 00   |
| 2897.  | “ “ small, straight, 3 feet long, mohair covered.....                     | 2 00   |
| 2898.  | “ “ “ “ “ 3 “ silk “ .....                                                | 2 50   |
| 2899.* | Adjustable Conversation Tube, silk covered.....                           | 2 50   |

These illustrations represent a very desirable form of close Conversation Tube. It will, in a great measure, supercede the Tin Trumpet so common in use. The Tube is made of a conical spiral spring, with a flexible copper wire soldered on the inside to each turn of wire of the spiral spring, the spring is then well-covered with cotton webbing and finished on the outside with silk.

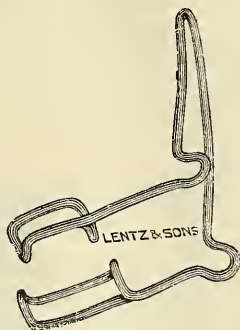
This Tube can be bent into various shapes, as illustrated, which is very advantageous when wishing to allow the arm to rest on the table when in conversation, and to make it compact for carrying. The mountings are of nicely polished hard rubber, and is elegant in appearance.

*All Instruments Illustrated are designated by a \*.*

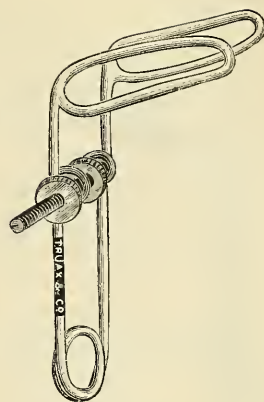
# Nasal Instruments. SPECULUMS.



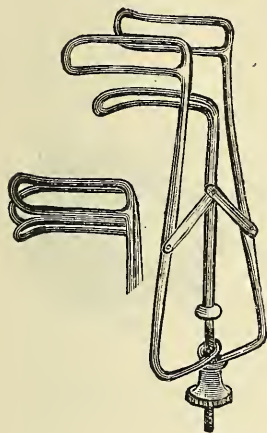
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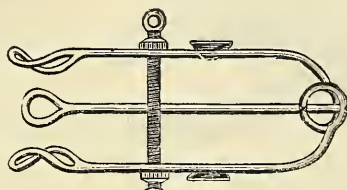
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2902



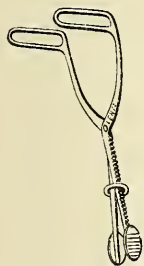
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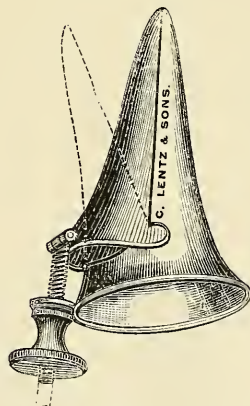
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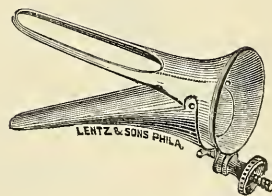
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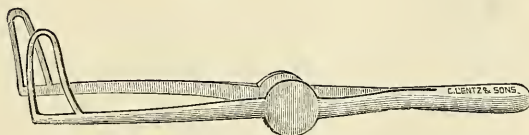
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2908



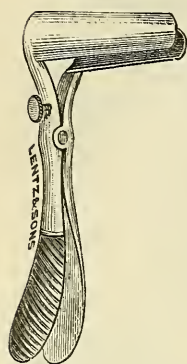
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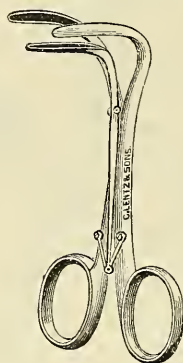
2907

## Nasal Instruments.

## SPECULUMS.



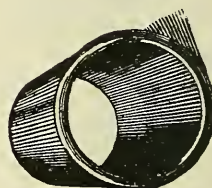
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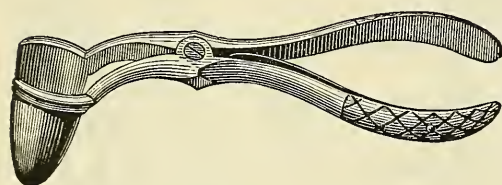
2912



2915



2916



2911

|        |                                                      |         |    |
|--------|------------------------------------------------------|---------|----|
| 2900.* | Nasal Speculum. Goodwillie's, two sizes.....         | each \$ | 60 |
| 2901.* | " " Gleason's, two sizes.....                        | "       | 50 |
| 2902.* | " " Bishop's .....                                   | 1       | 25 |
| 2903.* | " " Potter's.....                                    | 1       | 50 |
| 2904.* | " " Sajous' with screw.....                          | 1       | 35 |
| 2905.* | " " Frankel's .....                                  | 1       | 75 |
| 2906.* | " " Jarvis'.....                                     |         | 65 |
| 2907.* | " " Bosworth's, plain, 75.; fine.....                | 1       | 10 |
| 2908.* | " " Robert & Collins,' solid blades.....             | 1       | 50 |
| 2909.* | " " Collins', one fenestrated blade.....             | 1       | 75 |
| 2910.* | " " Roth's, with long flat blades and set screw..... | 2       | 00 |
| 2911.* | " " Plain Bivalve.....                               | 1       | 35 |
| 2912.* | " " Elsberg's Tri-valve, steel.....                  | 3       | 75 |
| 2913.  | " " Folsom's, with screw.....                        | 1       | 00 |
| 2914.  | " " Thudicum's.....                                  |         | 65 |
| 2915.* | " " Allen's, hard rubber, oval, set of three.....    | 1       | 00 |
| 2916.* | " " Spencer's " " round, " " .....                   | 1       | 00 |

*All Instruments Illustrated are designated by a \*.*



# Nasal Instruments. FOR THE REMOVAL OF GROWTHS, &c.



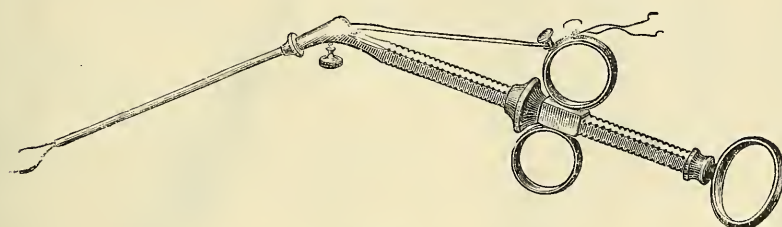
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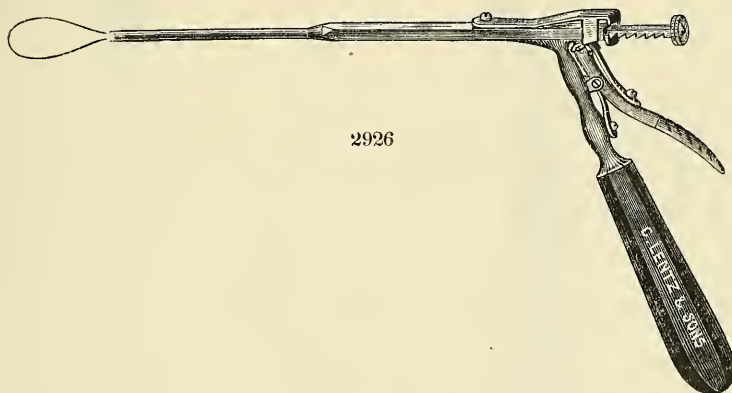
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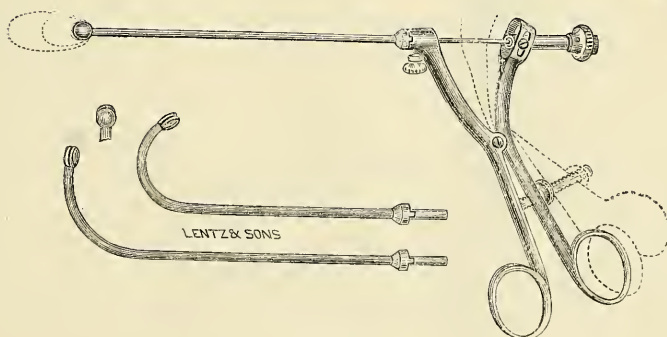
2921



2925



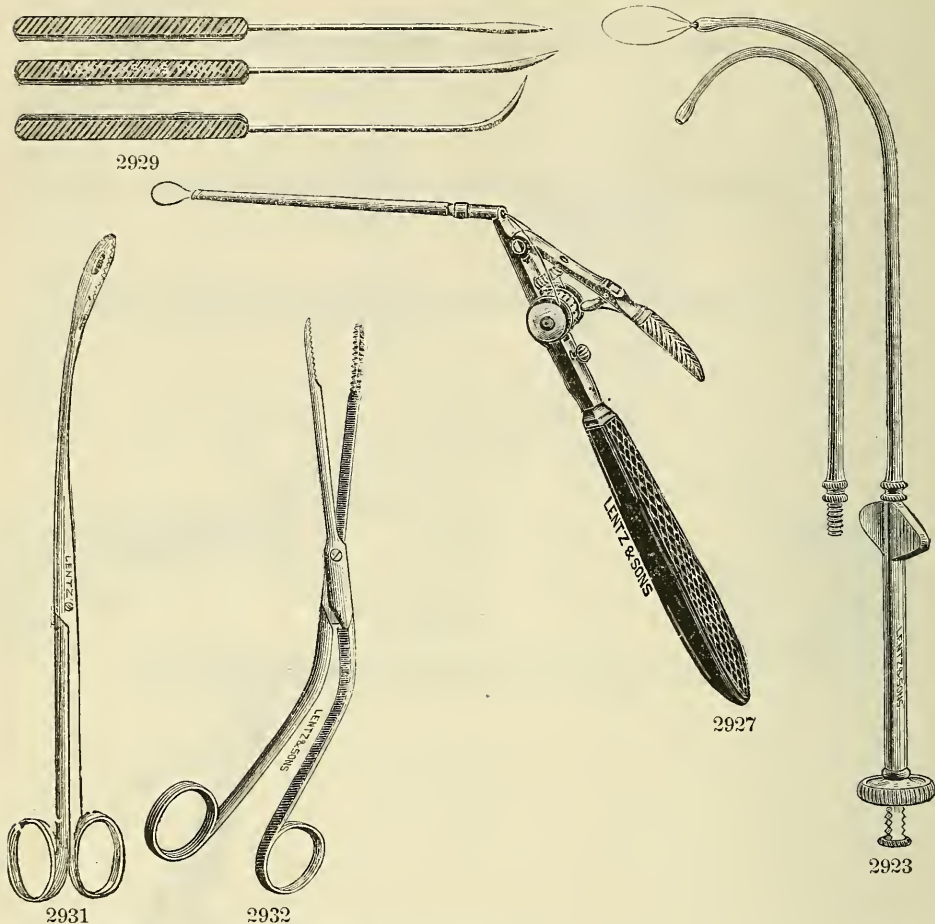
2926



2924

## Nasal Instruments.

For the Removal of Growths, &amp;c.

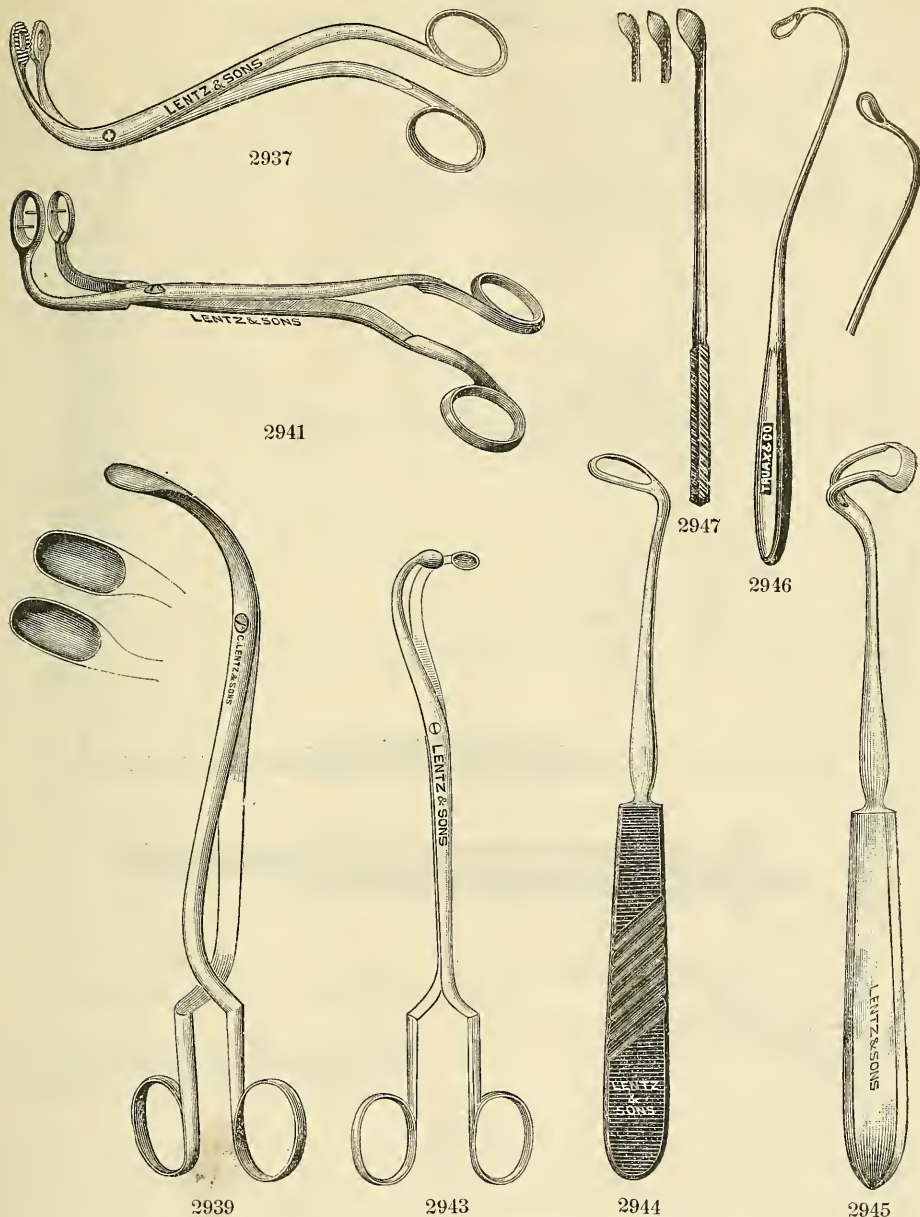


|        |                                                                       |           |
|--------|-----------------------------------------------------------------------|-----------|
| 2920.* | Nasal Snare, Jarvis', steel, light and strong.....                    | \$2 75    |
| 2921.* | " " " " with Seiler's claw attachment.....                            | 5 00      |
| 2922.* | " " Sajous', straight steel.....                                      | 2 75      |
| 2923.* | " " " two curved tubes, steel.....                                    | 5 00      |
| 2924.* | " " " three tubes, steel.....                                         | 6 75      |
| 2925.* | " " Bosworth's.....                                                   | 3 00      |
| 2926.* | " " Wright's.....                                                     | 8 00      |
| 2927.* | " " Mackenzie's.....                                                  | 9 00      |
| 2928.  | " " wire, small coil, 10c.; large coils.....                          | 20 and 50 |
| 2929.* | Jarvis' Transfixing Needles, straight and curved, 2 to 3½ inches..... | each 25   |
| 2931.* | Nasal Polypus Forceps, Gross'.....                                    | 1 65      |
| 2932.* | " " " Harrison Allen's.....                                           | 1 85      |
| 2933.  | " " " Sinrock's.....                                                  | 1 85      |
| 2934.  | " " " plain, straight.....                                            | 1 00      |

*All Instruments Illustrated are designated by a \*.*

## Nasal Instruments.

FOR THE REMOVAL OF GROWTHS, &amp;c.



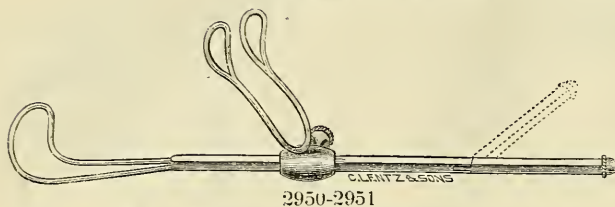
|        |                                                               |        |
|--------|---------------------------------------------------------------|--------|
| 2937.* | Post Nasal Forceps, Cohen's, opening antero-posterior.....    | \$3 35 |
| 2938.  | " " " " laterally serrated jaws.....                          | 3 00   |
| 2939.* | " " Cutting Forceps, Cohen's, long.....                       | 3 25   |
| 2940.  | " " " " Warren's, short.....                                  | 3 00   |
| 2941.* | " " " " Cohen's, latest.....                                  | 5 50   |
| 2942.  | " " " " Nichol's .....                                        | 4 50   |
| 2943.* | " " " " Loewenberg's.....                                     | 3 50   |
| 2944.* | Post Nasal Curette, Gottstein's, with hard rubber handle..... | 2 25   |
| 2945.* | " " " " improved, with hollow metal handle.....               | 2 75   |
| 2946.* | " " " " Cohen's with hard rubber handle. ....                 | 2 00   |
| 2947.* | Spiral " " " " each.....                                      | 40     |
| 2948.  | Fenestrated Nasal Curette, steel.....                         | 1 25   |

All Instruments Illustrated are designated by a \*.

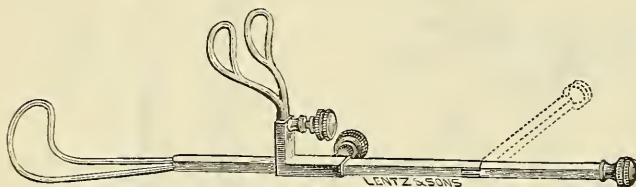


## Nasal Instruments.

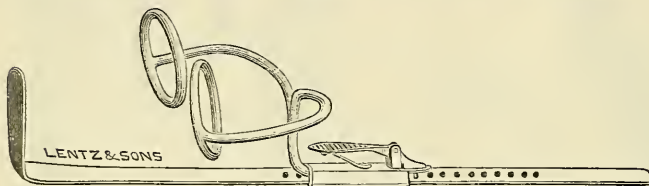
## PALATE RETRACTORS, &amp;c.



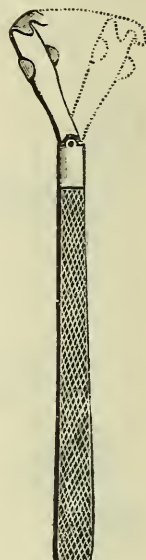
2950-2951



2952



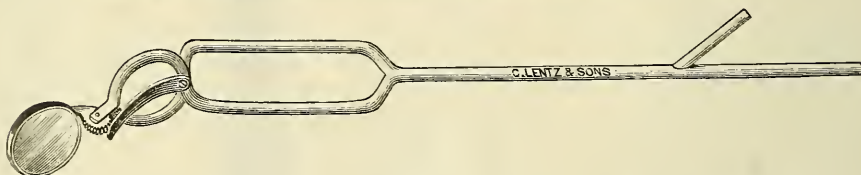
2953



2954



2955



2958

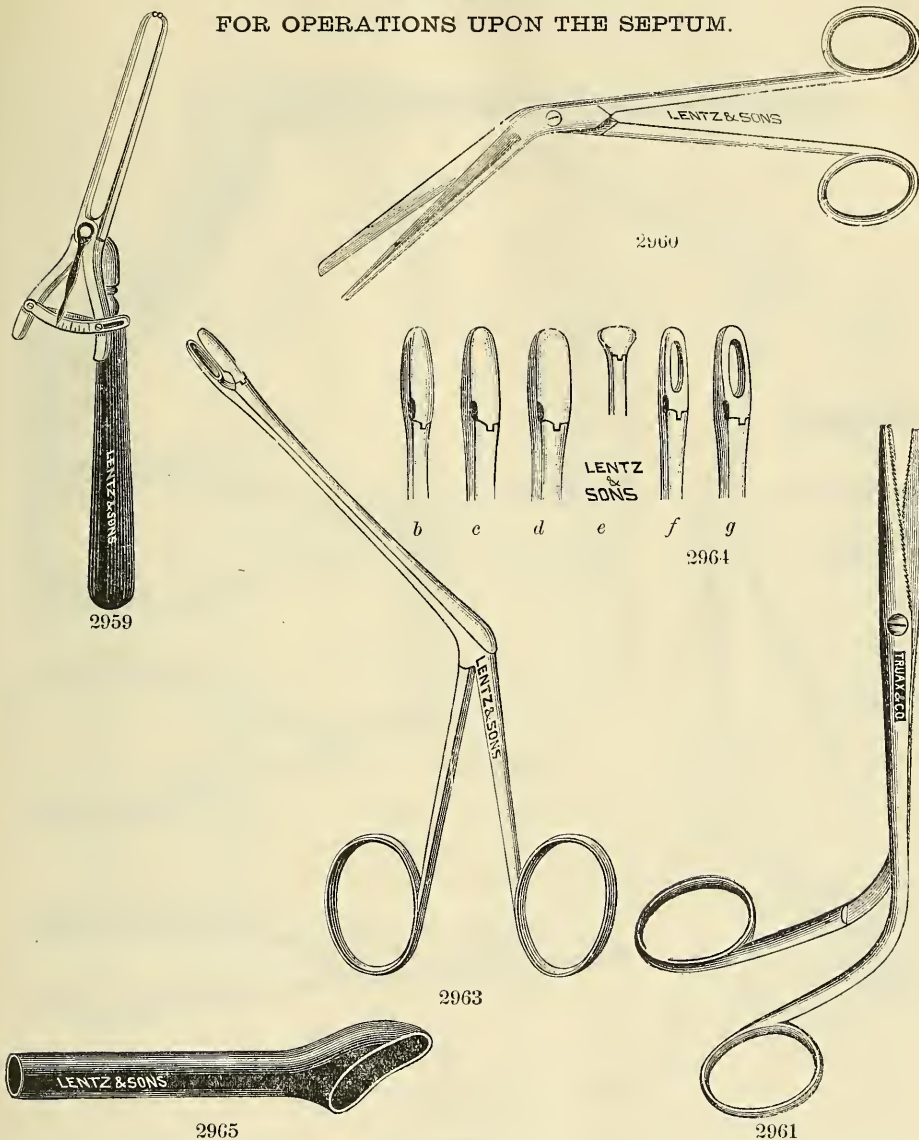
|        |                                                         |                        |        |
|--------|---------------------------------------------------------|------------------------|--------|
| 2950.* | White's Palate Retractor,                               | silver wire loops..... | \$2 00 |
| 2951.* | " " "                                                   | plated " " .....       | 1 50   |
| 2952.* | Weagley's Palate " "                                    | silver " " .....       | 2 00   |
| 2953.* | Porcher's " "                                           | .....                  | 3 50   |
| 2954.* | Sajous' " "                                             | .....                  | 1 50   |
| 2955.* | Leffert's " "                                           | .....                  | 1 50   |
| 2956.  | Plain " "                                               | with handle.....       | 85     |
| 2957.  | Rhinoscopic Mirror, with handle, plain, 60c.; fine..... |                        | 80     |
| 2958.* | " " Jarvis', movable with set screw handle.....         |                        | 3 00   |

Other Mirrors, see Laryngeal Instruments, pages 110 and 111.

*All Instruments Illustrated are designated by a \*.*

## Nasal Instruments.

FOR OPERATIONS UPON THE SEPTUM.



|        |                                                      |        |
|--------|------------------------------------------------------|--------|
| 2959.* | Seiler's Septometer, with hard rubber handle.....    | \$4 50 |
| 2960.* | " Nasal Dressing Scissors.....                       | 2 25   |
| 2961.* | Potter's " Scissors, with serrated cutting edge..... | 3 00   |
| 2962.* | Teet's Nasal Cutting Forceps (see page 100).....     | 3 75   |
| 2963.* | Farnham's Nasal Cutting Forceps, solid blade.....    | 5 00   |
| 2964.* | " " " " fenestrated blade.....                       | 6 00   |

These Forceps are very desirable for the removal of cartilaginous and soft deviated tissue. By the illustration can be seen the construction of the Forceps, which is very strong and enables one to seize and cut with great facility, without taking up too much room in the nostril.

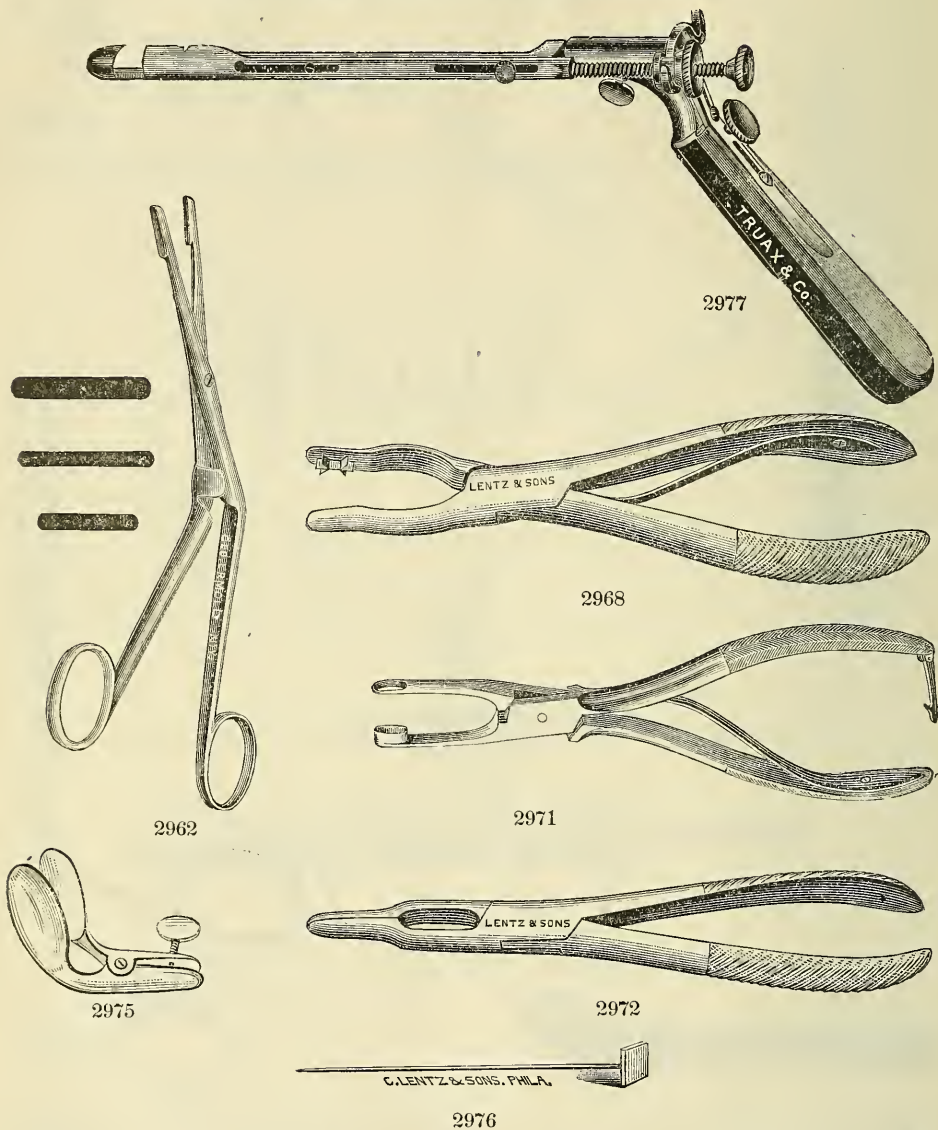
The cutting jaws are made of several sizes. State size desired.

|        |                                                             |    |
|--------|-------------------------------------------------------------|----|
| 2965.* | Goodwillie's Nasal Dilator, soft rubber, six sizes.....each | 75 |
|--------|-------------------------------------------------------------|----|

*All Instruments Illustrated are designated by a \*.*

## Nasal Instruments.

FOR OPERATIONS UPON THE SEPTUM.



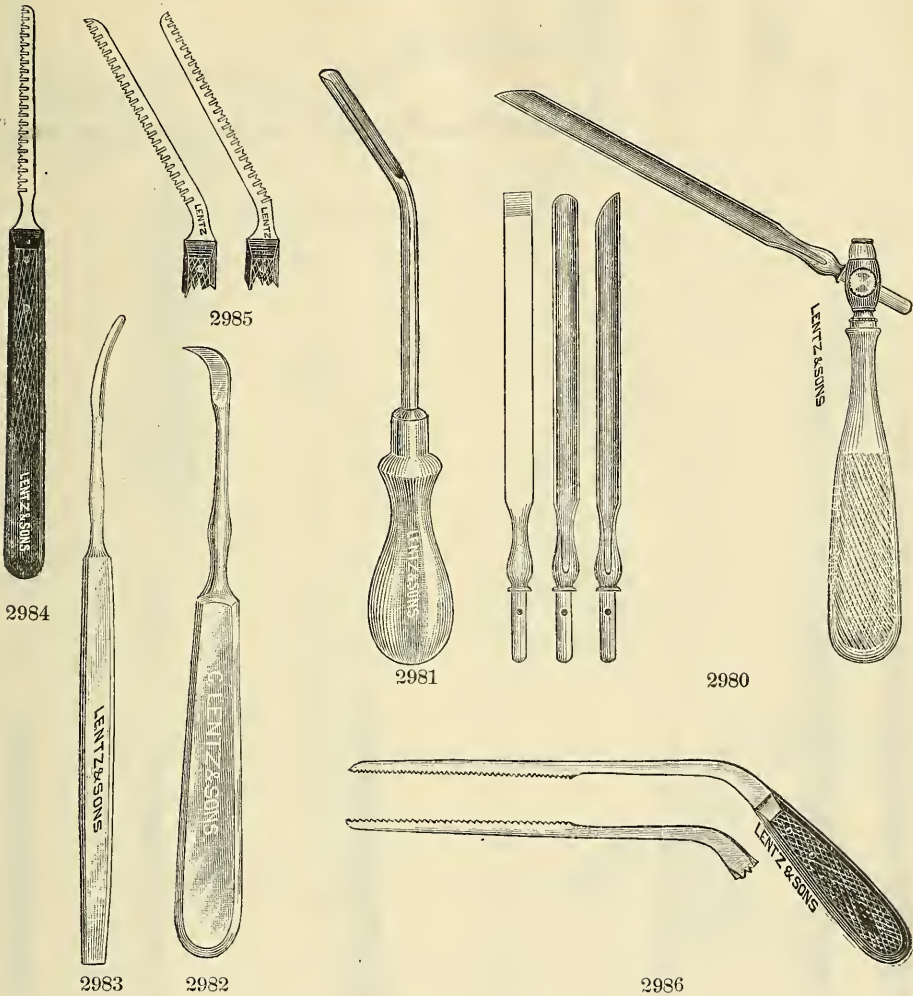
|        |                                                           |        |
|--------|-----------------------------------------------------------|--------|
| 2968.* | Steele's Septum Punching Forceps.....                     | \$3 00 |
| 2969.  | “ “ “ “ Aseptic joint, corrugated handles.....            | 3 50   |
| 2970.  | Sajous' “ “ “ “ “ with five different shape punches.....  | 9 00   |
| 2971.* | Roberts' Septum Punching Forceps, corrugated handles..... | 4 50   |
| 2972.* | Adam's “ Straightening Forceps.....                       | 2 25   |
| 2973.  | “ “ “ “ Aseptic, with spring and corrugated handles       | 2 75   |
| 2974.  | Bosworth's Septum “ “ .....                               | 3 00   |
| 2975.* | “ “ Clamp. steel.....                                     | 1 65   |
| 2976.* | Roberts' Septum Pins, steel, 1½ to 2 inches long.....doz. | 1 75   |
| 2977.* | Brown's Eechondriotome.....                               | 10 00  |

*All Instruments Illustrated are designated by a \*.*



## Nasal Instruments.

FOR OPERATIONS UPON THE SEPTUM.

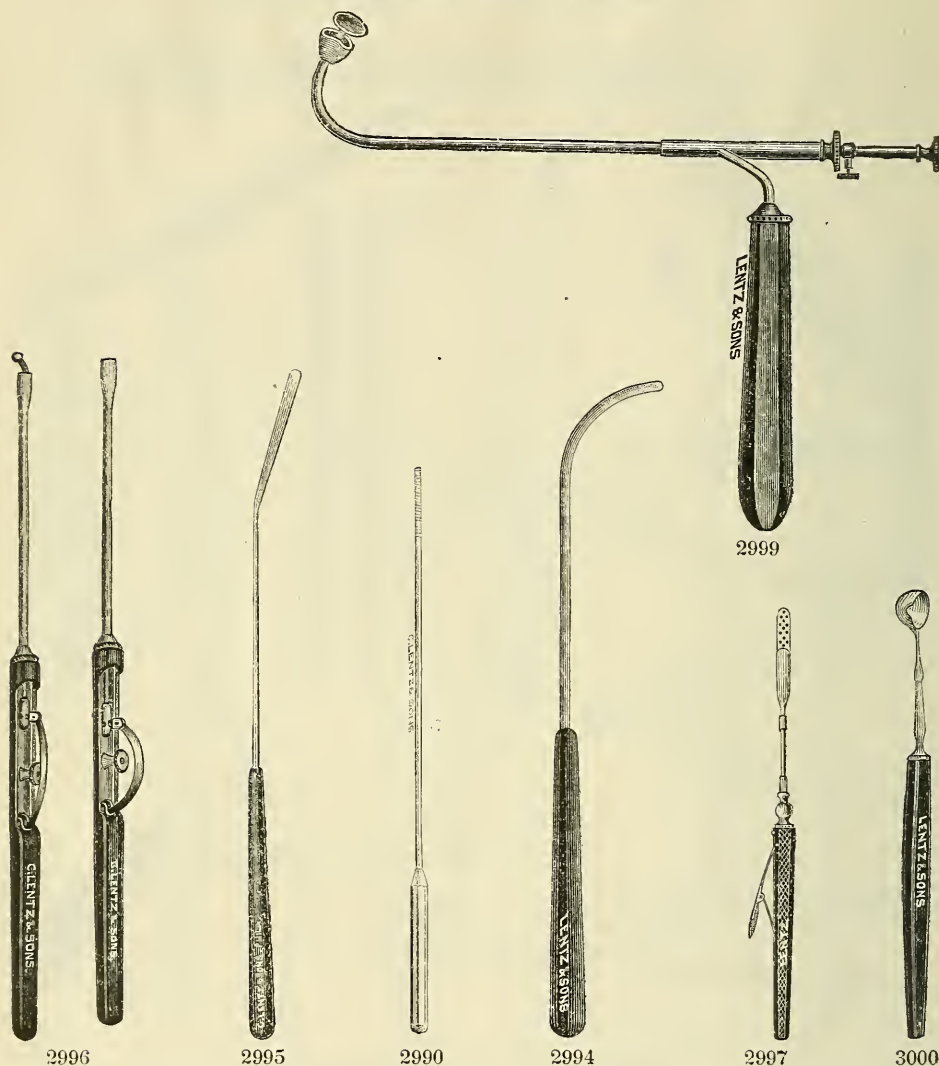


|        |                                                                 |           |
|--------|-----------------------------------------------------------------|-----------|
| 2980.* | Seiler's Chisel and Gouges, with set screw handle.....          | \$4 50    |
| 2981.* | Seiss' Gouge.....                                               | 1 50      |
| 2982.* | Allen's Septum Knife.....                                       | 1 25      |
| 2983.* | Seiler's Double Edge Cartilage Knife, curved upon the flat..... | 1 25      |
| 2984.* | Sajous' Nasal Saw, straight.....                                | 1 50      |
| 2985.* | “ “ “ angular, up cut and down cut.....                         | each 1 50 |
| 2986.* | Bosworth's Nasal Saw “ “ “ .....                                | “ 1 50    |
| 2987.  | “ “ “ straight .....                                            | 1 50      |
| 2988.  | Bucklin's Nasal Saw, reversible, two blades to one handle.....  | 2 50      |

*All Instruments Illustrated are designated by a \*.*

## Nasal Instruments.

### FOR MAKING APPLICATIONS.

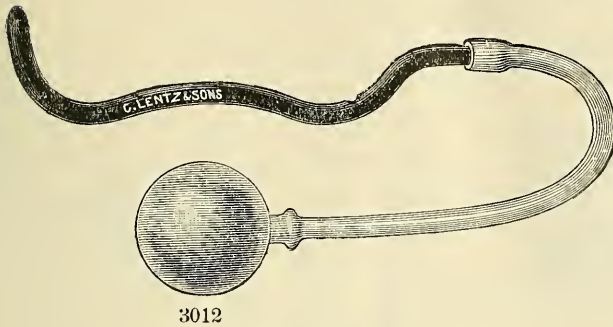


|        |                                                          |                 |        |
|--------|----------------------------------------------------------|-----------------|--------|
| 2990.* | Cotton Applicator, Allen's, steel.....                   | each 25c., doz. | \$2 50 |
| 2991.  | “ “ “ aluminum.....                                      | “ 30c., “       | 3 00   |
| 2992.  | “ “ Allen's, very delicate, with hard rubber handle..... | each            | 30     |
| 2993.  | “ “ Ivan's, steel, for Posterior Nares.....              |                 | 25     |
| 2994.* | “ “ Seiss', aluminum for Posterior Nares.....            |                 | 35     |
| 2995.* | Acid “ Bosworth's “ .....                                |                 | 40     |
| 2996.* | Chromic Acid Applicator, Sajous'.....                    |                 | 4 00   |
| 2997.* | Acetic “ “ silver points.....                            |                 | 5 00   |
| 2998.  | Flexible “ “ MacCoy's (see Fig. 3119, page 114).....     |                 | 5 00   |
| 2999.* | Chromic “ “ Bosworth's.....                              |                 | 4 50   |
| 3000.* | Platina Cup, for melting nitrate of silver.....          |                 | 2 25   |

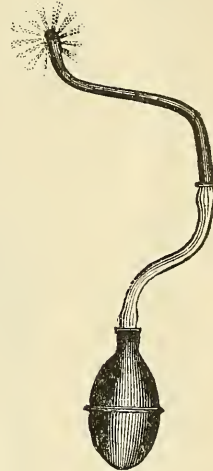
*All Instruments Illustrated are designated by a #.*

## Nasal Instruments.

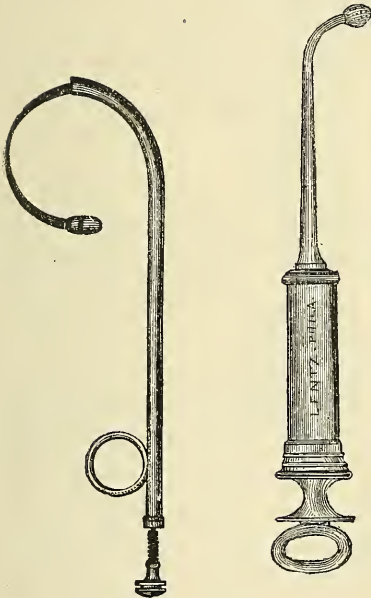
### FOR MAKING APPLICATIONS.



3012



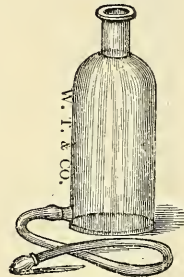
3007



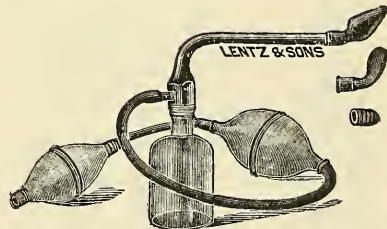
3005



3006



3011



3015

|        |                                                                       |      |
|--------|-----------------------------------------------------------------------|------|
| 3005.* | Bellocq's Canula, for plugging the nares, plated, \$1 25; silver..... | 1 85 |
| 3006.* | Post Nasal Syringe, hard rubber.....                                  | 90   |
| 3007.* | “ “ “ Warner's.....                                                   | 75   |
| 3008.  | “ “ Tube, glass, Cohen's.....                                         | 25   |
| 3009.  | “ “ “ hard rubber, Sajous'.....                                       | 1 00 |
| 3010.  | Nasal Douche Clark's.....                                             | 1 15 |
| 3011.* | “ “ Thudicum's, pint, 60c.; quart.....                                | 75   |
| 3012.* | Powder Insufflator, Sajous', Posterior Auto.....                      | 85   |
| 3013.  | “ “ “ for patients, glass.....                                        | 40   |
| 3014.  | “ “ Freeman's, for patients, glass.....                               | 15   |
| 3015.* | Nasal Spray, Leffert's, three points.....                             | 2 25 |
| 3016.* | “ “ Shoemaker's, (see next page).....each 60c.; doz.                  | 6 00 |

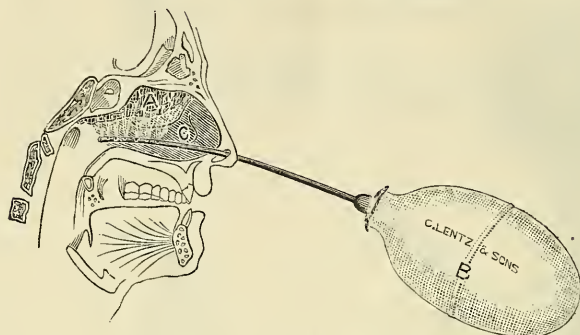
Powder Insufflators and Atomizers (see throat instruments).

*All Instruments Illustrated are designated by a \*.*



## Nasal Instruments.

### 3016.\* SHOEMAKER'S NASAL SPRAY.



3016

The figure shows the Nasal Spray instrument in position in the left nasal fossa. *A*, catarrhal incrustation or scab to be removed; *B*, Dr. Shoemaker's Nasal Spray instrument; *C*, left nasal fossa.

### DIRECTIONS FOR USING.

Place the point of the instrument in the prepared liquid to be used; then press the bulb tightly so as to force all the air out of it, so that the bulb will then fill with the liquid about to be used. When the bulb is filled, pass the point of the instrument into either nostril, as you see by the cut, which is not up, but directly back into either nostril, a distance of just half the length of the tube; then press the bulb by closing and opening the hand in rapid succession, so as to force out the liquid in interrupted jets of spray upon the parts affected, thereby effectually removing all accumulations from these parts, and thoroughly irrigating and cleansing, as well as medicating, all the parts affected.

Price to patients, 75 cts.

See other Nasal Sprays on previous page.

**We have all the various kinds of nose and throat instruments used and recommended by the specialist. Orders received for any instruments not listed can be furnished promptly at the lowest prices.**

**In referring to any special illustration of instruments, to avoid errors please state page and edition of publication.**

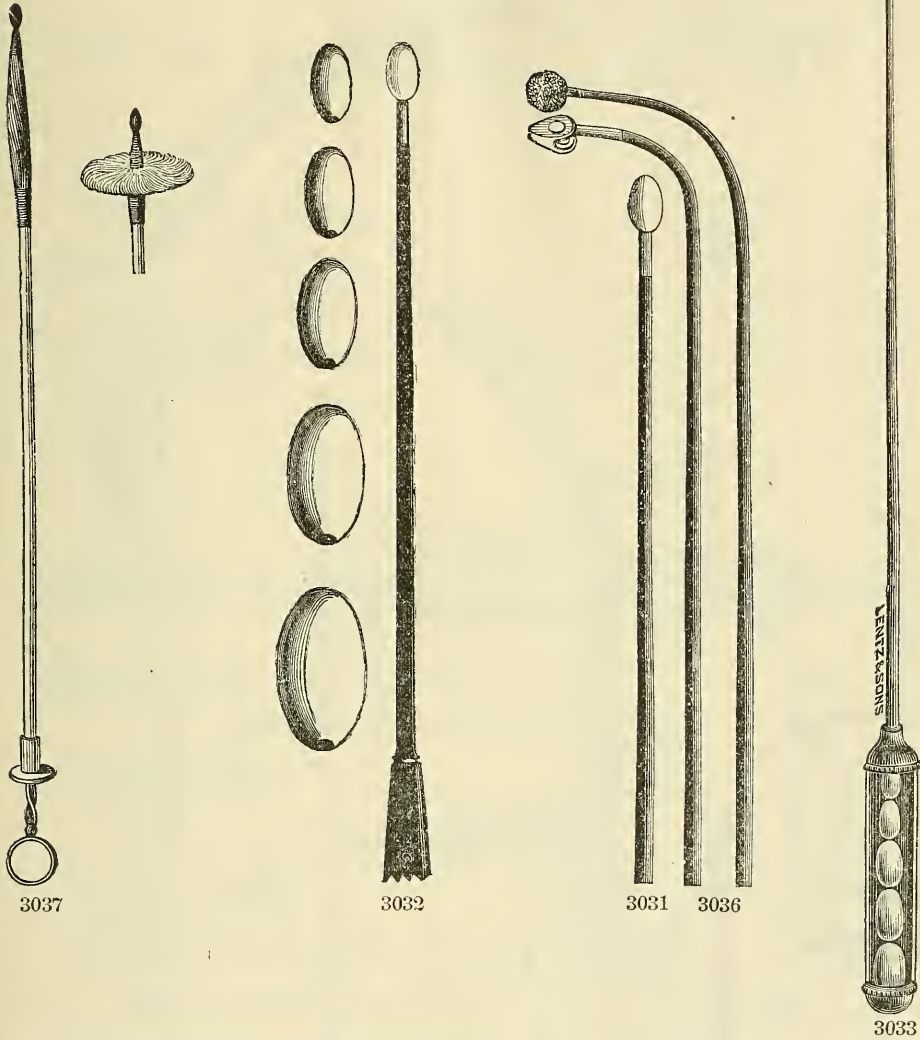
**Galvano-Cautery Batteries and Cautery Instruments for Naso-Pharyngeal operations.**

See Electrical Apparatus.

*All Instruments Illustrated are designated by a \*.*

## Mouth and Throat Instruments.

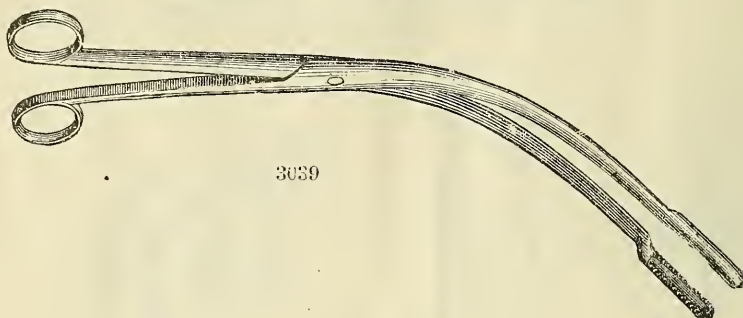
FOR STRICTURES AND FOREIGN BODIES OF THE  
ESOPHAGUS.



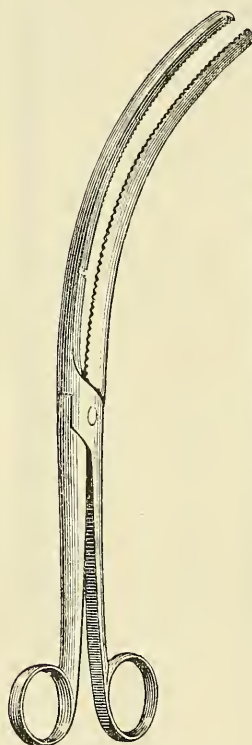
|        |                                                                                    |        |
|--------|------------------------------------------------------------------------------------|--------|
| 3030.  | Esophageal Bougie, Elastic Web, olive point.....                                   | \$1 00 |
| 3031.* | “ “ hard rubber, with whalebone stem.....                                          | 1 10   |
| 3032.* | “ “ set of six bulbs to one whalebone stem.....                                    | 3 00   |
| 3033.* | “ “ metal bulbs to one whalebone stem, with metal handle<br>to hold the bulbs..... | 3 75   |
| 3035.  | Swivel Probang or Coin Catcher.....                                                | 1 50   |
| 3036.* | “ “ to unscrew, in two parts with sponge at other end.....                         | 2 50   |
| 3037.* | Bristle “ hard rubber tip, best quality.....                                       | 1 35   |
| 3038.* | Esophageal Forceps, plain.....                                                     | 2 25   |
| 3039.* | “ “ Bond's.....                                                                    | 2 50   |
| 3040.* | “ “ Fauvel's.....                                                                  | 3 00   |
| 3041.* | “ “ Spiral.....                                                                    | 3 75   |
| 3042.* | “ “ Spiral, Dawson's.....                                                          | 6 00   |

*All Instruments Illustrated are designated by a \*.*

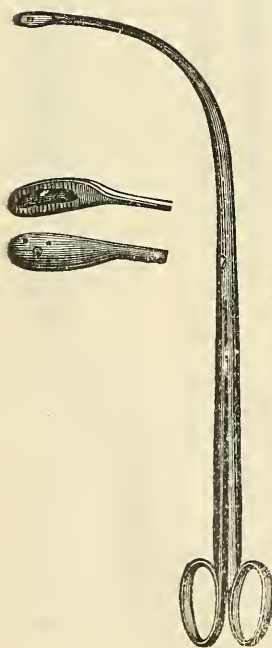
**Mouth and Throat Instruments.**  
FOR REMOVING FOREIGN BODIES.



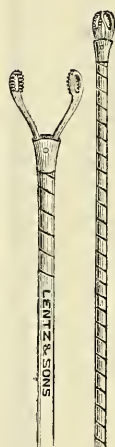
3039



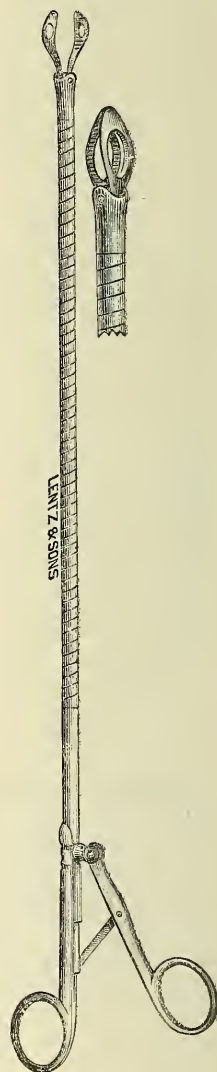
3038



3040



3041

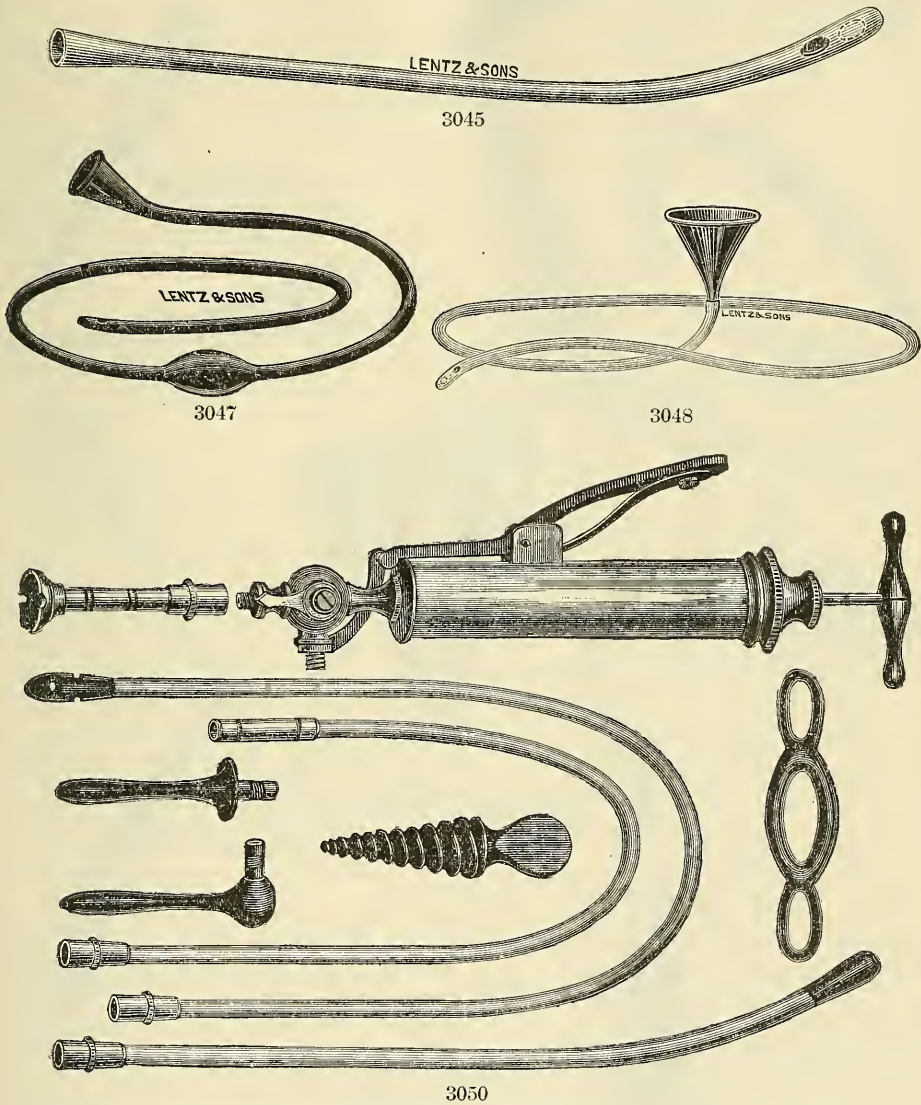


3042



## Mouth and Throat Instruments.

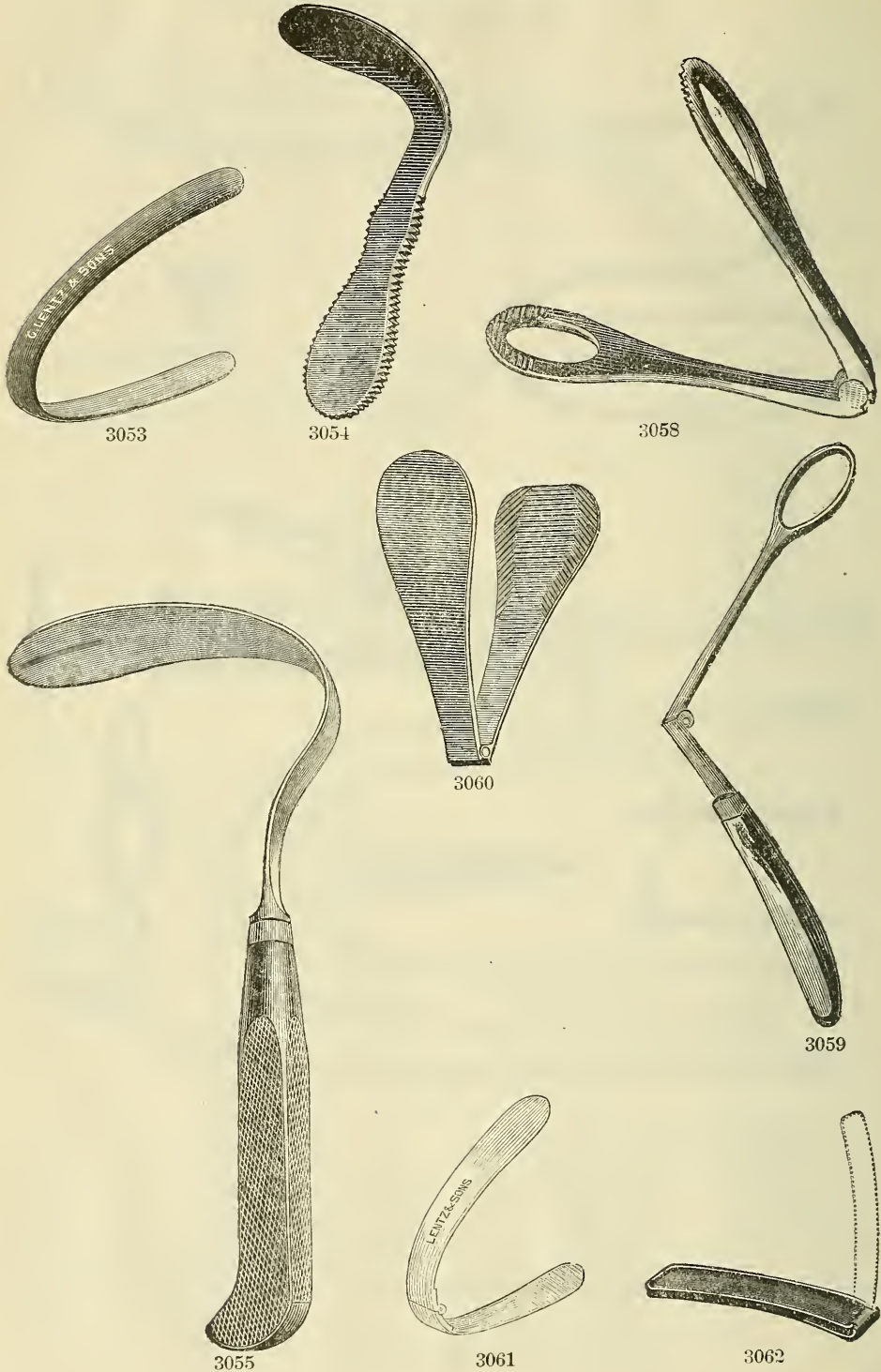
FOR LAVAGE, &c.



- |        |                                                                  |        |
|--------|------------------------------------------------------------------|--------|
| 3045.* | Stomach Tube, linen web, funnel end.....                         | \$1 35 |
| 3046.  | “ “ soft rubber, funnel end, 60 inches long.....                 | 1 50   |
| 3047.* | “ “ “ “ “ with bulb, 60 inches long.....                         | 1 75   |
| 3048.* | “ “ “ “ “ fine seamless, with hard rubber funnel, 60 inch long.. | 2 50   |
| 3050.* | Lever Stomach Pump and Enema Apparatus, complete in case.....    | 12 00  |

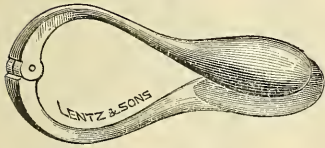
*All Instruments Illustrated are designated by a \*.*

Mouth and Throat Instruments.  
TONGUE DEPRESSORS.

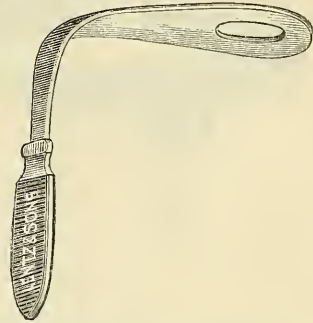


## Mouth and Throat Instruments.

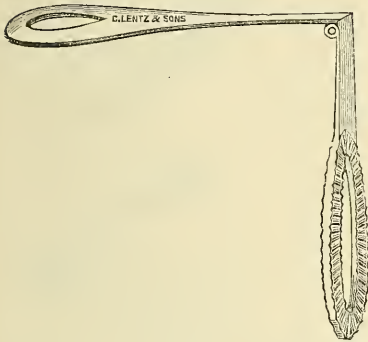
## TONGUE DEPRESSORS.



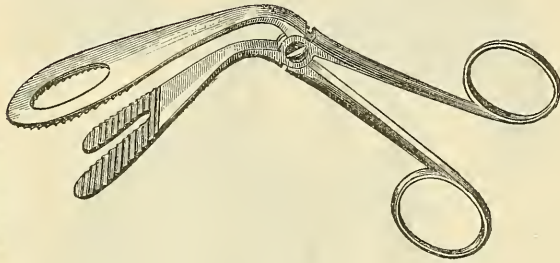
3063



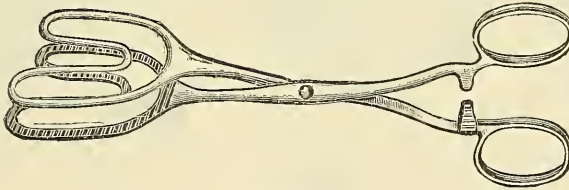
3056



3064



3068



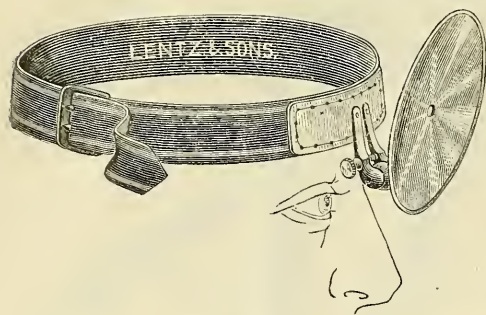
3069

|        |                                                              |      |
|--------|--------------------------------------------------------------|------|
| 3053.* | Tongue Depressor, Cohen's, hard rubber.....                  | 60   |
| 3054.* | " " Sass' " " .....                                          | 80   |
| 3055.* | " " " steel, hard rubber handle.....                         | 2 25 |
| 3056.* | " " Bosworth's, steel .....                                  | 85   |
| 3057.  | " " Turk's, three blades in one hard rubber handle.....      | 3 50 |
| 3058.* | " " Folding, metal, nickel-plated, 75c., aluminum.....       | 1 00 |
| 3059.* | " " " Green's.....                                           | 1 00 |
| 3060.* | " " " solid blades.....                                      | 1 25 |
| 3061.* | " " " Cohen's, solid blades.....                             | 1 50 |
| 3062.* | " " " wire.....                                              | 50   |
| 3063.* | " " " Goodwillie's, metal, nickel-plated, \$1 00; aluminum.. | 1 25 |
| 3064.* | " " " Lentz's " " " 1 25; " ..                               | 1 50 |
| 3065.  | " " " Self-retaining, Stehmen's.....                         | 1 50 |
| 3068.* | Tongue Holding Forceps, Cusco's, with French joint.....      | 3 00 |
| 3069.* | " " " Houze's, with French joint.....                        | 4 50 |

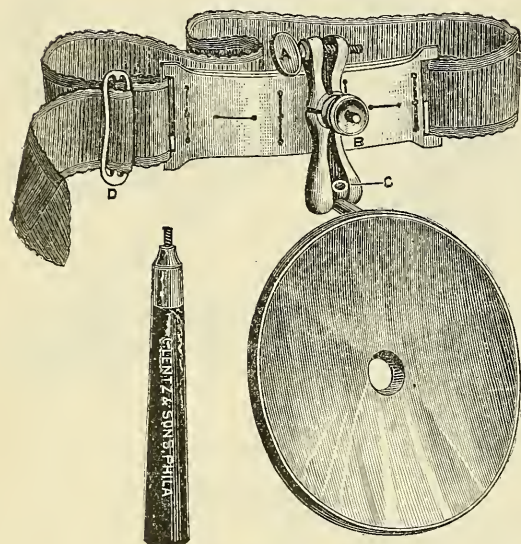
*All Instruments Illustrated are designated by a \*.*



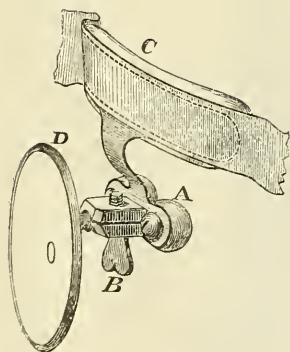
# Mouth and Throat Instruments. FOR EXAMINATION.



3074



3077



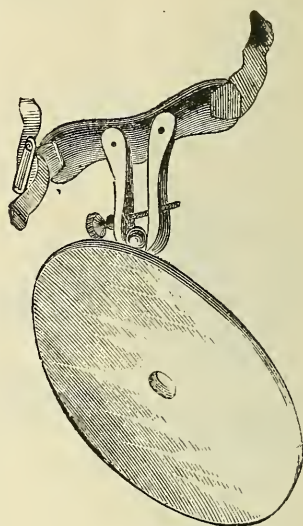
3080



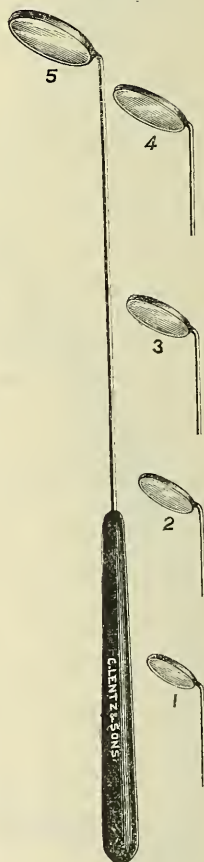
3089



3088



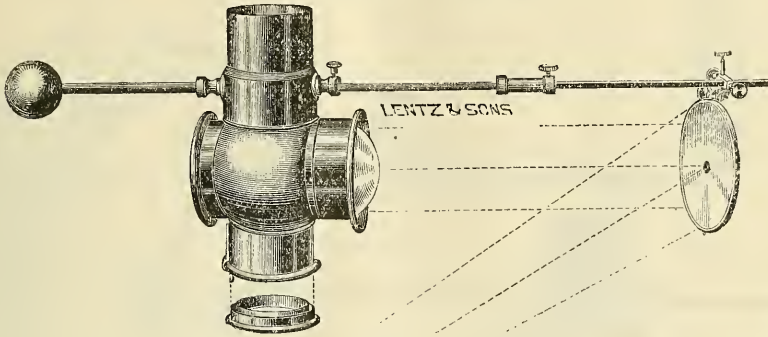
3070



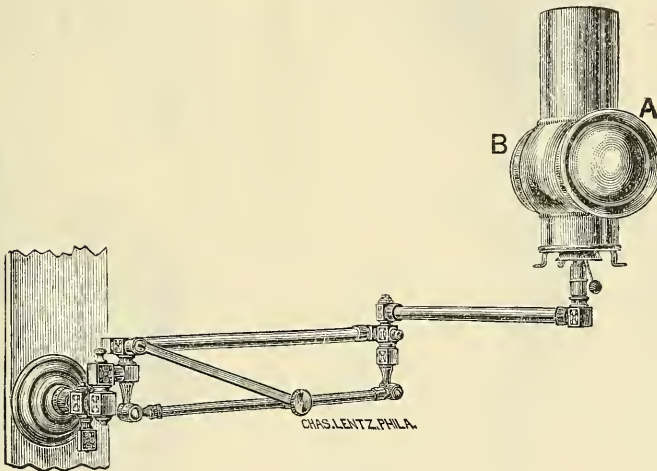
3083

## Mouth and Throat Instruments.

## Mirrors and Light Condensers.



3090.



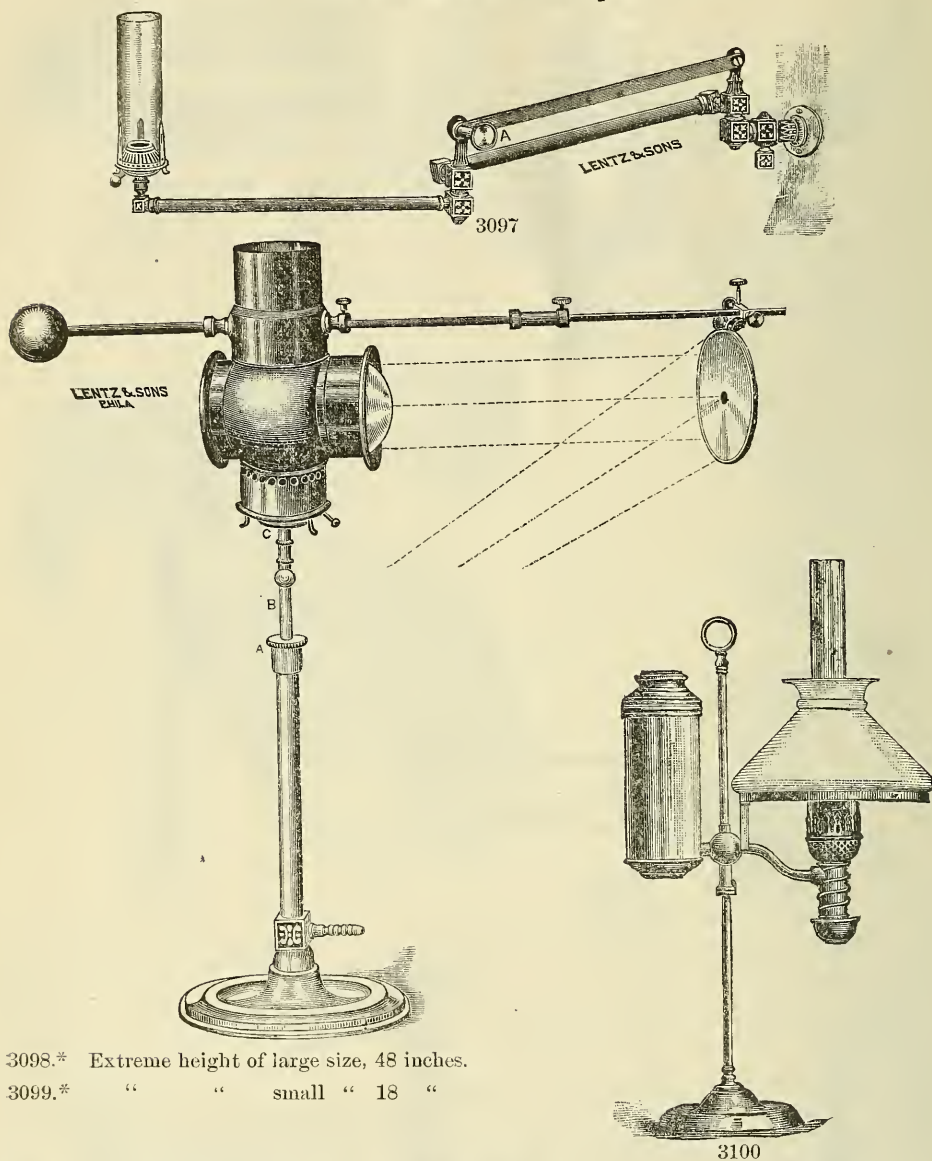
3093.

|        |                                                                                                         |        |
|--------|---------------------------------------------------------------------------------------------------------|--------|
| 3073.* | Reflecting Mirror, with Pomeroy's band, 3-inch, \$3.50 ; 3½-inch, \$3.90 ; 4-inch...                    | \$4 40 |
| 3074.* | " " " Ivans' " 3-inch.....                                                                              | 3 85   |
| 3075.* | " " " " 3½ " .....                                                                                      | 4 25   |
| 3076.* | " " " " 4 " .....                                                                                       | 4 75   |
| 3077.* | " " " Sajous' circular motion band, 3-inch.....                                                         | 4 75   |
| 3078.  | " " " " 3½ " .....                                                                                      | 5 25   |
| 3079.  | " " " " 4 " .....                                                                                       | 5 75   |
| 3080.* | " " " Schroetter's band, 3-inch.....                                                                    | 4 00   |
| 3081.  | " " " " 3½-inch, \$4.40 ; 4-inch.....                                                                   | 4 75   |
| 3082.  | " " " without band, 3-inch, \$2.50 ; 3½-inch, \$2.90 ; 4-inch.....                                      | 3 40   |
| 3083.* | Laryngoscopic Mirrors, with handle, best quality, nickel-plated, five sizes ..each                      | 80     |
| 3085.  | " " " plain, five sizes .....                                                                           | 60     |
| 3086.  | " " " without handle, best quality, nickel-plated, five sizes...                                        | 70     |
| 3087.  | " " " plain, five sizes .....                                                                           | 55     |
| 3088.* | " " " with set screw handle, .....                                                                      | 1 20   |
| 3089.* | " " " handle, with set screw .....                                                                      | 50     |
| 3090.* | Improved Mackenzie's Light Condenser, nickel-plated, with mirror rod and 3½-inch reflecting mirror..... | 10 50  |
| 3091.  | Light Condenser, with mirror rod, without reflecting mirror.....                                        | 7 50   |
| 3092.  | " " " without mirror rod, or mirror.....                                                                | 5 00   |
| 3093.* | Lentz's Adjustable Gas Bracket, with Argand burner and light condenser .....                            | 11 00  |
| 3094.  | " " " " " " .....                                                                                       | 6 00   |

*All Instruments Illustrated are designated by a \*.*

## Mouth and Throat Instruments.

Gas Brackets and Lamps.



3098.\* Extreme height of large size, 48 inches.

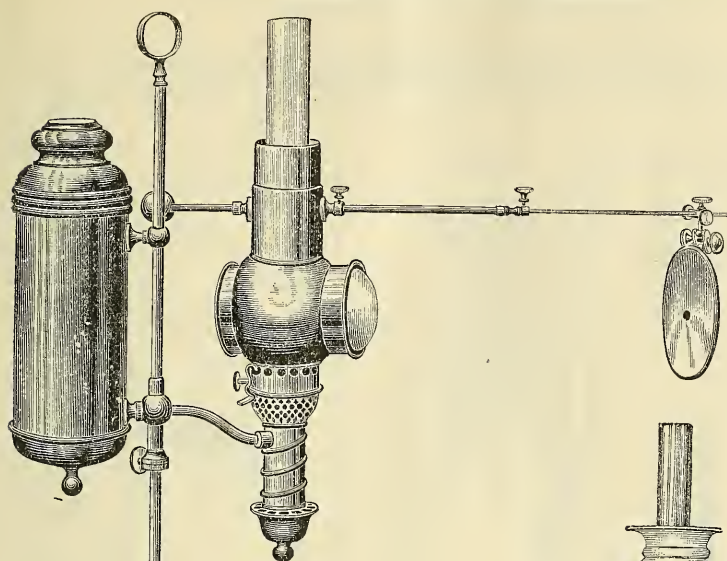
3099.\* " " small " 18 "

- 3097.\* Improved Adjustable Gas Bracket, brass or nickel-plated, extreme length, 30 inches; the handle *A* is for raising or lowering at the same time a set-nut for holding in position, with Argand burner and chimney.....\$7 50
- 3098.\* Adjustable Gas Stand, large size, nickel-plated, with Argand burner and chimney, and 6 feet gas tubing, with metal connections..... 9 00
- 3099.\* Adjustable Gas Stand, small size, complete with gas tubing, &c..... 6 50
- 3100.\* Student Lamp, nickel plated, with tin oil reservoir..... 3 75
- 3101.\* " " " " " " " and wall bracket..... 4 00
- 3102.\* " " " " " " " glass oil " and adjustable wall bracket.... 8 00
- 3103.\* " " " " " " " on stand..... 5 50
3104. Light Condenser, with mirror rod and 3½ inch reflecting mirror for the above student lamps Figs. 3102 and 3103.....10 50

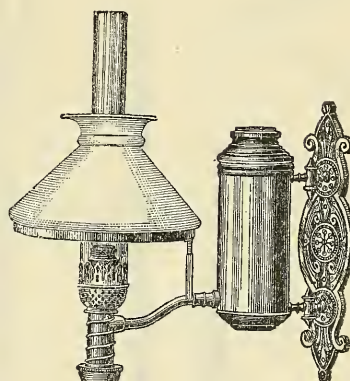
*All Instruments Illustrated are designated by a \*.*



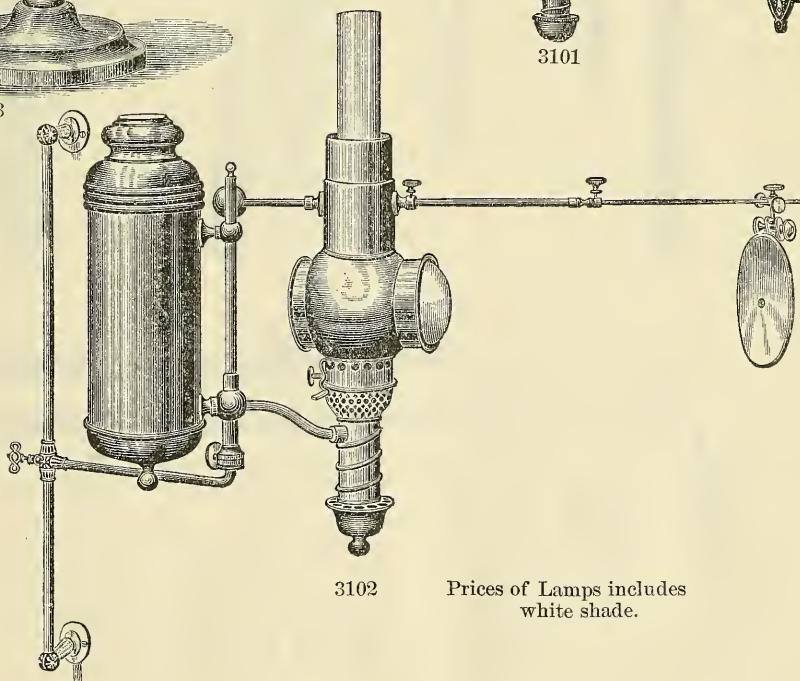
# Mouth and Throat Instruments. LAMPS AND CONDENSERS.



3103



3101

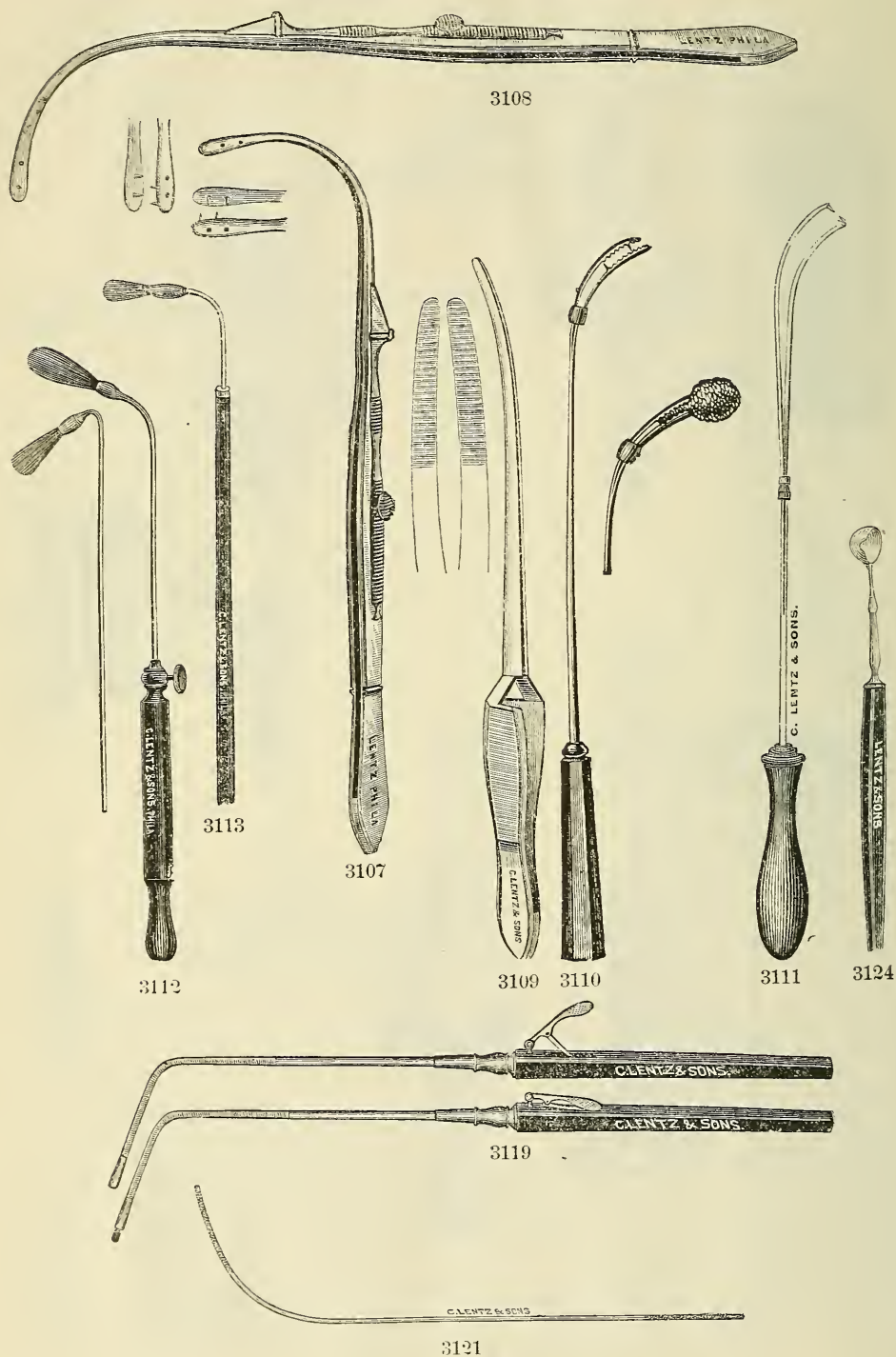


3102

Prices of Lamps includes  
white shade.

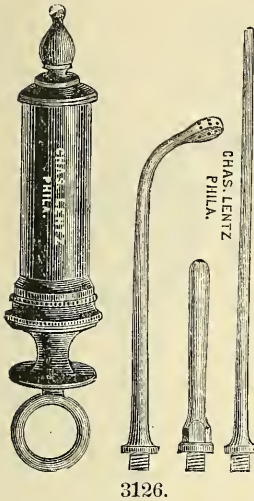
## Mouth and Throat Instruments.

FOR MAKING APPLICATIONS.

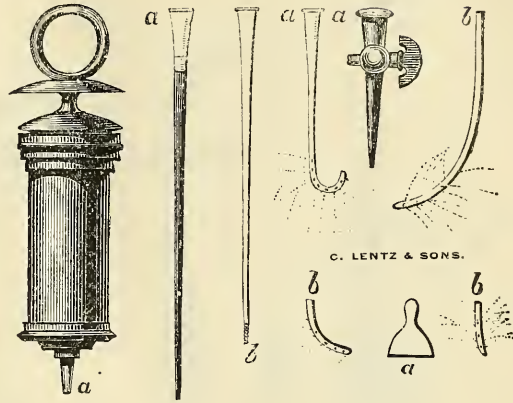


## Mouth and Throat Instruments.

For Making Applications.



3126.



3127.



3128.

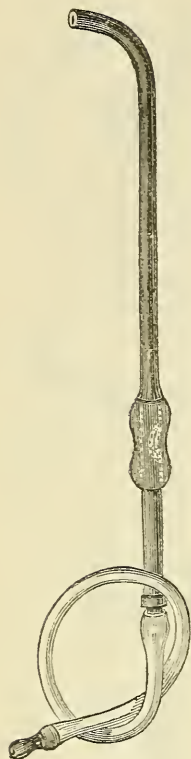
|        |                                                                                                         |        |
|--------|---------------------------------------------------------------------------------------------------------|--------|
| 3107.* | Cotton-holding Forceps, Sajous' Universal.....                                                          | \$2 75 |
| 3108.* | “ “ “ Miller's Laryngeal.....                                                                           | 2 75   |
| 3109.* | “ “ “ Cohen's Pharyngeal self-retaining.....                                                            | 1 85   |
| 3110.* | Cotton and Sponge-holder, with bayonet catch.....                                                       | 1 50   |
| 3111.* | “ “ “ “ plain.....                                                                                      | 65     |
| 3112.* | Brush-holders, Wagner's, with two stems and six brushes.....                                            | 1 50   |
| 3113.* | “ “ Mackenzie's, in fixed handle, with one brush.....                                                   | 85     |
| 3114.* | “ “ Seeger's, for any Camel's-hair brush.....                                                           | 1 85   |
| 3115.* | “ “ Ruppaner's, for any Camel's-hair brush.....                                                         | 75     |
| 3116.  | Throat Brushes, Camel's hair, plain wire handles.....per doz.,                                          | 1 00   |
| 3117.  | “ “ “ “ “ wood handles.....                                                                             | “ 90   |
| 3118.  | “ “ “ “ “ in hard rubber sockets for Wagner's holder. “                                                 | 1 50   |
| 3119.* | Flexible Acid Applicator, MacCoy's.....                                                                 | 5 00   |
| 3121.* | Aluminum Cotton Applicator, with roughened ends.....                                                    | 20     |
| 3122.  | “ “ “ “ set screw handle.....                                                                           | 70     |
| 3123.  | “ “ “ “ fixed handle.....                                                                               | 35     |
| 3124.* | Platina Cup for melting nitrate of silver (see Fig. 3000, page 102).....                                | 2 25   |
| 3126.* | Universal Syringe, hard rubber, with ear, post-nasal, uterine and rectal points.....                    | 2 00   |
| 3127.* | “ “ “ “ for the larynx, anterior and posterior nares, ear, urethra, bladder, uterus, and hydrocele..... | 5 00   |
| 3128.* | Laryngeal Syringe, Tobold's.....                                                                        | 1 85   |
| 3130.  | Drop Tube, Stoerk's.....                                                                                | 1 70   |

*All Instruments Illustrated are designated by a \*.*



## Mouth and Throat Instruments.

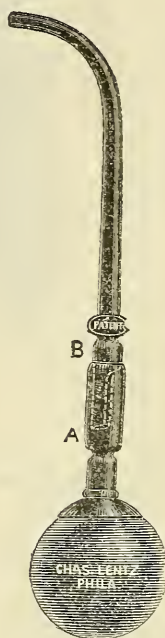
FOR MAKING APPLICATIONS.



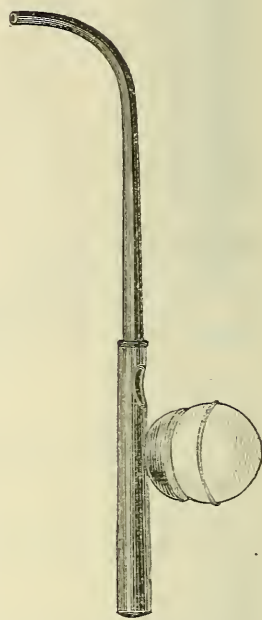
3132



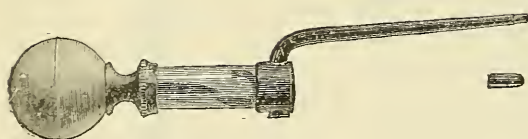
3133



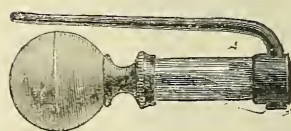
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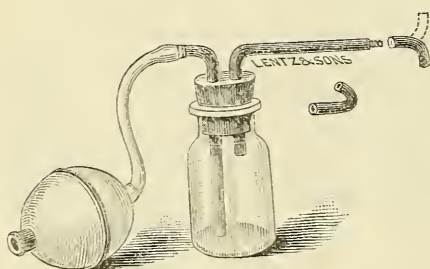
3136



3137



3138



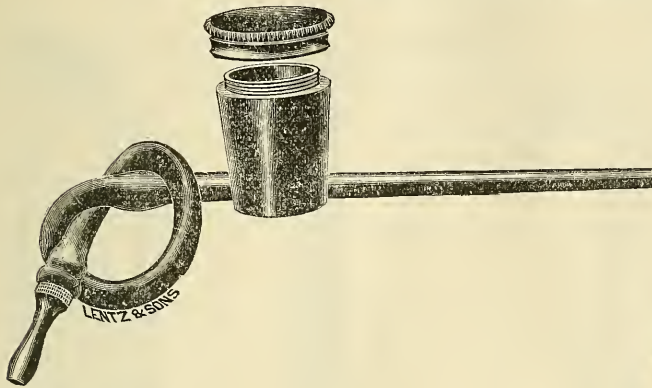
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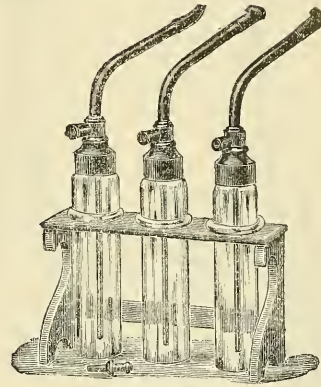
Do not cut out Illustrations, as it will destroy Catalogue.  
State Figure and page when ordering.

## Mouth and Throat Instruments.

FOR MAKING APPLICATIONS.



3140



3143



3141

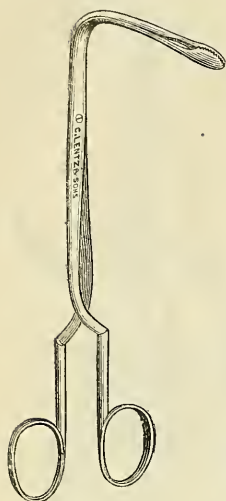
|        |                                                                                 |       |
|--------|---------------------------------------------------------------------------------|-------|
| 3132.* | Powder Blower, hard rubber, with tube and mouth-piece.....                      | \$ 75 |
| 3133.* | “ “ “ “ ball.....                                                               | 85    |
| 3134.* | “ “ Scoop, hard rubber, with ball.....                                          | 1 00  |
| 3135.  | “ “ “ “ “ four adjustable tips.....                                             | 1 50  |
| 3136.* | “ “ Leffert's, “ “ “ .....                                                      | 1 35  |
| 3137.* | “ “ Cohen's Glass Barrel, hard rubber fittings, straight or curved point        | 1 75  |
| 3138.* | “ “ “ shown folded, for convenience in carrying.....                            |       |
| 3139.* | “ “ Robinson's, with three points for Larynx, Posterior and Anterior Nares..... | 2 00  |
| 3140.* | Powder Blower, Vienna, with screw-cap box reservoir.....                        | 1 50  |
| 3141.* | “ “ DeVilbiss, with three tubes.....                                            | 1 00  |
| 3142.  | “ “ “ “ “ and single bulb.....                                                  | 1 25  |
| 3143.* | “ “ Davidson's, hard rubber, set of three, with stand.....                      | 3 50  |

This set is made especially for office use, can be used on the condensed air apparatus or with bulb, each tube has four points.

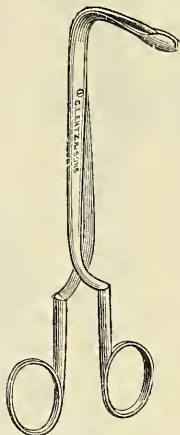
*All Instruments Illustrated are designated by a \*.*

## Mouth and Throat Instruments.

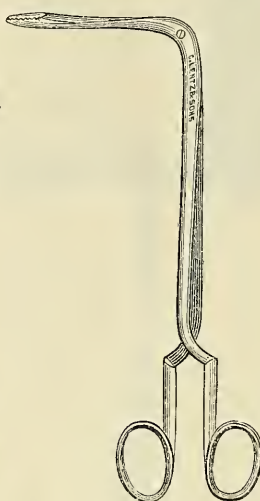
FOR THE REMOVAL OF FOREIGN BODIES, POLYPI, Etc.



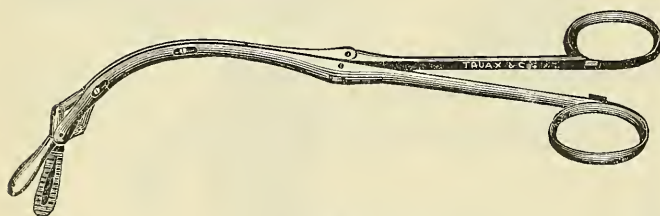
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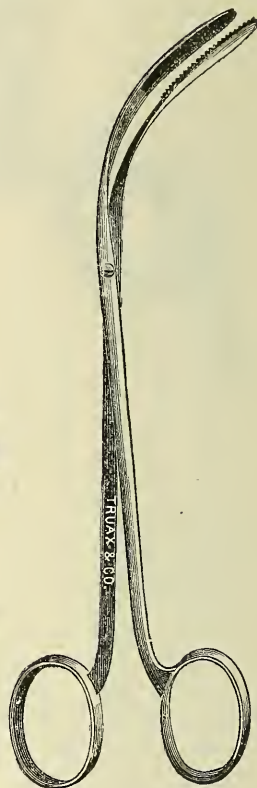
3147



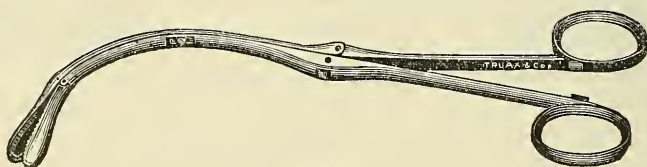
3146



3149



3148



3150

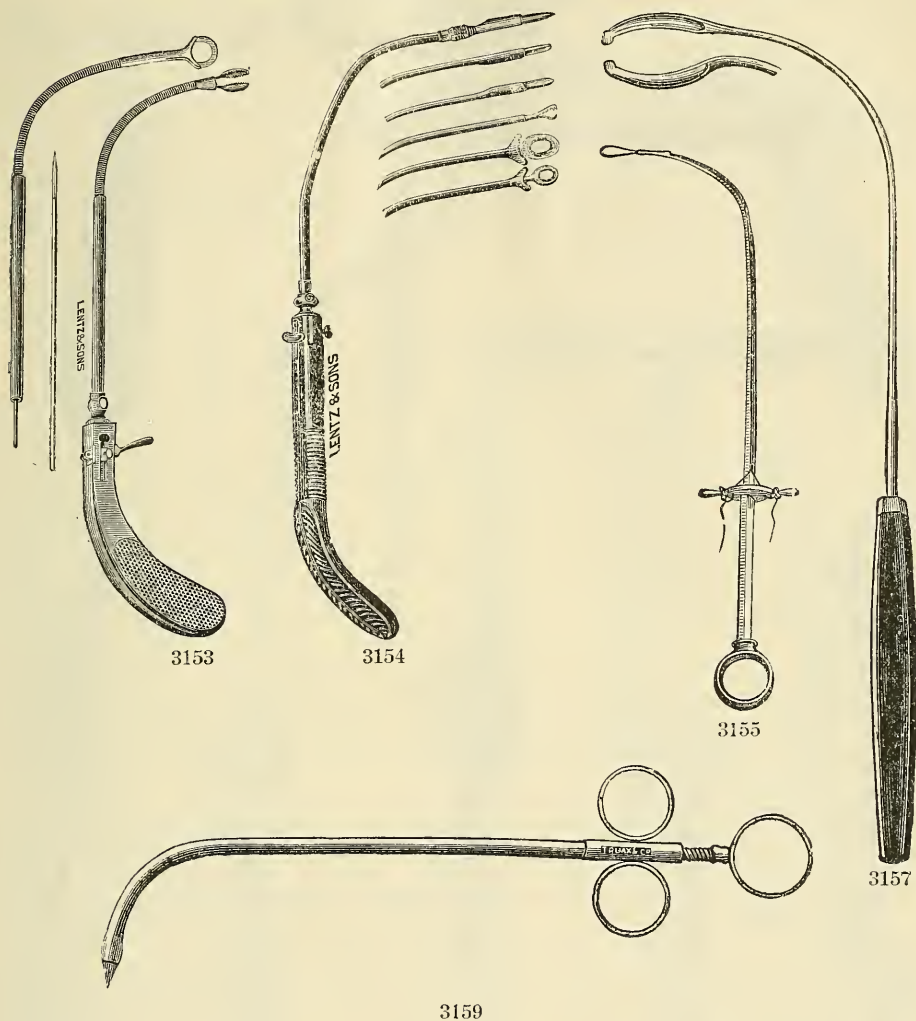
|        |                                                                    |        |
|--------|--------------------------------------------------------------------|--------|
| 3145.* | Throat Forceps, Mackenzie's, opening laterally, serrated jaws..... | \$2 75 |
| 3146.* | “ “ “ “ antero-posteriorly, serrated jaws.....                     | 2 75   |
| 3147.* | “ “ “ “ laterally, cutting edge jaws,.....                         | 3 00   |
| 3148.* | “ “ Buck's.....                                                    | 2 25   |
| 3149.* | “ “ Leur's, opening laterally.....                                 | 6 00   |
| 3150.* | “ “ “ “ antero-posteriorly.....                                    | 4 50   |
| 3151.  | “ “ Mathieu's Alligator.....                                       | 4 50   |

*All Instruments Illustrated are designated by a \*.*



## Mouth and Throat Instruments.

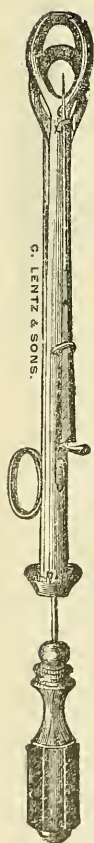
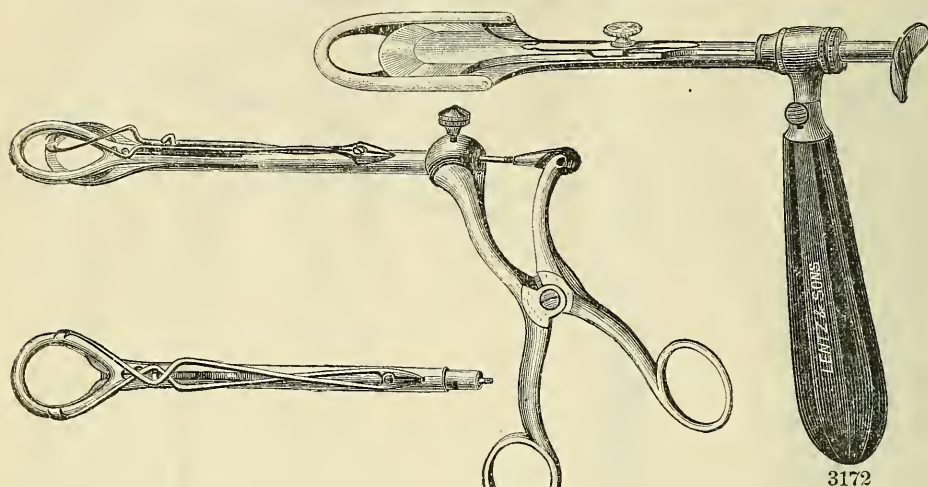
FOR THE REMOVAL OF FOREIGN BODIES, POLYPI, Etc.



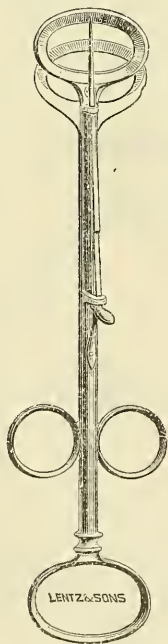
|        |                                                                                     |         |
|--------|-------------------------------------------------------------------------------------|---------|
| 3153.* | Seiler's Guillotine, Laryngotome and Tube Forceps, can be curved to any angle...    | \$12 00 |
| 3154.* | Tuerck's Extirpation Instrument, handle, with six instruments. in case.....         | 25 00   |
| 3155.* | Gibbs' Laryngeal Ecraseur.....                                                      | 2 25    |
| 3156.  | O'Dwyer's " Snare.....                                                              | 2 60    |
| 3157.* | Tobold's " Knives.....each                                                          | 1 50    |
| 3158.  | " " Lancet, plain.....                                                              | 1 15    |
| 3159.* | " " " concealed.....                                                                | 3 00    |
| 3160.  | Cohen's " Curette, with flexible copper stem that allows bending to any angle ..... | 2 00    |

*All Instruments Illustrated are designated by a \*.*

# Mouth and Throat Instruments. FOR EXCISION OF TONSILS AND UVULA.



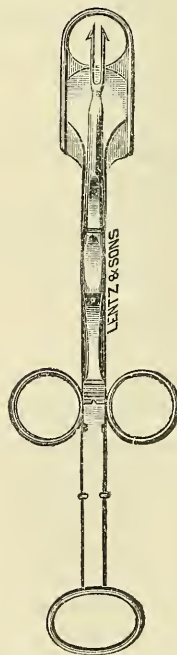
3165



3166



3167



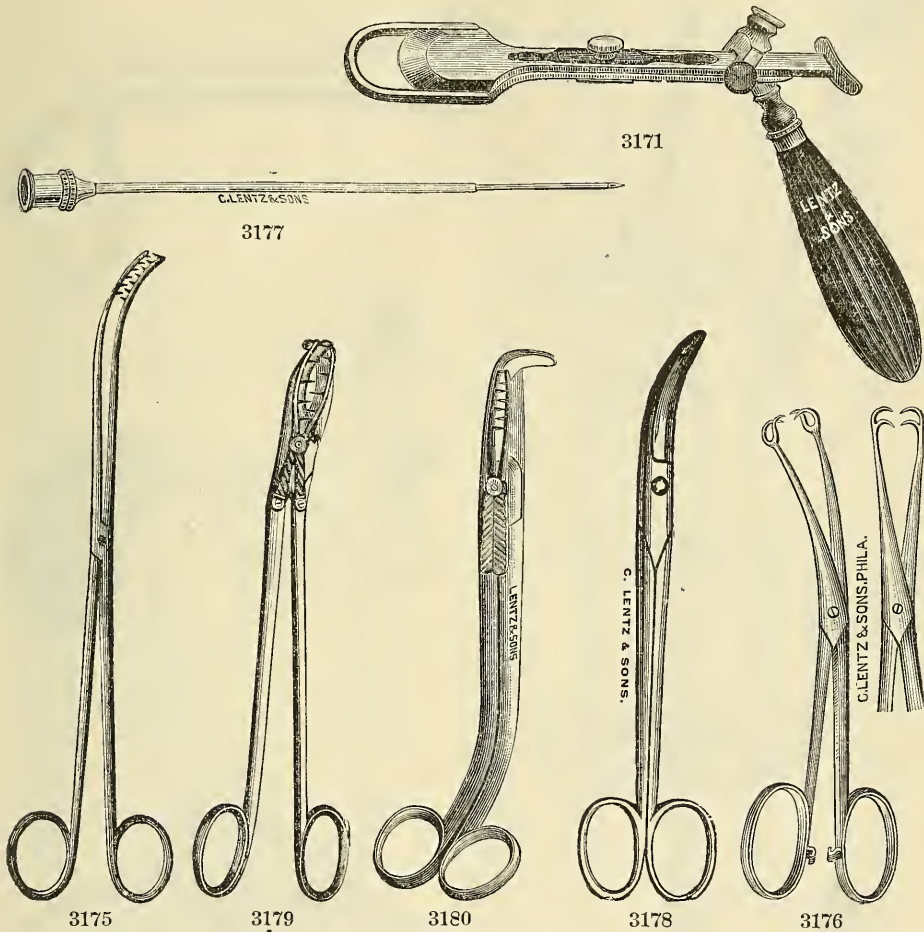
3168



3169

## Mouth and Throat Instruments.

FOR EXCISION OF TONSILS AND UVULA.



|        |                                                      |        |
|--------|------------------------------------------------------|--------|
| 3165.* | Tonsilotome, Fahnestock's.....                       | \$4 00 |
| 3166.* | " Lentz's.....                                       | 5 00   |
| 3167.* | " Billing's.....                                     | 7 50   |
| 3168.* | " Marconi's.....                                     | 7 50   |
| 3169.* | " Mathieu's.....                                     | 7 50   |
| 3170.* | " Tiemann's, one blade.....                          | 11 00  |
| 3171.* | " Mackenzie's, adjustable to right or left side..... | 7 50   |
| 3172.* | " Mandeville's, " " ".....                           | 7 50   |
| 3173.  | " Sajous'.....                                       | 7 00   |
| 3174.  | Tonsil Bistoury, curved, with long handle.....       | 1 50   |
| 3175.* | Musseux's Forceps, for holding Tonsils.....          | 2 00   |
| 3176.* | Vulsellum " " ".....                                 | 1 85   |
| 3177.* | Needle for injecting tonsils.....                    | 75     |
| 3178.* | Uvula Scissors, plain, curved on flat.....           | 1 75   |
| 3179.* | " " with claws.....                                  | 4 50   |
| 3180.* | " " Seiler's.....                                    | 4 50   |
| 3181.  | " " Sajous'.....                                     | 6 00   |

*All Instruments Illustrated are designated by a \*.*

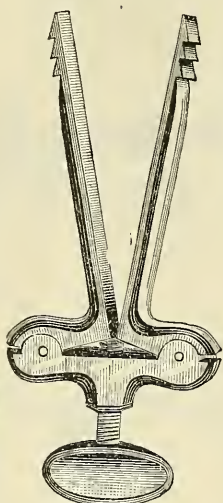


## Mouth and Throat Instruments.

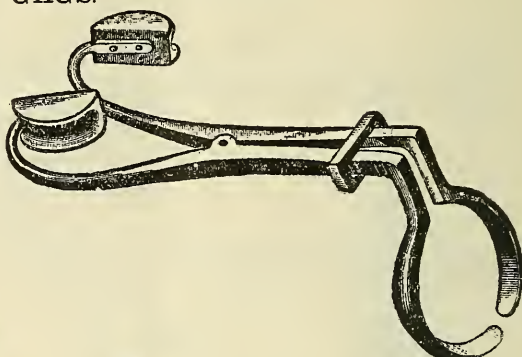
## GAGS.



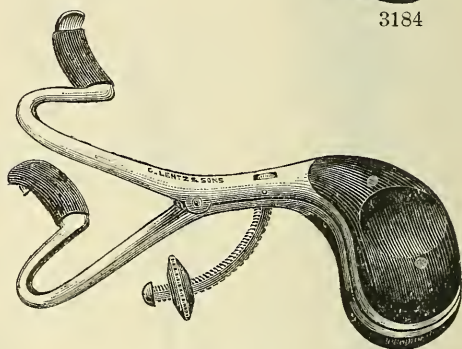
3192



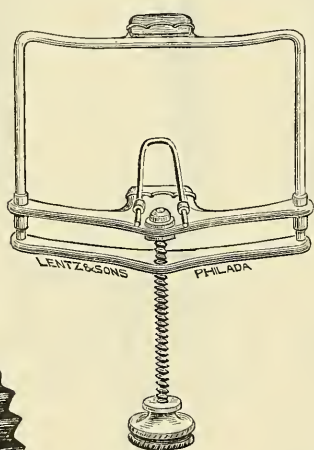
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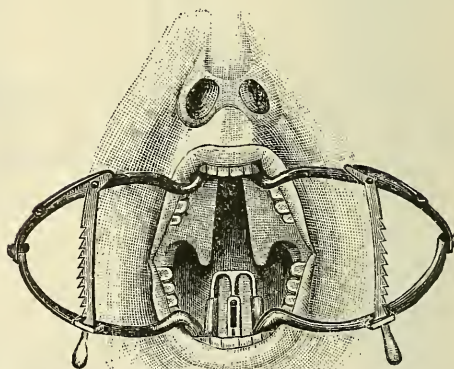
3184



3185



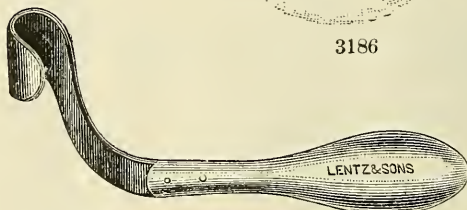
3187



3186

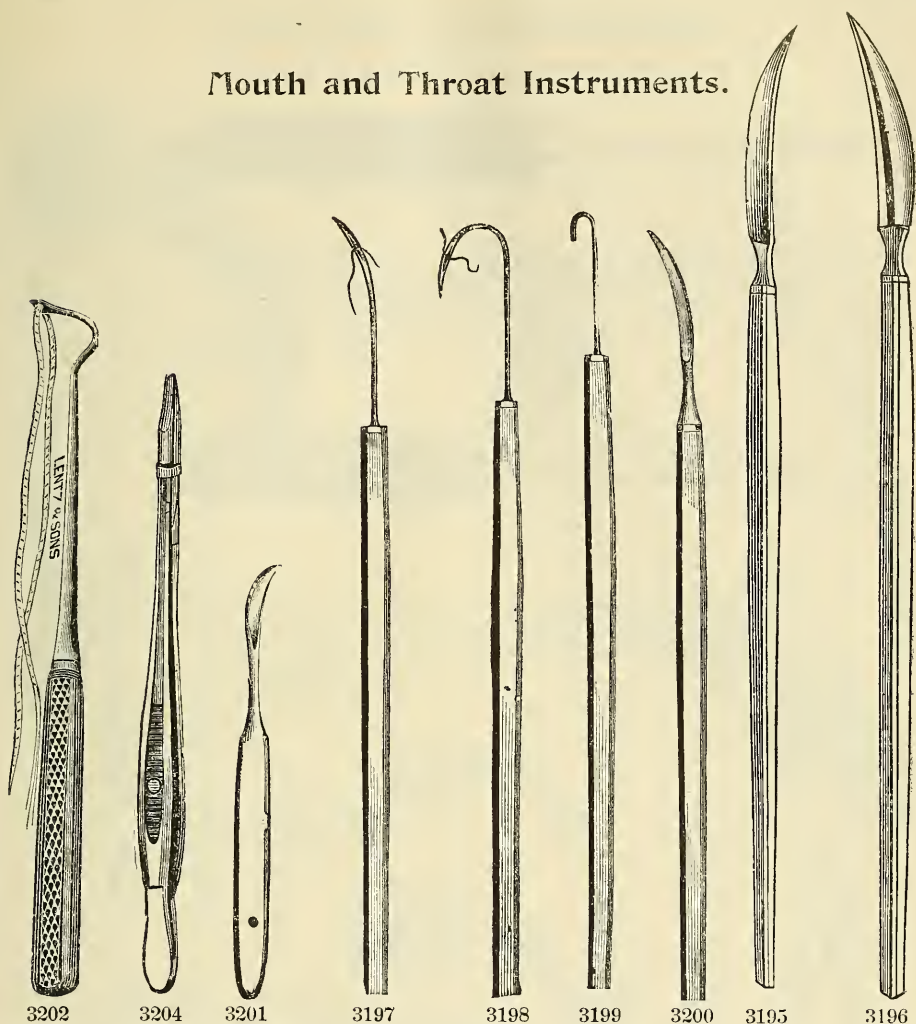


3191



3190

## Mouth and Throat Instruments.

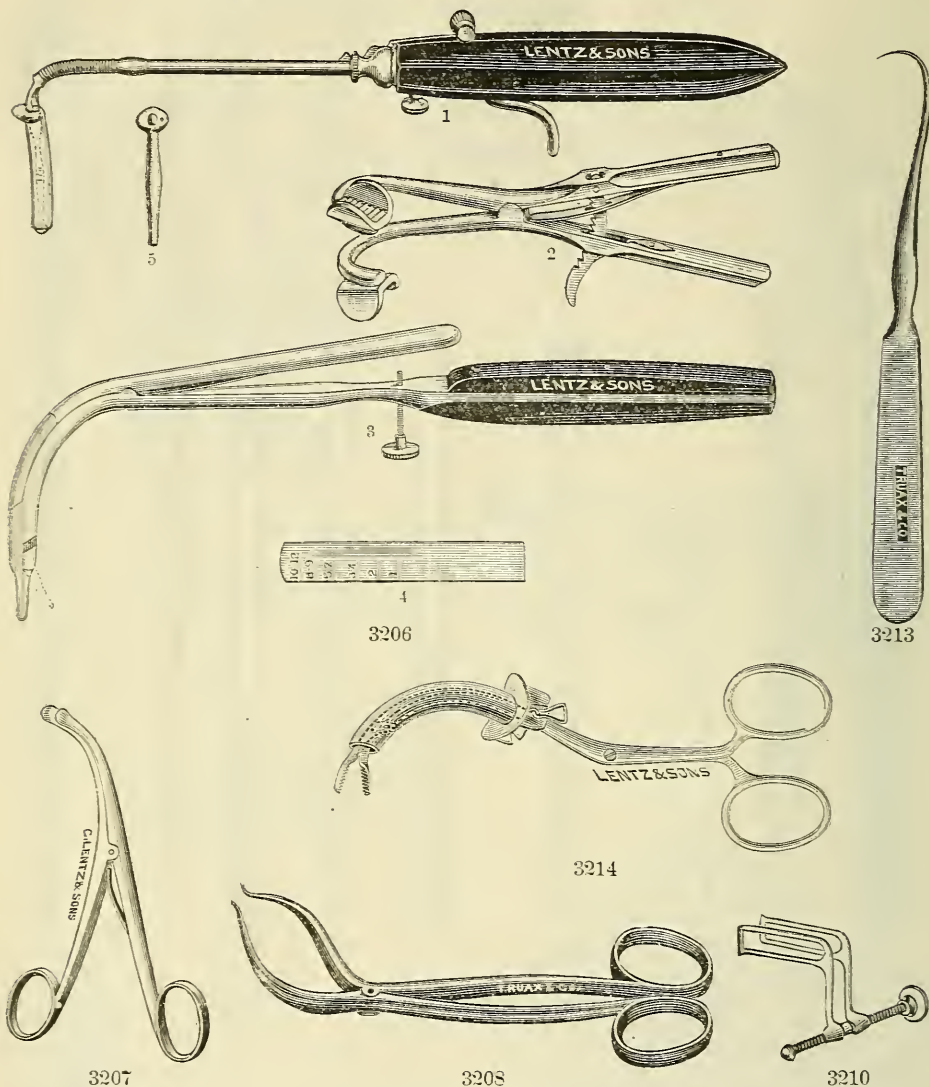


|        |                                                     |           |
|--------|-----------------------------------------------------|-----------|
| 3184.* | Mouth Gag, Goodwillie's.....                        | \$5 00    |
| 3185.* | " " Mason's, improved.....                          | 4 00      |
| 3186.* | " " Whitehead's.....                                | 9 00      |
| 3187.* | " " Mears'.....                                     | 6 00      |
| 3188.  | " " Denhart's, see Intubation set on next page..... | 4 00      |
| 3190.* | Cheek Retractor, right and left.....                | each 1 15 |
| 3191.* | Locked Jaw Screw, hard rubber.....                  | 85        |
| 3192.* | " " Dilator, Gross'.....                            | 3 75      |
| 3193.* | " " Heister-Mott's.....                             | 4 50      |
| 3195.* | Staphyloraphy Knife, curved, right or left.....     | each 1 75 |
| 3196.* | " " double edge.....                                | 1 85      |
| 3197.* | " " Needle, Updegraff's.....                        | 1 50      |
| 3198.* | " " ".....                                          | 1 50      |
| 3199.* | " " Hook, blunt, Updegraff's.....                   | 1 25      |
| 3200.* | " " Bistoury, Updegraff's.....                      | 1 50      |
| 3201.* | Whitehead's Gum Knife.....                          | 1 15      |
| 3202.* | " " Spiral Suture Needle.....                       | 1 35      |
| 3203.  | Wire Adjuster, Sims'.....                           | 1 10      |
| 3204.* | " " Twisting Forceps, Sims'.....                    | 2 65      |
| 3205.  | Seizing Forceps, Langenbeck's.....                  | 1 90      |

*All Instruments Illustrated are designated by a \*.*

## Mouth and Throat Instruments.

### FOR INTUBATION AND TRACHEOTOMY.



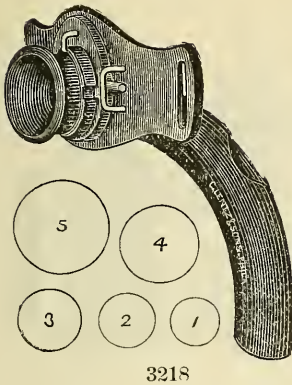
|        |                                                                                                             |                                          |
|--------|-------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 3206.* | O'Dwyer's Intubation Set for croup and kindred diseases. The complete set for tubing the Larynx consists of |                                          |
|        | 1 Denhart's Mouth Gag, Fig. 2.                                                                              | 1 Extractor, Fig. 3.                     |
|        | 1 Introducer, Fig. 1.                                                                                       | 1 Scale, Fig. 4.                         |
|        | 6 Larynx Tubes, Fig. 5.                                                                                     | In morocco velvet-lined case.....\$25 00 |
| 3207.* | Trachea Dilator, Trousseau's.....                                                                           | 1 85                                     |
| 3208.* | " " Otis'.....                                                                                              | 2 65                                     |
| 3209.  | " " Elsberg's.....                                                                                          | 3 75                                     |
| 3210.* | " " Golding-Bird's.....                                                                                     | 2 75                                     |
| 3211.  | Tracheotomy Scalpel, sharp or probe pointed.....                                                            | each 1 25                                |
| 3212.  | " Retractors, metal handles, per pair.....                                                                  | 2 00                                     |
| 3213.* | " Hook, sharp, with groove.....                                                                             | 1 00                                     |
| 3214.* | " Forceps, Collis', for removing clots of blood or mucus from canula..                                      | 3 50                                     |
| 3215.  | " " Trousseau's, for removing mucus from canula.....                                                        | 2 50                                     |

*All Instruments Illustrated are designated by a \*.*

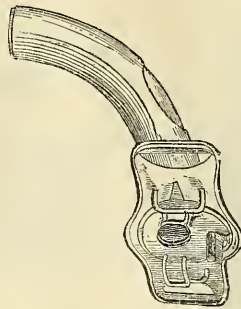


## Mouth and Throat Instruments.

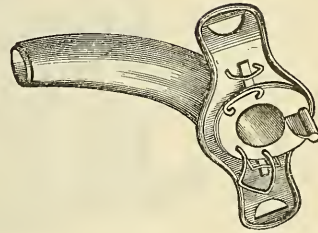
## FOR TRACHEOTOMY.



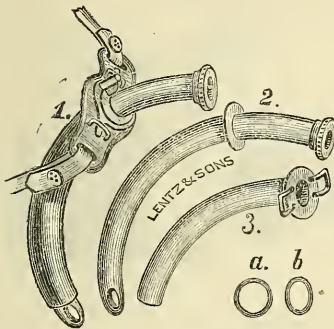
3218



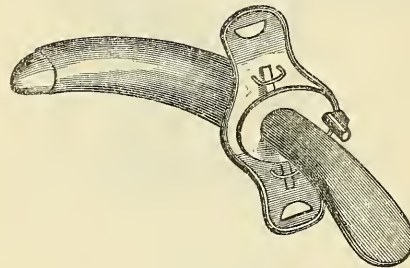
3219-3220



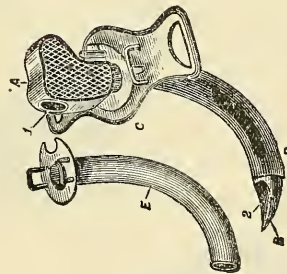
3221



3222-3223



3224



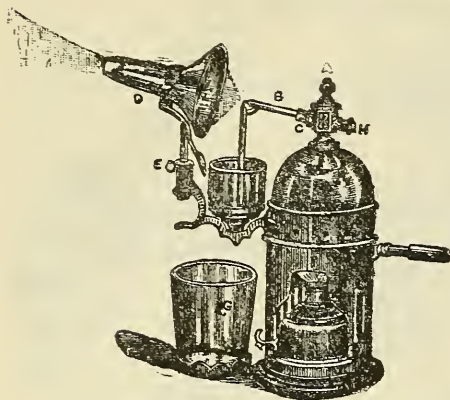
3230

|        |                                                            |             |
|--------|------------------------------------------------------------|-------------|
| 3218.* | Trachea Tube, double hard rubber, five sizes.....          | each \$1 25 |
| 3219.* | " " " German-silver plated five sizes.....                 | " 2 75      |
| 3220.* | " " " silver, five sizes.....                              | " 4 50      |
| 3221.* | " " " aluminum, three sizes.....                           | " 2 75      |
| 3222.* | " " " Cohen's aluminum, with hollow Obdurator.....         | 5 00        |
| 3223.* | " " " plated. \$4 00; silver.....                          | 6 00        |
| 3224.* | " " " double, with solid Pilot, plated.....                | 3 75        |
| 3225.* | " " " single plated, \$1 00; silver.....                   | 1 50        |
| 3226.* | " " " Elsberg's, double with valve.....                    | 6 00        |
| 3227.* | " " " Johnson's, double, with Spiral Canula and Pilot..... | 7 50        |
| 3230.* | Tracheotome, Hawk's, silver.....                           | 6 75        |
| 3231.* | " " " Pitha's.....                                         | 2 75        |
| 3232.* | " " " Langenbeck's.....                                    | 3 00        |

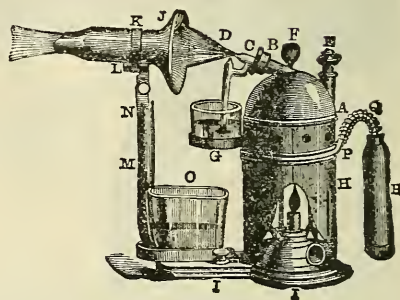
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## Mouth and Throat Instruments.

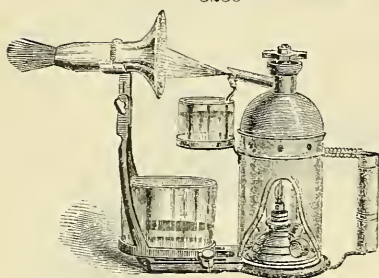
## ATOMIZERS.



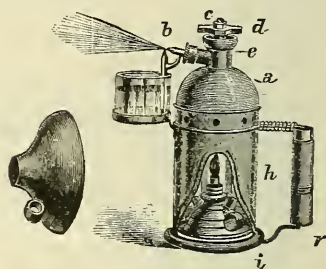
3235



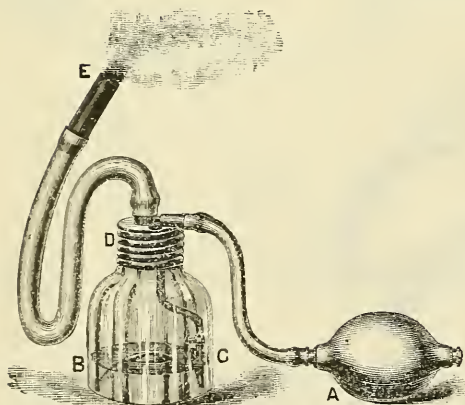
3236



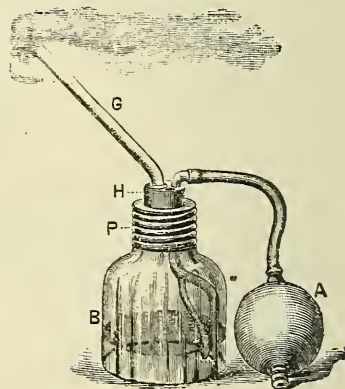
3238



3239



3243



3242

|        |                                                  |        |
|--------|--------------------------------------------------|--------|
| 3235.* | Steam Atomizer, Lentz's, glass spray tubes.....  | \$3 75 |
| 3236.* | " " " C. & S., large, glass spray tubes .....    | 4 00   |
| 3237.  | " " " " small, " " " .....                       | 3 00   |
| 3238.* | " " " " metal " " " .....                        | 3 00   |
| 3239.* | " " " " glass " " " .....                        | 2 25   |
| 3240.  | Glass Atomizing Tubes, for any of the above..... | 20     |
| 3241.  | Glass Face Shields.....                          | 25     |
| 3242.* | Vaporizing Atomizer, glass tubes.....            | 1 20   |
| 3243.* | " " " metal tube and platinum nozzles.....       | 3 25   |

The Steam Atomizers are packed in strong wood boxes.

Directions for using accompany each apparatus.

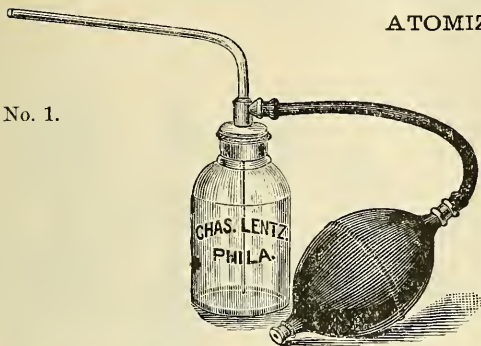
All Instruments Illustrated are designated by a \*.

## Mouth and Throat Instruments.

## ATOMIZERS.

## 3245.\* Lentz's Perfect Atomizers.

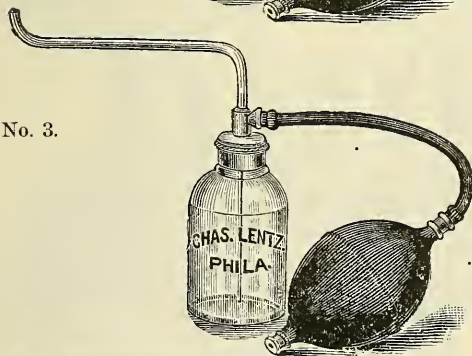
No. 1.



No. 2.



No. 3.



These cuts represent our ATOMIZERS, which for SIMPLICITY and DURABILITY have no superior. Every one acquainted with the use of the various forms will readily see the advantages possessed by this instrument as in the majority of Atomizers the Metal Cap is secured to the bottle with cement, which is soon acted upon by the solutions used, causing the cap to become loose and ruining them for spraying purposes.

In the PERFECT ATOMIZER the METAL CAP and TUBE are made in ONE PIECE, and nickel-plated, the former having a thread cut upon the inside which screws down securely upon a corresponding thread blown in the neck of the bottle, the whole being made air-tight by a soft rubber washer secured on the inside of the cap. The BOTTLES are round, and have a capacity of three ounces. The TUBES are 3-16 inches in diameter, and  $5\frac{1}{2}$  inches long, made in THREE forms, giving a *straight, upward and downward* spray. With the wire accompanying each Atomizer, the small opening in the end of the tube can easily be kept free.

Our Pure Black Gum Bulb is not so easily soiled and possesses much greater durability than the White Bulb usually furnished. It is made with a neck at each end, which allows the Nipple and Valve to be securely fastened and adjusted, thereby giving a *continuous spray*.

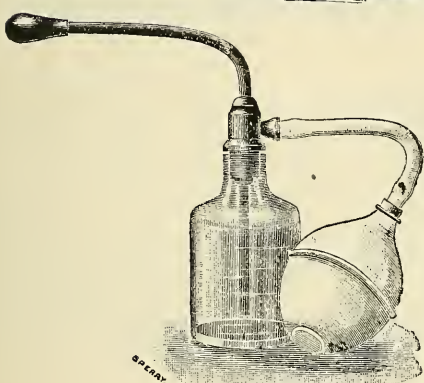
For the Toilet, and especially for medical treatment of the Throat, Ear, Eye and Nasal Passages, this Atomizer is superior.

## PRICE:

|                                                                                           |       |
|-------------------------------------------------------------------------------------------|-------|
| Either style Tube with Bottle, Bulb, extra Washer and Wire, packed in pasteboard box..... | \$ 80 |
| Price to patients.....                                                                    | 1 00  |

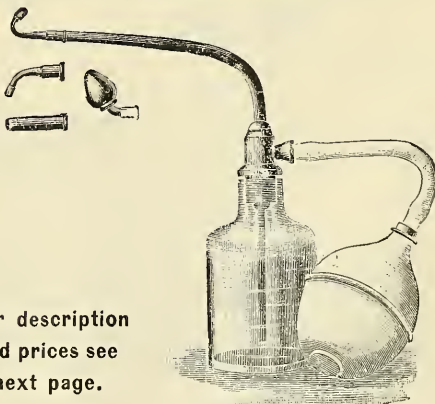
Postage, 10 cts.

For description  
and prices see  
next page.



DAVOL RUBBER CO.

3247



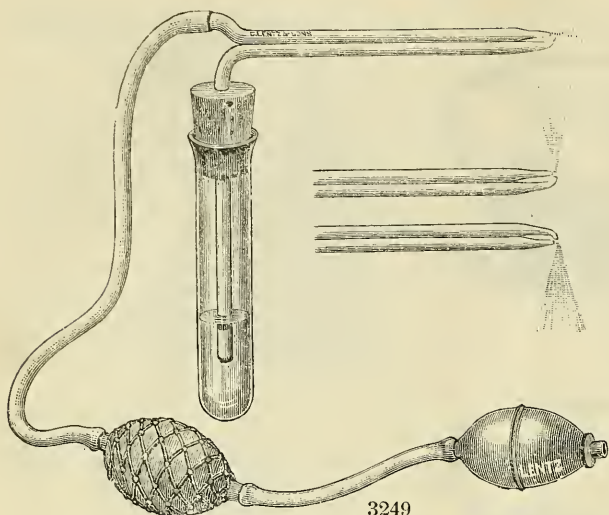
DAVOL RUBBER CO.

3246

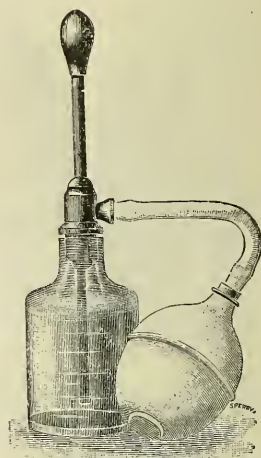


## Mouth and Throat Instruments.

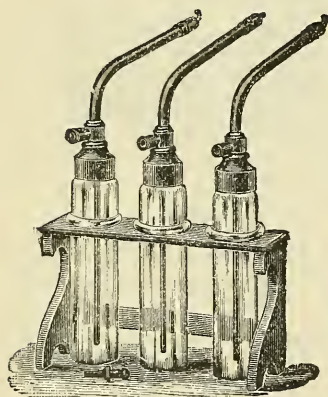
## ATOMIZERS.



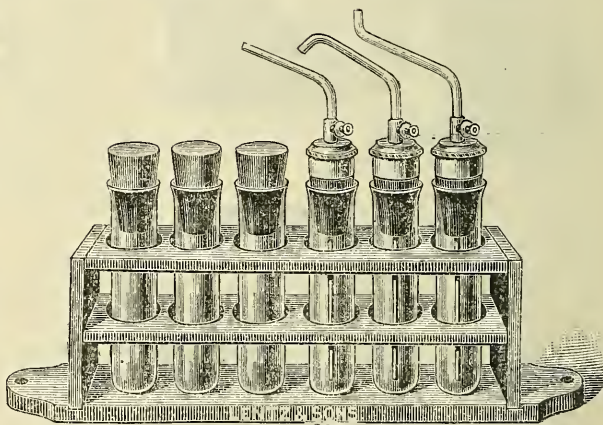
3249



3248



3253



3252

|        |                                                                                                            |           |
|--------|------------------------------------------------------------------------------------------------------------|-----------|
| 3246.* | Atomizer, hard rubber, with single bulb, continuous spray, with four points.....                           | \$1 35    |
| 3247.* | “ “ “ “ “ “ “ “ “ for throat or ear.....                                                                   | 1 10      |
| 3248.* | “ “ “ “ “ “ “ “ “ nose.....                                                                                | 1 10      |
| 3249.* | “ Sass', glass, with double bulbs.....                                                                     | each 2 25 |
| 3250.* | “ “ “ without double bulbs.....                                                                            | “ 1 00    |
| 3251.* | “ “ “ with metal connections for cut-off.....                                                              | “ 1 25    |
| 3252.* | “ Lentz's, metal spray tubes, set of three, with three extra bottles, and walnut wood stand, complete..... | 4 00      |
| 3253.* | Atomizers, Sass', improved, hard rubber, set of three, with stand.....                                     | 3 50      |

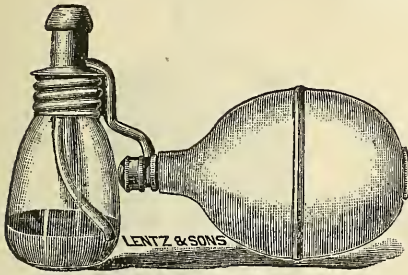
These Atomizers are made of hard rubber. The points are tipped with platinum, which renders them non-corrosive from the effects of acid frequently used. The points and inner tips are removable, so that the same can be taken apart and cleansed when required. Can be used with double bulbs, to give a continuous spray, or used with the Automatic Cut-off in connection with Air Receiver.

|       |                                                                    |      |
|-------|--------------------------------------------------------------------|------|
| 3255. | Atomizer Bulbs, single, 40c.; double bulbs, with silk netting..... | 1 25 |
|-------|--------------------------------------------------------------------|------|

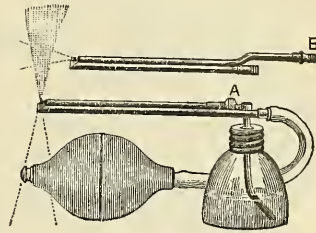
*All Instruments Illustrated are designated by a \*.*

## Mouth and Throat Instruments.

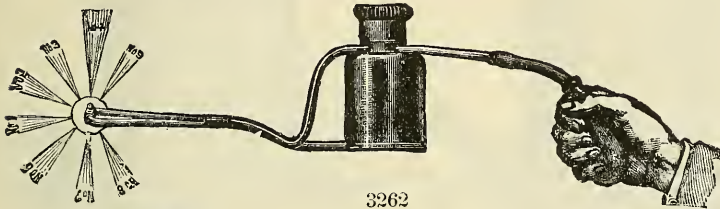
## ATOMIZERS.



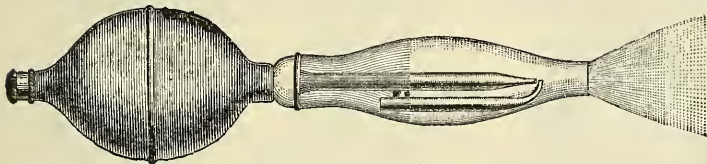
3261



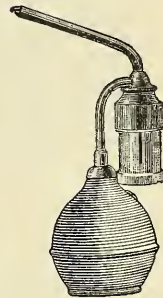
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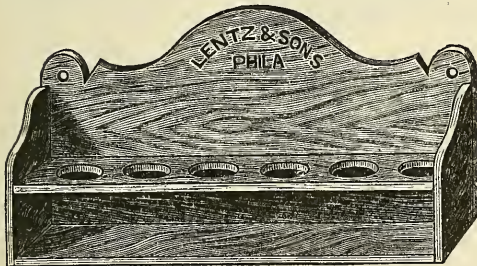
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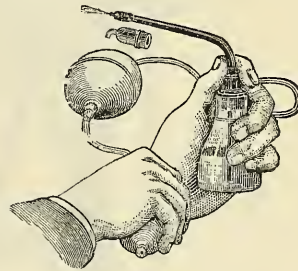
3260



3259



3266



3258

|        |                                                                                             |        |
|--------|---------------------------------------------------------------------------------------------|--------|
| 3258.* | Atomizer, hard rubber, two points, tipped with platinum, double bulb.....                   | \$2 25 |
| 3259.* | “ Metal Tube, for Cocaine, fine spray, capacity of bottle 1½ drachm.....                    | 1 00   |
| 3260.* | “ Wadsworth's Ointment, glass.....                                                          | 1 00   |
| 3261.* | “ C. & S. Vaseline.....                                                                     | 1 20   |
| 3262.* | “ DeVilbiss' “ with single bulb.....                                                        | 2 00   |
| 3263.  | “ “ without bulb.....                                                                       | 1 75   |
| 3264.* | “ Adjustable “ with two tubes, one straight spray and one upward<br>and downward spray..... | 3 00   |
| 3265.  | Atomizer, Adjustable, Vaseline, with one tube, to spray upward or downward.....             | 2 00   |
| 3266.* | Wall-Rack for holding “Perfect” Atomizer Tubes with bottles, oak or walnut<br>wood.....     | 1 50   |

*All Instruments Illustrated are designated by a \*.*



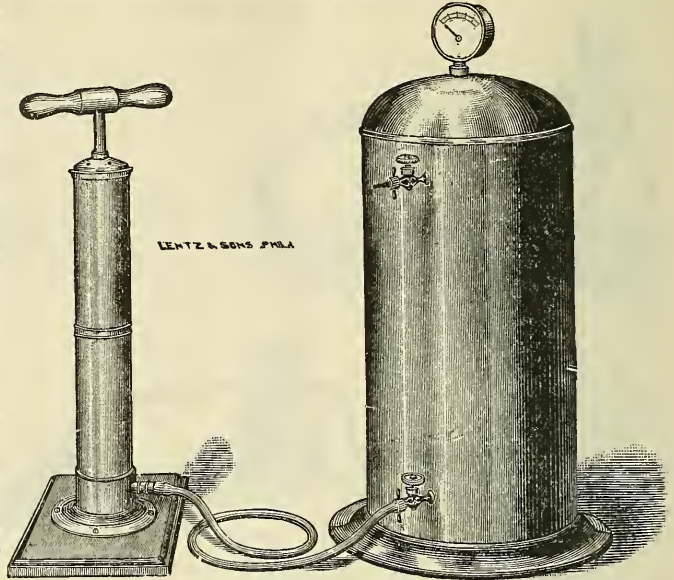
## Mouth and Throat Instruments.

### COMPRESSED AIR RECEIVER AND PUMP.

3270.\* The receiver is 22 inches high and 10 inches in diameter, tested to 100 pounds pressure, and provided with a gauge registering the maximum pressure of 50 pounds. Has two high-pressure valves, one to connect with pump, the other to the spray tubes.

The pump, which stands 21½ inches high, is particularly well adapted for the purpose designed, having excellent valves, thereby greatly increasing its working capacity, and the advantage of the long stroke enables the receiver to be filled sufficiently in a few minutes. Receiver and pump are made of copper, nickel-plated. The receiver, being very light—weighing only 10 pounds—can be placed on a wall bracket, which makes a nice appearance, as well as being more convenient for use.

Complete, with cut-off, see Fig. 3287, 8 feet of silk-covered tubing and couplings for attaching the tubing.....\$32 00



3270.

3271. Sass' Set of Three Hard Rubber Atomizers, in rack, (see Fig. 3253,) with above Air Receiver.....\$35 50
3272. Atomizer Rack, Fig. 3266, with 3 Perfect Atomizers, Rack. 3245 and 3 empty bottles with screw caps for holding solution, with above Air Receiver.....\$35 50

#### 3273.\* Novelty Air Pump.

This cut represents the well-known NOVELTY AIR PUMP, designed for exhausting as well as compressing air for atomizing purposes, and for compressing oxygen.

The construction of the pump is such that a pressure of one hundred pounds to the square inch can be obtained with comparatively little effort. The fly-wheel, frame part, and base are nicely japanned in black and ornamented in bronze, and all bright parts highly finished and plated—making this pump especially adapted for the office.

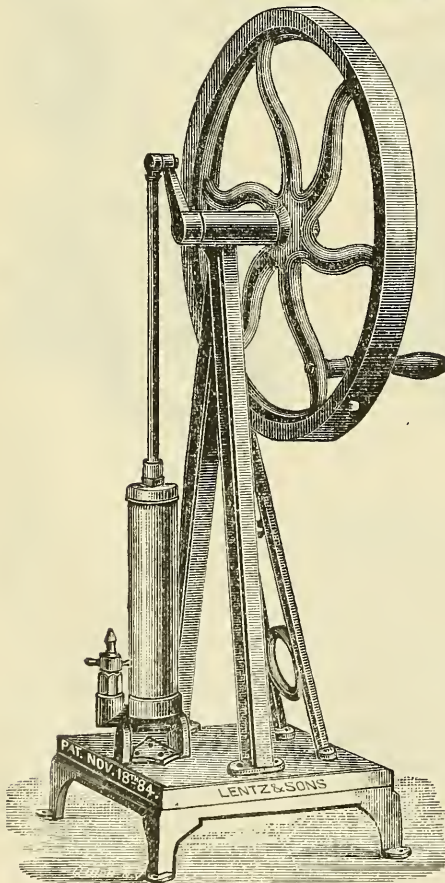
Height of pump from floor to top of wheel, 40 inches; size of base, 14 by 14 inches; diameter of wheel, 20 inches; diameter of chamber, 2 by 6½ inches stroke; weight of pump, 90 pounds.....\$35 00

3274. Novelty Air Pump, with two fly-wheels, constructed same as the above.

Height of pump from floor to top of wheel, 43½ inches; size of base, 14 by 14 inches; diameter of wheels, 20½ inches; diameter of chamber, 2 inches by 8 inches stroke; weight of entire pump, 150 pounds.

Capable of producing 150 pounds to the square inch.....\$50 00

NOTE.—Adapted for use with electric motor.



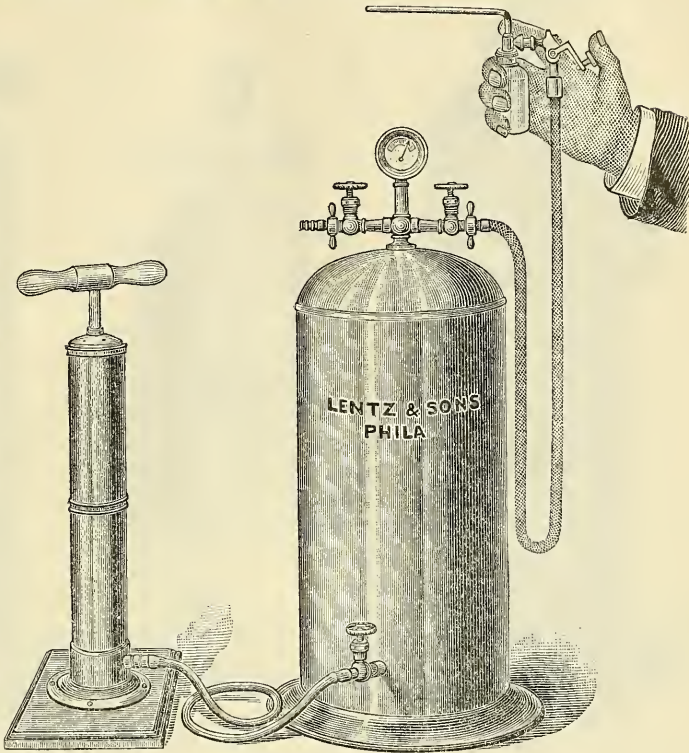


## Mouth and Throat Instruments.

### COMPRESSED AIR RECEIVER AND PUMP (Latest Pattern).

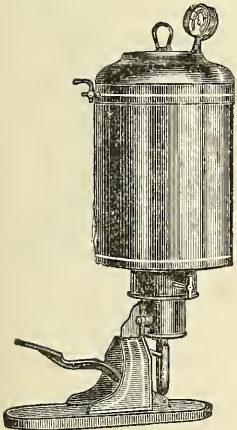
3275.\* The Receiver and Pump are the same in height and diameter as Fig. 3270, gauge registering 50 pounds pressure. The Receiver has two high-pressure valves for connecting tubing with cut-offs, and one at bottom for pump connection, 13 feet silk covered tubing, 5 feet on each atomizer connection, and 3 feet from Pump to Receiver, 2 automatic cut-offs, same as Fig. 3287.

Price, complete..\$35 00



3275

### 3276.\* THE S. & G. COMPRESSED AIR RECEIVER, No. 1.



3276

This Air Receiver is made of tinned iron handsomely japanned in maroon and ornamented in bronze, stands 31 inches high; with nickel-plated pressure-gauge, indicating the pressure from 1 to 30 pounds. Has an improved treadle, permits the rapid condensation of air.

Price, complete with pure gum tubing.....\$25 00

“ “ “ “ and our Automatic

Cut-off, Fig. 3287 .....\$26 50

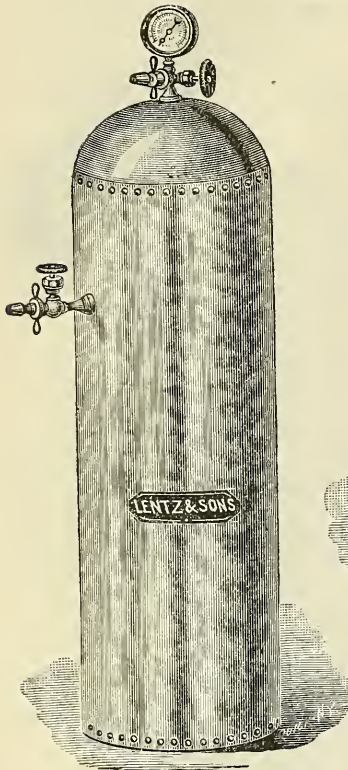
Price, complete with 4 feet silk-covered tubing and Automatic

Cut-off, Fig. 3287 .....\$27 50

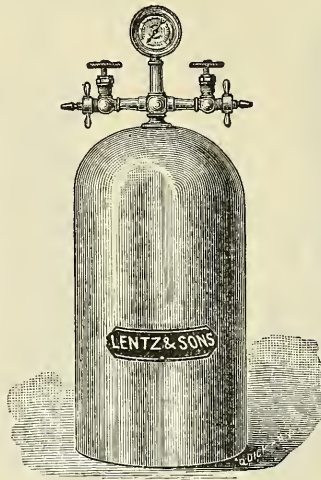
*All Instruments Illustrated are designated by a \*.*

## Mouth and Throat Instruments.

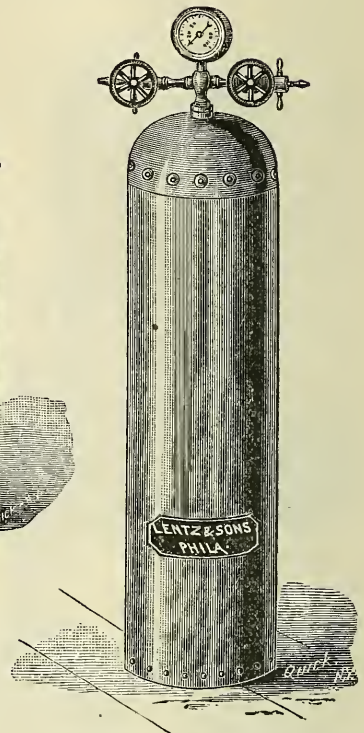
### COMPRESSED AIR RECEIVERS.



3279



3281



3280

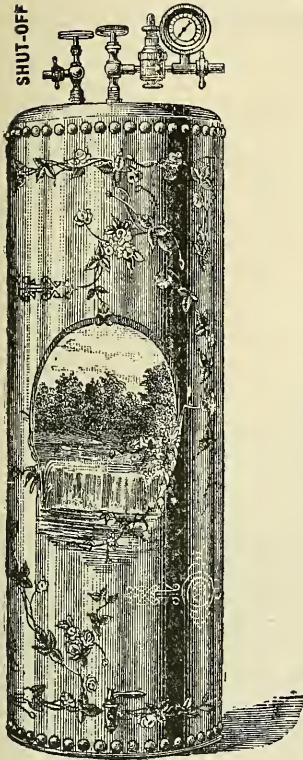
- 3279.\* This Receiver is made of superior tinned steel, japanned in rich gold bronze color. With first-class gauge registering from one to one hundred pounds pressure, and latest improved high-pressure valves, warranted not to leak. Also, provided with couplings for attaching the necessary rubber tubing. The gauge, valves, and couplings are made of bronze, highly finished and plated.  
Size, 10 inches diameter by 32 inches high.....\$24 00
- 3280.\* This Receiver is made of copper, and nickel-plated. It is tested to 300 pounds to the square inch, and provided with an A No. 1 gauge, registering from 1 to 100 (or 200) pounds pressure. The valves are made so they will not leak at any pressure. The gauge and valves are made of bronze and plated. This Receiver stands as high as an ordinary table, and the valves can easily be controlled.  
Size, 7 inches diameter by 28 inches high.....\$27 00
- 3281.\* This Receiver is made of copper, highly polished and nickel-plated, and provided with two latest improved high-pressure valves, warranted not to leak, and couplings for attaching the necessary rubber tubing. The gauge (first quality) registering from one to fifty pounds pressure.  
Size, 9 inches diameter by 16 inches high.....\$22 00
3282. Receiver as shown with globe inhaler (page 135, Fig. 3295) made of superior tinned steel, japanned in rich gold bronze color, with first-class gauge registering from one to one hundred pounds pressure, and high-pressure valves warranted not to leak. Also, provided with couplings for attaching the necessary rubber tubing. The gauge and valves are made entirely of bronze, highly finished and plated.  
Size, 10 inches diameter by 18 inches high.....\$19 00

*All Instruments Illustrated are designated by a \*.*

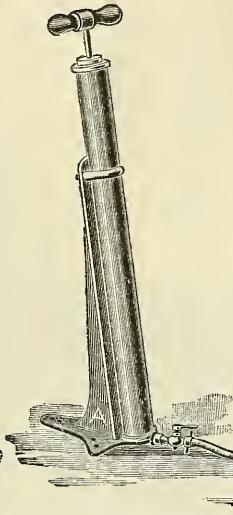


## Mouth and Throat Instruments.

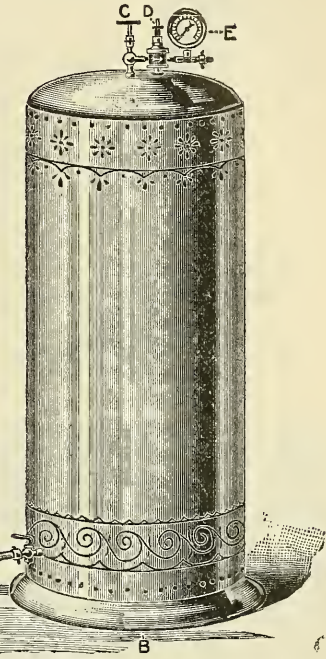
### COMPRESSED AIR RECEIVERS AND PUMP.



3283



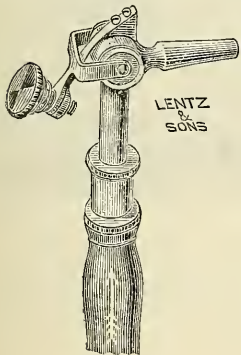
3286



3284

- 3283.\* This Receiver is made of superior tinned steel, and is japanned, decorated and finished in a highly artistic manner. It is supplied with a Patent Air Regulator and Shut-offs. The Air Regulator controls the desired outflow of air from the Receiver and an Air Gauge is used to indicate the pressure as it is supplied to the spray tubes. The Receiver stands 36 inches high, 12 inches in diameter, and is guaranteed not to leak.....\$25 00
- 3284.\* This Receiver is made of the same material and has identically the same superior decoration and finish as Fig. 3283 (which, however, is not shown in illustration), but has only one outlet valve, stands 36 inches high, 12 inches in diameter .....\$24 00
3285. Same with the Hand (or Incline Plane) pump, Fig. 3286.....35 00
- 3286.\* Hand or Incline Plane Pump, nickel-plated, 28 inches high; intended for high pressure and can be fastened to the floor, with tubing to attach to Receiver.....11 50

#### 3287.\* Automatic Cut-Off.



3287

The cut-off can be attached to tubing on air receiver, and connected to atomizers, it having a tapering point. It is superior to most patterns, as the spray stops immediately upon removing thumb from lever..... 1 50

See cut-off in position, Fig. 3275.

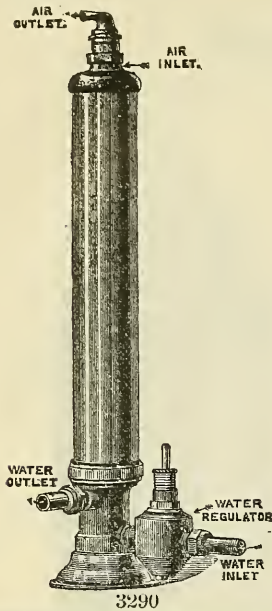


3288.

- 3288.\* Six stop-cocks on oil-finished walnut board, to connect with Air Receiver by tubing with stop-cock A. In this way various atomizers or medications can be readily used. It is made to fasten on wall by screw. Price without tubing..... 5 50

*All Instruments Illustrated are designated by a \*.*



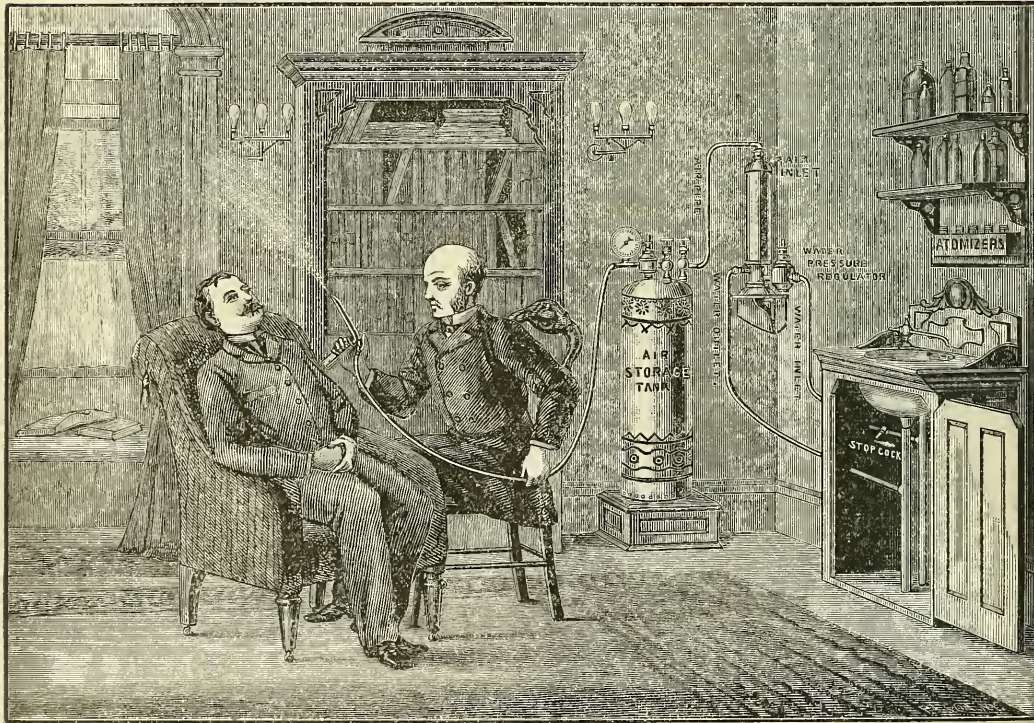


## Mouth and Throat Instruments.

### 3290.\* THE CHAMPION HYDRAULIC AIR COMPRESSOR.

This cut represents the well-known Champion Hydraulic Air Compressor designed to compress air for atomizing purposes. By using this perfectly Automatic Air Compressor a continual steady air pressure is maintained, thus enabling the operator to give his entire attention to the patient. It requires only one-third the amount of water used by the old styles of Hydraulic Air Compressors. The Champion Air Compressor is highly finished and nickel-plated, thus making it an attractive adjunct to any well-appointed physician's office, and is entirely noiseless in its operation.

Price.....\$25 00

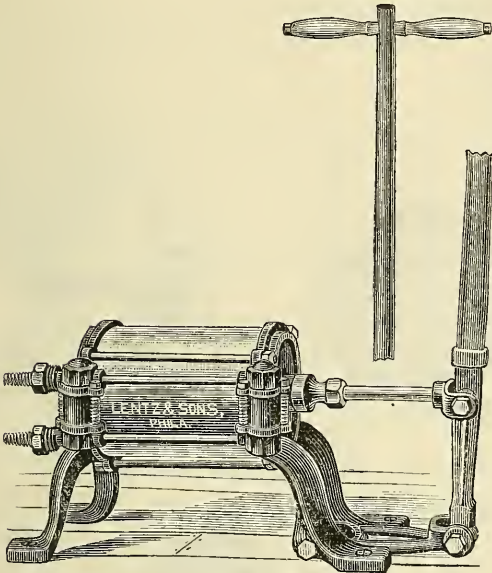


3291.\* The accompanying cut shows the Champion Hydraulic Air Compressor connected to our No. 3283 Air Receiver, which are intended for use in a physician's office. The Air Storage Reservoir and the Hydraulic Air Compressor can be attached in any convenient place, but if the water pressure which is to operate compressor is a low-pressure water service, the compressor should be connected in the basement, or at the lowest possible level (as it is not necessary to place Compressor and Air Reservoir in the same room), so as to allow of the waste water being carried to the sewer connection.

Price of Champion Pump and Air Receiver.....\$50 00.  
Lead Pipe and Attachments extra.

## Mouth and Throat Instruments.

### 3294.\* DOUBLE-ACTING HORIZONTAL LEVER PRESSURE AND VACUUM PUMP.



3294

inch and a vacuum of 25 inches, will discharge one quarter of a gallon of air at each full stroke of the plunger, viz.: will fill a tank 36 inches high by 12 inches diameter, 18 gallons capacity.

30 full strokes give 10 pounds pressure in 45 seconds.

60 " " " 20 " " " 55 "

90 " " " 30 " " " 65 "

Price.....\$20 00

### 3295.\* GLOBE INHALER.

This instrument consists of a glass vessel, 9 inches diameter by 12 inches long, one end being provided with a metal cap with a spray tube attached, reaching about two inches into the globe. The liquid to be vaporized can be taken from the globe, or from a test tube attached to the frame.

The instrument can be adjusted to the height of the patient.

The iron table-stand is nicely ornamented in black and gilt, and the other metal parts are highly finished and plated.

Two mouth-pieces and six feet of silk-covered tubing are furnished with each instrument.

Price of Inhaler, without Receiver.....\$30 00

For hospitals and physicians having an extensive office practice requiring a large quantity of compressed or rarified air our Double Acting Pumps are the most economical and convenient owing to their simple construction, easy and effectual manner of working, and moderate cost. The operator stands in an upright position and can throw his full weight against the lever without bending the body or using violent exertion, as with the lift or crank motion. Being double acting, no power is lost in its manipulation.

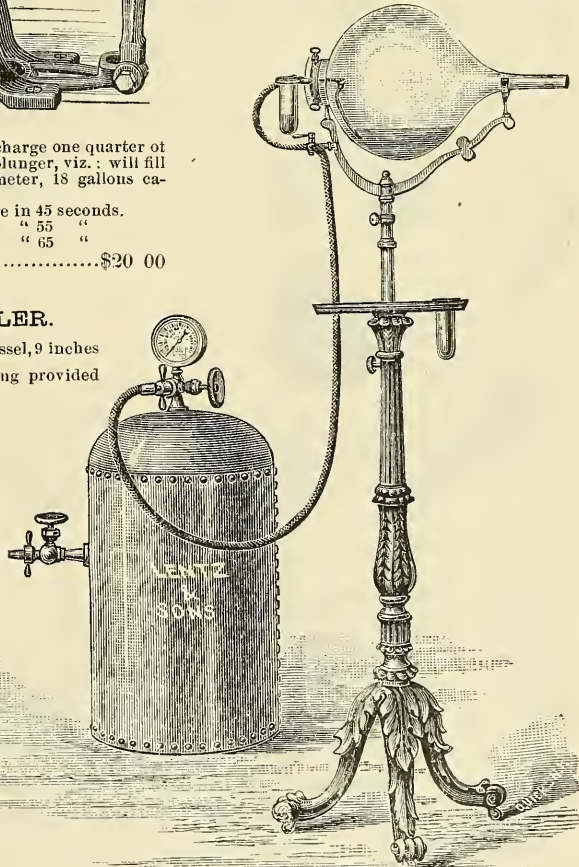
The Pumps are made with iron heads with cylinders of brass with packing box for piston rod at one end—are mounted on an ash base with screws for fastening to the floor.

The valves are carefully adjusted and seat themselves readily. The packing is of leather, which can be lubricated by a few drops of oil placed in the inlet tube.

The lever is easily detached, permitting the pump to occupy a floor space of 16 inches long, 8 inches wide and 11 inches high, weighing, with handle and couplings, 20 pounds.

Suction is produced through the lower inlet, and pressure from the upper outlet. By leading a pipe from the inlet tube to the exterior of the building pure air is obtained.

This Pump has a cylinder 3 5-16 inches diameter giving a pressure of 35 pounds to the square

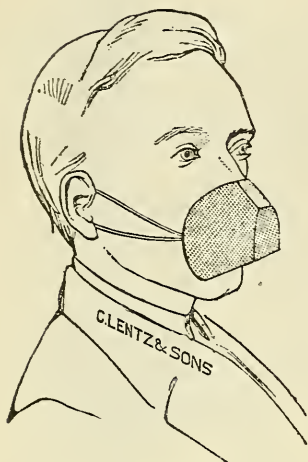


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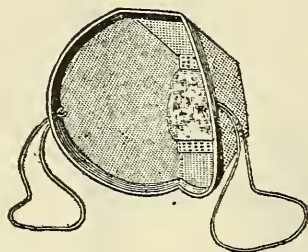


## Mouth and Throat Instruments.

## RESPIRATORS.



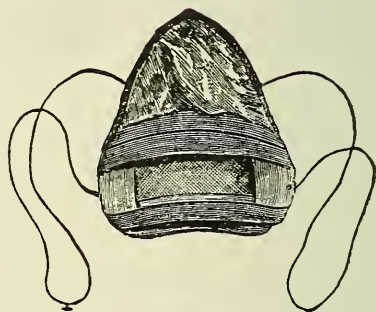
3300



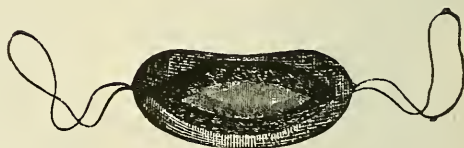
3304



3302



3303



3305

|        |                                                                                   |                         |
|--------|-----------------------------------------------------------------------------------|-------------------------|
| 3300.* | Respirator, Robinson's (Creosote Inhaler).....                                    | each 40c. ; doz. \$4 00 |
| 3301.* | “ for Mouth, plain, 75c.; silk covered.....                                       | each 1 00               |
| 3302.* | “ for Mouth and Nose, silk covered.....                                           | “ 1 50                  |
| 3303.  | “ Tyndale's, for Mouth and Nose, hard rubber, Aseptic.....                        | 2 75                    |
| 3304.* | “ Anti-dust, an efficient protection from dust, for workmen in factories...       | 1 75                    |
| 3305.  | “ Metallic, for Mouth.....                                                        | 2 00                    |
| 3306.  | Nasal Inhaler, Robinson's, hard rubber, with sponge, for medicated breathing..... | 50                      |

*All Instruments Illustrated are designated by a \*.*



## Examining Sets.

### 3312. Case No. 1. Laryngoscopic Set.

Contains 3½ inch Glass Concave Mirror ; Headband and Handle ; three Throat Mirrors ; one Universal Handle ; one Tongue Depressor.....\$8 50

### 3313. Case No. 2. Jurist's Throat and Nasal Set.

Contains 3½ inch Glass Concave Mirror ; Headband and Handle ; three Throat Mirrors ; one Goodwillie's Tongue Depressor ; one Goodwillie's Nasal Speculum ; one set of three Hard Rubber Nasal Specula ; one Cohen's Pharyngeal Forceps, self-holding ; one Sajous' Universal Cotton Holding Forceps, with Slide Lock ; one Aluminum Wire Applicator ; one Universal Handle with set-screw.....\$15 00

### 3314. Case No. 3. Lentz's Throat, Ear and Nasal Set.

Contains 3½ inch Glass Concave Mirror ; Headband and Handle ; one Aluminum Applicator ; one Sponge Holder ; three Throat Mirrors ; two Universal Handles ; one Tongue Depressor ; one Ear Cotton Holder ; one Wilde's Angular Ear Forceps ; one set of four Gruber's Hard Rubber Ear Speculums ; one Goodwillie's Nasal Speculum.....\$12 00

### 3315. Case No. 4. Ivans' Throat, Ear and Nasal Set.

Contains 3½ inch Glass Concave Mirror, with Headband ; four Throat Mirrors ; two Universal Handles ; one Laryngeal Applicator, Aluminum ; one Post-nasal Applicator ; one Ear Cotton Holder ; one set of three Toynbee's Ear Speculums, plated ; one Goodwillie's Nasal Speculum ; one Goodwillie's Tongue Depressor.....\$12 00

### 3316. Case No. 5. Polyclinic Throat, Ear and Nasal Set.

Contains 3½ inch Glass Concave Mirror, with Headband ; three Laryngeal Mirrors, with Handles ; one Cohen's New Folding Tongue Depressor ; one Aluminum Applicator ; one Sponge Holder ; one Universal Handle ; one Cohen's Pharyngeal Forceps, self-holding ; one long, Angular Ear and Nose Forceps, self-holding ; one Goodwillie's Nasal Speculum ; one set of three Gruber's Ear Speculums, oval, silver-plated.....\$15 00

### 3317. Case No. 6. Examining and Operating Set.

Contains 3½ inch Glass Concave Mirror, with Headband ; three Laryngeal Mirrors ; two Universal Handles ; one Tongue Depressor, folding ; one Aluminum Applicator ; one Sajous' Cotton Holding Forceps, with slide lock ; one Cohen's Pharyngeal Forceps, self-holding ; one Cohen's Glass Barrel Powder Blower ; one Buck's Ear Currette ; two Ear Cotton Applicators ; one Angular Ear Forceps ; one set of three Gruber's Ear Speculums, plated ; one Hard Rubber Syringe, with Ear and Post-nasal Nozzle ; one Bosworth's Nasal Speculum ; one set of three Allen's Hard Rubber Nasal Speculums ; one Allen's Polypus Forceps ; one Sajous' Nasal Snare ; three Transfixing Pins ; one Bosworth's Nasal Saw, straight ; one Allen's Septum Knife.....\$32 00

The above cases are of morocco, lined with velvet, and very neat and compact.

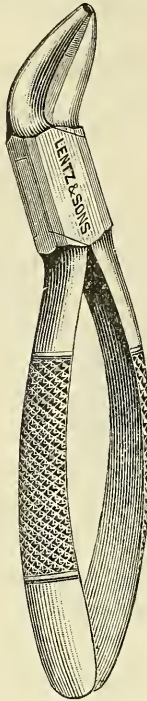
Teeth Extracting Instruments.



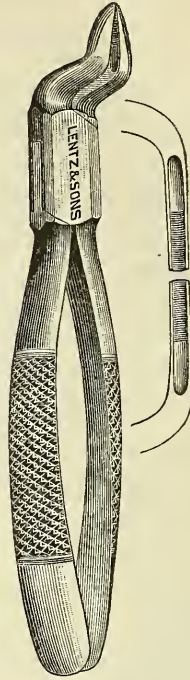
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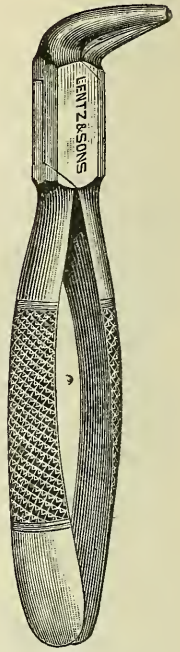
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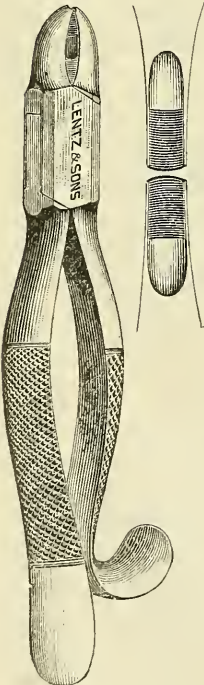
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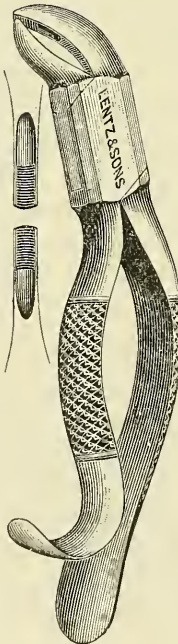
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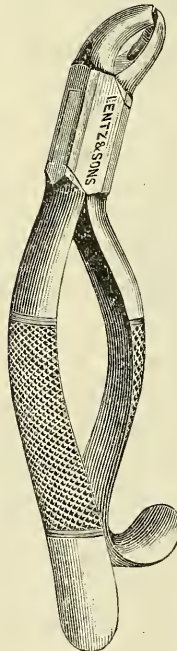
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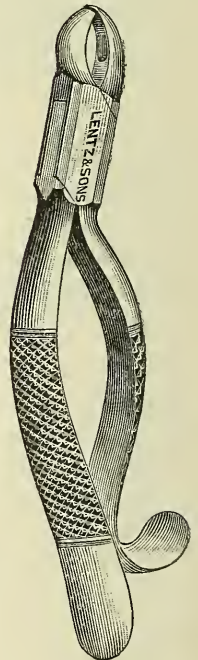
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3331



3332



3333

## Teeth Extracting Instruments.

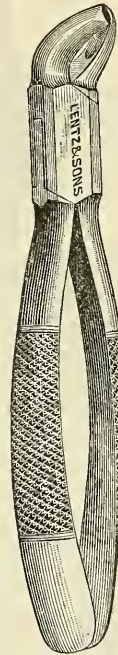
These instruments are of the best quality, and have been carefully adapted to the various requirements of teeth extraction. A variety of shapes are represented, from which the purchaser can select such as he may desire.

We make all our Dental Forceps with octagon joints, corrugated handles and finely nickel plated. All our Forceps are warranted.

Price of each.....\$1 50



3338



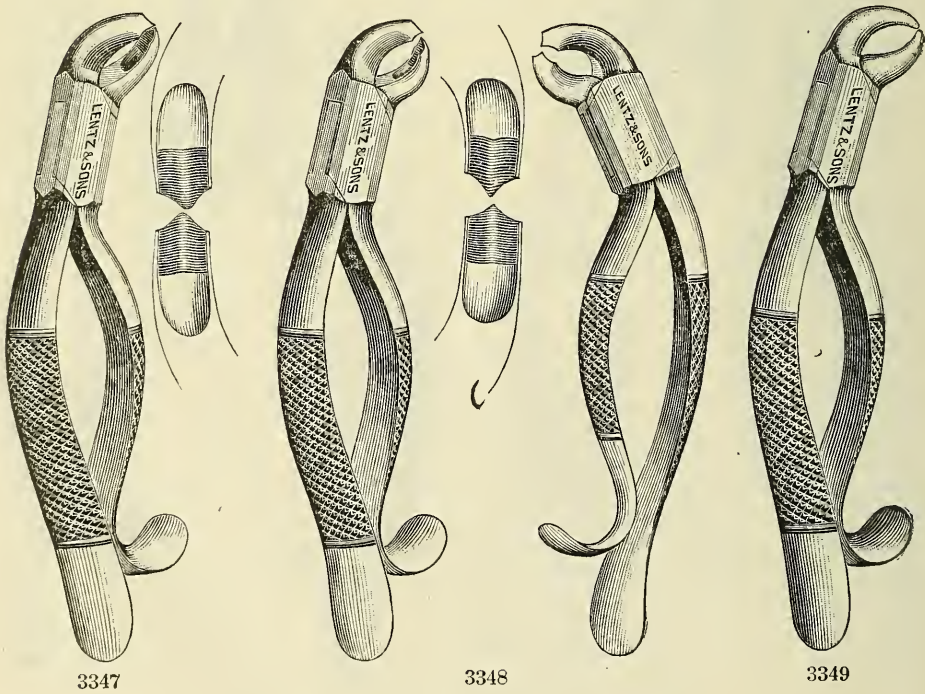
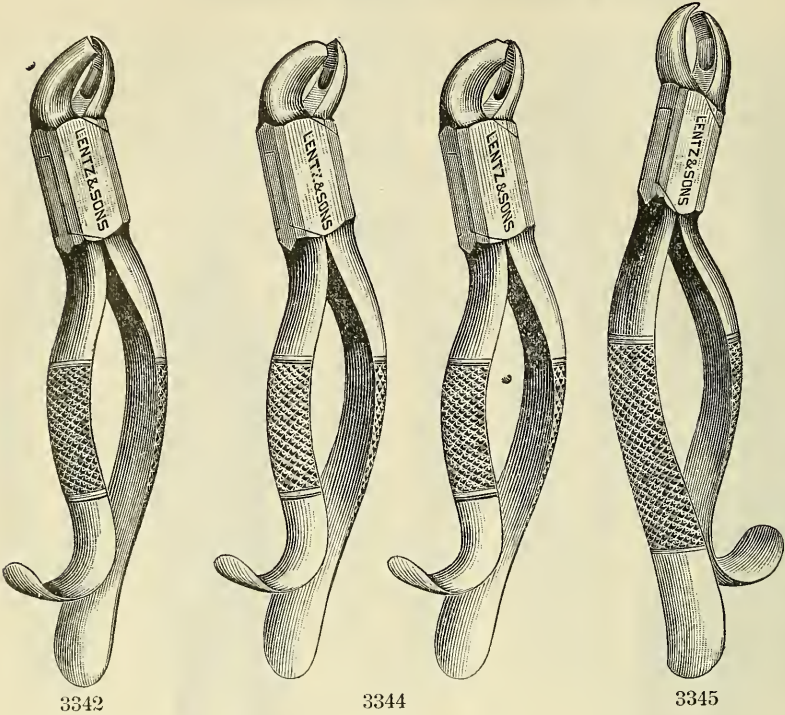
3335

|        |                                                     |        |
|--------|-----------------------------------------------------|--------|
| 3325.* | Root, Upper, front, straight.....                   | \$1 50 |
| 3326.* | “ “ and Lower, half-curved.....                     | 1 50   |
| 3327.* | “ Lower, full-curved .....                          | 1 50   |
| 3328.* | “ Universal .....                                   | 1 50   |
| 3329.* | “ Bayonet shaped.....                               | 1 50   |
| 3330.* | Incisor, Upper, with or without hook on handle..... | 1 50   |
| 3331.* | “ Lower, hawk bill, for front teeth.....            | 1 50   |
| 3332.* | “ or Bicuspid, Lower, for either side.....          | 1 50   |
| 3333.* | Bicuspid and Canine, Upper.....                     | 1 50   |
| 3334.  | “ “ Incisor, “ .....                                | 1 50   |
| 3335.* | “ “ Canine, Lower.....                              | 1 50   |
| 3336.  | “ Upper and Lower, half-curved.....                 | 1 50   |
| 3337.  | Alveola, Parry's, straight beak.....                | 1 50   |
| 3338.* | “ “ half-curved “ .....                             | 1 50   |
| 3339.  | “ “ full-curved “ .....                             | 1 50   |
| 3340.  | “ “ Bayonet shaped beak.....                        | 1 50   |

*All Instruments Illustrated are designated by a \*.*

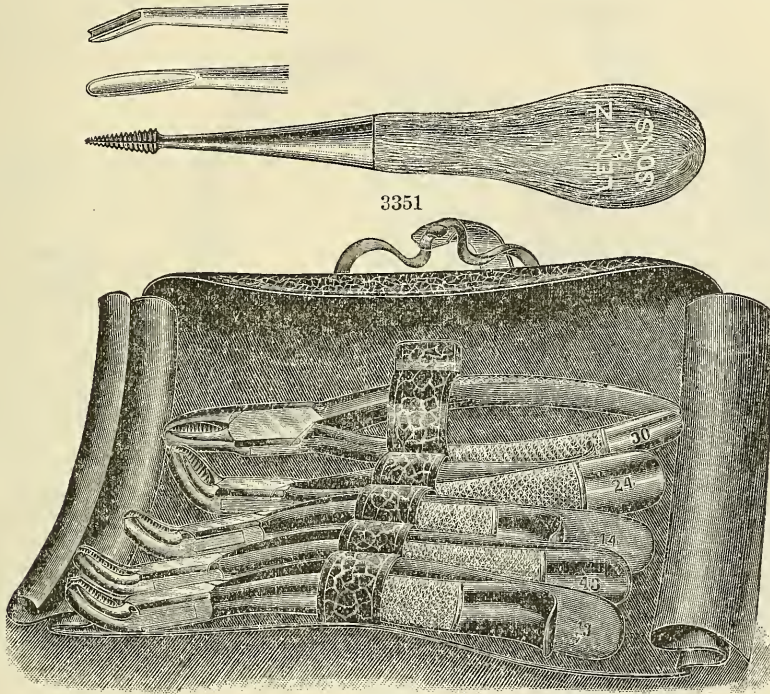


Teeth Extracting Instruments.



## Teeth Extracting Instruments.

|        |                                                                |      |        |
|--------|----------------------------------------------------------------|------|--------|
| 3341.  | Molar, Universal, Upper, straight handle.....                  | each | \$1 50 |
| 3342.* | “ “ “ hook on handle.....                                      | “    | 1 50   |
| 3343.  | Bayonet Shaped, Upper Wisdom.....                              | “    | 1 50   |
| 3344.* | “ Upper right and left, one for each side.....                 | “    | 1 50   |
| 3345.* | “ “ Cow-horn, either side.....                                 | “    | 1 50   |
| 3346.  | Lower, full curved, for either side, straight handle.....      | “    | 1 50   |
| 3347.* | “ “ (Harris') for either side, hook on handle.....             | “    | 1 50   |
| 3348.* | “ “ “ right and left, one for each side.....                   | “    | 1 50   |
| 3349.* | “ “ “ Cow-horn, for either side.....                           | “    | 1 50   |
| 3350.* | Children's, straight or curved.....                            | “    | 1 50   |
| 3351.* | Root Elevators, three patterns, with round, black handles..... | “    | 60     |
| 3352.  | Gum Lancets, ebony handle.....                                 | “    | 50     |



3353

## 3353.\* Extracting Case, No. 1.

Contains two Upper Molar Forceps, right and left ; one Lower Molar Forceps ; one Incisor Forceps ; one Root Forceps. In a rolling leather case.....\$ 9 00

Same with Gum Lancet and Elevator in addition..... 10 00

## 3354. Extracting Case, No. 2.

Contains two Upper Molar Forceps, right and left ; one Lower Molar Forceps ; one Incisor Forceps ; one Bicuspid Forceps ; one Root Forceps ; one Elevator ; one Gum Lancet.

In a rolling leather case.....\$11 50

## 3355. Extracting Case, No. 3.

Contains two Upper Molar Forceps, right and left ; two Lower Molar Forceps, right and left ; one Wisdom Forceps, bayonet shaped ; one Bicuspid Forceps ; one Root Forceps, half-curved ; one Root Forceps, bayonet shaped ; one Elevator ; one Gum Lancet. In a rolling leather case.....\$15 00

3356. Morocco roll case lined with chamois skin to hold six instruments..... 1 60

3357. “ “ “ “ “ “ “ eight “ ..... 1 85

3358. “ “ “ “ “ “ “ ten “ ..... 2 25

*All Instruments Illustrated are designated by a \*.*



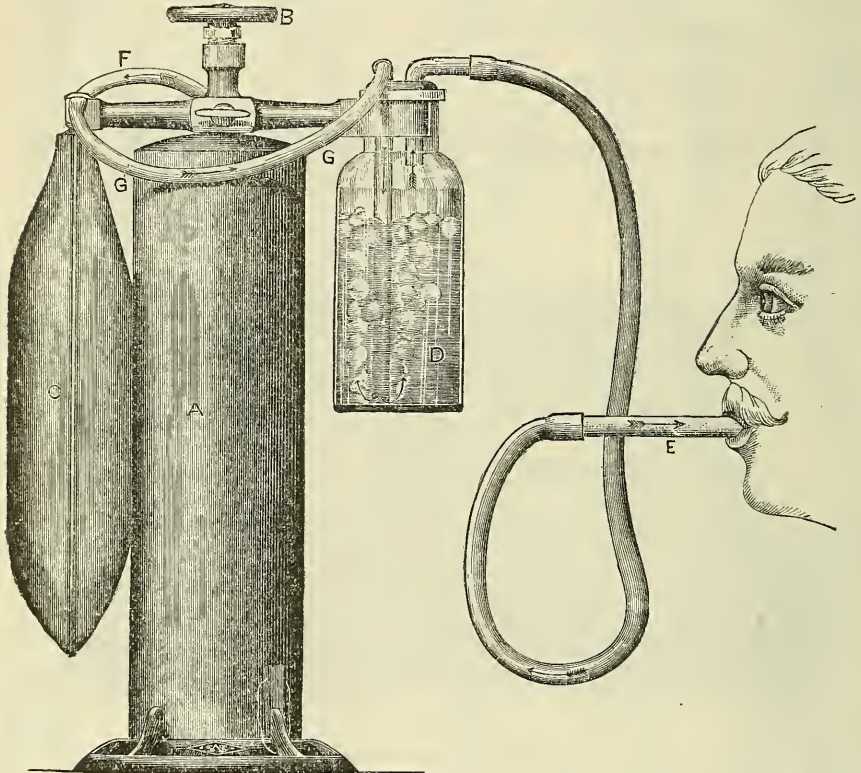
# PURE OXYGEN

—AND—

## APPARATUS FOR ITS THERAPEUTIC ADMINISTRATION.

The value of pure oxygen in the treatment of various diseases has been generally admitted by the medical profession, but the difficulties of proper generation and convenient administration have heretofore been serious obstacles in the way of its general use. At the solicitation of

### INHALATION APPARATUS.



Patented April 30, 1889.

#### B Outfit No. 2.

a number of medical practitioners interested in the therapeutic uses of oxygen, the above apparatus has been devised for its administration, both by inhalation and by enema, which overcome all the difficulties formerly encountered, and which will, we believe, meet all the requirements of safe transportation, easy keeping, and convenient administration.

In both of these apparatus the administration is absolutely under the control of the operator in charge, and we believe they will be found to be the most convenient and economical on the market.

The Inhalation Apparatus is a modification of the apparatus which we have supplied for many years to users of nitrous oxide as an anesthetic. *A* represents the cylinder filled with compressed oxygen; *B*, the gas-valve; *C*, a rubber bag holding one gallon; *D*, a wash-bottle half filled with water;\* *E*, a mouth-piece attached by a rubber tube to the bottle; *F*, a rubber tube connecting the rubber bag to *B*; and *G*, a rubber tube connecting the bag to the wash-bottle by means of a glass tube which extends nearly to the bottom of the bottle.

\*The wash-bottle serves several important purposes: indicates how fast the gas is flowing; calls attention if the valve of the cylinder be not closed tightly; arrests any dust that might be carried from the cylinder or from the interior of the tubing or bag; and moistens the gas, thus preventing its absorbing moisture from the throat and air-passages.

*All Instruments Illustrated are designated by a \*.*



In using the apparatus arrange the parts as shown in the cut, being careful to place the leather washer properly at the outlet of the valve *B*, and half fill the bottle *D* with water. Open the valve *B* *very slowly and cautiously*; the oxygen will then flow through the tube *F* to the gas-bag *C*. When the bag is filled, the valve *B* may be closed and the apparatus is ready for use. If the valve *B* is opened too much, a portion of the gas may rush by the bag, and forcing its way through the water be lost; to correct this it is only necessary to partially close valve *B*. In administering oxygen by the lungs, the usual practice is to cause the patient to inhale very slowly from three to four gallons.

We are prepared to supply pure Oxygen Gas, or a mixture of Oxygen and Nitrous Oxide in definite proportions respectively of 20 per cent. and 40 per cent. of Nitrous Oxide.

Either Gas is furnished in cylinders containing forty or one hundred gallons.

Cylinders containing pure Nitrous Oxide gas are painted *black*; those containing pure Oxygen are painted *red*. Oxygen cylinders containing twenty per cent. of Nitrous Oxide are painted *black* one-fifth of their length, the remainder red; those containing forty per cent. of Nitrous Oxide are painted *black* two-fifths of their length, the remainder red.

#### PRICES :

##### A\* Outfit No. 1.

|                                                                           |         |
|---------------------------------------------------------------------------|---------|
| Inhalation Apparatus.....                                                 | \$ 5 00 |
| Cylinder, 40 gallons' capacity.....                                       | 6 00    |
| 40 gallons Gas, either pure Oxygen or mixed Oxygen and Nitrous Oxide..... | 2 00    |

Complete Apparatus, Cylinder, and 40 gallons Gas.....net, \$13 00

##### B\* Outfit No. 2.

|                                            |         |
|--------------------------------------------|---------|
| Inhalation Apparatus.....                  | \$ 5 00 |
| Cylinder, 100 gallons' capacity.....       | 15 00   |
| 100 gallons Gas, either pure or mixed..... | 5 00    |

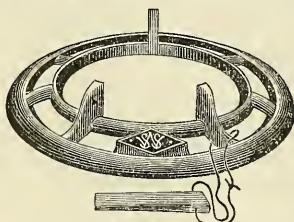
Complete Apparatus, Cylinder, and 100 gallons Gas.....net, \$25 00

We are prepared to supply pure Oxygen Gas, or a mixture of Oxygen and Nitrous Oxide in definite proportions respectively of 20 per cent. and 40 per cent. of Nitrous Oxide.

Either Gas is furnished in cylinders containing forty or one hundred gallons.

Cylinders containing pure Nitrous Oxide Gas are painted *black*; those containing pure Oxygen are painted *red*. Oxygen cylinders containing twenty per cent. of Nitrous Oxide are painted *black* one-fifth of their length, the remainder red; those containing forty per cent. of Nitrous Oxide are painted *black* two-fifths of their length, the remainder red.

#### FOOT-PIECE FOR CYLINDERS.



The handling of small gas cylinders, especially those containing oxygen, which are usually manipulated by patients or their attendants, is greatly facilitated by the use of a light base or foot-piece for holding them upright. The bottom of the cylinder is set into the foot-piece, and the wedge forced between the cylinder and one of the upright supports to take up any play. So placed the cylinder is held firmly and steadily, and the upright position is reckoned by some to permit a freer flow of the gas.

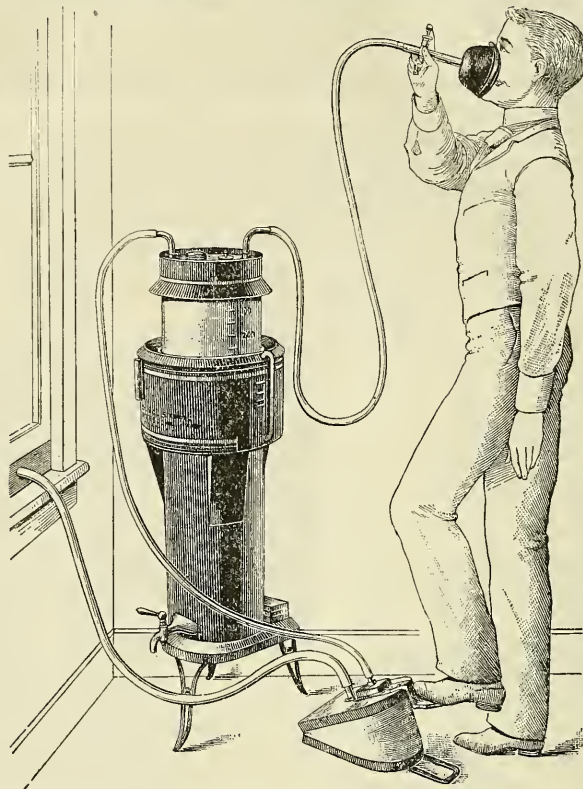
Price, Cylinder Base, including Wedge.....25 cents.

Notice—When returning cylinders to be refilled, have same pre-paid.

*All Instruments Illustrated are designated by a \*.*

## The Cohen Compressed Air Apparatus.

For the Therapeutic Administration of Inhalations of Compressed Air in Cases of Insufficient Expansion of the Chest and Deficient Oxygenation.



The attention of physicians is specially called to this improved and comparatively inexpensive apparatus for the administration of inhalations of compressed and rarified air.

The value of this method of treatment of pulmonary diseases, especially chronic bronchitis, asthma, chronic pleurisy, and the various forms of consumption, has long been recognized in Europe, where institutions specially devoted to Pneumato-therapy have long been established. But in America resort to these methods in the management of diseases has, until recently, been quite limited. Doubtless the high cost of the apparatus formerly used has contributed to this comparative neglect. We are now prepared to supply the apparatus devised by Dr. S. Solis Cohen, at a price which places it within the reach of every physician and most patients. Dr. Cohen, has had it in use for years and finds it perfectly efficient.

The apparatus consists of a small gasometer, an outer cylinder holding water, and an inverted inner cylinder, which is filled with air and rises and falls according to the quantity it contains, together with a small foot-bellows to regulate the supply of air. The bellows is single for the single apparatus (compressed air), and double for the double apparatus (rarified and compressed air). The positive or negative pressure is determined by weights, properly placed. The supply of air is taken from out of doors. The accessories consist of the necessary rubber tubing, a two-way stop-cock, and mask to cover the face of patient, also a pair of Resistance Valves to be used separately or in connection with the gasometer. Each patient should have an individual mask. If desired to medicate the air, creasote, oil of Eucalyptus, and the like, may be placed on the sponge suspended within the air cylinder, or the air current may be passed through a Wolff bottle containing the desired medicament. Apparatus to heat or cool the inhaled air may be added if desired.

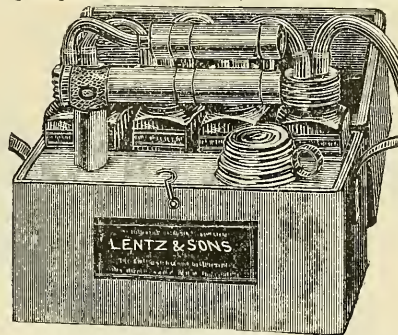
|                                                                                                                                                               |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| *Improved Single Apparatus, consisting of cylinder, bellows, rubber tubing, mask, stop-cock, pressure gauge and stand.....                                    | net, \$35 00       |
| Improved Double Apparatus, consisting of compressed and rarified cylinder, with double bellows, rubber tubing, mask, stop-cock, pressure gauge and stand..... | net, 70 00         |
| Extra Masks.....                                                                                                                                              | per dozen, " 18 00 |
| " " .....                                                                                                                                                     | each, " 2 00       |

*All Instruments Illustrated are designated by a \*.*



## Medical Oxygen.

This remedy has increased in popularity to such an extent that over 5,000,000 gallons are annually prescribed in New York City alone. Leading hospitals use it constantly in chronic cases and emergencies, thereby saving hundreds of lives.



C Outfit No. 3.

### Perfected Oxygen and Ozone Generators for office and bedside use.

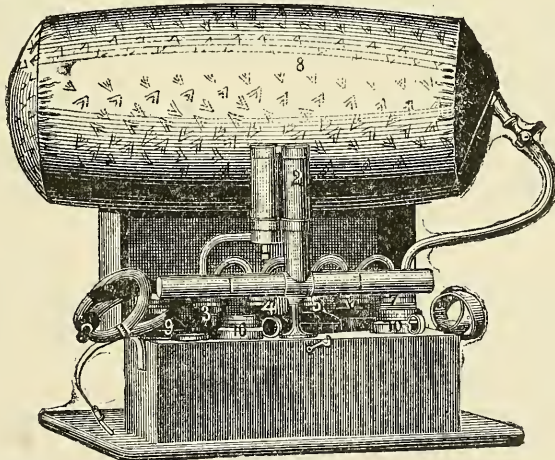
This illustration represents the C Outfit No. 3, Portable Oxygen Generator, in case,  $6\frac{1}{2} \times 10 \times 11$  inches, and weighs only  $16\frac{1}{2}$  pounds. It is a marvel in efficiency and always ready for use. It yields 7 gallons of perfectly pure oxygen as often as every 15 minutes if required.

C\* No. 3 Outfit is as follows, carefully fitted in polished walnut case.

- |                                                      |                                                          |
|------------------------------------------------------|----------------------------------------------------------|
| 1 Set wash-bottles and fittings.                     | 1 Hard Rubber Stop-cock.                                 |
| 1 Metal Retort-holder.                               | 1 Inhaling tube.                                         |
| 1 Gas-cooler and Outlet Tube.                        | 4 Mouth-pieces.                                          |
| 6 Filled Retorts, 7 gal. size (yielding 42 gallons). | 2 Lbs. Prepared Material, in bulk (yielding 58 gallons). |
| 1 Set Chemicals, for wash-bottles.                   | 1 Copy Printed Directions, for using.                    |
| 1 Inhaling-bottle (16 oz.) and fittings.             | 1 Card of Formulæ (for all chemicals used).              |
| 1 Spirit-Lamp, with packing.                         | Reprints on Oxygen.                                      |
| 1 10 Gal. Gas-holder, cloth covered, pure gum.       |                                                          |
| Price complete, boxed for shipment.....              | net, \$25 00                                             |

D No. 4 Outfit is as follows, carefully fitted in polished walnut case.

- |                                                       |                                                           |
|-------------------------------------------------------|-----------------------------------------------------------|
| 1 Set wash-bottles and fittings.                      | 1 Hard Rubber Stop-cock.                                  |
| 1 Metal Retort-holder.                                | 1 Inhaling tube.                                          |
| 1 Gas-cooler and Outlet tube.                         | 6 Mouth-pieces.                                           |
| 6 Filled Retorts, 12 gal. size (yielding 72 gallons). | 3 Lbs. Prepared Materials, in bulk (yielding 80 gallons). |
| 1 Set Chemicals, for wash-bottles.                    | 1 Copy Printed Directions, for using.                     |
| 1 Inhaling-bottle (16 oz.) and fittings.              | 1 Card of Formulæ (for all chemicals used).               |
| 1 Spirit-lamp, with packing.                          | Reprints on Oxygen.                                       |
| 1 12 Gal. Gas-holder, cloth covered pure gum.         |                                                           |
| Price complete, boxed for shipment.....               | net, \$35 00                                              |



E Outfit No. 5.

E\* No 5 Outfit is as follows, carefully fitted in polished walnut case.

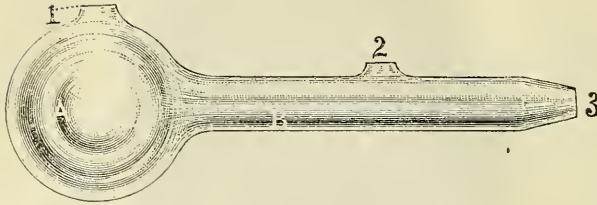
- |                                           |                                                 |
|-------------------------------------------|-------------------------------------------------|
| 1 Set wash-bottles and fittings.          | 2 12 Gal. Gas-holders, cloth covered, pure gum. |
| 1 Metal Retort-holder.                    | 2 Hard Rubber Stop-cocks.                       |
| 1 Gas-cooler and Outlet tube.             | 1 Inhaling tube.                                |
| 8 Mouth-pieces.                           | 1 Spirit-lamp, with packing.                    |
| 2 Lbs. Prepared Material, in bulk.        | 1 Copy Printed Directions, for using.           |
| 1 Set Chemicals, for wash-bottles.        | 1 Card of Formulæ (for all chemicals used).     |
| 1 Inhaling-bottle, (16 oz.) and fittings. | Reprints on Oxygen.                             |
| 12 Filled Retorts, 12 gallon size.        |                                                 |
| Price complete, boxed for shipment.....   | net, \$50 00                                    |

Ozonizing attachments can be furnished extra. Gas can be supplied.

*All Instruments Illustrated are designated by a \*.*



## Evans' Pocket Inhaler.



*Reprint from New York Medical Journal, April 18th, 1891.*

### A NEW "POCKET" INHALER.

BY GEORGE A. EVANS, M. D.,

BROOKLYN.

Five years ago I devised the "pocket" inhaler to which I now desire to call attention.

Its invention was suggested by the conviction that the evaporating surface afforded by the sponge in the ordinary oro-nasal inhaler during inspiration was too small, while, on the other hand, it served during expiration to absorb and accumulate the waste products of respiration.

In addition, it seemed to me advisable to secure the simultaneous operation of voluntary deep breathing through a small orifice in conjunction with local medication of the air-passages.

Sufficient experience has been had since the invention of this device to convince me that it possesses positive therapeutic value for the relief of simple catarrhal affections of the upper air-passages, both acute and chronic; chronic bronchitis, with or without asthma; and pulmonary phthisis in its early stage.

Its cheapness and simplicity admit of its use by all afflicted, while the rapid relief from distressing symptoms incident to the affections for which it is recommended will, I think, commend it to all who use it.

It should be used in the following manner: Medicate the sponge in the bowl (A) of the inhaler according to directions to be given; place the open end of the stem (B) well between the lips; close the stem opening (2) with the index finger of the right hand and inspire deeply, lengthening the pause at the end of the inspiratory act to facilitate intrapulmonary gaseous diffusion; cover the opening (1) in the bowl (A) with the index finger of the left hand; uncover the opening (2) and empty the lungs by blowing through the openings (3 and 2) of the stem.

Respiration should be carried on in this manner at the rate of about ten a minute, and continued until the desired effects have been secured.

The degree of saturation with medicaments to which the sponge in the bowl of the inhaler should be subjected must depend, of course, upon the strength of the solution and its volatility, as well as upon the effect desired.

Various combinations of the following preparations have been used for the relief of simple chronic catarrhal affections of the upper air-passages and for chronic bronchitis, with and without asthma, successfully when other measures had failed:

|                      |          |
|----------------------|----------|
| Terebene,            | Merck's. |
| Ol. pini silvestris, | do.      |
| Ol. eucalypti,       | do.      |

Saturate the sponge in the inhaler and inhale at the rate of ten respirations a minute, for from ten to thirty minutes each sitting, several times daily. Fresh medicament may be poured on the sponge to supply the loss by evaporation at the discretion of the person inhaling.

Menthol inhalations have been given by means of this instrument for the relief of acute catarrhal affections of the upper air-passages, hay fever, etc., as follows:

A solution of menthol in chloroform, two drachms of the former to one fluidounce of the latter, is made and poured on the sponge in the inhaler. After the sponge has become thoroughly saturated, the surplus solution is poured off and the inhaler is allowed to stand uncorked until the chloroform has evaporated; it is now ready for use. When the inhaler, prepared as above, is not in use, it should be tightly corked and kept in a cool, dark place, otherwise the menthol may be lost by volatilization.

Gentle heat or alcohol will rid the sponge of menthol when desired, and chloroform will wash out the other solutions mentioned.

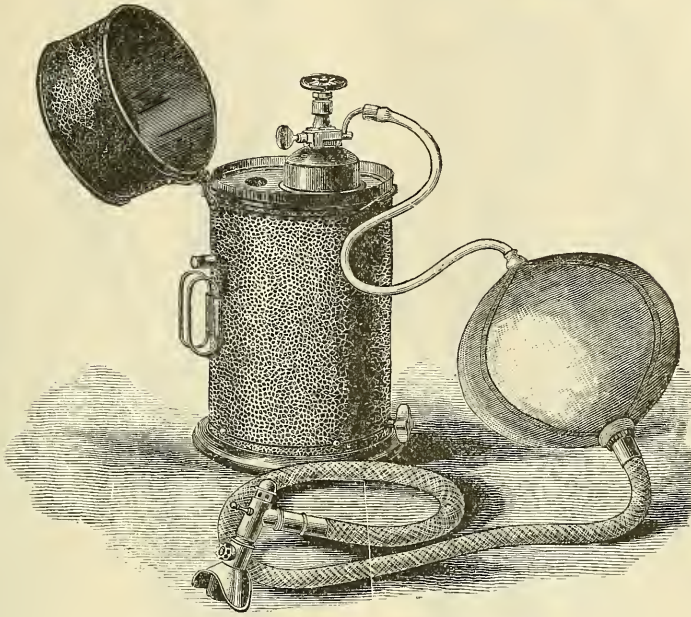
\*Evans' Pocket Inhaler, - - net, 75c.

*All Instruments Illustrated are designated by a \*.*

## Anæsthetic Apparatus.

### NITROUS OXIDE (LIQUEFIED.)

Patented March 25, 1879 (Nos. 213,575 and 213,576); Jan. 1, 1884.



Surgeon's Case, F No. 1.

By common consent Nitrous Oxide Gas is acknowledged to be the safest anæsthetic known, and for minor surgical operations and extracting teeth it has no equal.

Surgeon's Case, No. 1, figured above, has a cylinder standing on end, incased by a stout tin case, covered with leather. The small stop-cock inserted in the tubing between the bag and cylinder, enables the operator, after having filled the bag, to shut off the gas and disconnect the bag from the cylinder, if desired, for use where it is not convenient to carry the cylinder.

These Cases are only made for 100-gallon cylinders.

|                                                                                                |         |
|------------------------------------------------------------------------------------------------|---------|
| F No. 1.* Complete Apparatus, with 4½-gallon bag, in stout tin case, covered with leather..... | \$31 75 |
| G No. 2. The same, but with 7 gallon bag.....                                                  | 33 00   |
| H No. 3. Complete Apparatus, with 4½ gallon bag, in stout tin case, handsomely japanned.....   | 26 75   |
| I No. 4. The same, but with 7 gallon bag.....                                                  | 28 00   |

Inflatable face-piece on the inhaler is \$4 00 extra; flexible face-piece, \$2 00 extra.

#### We can refill Cylinders at the following prices :

|                                         |         |
|-----------------------------------------|---------|
| Cylinders, with 100 gallons of gas..... | \$ 8 00 |
| " " 500 " " .....                       | 25 00   |
| Refilling 100 gallon cylinder.....      | 2 00    |
| " 500 " " 2 cents per gallon.....       |         |

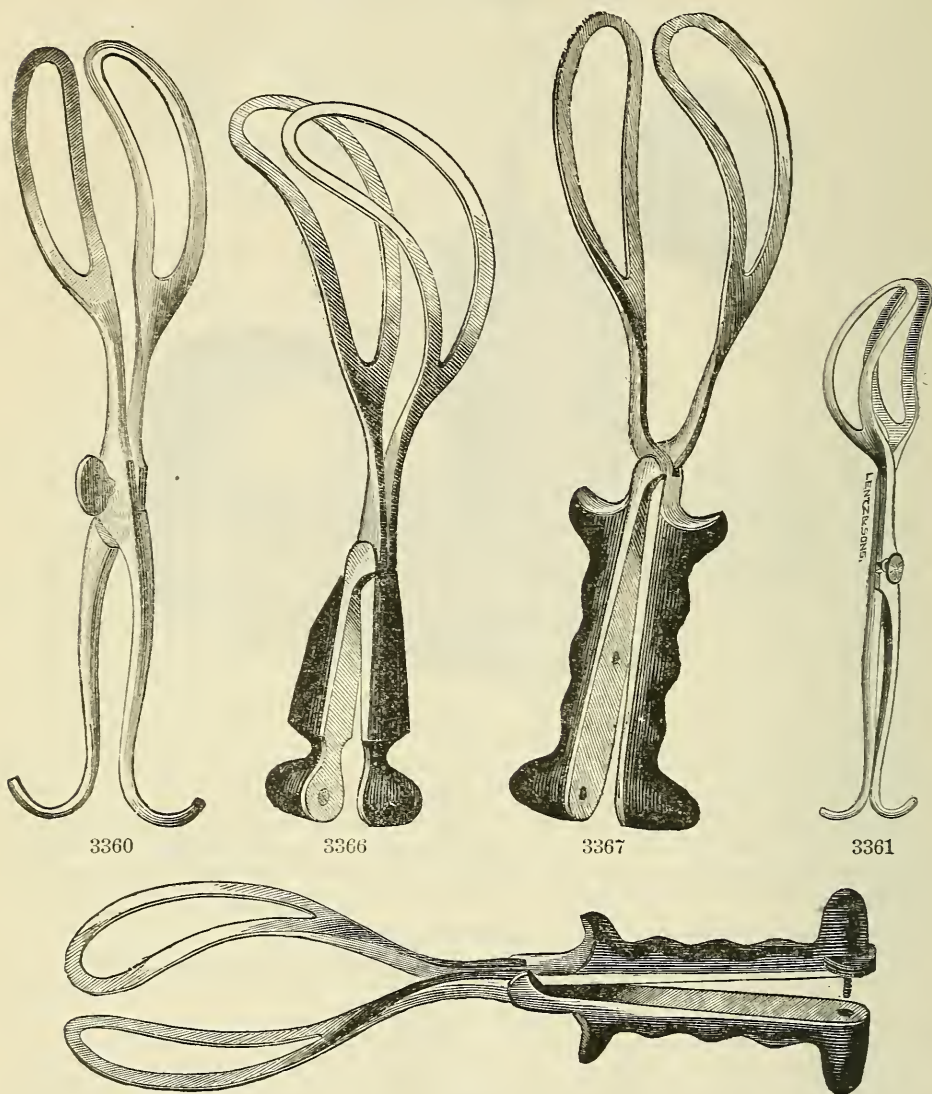
We put about 450 gallons of gas in the large or 500 gallon cylinder.

Notice —When cylinders are returned to us by Express to be refilled, have box pre-paid.

*All Instruments Illustrated are designated by a \*.*

## Obstetrical Instruments.

## FORCEPS.



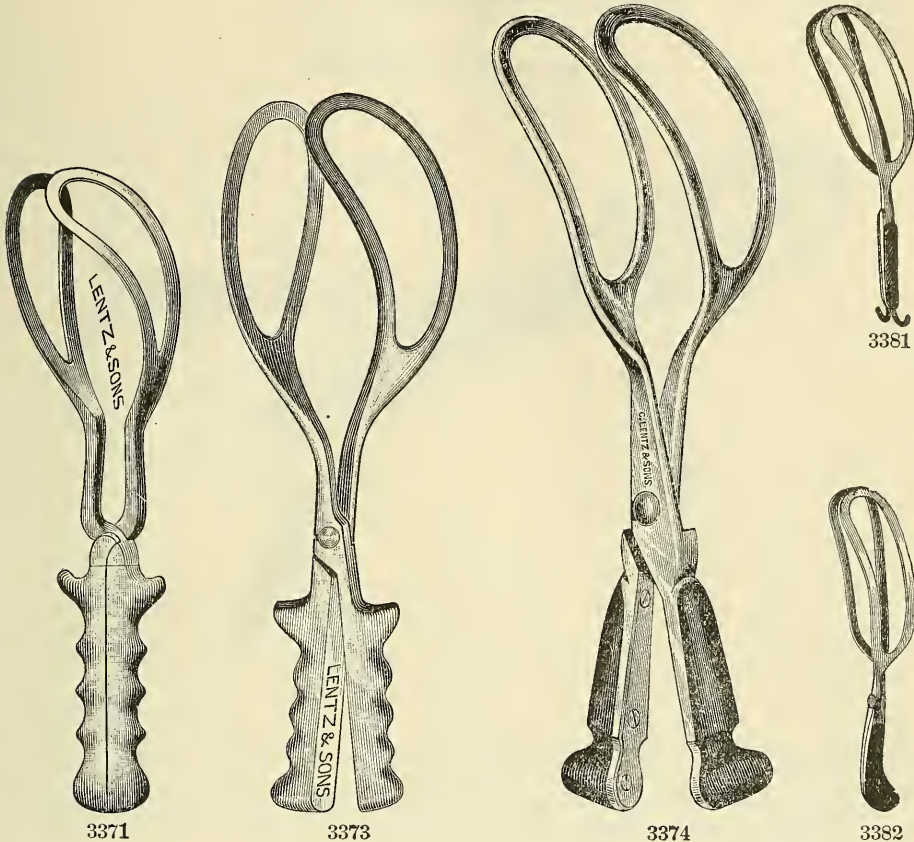
|        |                      |                                                 |        |
|--------|----------------------|-------------------------------------------------|--------|
| 3360.* | Obstetrical Forceps, | Hodge's.....                                    | \$4 50 |
| 3361.* | "                    | Wallace's.....                                  | 5 00   |
| 3362.  | "                    | Comstock's.....                                 | 6 00   |
| 3363.  | "                    | Bedford's.....                                  | 6 00   |
| 3365.  | "                    | Bethel's.....                                   | 5 50   |
| 3366.* | "                    | Davis'.....                                     | 5 50   |
| 3367.* | "                    | Budd's.....                                     | 6 00   |
| 3368.* | "                    | Elliott's, with screw, hard rubber handles..... | 6 00   |
| 3369.  | "                    | " " " hollow metal ".....                       | 7 50   |

*All Instruments Illustrated are designated by a \*.*



## Obstetrical Instruments.

## FORCEPS.

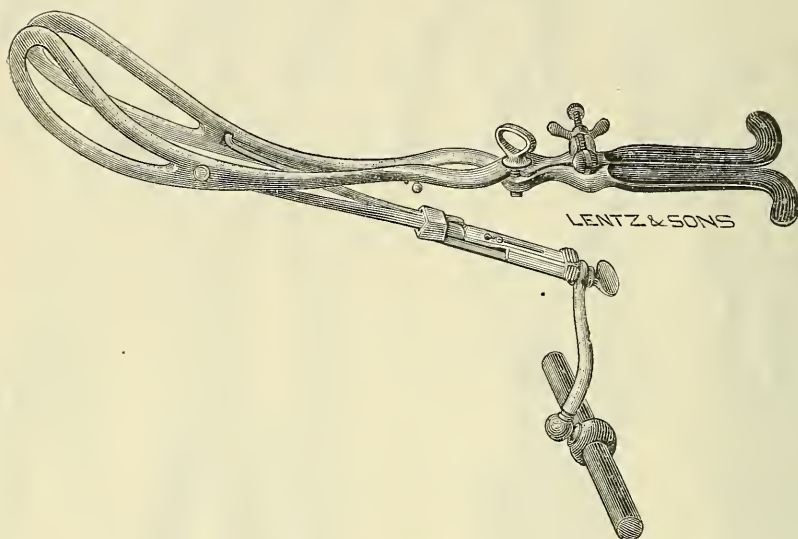


|        |                                                                                               |        |
|--------|-----------------------------------------------------------------------------------------------|--------|
| 3371.* | Obstetrical Forceps, Simpson's, long, hard rubber handles, \$5 50 ; hollow metal handles..... | \$6 00 |
| 3372.  | Obstetrical Forceps, Simpson's, short.....                                                    | 5 00   |
| 3373.* | “ “ Parvin's, hard rubber handles, \$5 50 ; hollow metal handles.....                         | 6 00   |
| 3374.* | “ “ Wilson's.....                                                                             | 6 00   |
| 3375.  | “ “ Baker—Brown's.....                                                                        | 6 00   |
| 3376.  | “ “ Reamy's.....                                                                              | 6 00   |
| 3377   | “ “ Dennman's.....                                                                            | 5 50   |
| 3378.  | “ “ Thomas'.....                                                                              | 5 50   |
| 3379   | “ “ Jenks' long.....                                                                          | 6 25   |
| 3380.  | “ “ “ short.....                                                                              | 5 25   |
| 3381.* | “ “ Sawyer's short.....                                                                       | 4 50   |
| 3382.* | “ “ Hale's “.....                                                                             | 4 50   |

*All Instruments Illustrated are designated by a \*.*

## Obstetrical Instruments.

## AXIS-TRACTION FORCEPS.



3385

3385.\* Tarnier's Axis-Traction Forceps (latest pattern).....\$24 00

The principle of axis-traction has been for sometime adopted by leading obstetricians of Europe and the special advantages of it may be noted as follows :

1. It permits the application of the forceps at the superior strait without reference to the position of the foetal head, inasmuch as, owing to the freedom of lateral movement and of rotation, the head is brought into the canal, and permitted to take the position most favorable for rotation. The position of the blades have actually reversed at delivery, owing to actual rotation, and this without damage to the maternal tissues or foetal head.

2. In cases where the head is obstructed at the inferior strait and where the perineum is most likely to suffer, the axis-traction principle, by lifting the head off the perineum and under the pubic arch, will save lacerations that are ordinarily promoted by the use of the short or the common long forceps, in other words, the axis-traction forceps offers the best possible means of protecting the perineum, either where the obstruction is due to rigidity of the soft parts, or to contracted pelvis.

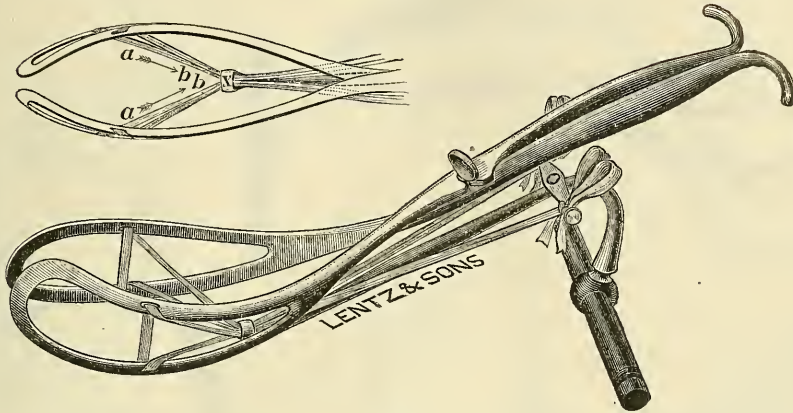
3. In contracted pelvis, the more exact regulation, both of pressure and traction effort, must save many children, and protect the mother, in many cases, from serious harm.

4. At all positions along the pelvic canal where forceps are demanded, the axis-traction instrument affords the safest and most scientific aid to delivery.

*All Instruments Illustrated are designated by a \*.*

## Obstetrical Instruments.

### AXIS-TRACTION FORCEPS.



3386

3386.\* Poulet's Axis-Traction Forceps, complete, with linen tape.....\$11 50

The Poulet's Forceps is one of the simplest that most perfectly fulfils all the conditions required in axis-traction.

The principle upon which it is constructed is identical with that of Tarnier's. The means for accomplishing the axis-traction effect are markedly different. The traction device of the Tarnier instrument is metallic, while that of the Poulet is a combination of tapes with a swivel and metallic rod bent at an obtuse angle of a little more than ninety degrees. In the Tarnier the traction is applied approximately at the heel of the blade; in the Poulet the ribbons pass through perforations in the centre of the blade on either side of the fenestrum, while before they are attached to the swivel on the traction rod, these tapes are made to pass through an eye at the extremity of the rod, thus bringing the traction force directly in the centre of the vaginal canal and immediately in relation with the foetal head. Furthermore in the Tarnier instrument the forceps are kept in relation with the foetal head by a compression screw, while in the Poulet instrument the simple traction effort, being expended centrally and, therefore, falling inside of the blade, adjusts the forceps to the foetal head by a force entirely dependent upon the traction necessary to move it along the pelvic canal.

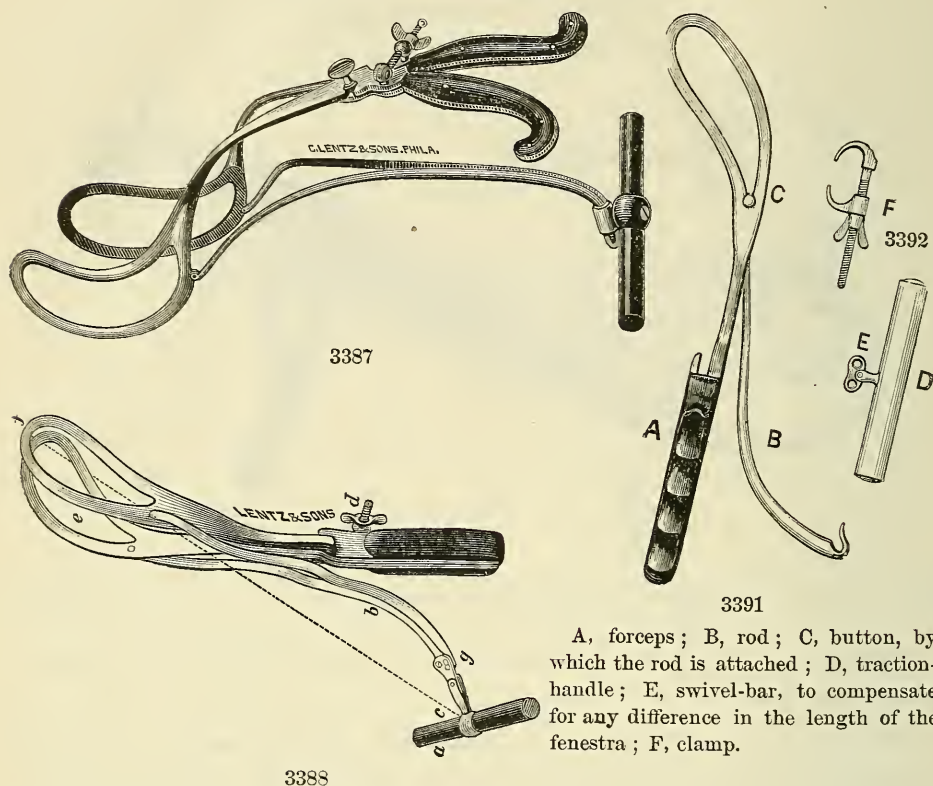
The pliability of the tapes, at the same time, permits the utmost freedom of revolution, and offers not the least resistance to the lateral rotation above referred to.

*All Instruments Illustrated are designated by a \*.*



## Obstetrical Instruments.

## AXIS-TRACTION FORCEPS.



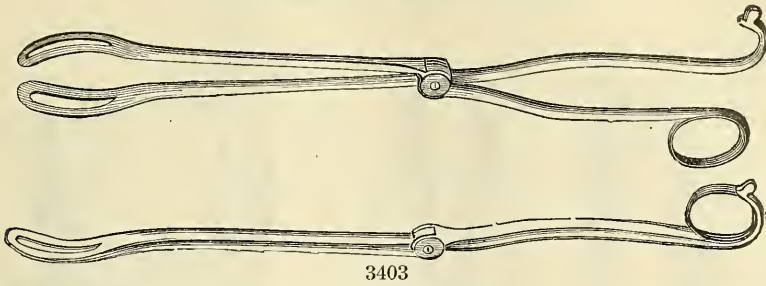
A, forceps; B, rod; C, button, by which the rod is attached; D, traction-handle; E, swivel-bar, to compensate for any difference in the length of the fenestra; F, clamp.

|                                         |                                                              |         |
|-----------------------------------------|--------------------------------------------------------------|---------|
| 3387.*                                  | Tarnier's Axis-Traction Forceps, first pattern.....          | \$22 50 |
| 3388.*                                  | Simpson's " " " latest " .....                               | 15 00   |
| 3389.                                   | Lusk's " " " .....                                           | 18 00   |
| 3391.*                                  | Reynolds' " " Rods and handle.....                           | 4 00    |
| Can be used on any Obstetrical Forceps. |                                                              |         |
| 3392.*                                  | Reynolds' Clamp F, to fasten the handles of the forceps..... | 2 00    |

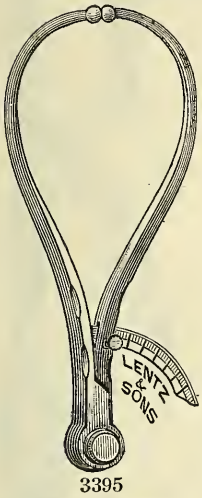
This new appliance consists of a pair of curved traction rods, terminating at each extremity in a hook. The upper hook is intended to fit into the extremity of the fenestrum, and ends in a flat button of the size and shape which has been found by experiments in actual practice to be best adapted to allow of an easy application and to insure its retention in position. The hooks at the lower end of the rods slip into rings attached to a traction-handle, and fit loosely enough to allow considerable rotation. The handles of the forceps are fastened by a separate clamp of simple construction, somewhat resembling a monkey-wrench. This apparatus is made of the best steel, finely finished and nickel-plated. It is thoroughly efficient, easily applied, and still more easily kept clean.

*All Instruments Illustrated are designated by a \**

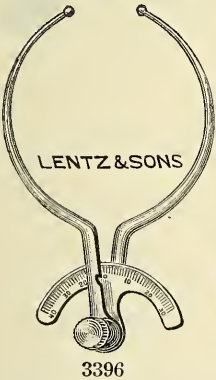
## Obstetrical Instruments.



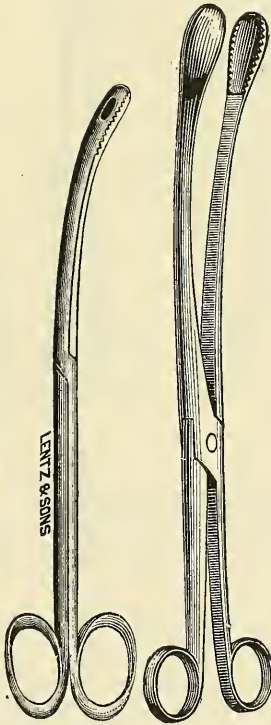
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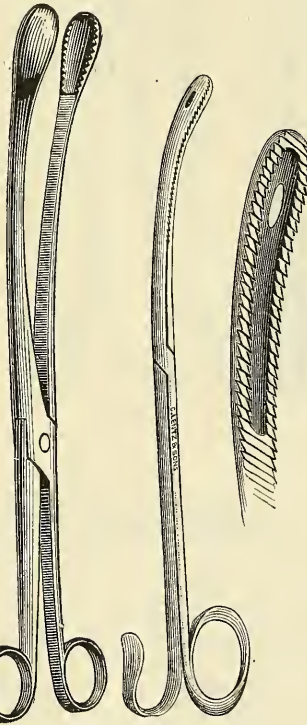
3395



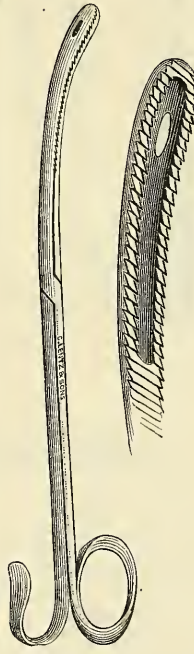
3396



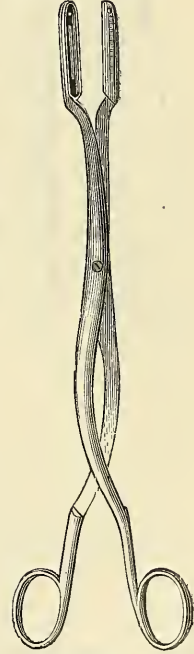
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3398



3400

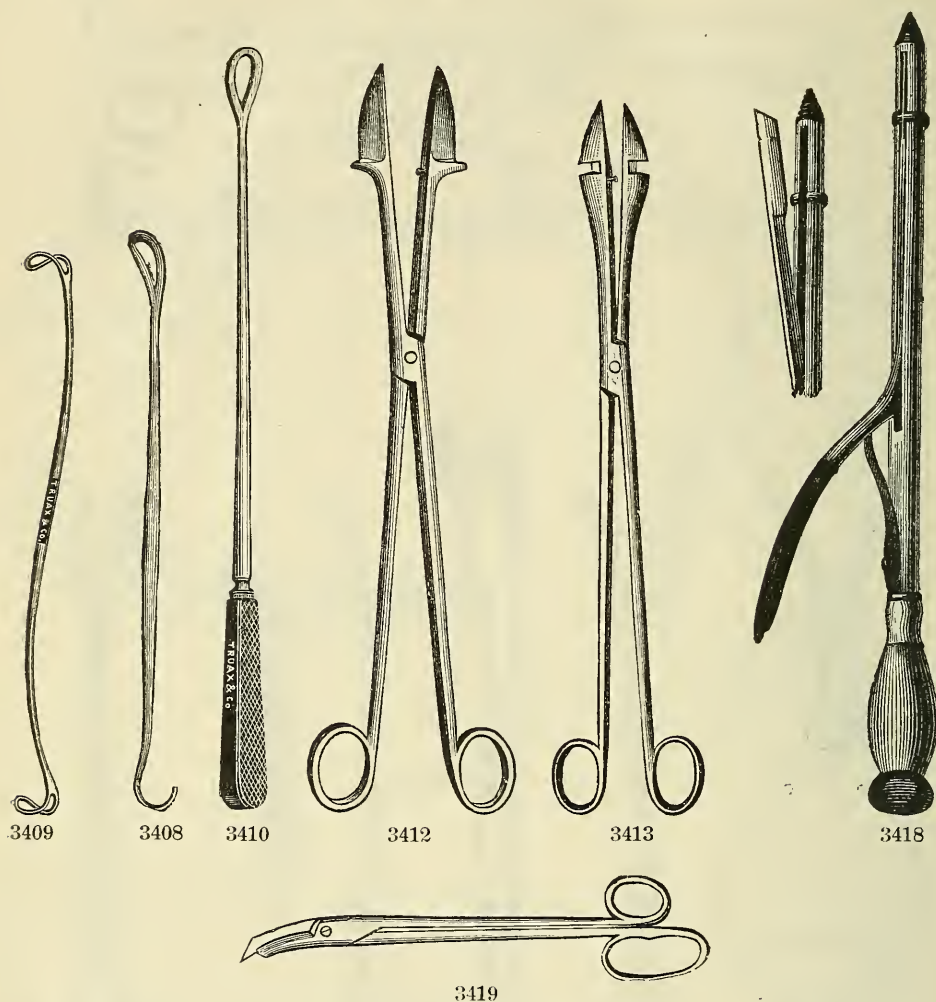


3401

|        |                                                |        |
|--------|------------------------------------------------|--------|
| 3395.* | Pelvimeter, Martin's.....                      | \$6 00 |
| 3396.* | “ Breisky's Modification of Baudelocque's..... | 7 00   |
| 3398.* | Placenta Forceps, Bond's.....                  | 1 75   |
| 3399.* | “ “ Budd's.....                                | 1 85   |
| 3400.* | “ “ Parvin's.....                              | 1 85   |
| 3401.* | “ “ Double Crossing.....                       | 2 25   |
| 3402.* | “ “ Munde's, large fenestra.....               | 2 25   |
| 3403.* | “ “ Loomis Revolving.....                      | 4 00   |
| 3405.* | “ “ Hodge's “.....                             | 5 00   |
| 3406.* | “ “ Corey's.....                               | 3 00   |

*All Instruments Illustrated are designated by a \*.*

## Obstetrical Instruments.

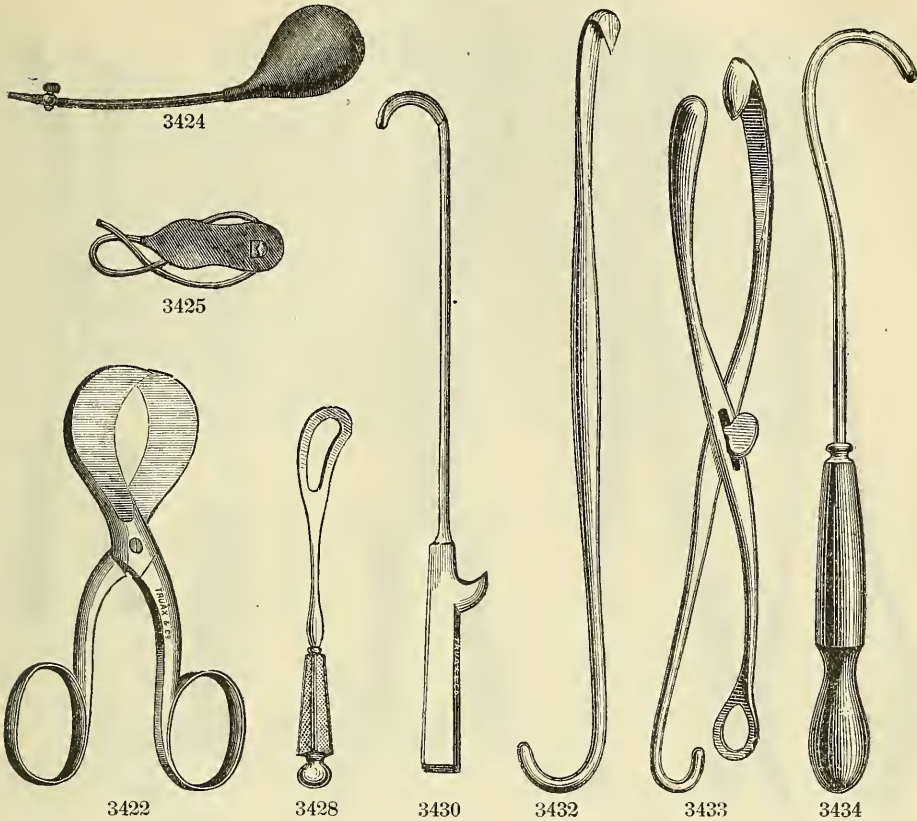


|        |                                                  |       |
|--------|--------------------------------------------------|-------|
| 3408.* | Placenta Hook and Lever, Dewey's.....            | \$ 85 |
| 3409.* | “ “ Leavitt's.....                               | 1 25  |
| 3410.* | “ Curette, Munde's, long, with metal handle..... | 1 85  |
| 3412.* | Perforator, Smellie's.....                       | 1 90  |
| 3413.* | “ Simpson's.....                                 | 2 25  |
| 3414.  | “ Bedford's.....                                 | 2 25  |
| 3415.  | “ Naegeli's .....                                | 3 00  |
| 3416.  | “ Holmes'.....                                   | 3 75  |
| 3417.  | “ Blot's.....                                    | 4 50  |
| 3418.* | “ Thomas'.....                                   | 5 00  |
| 3419.* | “ Hodge's.....                                   | 3 75  |

*All Instruments Illustrated are designated by a \*.*



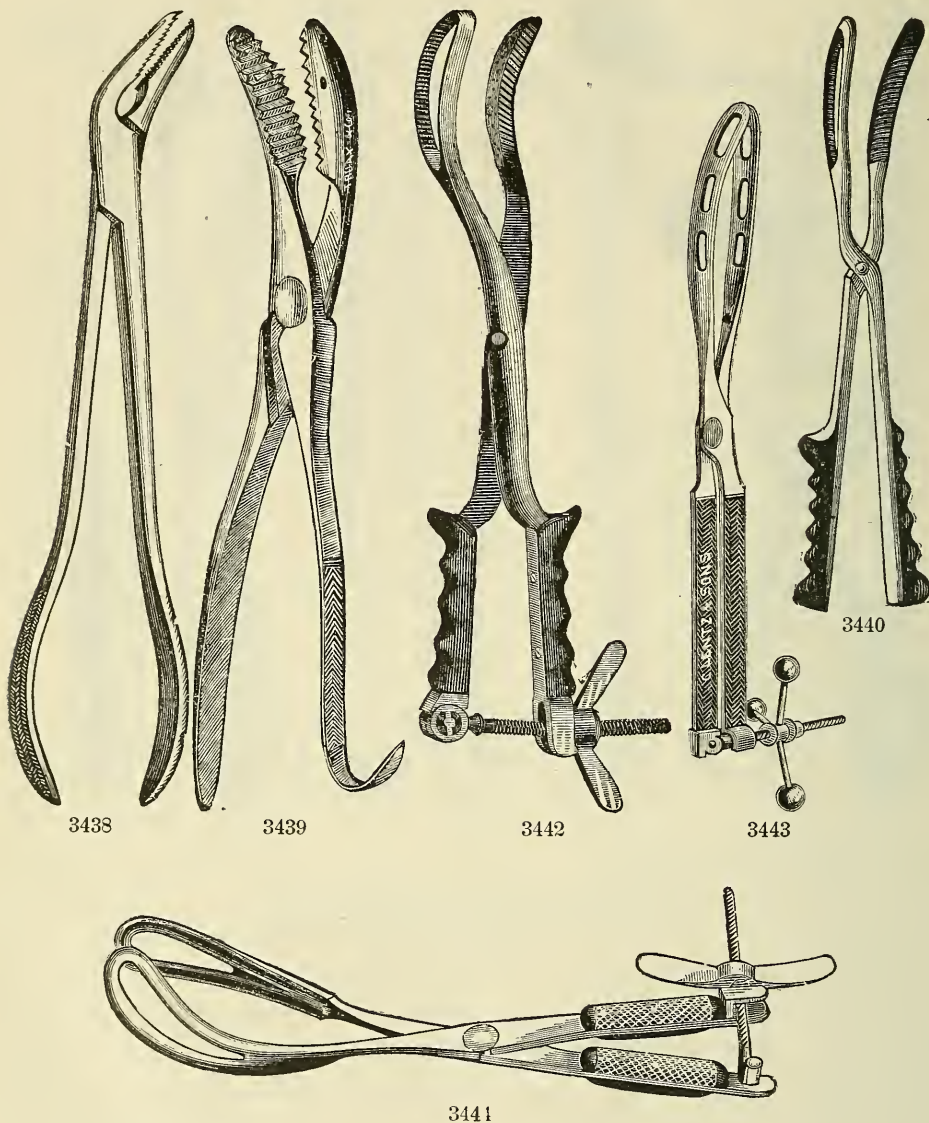
## Obstetrical Instruments.



|        |                                                                      |        |
|--------|----------------------------------------------------------------------|--------|
| 3422.* | Scissors for Umbilical Cord.....                                     | \$1 25 |
| 3423.  | Colpeurynter, Braun's, pure gum.....                                 | 1 00   |
| 3424.* | “ “ “ “ with hard rubber stop-cock.....                              | 1 50   |
| 3425.* | Dilator, Barnes' pure gum, three sizes, each 60c.; set of three..... | 1 50   |
| 3426.  | “ “ “ “ “ “ with one hard rubber stop-cock.....                      | 1 90   |
| 3427.  | “ Hank's Hard Rubber, set of ten sizes.....                          | 4 25   |
| 3428.* | Vectis, with handle.....                                             | 1 75   |
| 3429.  | “ double, two size blades .....                                      | 2 00   |
| 3430.* | Decapitating Hook.....                                               | 1 75   |
| 3431.  | “ “ Braun's.....                                                     | 3 00   |
| 3432.* | Blunt Hook and Crotchet.....                                         | 1 15   |
| 3433.* | “ “ “ “ guarded.....                                                 | 3 25   |
| 3434.* | “ “ with handle.....                                                 | 1 25   |
| 3435.  | Crotchet “ “ .....                                                   | 1 50   |

*All Instruments Illustrated are designated by a \*.*

## Obstetrical Instruments.

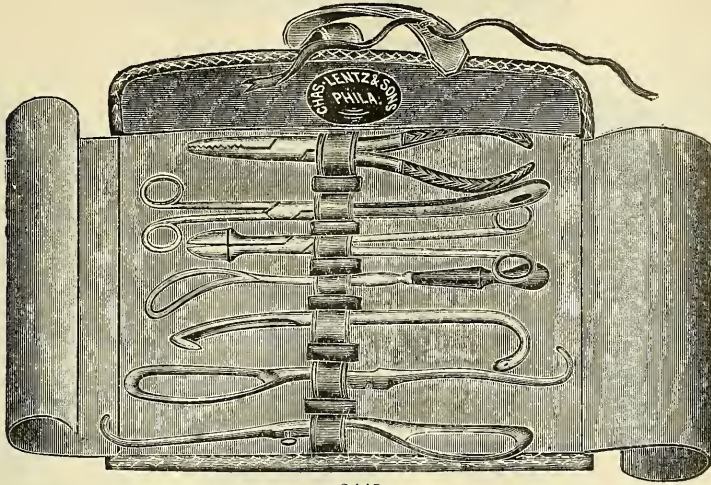


|        |                                                     |        |
|--------|-----------------------------------------------------|--------|
| 3438.* | Craniotomy Forceps, Meig's, straight or curved..... | \$2 25 |
| 3439.* | “ “ Thomas'.....                                    | 4 50   |
| 3440.* | Cranioclast, Simpson's.....                         | 7 00   |
| 3442.* | Cephalotribe, Braun's.....                          | 15 00  |
| 3443.* | “ Hodge's.....                                      | 15 00  |
| 3444.* | “ Lusk's.....                                       | 13 50  |

*All Instruments Illustrated are designated by a \*.*



## Obstetrical Instruments.



3448

## 3448.\* Obstetrical Set, No. 1.

Containing one pair Hodge's Forceps; one Blunt Hook and Crotchet; one pair Placenta Forceps; one Vectis; one Perforator; one pair Meig's Craniotomy Forceps. In a roll-up leather pouch, chamois lined.....\$16 00

3449. In 16 inch bag with bottles ..... 17 50

## 3450. Obstetrical Set, No. 2.

Contains one Wallace's Forceps (or Hodge's); one Blunt Hook and Crotchet; one Smellie's Perforator; one Placenta Forceps. In a roll-up morocco pouch, chamois lined.....\$12 00

## 3451. Obstetrical Set, No. 3.

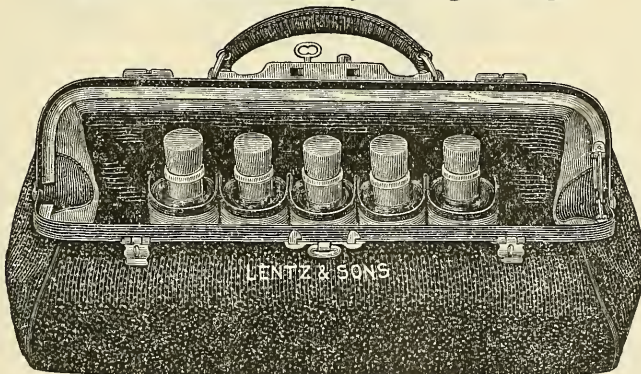
Contains one Elliott's Forceps; one Vectis; one Smellie's Perforator; one Blunt Hook and Crotchet; one Meig's Craniotomy Forceps; one Bond's Placenta Forceps; one Female Catheter. In a roll-up morocco pouch, chamois lined.....\$17 50

3452. In 16 inch bag with bottles..... 19 00

3453. Obstetrical Pouches, rolling, best morocco leather, lined with chamois skin.....\$3 00

Obstetrical cases of any style made to order.

## 3454.\* Obstetric and Gynæcological Bags.



3454

They are made of best quality grain leather, as the above bag, in black or brown, and have the new improved spring clasp to hold bag when closed; also have the stop hinge to prevent bag from closing until desired. Contains five 2 oz. large-mouth bottles, with acid-proof stoppers, in loops as shown in illustration, pocket on the opposite side the full length of the bag. The frame is steel, lock and clasp made of brass and nickel-plated. Made in the following sizes:

|                     |             |
|---------------------|-------------|
| 13 inches long..... | Net, \$4 00 |
| 15 " " .....        | " 4 25      |
| 16 " " .....        | " 4 50      |

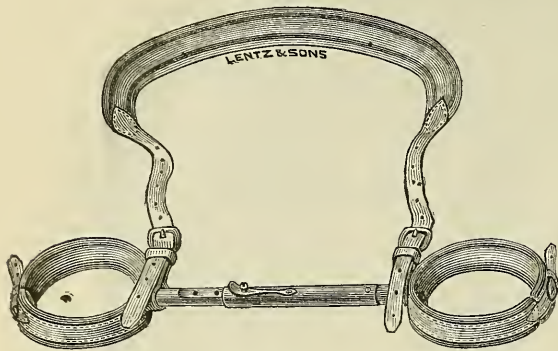
Same bag, without bottles or loops, 50 cents less.

For surgical chairs and table, see office furniture.

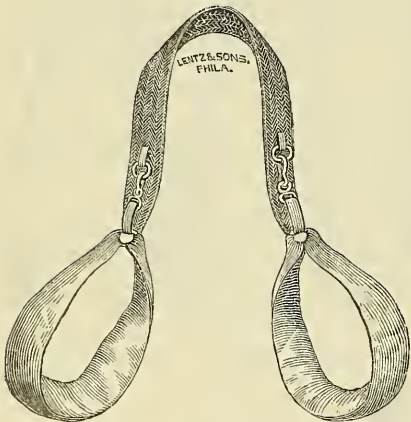


Gynæcological Instruments.

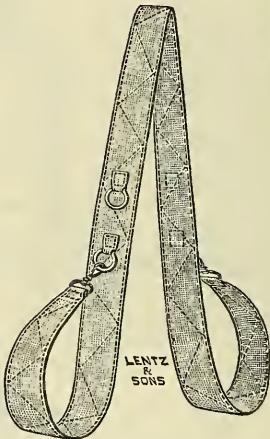
LEG HOLDERS.



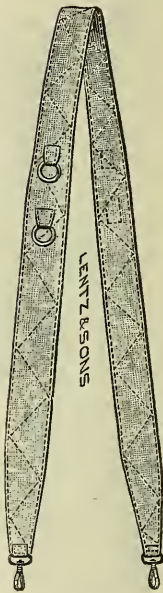
3470



3471



3472



3472

3470.\* Taylor's Leg Holder.....\$7 00

Consists of a metal rod sliding within a hollow one, for the purpose of rendering it longer or shorter and is held at the desired distance by a spring catch. At each end of the rods are attached circular metal bands well padded and covered with leather, which buckle around the limbs.

A broad band which is carried behind the patient's neck has strong leather straps, which buckle to the rod.

3471.\* Kelly's Leg Holder.....2 00

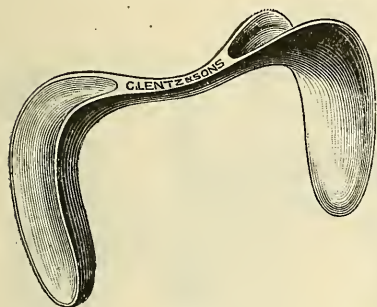
3472.\* Robb's " " .....1 25

These Leg Holders are made of unbleached Canton flannel, with snap catch. hooks and rings for adjusting to any desired length. They can be washed and sterilized. Being light, can be conveniently carried in operating bag.

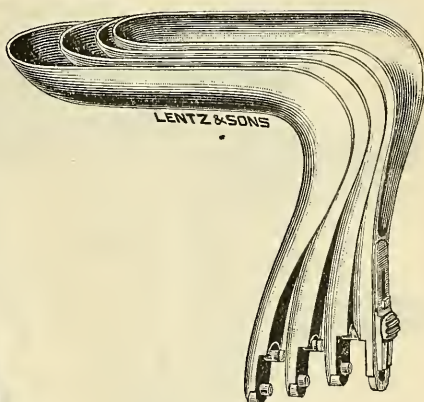
*All Instruments Illustrated are designated by a \*.*

# Gynæcological Instruments.

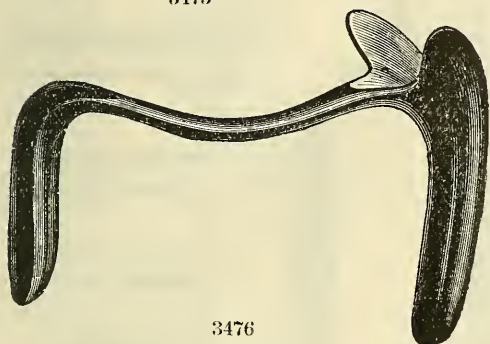
## VAGINAL SPECULUMS.



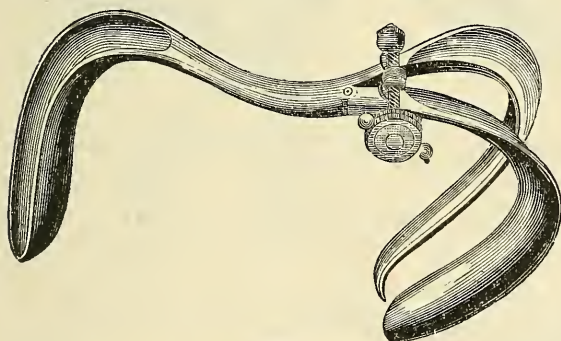
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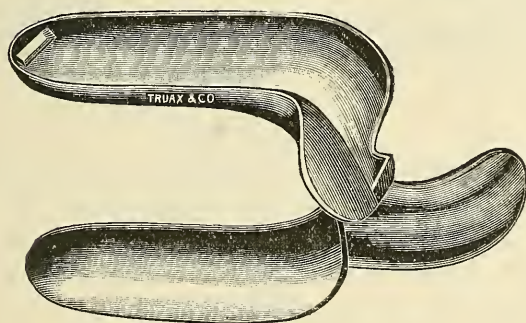
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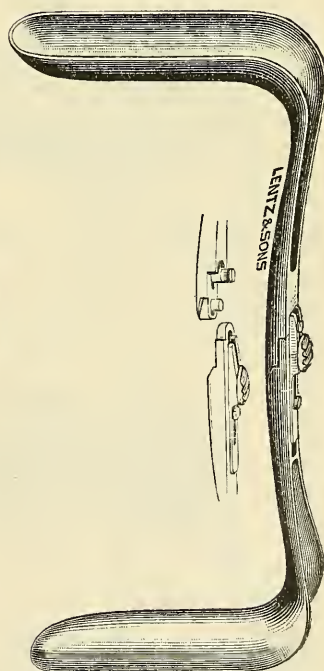
3476



3479



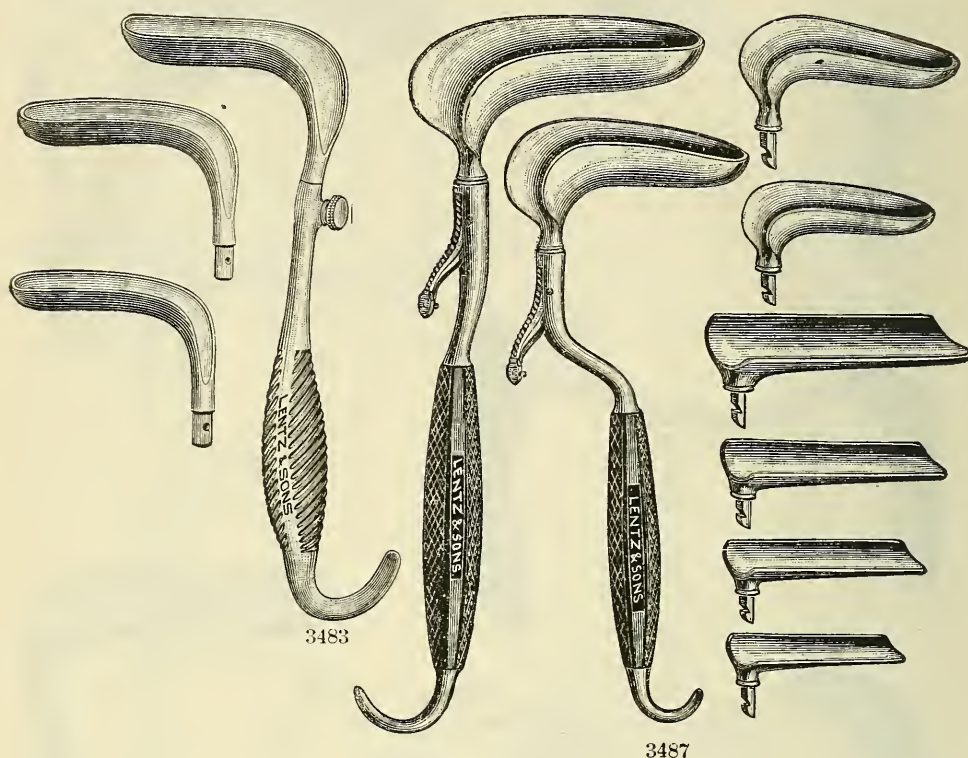
3488



3484

## Gynæcological Instruments.

## VAGINAL SPECULUMS.



|        |                                                                                                                                             |        |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 3473.* | Speculum, Sims', nickel-plated, four styles in width and length of blades.....each                                                          | \$1 50 |
| 3474.  | “ “ Aluminum, four styles.. .....                                                                                                           | “ 2 50 |
| 3475.  | “ “ Bozeman's Modification, nickel-plated, \$2 00 ; aluminum.....                                                                           | 2 75   |
| 3476.* | “ “ Heburn's “ “ 2 00 ; “ .....                                                                                                             | 2 75   |
| 3478.  | “ “ Munde's “ “ 2 75 ; “ .....                                                                                                              |        |
| 3479.* | “ “ Dawson's “ “ 4 75 ; “ .....                                                                                                             |        |
| 3481.  | “ “ Woman's Hospital Pattern “ 2 00 ; “ .....                                                                                               | 2 75   |
| 3483.* | “ “ Set of three blades, fitting in one handle, all metal, nickel-plated                                                                    | 6 00   |
| 3484.* | “ “ Robb's Modification, set of four blades.....                                                                                            | 10 00  |
| 3485.* | “ “ “ “ “ “ (showing nested for transportation).                                                                                            |        |
| 3486.  | Simon's set of 8 flat-shaped Speculas. 2 socket handles, all metal, nickel-plated.                                                          | 14 50  |
| 3487.* | Simon's-Bozeman's set of 4 Simon-Bozeman's Specula, 4 Simon-Sims' Gutter-shaped Specula and 2 socket handles, all metal, nickel-plated..... | 14 50  |
| 3488.* | Cleveland's Self-retaining Speculum, with belt.....                                                                                         | 3 00   |

*All Instruments Illustrated are designated by a \*.*



# Gynæcological Instruments.

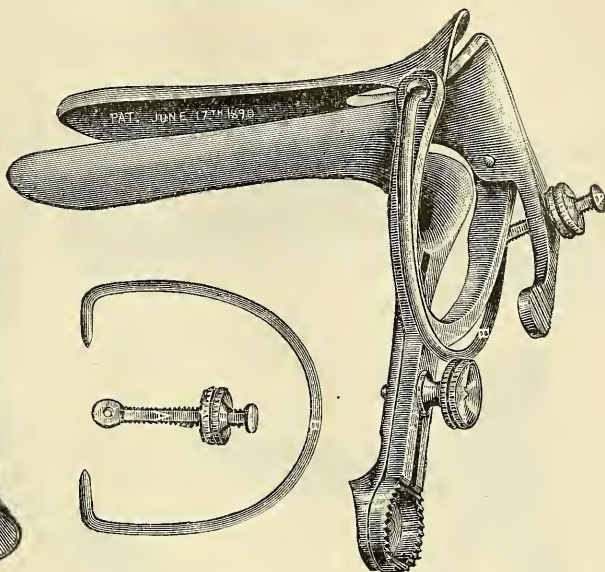
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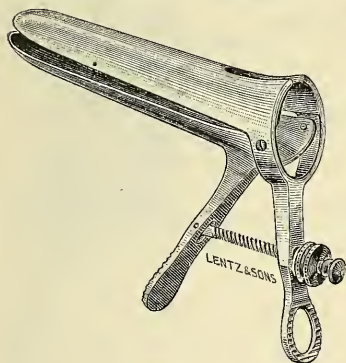
3494



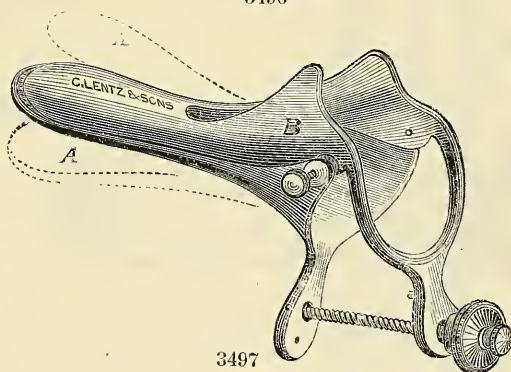
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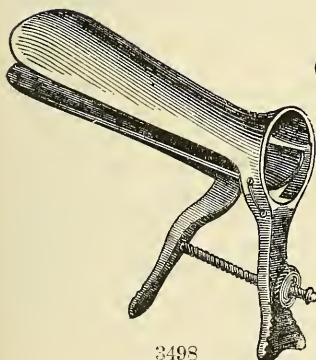
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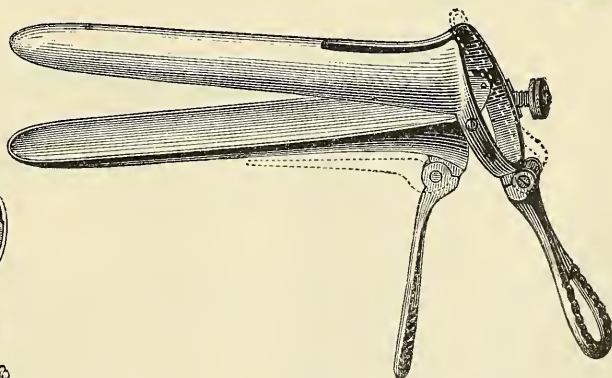
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3497



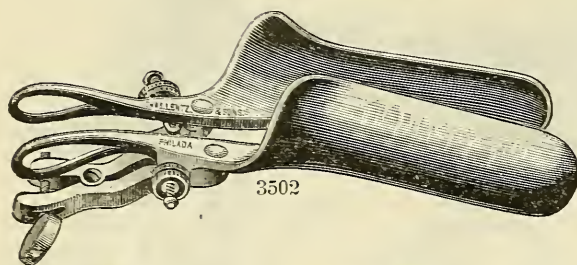
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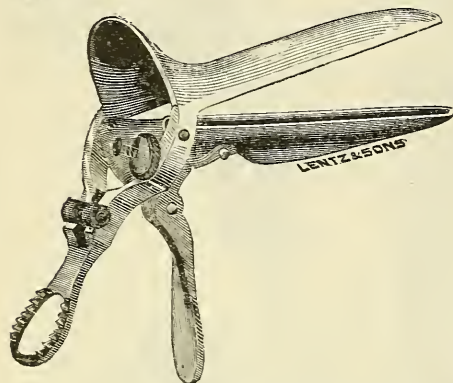
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## Gynæcological Instruments.

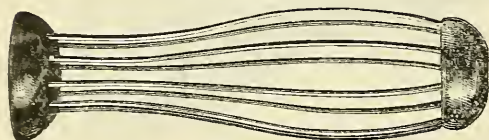
## VAGINAL SPECULUMS.



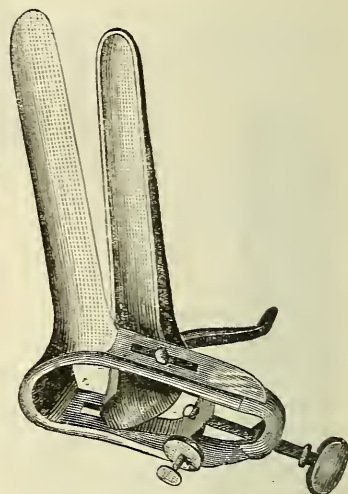
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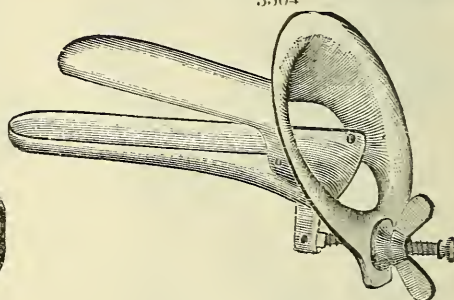
3500



3507



3504



3503

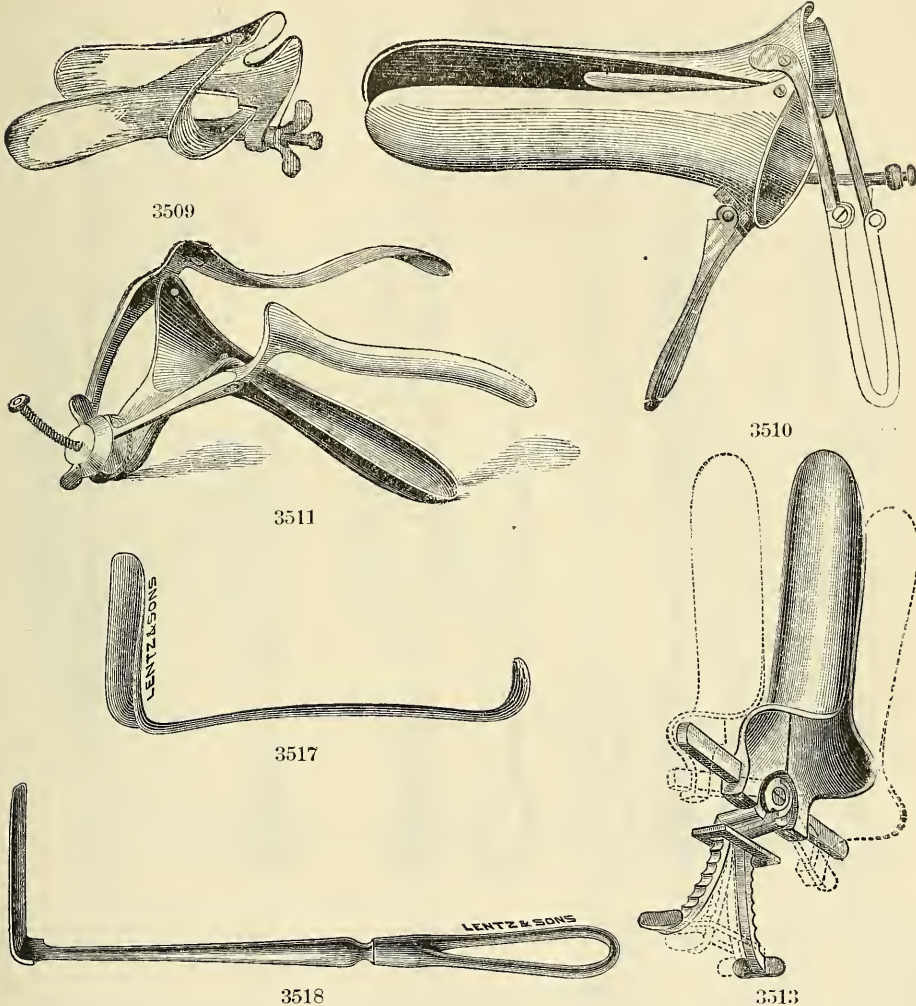
|        |                                                                             |    |    |
|--------|-----------------------------------------------------------------------------|----|----|
| 3490.* | Fergusson's Glass Reflecting.....                                           | \$ | 40 |
| 3491.  | " " " Fenestrated.....                                                      |    | 50 |
| 3492.  | " " " Dome Top.....                                                         |    | 50 |
| 3493.  | " white glass or porcelain .....                                            |    | 50 |
| 3494.* | " hard rubber, each, 75c.; set of four.....                                 | 2  | 60 |
| 3495.  | " " " metal lined, each, \$1 50; set of four.....                           | 5  | 50 |
| 3496.* | Graves' Reversible to a Sims' Aseptic, nickel-plated, \$2 50; aluminum..... | 3  | 50 |
| 3497.* | Brewer's " " " " " 2 50; " .....                                            | 3  | 00 |
| 3498.* | Storer's " " " " " 2 50; " .....                                            | 3  | 00 |
| 3499.* | Cusco's Virgin Stationary Handles " " 2 50; " .....                         | 3  | 00 |
| 3500.* | " Improved Folding " " 2 75; " .....                                        |    |    |
| 3501.* | " Thomas' " " " 2 75; " .....                                               |    |    |
| 3502.* | Goodell's Improved, nickel-plated.....                                      | 5  | 00 |
| 3503.* | Higbee's, three sizes. Aseptic, nickel-plated, each, \$2 50; aluminum.....  | 3  | 00 |
| 3504.* | Jackson's, nickel-plated, \$3 25; aluminum .....                            | 4  | 00 |
| 3505.  | Hale's " " 3 25; " .....                                                    | 4  | 00 |
| 3506.  | Leonard's " " .....                                                         | 4  | 00 |
| 3507.  | Bath Speculum, all metal, nickel-plated.....                                | 1  | 50 |

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

## VAGINAL SPECULUMS.



|        |                                                                               |                                   |        |
|--------|-------------------------------------------------------------------------------|-----------------------------------|--------|
| 3509.* | Taylor's, Aseptic, nickel-plated,                                             | \$2 50 ; aluminum.....            | \$3 00 |
| 3510.* | Howard's,                                                                     | " " .....                         | 3 00   |
| 3511.* | Nott's, three sizes,                                                          | " " each, \$2 50 ; aluminum ..... | 3 00   |
| 3512.  | Nelson's, three blades "                                                      | " " .....                         | 3 25   |
| 3513.* | Reid's,                                                                       | " " .....                         | 4 50   |
| 3514.  | Erich-Hunter's latest self-retaining with dilating blades, nickel-plated..... |                                   | 8 50   |
| 3517.* | Vaginal Retractor, Jackson's, two sizes, nickel-plated, each,                 | \$1 25 ; aluminum.....            | 1 50   |
| 3518.* | " " Robb's, three sizes.....                                                  | each, \$1 50, \$1 75 and 2 00     |        |

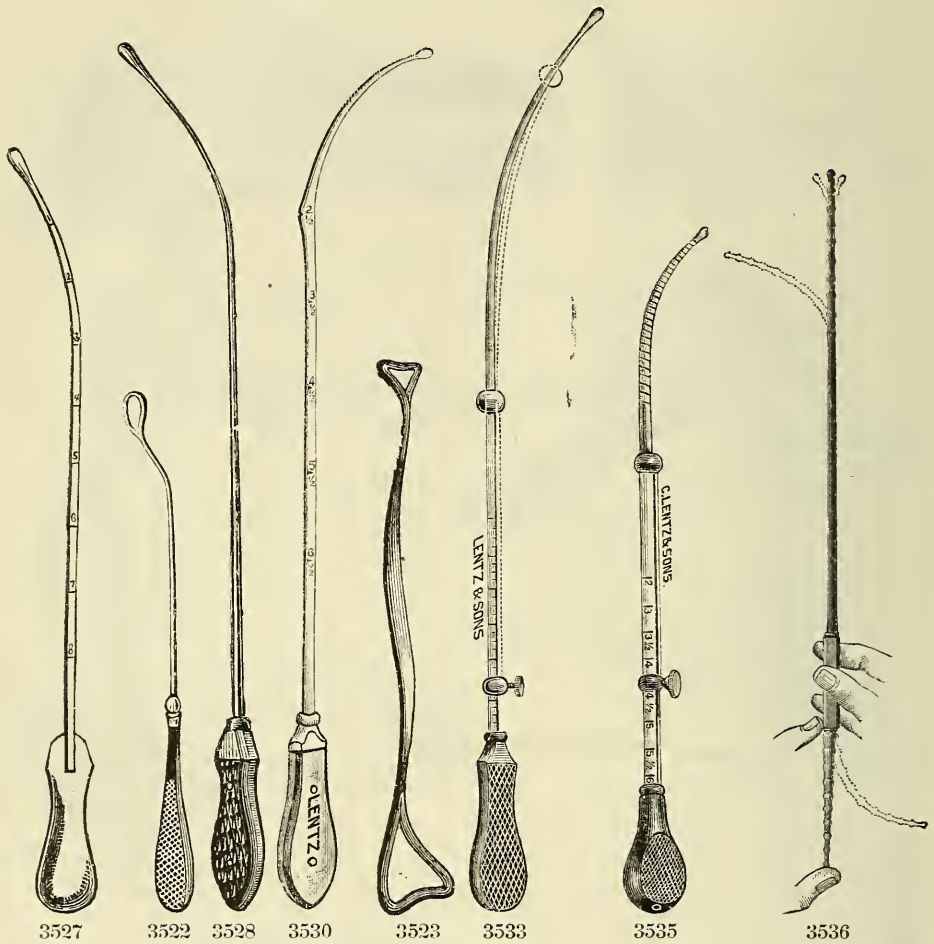
For other Retractors, see Amputating and General Operating Instruments,  
page 27.

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

## SOUNDS AND VAGINAL DEPRESSORS.

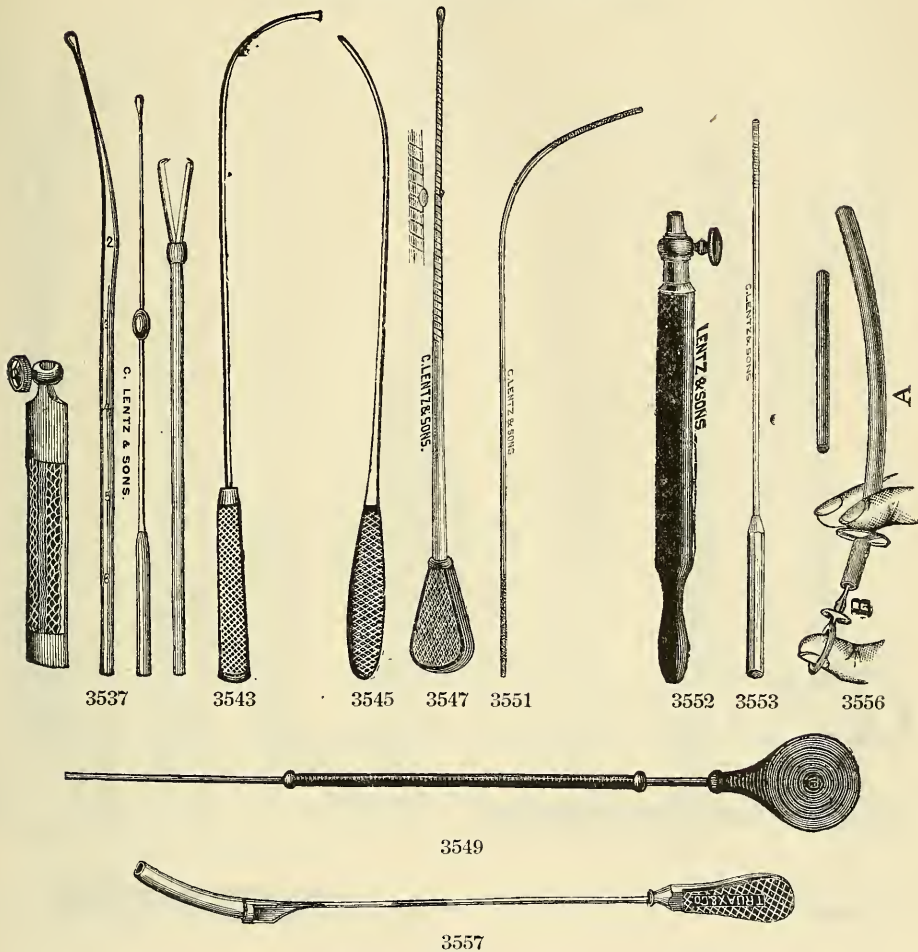


|        |                                                                                 |       |
|--------|---------------------------------------------------------------------------------|-------|
| 3522.* | Vaginal Depressor, Sims', with metal handle.....                                | \$ 75 |
| 3523.* | " " Nott's.....                                                                 | 90    |
| 3524.  | " " Emmet's, with metal handle.....                                             | 1 00  |
| 3525.  | " " Whitney's, hard rubber.....                                                 | 1 35  |
| 3527.* | Uterine Sound, Sims', plain.....                                                | 65    |
| 3528.* | " " " fine, nickel plated, 85c.; aluminum.....                                  | 1 00  |
| 3530.* | " " Simpson's, fine, nickel-plated, \$1 00; aluminum.....                       | 1 25  |
| 3531.  | " " Peaslee's, " " " 1 00; ".....                                               | 1 35  |
| 3532.  | " " Fitch's, with slide, " " 1 10; aluminum, plated slide.....                  | 1 50  |
| 3533.* | " " Gidding's, " " " ".....                                                     | 1 25  |
| 3535.* | " " Jenks' " " spiral, " with metal handle.....                                 | 1 75  |
| 3536.* | " " Jennison's, for indicating and exploring.....                               | 3 00  |
| 3537.* | Buttle's Set, Sound, Silver Probe and Sponge Holder in one handle.....          | 2 25  |
| 3539.  | Chapman's Set, Sims' Sound, Simpson's Sound and Silver Probe in one handle..... | 2 50  |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

## PROBES AND APPLICATORS.

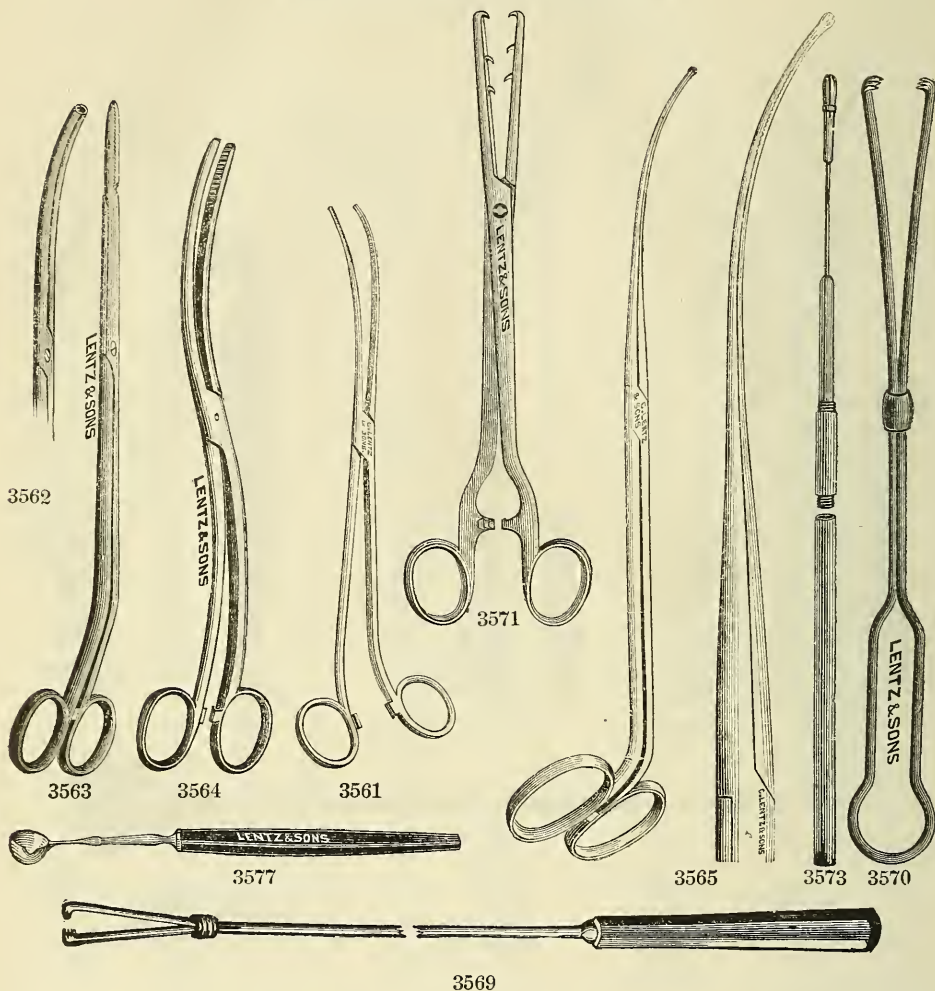


|        |                                                          |       |
|--------|----------------------------------------------------------|-------|
| 3543.* | Uterine Probe, Sims', silver, metal handle.....          | \$ 90 |
| 3544.  | “ “ “ aluminum.....                                      | 75    |
| 3545.* | “ “ Thomas' hard rubber.....                             | 35    |
| 3546.  | “ “ “ whalebone.....                                     | 75    |
| 3547.* | “ “ Jenks', spiral metal handle.....                     | 1 00  |
| 3548.  | “ “ Lente's, two bulb, silver, metal handle.....         | 1 15  |
| 3549.* | “ Applicator, Emmet's, pure silver, with slide.....      | 1 10  |
| 3550.  | “ “ “ aluminum “ “ .....                                 | 90    |
| 3551.* | “ “ “ aluminum, 20c.....doz.,                            | 2 00  |
| 3552.* | “ “ “ handle, with set screw.....                        | 50    |
| 3553.* | “ “ “ aluminum, with handle.....                         | 50    |
| 3554.  | “ “ “ whalebone.....                                     | 50    |
| 3556.* | “ “ Mitchell's, to apply medicated pencils.....          | 1 25  |
| 3557.* | Wylie's Curvical Speculum, for applications, silver..... | 1 85  |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

FOR MAKING APPLICATIONS.



|        |                                                                   |                          |        |
|--------|-------------------------------------------------------------------|--------------------------|--------|
| 3560.  | Uterine Dressing Forceps, straight, plain.                        | \$1 40 ; with catch..... | \$1 65 |
| 3561.* | " " " " Allen's, curved, plain.                                   | \$1 50 ; with catch..... | 1 75   |
| 3562.* | " " " " grooved points, " "                                       | \$1 50 ; " ".....        | 1 75   |
| 3563.* | " " " " Elliot's, plain.                                          | \$1 65 ; with catch..... | 1 90   |
| 3564.* | " " " " Bozeman's, plain.                                         | \$1 50 ; with catch..... | 1 75   |
| 3565.* | " " " " Thomas', long, delicate points, with catch.....           | 2 00                     |        |
| 3567.  | " " " " self-retaining.....                                       | 1 85                     |        |
| 3569.* | " " " " Sponge Holder, metal handle.....                          | 60                       |        |
| 3570.* | " " " " Husson's, light, 65c.; heavy...                           | 85                       |        |
| 3571.  | " " " " Holding Forceps, bird-claw points, Kelly's.....           | 2 25                     |        |
| 3573.* | " " " " Caustic Holder, Byford's, pliable stem. silver point..... | 1 00                     |        |
| 3574.  | " " " " long, ebony case silver point.....                        | 90                       |        |
| 3575.  | " " " " Edward's, self holding.....                               | 1 85                     |        |
| 3577.* | " " " " Platinum Cup, Lente's, for melting nitrate of silver..... | 2 25                     |        |
| 3578.  | " " " " Powder Blower, with ball.....                             | 1 00                     |        |
| 3579.  | " " " " Barnes' Tube, open at end or sides for ointment.....      | 1 25                     |        |
| 3580.  | " " " " Cupped Sound, for applying ointment.....                  | 1 00                     |        |

All Instruments Illustrated are designated by a\*.



## Gynæcological Instruments.

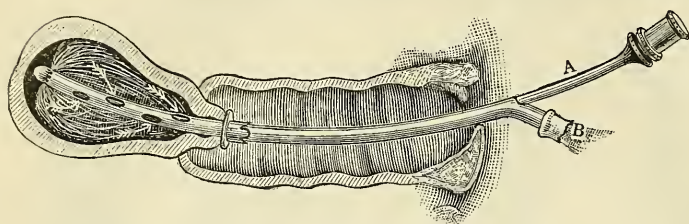
FOR MAKING APPLICATIONS AND IRRIGATIONS.



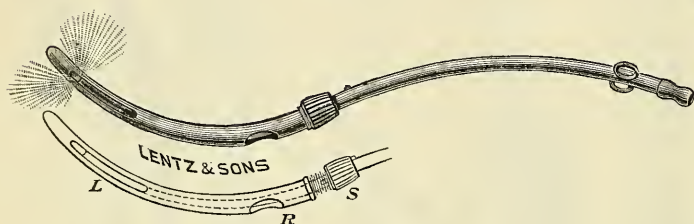
|        |                                                                                                 |        |
|--------|-------------------------------------------------------------------------------------------------|--------|
| 3584.* | Syringe, hard rubber, $\frac{1}{2}$ oz., 85c.; 2 oz.....                                        | \$1 25 |
| 3585.* | " " " Universal, four point, 2 oz.....                                                          | 2 00   |
| 3586.  | " Lente's, with two silver points, in case.....                                                 | 5 00   |
| 3587.* | " Braun's, hard rubber, with small glass barrel.....                                            | 1 50   |
| 3588.* | " Taylor's, " " " graduated glass barrel.....                                                   | 1 75   |
| 3589.* | Uterine Pipette, glass, 6 inches long.....                                                      | 35     |
| 3591.* | Uterine Douche, Jennison's, Aseptic.....                                                        | 1 50   |
| 3592.* | " " Lente's Improved, Aseptic.....                                                              | 1 50   |
| 3593.* | " " Haynes'.....                                                                                | 1 75   |
| 3594.* | " " Bozeman's Vaginal Escapement.....                                                           | 1 50   |
| 3596.* | " " Fritsch's mod. of Bozeman's. Aseptic.....                                                   | 2 00   |
| 3597.* | " " Kelly's mod. of Fritsch's ".....                                                            | 3 50   |
| 3598.* | " " Hoffman's mod. of Kelly's, point unscrews, and all parts can be separated for cleaning..... | 3 50   |
| 3599.* | Uterine Douche, Chamberlain's, glass, large.....                                                | 60     |

*All Instruments Illustrated are designated by a \*.*

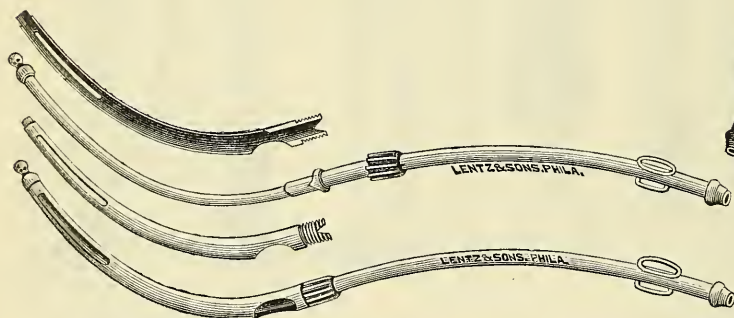
# Gynæcological Instruments. FOR IRRIGATION AND DOUCHING.



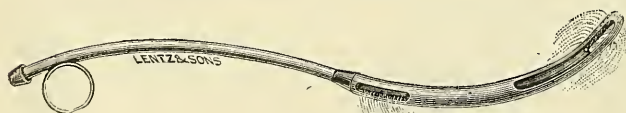
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3596



3597



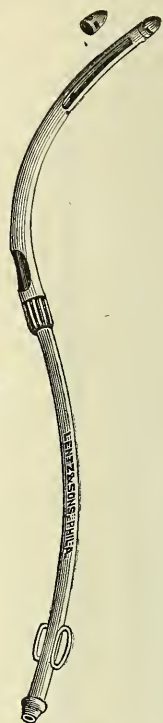
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3593



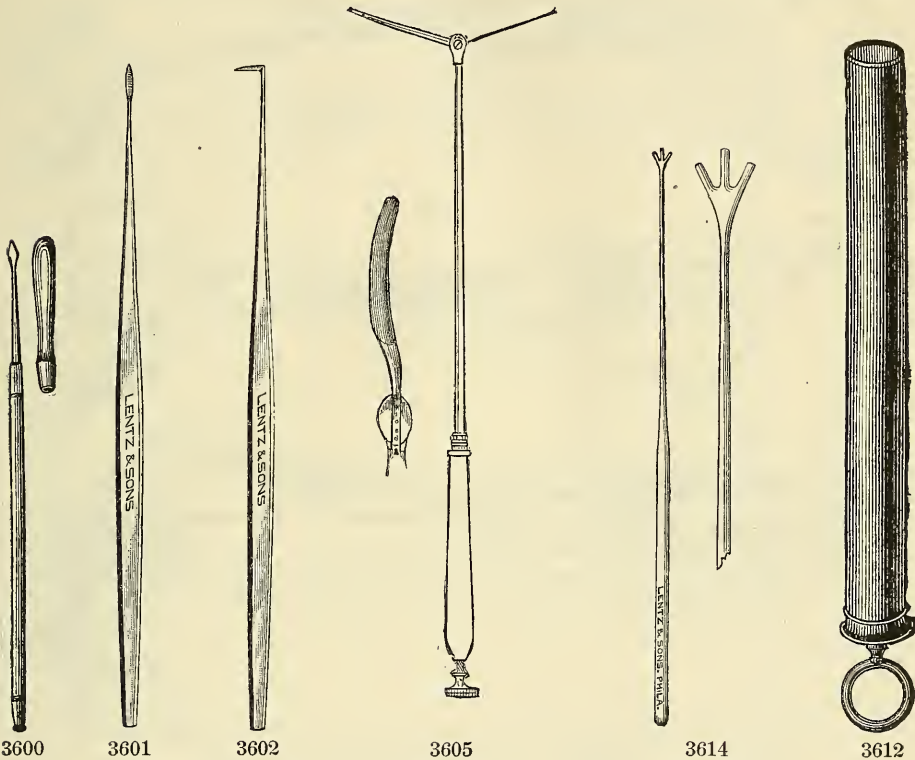
3599



3598

## Gynæcological Instruments.

## FOR INCISION OF THE UTERUS.



|        |                                                                          |        |
|--------|--------------------------------------------------------------------------|--------|
| 3600.* | Uterine Scarifier, Buttle's, metal handle with cap to protect point..... | \$1 00 |
| 3601.* | “ “ Kelly's.....                                                         | 1 00   |
| 3602.* | “ “ “ (knife blade Tenaculum).....                                       | 1 25   |
| 3603.  | “ “ Pinkham's.....                                                       | 4 00   |
| 3604.  | “ “ and Sound, Skene's.....                                              | 4 50   |
| 3605.* | Uterotome and Scarifier, Sims', rotating blade.....                      | 3 25   |
| 3606.  | “ “ “ Peaslee's.....                                                     | 3 25   |
| 3607.  | Hysterotome, Simpson's.....                                              | 5 00   |
| 3608.  | “ “ White's.....                                                         | 9 00   |
| 3609.  | “ “ Stohlman's.....                                                      | 5 25   |
| 3612.* | Tampon and Cupping Pump, Thomas'. ....                                   | 1 00   |
| 3613.  | “ “ Screw, Sims', guarded.....                                           | 90     |
| 3614.* | Cotton Packer, Kelly's, steel.....                                       | 75     |

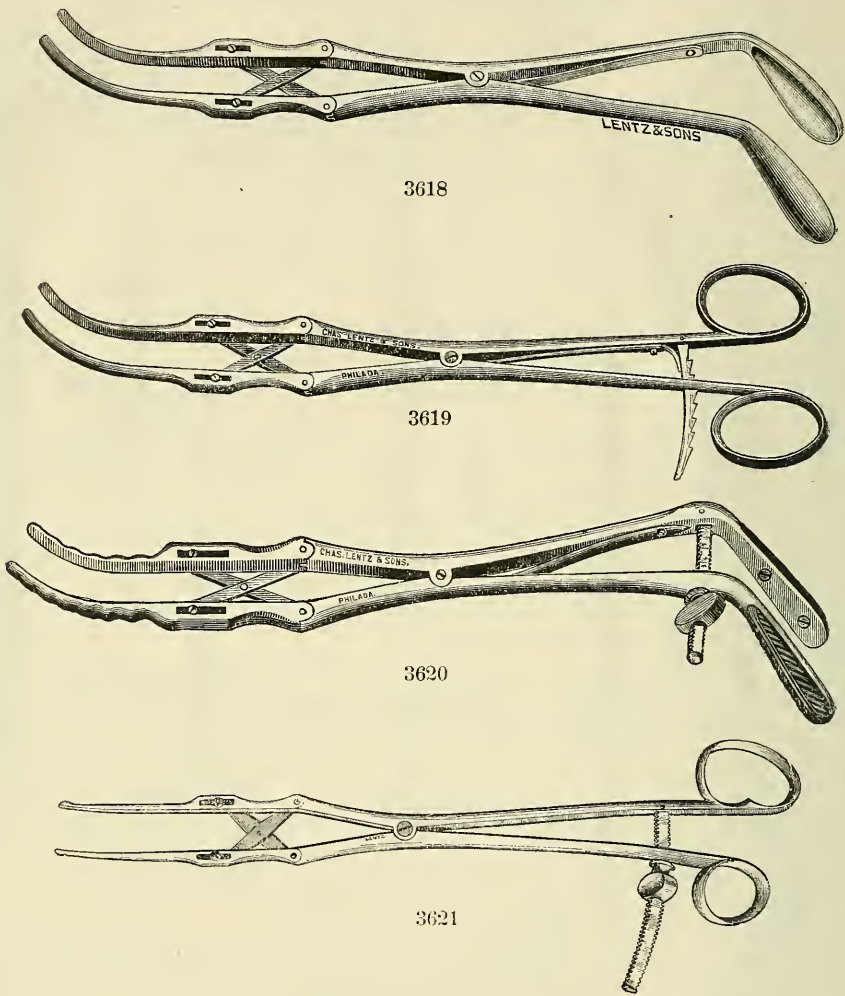
Like a blunt pitchfork ; picks up cotton, gauze, etc., and packs them well in place in vagina or uterus. This packer has all the delicacy and accuracy of a small pair of hands in the vagina.

*All Instruments Illustrated are designated by a \*.*



Gynæcological Instruments.

FOR DILATING THE OS AND CERVIX UTERI.

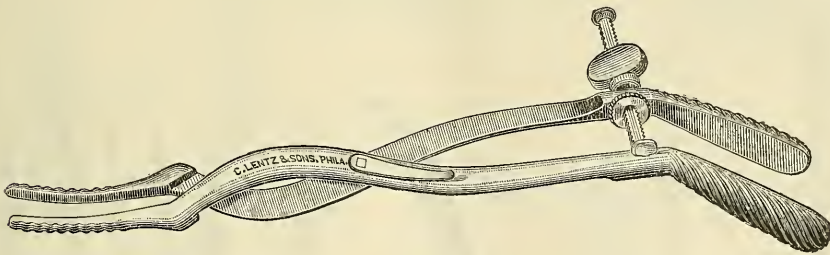


|        |                                                       |        |
|--------|-------------------------------------------------------|--------|
| 3618.* | Uterine Dilator, Goodell's, light, without catch..... | \$6 50 |
| 3619.* | “ “ “ “ with “ .....                                  | 6 50   |
| 3620.* | “ “ “ heavy, with graduated screw.....                | 8 50   |
| 3621.* | “ “ Baer's, light, “ “ “ .....                        | 6 50   |
| 3622.  | “ “ Sims', three blade.....                           | 9 00   |
| 3623.  | “ “ Miller's.....                                     | 7 50   |
| 3624.  | “ “ Nelson's.....                                     | 4 00   |

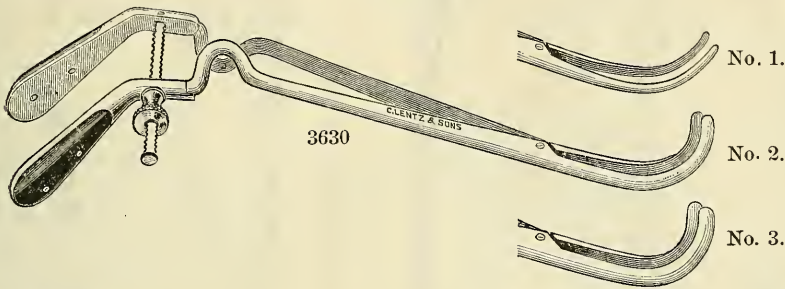
All Instruments Illustrated are designated by a \*.

## Gynæcological Instruments.

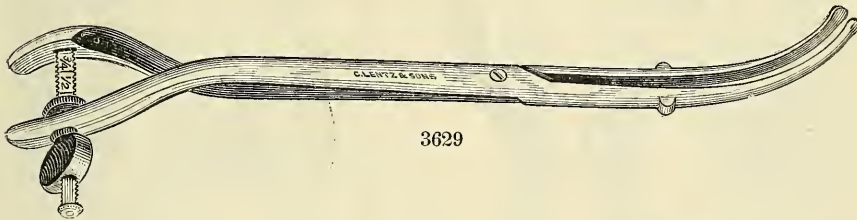
FOR RAPID DILATATION.



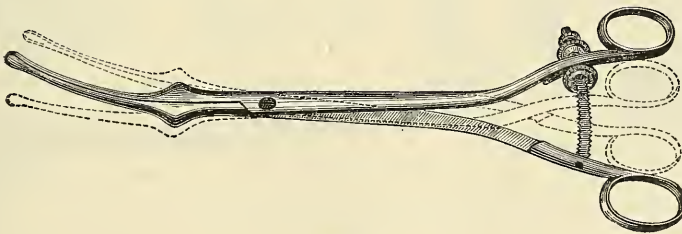
3631



3630



3629



3628

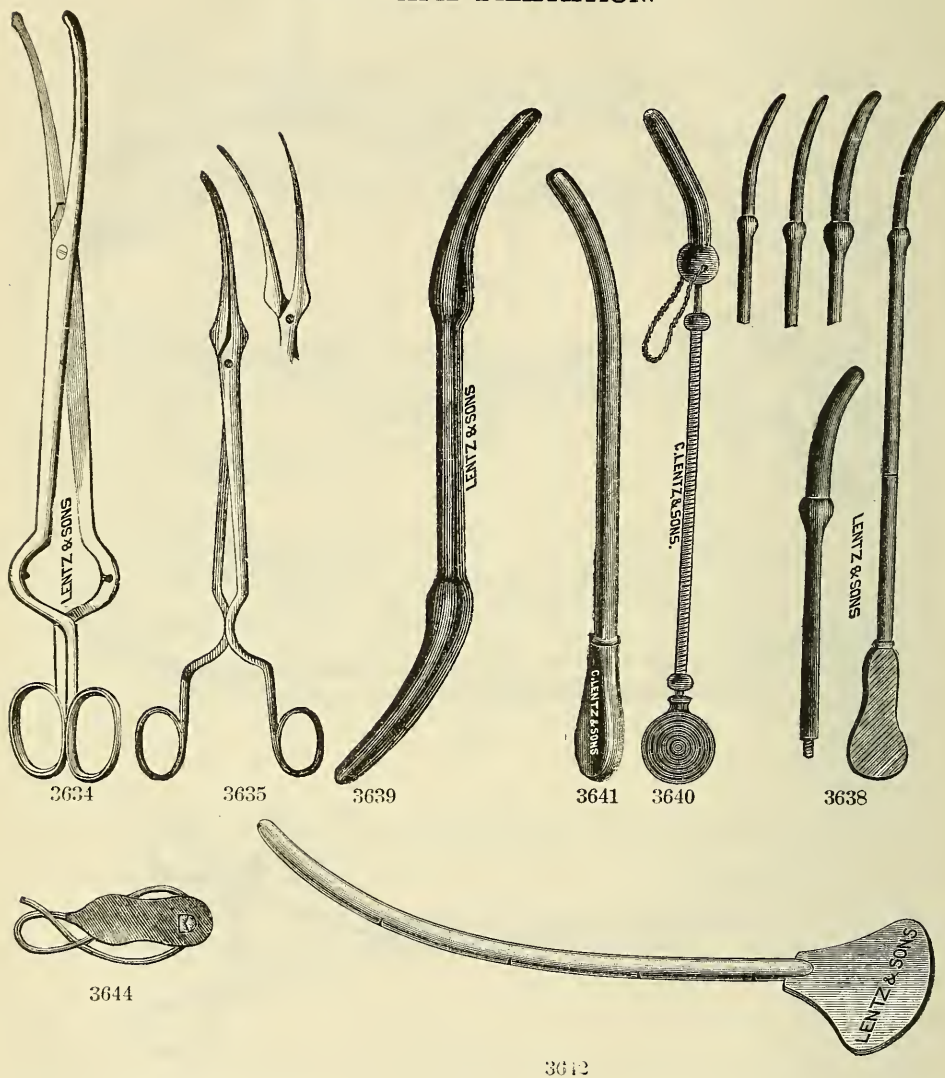
|        |                                                           |        |
|--------|-----------------------------------------------------------|--------|
| 3628.* | Uterine Dilator, Palmer's Original.....                   | \$3 00 |
| 3629.* | “ “ “ Improved.....                                       | 3 50   |
| 3630.* | “ “ Wilson's, three sizes with different curves.....each, | 4 50   |
| 3631.* | “ “ Wathen's, heavy, with corrugated blades.....          | 6 00   |
| 3632.  | “ “ “ light, with smooth blades.....                      | 5 50   |

This dilator has been much improved, and to its superior qualities has been added a principle that makes it as perfectly aseptic as it is possible to have any surgical instrument. The blades are held together by a modified French lock that admits of the instrument being separated into its different parts in a few seconds, so as to be easily cleaned and made aseptic. This is the only dilator that is made after this fashion. The graduated screw can also be removed.

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

FOR RAPID DILATATION.



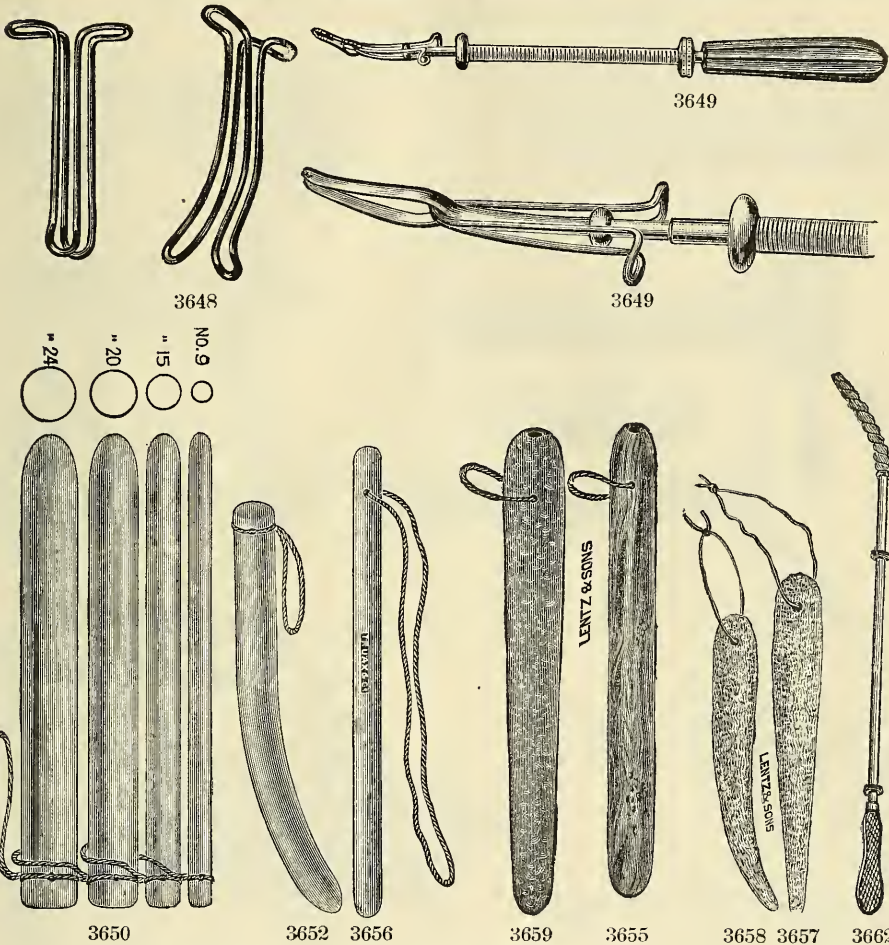
|        |                   |                                                              |        |
|--------|-------------------|--------------------------------------------------------------|--------|
| 3634.* | Uterine Dilators, | Atlee's.....                                                 | \$2 25 |
| 3635.* | "                 | Nott's.....                                                  | 2 25   |
| 3636.  | "                 | Wylie's.....                                                 | 3 00   |
| 3637.  | "                 | " with graduated screw at end of handle.....                 | 4 00   |
| 3638.* | "                 | Peaslee's, metal, five in set.....                           | 5 00   |
| 3639.* | "                 | Hank's, hard rubber, ten in set.....                         | 3 75   |
| 3640.* | "                 | Simpson's " " twelve in set.....                             | 5 00   |
| 3641.* | "                 | Werner's " " nine sizes in set.....                          | 6 00   |
| 3642.* | "                 | Heger's, metal, graduated, ten sizes.....each,               | 90     |
| 3643.  | "                 | Pratt's " double end, eight in set.....                      | 80     |
| 3644.* | "                 | Barnes', pure gum, three sizes.....each, 60c.; set of three, | 1 50   |
| 3645.  | "                 | " " " " with one hard rubber stop-cock...                    | 1 90   |

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

FOR DILATING THE OS AND CERVIX UTERI.

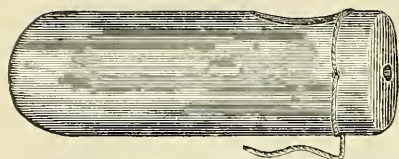


|        |                                                                 |      |       |
|--------|-----------------------------------------------------------------|------|-------|
| 3648.* | Outerbridge's Wire Cervical Dilators, different sizes .....     | each | \$ 50 |
| 3649.* | " Introducer, for wire dilators.....                            | 2    | 25    |
| 3650.* | Slippery Elm Tents, solid, four sizes, each, 10c.....           | doz. | 1 00  |
| 3651.  | " " " hollow, three sizes, each, 15c.....                       | "    | 1 50  |
| 3652.* | " " " curved, " " " 20c.....                                    | "    | 1 75  |
| 3653.  | Cervical " Plugs, three sizes.....                              | each | 35    |
| 3654.  | Sea Tangle Tents, solid, assorted sizes, each, 15c.....         | doz. | 1 25  |
| 3655.* | " " " hollow, " " " 15c.....                                    | "    | 1 50  |
| 3656.* | Tupelo Tents, solid, " " " 15c.....                             | "    | 1 25  |
| 3657.* | Sponge " best quality, straight, assorted sizes, each, 10c..... | "    | 85    |
| 3658.* | " " " curved, " " " 15c.....                                    | "    | 1 25  |
| 3659.* | " " " glazed, straight, each, 15c.....                          | "    | 1 25  |
| 3660.  | " " " curved, " " " 20c.....                                    | "    | 1 75  |
| 3661.  | " " Wallace's, curved, with spring for flexions.....            | each | 50    |
| 3662.* | Tent Introducer and Expeller.....                               |      | 50    |

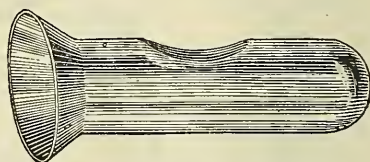
*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

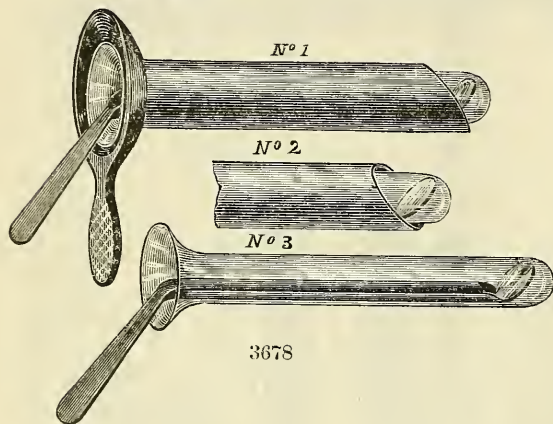
FOR EXAMINATION AND DILATION.



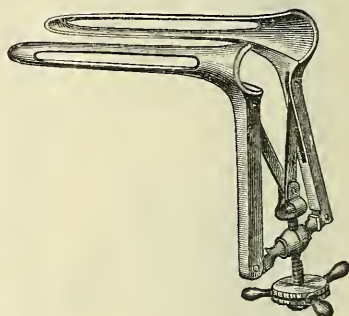
3667



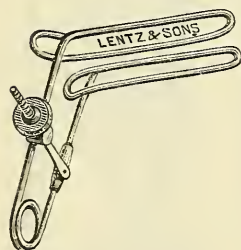
3668



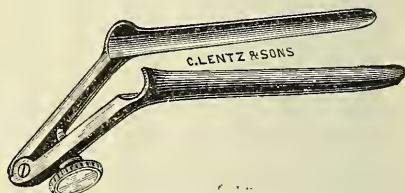
3678



3675



3674



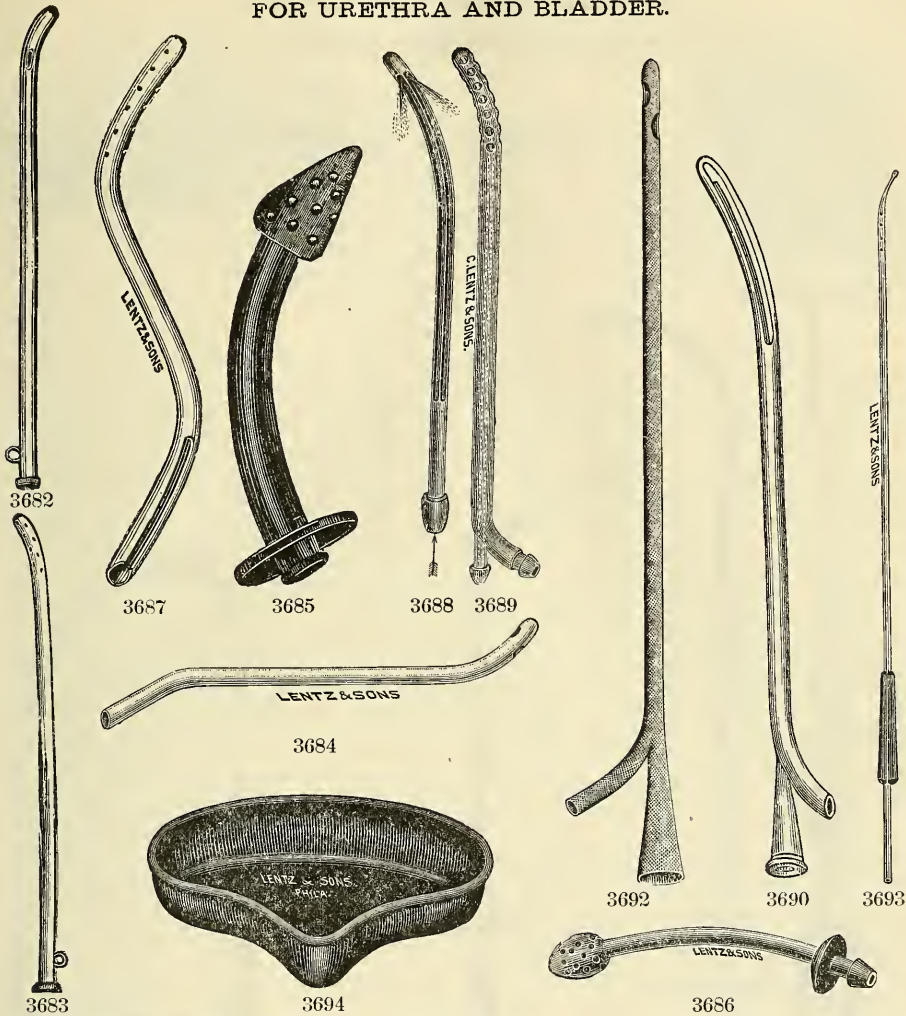
3677



3673

|        |                                                           |            |
|--------|-----------------------------------------------------------|------------|
| 3667.* | Vaginal Elm Plug, six sizes.....                          | each \$ 40 |
| 3668.* | " Dilators, Sims' Glass, six sizes.....                   | " 35       |
| 3669.  | " " " hard rubber, four sizes.....                        | " 60       |
| 3670.  | " " Hank's, hard rubber, double, set of ten.....          | 4 25       |
| 3673.* | Female Urethral Speculum, Skene's.....                    | 2 00       |
| 3674.* | " " " " Folsom's.....                                     | 1 00       |
| 3675.* | " " " Sampson's.....                                      | 2 50       |
| 3677.* | " " " Caro's, nickel-plated, \$1 25 ; aluminum.....       | 1 75       |
| 3678.* | Urethral Endoscope, Skene's, three sizes and lengths..... | each 2 25  |

*All Instruments Illustrated are designated by a \*.*

**Gynæcological Instruments.****FOR URETHRA AND BLADDER.**

|        |                                                               |       |
|--------|---------------------------------------------------------------|-------|
| 3682.* | Female Catheter, silver-plated, 40c.; silver.....             | \$ 60 |
| 3683.* | “ “ with small holes, silver plated, 40c.; silver.....        | 60    |
| 3684.* | “ “ glass, each, 15c. ....doz.                                | 1 50  |
| 3685.* | “ “ Goodman's, hard rubber, 65c.; plated, 65c.; silver.....   | 1 15  |
| 3686.* | “ “ Skene's, hard rubber, 65c.; plated, 65c.; silver.....     | 1 15  |
| 3687.* | “ “ Sims' Sigmoid “ “ 45c.; “ 45c.; “ ..                      | 75    |
| 3688.* | Reflux “ Skene's, plated.....                                 | 1 25  |
| 3689.* | Double Current Catheter, Skene's, plated, \$1 50; silver..... | 2 50  |
| 3690.* | “ “ “ Nott's, “ \$1 25; “ .....                               | 2 25  |
| 3691.* | “ “ “ Brodie's, “ \$1 50; “ .....                             | 2 50  |
| 3692.* | “ “ “ “Superior Linen,” flexible.....                         | 1 00  |
| 3693.* | Pawlick's Ureter “ silver.....                                | 2 25  |
| 3694.* | Triangular Papier Mache Basin.....                            | 1 00  |

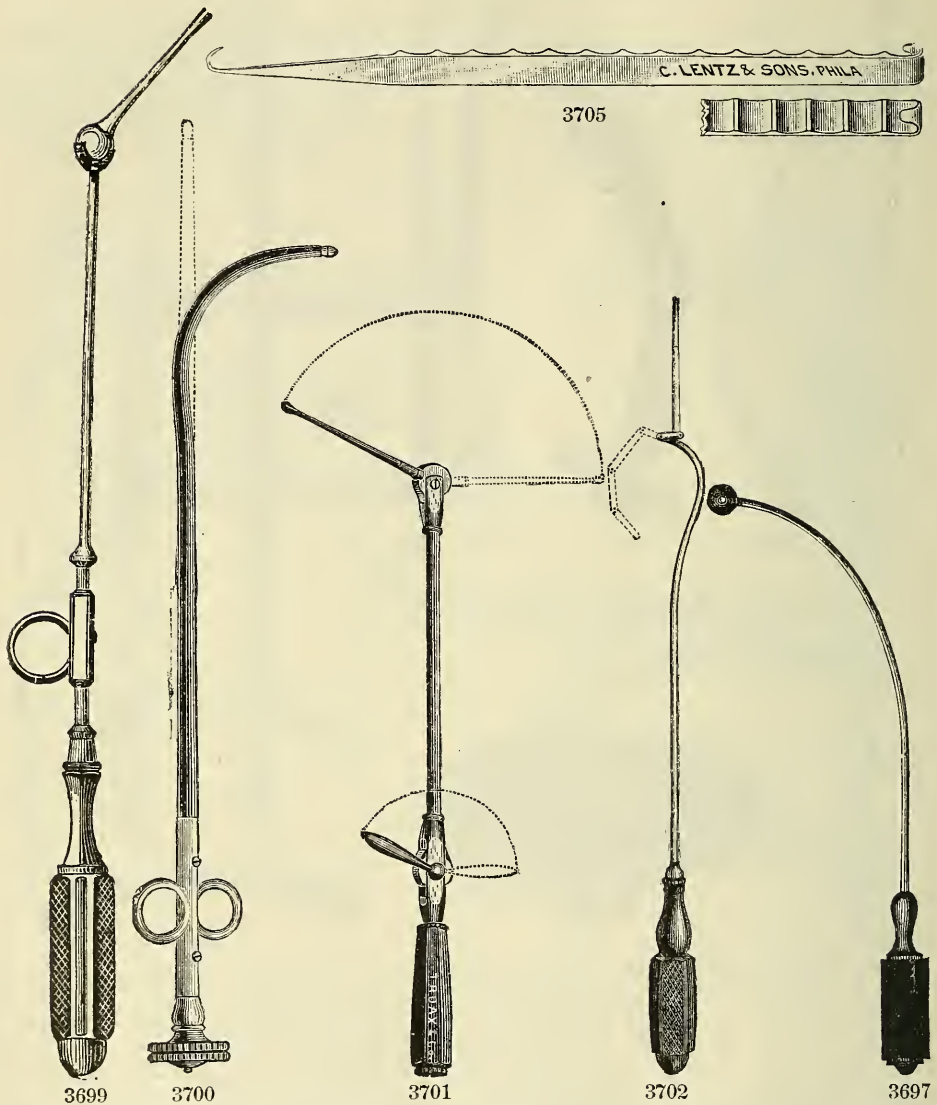
Is very useful after operations on women as a urinal, as its shape is such that it can be substituted for a bed pan in the administration of rectal and vaginal injections; it fits close against the inner surface of thighs and perineum and behind the anus, thereby prevents wetting the bed, without the disturbance of placing the patient on a bed pan. It is also useful in general surgery in the washing of surface wounds on any part of the body, as it will fit close against most of the body curves.

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

FOR THE REPLACEMENT OF THE UTERUS.

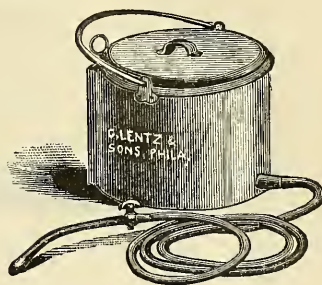
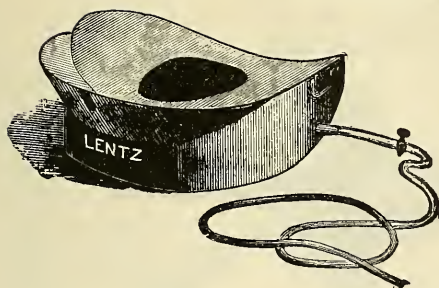


|        |                                               |        |
|--------|-----------------------------------------------|--------|
| 3697.* | Uterine Elevator, Guernsey's.....             | \$1 00 |
| 3698.  | " " Price's.....                              | 1 25   |
| 3699.* | " " Sims'.....                                | 3 75   |
| 3700.* | " " Elliott's.....                            | 3 00   |
| 3701.* | " " Ludlam's.....                             | 4 50   |
| 3702.* | " " Emmet's.....                              | 3 25   |
| 3703.  | " " Gardner's.....                            | 6 00   |
| 3704.  | " " Jennison's.....                           | 3 00   |
| 3705.* | " " Kelly's Tenaculum, corrugated handle..... | 1 75   |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

### FOR VAGINAL IRRIGATION.



3710

#### 3710.\* THE IMPROVED VAGINAL DOUCHE APPARATUS.

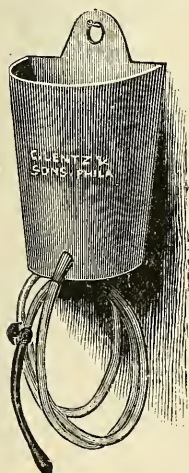
The curative value of hot water vaginal injections has for a long time been appreciated by the medical profession in general, and the need of a properly constructed Douche Apparatus has been particularly felt by those having charge of the treatment of cases of uterine and vaginal diseases, both in hospital and in private practice.

The importance of "Posture" and of the "Hot Douche" and of continuous irrigation, in the treatment of many cases of uterine and other female disorders, need here no mention but to say that the Improved Vaginal Douche Apparatus has been constructed to meet every indication and at the lowest cost.

These vessels are of strong tin and of neat and durable construction, being japanned outside, and coated with a waterproof lining inside. The bucket holds one and a half gallons, and is covered to provide against rapid cooling of the water; it also has a flat side, in order that it may be, if desirable to secure the needed elevation, suspended from a hook on the wall, or affixed to the patient's bedstead. Attached to the bucket is six feet of best rubber hose and a hard rubber vaginal tube, long, curved, and having a separable end, also a stop-cock; the first for convenience in cleaning the tube, and the stop-cock enabling the nurse to regulate or stop the flow of the hot water, or if necessary that the patient herself may do so without moving from the recumbent position. The pan is of a convenient height and nearly 15 inches in breadth; on its top it is excavated to exactly accommodate the hips of one resting over it, and is provided with a broad flange in front to prevent the water flowing from the vagina from wetting the bed. No water can be spilled from it as there are no bung holes or corks used in it; an overflow tube is permanently attached to the pan at one side and near the bottom, and opening into it a stop cock.

When more than a bucketful is to be used the pan can be emptied by opening the stop-cock and dropping the overflow tube over the bedside and into a bucket or other vessel placed below to receive the water; the flow may then be continuous. When the irrigation is finished the last portion of water can be poured from the pan through the opening half concealed under the tip and at the front of the vessel.

Price, Complete, \$5 00; to Physicians, \$4 25.



3711

#### 3711.\* VAGINAL DOUCHE.

This vessel is constructed of strong tin, neatly japanned outside, and coated with a water-proof lining inside.

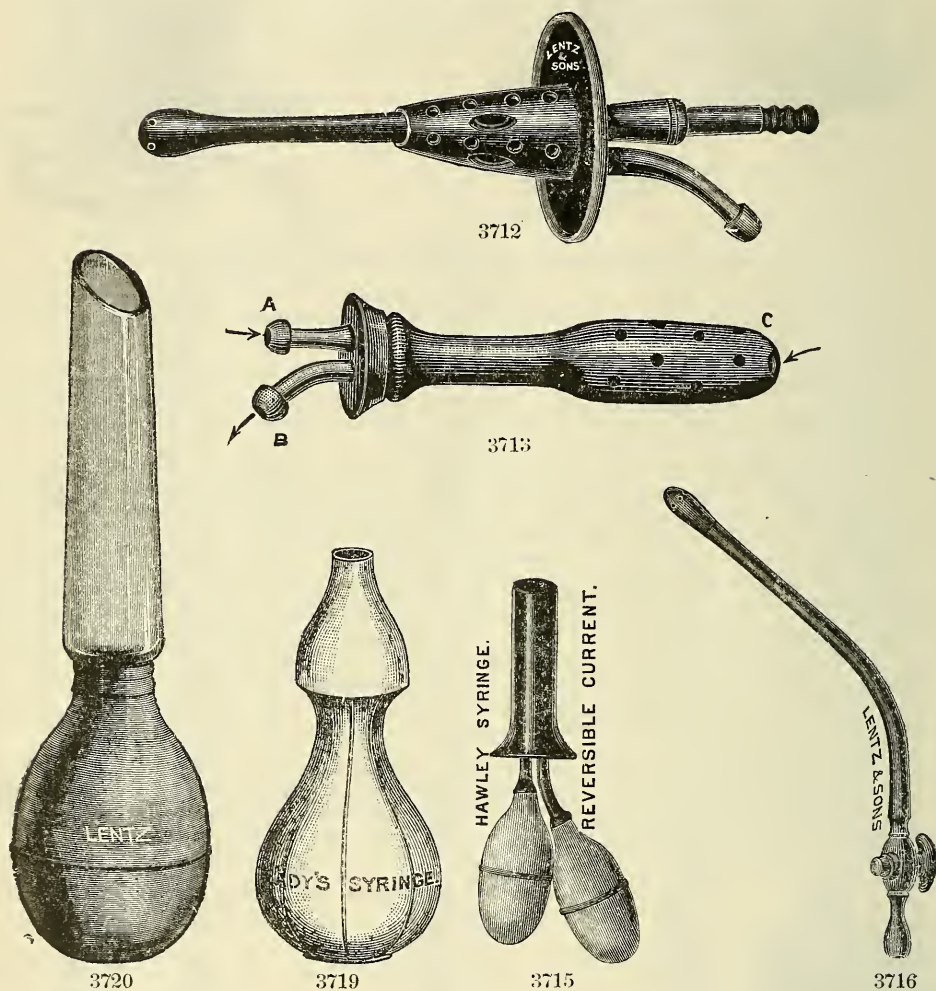
Capacity: one gallon, with six feet of best rubber hose and a hard rubber vaginal tube with stop-cock.

Price, \$2 00; to Physicians, \$1 70.

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

## FOR VAGINAL IRRIGATION.



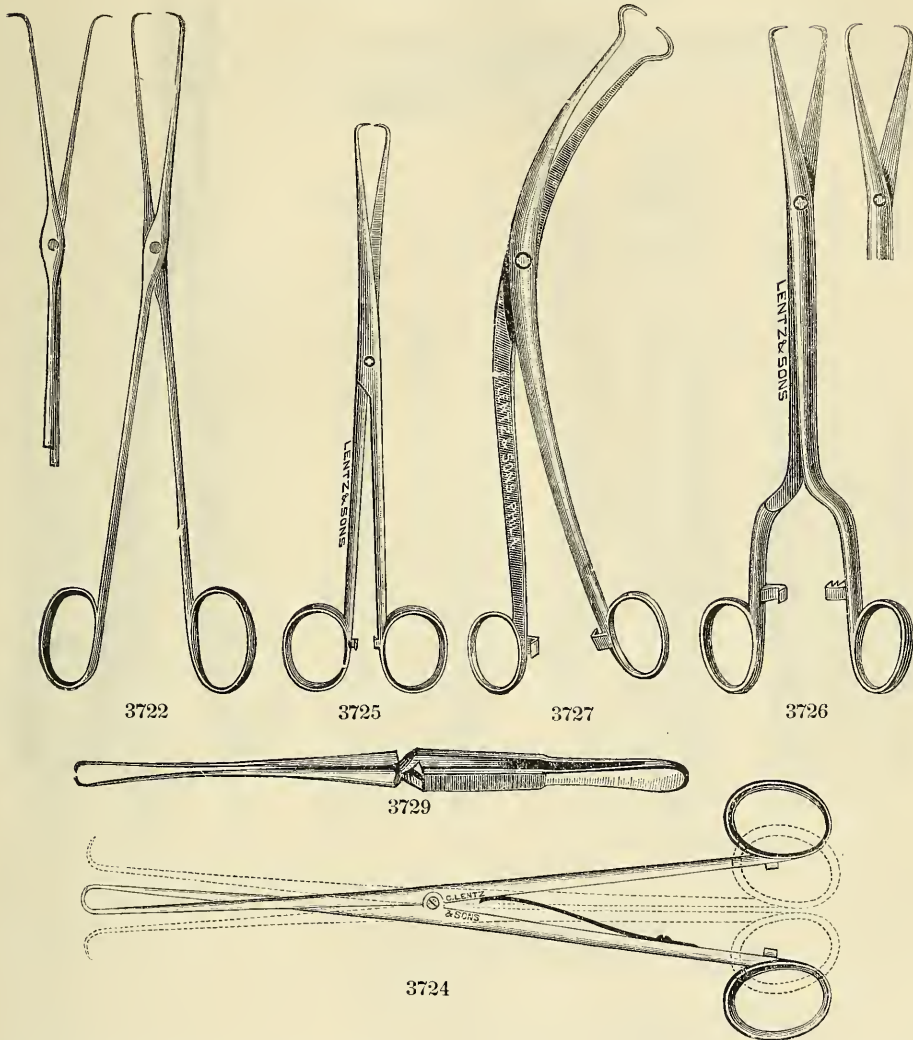
|        |                                            |        |
|--------|--------------------------------------------|--------|
| 3712.* | Vaginal Irrigator, Scharf's, improved..... | \$2 25 |
| 3713.* | “ “ Bodenhamer's.....                      | 2 00   |
| 3714.  | “ “ Gordon's.....                          | 2 75   |
| 3715.* | “ “ Hawley's.....                          | 2 25   |
| 3716.* | “ “ with stop-cock, long.....              | 85     |
| 3719.* | Lady's Vaginal Syringe.....                | 2 25   |
| 3720.* | Molesworth's Vaginal Syringe.....          | 1 25   |

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

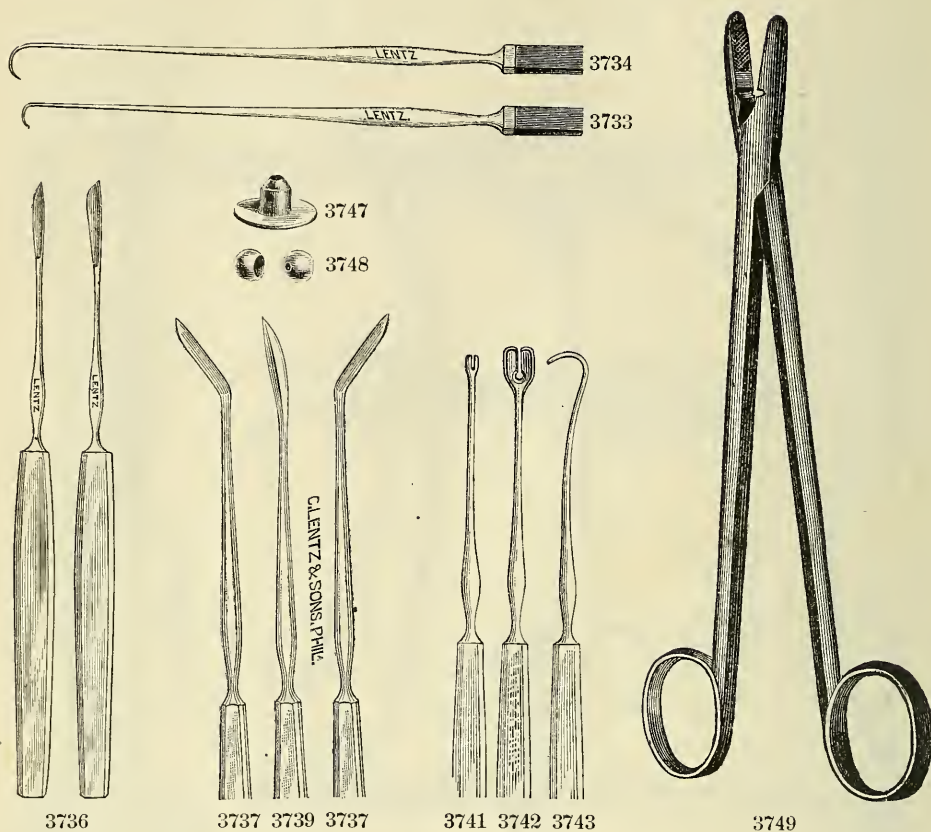
## UTERINE TENACULUM FORCEPS.



|        |                           |                                   |        |
|--------|---------------------------|-----------------------------------|--------|
| 3722.* | Double Tenaculum Forceps, | Ball's.....                       | \$1 85 |
| 3723.  | "                         | " " Hank's.....                   | 2 00   |
| 3724.* | "                         | " " with spring and catch.....    | 2 50   |
| 3725.* | "                         | " " with catch.....               | 2 00   |
| 3726.* | "                         | " " with three catches, long..... | 2 50   |
| 3727.* | "                         | " " Skene's, with catch.....      | 2 25   |
| 3728.  | "                         | " " Wylie's, (Angle Forceps)..... | 2 25   |
| 3729.* | "                         | " " Nott's, self-retaining.....   | 2 25   |
| 3730.  | "                         | " " Hirst's, large.....           | 2 50   |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.



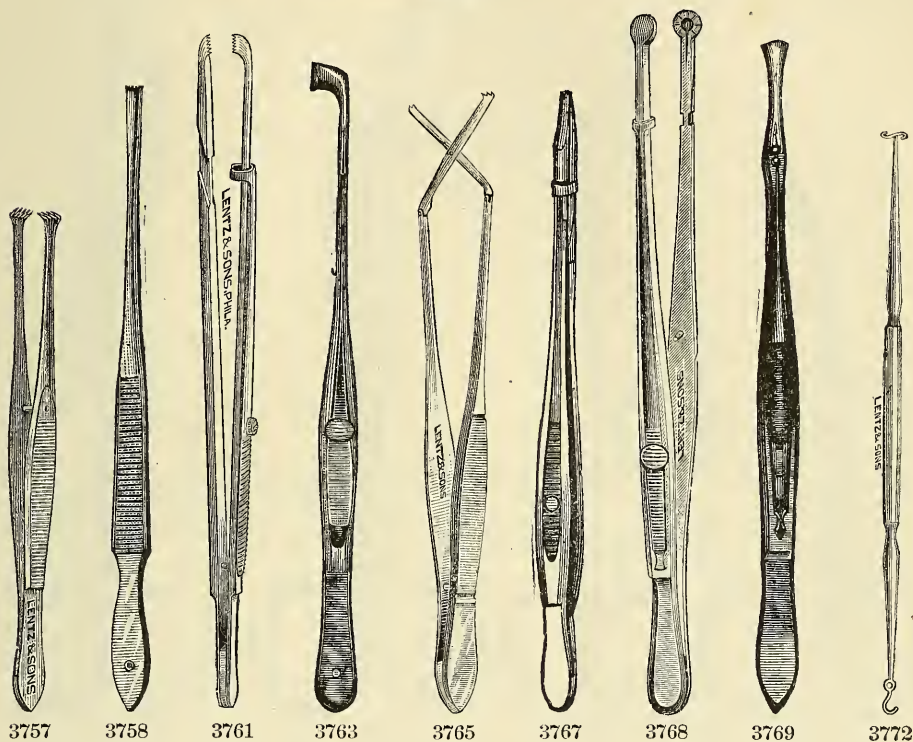
|        |                                             |                |
|--------|---------------------------------------------|----------------|
| 3733.* | Uterine Tenaculum, Sims'.....               | \$ 90          |
| 3734.* | “ “ Goodell's, heavy.....                   | 90             |
| 3735.  | “ “ Emmet's.....                            | 90             |
| 3736.* | “ Scalpel, different sizes.....             | each, 1 10     |
| 3737.* | “ Bistoury, angular, right or left.....     | “ 1 35         |
| 3738.  | “ “ “ “ “ probe pointed.....                | “ 1 35         |
| 3739.* | “ Knife, curved on flat, double edge.....   | 1 35           |
| 3740.  | “ “ angular “ “.....                        | 1 50           |
| 3741.* | Sims' Pulley or Fork.....                   | 90             |
| 3742.* | “ Wire Adjuster or Shield.....              | 1 10           |
| 3743.* | “ Blunt Hook for Counter-pressure.....      | 90             |
| 3744.  | Emmet's “ “ “ “ “.....                      | 1 00           |
| 3745.  | Bozeman's Wire Adjuster.....                | 1 50           |
| 3746.  | Baer's “ “ and Shield.....                  | 1 50           |
| 3747.* | Getchel's Buttons.....                      | per doz., 35   |
| 3748.* | Perforated Shot, three sizes.....           | per hundred 50 |
| 3749.* | Shot Compressing Forceps, French joint..... | 1 75           |
| 3750.  | “ Perforating “.....                        | 2 00           |
| 3751.  | “ Feeder, Morton's.....                     | 5 00           |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.



3760



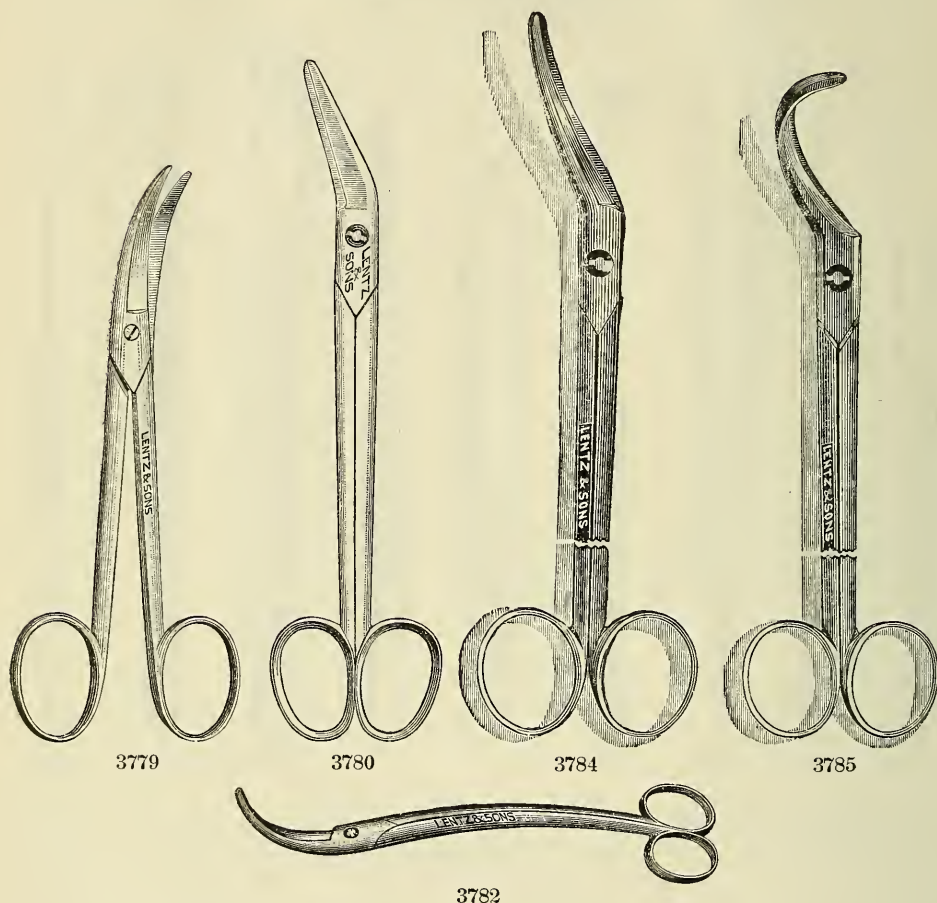
|        |                                                |        |
|--------|------------------------------------------------|--------|
| 3757.* | Tissue Holding Forceps, 6 inches long.....     | \$1 25 |
| 3758.* | “ “ “ broad point and fine teeth.....          | 1 50   |
| 3759.  | “ “ “ rat tooth with slide catch.....          | 2 75   |
| 3760.* | “ “ “ Agnew's, with wire adjuster.....         | 1 85   |
| 3761.* | “ “ “ Thomas', straight, with slide catch..... | 3 00   |
| 3763.* | “ “ “ “ curved “ “ “ .....                     | 3 25   |
| 3765.* | “ “ “ Wilson's.....                            | 3 25   |
| 3766.  | “ “ “ 6 inches long, with slide catch.....     | 2 25   |
| 3767.* | Wire Twisting “ Sims'.....                     | 2 50   |
| 3768.* | “ “ “ Emmet's.....                             | 2 50   |
| 3769.* | “ “ “ Thomas'.....                             | 2 75   |
| 3770.  | “ “ “ Fitch's.....                             | 3 25   |
| 3772.* | “ “ “ Instrument, with adjuster.....           | 1 50   |
| 3774.  | “ “ “ “ without “ .....                        | 1 15   |

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

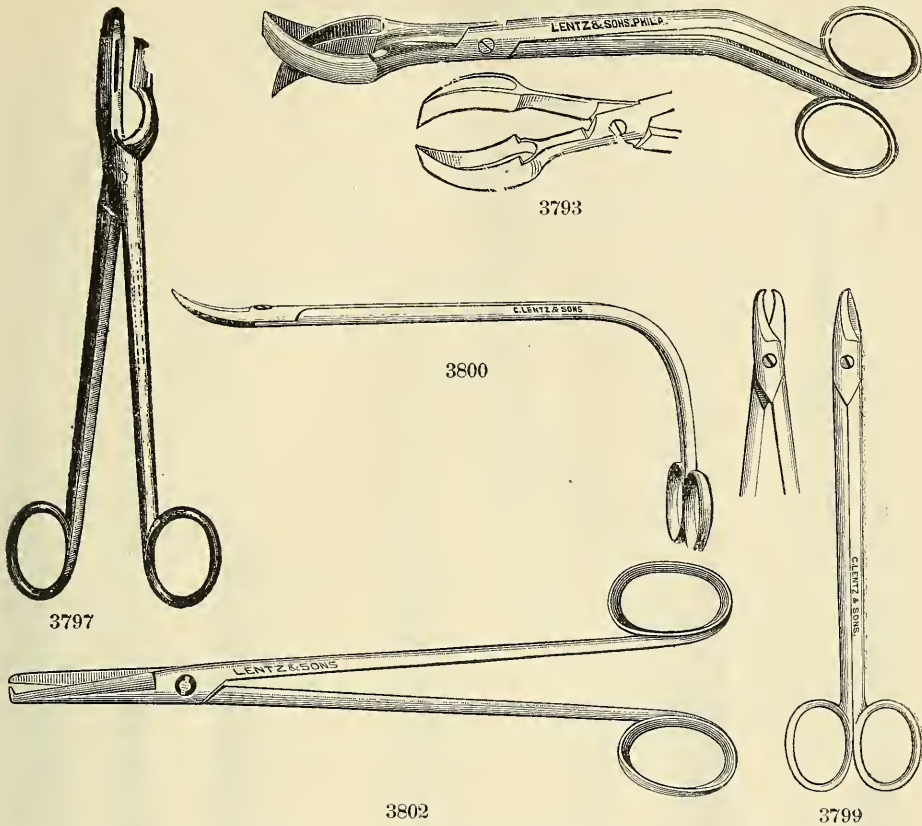
## SCISSORS FOR PARING OR VIVIFYING THE EDGES.



|        |                                                  |        |
|--------|--------------------------------------------------|--------|
| 3778.  | Scissors, Straight, blunt or sharp points.....   | \$1 60 |
| 3779.* | “ Curved on flat, blunt or sharp points.....     | 1 75   |
| 3780.* | “ Angular.....                                   | 2 00   |
| 3782.* | “ Bozeman's, double curve.....                   | 3 25   |
| 3784.* | “ Emmet's, slight curve, right or left.....each, | 3 00   |
| 3785.* | “ “ full “ “ “ “.....                            | “ 3 50 |
| 3786.  | “ Byford's, sharp or blunt points.....           | “ 3 00 |
| 3787.  | “ Boldt's Trachelorraphy.....                    | 3 00   |
| 3788.  | “ Hank's “.....                                  | 3 75   |
| 3790.  | “ Jenks' Perineum.....                           | 3 00   |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.



3793.\* Skene's Hawk Bill Scissors, for operating on laceration of the cervix.....\$7 50

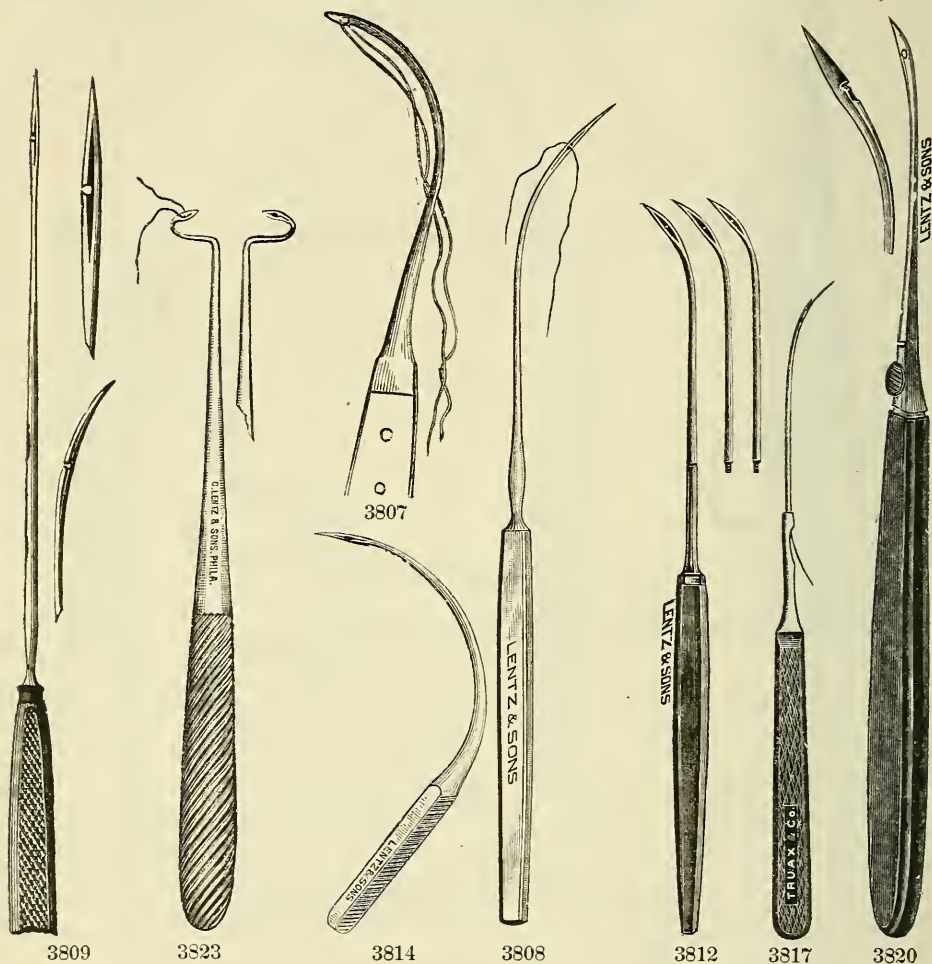
The parts of the scissors are made to seize the angle formed by the junction of the two flaps as far as appears necessary. The flaps are brought together by the aid of the double tenaculum forceps on each side, so as to bring the tissues more within the grasp of the scissors. The blades of the scissors are then closed, and a strip is removed from above downwards on each flap.

|        |                                                |      |
|--------|------------------------------------------------|------|
| 3794.  | Kuechenmeister's Cervix Scissors.....          | 4 00 |
| 3795.  | Kelly's " " .....                              | 3 50 |
| 3796.  | Clark's Tooth Edged " .....                    | 4 50 |
| 3797.* | Emmet's Urethral Buttonhole Scissors.....      | 6 00 |
| 3798.  | Skene's " " " .....                            | 5 00 |
| 3799.* | Smith's Ligature or Wire Cutting Scissors..... | 2 25 |
| 3800.* | Wilson's " " " " " .....                       | 3 25 |
| 3801.  | Boldt's " " " " " .....                        | 2 25 |
| 3802.* | Skene's " " " " " .....                        | 3 00 |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

## PERINEUM AND CERVIX NEEDLES.



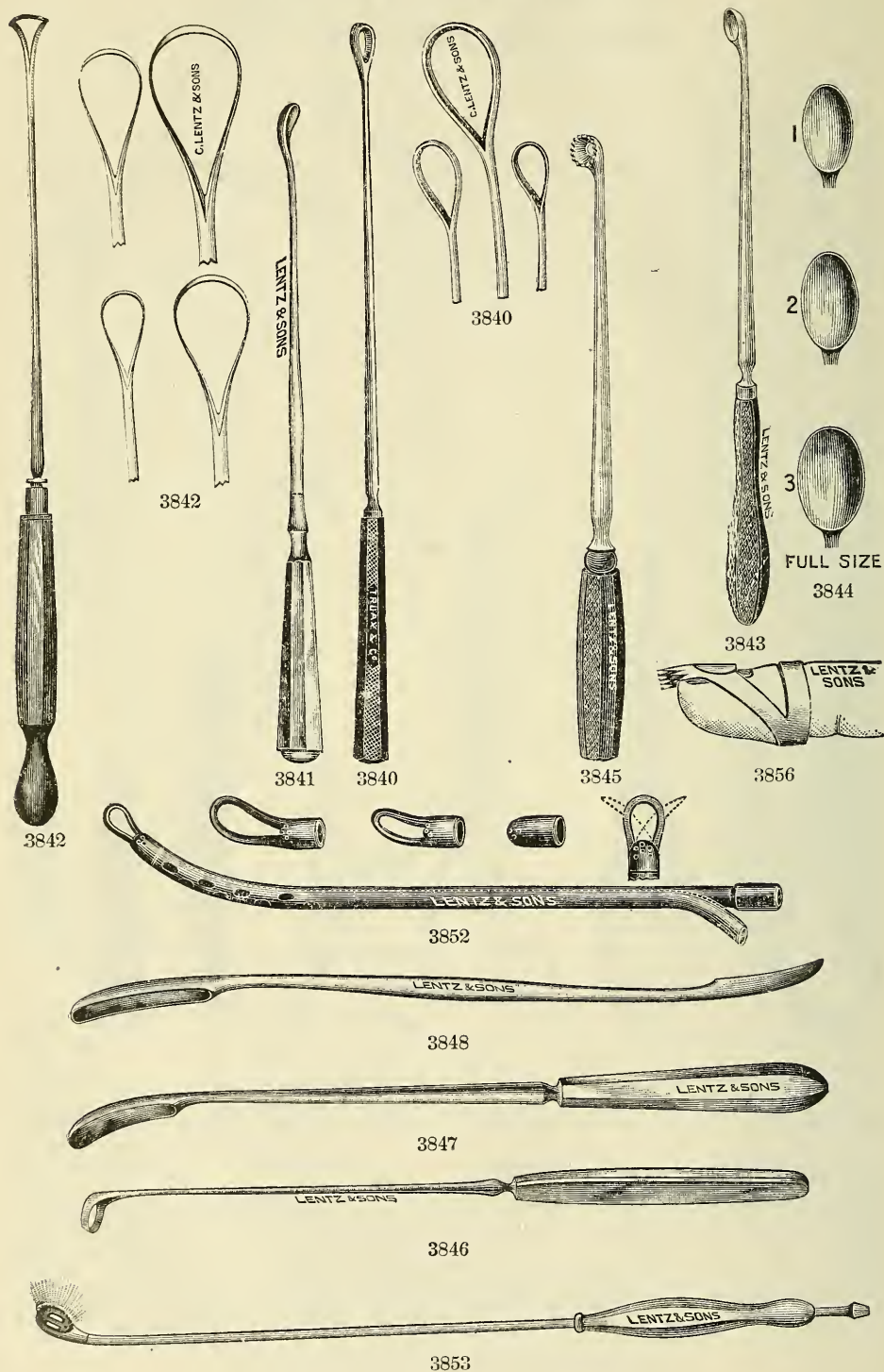
|        |                                                        |       |
|--------|--------------------------------------------------------|-------|
| 3807.* | Perineum Needle, plain, Aseptic .....                  | \$ 75 |
| 3808.* | " " Ashton's, Aseptic .....                            | 1 00  |
| 3809.* | " " Skene's, open eye, Aseptic.....                    | 1 25  |
| 3812.* | " " Peaslee's, set of three " .....                    | 2 25  |
| 3813.* | " " Papin's " (see cut on next page).....              | 65    |
| 3814.* | " " Wilson's " .....                                   | 1 00  |
| 3815.* | " " Goodell's (see cut on next page).....              | 20    |
| 3816.  | " " Spiral, with handle, Aseptic.....                  | 1 25  |
| 3817.* | " " Stone's, canulated.....                            | 1 25  |
| 3820.* | " " Reverdin's, closing eye.....                       | 4 00  |
| 3821.  | " " Folding in handle with slide catch.....            | 1 25  |
| 3823.* | Cervical " Wilson's, right and left, Aseptic.....each, | 1 35  |
| 3824.  | " " Jackson's, set of two " .....                      | 2 50  |

*All Instruments Illustrated are designated by a \*.*

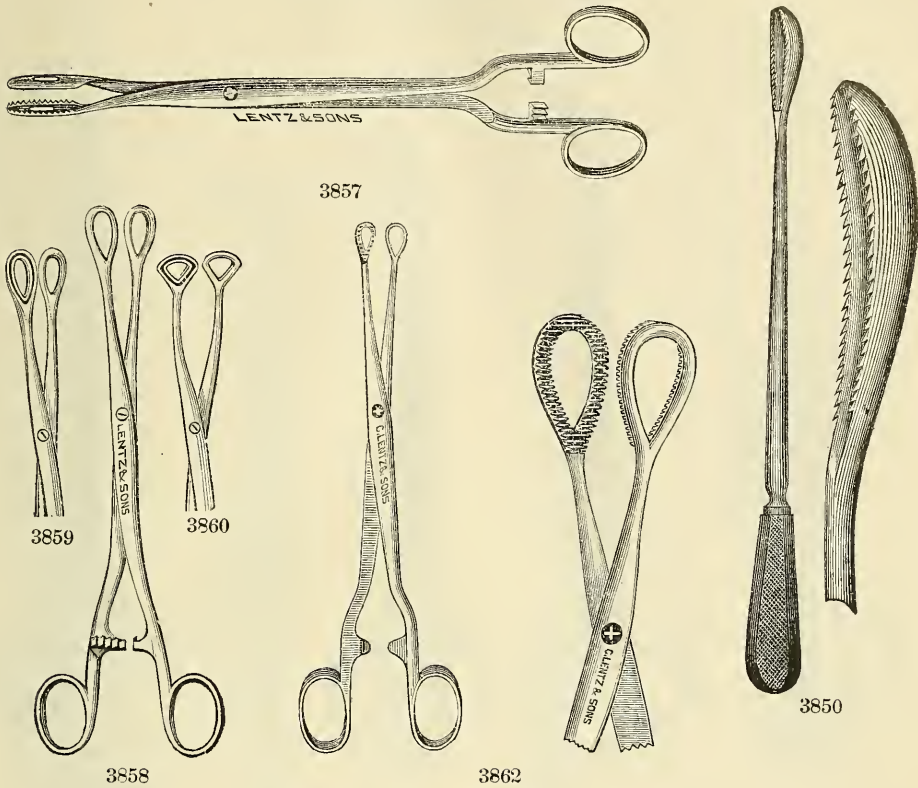




## Gynæcological Instruments.



## Gynæcological Instruments.



|        |                                                                |             |
|--------|----------------------------------------------------------------|-------------|
| 3840.* | Curette, Thomas', blunt, three sizes, metal handles, .....     | each \$1 15 |
| 3841.* | " Skeene's " " " " " " .....                                   | " 1 25      |
| 3842.* | " Sims', sharp, four " " " " " " .....                         | " 1 50      |
| 3843.* | " Simon's " three " " " " " " .....                            | " 2 00      |
| 3844.* | " " blunt " " " " " " .....                                    | " 1 75      |
| 3845.* | " Serrated " " " " " " .....                                   | " 2 00      |
| 3846.* | " Sims', sharp, curved " " " " " " .....                       | " 1 75      |
| 3847.* | " Martin's " " " " " " .....                                   | " 2 00      |
| 3848.* | " " blunt, double.....                                         | 2 00        |
| 3849.  | " Recamier's " " " " " " .....                                 | 1 50        |
| 3850.* | " Thomas', Serrated.....                                       | 2 75        |
| 3852.* | " Abbott's, combined with Double Catheter.....                 | 4 00        |
| 3853.* | " Reinstetter's, for scraping and washing the Uterus.....      | 3 00        |
| 3855.  | " Forceps, Emmet's, for removing granulations.....             | 2 60        |
| 3856.* | Enucleator, Emmet's.....                                       | 1 15        |
| 3857.* | Polypus Forceps, long, heavy, with catches.....                | 2 60        |
| 3858.* | " " straight, with round jaws and catches.....                 | 2 50        |
| 3859.* | " " Luer's, straight, with sharp grooved jaws and catches..... | 3 00        |
| 3860.* | " " " " " " " " " " " " .....                                  | 3 00        |
| 3862.* | " " Wilson's, straight, with serrated jaws and catches.....    | 2 50        |

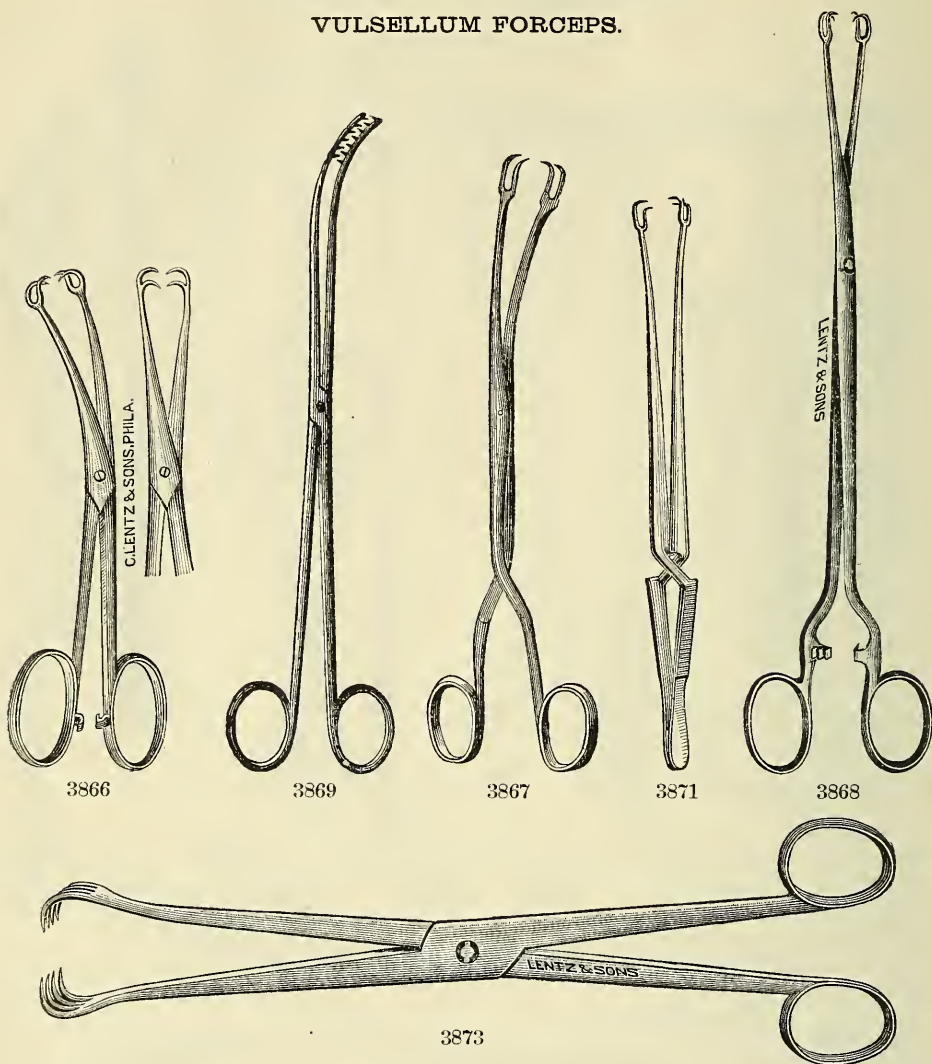
Can be used also as Sponge Holder, Placenta Forceps and Curette.

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

## VULSELLUM FORCEPS.

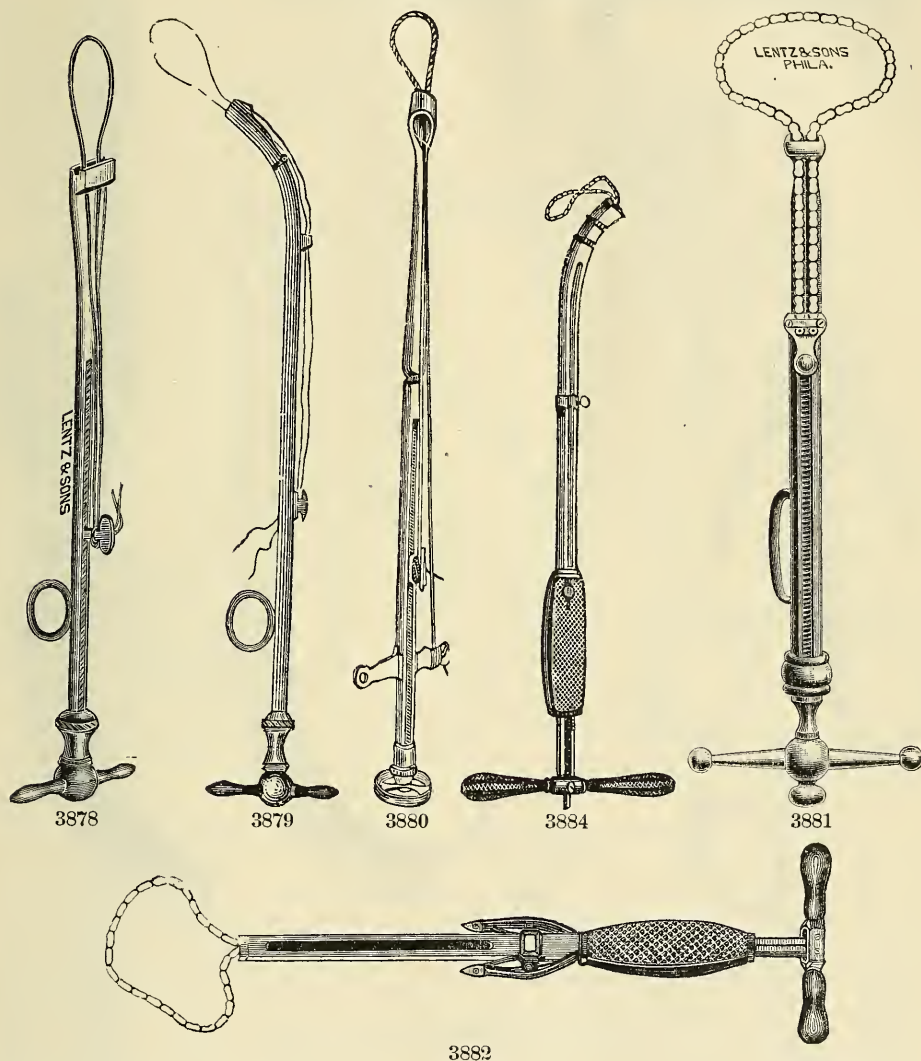


|        |                                                                |                 |
|--------|----------------------------------------------------------------|-----------------|
| 3865.  | Vulsellum Forceps, plain, 6 inch, \$1 65 ; 8 inch, \$1 85..... | 10 inch, \$2 15 |
| 3866.* | “ “ with catch, 6 inch, \$1 85 ; 8 inch, \$2 10.....           | 10 “ 2 50       |
| 3867.* | “ “ without catch, 8 inch, \$2 10.....                         | 10 “ 2 35       |
| 3868.* | “ “ Cushing's. with catch, 8 inch, \$2 35.....                 | 10 “ 2 60       |
| 3869.* | “ “ Musseux's .....                                            | 2 00            |
| 3870.  | “ “ Byrne's.....                                               | 2 25            |
| 3871.* | “ “ cross-action, self-holding.....                            | 2 00            |
| 3872.  | “ “ large, heavy, with three prongs.....                       | 3 75            |
| 3873.* | “ “ extra large, heavy, with four prongs.....                  | 4 50            |
| 3874.  | Enucleator, Sims', with metal handle.....                      | 2 75            |
| 3875.  | “ “ blunt hook, metal handle.....                              | 2 75            |
| 3876   | Polyp tome, Aveling's.....                                     | 6 00            |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

## ECRASEURS.

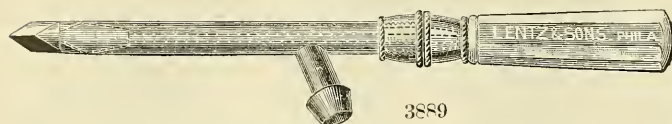


|        |                                                               |         |
|--------|---------------------------------------------------------------|---------|
| 3878.* | Wire Ecraseur, Smith's, straight.....                         | \$ 3 75 |
| 3879.* | “ “ “ curved.....                                             | 4 25    |
| 3880.* | “ “ Braxton-Hicks', long, with straight and curved point..... | 10 00   |
| 3881.* | Chain “ Luer's.....                                           | 12 00   |
| 3882.* | “ “ Chassaignac's, large.....                                 | 15 00   |
| 3883.  | “ “ “ small.....                                              | 12 00   |
| 3884.* | “ “ Emmet's.....                                              | 26 50   |
| 3885.  | “ “ Tiemann's, long.....                                      | 13 50   |
| 3886.  | Gooch's Double Polypus Canula, with wire.....                 | 1 50    |
| 3887.  | Twisted Wire for Ecraseurs, per yard.....                     | 15      |

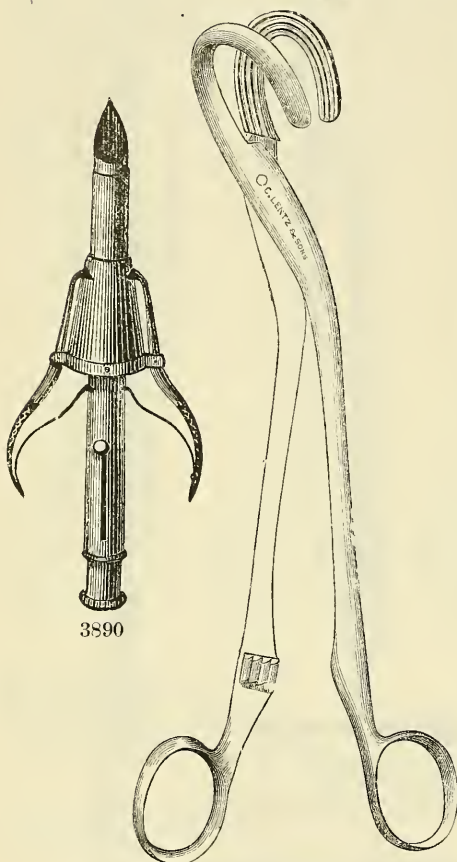
*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

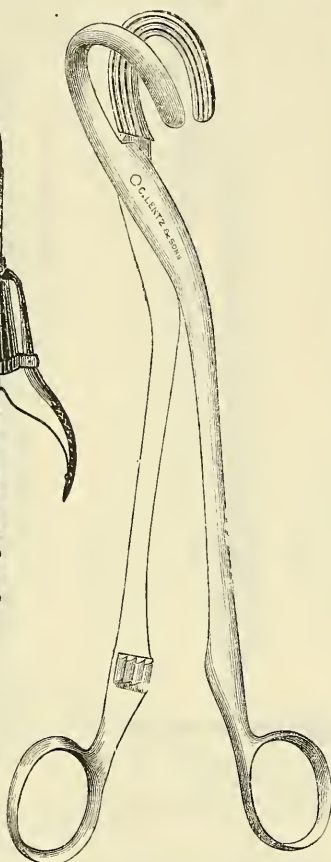
## OVARIOTOMY TROCARS.



3889



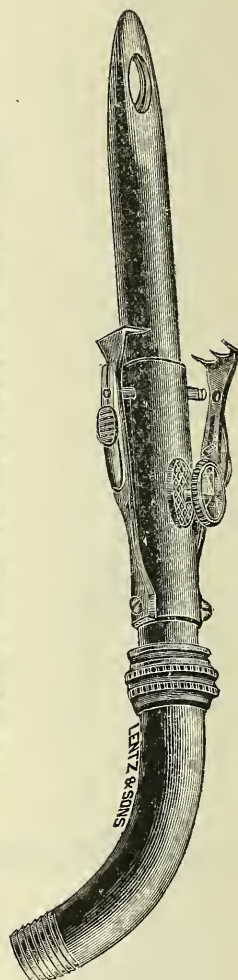
3890



3896



3894



3893

|        |                                                                       |        |
|--------|-----------------------------------------------------------------------|--------|
| 3889.* | Trocar, Emmet's, metal handle.....                                    | \$3 50 |
| 3890.* | " Spencer Wells'.....                                                 | 7 50   |
| 3892.  | " " latest, with curved tube.....                                     | 15 00  |
| 3893.* | " Lawson Tait's.....                                                  | 13 50  |
| 3894.* | " " plain.....                                                        | 2 50   |
| 3895.  | " Fitch's Dome, with tubing.....                                      | 10 50  |
| 3896.* | Price's Sac Forceps, for complete closure of the trocar puncture..... | 4 50   |
| 3897.  | Wilcox's Sac ".....                                                   | 4 50   |
| 3898.  | Wells' " ".....                                                       | 3 25   |
| 3899.  | Borch's Cyst Elevator, with cap to protect the points.....            | 1 00   |

For other Trocars, see page 61.

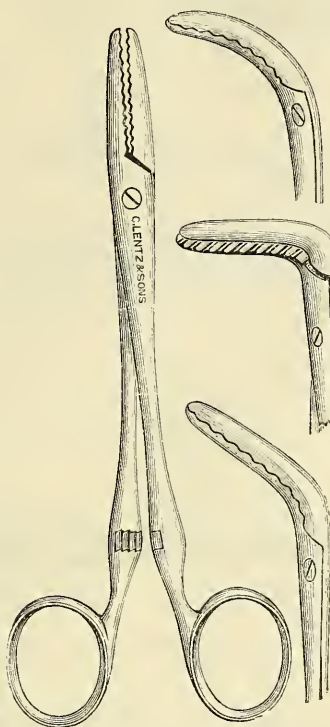
*All Instruments Illustrated are designated by a \*.*



# Gynæcological Instruments. HYSTERECTOMY AND OVARIOTOMY.



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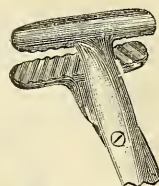


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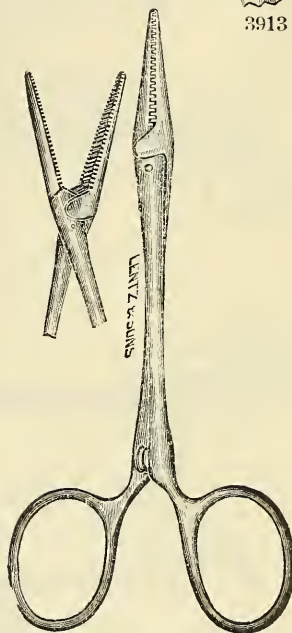
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3912

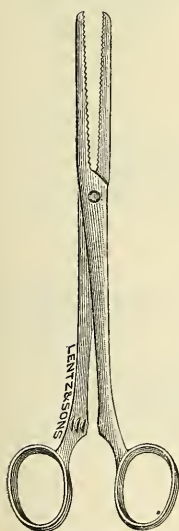
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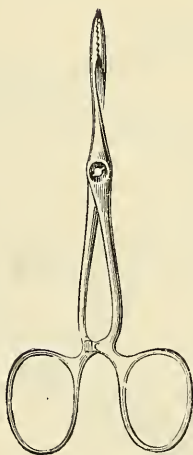
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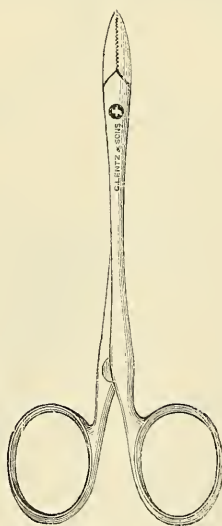
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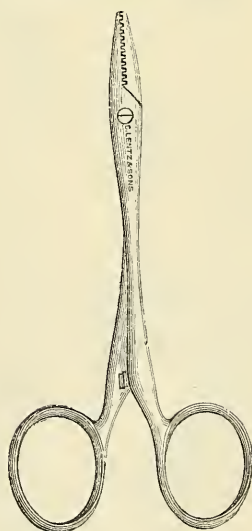
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3900



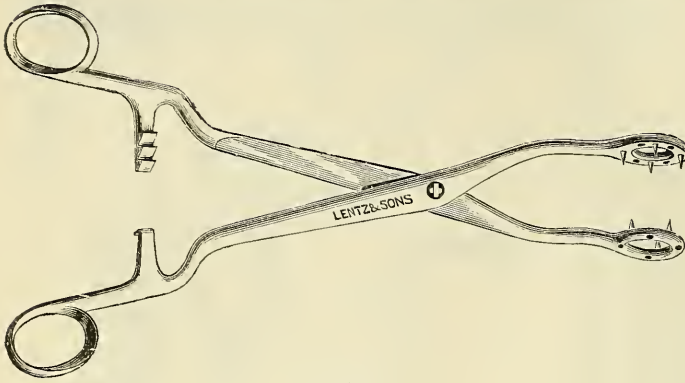
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3901

## Gynæcological Instruments.

## HYSTERECTOMY AND OVARIOTOMY.



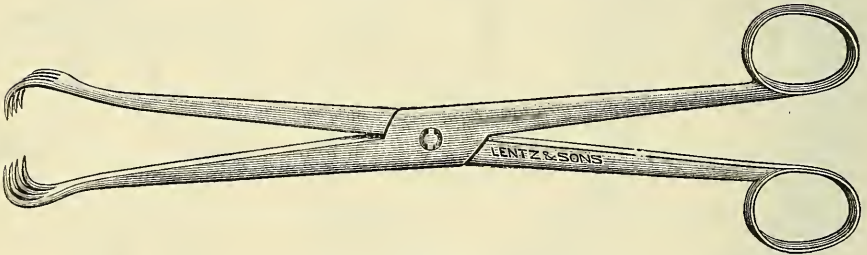
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3906



3919

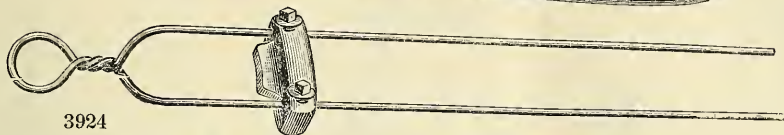


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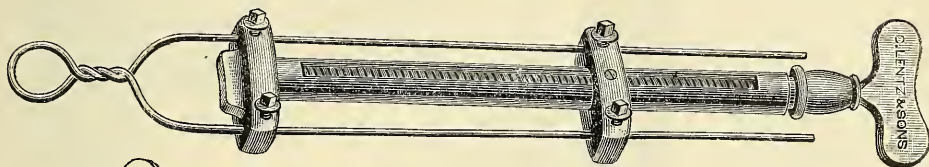
|        |                                                        |        |
|--------|--------------------------------------------------------|--------|
| 3900.* | Hæmostatic Forceps, Pean's.....                        | \$1 25 |
| 3901.* | " " Lawson Tait's .....                                | 1 50   |
| 3902.* | " " Spencer Wells'.....                                | 1 50   |
| 3903.  | " " Price's-Wells', heavy.....                         | 2 00   |
| 3904.* | " " Keith's.....6-inch, \$2 25 ; 7-inch,               | 2 50   |
| 3905.* | " " Jones'.....                                        | 2 00   |
| 3906.* | " " Pean's T-shape.....5-inch, \$2 25 ; 6-inch,        | 2 60   |
|        | " " see also Arterial Clamp Forceps, pages 34 and 35.  |        |
| 3910.* | Pedicle Forceps, Spencer Wells', straight, 9-inch..... | 3 50   |
| 3911.* | " " " " half curved, 9-inch.....                       | 3 50   |
| 3912.* | " " " " full " ".....                                  | 3 50   |
| 3913.* | " " " " T-shaped ".....                                | 3 75   |
| 3914.* | " " Goodell's.....                                     | 3 50   |
| 3915.* | " " Tait's.....                                        | 2 75   |
| 3916.  | " " Nelaton's.....                                     | 2 75   |
| 3917.  | Tumor ".....                                           | 2 65   |
| 3918.* | " " Wilson's.....                                      | 4 50   |
| 3919.* | " " Collins'.....                                      | 5 00   |
| 3920.* | " " extra large and heavy.....                         | 4 50   |

*All Instruments Illustrated are designated by a \*.*

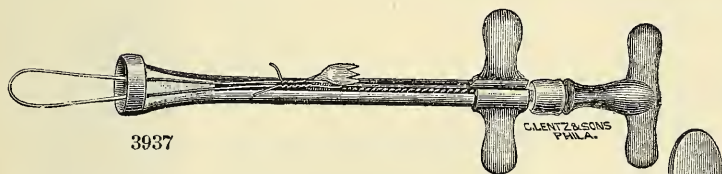
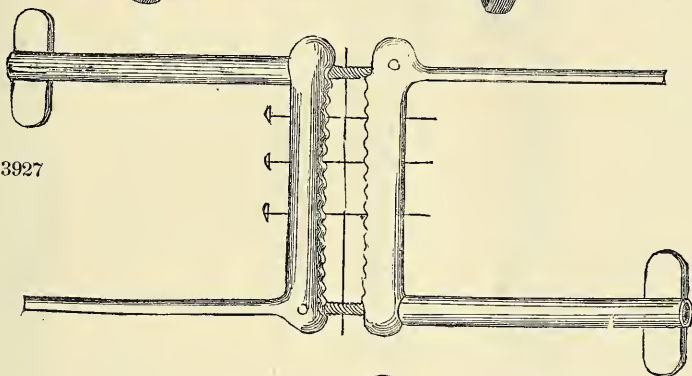
**Gynæcological Instruments.**  
HYSTERECTOMY AND OVARIOTOMY.



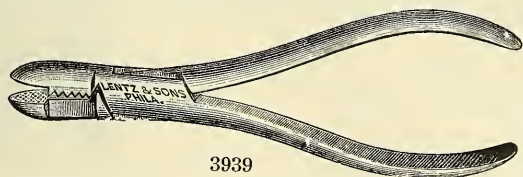
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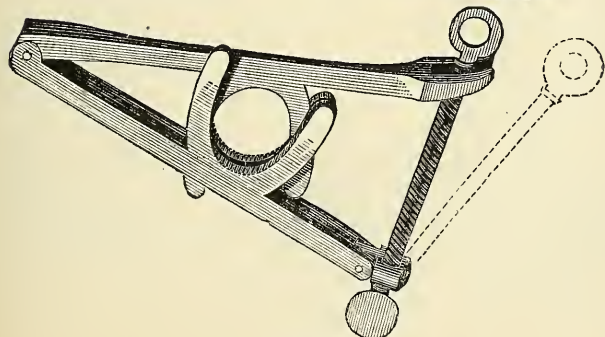
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3937



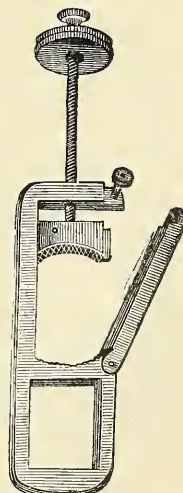
3939



3928



3942

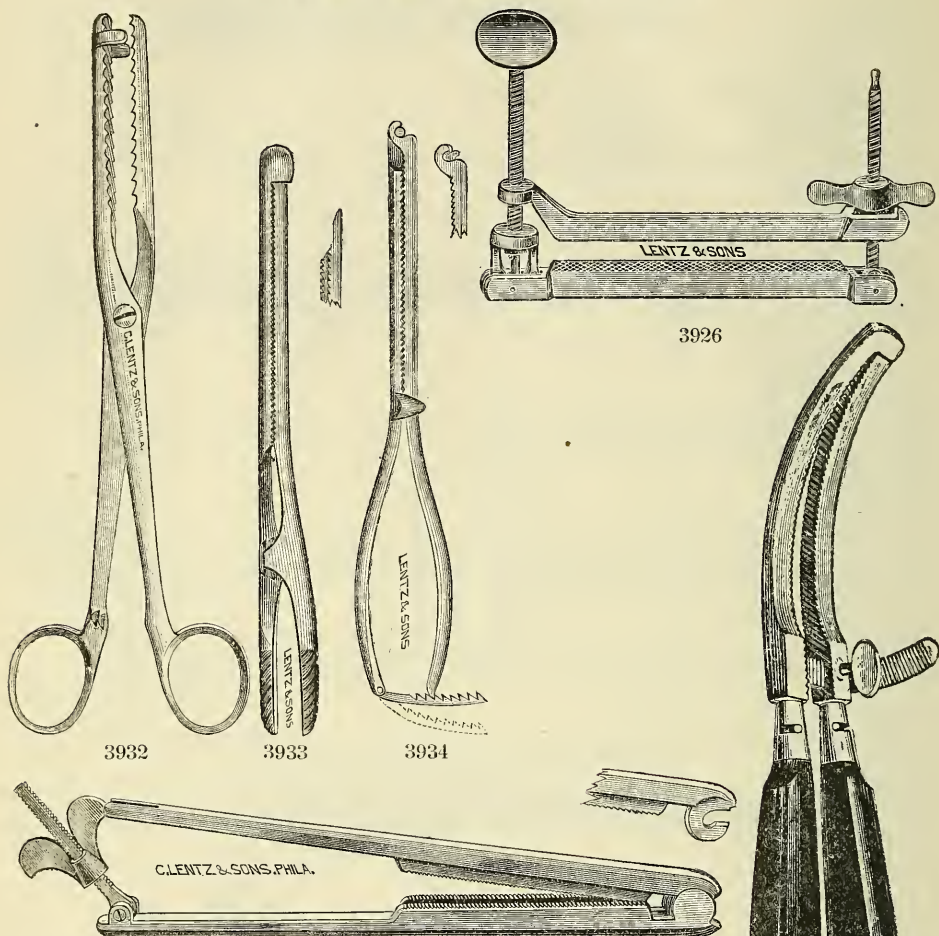


3925



## Gynæcological Instruments.

### HYSTERECTOMY AND OVARIOTOMY.

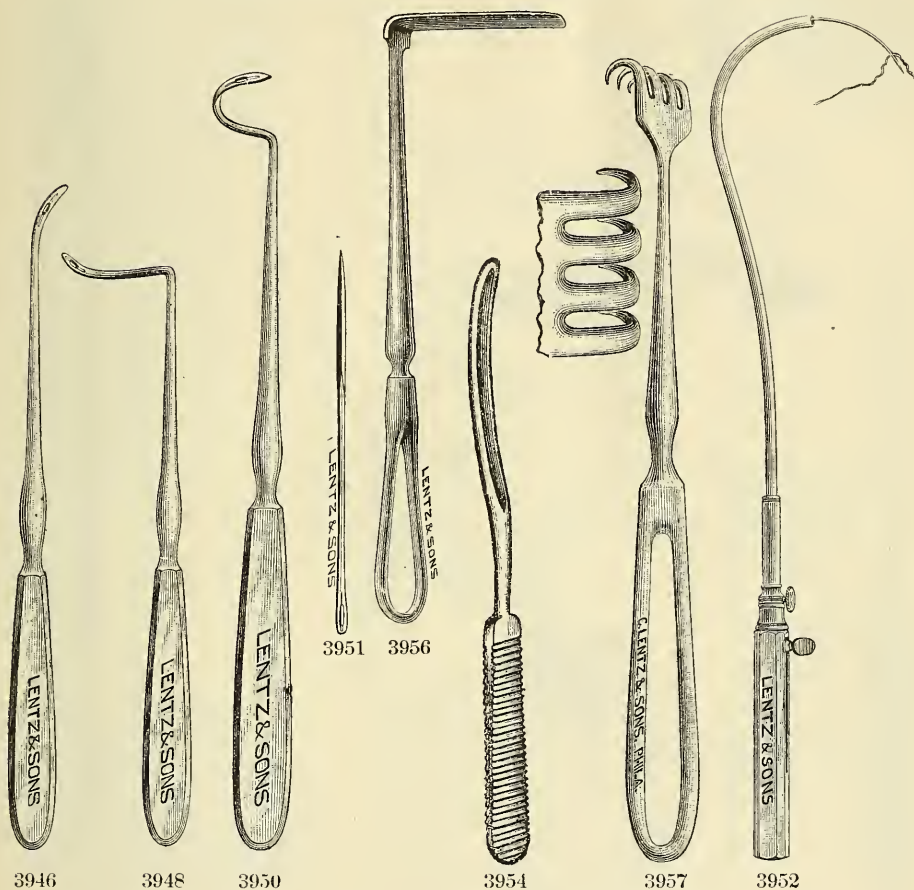


|        |                                                                    |             |
|--------|--------------------------------------------------------------------|-------------|
| 3924.* | Ovariectomy Clamp, Lawson Tait's.....                              | \$ 8 00     |
| 3925.* | “ “ Dawson's.....                                                  | 6 00        |
| 3926.* | “ “ Spencer Wells'.....                                            | 4 50        |
| 3927.* | “ “ Atlee's.....                                                   | 4 50        |
| 3928.* | “ “ Thomas'.....                                                   | 3 35        |
| 3929.* | “ “ Keith's.....                                                   | 7 50        |
| 3930.  | “ “ Skene's, for cautery.....                                      | 11 50       |
| 3931.  | “ “ Esmarch's.....                                                 | \$ 4 50     |
| 3932.* | Broad Ligament Clamp Forceps, Montgomery's.....                    | each 4 00   |
| 3933.* | Broad Ligament Clamps, Beates'.....                                | “ 3 00      |
| 3934.* | “ “ Kelly's.....                                                   | “ 3 25      |
| 3935.* | “ “ Montgomery's.....                                              | “ 4 50      |
| 3936.  | “ “ Down's, modification of Kelly's.....                           | “ 3 50      |
| 3937.* | Kœberle's Serre-Noeud, made of phospher bronze, nickel-plated..... | 4 50        |
| 3938.  | “ “ “ large, made of phospher bronze, nickel-plated.....           | 5 00        |
| 3939.* | Wire Twisting and Cutting Forceps, used with Serre-Noeud.....      | 3 00        |
| 3940.  | Phospher Bronze Wire, used with Serre-Noeud.....                   | per yard 10 |
| 3942.* | Hysterectomy Pins, 6 inches long, used with Serre-Noeud.....       | each 85     |
| 3943.  | Myoma Screw, Tait's, large ring handle.....                        | 1 75        |

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

## HYSTERECTOMY AND OVARIOTOMY.



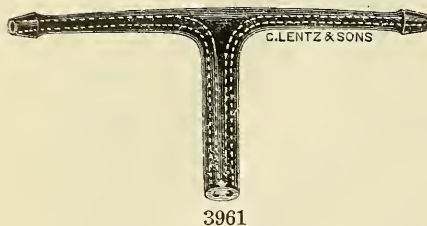
|        |                                                                         |        |
|--------|-------------------------------------------------------------------------|--------|
| 3946.* | Pedicle Needle, slightly curved, hollow metal handle.....               | \$1 50 |
| 3947.  | “ “ full “ “ “ “ .....                                                  | 1 50   |
| 3948.* | “ “ right angle “ “ “ “ .....                                           | 1 75   |
| 3950.* | Hysterecctomy Needle, Kelly's, spiral curve, hollow metal handle.....   | 1 75   |
| 3951.* | Keith's Straight “ long, stout, for closing the abdomen.....per doz.    | 75     |
| 3952.* | Schucking's “ for operating on retro-displaced and prolapsed uteri..... | 10 00  |
| 3954.* | Sims' Ovariectomy Director.....                                         | 1 10   |
| 3955.  | Adams' Peritoneum Hook, double .....                                    | 1 50   |
| 3956.* | Abdominal Retractors, large flat blade.....                             | 2 00   |
| 3957.* | “ “ Volkman's, large, sharp or blunt.....                               | 2 00   |

For other Retractors, see Amputating and General Operating Instruments, page 27.

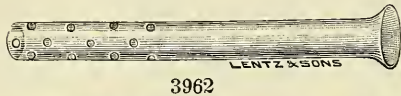
*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

### OVARIOTOMY.



3961



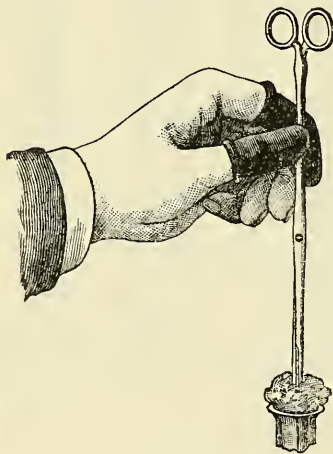
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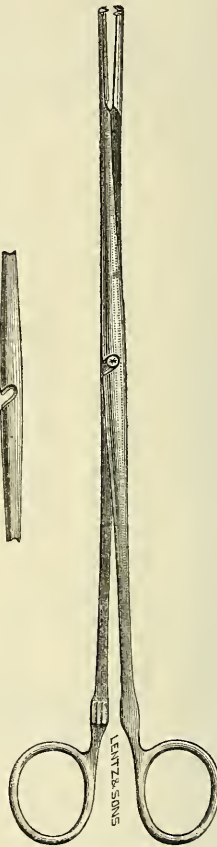
3973



3970



3969



3965



3963

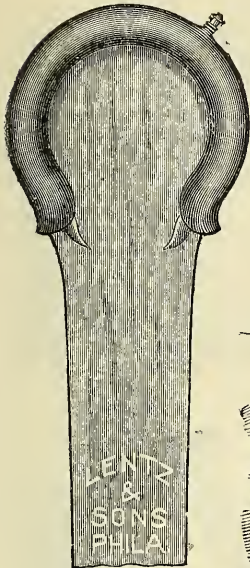
|        |                                                                                                                 |        |
|--------|-----------------------------------------------------------------------------------------------------------------|--------|
| 3961.* | Drainage Tube, Thomas', double, hard rubber.....                                                                | \$1 75 |
| 3962.* | " " " glass, straight or curved, 3 sizes.....each                                                               | 40     |
| 3963.* | " " " " (showing full size of smallest and shortest).....                                                       |        |
| 3964.  | " " " not perforated, various sizes.....each                                                                    | 25     |
| 3966.  | " " Tait's, glass, perforated, closed end, various sizes.....                                                   | 50     |
| 3968.* | " " Forceps, Kelly's, for holding cotton.....                                                                   | 25     |
| 3969.* | " " " showing as used in drainage tubes.....                                                                    |        |
| 3970.* | " " Syringe, hard rubber, long tube, with soft rubber point.....                                                | 85     |
| 3971.* | " " Tait's, glass, with suction bulb (see next page).....                                                       | 1 50   |
| 3973.* | Rubber Drainage Tubing, perforated, per yard, 3-16 inch, 35c.; $\frac{1}{4}$ inch, 45c.; and 5-16 inch.....     | 55     |
| 3975   | Rubber Drainage Tubing, not perforated, per yard, 3-16 inch, 30c.; $\frac{1}{4}$ inch, 40c.; and 5-16 inch..... | 50     |
|        | For other Drainage Tubes, see General Surgical Necessities, pages 9 and 10.                                     |        |
| 3976.  | Pure Rubber Dam, used with abdominal drainage tubes, per yard.....                                              | 1 25   |

*All Instruments Illustrated are designated by a \*.*

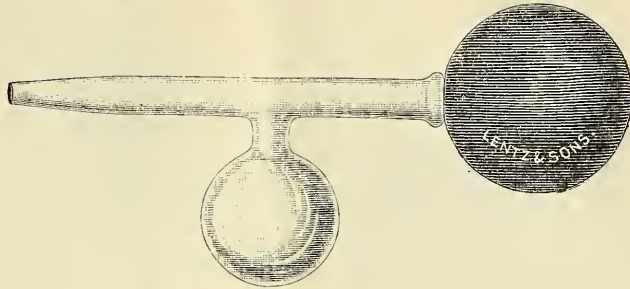


## Gynæcological Instruments.

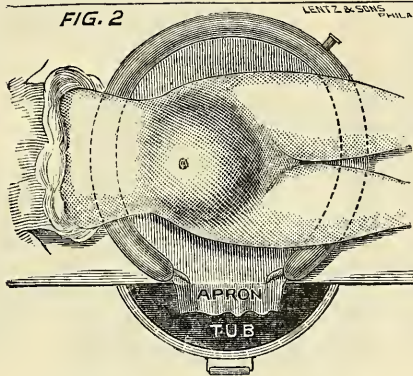
## OVARIOTOMY.



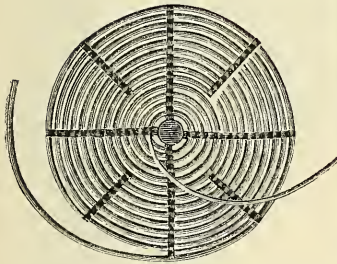
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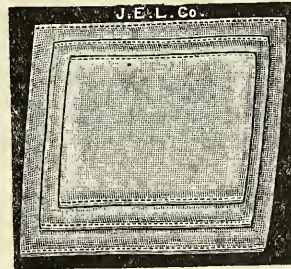
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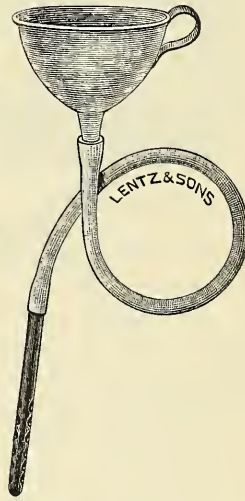
3986



3987



3996



3980

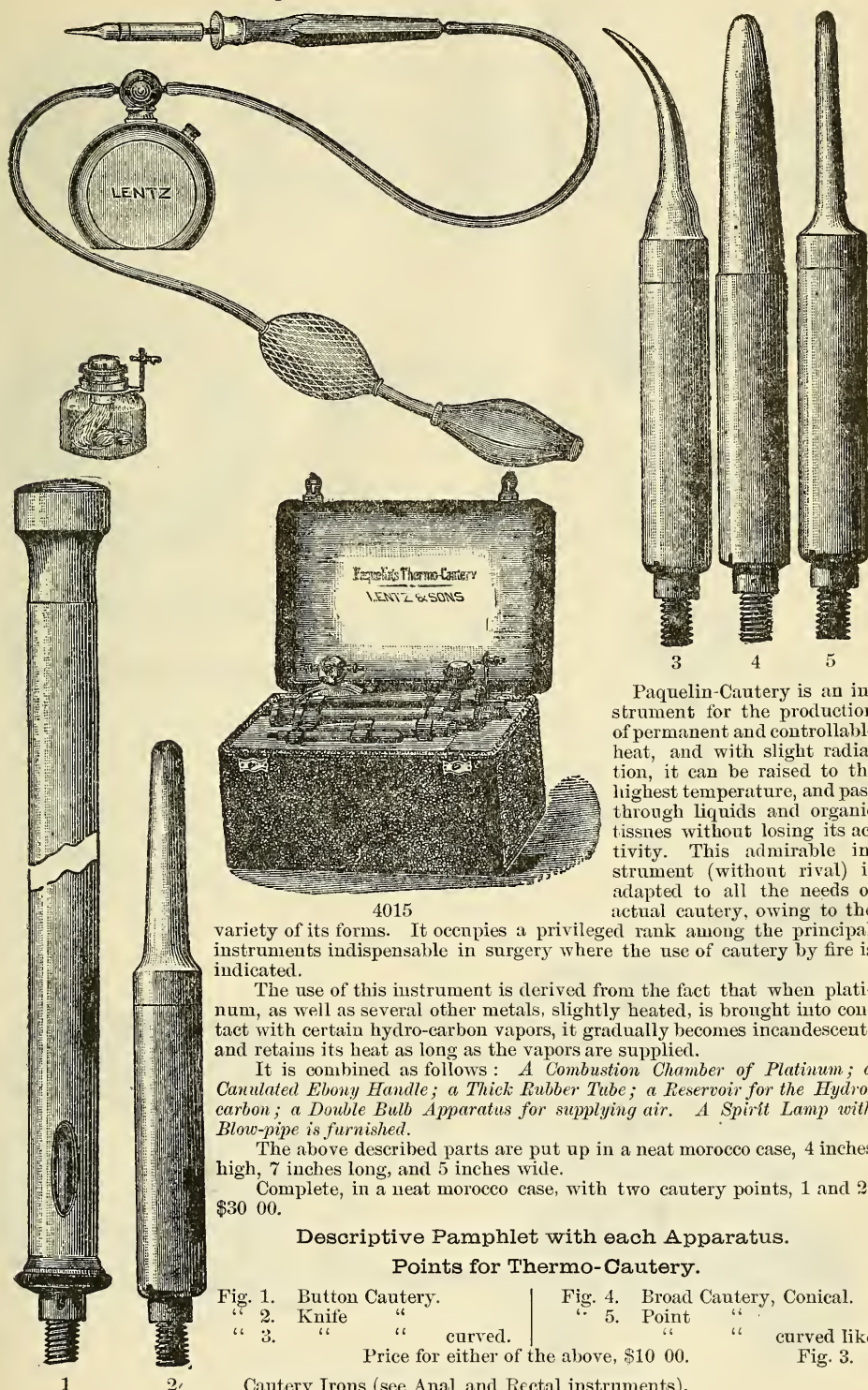
- 3980.\* Price's Abdominal Flushing Tube, hard rubber, complete, with funnel .....\$3 00  
 3981. Montgomery's Abdominal Flushing Tube, hard rubber, with funnel..... 3 50  
 3982. Baldy's " " " metal, nickel-plated, with funnel..... 3 00  
 3985.\* Kelly's Ovariectomy Pad, rubber, with inflatable rim, extreme length, 50 inches ; width at broadest of rim, 24 inches..... 5 00  
 3986.\* Kelly's Ovariectomy Pad, in proper position for use.  
 3987.\* Abdominal Water Coil, for application of heat or cold, 11 inch; \$3 00 ; 13 inch, \$3 50 ; 15 inch..... 4 00  
 These coils are of great convenience when hot or cold applications are necessary. They are lighter than regular bottles, and are more easily adjusted. By attaching the tube to an elevated vessel, they can be kept full of water without disturbing the patient.
3988. Rubber Dam, pure gum, used with drainage tubes, per yard..... 1 25  
 3989. Abdominal Binder, Goodell's, muslin, 35c.; wool..... 80  
 3990. " Bett's " 20c.; " ..... 50

*All Instruments Illustrated are designated by a \*.*





## Paquelin's Thermo-Cautery.



Paquelin-Cautery is an instrument for the production of permanent and controllable heat, and with slight radiation, it can be raised to the highest temperature, and pass through liquids and organic tissues without losing its activity. This admirable instrument (without rival) is adapted to all the needs of actual cautery, owing to the

variety of its forms. It occupies a privileged rank among the principal instruments indispensable in surgery where the use of cautery by fire is indicated.

The use of this instrument is derived from the fact that when platinum, as well as several other metals, slightly heated, is brought into contact with certain hydro-carbon vapors, it gradually becomes incandescent, and retains its heat as long as the vapors are supplied.

It is combined as follows: *A Combustion Chamber of Platinum; a Canulated Ebony Handle; a Thick Rubber Tube; a Reservoir for the Hydro-carbon; a Double Bulb Apparatus for supplying air. A Spirit Lamp with Blow-pipe is furnished.*

The above described parts are put up in a neat morocco case, 4 inches high, 7 inches long, and 5 inches wide.

Complete, in a neat morocco case, with two cautery points, 1 and 2, \$30 00.

Descriptive Pamphlet with each Apparatus.

Points for Thermo-Cautery.

Fig. 1. Button Cautery.

" 2. Knife "

" 3. " " curved.

Fig. 4. Broad Cautery, Conical.

" 5. Point "

" " curved like Fig. 3.

Price for either of the above, \$10 00.

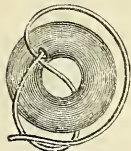
Cautery Irons (see Anal and Rectal instruments).



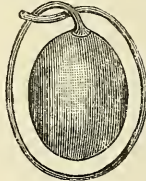
**Gynæcological Instruments.**  
**FOR DISPLACEMENTS OF THE UTERUS.**  
 Prolapsus Pessaries.



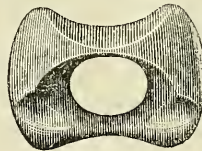
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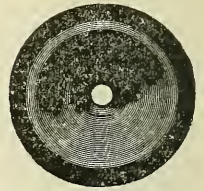
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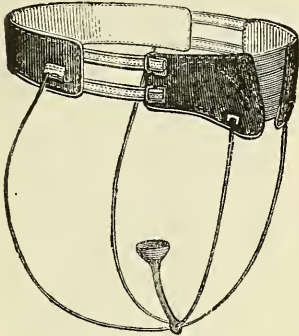
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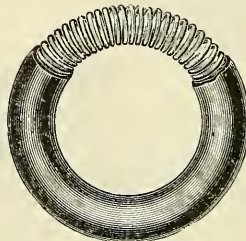
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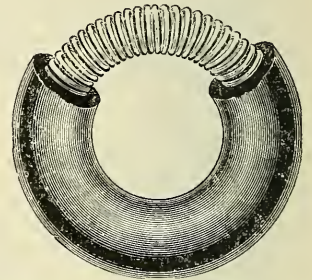
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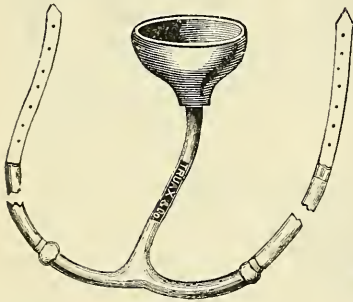
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4036



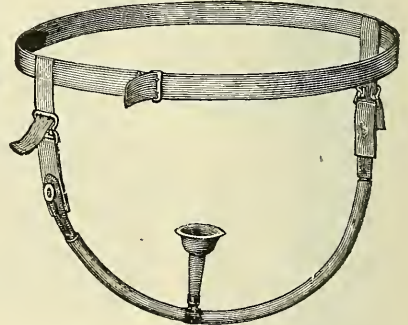
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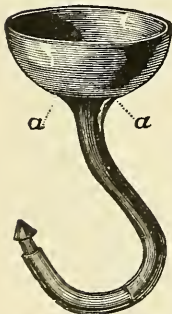
4047



4044



4055



4045



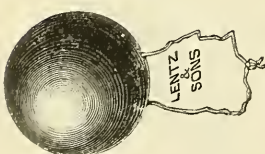
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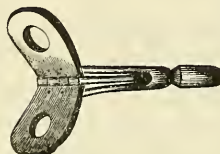
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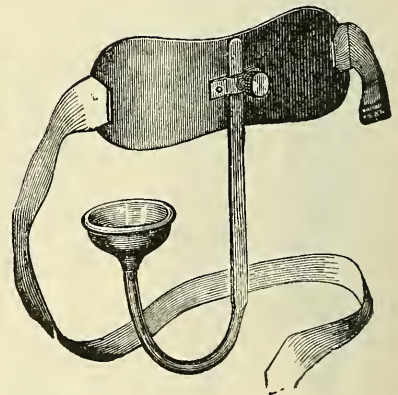
4033



4043



4054



4051

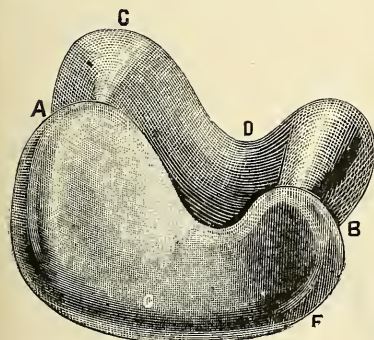
When ordering, give diameter of ring or cup desired.

## Gynæcological Instruments.

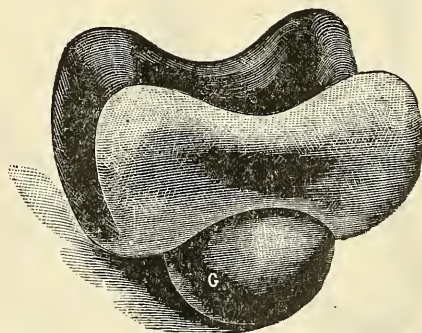
For Displacements of the Uterus.

### PROLAPSUS PESSARIES.

|        |                                                                         |       |
|--------|-------------------------------------------------------------------------|-------|
| 4025.* | Inflated Ring Pessary, soft rubber.....                                 | \$ 40 |
| 4027.* | Inflatable “ “ “ “ with stem.....                                       | 50    |
| 4029.* | “ Pear-shaped Pessary, soft rubber, with stem.....                      | 50    |
| 4030.* | Hofmann's Anatomical “ “ “ first pattern.....                           | 1 00  |
| 4032.  | Block-tin Ring Pessary, pliable.....                                    | 35    |
| 4033.* | Hard Rubber Ring Pessary.....                                           | 25    |
| 4034.  | Gutta Percha “ “ Meig's.....                                            | 50    |
| 4035.  | Copper Wire “ “ soft rubber covered.....                                | 30    |
| 4036.* | Spiral “ “ “ “ Peaslee's.....                                           | 30    |
| 4038.* | “ “ “ “ “ “ “ very thick.....                                           | 50    |
| 4039.  | Pure Gum “ “ German, very thick.....                                    | 50    |
| 4041.  | Hollow Hard Rubber Ring Pessary, German, very thick.....                | 50    |
| 4042.* | “ “ “ Concave “ .....                                                   | 35    |
| 4043.* | Globe Pessary, hard rubber.....                                         | 1 00  |
| 4044.* | Cutter's Ring Pessary, hard rubber, with belt.....                      | 1 50  |
| 4045.* | “ Cup “ “ “ “ “ .....                                                   | 1 50  |
| 4047.* | Thomas-Cutter's Cup Pessary, with belt.....                             | 2 00  |
| 4048.* | McIntosh's Cup Pessary, with belt.....                                  | 2 75  |
| 4049.* | “ Ring “ “ “ “ .....                                                    | 2 75  |
| 4050.  | Herrick's Soft Rubber Ring Pessary, with silver wire stem and belt..... | 2 50  |
| 4051.* | James' Cup Pessary, with metal stem and belt.....                       | 3 75  |
| 4052.  | Scanzoni's Ring “ “ “ “ “ .....                                         | 3 75  |
| 4053.  | Goddard's “ “ “ stem, all metal plated. ....                            | 2 75  |
| 4054.* | Zwank's Hard Rubber Pessary, screw stem.....                            | 1 50  |
| 4055.* | Wadsworth's Soft Rubber “ with belt .....                               | 4 00  |
| 4058.* | Hofmann's Anatomical Pelvic Pessary, soft rubber, latest .....          | 1 50  |
| 4059.* | “ “ “ “ hard “ .....                                                    | 3 00  |
| 4060.* | “ “ “ “ soft “ with sack, small size.....                               | 1 50  |



4058 and 4059



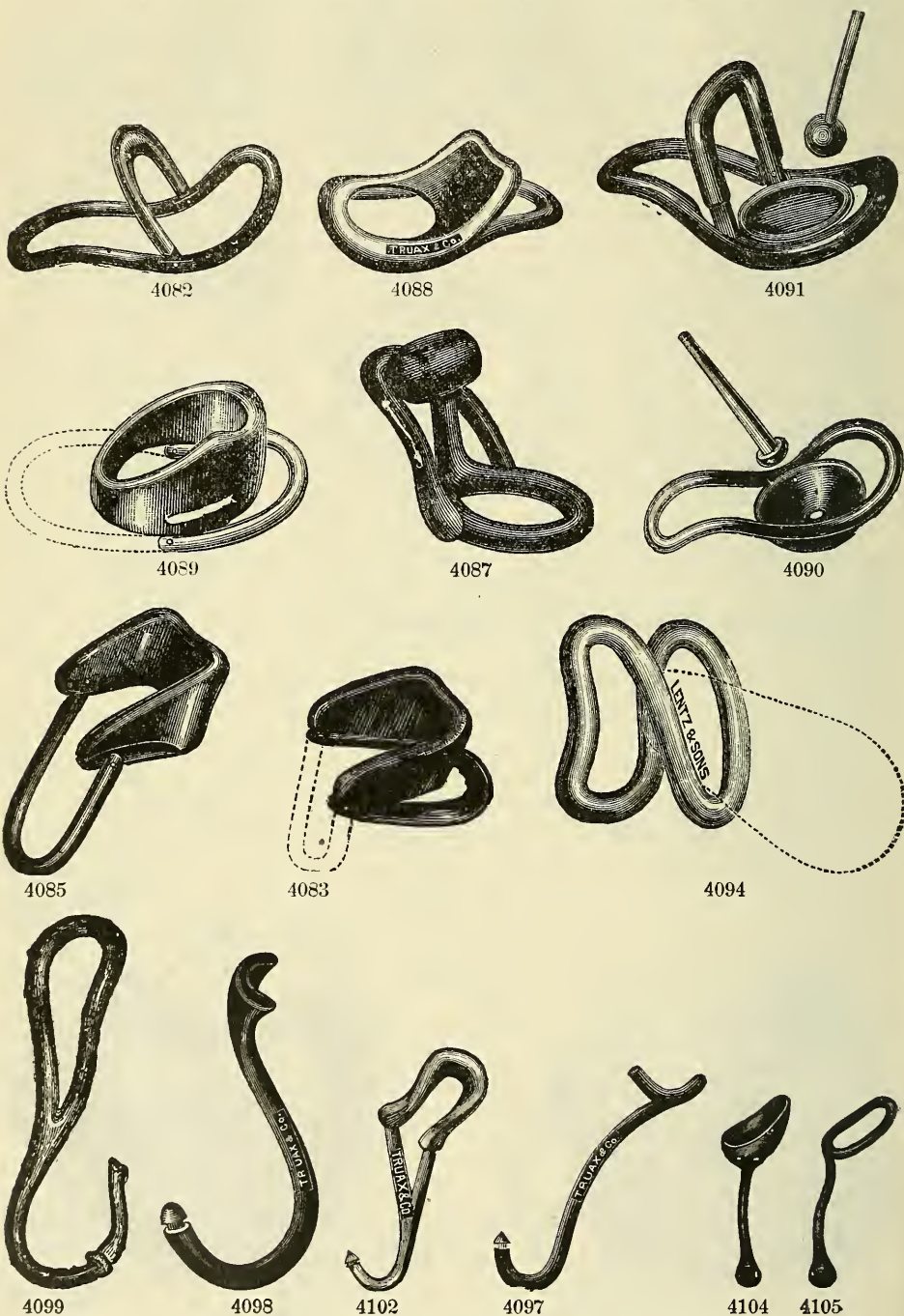
4060

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

## ANTEVERSION AND ANTEFLECTION PESSARIES.



When ordering, give diameter or length of pessary desired.



## Gynæcological Instruments.

### For Displacements of the Uterus.

#### ANTEVERSION AND ANTEFLEXION PESSARIES.

|        |                                                                |       |
|--------|----------------------------------------------------------------|-------|
| 4082.* | Thomas' Anteversion Pessary.....                               | \$ 85 |
| 4083.* | “ “ “ .....                                                    | 85    |
| 4085.* | “ “ “ sunken lever.....                                        | 1 25  |
| 4087.* | “ Anteflexion “ .....                                          | 1 50  |
| 4088.* | “ Anteversion and Anteflexion Pessary.....                     | 1 25  |
| 4089.* | “ Anteversion Pessary, sunken lever, Munde's modification..... | 1 25  |
| 4090.* | “ Lateroflexion Pessary, with intra-uterine stem.....          | 1 25  |
| 4091.* | “ Anteflexion “ “ “ “ “ .....                                  | 1 85  |
| 4092.  | Graily Hewitt's Anteversion Pessary.....                       | 75    |
| 4093.  | Hitchcock's “ “ .....                                          | 75    |
| 4094.* | Gehring's “ “ .....                                            | 35    |
| 4095.  | Kinloch's “ “ .....                                            | 1 00  |
| 4096.  | Fowler's “ and Retroversion Pessary.....                       | 1 25  |
| 4097.* | Cutter's T Pessary, with belt.....                             | 1 50  |
| 4098.* | “ Modified T Pessary with belt.....                            | 1 50  |
| 4099.* | “ Loop Pessary, with belt.....                                 | 1 50  |
| 4100.  | Thomas' modification of Cutter's Loop Pessary, with belt.....  | 1 50  |
| 4102.* | “ “ “ T “ “ “ .....                                            | 2 25  |
| 4104.* | McIntosh's Cup Pessary, with belt.....                         | 2 75  |
| 4105.* | “ Ring “ “ “ .....                                             | 2 75  |

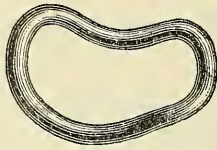
When ordering, give diameter or length of Pessary desired.

*All Instruments Illustrated are designated by a \*.*

Gynæcological Instruments.  
RETROVERSION PESSERIES.



4112



4117



4116



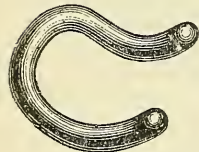
4123



4120



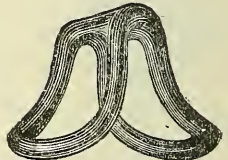
4126



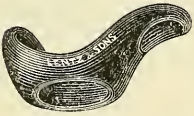
4118



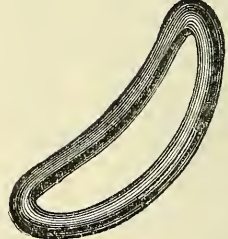
4125



4128



4130



4127



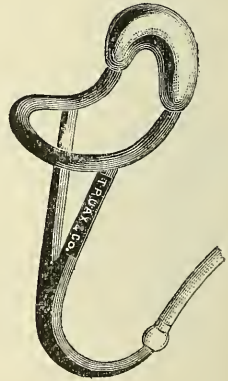
4135



4138



4139



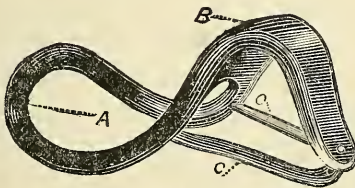
4136

## Gynæcological Instruments.

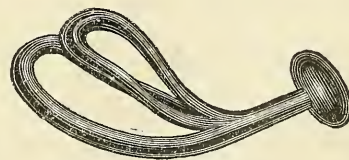
For Displacements of the Uterus.

### RETROVERSION PESSARIES.

|        |                                                                                                  |            |
|--------|--------------------------------------------------------------------------------------------------|------------|
| 4112.* | Smith's Hard Rubber Pessary, 7 sizes, $2\frac{3}{8}$ to $3\frac{1}{8}$ inches long .....         | each \$ 25 |
| 4114.. | " Patent Elastic " soft rubber covered, 6 sizes.....                                             | " 50       |
| 4115.  | Hodge's " " " " " 6 " .....                                                                      | " 50       |
| 4116.* | " Hard Rubber " 5 sizes, $2\frac{3}{4}$ to $3\frac{1}{2}$ inches long.....                       | " 25       |
| 4117.* | " " " Bow Pessary, 5 sizes, $2\frac{3}{4}$ to 4 inches long.....                                 | " 25       |
| 4118.* | " " " Horseshoe Pessary, 3 sizes.....                                                            | " 35       |
| 4119.  | Emmet's-Smith's Hard Rubber " 5 sizes.....                                                       | " 25       |
| 4120.* | Thomas'-Smith's Retroflexion Pessary, 5 sizes, $2\frac{7}{8}$ to $3\frac{5}{8}$ inches long..... | " 50       |
| 4121.  | " " Patent Elastic " soft rubber covered, 5 sizes.....                                           | " 85       |
| 4123.* | " " Pessary, modified by Munde.....                                                              | 75         |
| 4125.* | Thomas' Retroversion Pessary.....                                                                | 75         |
| 4126.* | Noeggerath's " " Thomas' modification.....                                                       | 1 00       |
| 4127.* | Hewitt's Hard Rubber Cradle Pessary.....                                                         | 40         |
| 4128.* | " " " Double " .....                                                                             | 75         |
| 4130.* | Fowler's Hard Rubber Pessary.....                                                                | 1 25       |
| 4132.  | Buttle's " " " .....                                                                             | 60         |
| 4133.  | Thomas' " " Retroflexion Pessary, with cervical rest.....                                        | 1 00       |
| 4135.* | Thomas'-Cutter's Retroversion Pessary, with belt.....                                            | 1 50       |
| 4136.* | " " Retroflexion " with cervical rest and belt.....                                              | 2 25       |
| 4138.* | McIntosh's Cup Pessary, with belt.....                                                           | 2 75       |
| 4139.* | " Ring " " " .....                                                                               | 2 75       |
| 4140.  | Munde's Ovarian Pessary, right, left or both sides.....                                          | each 1 25  |
| 4141.* | Skene's Cystocele Pessary.....                                                                   | 1 50       |
| 4142.* | Kinloch's " " .....                                                                              | 1 85       |
| 4143.  | Gehrunge's " " .....                                                                             | 35         |



4141



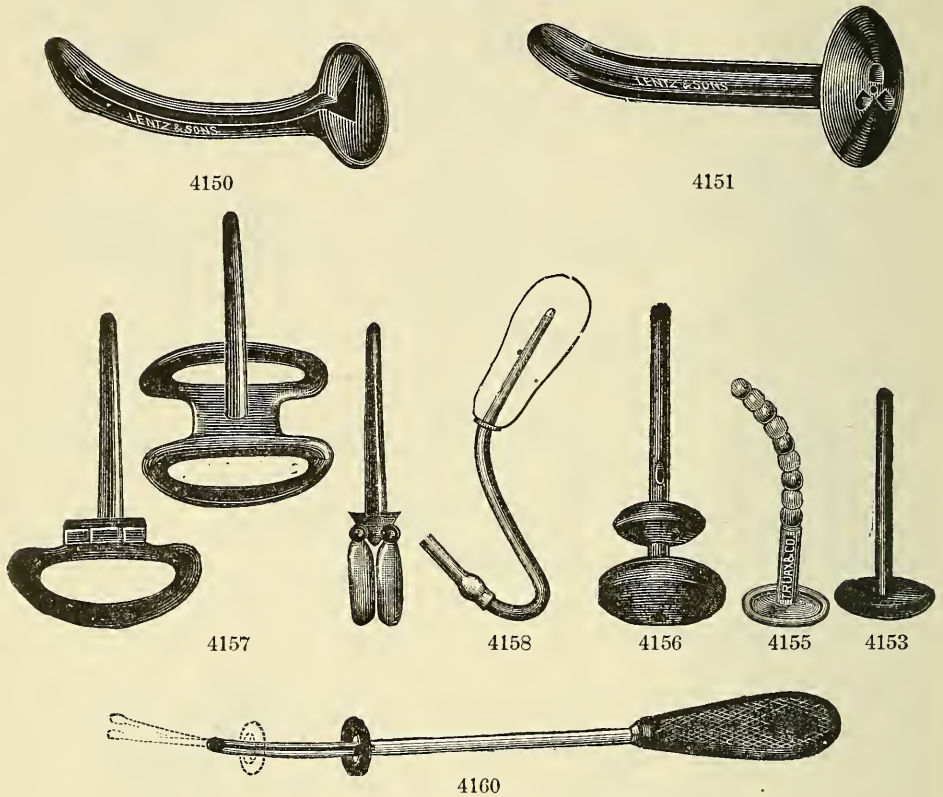
4142

*All Instruments Illustrated are designated by a \*.*



## Gynæcological Instruments.

## INTRA-UTERINE STEM PESSARIES AND CERVICAL DRAINAGE TUBES.



|        |                                                           |      |      |
|--------|-----------------------------------------------------------|------|------|
| 4150.* | Wylie's Cervical Drainage Tube, hard rubber, 6 sizes..... | each | 60   |
| 4151.* | Boldt's " " " " " 6 " .....                               | "    | 60   |
| 4153.* | Plain Hard Rubber Stem Pessary.....                       |      | 35   |
| 4154.  | " Glass Stem Pessary.....                                 |      | 25   |
| 4155.* | Galvanic " " .....                                        |      | 1 00 |
| 4156.* | Peaslee's " " .....                                       |      | 1 00 |
| 4157.* | Conant's " " .....                                        |      | 1 85 |
| 4158.* | Cutter's " " with belt .....                              |      | 1 50 |
| 4159.  | Donaldson's " " .....                                     |      | 1 00 |
| 4160.* | Chamber's " " set of three sizes and Introducer.....      |      | 2 75 |

Mention size desired when ordering.

*All Instruments Illustrated are designated by a \*.*

## Gynæcological Instruments.

### EXAMINING AND OPERATING SETS.

#### Vesico-Vaginal Fistula Set, No. 1.

Contains one Sims' Speculum ; one Scissors, curved on flat ; one Agnew's Long Tissue Forceps, with Adjuster ; two Sims' Scalpels ; one Double Edge Knife, curved on flat ; one Tenaculum ; one Wire Twister ; one Shot Compressing Forceps ; one Needle Holder, Reiner's ; one Sims' Sigmoid Catheter ; half-dozen Needles ; Perforated Shot ; Silver Wire, Silk, &c.  
In mahogany, leather lined case.....\$24 00

#### Montgomery's General Gynæcological Operating Set, No. 2.

Contains one Sims' Speculum ; one Goodell's Speculum ; one two pronged Volsellum Forceps ; two Tenaculums ; set of Pratt's Uterine Dilators, sixteen sizes ; one Curette, sharp ; one Curette, dull ; one Placenta Forceps ; one Garrigues' Forceps for Gauze Packing ; two Scalpels ; one Uterine Knife, double edge, curved on flat ; two Scalpels, bent angular, right and left ; one Thomas' long Tissue Forceps, slide catch ; one Needle Holder ; one Scissors, long, curved on flat ; one Scissors, long, bent at angle ; one Blunt Hook ; one Shot Compressor ; Cervix and Perineal Needles ; Silk Wire, Silk Worm Gut, and Perforated Shot.  
In a leather satchel, chamois lined, and the knives in a compact case.....\$53 00

#### Emmet's Vesico-Vaginal Fistula Set, No. 3.

Contains one Sims' Large Speculum ; one Sims' Small Speculum ; one Emmet's Depressor ; four Emmet's Sponge Holders ; one Sims' Sigmoid Catheter ; one Emmet's Uterotome ; two Emmet's Tenacula ; one Perry's Tenaculum ; six Emmet's Scissors ; one Emmet's Wire Pressing Forceps ; two Bistouries ; one Scalpel ; one Emmet's Needle Holder ; one Emmet's Dressing Forceps ; one Emmet's Wire Twisting Forceps ; one Sims' Blunt Hook ; one Sims' Shield ; one Sims' Wire Carrier ; one Coil Silver Wire ; one dozen Emmet's Needles.  
In morocco pouch, lined with red chamois.....\$60 00

#### Examination and Application Set, No. 4.

Contains one Goodell's Speculum ; one Ferguson's Speculum, hard rubber ; one Simpson's Sound ; one Sims' Silver Probe ; two Aluminum Applicators, with Set Screw Handle ; one Uterine Dressing Forceps ; one Long Pipe Syringe ; one Elliot's Repositor ; one Thomas' Blunt Currette ; one Simons' Sharp Currette ; one Buttle's Scarifier, one Goodell's Dilator, light ; one Sims' Tenaculum ; four Glass Stopper Bottles.  
In a leather satchel, chamois lined.....\$28 00

## Gynæcological Instruments.

### Montgomery's Abdominal Set, No. 5.

Contains Four Scalpels, different sizes ; one Scissors, straight ; one Scissors, curved on flat ; one Scissors, bent at angle, lower blade probe pointed ; eighteen Hæmostatic Forceps ; four Wells' large Pedicle Forceps, straight and curved ; two Nelaton's Tumor Forceps ; one Luer's Pile Forceps ; one Dissecting Forceps ; two Clamp Forceps for Broad Ligament ; one pair Broad Ligament Clamps ; one four-pronged Volsellum Forceps ; one Needle Holder ; one Koeberle's Serre Noend, with wire ; two Retractors, large, flat blades ; one pair Broad Ligament Needles ; 1 dozen curved and straight Needles ; one Wire Ecraseur.

In a 16 inch cabin bag, with space for trays, sponges, dressings, &c.....\$110 00

### Kelly's Examining and Application Set, No. 6.

Contains two Sims' Specula, 1 Nelson's Trivalve Speculum ; one Kelly's Corrugated Tenaculum ; one Uterine Sound, graduated in inches and centimeters ; one Kelly's delicate Tenaculum Forceps, with catch ; one Thomas' delicate Uterine Dressing Forceps, with catch ; one Kelly's Gauze and Cotton Packer ; two Glass Catheters ; one Playfair's Aluminum Applicator, one Kelly's Knife-Blade, Tenaculum.

Price.....\$16 50

In addition to the above, the following for Dilatation and Curetting.

One Goodell's Dilator, heavy ; one Ellinger Dilator, light ; one Simon's Curette, sharp ; one Martin's Double Curette ; one Tenaculum, stout ; one Polypus Forceps ; one Kelly's Perineal Pad ; 1 Fountain Syringe, large, with Esmarch's Stop-Cock ; one Kelly's Leg Holder ; one Instrument Tray.

One 16 inch bag for carrying above set with space for dressings, anesthetics, &c.....\$58 00

### Kelly's Abdominal Set, No. 7.

Contains two Scalpels ; one Scissors, short, straight ; one blunt nose Scissors, long, stout ; one right angle Tenaculum ; two Retractors ; twelve Artery Forceps ; two Dissecting Forceps, rat toothed ; one dozen Curved Needles, for Intestinal Suture, Pedicle and Abdominal Wall ; one Reiner's Needle Holder ; four Kelly's Sponge Holding Forceps ; one Kelly's Drainage Tube Forceps ; one Tait's Ovariectomy Trocar, plain.

Price .....\$54 00

### Accessories to Kelly's Set of Instruments.

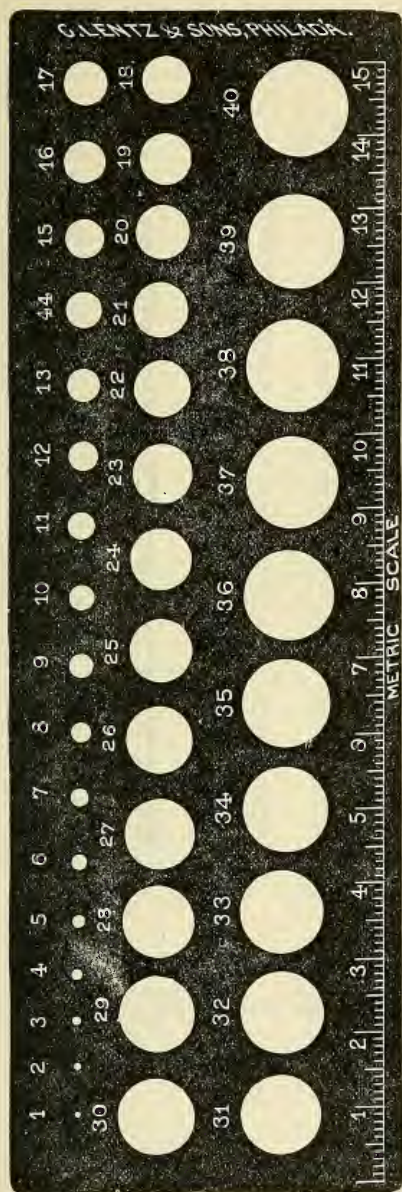
One Aspirator, with bottle ; Thermo-Cautery ; four Glass Drainage Tubes ; Rubber Tubing, for Hysteromyomectomy ; twelve Sterilized Sponges ; Silk on Glass Spools in Kelly's heavy tubes ; Catgut in Alcohol ; Glass Catheter ; Kelly's Ovariectomy Pad ; Fountain Syringe ; Oleine Soap ; Nail Brush ; Robb's Aseptic Razor ; three Instrument Trays ; four Basins ; Hypodermic Syringe ; White Linen Operating Suit ; tubes containing culture media and needles ; four Sterilized Towels in bag ; one-half pound Sterilized Cotton ; five yards Sterilized Gauze in bag ; Abdominal Bandage ; one pound Ether ; four ounces Chloroform ; Ether Cone ; Iodoform and Boric Acid Powder (1-7) ; Permanganate of Potash ; Oxalic Acid ; Collodion ; Two ounces Brandy ; Sodium Chloride Tablets, for Saline Solution.

For Hypodermic use, tablets of Strychnine,  $\frac{1}{80}$ , tablets of Atropine,  $\frac{1}{80}$ , and tablets of Nitro-Glycerine,  $\frac{1}{80}$ .

Prices on application.



## Male Urethral Instruments.



4170

| Diameter in Millimetres. | French Scale. | American Scale. | English Scale. |
|--------------------------|---------------|-----------------|----------------|
| 1                        | 1             |                 |                |
| 1 1/3                    | 2             | 1               |                |
| 1 2/3                    | 3             | 2               | 1/4            |
| 2                        | 4             |                 |                |
| 2 1/3                    |               | 3               | 1/2            |
| 2 2/3                    | 5             |                 |                |
| 3                        | 6             | 4               | 1              |
| 3 1/3                    | 7             |                 |                |
| 3 2/3                    |               | 5               | 2              |
| 4                        | 8             |                 |                |
| 4 1/3                    | 9             | 6               | 3              |
| 4 2/3                    | 10            |                 |                |
| 5                        |               | 7               | 4              |
| 5 1/3                    | 11            |                 |                |
| 5 2/3                    | 12            | 8               | 5              |
| 6                        | 13            |                 |                |
| 6 1/3                    |               | 9               | 6              |
| 6 2/3                    | 14            |                 |                |
| 7                        | 15            | 10              | 7              |
| 7 1/3                    | 16            |                 |                |
| 7 2/3                    |               | 11              | 8              |
| 8                        | 17            |                 |                |
| 8 1/3                    | 18            | 12              | 9              |
| 8 2/3                    | 19            |                 |                |
| 9                        |               | 13              | 10             |
| 9 1/3                    | 20            |                 |                |
| 9 2/3                    | 21            | 14              | 11             |
| 10                       | 22            |                 |                |
| 10 1/3                   |               | 15              | 12             |
| 10 2/3                   | 23            |                 |                |
| 11                       | 24            | 16              | 13             |
| 11 1/3                   | 25            |                 |                |
| 11 2/3                   |               | 17              | 14             |
| 12                       | 26            |                 |                |
| 12 1/3                   | 27            | 18              | 15             |
| 12 2/3                   | 28            |                 |                |
| 13                       |               | 19              | 16             |
| 13 1/3                   | 29            |                 |                |
|                          | 30            | 20              | 17             |
|                          | 31            |                 |                |
|                          |               | 21              | 18             |
|                          | 32            |                 |                |
|                          | 33            | 22              |                |
|                          | 34            |                 |                |
|                          |               | 23              |                |
|                          | 35            |                 |                |
|                          | 36            | 24              |                |
|                          | 37            |                 |                |
|                          |               | 25              |                |
|                          | 38            |                 |                |
|                          | 39            | 26              |                |
|                          | 40            |                 |                |

The Gauge shows the numbers and exact sizes of Male Urethral Instruments according to the Otis or French Scale. The English and American numbers corresponding to them, as well as the diameter of all three Scales in Millimetres, will be found in the subjoined table.

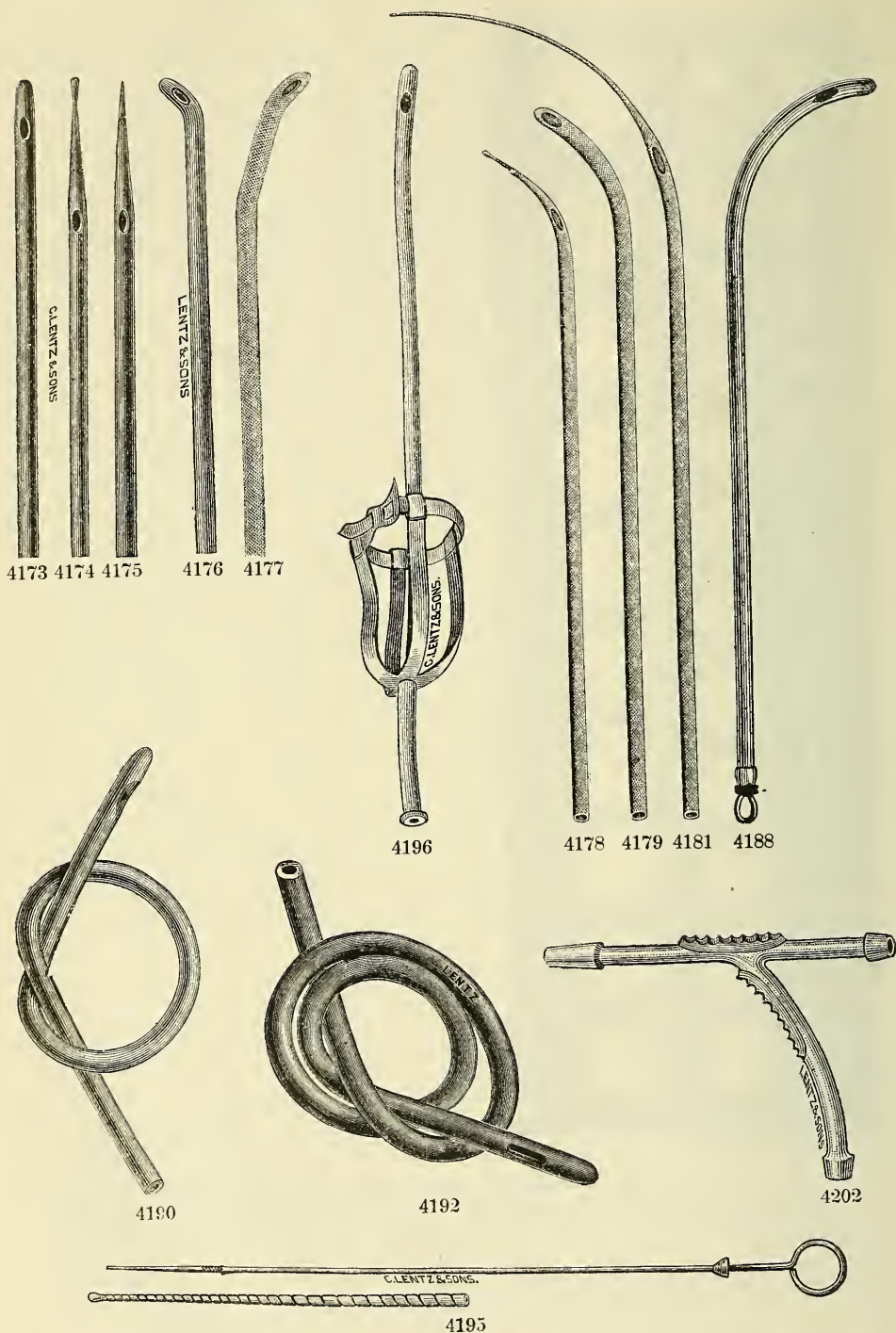
4170.\* Steel Gauge, French Scale on one side and English on the other.....\$2 75

4171. Pasteboard Gauge, free of charge, on application.

In ordering Urethral Instruments, state by what Gauge and size.

*All Instruments Illustrated are designated by a \*.*

## Male Urethral Instruments.



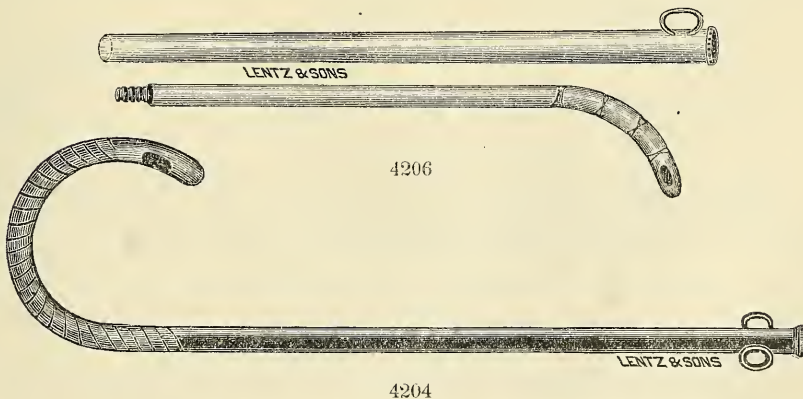
Mention number and scale when ordering. See prices on next page.

## Male Urethral Instruments.

### SOLID END GUM ELASTIC WEB CATHETERS.

From Nos. 5 to 20, American Scale.

|        |                                                                                    |       |
|--------|------------------------------------------------------------------------------------|-------|
| 4173.* | Catheter, "Superior Linen," cylindrical, amber or black color.....                 | \$ 35 |
| 4174.* | " " " olivary " " " .....                                                          | 40    |
| 4175.* | " " " conical " " " .....                                                          | 40    |
| 4176.* | " " " Mercier's elbow, amber or black color.....                                   | 50    |
| 4177.* | " " " " double elbow, amber or black color.....                                    | 65    |
| 4178.* | " " " olivary curved, amber or black color.....                                    | 60    |
| 4179.* | " " " cylindrical " " " " .....                                                    | 50    |
| 4181.* | " " " rat-tail end " " " .....                                                     | 65    |
| 4183.  | " Silk Web, cylindrical, amber color.....                                          | 65    |
| 4184.  | " " " olivary " " .....                                                            | 75    |
| 4185.  | " " " conical " " .....                                                            | 75    |
| 4186.  | " " " Mercier's elbow, amber color.....                                            | 85    |
| 4188.* | " English Cotton Web, red, cylindrical, 1-12.....each, 15c.; doz.                  | 1 25  |
| 4190.* | " Nelaton's, soft rubber, with depressed eye, 11-25, French scale.....             | 30    |
| 4192.* | " Jacque's " " " " " 5 to 12, English scale .....                                  | 50    |
| 4193.  | " Davidson's " " " open end, 11-21, French scale.....                              | 50    |
| 4195.* | " Guide, Otis', for introducing soft rubber catheters.....                         | 75    |
| 4196.* | " Holder, or penis muzzle, rubber.....                                             | 40    |
| 4198.  | " and Bougie, box round, 14 inches long, tin enameled .....                        | 15    |
| 4199.  | " " " " oval 14 " " papier-mache.....                                              | 75    |
| 4202.* | Double Tube, to use with soft rubber catheter, for washing out the bladder.....    | 60    |
| 4203.  | Hosmer's T Tube, to use with soft rubber catheter for washing out the bladder..... | 60    |
| 4204.* | Catheter, Gross', spiral, metallic, 12 inches long.....                            | 1 00  |
| 4205.  | " " " " in two parts.....                                                          | 1 25  |
| 4206.* | " flexible joint, silver, " " " .....                                              | 3 00  |

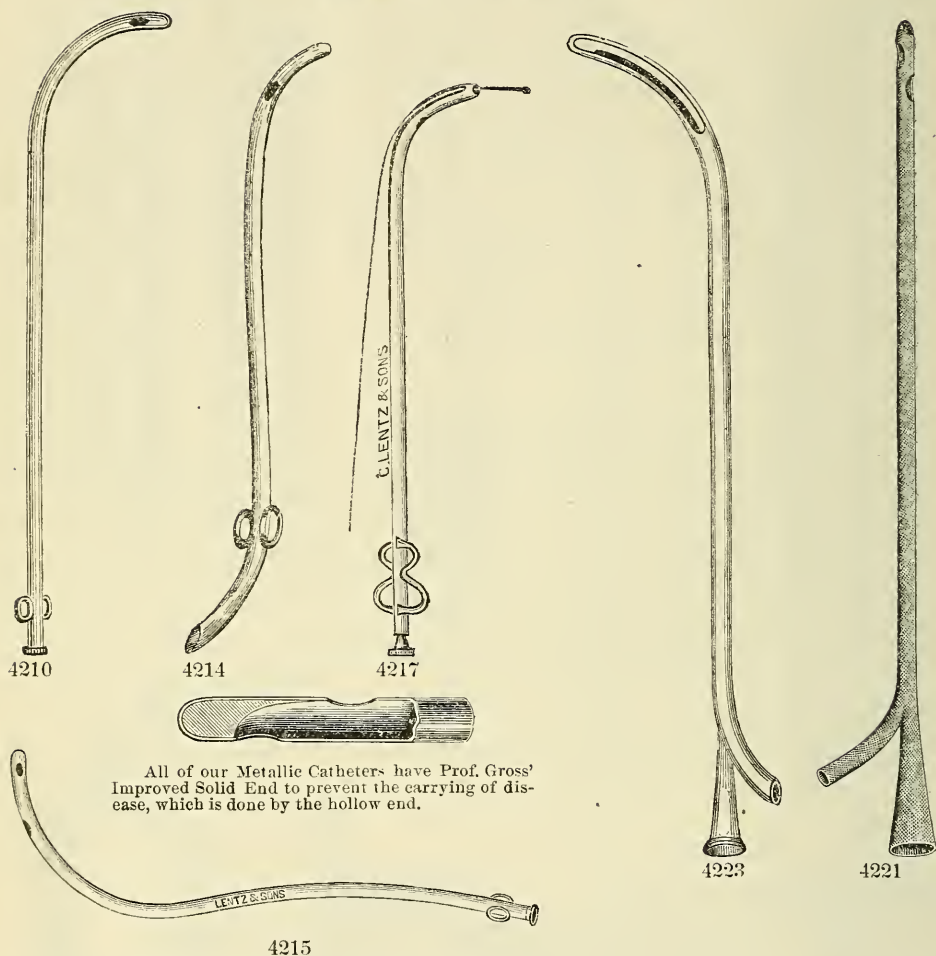


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## Male Urethral Instruments.

## METALLIC CATHETERS.



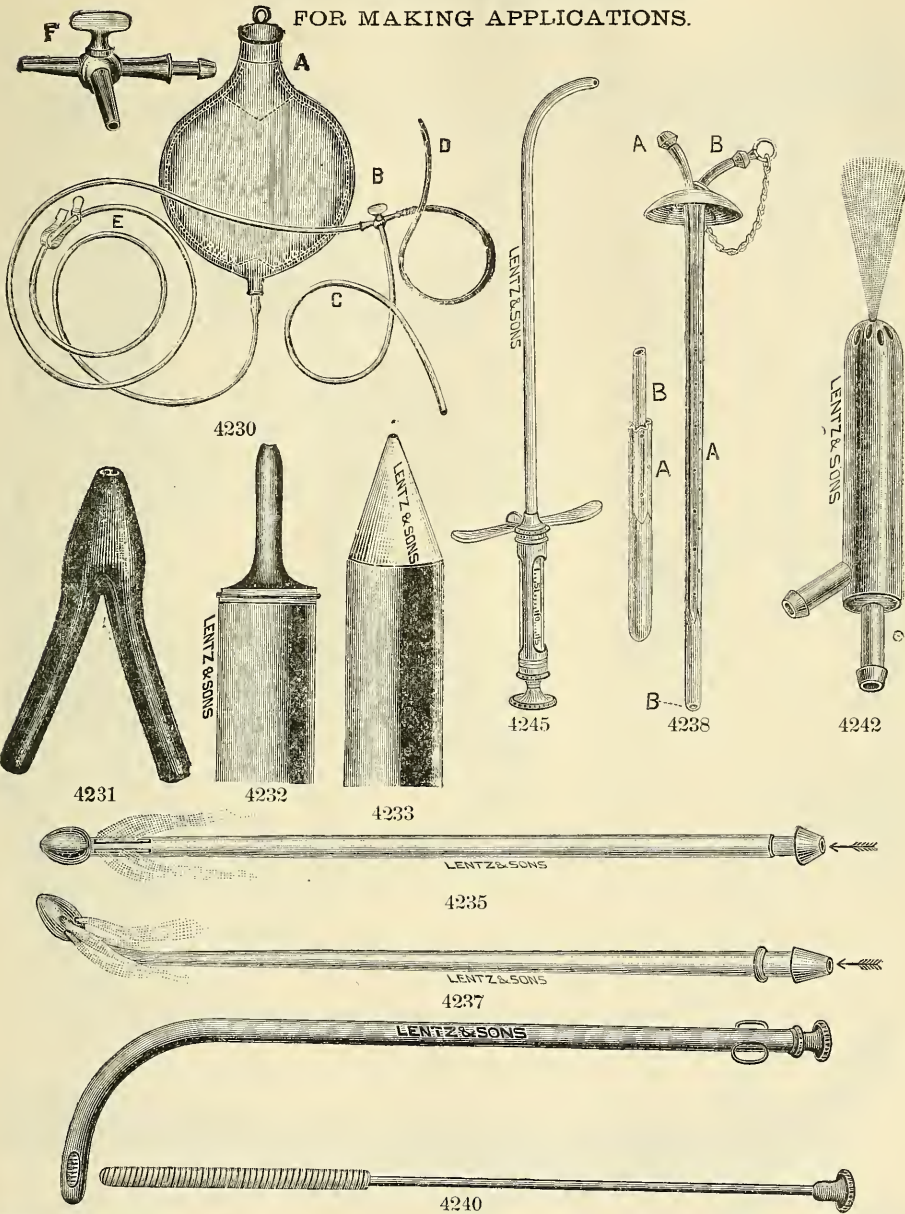
|        |                                                                             |       |
|--------|-----------------------------------------------------------------------------|-------|
| 4210.* | Catheters, German-silver plated, any size.....                              | \$ 65 |
| 4211.  | “ coin silver (hard), 9-12, \$1 10; 13-16, \$1 40; 17-20, French scale..... | 1 65  |
| 4212.  | “ pure silver (pliable), 9-12, \$1 75; 13-16, \$2 25; 17-20 “ “.....        | 2 75  |
| 4213.  | “ Britannia metal (pliable), any size.....                                  | 50    |
| 4214.* | “ Symes' double curve, plated. 90c.; silver, \$1 50 to.....                 | 2 00  |
| 4215.* | “ Prostatic, plated. 90c.; silver, 13-16, \$1 75; 17-19, \$2 25; 20-23..... | 2 75  |
| 4217.* | “ Gouley's tunnelled, for Filiform Bougies, plated.....                     | 1 75  |
| 4219.  | “ male and female combined, plated, \$1 00; silver.....                     | 1 75  |
| 4221.* | “ double current, “Superior Linen” web, gum elastic.....                    | 1 25  |
| 4222.  | “ “ “ soft rubber.....                                                      | 2 25  |
| 4223.* | “ “ “ Nott's, plated, \$1 50; silver.....                                   | 3 00  |
| 4224.  | “ “ “ Brodie's “ 1 50; “ “.....                                             | 3 00  |
| 4226.  | Winternitz's “ “ Psychrophor (cooling sound), plated.....                   | 1 75  |

All our plated Catheters are made of the best German-silver and triple plated. Catheters of every description made to order from sample or drawing.

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## Male Urethral Instruments.

FOR MAKING APPLICATIONS.

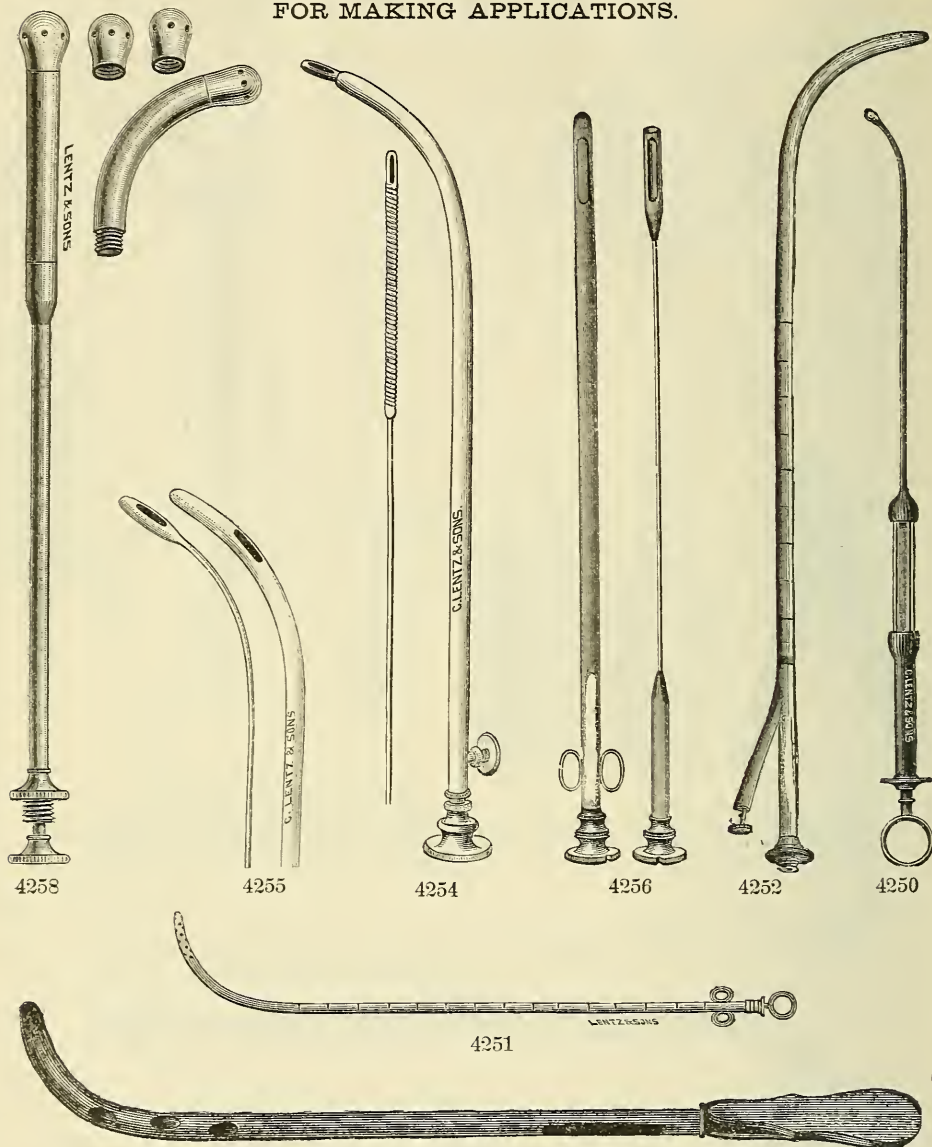


|        |                                                                                   |        |
|--------|-----------------------------------------------------------------------------------|--------|
| 4230.* | Van Buren's Syringe, with stop-cock and catheter for washing out the bladder..... | \$3 50 |
| 4231.* | Kiefer's Double Current Nozzle, for Urethral Irrigation.....                      | 75     |
| 4232.* | P. P. Syringe, hard rubber, straight point.....                                   | 35     |
| 4233.* | P. P. " " conical ".....                                                          | 35     |
| 4235.* | Backflow Tube, straight, metal, plated.....                                       | 50     |
| 4237.* | " " conical ".....                                                                | 60     |
| 4238.* | Gonorrhœa " Wigmore's, plated, \$1 85; silver.....                                | 3 00   |
| 4239.  | Blood Catheter, Agnew's, " 1 50; ".....                                           | 2 75   |
| 4240.* | " " Willard's, with spiral obdurator, plated.....                                 | 2 50   |
| 4242.* | Prostatic Douche, Martin's, plated.....                                           | 1 25   |
| 4244.  | Ultzman's Deep Urethral Syringe, silver.....                                      | 3 00   |
| 4245.* | Keyes'-Ultzman Deep Urethral Syringe, silver.....                                 | 4 00   |
| 4246.  | Irrigator and Irrigating Dilator, Lindenschmidt's (see page 224).....             | 5 00   |

*All Instruments Illustrated are designated by a \*.*

## Male Urethral Instruments.

FOR MAKING APPLICATIONS.



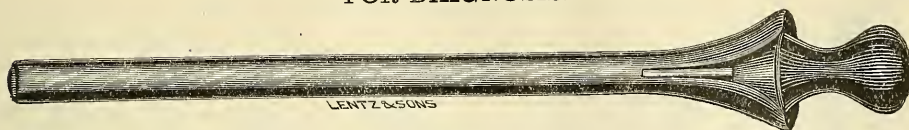
4250. \* Deep Urethral Syringe, Bumstead's, hard rubber.....\$1 75  
 4251. \* " " " Catheter, Dick's, silver..... 3 00  
 4252. \* " " " " Biglow's, silver..... 3 50  
 4254. \* Port Caustic, Lallemand's, silver..... 3 00  
 4255. \* " " Gross', silver..... 3 00  
 4256. \* " " Agnew's, " ..... 2 75  
 4257. \* Cupped Sound, Van Buren's, for applying ointment..... 1 25  
 4258. \* Boone's Syringe Catheter, for applying ointment, straight and curved barrel, with four size bulbs, from 18 to 22, American scale..... 4 00  
 This Instrument can, by removing the piston, be converted into an Irrigator for the thorough cleansing of the urethra.

*All Instruments Illustrated are designated by a \*.*

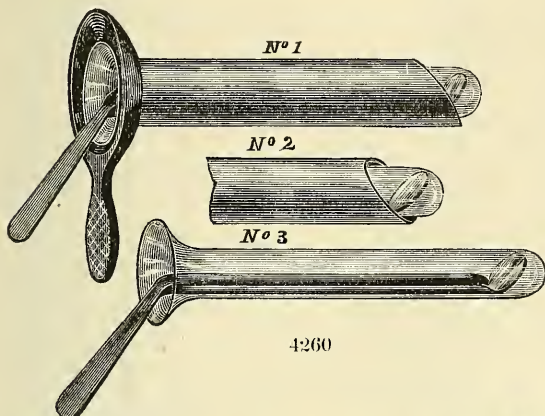


## Male Urethral Instruments.

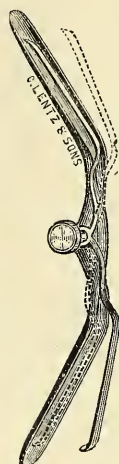
FOR DIAGNOSIS.



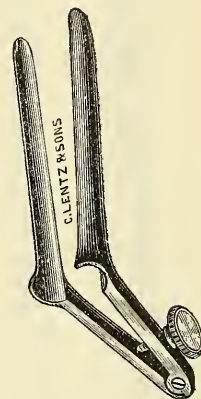
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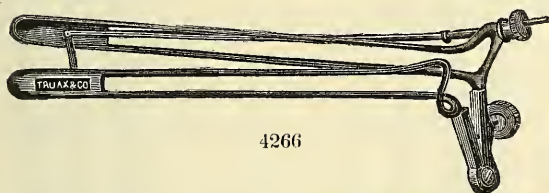
4260



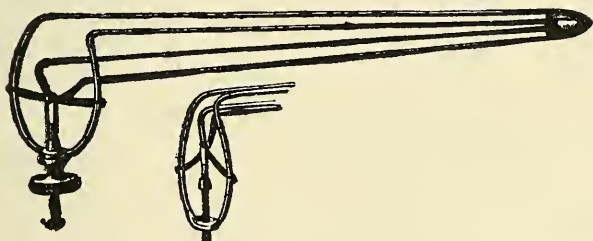
4263



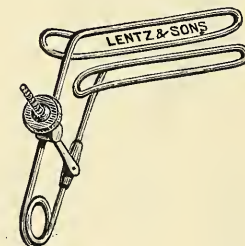
4265



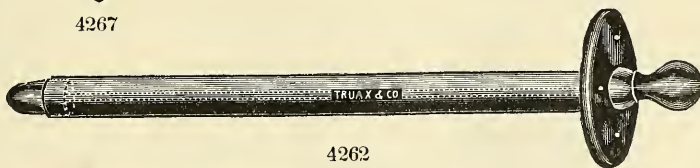
4266



4267



4264



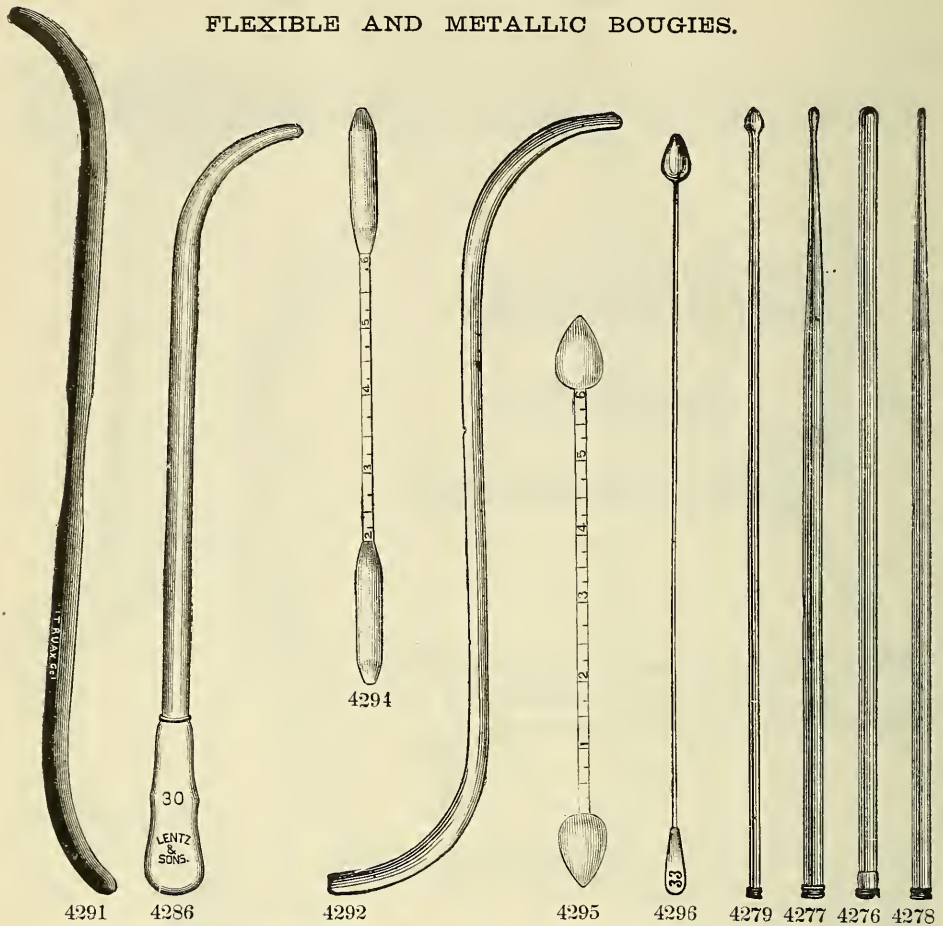
4262

|        |            |                                                             |      |        |
|--------|------------|-------------------------------------------------------------|------|--------|
| 4260.* | Endoscope, | Skene's, three sizes and lengths.....                       | each | \$2 25 |
| 4261.* | "          | Otis', hard rubber, various sizes.....                      | "    | 1 15   |
| 4262.* | "          | Klotz's, silver-plated, \$2 00 ; silver.....                | "    | 2 50   |
| 4263.* | Speculum,  | Skene's.....                                                |      | 2 00   |
| 4264.* | "          | Skene-Folsom's.....                                         |      | 1 00   |
| 4265.* | "          | Caro's, 3½ inch long, nickel-plated, \$1 25 ; aluminum..... |      | 1 75   |
| 4266.* | "          | Brown's.....                                                |      | 3 50   |
| 4267.* | "          | Smith's.....                                                |      | 2 50   |

All Instruments Illustrated are designated by a \*.

## Male Urethral Instruments.

### FLEXIBLE AND METALLIC BOUGIES.



#### Gum Elastic Web Bougies, from No. 5 to 20, American Scale.

|        |                                                                   |           |
|--------|-------------------------------------------------------------------|-----------|
| 4276.* | Bougie, "Superior Linen," cylindrical, amber or black color.....  | \$ 35     |
| 4277.* | " " " " olivary " " " .....                                       | 40        |
| 4278.* | " " " " conical " " " .....                                       | 40        |
| 4279.* | " " " " Exploring Bulbous (or Bougie a'boule).....                | 50        |
| 4281.  | " Silk Web, cylindric, olivary or conical point, amber color..... | each 65   |
| 4283.  | " English cotton web, red, cylindrical, 1-12 each 15c.....        | doz. 1 25 |

#### Metallic Bougies or Sounds.

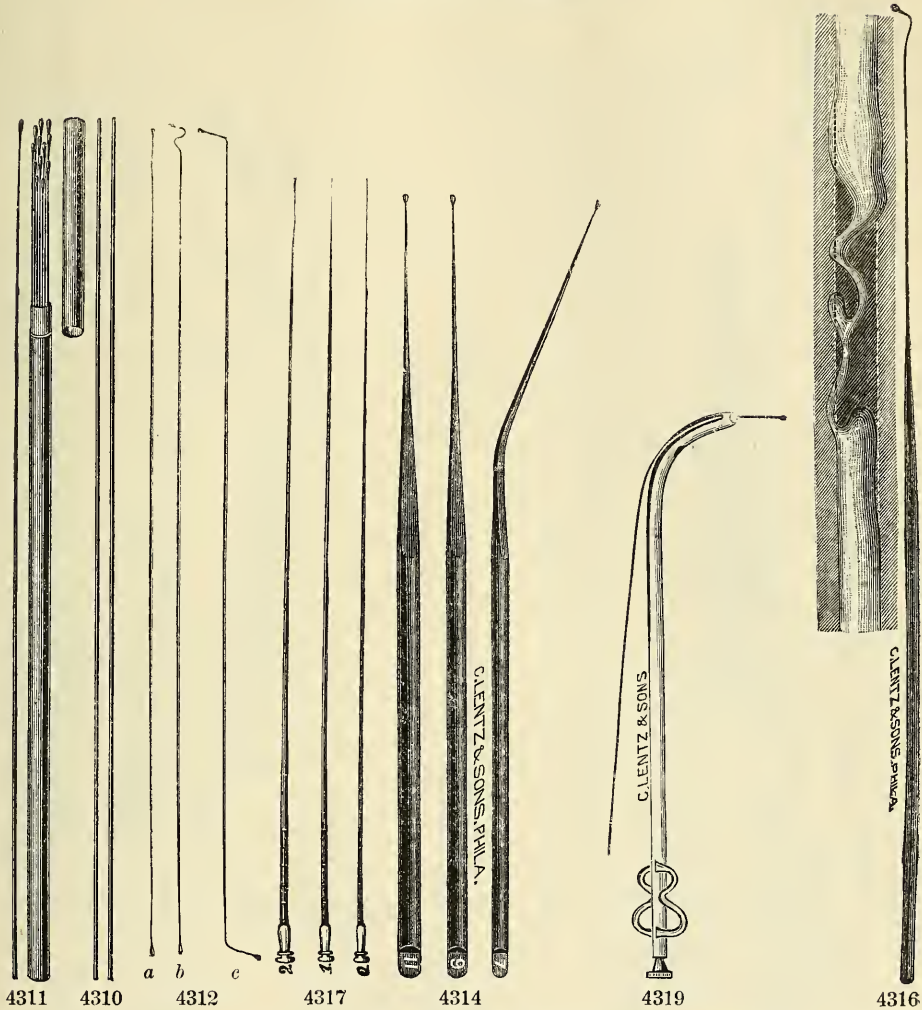
|        |                                                                                  |         |
|--------|----------------------------------------------------------------------------------|---------|
| 4286.* | " Steel, conical, curved, from 10 to 30, French scale.....                       | 75      |
| 4287.  | " " " " " 31 to 40, " " .....                                                    | 1 00    |
| 4288.  | " " Benique's, curve .....                                                       | 1 10    |
| 4290.  | " " straight, conical.....                                                       | 75      |
| 4291.* | " " Pratt's, double curve, two sizes.....                                        | each 90 |
| 4292.* | " " double curve, two sizes, \$1 00; pliable metal.....                          | " 85    |
| 4293.  | " Fowler's " " .....                                                             | " 75    |
| 4294.* | " Weiss', double, two sizes, plain stem, each 75c.; graduated stem.....          | " 1 00  |
| 4295.* | " " Exploring " " " 75c.; " " .....                                              | " 1 00  |
| 4296.* | " " Otis', " flexible stem, No. 8-40, French scale.....                          | " 35    |
| 4297.  | " " Fowler's modification of Otis' Exploring, double, with set screw slide ..... | " 75    |
| 4298.  | " " Gouley's Tunnelled, for Filiform Bougies.....                                | " 1 25  |

Mention number and scale when ordering.

*All Instruments Illustrated are designated by a \*.*

## Male Urethral Instruments.

## FILIFORM BOUGIES.



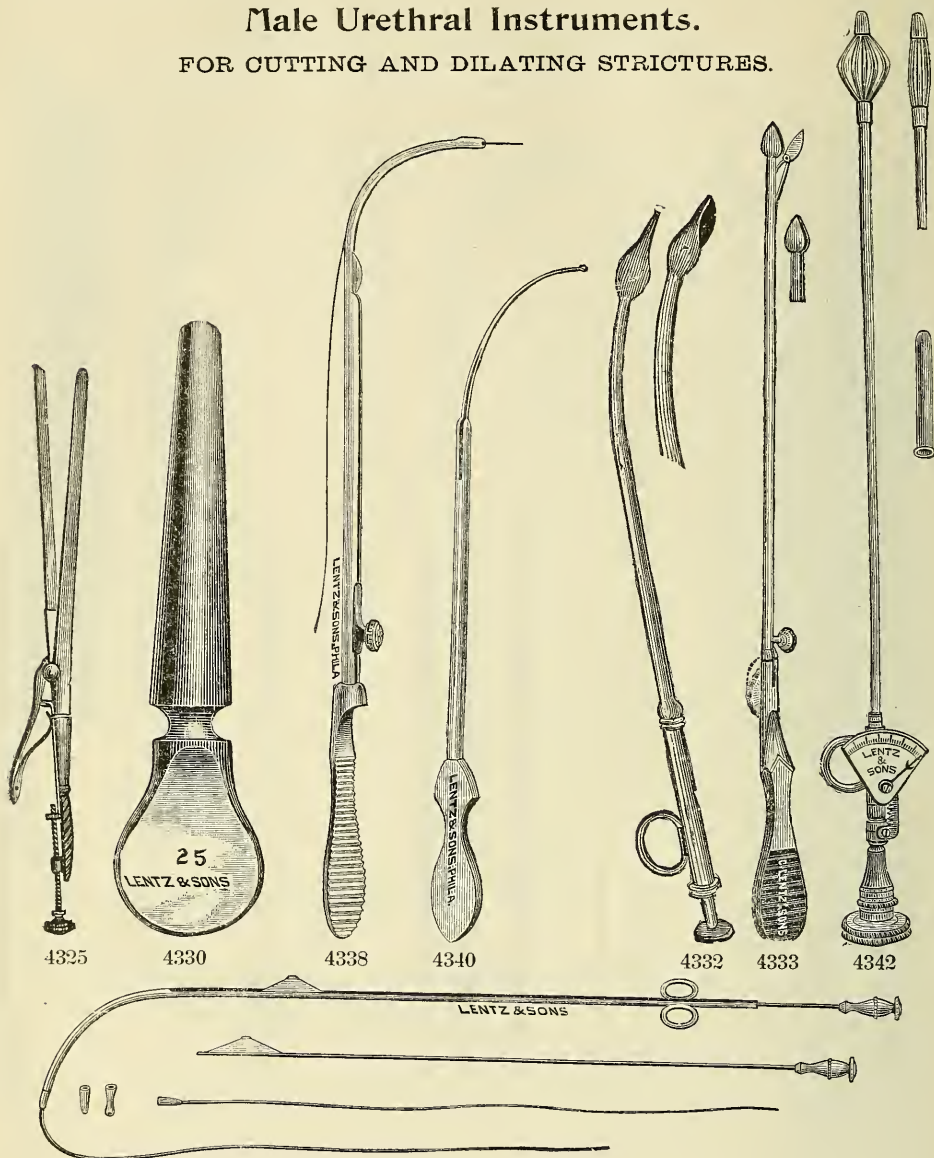
|         |                                                                                 |         |
|---------|---------------------------------------------------------------------------------|---------|
| 4310.*  | Whalebone Filiform, cylindrical, each 15c ; per doz. in nickel-plated case..... | \$1 90  |
| 4311.*  | “ “ olivary, “ 20c; “ “ “ .....                                                 | 2 25    |
| 4312.a* | “ “ “ Gouley's Guides.....                                                      | each 40 |
| 4312.b* | “ “ corkscrew, “ “ .....                                                        | “ 45    |
| 4312.c* | “ “ angular, “ “ .....                                                          | “ 40    |
| 4314.*  | “ “ Bank's, flat wedge-shape, three sizes.....                                  | “ 75    |
| 4316.*  | “ “ Hunter's (filamentous wedge) “ .....                                        | “ 65    |
| 4317.*  | Silk Web “ Bougies, conical, “ .....                                            | “ 50    |
| 4319.*  | Gouley's Tunnelled Catheter, for Filiform Bougies, size 9 to 15, French.....    | “ 1 75  |

*All Instruments Illustrated are designated by a \*.*



## Male Urethral Instruments.

### FOR CUTTING AND DILATING STRICTURES.

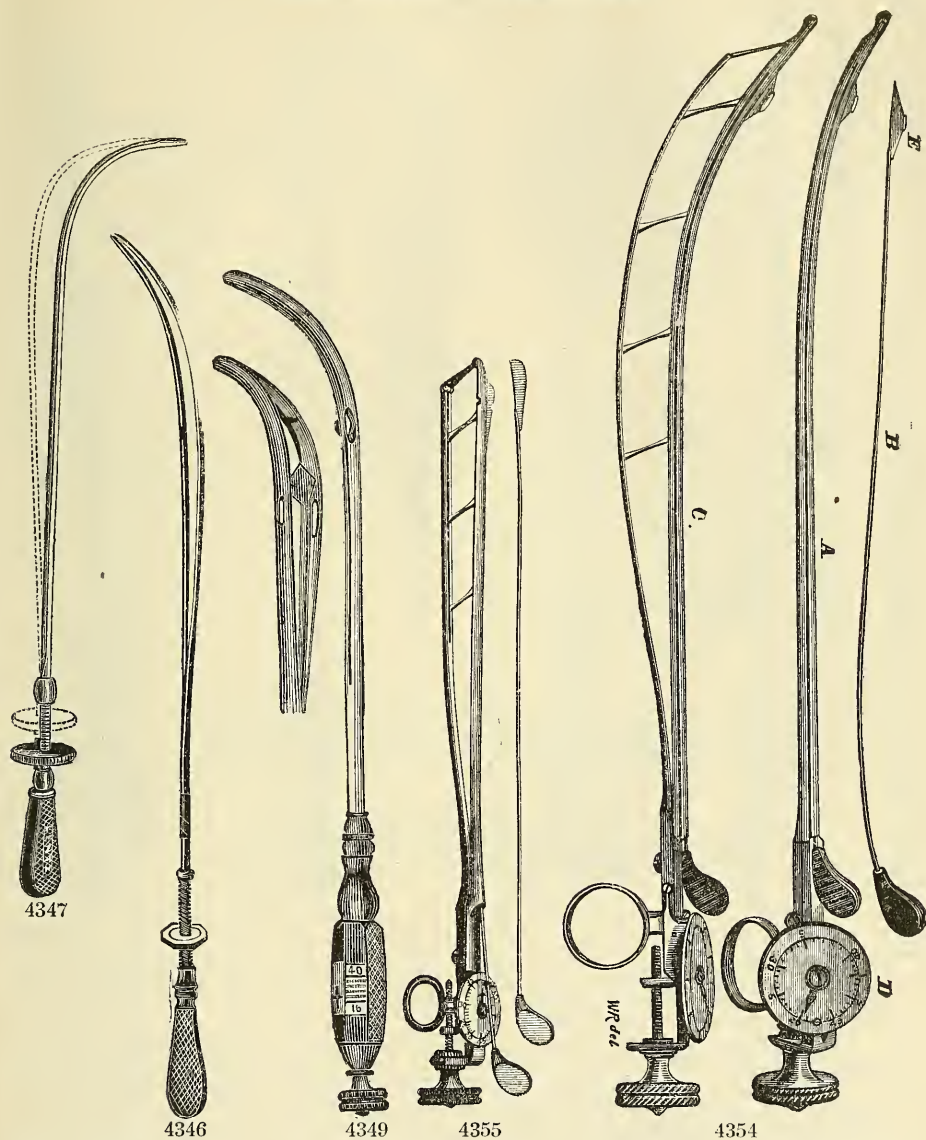


|        |                                                    |               |
|--------|----------------------------------------------------|---------------|
| 4325.* | Meatotome, Civiale's Bistoury Cache.....           | \$ 4 50       |
| 4326.  | " Gouley's.....                                    | 2 25          |
| 4327.  | " Otis', metal handle.....                         | 1 50          |
| 4329.  | Meatometer, Piffard's, graduated.....              | 85            |
| 4330.* | Meatus, sound " conical.....                       | 75            |
| 4332.* | Urethrotome, S. D. Gross', straight or curved..... | each 4 00     |
| 4333.* | " S. W. Gross', straight.....                      | 4 50          |
| 4334.  | " Gouley's, Tunnelled original.....                | 3 75          |
| 4335.  | " " improved.....                                  | 9 00          |
| 4336.* | " Maisonneuve's, in case.....                      | 10 50         |
| 4338.* | " White's,.....                                    | 6 00          |
| 4340.* | External Urethrotomy Staff, Symes'.....            | 1 50          |
| 4342.* | Urethrometer, Otis', hinged, latest pattern.....   | 15 00         |
| 4343.  | Rubber Caps for Otis' Urethrometer.....            | per doz. 1 50 |

*All Instruments Illustrated are designated by a \*.*

# Male Urethral Instruments.

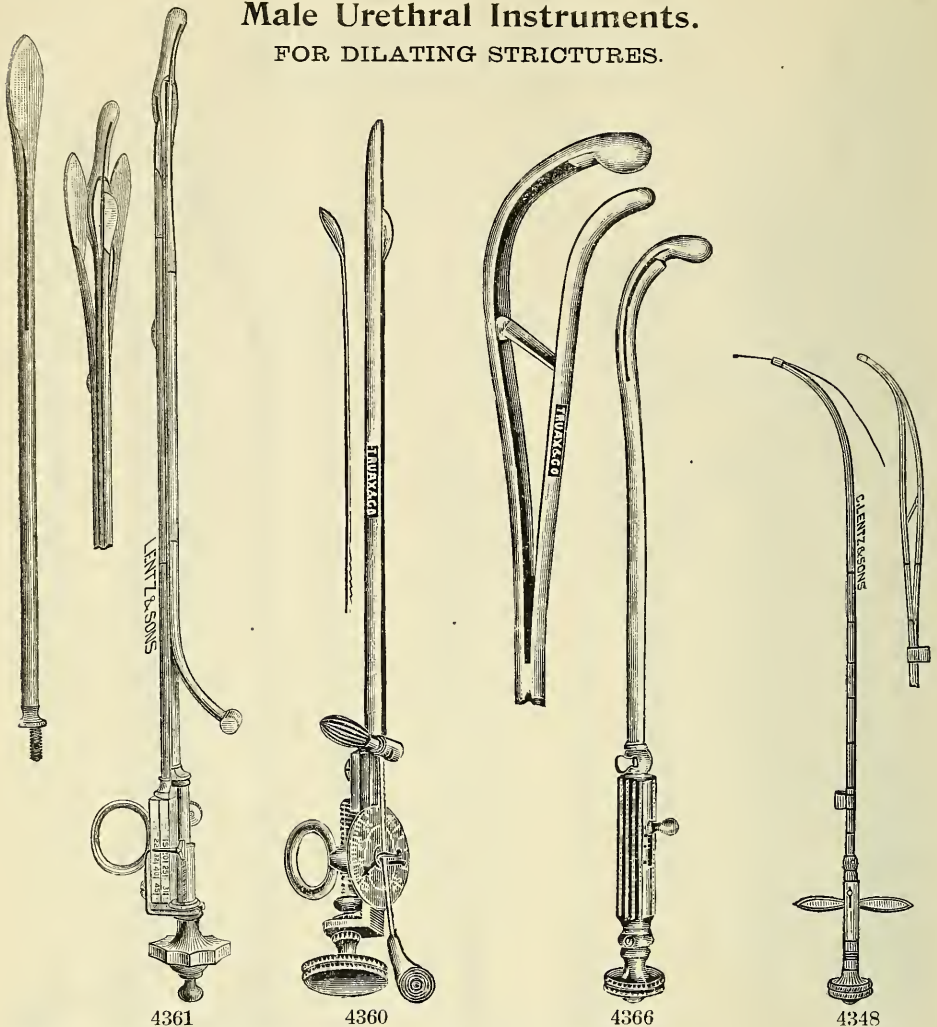
FOR DILATING STRICTURES.



|        |                                                          |         |
|--------|----------------------------------------------------------|---------|
| 4346.* | Dilator, Stearn's.....                                   | \$ 3 75 |
| 4347.* | " Lentz's, modification of Stearn's.....                 | 5 00    |
| 4348.* | " Gouley's (see page 220).....                           | 7 50    |
| 4349.* | " Gross'.....                                            | 10 00   |
| 4350.  | " Schweig's.....                                         | 7 50    |
| 4351.  | " Holt's, per set in case.....                           | 13 50   |
| 4354.* | Dilating Urethrotome, Otis', curved, latest pattern..... | 20 00   |
| 4355.* | " " " straight, ".....                                   | 20 00   |
| 4356.  | " " " Hunter's.....                                      | 26 00   |
| 4358.  | " " " Stearn's.....                                      | 9 00    |

All Instruments Illustrated are designated by a \*.

## Male Urethral Instruments. FOR DILATING STRICTURES.



|        |                                                                   |         |
|--------|-------------------------------------------------------------------|---------|
| 4360.* | Dilating Urethrotome, Wyeth's modification of Otis', in case..... | \$22 00 |
| 4361.* | Gerster's, in case.....                                           | 20 00   |

Gerster's Self-Registering Aseptic Dilating Urethrotome, a modification of Otis'. It can easily be taken apart for cleaning, and it combines the virtues of Otis' Urethrometer and his Urethrotome.

The Urethrotome is composed of five easily detachable parts; three steel rods and two screws. One of the rods is provided with a laterally grooved bulb of small size acting as a wedge, which by the aid of a stout thumb-screw, serves to spring apart a pair of congruent steel blades. The amount of separation of these steel blades (somewhat resembling a pair of old fashioned draper's shears), reduced to millimeters, corresponding to the urethral calibre, is indicated by a dial placed above the ring that serves for the fixation of the instrument. The correct adjustment of the thumb-screw is secured by a small check-screw which represents the proximal end of the urethrotome. The third rod, a small knife, hidden in the slightly curved beak of the instrument, can be withdrawn so as to correspond to the place of widest separation of the shear-blades. The calibre of the closed instrument is exactly 15 millimeters. It permits of a distension to 45 millimeters, and in these particulars coincides with the minimal and maximal dimensions of Otis' urethrotome. It can be taken apart in fifteen seconds, and can be put together in double that time.

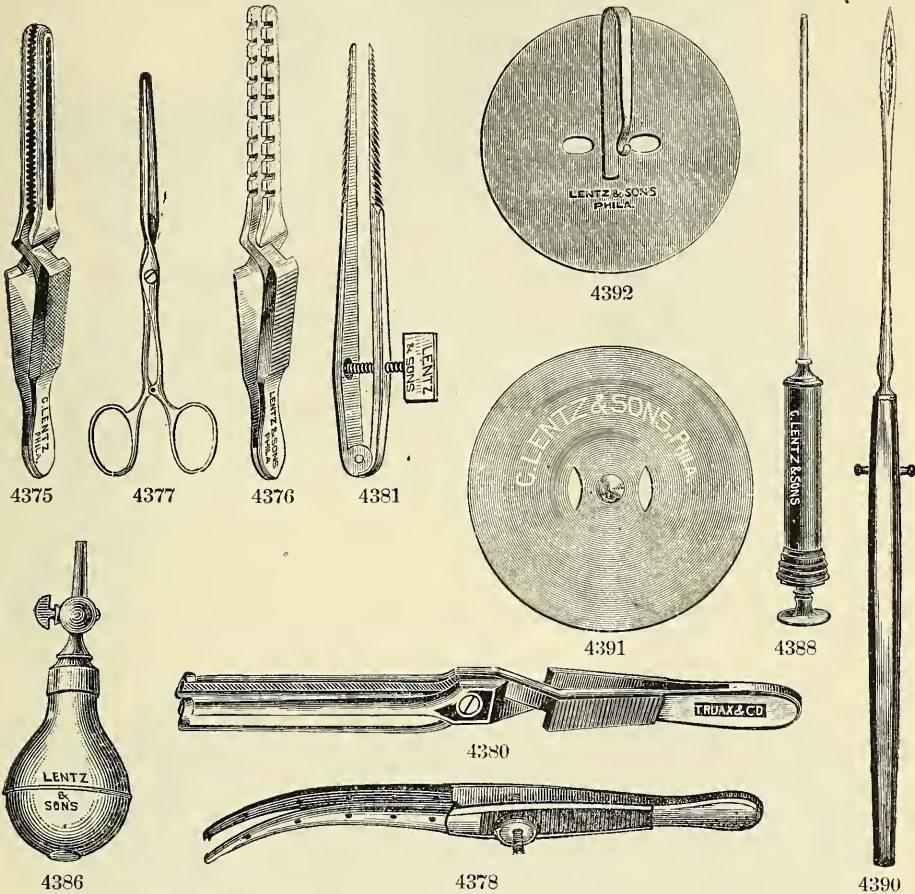
|        |                                        |       |
|--------|----------------------------------------|-------|
| 4366.* | Prostatic Gland Dilator, Gouley's..... | 12 00 |
| 4368.  | " " " Mercier's.....                   | 7 50  |
| 4370.  | " " " Harrison's, gum elastic.....     | 1 25  |

*All Instruments Illustrated are designated by a \*.*



## Male Urethral Instruments.

FOR PHIMOSIS VARICOCELE AND HYDROCELE.

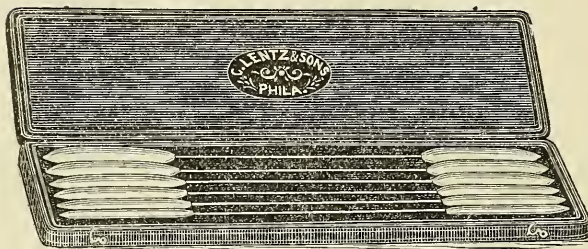


|        |                                                                                                                                  |        |
|--------|----------------------------------------------------------------------------------------------------------------------------------|--------|
| 4375.* | Phimosis Forceps, Skillern's.....                                                                                                | \$2 00 |
| 4376.* | “ “ Tortat's.....                                                                                                                | 2 00   |
| 4377.* | “ “ Ricord's.....                                                                                                                | 2 25   |
| 4378.* | “ “ Fisher's.....                                                                                                                | 2 25   |
| 4379.* | “ “ Roger's.....                                                                                                                 | 2 25   |
| 4380.* | “ “ Brigg's.....                                                                                                                 | 3 75   |
| 4381.* | “ “ Levis', for rupturing the prepuceal membrane.....                                                                            | 2 00   |
| 4382.* | “ “ Girdner's, for rupturing the prepuceal membrane.....                                                                         | 2 00   |
| 4383.* | “ “ Hutchinson's, for rupturing the prepuceal membrane.....                                                                      | 1 75   |
| 4386.* | Van Buren's Rubber Bag Syringe, with stop-cock, for Hydrocele.....                                                               | 1 75   |
| 4388.* | Levis' Hard Rubber Syringe, $\frac{1}{2}$ oz., with long silver tube to introduce through<br>Canula for Injecting Hydrocele..... | 1 00   |
| 4390.* | Hydrocele Trocars, (see Trocars, page 61).....                                                                                   |        |
| 4391.* | Varicocele Needle, Keye's.....                                                                                                   | 1 00   |
| 4392.* | “ Button, Pancoast's, metal.....                                                                                                 | 25     |
| 4392.* | “ “ Miller's, metal, with tension spring.....                                                                                    | 65     |

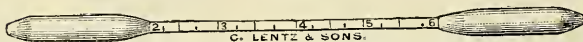
*All Instruments Illustrated are designated by a \*.*

## Urethral Instruments.

### 4416.\* Weiss' Pocket Set of Sounds.



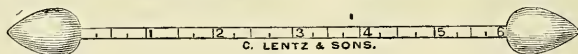
4416



This set of Pocket Sounds, devised by Dr. F. S. Weiss, of the University Medical College of New York, comprises twelve sizes, from No. 9 to No. 20, American Gauge. They are well adapted to all purposes for which Sounds are used in the straight portion of the urethra, and as almost nine-tenths of the treatment requiring the use of Sounds is confined to this portion of the urethra, they will nearly fulfill all the requirements.

Price, in neat morocco case, velvet lined or polished wood case.....\$6 00

### 4417.\* Weiss' Pocket Set of Exploring Bougies.



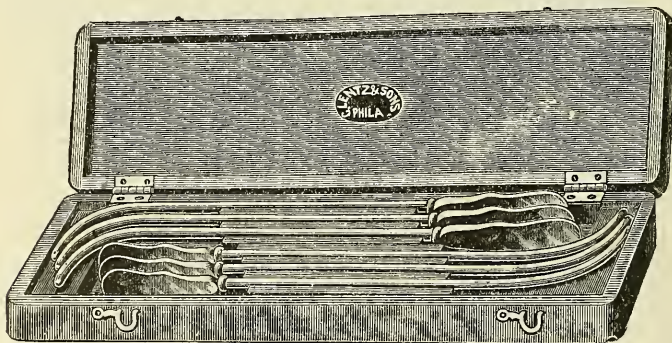
4417

This case of Bulbous Bougies for locating strictures of the male urethra, is designed as a companion set to the Sounds; it comprises twelve sizes, from No. 9 to No. 20, American Gauge. The stems are graduated in  $\frac{1}{4}$  inches on both sides, as shown in the illustrations, as an accurate and simple means of measuring the depth of the stricture.

Price, in neat morocco case, velvet lined or polished wood case.....\$6 00

4418. The two sets combined in one case.....12 00

### Set of Conical Pointed Steel Sounds.



4419

4419.\* Six Sounds, in mahogany case, velvet or leather lined.....\$6 00

4420. Twelve Sounds, in mahogany case, velvet or leather lined, with tray, and space in bottom for Flexible Bougies, Catheters, etc., case with lock and key.....12 00

Any sizes desired put in above cases up to No. 33, F. G. Larger sizes at 25c. each additional.

### J. Wm. White's Stricture Set.

4421. Seven Steel Sounds, conical; 5 Fine French Gum Elastic Exploring Bulbous Bougies; 1 dozen Whalebone Filiform Bougies; 2 Gouley's Tunnelled Catheters; 2 Metal Catheters, plated; 1 Metal Prostatic Catheter, plated; 2 Jacque's Soft Rubber Catheters; 3 Olive Pointed Gum Elastic Catheters; 1 Mercier's Gum Elastic Prostatic Catheter.

In mahogany case, velvet or leather lined, with extra space for Elastic Bougies and Catheters.....\$21 00

4422. The same, with Gross' Urethrotome and Gouley's Stricture Dilator in addition... 33 50

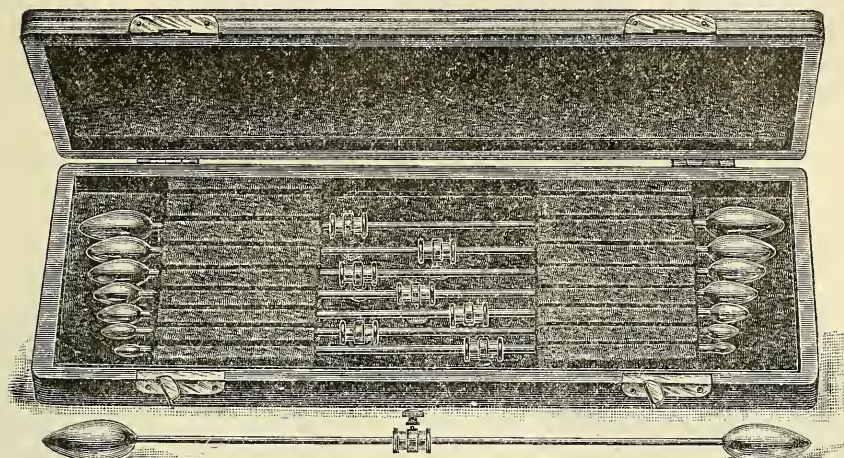
Stricture and Lithotomy Sets put up to Order.

*All Instruments Illustrated are designated by a \*.*



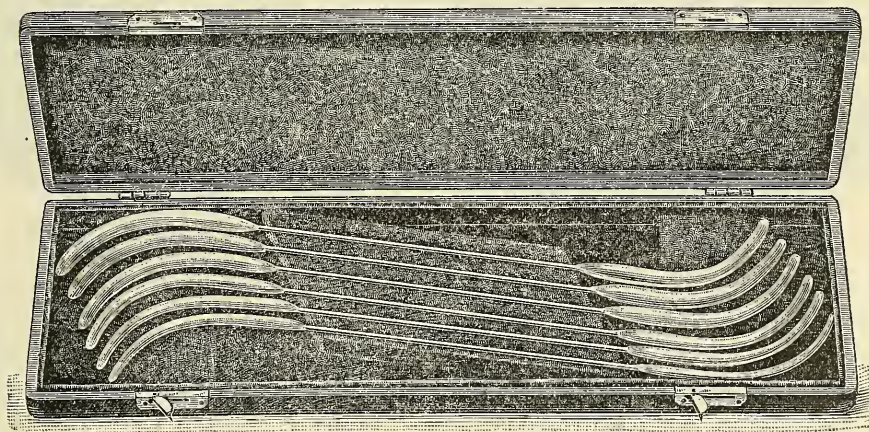
## Urethral Instruments.

### SOUNDS AND EXPLORERS.



4423.

- 4423.\* Fowler's Modification of Otis Exploring Bougies, set of 16 bulbs, numbered according to the French scale, giving every even number from 10 to 40, in morocco case, velvet lined or polished wood case.....\$ 5 50

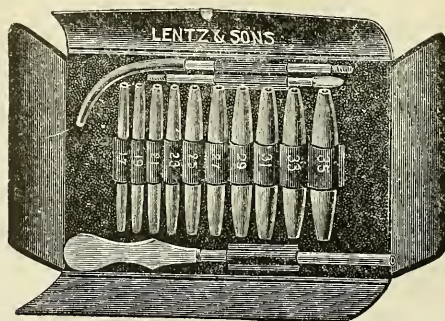


4424

- 4424.\* Fowler's Set of Sounds, twelve sizes, from 9 to 20, American scale, in morocco case, velvet lined or polished wood case.....\$ 5 50



## Urethral Instruments.

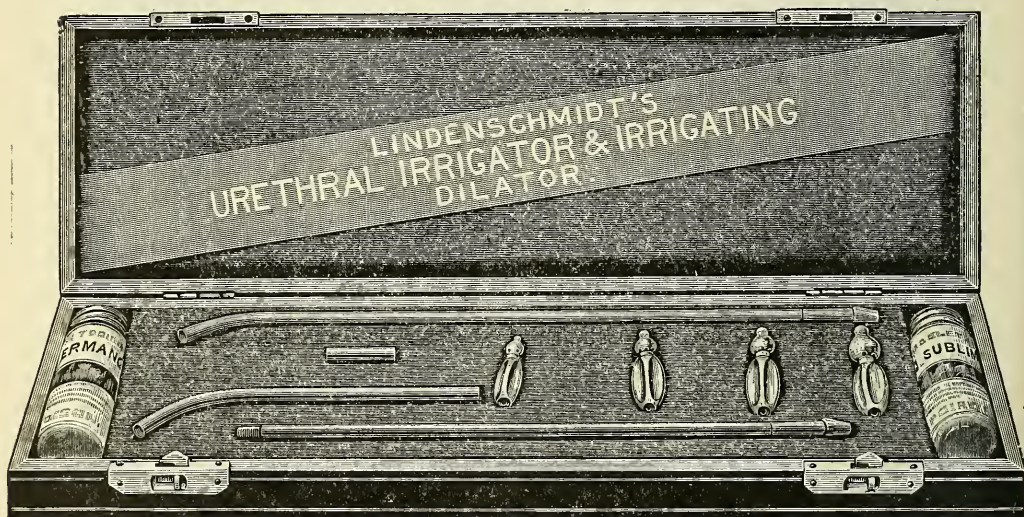


4425

4425.\* Rhoads' Improved Set of Interchangeable Bougies

(Including 10 curved and 10 meatus).

In neat morocco leather case.....\$7 50



## 4426.\* Lindenschmidt's Urethral Irrigator and Irrigating Dilator.

In acute gonorrhœa or chronic prostatitis, where it is desired to use the irrigator only, the dilator can readily be removed from the instrument.

In chronic gonorrhœa and gleet, the most gratifying results are obtained by using the dilator in conjunction with the irrigator.

To irrigate successfully is of great importance, and as this cannot be accomplished, unless the mucous membrane can be dilated at the same time, in order to separate and distend the large number of crypts and follicles connected with the urethra, every physician will understand how indispensable this instrument is in the treatment of these obstinate cases.

All sections of the instrument are arranged in such a manner, that they can easily be separated and used independent of the rest.

Each canula has a funnel end to permit the introduction of a nozzle from either a fountain or a bulb syringe.

If it is impossible to locate the disease to any certain portion of the urethra, the instrument can be moved backward and forward through the entire length of the canal in order to irrigate every part of it thoroughly.

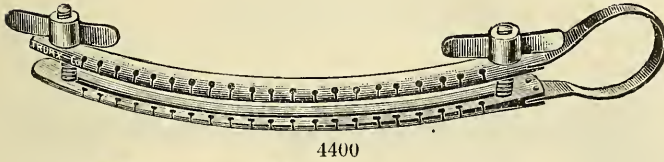
## Complete Set of Instruments, \$5.00.

We will also furnish with the above, a two quart fountain syringe, with special tip, at an additional cost of \$1 50, if specified in your order.

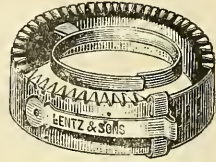
*All Instruments Illustrated are designated by a \*.*

## Male Urethral Instruments.

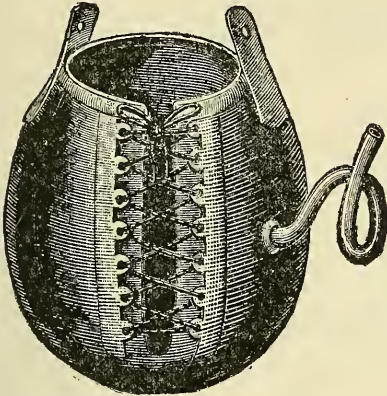
## SCROTAL CLAMPS AND COMPRESSORS.



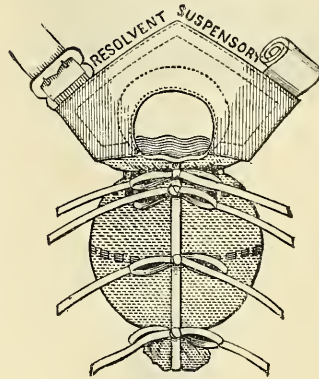
4400



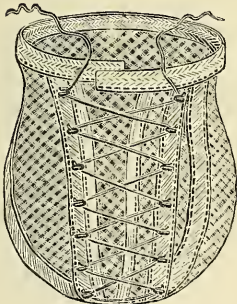
4409



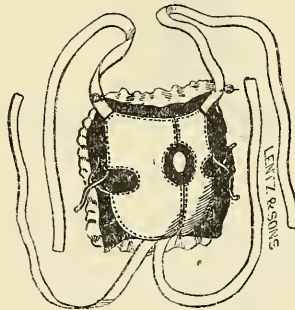
4405



4403



4404



4407

|        |                                                               |           |
|--------|---------------------------------------------------------------|-----------|
| 4400.* | Varicocele Clamp, King's.....                                 | \$4 50    |
| 4401.  | “ “ Lewis'.....                                               | 3 00      |
| 4402.  | Scrotal “ Henry's.....                                        | 6 00      |
| 4403.* | Compressor, Miliano's, three sizes.....                       | each 1 25 |
| 4404.* | “ “ Carroll's Silk Elastic, for Orchitis, three sizes.....    | each 1 50 |
| 4405.* | “ “ Hawes' Rubber, for Orchitis.....                          | 2 50      |
| 4407.* | “ “ Martin's, for Epididymitis, three sizes.....              | each 1 25 |
| 4409.* | Spermatorrhœa Ring.....                                       | 60        |
| 4410.  | Collins' Anti-Onanism Apparatus, silver, from \$40.00 to..... | 75 00     |
|        | Suspensories, (see Trusses and Supporters).                   |           |
|        | Urinals, (see Rubber Goods).                                  |           |

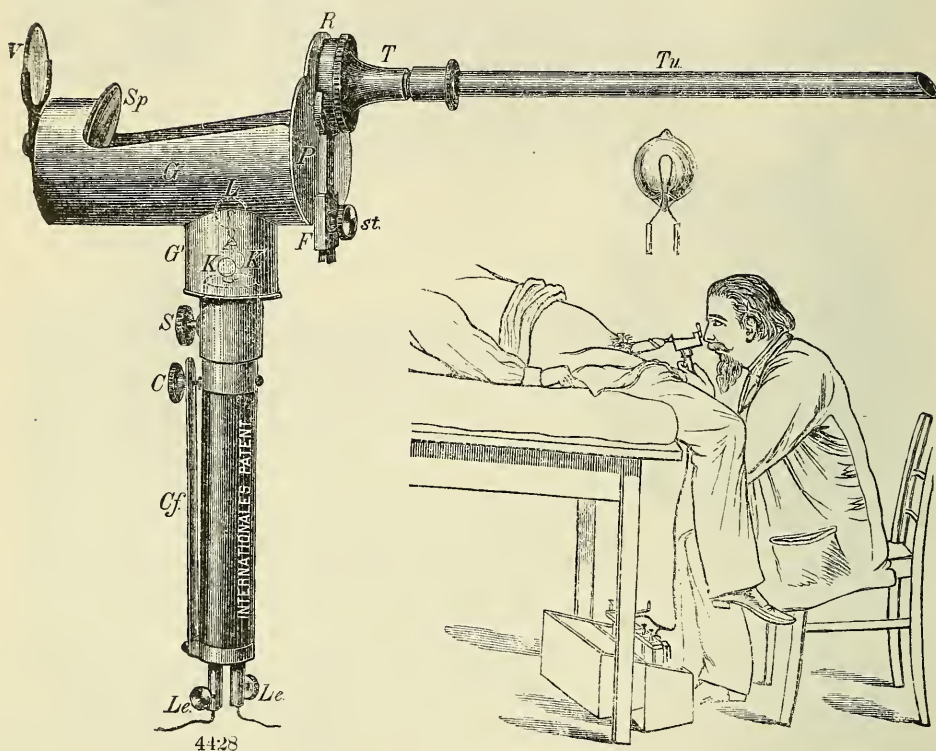
*All Instruments Illustrated are designated by a \*.*



## Male Urethral Instruments.

## 4428.\* LEITER'S PANELECTROSCOPE.

(Incandescent Lamp Urethroscope.)



In the mode of reflection, this instrument is a distinct innovation. In other endoscopic instruments the lamp was usually placed in front of a perforated mirror, and the operator looked at the object through the perforation; but in Leiter's Panelectroscope the mirror *Sp.* is placed behind the lamp *L.* and its concavity permits of the concentration of the rays of the light coming from the lamp upon the object, the operator looking over the upper edge of the mirror into the tube *Tu.*, fixed to the instrument. In this way he is enabled, even in the case of such narrow and long canals as the male urethra, to observe and to use the operating instruments, knife or platinum burner at the same time. This arrangement also makes it possible with the aid of a cotton holder to apply acids, caustic, etc., exactly on the spot where their effect is most wanted, or with a pair of forceps to seize foreign bodies in the œsophagus, urethra, etc., and to extract or destroy them. To observe and operate at the same time has never been accomplished before by any of the numerous apparatus designed for these purposes, and in this respect, as well as on account of its higher illuminating power and lighter weight, this apparatus by far supercedes other endoscopes. A further advantage is that the lamps can burn for hours without perceptibly heating the apparatus.

It is chiefly employed for lighting up the male and female urinary organs, the ear, nose, œsophagus, rectum and vagina. In removing the metal plate *R P* and screwing on a mirror in its place, the same apparatus may be conveniently used for lighting up the nasal cavity.

The circuit is closed either by pressing down spring *Cf*, in which case it remains closed as long as the pressure lasts, or by screwing down screw *C*.

To generate the light, a battery of  $4\frac{1}{2}$  to 6 volts is required (Edison-Lalande, Types F. L. or M. or a three cell storage battery). See Electrical Apparatus for description of batteries.

\*The instrument is furnished, as shown in illustration, with one extra lamp, and an assortment of Tubes of any calibre desired, nicely fitted in velvet-lined case.

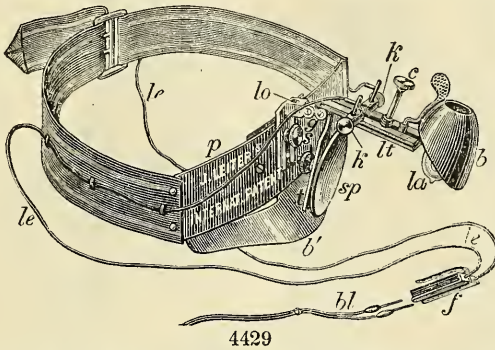
Write for price, stating number of Tubes desired.



## Male Urethral Instruments.

### 4429.\* LEITER'S INCANDESCENT LAMP HEAD-BAND.

For use in Laryngoscopy and all the purposes described under No. 4428.



This appliance has proven to be a most practical one in Laryngoscopy, it being not liable to become heated—an advantage of greatest importance over other Head-bands which are used in connection with either Argand burner or Student lamp.

In order to give the light the desired direction, the apparatus is moved upward or downward by means of the hinge *g*.

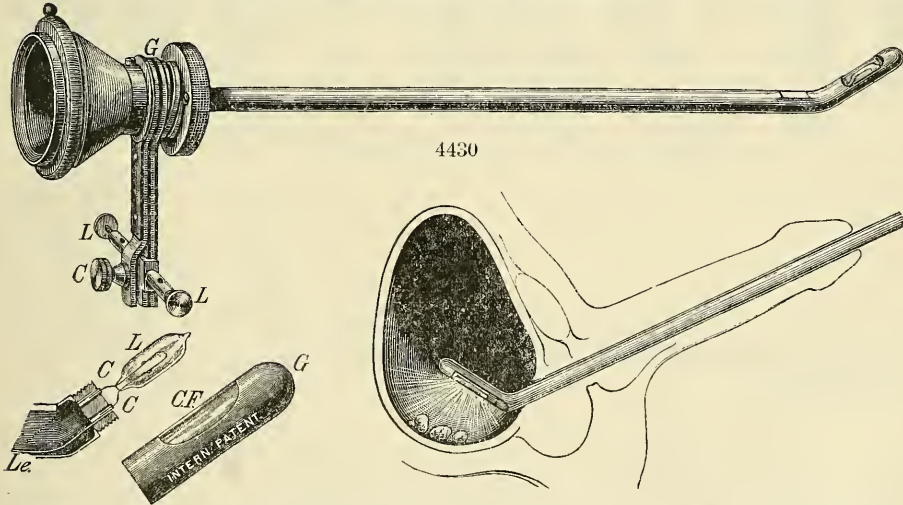
The Mirror can be placed in the middle of band for examinations of large cavities with both eyes, or it may be fastened over the right or left eye in order to examine with one eye any narrow cavities, such as the male urethra, etc.

With the instrument as described above we can also furnish a handle and magnifying lens, for use of the apparatus without the Head-band.

Prices on application.

### 4430.\* LEITER'S IMPROVED ELECTRO-CYSTOSCOPE.

For Examination of the Bladder.



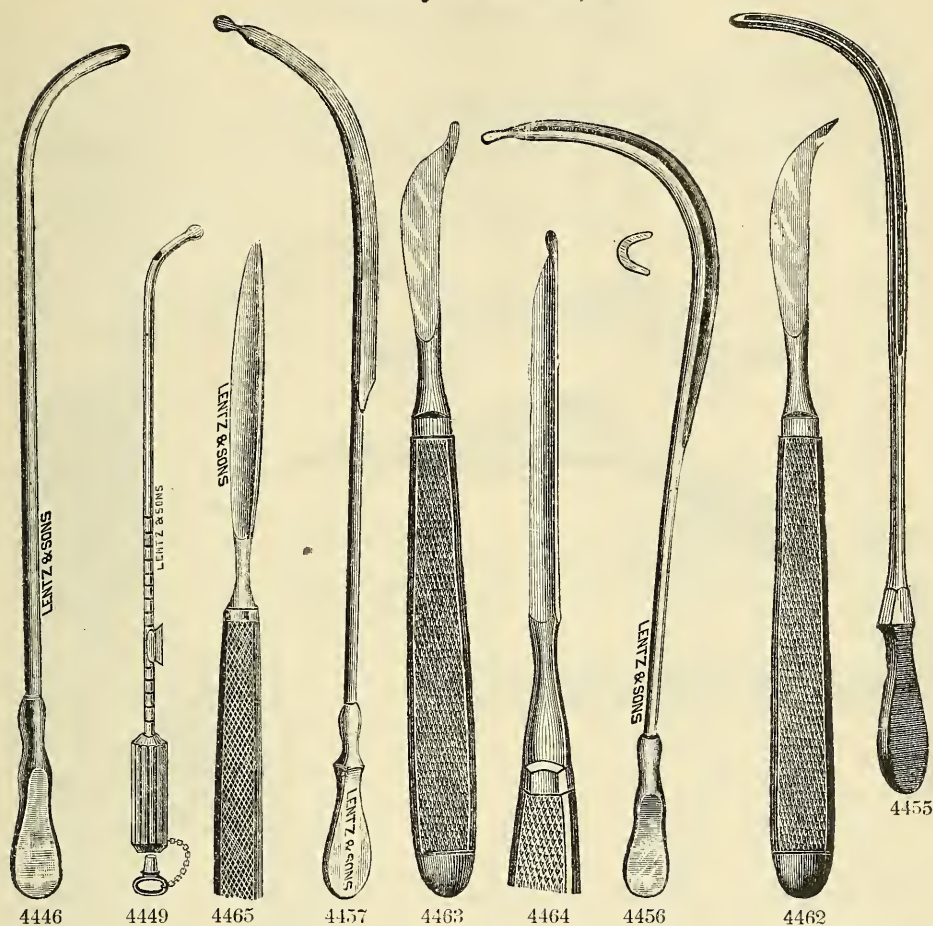
This instrument, which has been used for several years past with the greatest success, consists of a Catheter Tube, bent at the end at an angle of 145°, and a Telescope, which is inserted in the Catheter Tube. The lamp has its place in the elbow, which can be unscrewed to allow changing of lamp when necessary.

By aid of the Telescope a large surface of the interior of the bladder can be seen at once, and very distinctly. Same Battery required as for Panelectroscope.

Price and further description on application.



## Lithotomy Instruments.

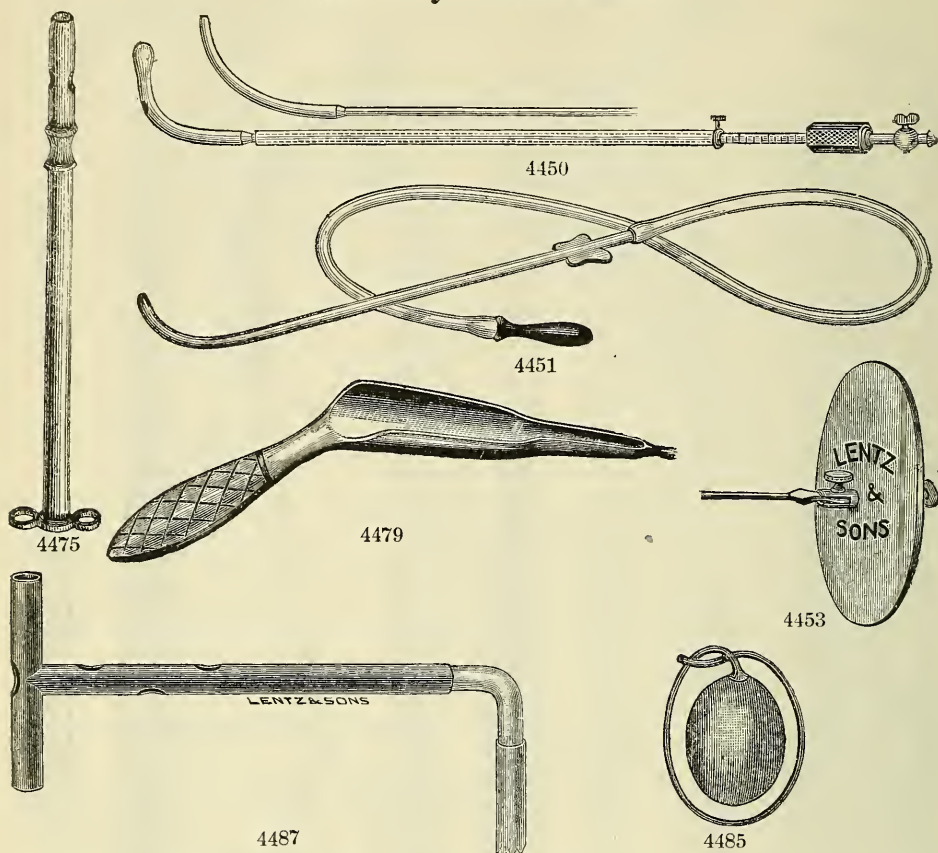


|        |                                                                    |        |
|--------|--------------------------------------------------------------------|--------|
| 4446.* | Stone Searcher, plain.....                                         | \$1 10 |
| 4447.  | " " Gouley's.....                                                  | 1 15   |
| 4448.  | " " Little's.....                                                  | 2 00   |
| 4449.* | " " Thompson's.....                                                | 2 65   |
| 4450.* | " " Otis' (see next page).....                                     | 4 00   |
| 4451.* | " " Andrews' (see next page).....                                  | 1 50   |
| 4453.* | Sounding Board, adapted to any Stone Searcher (see next page)..... | 1 75   |
| 4455.* | Lithotomy Staff.....                                               | 1 50   |
| 4456.* | " " Little's.....                                                  | 1 50   |
| 4457.* | " " Markoe's.....                                                  | 1 50   |
| 4458.  | " " rectangular, Buchanan's.....                                   | 1 50   |
| 4459.  | " " straight, female.....                                          | 1 25   |
| 4460.  | " " Director, Little's, for median Lithotomy.....                  | 1 25   |
| 4461.  | " " Bisector, Wood's.....                                          | 3 50   |
| 4462.* | " " Scalpel, sharp point, Aseptic, metal handle.....               | 1 50   |
| 4463.* | " " probe " " " " " " " ".....                                     | 1 50   |
| 4464.* | " " Bistoury, Blizzard's, probe point, Aseptic, metal handle.....  | 1 50   |
| 4465.* | " " " " Little's, sharp " " " " " " " ".....                       | 1 35   |

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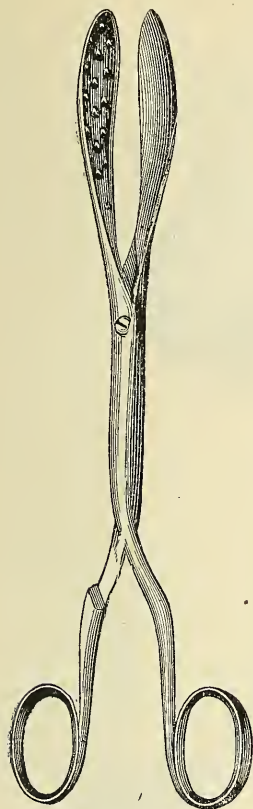
## Lithotomy Instruments.



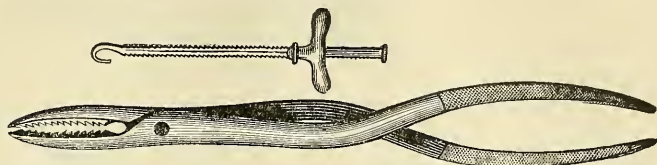
|        |                                                                                 |        |
|--------|---------------------------------------------------------------------------------|--------|
| 4470.* | Lithotomy Forceps, straight, short, \$2 00 ; long.....                          | \$2 25 |
| 4471.* | “ “ curved, “ 2 25 ; “ .....                                                    | 2 65   |
| 4472.* | “ “ “ with fenestra, short, \$2 25 ; long.....                                  | 2 65   |
| 4473.  | “ “ straight, “ “ female, short.....                                            | 2 00   |
| 4475.* | “ Canula, for plugging wound.....                                               | 1 00   |
| 4476.* | Lithoclast, Dolbeau's.....                                                      | 5 25   |
| 4477.  | “ Gouley's, double lever.....                                                   | 7 50   |
| 4478.  | “ Guide, Dolbeau's.....                                                         | 2 65   |
| 4479.* | Blunt Gorget.....                                                               | 1 85   |
| 4480.* | Lithotomy Scoop, Leur's, metal handle.....                                      | 2 00   |
| 4481.* | “ “ and Conductor.....                                                          | 1 75   |
| 4483.  | Hard Rubber Tube, for washing out debris, Van Buren's .....                     | 1 50   |
| 4484.  | Debris Tube and Obdurator, plated, \$1 00 ; silver.....                         | 1 85   |
| 4485.* | Rectal Colpenynter, Peterson's, pure gum, for use in Supra-Pubic Cystotomy..... | 1 25   |
| 4486.  | Supra-Pubic Drainage Tube, Keyes', soft rubber.....                             | 2 75   |
| 4487.* | “ “ “ “ Vischer's “ “ with glass connection.....                                | 1 00   |
| 4489.* | Taylor Apparatus for holding apart the lower extremities.....                   | 7 00   |

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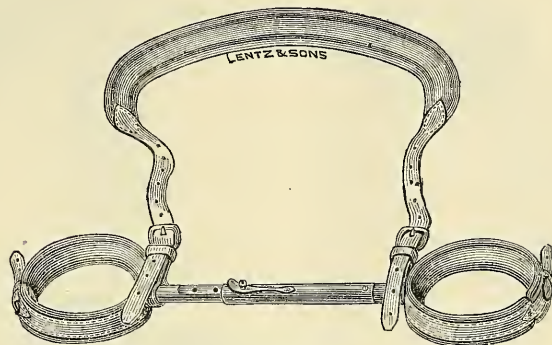
# Lithotomy Instruments.



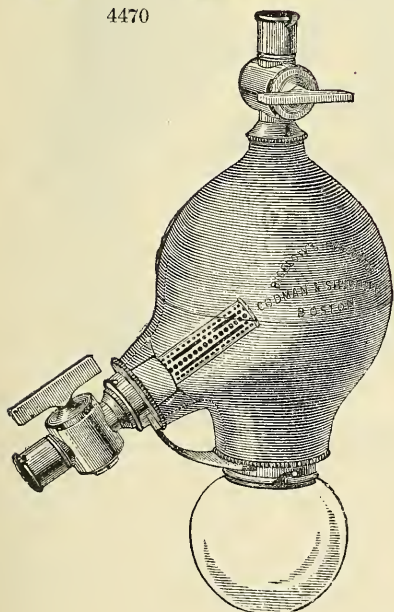
4470



4476



4489



4495



4471



4472

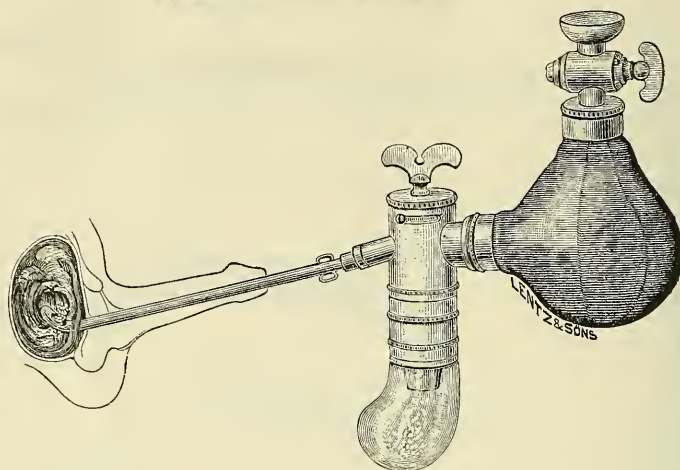


4481



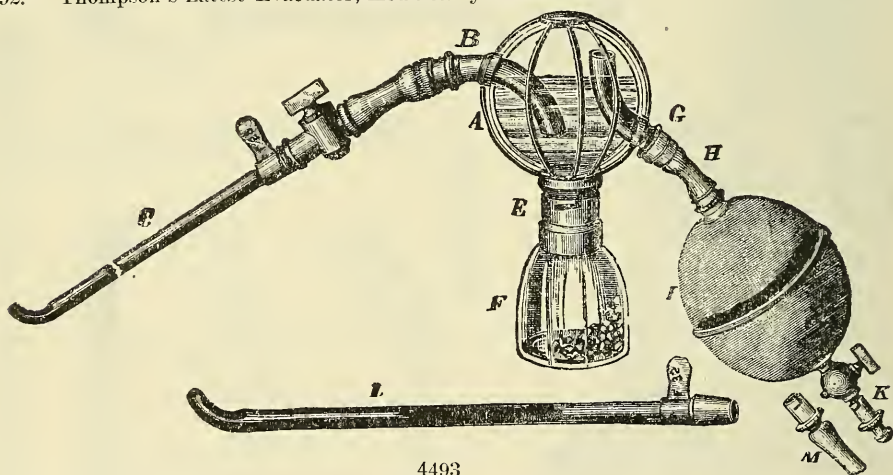
4480

# Lithotomy Instruments. EVACUATING APPARATUS.



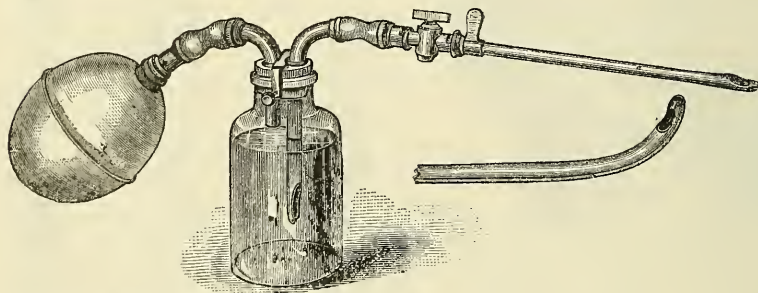
4492

4492.\* Thompson's Latest Evacuator, modified by Weiss.....\$22 50



4493

4493.\* Otis' Evacuator.....\$22 50



4494

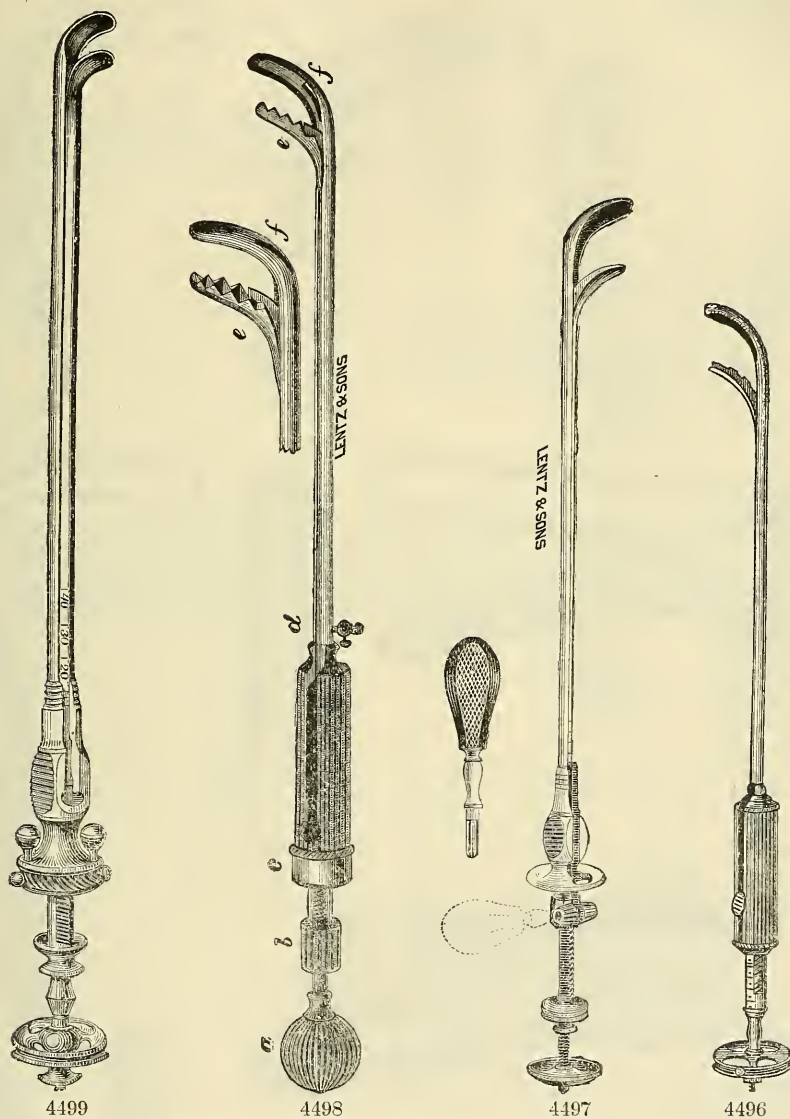
4494.\* Walker's Evacuator.....\$16 50  
4495.\* Bigelow's Latest Evacuator, (see page 231)..... 22 50

*All Instruments Illustrated are designated by a \**



## Lithotomy Instruments.

## LITHOTRITES.



4499

4498

4497

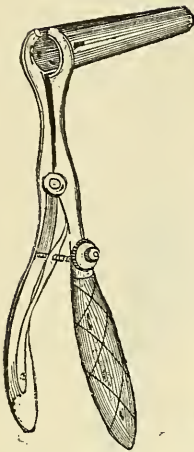
4496

|        |                                   |         |
|--------|-----------------------------------|---------|
| 4496.* | Lithotrite, Thompson's.....       | \$26 50 |
| 4497 * | " Ferguson's.....                 | 18 75   |
| 4498.* | " Bigelow's, latest improved..... | 40 00   |
| 4499.* | " Civiale's.....                  | 18 75   |
| 4500.  | " Keye's.....                     | 26 50   |
| 4501.  | " Jacobson's.....                 | 22 50   |

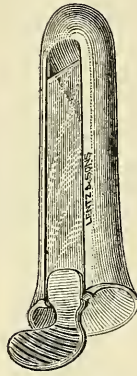
*All Instruments Illustrated are designated by a \*.*

## Anal and Rectal Instruments.

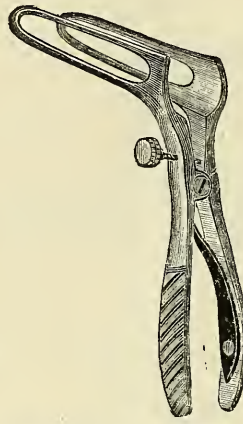
## SPECULUMS.



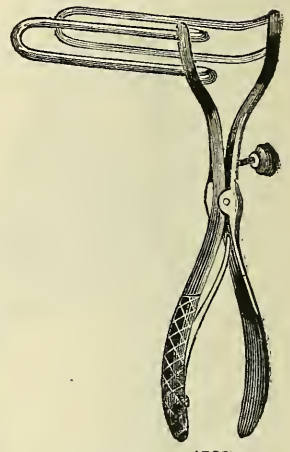
4528



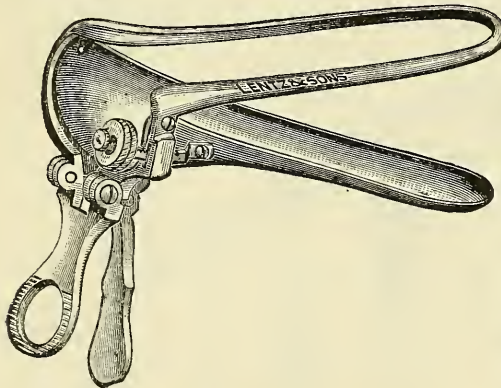
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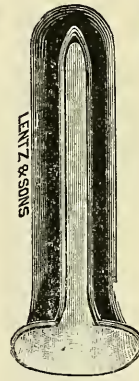
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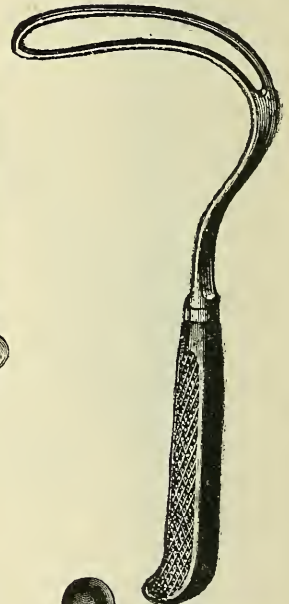
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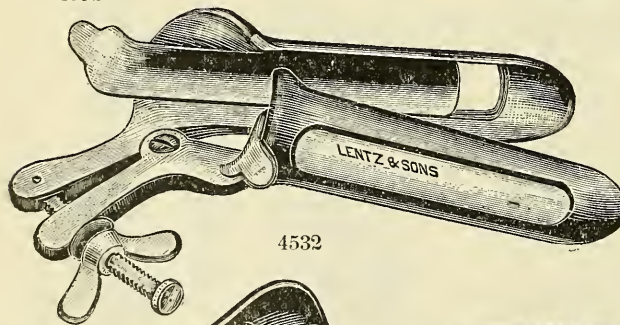
4531



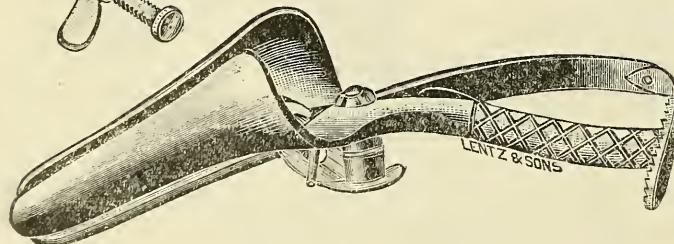
4520



4542



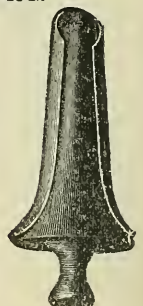
4532



4534



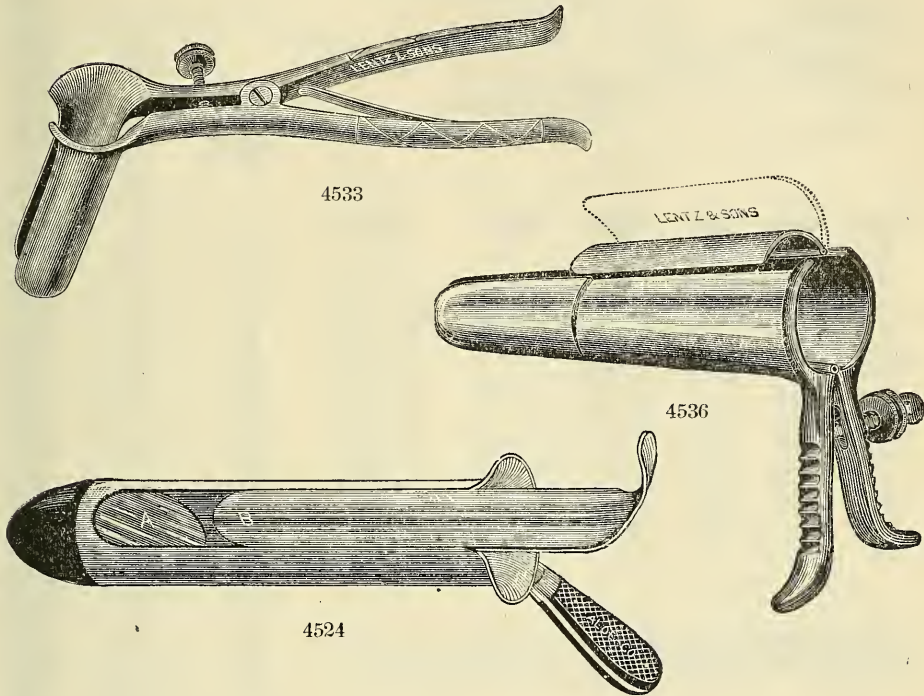
4521



4522

## Anal and Rectal Instruments.

### SPECULUMS.



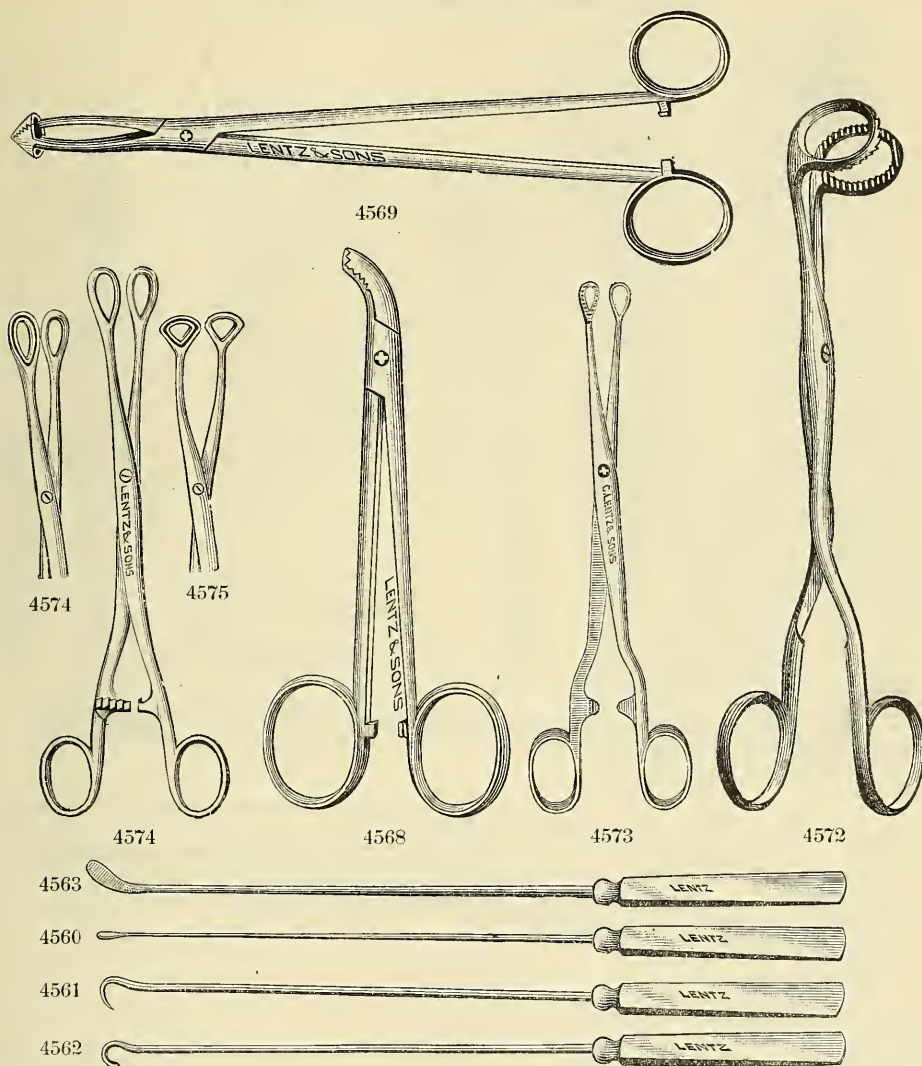
|        |                                                                 |           |
|--------|-----------------------------------------------------------------|-----------|
| 4520.* | Rectal Speculum, Ashton's, glass, reflecting.....               | \$ 70     |
| 4521.* | " " " hard rubber, each 75 cents; set of four.....              | 2 75      |
| 4522.* | " " Allingham's Conical, with plug.....                         | 2 25      |
| 4523.* | " " Reed's Improved, with glass slide.....                      | 3 00      |
| 4524.* | " " Aloe's, three sizes.....                                    | each 5 00 |
| 4525.  | " " Sim's, (see page 159), nickel-plated, \$1 50; aluminum..... | 2 50      |
| 4526.* | " " " Bivalve, fenestrated, " 2 25; " .....                     | 3 00      |
| 4527.* | " " " " steel wire, " 3 50 .....                                |           |
| 4528.* | " " Bodenhamer's, two sizes, " each, 2 00 .....                 |           |
| 4529.  | " " Sass' Bivalve, " 2 50 .....                                 |           |
| 4530.  | " " Cusco's " stiff handles, " 2 50; aluminum.....              | 3 50      |
| 4531.* | " " Kelsey's " folding " " 3 00 .....                           |           |
| 4532.* | " " O'Neil's " sliding sides, " 4 50; aluminum.....             | 5 50      |
| 4533.* | " " Pratt's " two sizes " each, 3 00; " .....                   | 3 50      |
| 4534.* | " " Ashton's Trivalve, " 5 00 .....                             |           |
| 4535.  | " " Nott's " steel, " 5 00 .....                                |           |
| 4536.* | " " Haslam's Hinged, " 4 00 .....                               |           |
| 4537.  | " " Ricord's Bivalve, " 3 00 .....                              |           |
| 4538.  | " " Van Buren's, " 2 25; aluminum.....                          | 2 75      |
| 4539.  | " " Keen's Bivalve, fenestrated, " 4 00 .....                   |           |
| 4542.* | " Retractor, Kelsey's, " 2 50 .....                             |           |

*All Instruments Illustrated are designated by a\*.*





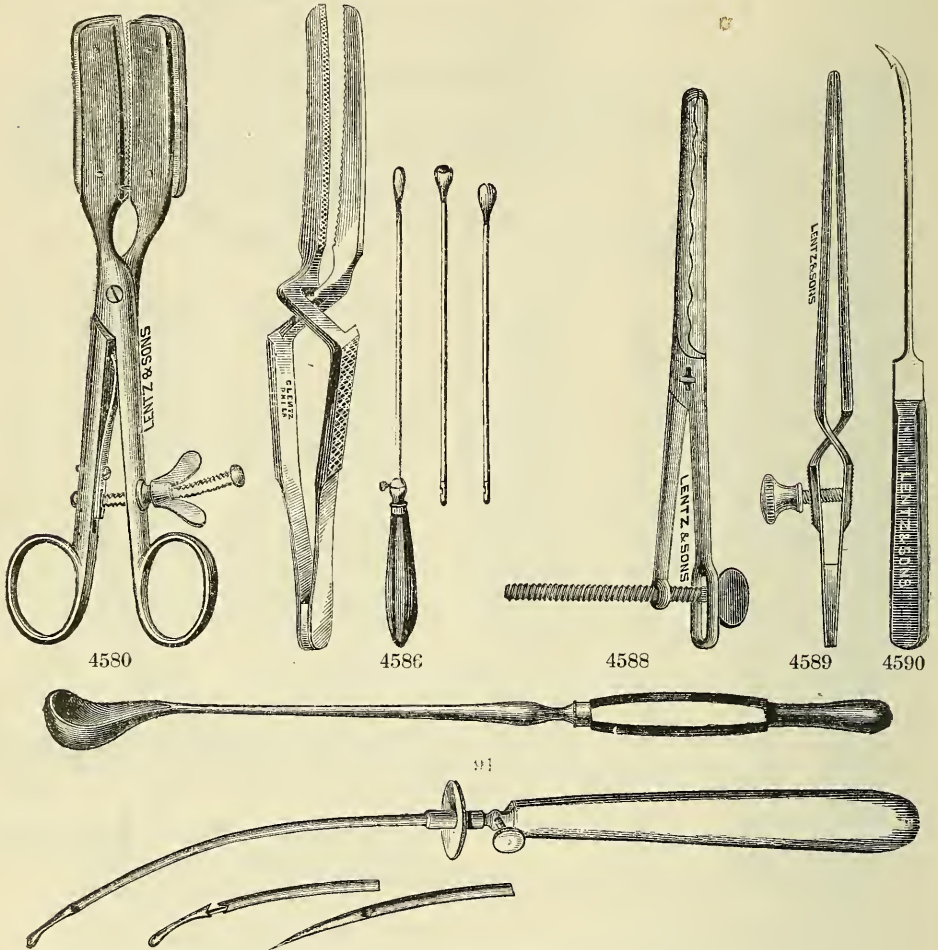
# Anal and Rectal Instruments.



|        |                                                                |       |
|--------|----------------------------------------------------------------|-------|
| 4560.* | Rectal Probe, silver.....                                      | \$ 85 |
| 4561.* | “ Tenaculum, Pratt’s.....                                      | 75    |
| 4562.* | “ Blunt Hook, “.....                                           | 75    |
| 4563.* | “ Scoop, small, for the removal of faeces.....                 | 1 00  |
| 4564.  | “ Scarifier, convex edge.....                                  | 1 15  |
| 4565.  | “ Ligator, wire, with handle.....                              | 75    |
| 4566.  | “ Scissors, Pratt’s, curved blades and bent handles, long..... | 2 25  |
| 4568.* | Artery Forceps, Pratt’s, short, \$1 75; long.....              | 2 25  |
| 4569.* | “ “ “ V shape.....                                             | 2 75  |
| 4570.  | “ “ “ T shape, short.....                                      | 2 25  |
| 4572.* | Hemorrhoidal Forceps, Ashton’s.....                            | 2 25  |
| 4573.* | “ “ “ with catches.....                                        | 2 50  |
| 4574.* | “ “ “ Luer’s “ “.....                                          | 3 00  |
| 4575.* | “ “ “ “ “ “.....                                               | 3 00  |
| 4576.  | “ Vulsellum Forceps, long, with catches.....                   | 2 75  |
| 4577.  | Double Tenaculum Forceps, for pulling down the rectum.....     | 4 50  |

*All Instruments Illustrated are designated by a \*.*

## Anal and Rectal Instruments.



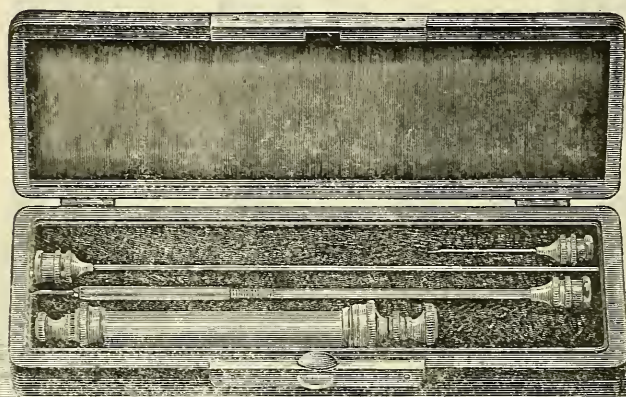
|        |                                                                                 |         |
|--------|---------------------------------------------------------------------------------|---------|
| 4580.* | Hemorrhoidal Clamp, Smith's, ivory faced.....                                   | \$ 4 50 |
| 4581.  | " " Kelsey's.....                                                               | 5 00    |
| 4582.* | " " Self-retaining.....                                                         | 3 50    |
| 4583.  | " " Pratt's, small.....                                                         | 2 75    |
| 4585.  | Cautery Irons, round, flat or acorn point, in fixed handle.....each             | 1 15    |
| 4586.* | " " set of three. with one handle.....                                          | 3 00    |
| 4587.  | " Instrument, Paquelin's Thermo-Cautery, (see page 199).....                    | 30 00   |
| 4588.* | Enterotome, Depuytren's.....                                                    | 3 75    |
| 4589.* | Clamp for Resection of Bowel.....                                               | 2 50    |
| 4590.* | Hook Needle, for drawing sutures through bowel.....                             | 1 00    |
| 4591.* | Scoop, Kelsey's, for removing impacted faeces.....                              | 2 00    |
| 4592.  | Bush's Needle Holder, with two needles.....                                     | 2 00    |
|        | Needles in handles, see Gynaecological Instruments, Perineal Needles, page 184. |         |
| 4593.* | Ligature Carrier, Allingham's.....                                              | 2 60    |
| 4595.  | Elastic Ligature, solid rubber cord, per yard.....                              | 20      |
| 4596.  | Knot Tier, Carroll's.....                                                       | 1 65    |

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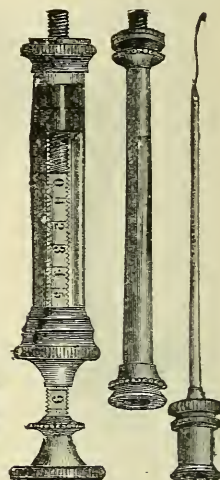




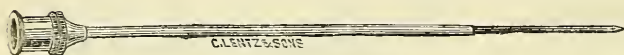
## Anal and Rectal Instruments.



4618



4617



4616

|        |                                                        |       |
|--------|--------------------------------------------------------|-------|
| 4616.* | Hemorrhoidal Needle. to fit on Hypodermic Syringe..... | \$ 75 |
| 4617.* | " Syringe. Adams', in case.....                        | 3 00  |
| 4618.* | " " complete, " .....                                  | 3 50  |

This Instrument consists of a solid silver barrel syringe with cap, holding 35 minims, one pure silver probe pointed canula for the exploration and injection of sinuses, fistula, etc., one ordinary hypodermic needle and one long point for the injection of hemorrhoids, the point being of platinum and having a set screw cover by means of which the distance the needle is inserted can be regulated.

### 4620. LENTZ'S RECTAL SET.

Contains one O'Neils Speculum; one Hemorrhoidal Syringe, with one long pure silver Canula and one long guarded Injecting Needle; one long pure Silver Probe, metal handle; one slender Silver Probe, with eye; one Sharp and one Blunt Hook, metal handle; one Curette, metal handle; one Ligature Carrier; one hard rubber Syringe, for lubricating; one hard rubber Suppository Syringe; one Martin's Irrigator, metal; four Screw Cap Ointment Pots, in a leather covered velvet lined case, 19 00

*All Instruments Illustrated are designated by a \*.*

## Post Mortem and Dissecting Instruments.



4640



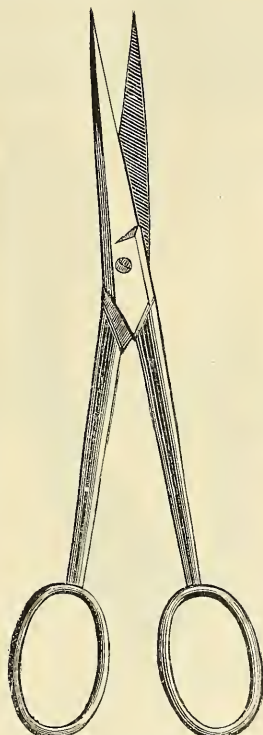
4636



4635



4645



4646



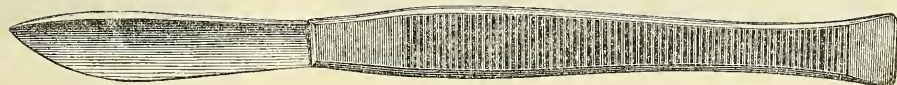
4642



4641



4643



4639

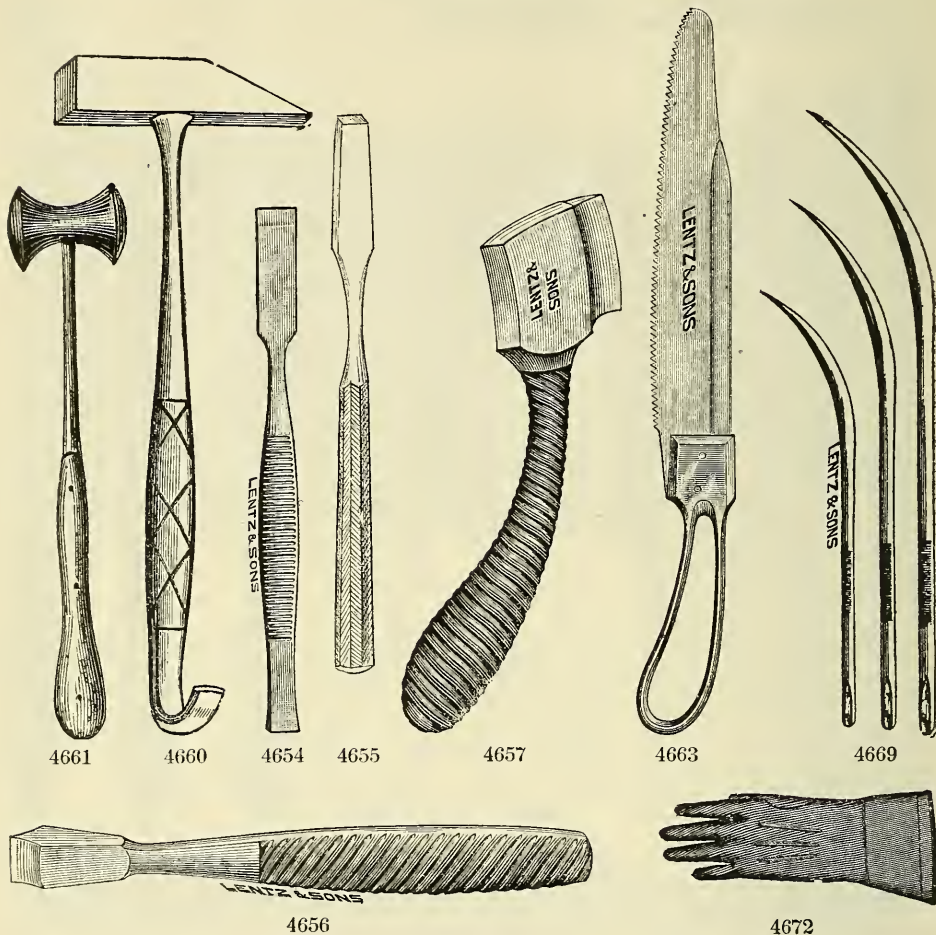
LENTZ & SONS  
4648

|        |                                                                      |       |
|--------|----------------------------------------------------------------------|-------|
| 4635.* | Scalpels, four sizes, ebony handles, each, 45c.; ivory handles ..... | \$ 65 |
| 4636.* | “ large and heavy, ebony handles, each, 65c.; ivory handles.....     | 1 00  |
| 4637.  | Tenaculum, ebony handle, each, 45c.; ivory handle.....               | 65    |
| 4638.  | Aneurism Needle, ebony handle, extra long.....                       | 1 25  |
| 4639.* | Cartilage Knife, all steel.....                                      | 50    |
| 4640.* | “ “ large, stout, with ebony handle.....                             | 1 10  |
| 4641.* | “ “ extra large, stout, with ebony handle.....                       | 1 50  |
| 4642.* | “ “ “ finger rest, ebony handle.....                                 | 1 85  |
| 4643.* | Brain “ ebony handle.....                                            | 1 50  |
| 4645.* | Dissecting Forceps, Coxeter's, 60c.; extra long and heavy.....       | 1 15  |
| 4646.* | “ Scissors, straight, 4½ inches, 50c.; 5½ inches.....                | 75    |
| 4647.  | “ “ curved, 4½ “ 90c.; 5½ “ .....                                    | 1 10  |
| 4648.* | Grooved Director, steel, 50c.; extra long.....                       | 65    |
| 4649.  | Blow Pipe .....                                                      | 15    |
| 4650.  | Hooks and Chain, 25c.; Darling's Hooks and Chain.....                | 60    |

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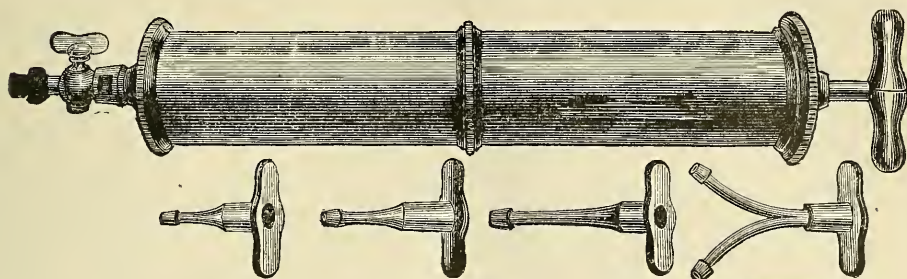
## Post Mortem and Dissecting Instruments.



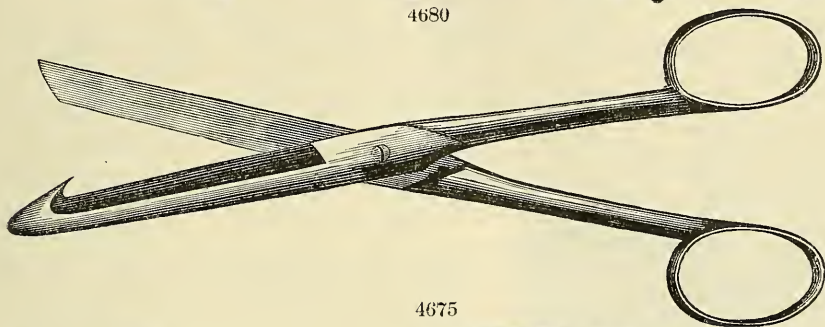
|        |                                                                      |        |
|--------|----------------------------------------------------------------------|--------|
| 4654.* | Chisel, plain, small, 40 cents; large.....                           | \$1 00 |
| 4655.* | “ octagon handle, small, 75 cents; large.....                        | 1 10   |
| 4656.* | Rachitome Chisel, for operating upon the spinal column.....          | 1 25   |
| 4657.* | “ “ straight or curved.....                                          | 1 50   |
| 4658.  | Costotome “ .....                                                    | 1 50   |
| 4660.* | Hammer, all steel, small, \$1 50; large.....                         | 1 75   |
| 4661.* | “ lead filled, non-rebounding.....                                   | 1 75   |
| 4662.  | Saw and Knife, Finnell's, fitting in one handle.....                 | 3 50   |
| 4663.* | “ with movable back and fixed metal handle.....                      | 2 75   |
| 4664.  | “ “ “ “ adjustable metal handle.....                                 | 3 00   |
| 4665.  | Double Rachitome Saw .....                                           | 11 25  |
| 4666.  | Calvarian Hook.....                                                  | 1 25   |
| 4668.  | Reamer, with ebony handle, 75 cents and.....                         | 1 25   |
| 4669.* | Needles, straight, half-curved or full curved, 3 to 5½ inch.....each | 15     |
| 4670.  | “ double curved, extra long and heavy..... “                         | 35     |
| 4672.* | Dissecting Gloves, pure gum, half long, per pair, \$2 25 and.....    | 2 50   |

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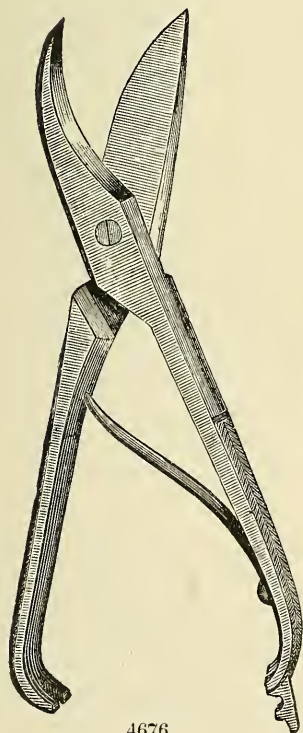
## Post Mortem and Dissecting Instruments.



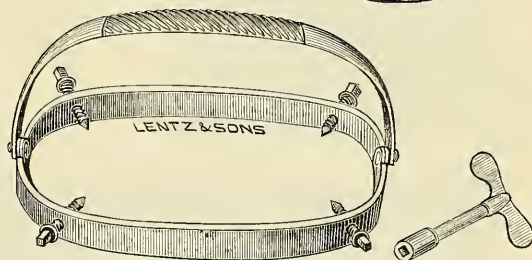
4680



4675



4676



4677

- 4675.\* Enterotome, or shears for intestines .....\$1 85  
 4676.\* Costotome, or rib shears..... 4 50  
 4677.\* Skull Clamp, for steadying the head while sawing 7 00  
 4678. Tripod Head-Rest, for steadying the head while  
       sawing..... 2 25  
 4679. Omega Embalming Syringe, continuous flow, with  
       full set of tubes, in case..... 3 00  
 4680.\* Anatomical Syringe, brass, 20 oz., with one dou-  
       ble injecting pipe, four single pipes, different  
       sizes, one stop-cock, and one wrench, to loosen  
       or tighten the latter, in neat wood case.....22 00

*All Instruments Illustrated are designated by a \*.*



## Post Mortem and Dissecting Instruments.

### 4685. Dissecting Case, No. 1.

Contains two Scalpels ; one Tenaculum ; one Cartilage Knife ; one Scissors ; one Dissecting Forceps ; one Blow-pipe ; one pair Chain Hooks. In mahogany case, with ebony handles.....\$ 2 65

### 4686. Dissecting Case, No. 2.

Contains three Scalpels ; one Tenaculum ; one Cartilage Knife ; one Scissors ; one Dissecting Forceps ; one Blow-pipe ; one pair Chain Hooks. In mahogany case, with ebony handles..... 3 00

### 4687. Dissecting Case, No. 3.

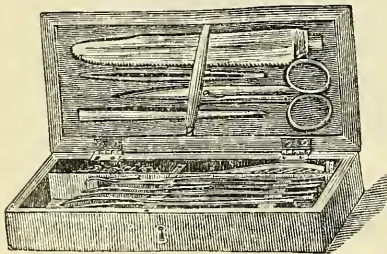
Contains four Scalpels ; one Tenaculum ; one Cartilage Knife ; one Scissors ; one Dissecting Forceps ; one pair Chain Hooks ; one Blow-pipe. In mahogany case with ebony handles..... 3 50  
In Mahogany Case, with Ivory Handles..... 4 50

### 4688. Post Mortem Case, No. 1.

Contains one Saw, movable back ; three Scalpels, assorted ; one Tenaculum ; one Cartilage Knife, heavy ; one pair Scissors ; one Dissecting Forceps ; one Director ; one Blow-pipe ; one pair Chain Hooks ; one Chisel ; one Mallet. In mahogany case..... 10 50

### 4689. Post Mortem Case, No. 2.

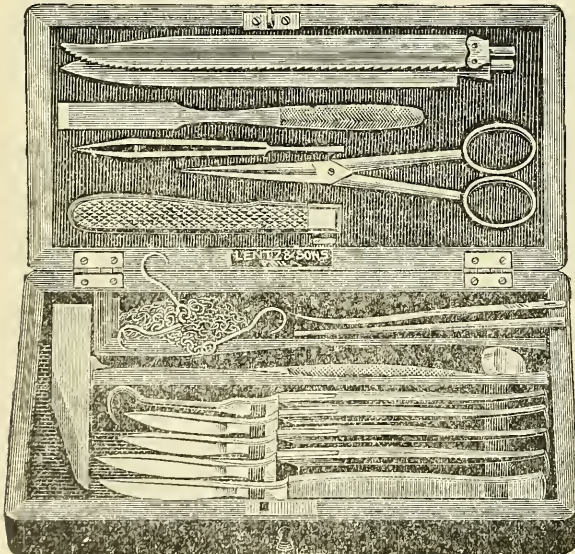
Contains one Saw, movable back ; four Scalpels, assorted ; one Tenaculum ; one Cartilage Knife ; one pair Scissors ; one pair Dissecting Forceps ; one Enterotome ; one Chisel ; one Mallet ; one Grooved Director ; one Blow-pipe ; one pair Chain Hooks ; two Large Needles. In mahogany case..... 15 00



4690.\*

### 4690.\* Post Mortem Case, No. 3. Finnell's.

Contains one Finnell's Saw and Knife ; three assorted Scalpels ; one Tenaculum ; one Plain Dissecting Forceps ; one Scissors ; one Chisel ; one Blow-pipe ; one set of Hooks and Chain ; Needles and Thread. In a mahogany case.....\$ 8 75



4691

### 4691.\* Post Mortem Case, No. 4.

Contains Finnell's Saw and Knife to fit one Handle ; three Scalpels ; one Steel Handle Cartilage Knife ; one pair Scissors ; one Dissecting Forceps ; one Tenaculum ; one Mallet ; one Chisel ; one Blow-pipe ; Chain and Hooks ; Needles and Thread. In mahogany case, velvet or leather lined .....\$12 00

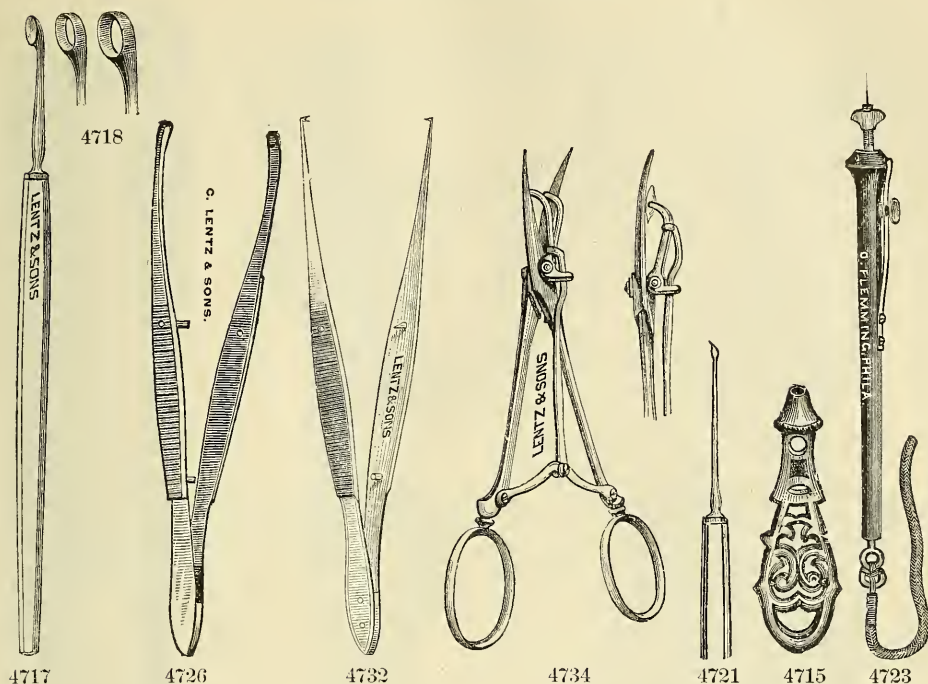
### 4692. Post Mortem Case, No 5. Formad's.

Contains three Scalpels, heavy, assorted size ; one Tenaculum, heavy ; two Cartilage Knives, heavy ; one Brain Knife ; two Dissecting Forceps, regular and long ; one Scissors ; one Enterotome ; one Grooved Director ; one set of Three-chain Hooks ; one Chisel ; one Rachitome Chisel, curved handle ; one Saw ; one Hammer ; one Costotome (Rib Shear) ; one Blow-pipe ; half dozen Needles assorted, and thread, in mahogany case, polished wood inside..... 30 00

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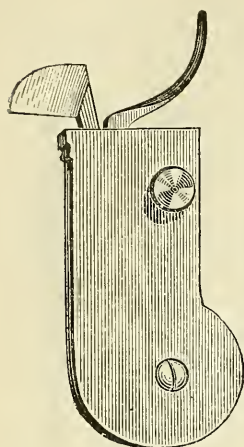
## Dermic Instruments.



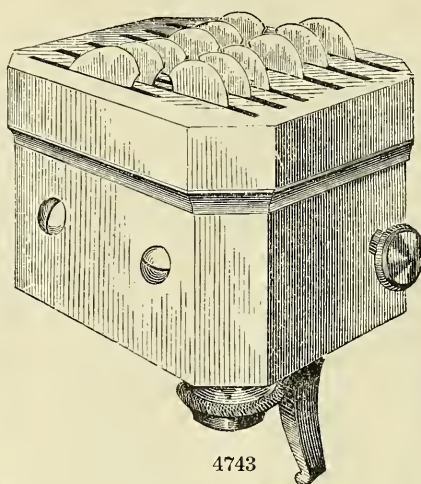
|        |                                                                                                     |             |
|--------|-----------------------------------------------------------------------------------------------------|-------------|
| 4715.* | Comedone Extractor, Piffard's.....                                                                  | \$ 50       |
| 4716.  | “ “ and Aene Lauce, Piffard's, in folding handles.....                                              | 2 00        |
| 4717.* | Sharp Curette, Fox's.....                                                                           | 1 65        |
| 4718.* | “ “ Piffard's, two sizes.....                                                                       | each 1 65   |
| 4719.  | Scarifying Spud “.....                                                                              | 1 00        |
| 4720.  | Naevus Needle.....                                                                                  | 60          |
| 4721 * | Milium “ Piffard's.....                                                                             | 1 00        |
| 4722.  | Set of Needles for the destruction of wine marks by Electrolysis, Fox's.....                        | 3 75        |
| 4723.* | Circuit Closing Needle Holder; and needles for the removal of superfluous hair by Electrolysis..... | 3 00        |
| 4724.  | Fox's Needle Holder, and needles for the removal of superfluous hair by Electrolysis.....           | 1 50        |
| 4725.  | Needles for same.....                                                                               | per doz. 50 |
| 4726.* | Depilating Forceps, plain.....                                                                      | 75          |
| 4728.  | “ “ Henry's.....                                                                                    | 1 85        |
| 4730.  | Epilating “ Piffard's.....                                                                          | 1 25        |
| 4731.  | Grappling “ “ with slide catch.....                                                                 | 2 25        |
| 4732.* | Fine Toothed “ used in skin grafting.....                                                           | 1 00        |
| 4733.  | “ Scissors, curved, “ “.....                                                                        | 1 25        |
| 4734.* | Skin Grafting Scissors, Smith's.....                                                                | 6 00        |
| 4735.  | Baunscheidt's Instruments for Counter Irritation, (see page 246, fig. 4755).....                    | 1 75        |

*All Instruments Illustrated are designated by a \*.*

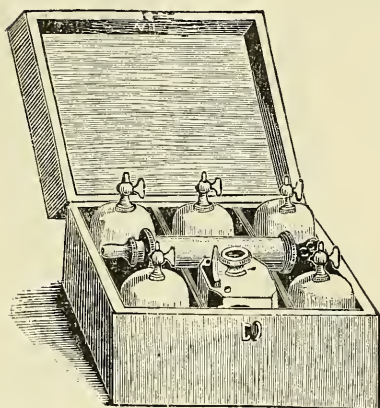
## Cupping Instruments.



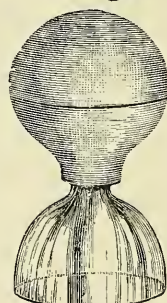
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4743



4754



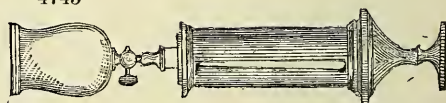
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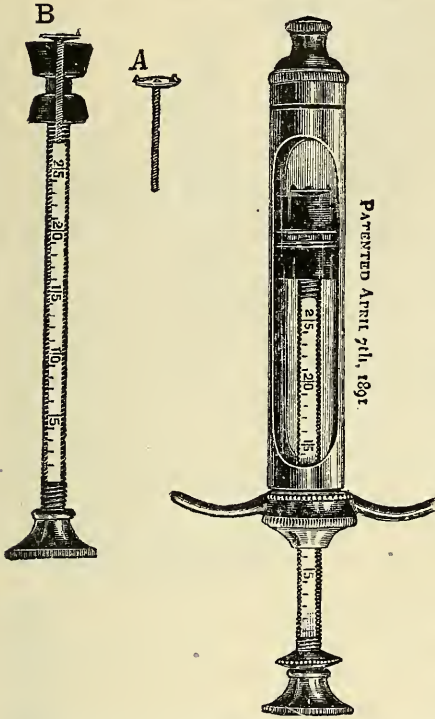
|        |                                                                                                                                            |               |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 4740.  | Spring Lancet, with lever, plain, \$1 00 ; nickel-plated.....                                                                              | \$1 25        |
| 4741.* | “ “ Button, nickel-plated.....                                                                                                             | 1 75          |
| 4742.  | Scarificator, ten blades, reversed lever, in case.....                                                                                     | 3 50          |
| 4743.* | “ “ twelve “ “ “ “ “ .....                                                                                                                 | 4 00          |
| 4744.  | Cupping Glasses, ordinary, assorted sizes, each, 10c.....                                                                                  | per doz. 1 00 |
| 4745.* | “ “ with rubber bulb. assorted sizes.....                                                                                                  | each 30       |
| 4746.* | “ “ stop-cock and air pump.....                                                                                                            | 2 60          |
| 4747.  | “ “ Cups, all rubber.....                                                                                                                  | 60            |
| 4748.  | “ “ Glasses, with screw-hole, to use with pump.....                                                                                        | each 50       |
| 4749.  | Stop-cocks for “ “ “ “ “ “ .....                                                                                                           | “ 50          |
| 4750.* | Thomas' Dry Copper, hard rubber.....                                                                                                       | 1 00          |
| 4753.  | Cupping Case, No. 1, contains one Pump ; three Glass Cups ; three Stop-cocks ; one 10-Blade Scarificator ; in case, velvet lined.....      | 9 00          |
| 4754.* | Cupping Case, No. 2, contains one Pump ; five Glass Cups ; five Stop-cocks ; one 12-Blade Scarificator ; in walnut case, velvet lined..... | 11 50         |
| 4755.* | Baunscheidt's Instruments for Counter-Irritation.....                                                                                      | 1 75          |
| 4756.  | “ “ Oil.....                                                                                                                               | 1 00          |

*All Instruments Illustrated are designated by a \*.*



## Hypodermic Syringes.

4760.\* Always Ready, Never Leaking, Hypodermic Syringe.



4760

closes it firmly, and makes it more aseptic than in the old style.

The following Syringes have the above improvement, Nos. 4761, 62, 63, 64, 65, 66, 67, 68, 69.

### Repairing Hypodermic Syringes.

If your glass cylinder is broken, and you want a new one, always send us your fittings. If any other part of the Syringe is wanted, send what you have left, and it will be easy to supply the missing portions. To prevent confusion and loss, parties are requested to enclose their card in the same. For price of such repairing, see Repairing of Instruments.

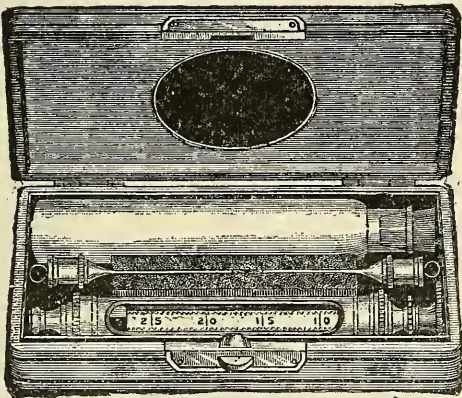
The difficulty with Hypodermic Syringes—if not frequently used or looked after—has always been, that the leather packing of the piston becomes dry, shrinks, and does not fit the inside of barrel air-tight, thereby rendering the syringe useless. The user, in order to repair it, must remove the leather piston from the barrel, thoroughly soak, spread, and replace it; the latter task is very trying, and usually results in the instrument being sent to the maker.

All this trouble is avoided in our new Syringe, by the aid of a simple device, "A Metal Disc," fig. A, having on one side two short projections, and on the other, a threaded pin is screwed into lower end of piston, fig. B. Should the piston packing have become dry and shrunk from non-use or astringent liquids, in order to make it fit the inside of barrel air-tight, all that is required is to push the piston handle firmly down on barrel, thereby joining the two projections on lower side of metal disc in corresponding slots at bottom of syringe barrel, and give the handle one or two turns to the right, forcing the disc against the lower leather piston packing and spreading it, corresponding turns of handle to the left will readily loosen the packing so that the piston can be made to fit the barrel as may be desired.

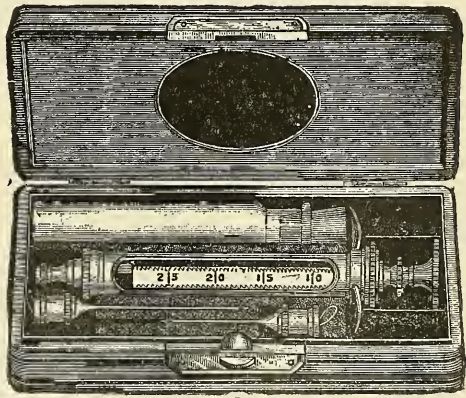
We claim for this Syringe everything its name implies.

It has an oil chamber which lubricates the packing.

The cap upon which the needle is fitted, can be unscrewed, and the tablet dissolved in the Syringe, thus avoiding the necessity of carrying fluid in the case. The metal disc at the end of packing



4761



4763

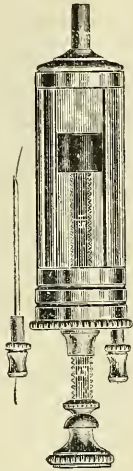
*All Instruments Illustrated are designated by a \*.*



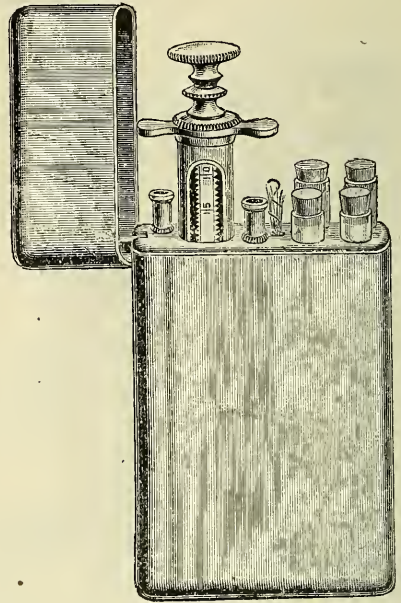
Hypodermic Syringes.



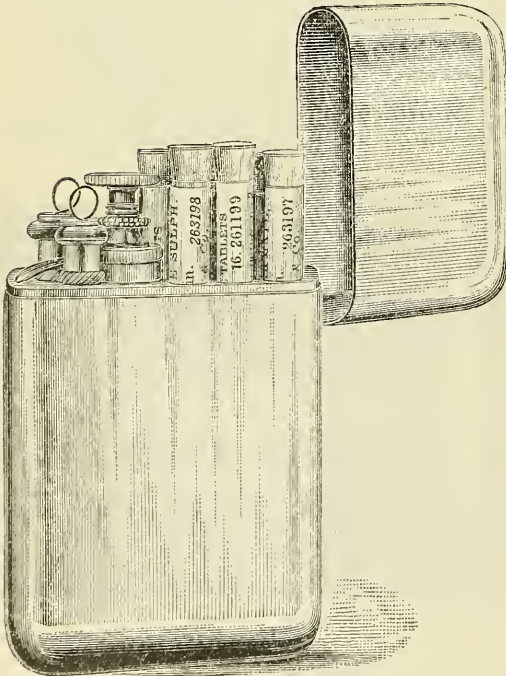
4772



4771



4764



4773

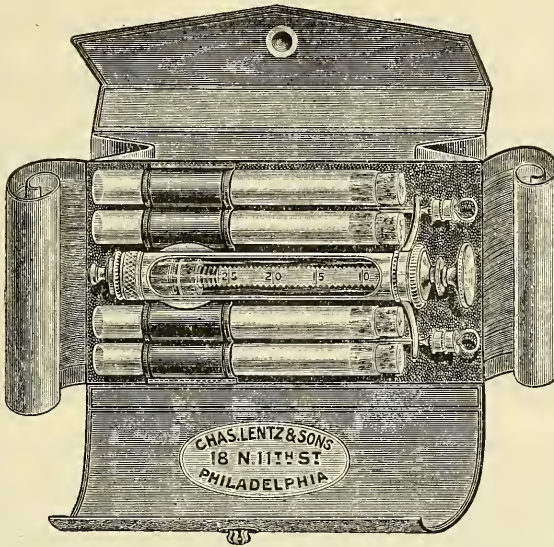


4769



4770

## Hypodermic Syringes.



4765

|        |                                                                                                                                               |        |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 4761.* | Hypodermic Syringe, with glass barrel, protected by metal, fenestrated to show graduation on piston rod, two steel needles, in case.....      | \$1 50 |
| 4762.  | “ “ solid metal barrel, graduated on piston rod, same style, in case                                                                          | 1 25   |
| 4763.* | “ “ same style as fig. 4761, but with finger rests, two steel needles, in fine case with spring catch.....                                    | 2 00   |
| 4764.* | “ “ same style as fig. 4763, in metal case, with four vials to hold tablets .....                                                             | 2 50   |
| 4765.* | “ “ same as fig. 4763, in fine morocco case, with two needles and four vials to hold tablets, button catch.....                               | 2 25   |
| 4766.  | “ “ same as fig. 4765, but case of genuine alligator.....                                                                                     | 2 60   |
| 4767.  | “ “ same as fig. 4765, with six vials for tablets, extra fine case...                                                                         | 2 65   |
| 4768.  | “ “ same as fig. 4765, with six vials for tablets, genuine alligator                                                                          | 3 00   |
| 4769.* | “ “ pocket style, glass barrel, protected by metal, one needle fitted in top of piston rod.....                                               | 1 75   |
| 4770.* | “ “ pocket style or for pocket case, with solid silver barrel, graduated on piston, gold plated needle fitted in top of piston rod .....      | 1 75   |
| 4771.* | “ “ Fowler's, for pocket, or pocket case, the entire syringe is made of hard rubber including piston, the needle of platina.....              | 2 00   |
| 4772.* | “ “ in nickel-plated metal case, sliding cover, with two needles fitting into spaces at side of barrel.....                                   | 2 75   |
| 4773.* | “ “ glass barrel, with finger rests, case made of aluminum making it very light, six vials filled with tablets made by Parke Davis & Co ..... | 3 00   |
| 4775.  | “ Needles, best quality steel, nickel-plated.....                                                                                             | 30     |
| 4776.  | “ “ “ “ “ reinforced, platina plated.....                                                                                                     | 50     |
| 4777.  | “ “ steel, gold plated, 50c. ; gold, 75c. ; platina.....                                                                                      | 75     |

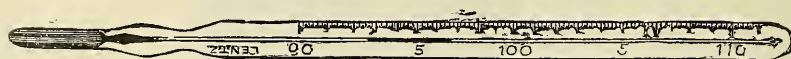
When ordering needles, please state how the attachment to the syringe is to be effected, *i. e.*, screw or slide? If you desire needles for syringes not of those in our catalogue, it is necessary to send your syringe to fit them.

*All Instruments Illustrated are designated by a \*.*



## Instruments for General Diagnosis.

## SELF-REGISTERING CLINICAL THERMOMETERS.



4780



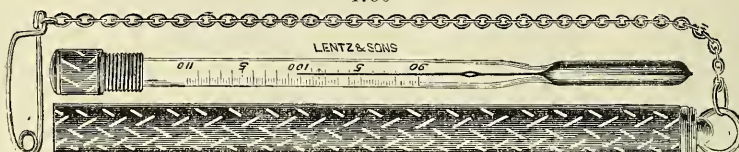
4785



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4789

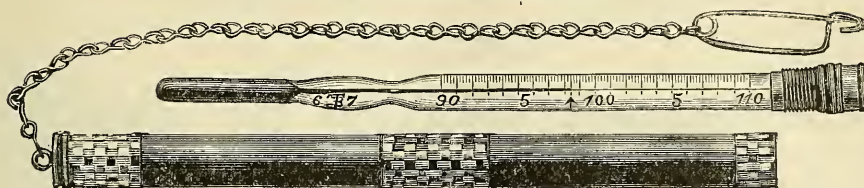
|                                                                                                                                                         |                                                                                                                                                      |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 4780.*                                                                                                                                                  | Thermometer, plain, indestructible index, American.....                                                                                              | \$ 75 |
| 4781.                                                                                                                                                   | “ “ “ “ “ with certificate.....                                                                                                                      | 1 00  |
| 4782.                                                                                                                                                   | “ magnifying, “ “ “ “ .....                                                                                                                          | 1 25  |
| 4783.                                                                                                                                                   | “ Hick's, plain, indestructible index.....                                                                                                           | 1 25  |
| 4784.                                                                                                                                                   | “ “ “ “ “ with certificate.....                                                                                                                      | 1 50  |
| 4785.*                                                                                                                                                  | “ “ magnifying, indestructible index.....                                                                                                            | 2 25  |
| 4786.                                                                                                                                                   | “ “ “ “ “ with certificate.....                                                                                                                      | 2 50  |
| 4787.*                                                                                                                                                  | “ “ “ “ “ one minute; this instrument registers the temperature in one minute.....                                                                   | 3 00  |
| 4788.                                                                                                                                                   | Thermometer, Hick's, same as above, with Hick's certificate.....                                                                                     | 3 25  |
| 4789.*                                                                                                                                                  | “ “ with bent stem, indestructible index, in leather case.....                                                                                       | 1 50  |
| 4790.*                                                                                                                                                  | “ “ new, instantaneous, indestructible index, magnifying; will register the temperature in thirty seconds.....                                       | 5 00  |
| 4791.*                                                                                                                                                  | Gold-plated Thermometer Case, with chain and pin for securing to vest, into which any of the above can be fitted.....                                | 50    |
| 4792.                                                                                                                                                   | Enameled Thermometer Case, with gilt ends and centre, with chain and pin same as 4795.....                                                           | 50    |
| Thermometers, Taylor Brothers, No. 67, following styles; they have indestructible index, with certificate and 10 clinical charts with each thermometer. |                                                                                                                                                      |       |
| 4793.                                                                                                                                                   | No. 67, 4 or 5 inch, in hard rubber case, with plain tube, each \$1 25; No. 67½, with magnifying lens.....each                                       | 1 75  |
| 4794.                                                                                                                                                   | No. 67 A—4 inch, in gilt case, with safety chain and snap, with plain tube, each \$1 50; No. 67½ A, with magnifying lens.....each                    | 2 25  |
| 4795.*                                                                                                                                                  | No. 67 B—4 inch, in gilt and enamel case, with safety chain and snap, with plain tube, each \$1 75; No. 67½ B, with magnifying lens.....each         | 2 50  |
| 4796.                                                                                                                                                   | No. 67 C—4 inch, in plain enamel case, gilt ends, with safety chain and snap, with plain tube, each \$1 50; No. 67½ C, with magnifying lens.....each | 2 25  |
| 4797.                                                                                                                                                   | No. 67 E—4 inch, in sterling silver case (frosted), with plain tube, each \$2 75; No. 67½ E, with magnifying lens.....each                           | 3 50  |
| 4798.*                                                                                                                                                  | No. 67 F—4 inch, in sterling silver case (hand chased), with plain tube, each \$3 00; No. 67½ F, with magnifying lens.....each                       | 3 75  |

*All Instruments Illustrated are designated by a \*.*

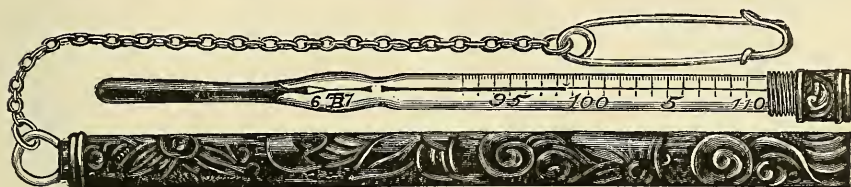


## Instruments for General Diagnosis.

## CLINICAL THERMOMETERS.



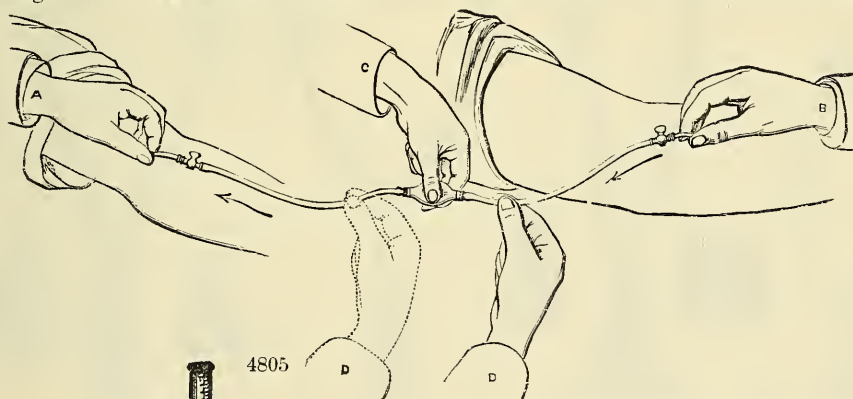
4795



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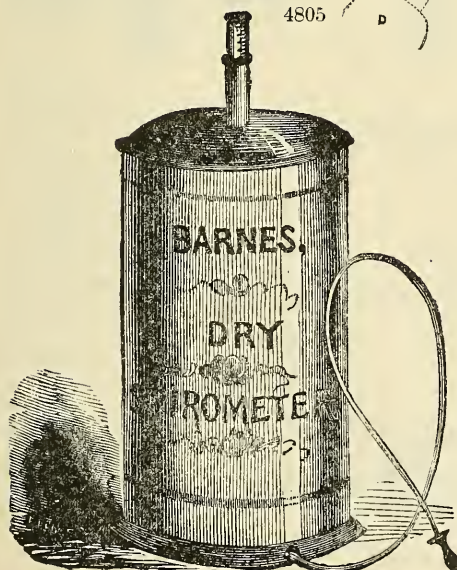
## NOTICE REGARDING MAILING THERMOMETERS.

In order that customers may clearly understand our position in regard to Fever Thermometers that are broken in transit, we state here, that under no circumstances will we become responsible for their safe delivery. We will pack them with the greatest care, and will use our best endeavors to prevent their becoming broken, but customers must in all cases assume risk of breakage. We warrant all thermometers.



4805

4805.\* Aveling's Transfusion Apparatus..\$3 50



4808

## 4808.\* Barnes' Dry Spirometer.

For Measuring and Developing the Lungs, showing their Capacity in Cubic Inches.

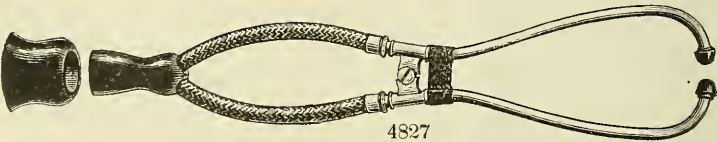
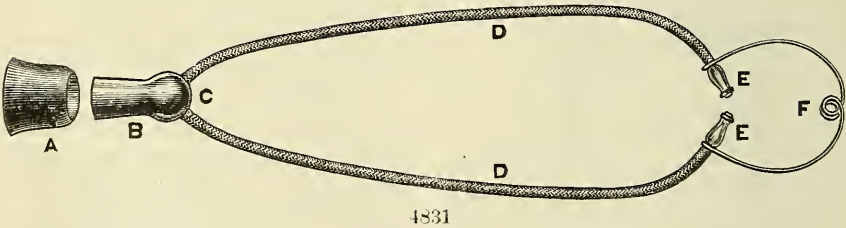
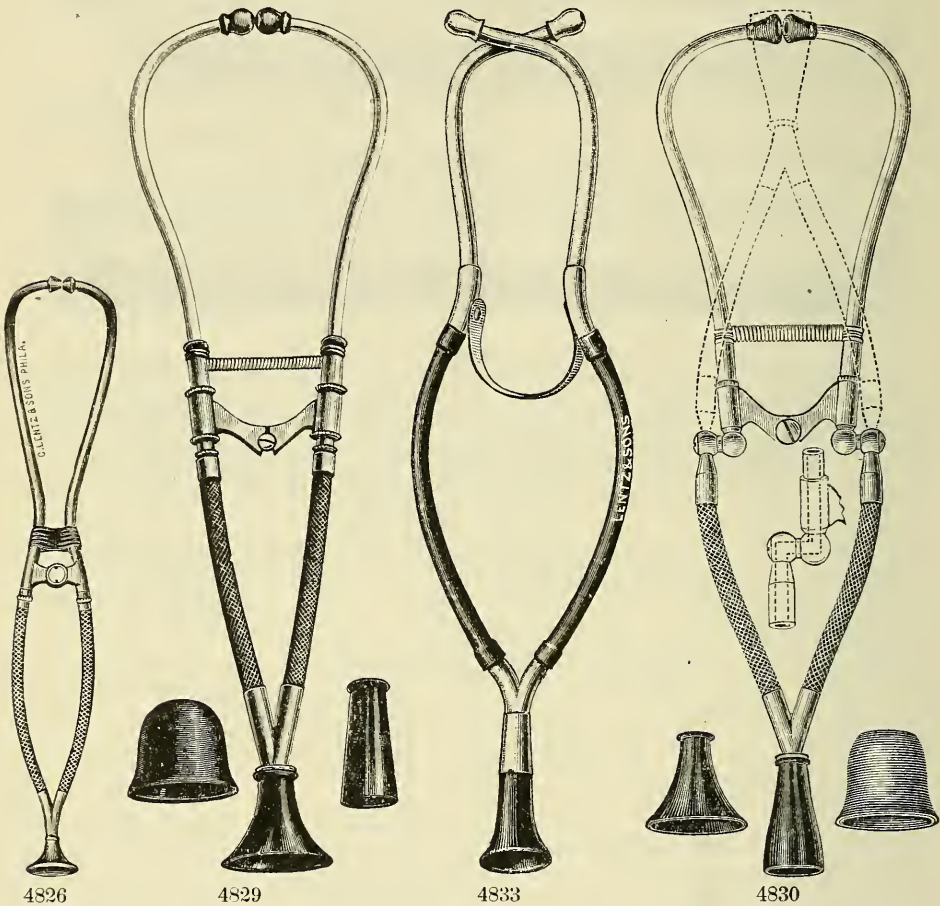
The improvement patented in this instrument is an air-tight, flexible diaphragm to hold the air, which makes it more portable, more durable, and much cheaper than those in which water and weights are employed, while equally correct. Inflating it a few times will show the size and strength of the lungs. The habitual use of it is thought to be beneficial and likely to prevent diseases of the lungs.

It is recommended by many eminent physicians.

Price.....\$8 00

Instruments for General Diagnosis.

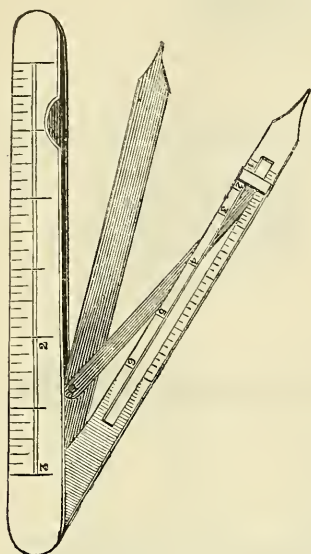
STETHOSCOPES.



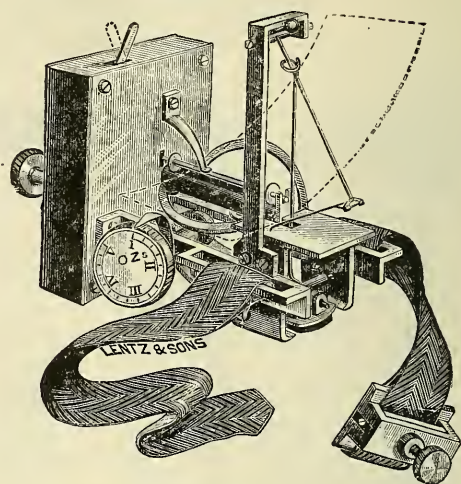




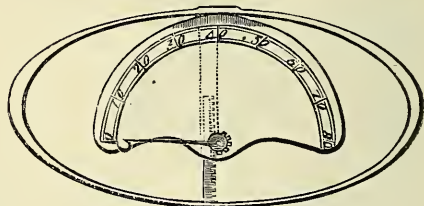
## Instruments for General Diagnosis.



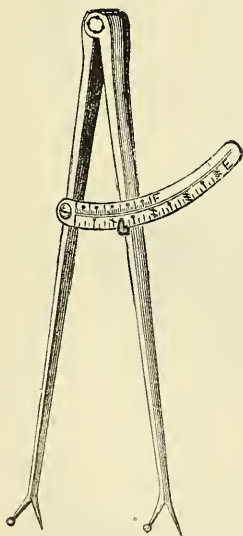
4846



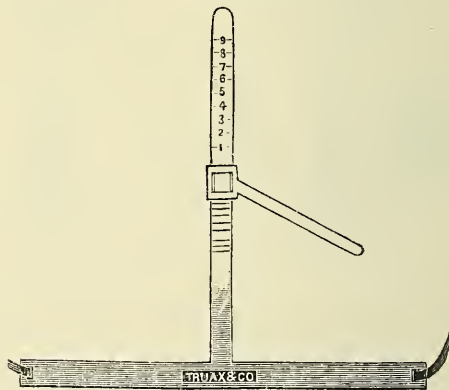
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4848



4845



4849

|        |                                   |         |
|--------|-----------------------------------|---------|
| 4842.  | Sphygmograph, Pond's, latest..... | \$35 00 |
| 4843.  | “ Marey's.....                    | 60 00   |
| 4844.* | “ Dudgeon's.....                  | 20 00   |
| 4845.* | Æsthesiometer, Carroll's.....     | 3 00    |
| 4846.* | “ Vance's.....                    | 3 75    |
| 4847.  | “ Hammond's.....                  | 2 00    |
| 4848.* | Dynamometer.....                  | 6 00    |
| 4849.* | Cyrtometer, Wilson's.....         | 3 00    |
| 4850.  | “ Flint's.....                    | 8 00    |

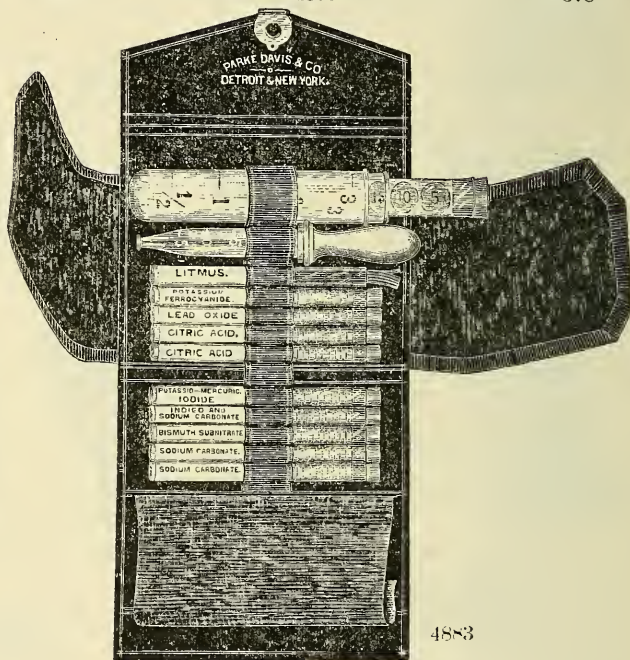
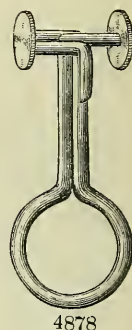
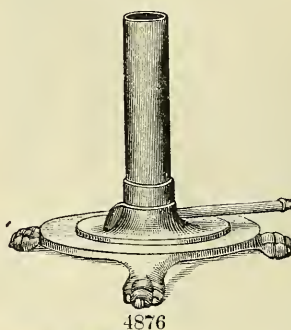
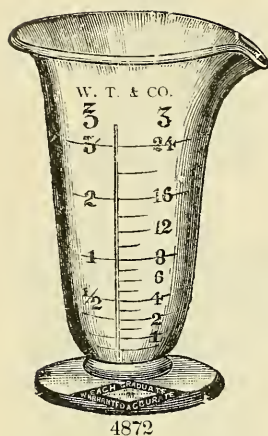
*All Instruments Illustrated are designated by a \*.*





## Instruments for General Diagnosis.

FOR EXAMINATION OF URINE.



|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 4872.* | Graduate Measure, 1 oz., 30c.; 2 oz., 35c.; 4 oz., 45c.; 6 oz., 55c.                                                                                                                                                                                                                                                                                                                                                                                   | \$ 55 |
| 4873.* | Flasks, round or flat bottom, assorted sizes, 1 oz. to 1 pint, each 12c. to 35c.                                                                                                                                                                                                                                                                                                                                                                       | 35    |
| 4874.* | Chemical Tincture Bottles, 1 oz., per doz., \$1 75; 1/2 pint, per doz.                                                                                                                                                                                                                                                                                                                                                                                 | 1 95  |
| 4875.* | Saltmouth " 1 " " 1 65; 1/2 " " 2 00                                                                                                                                                                                                                                                                                                                                                                                                                   | 2 00  |
| 4876.* | Bunsen Burner, small, 3 inches high, Japan base, 35c.; brown base.                                                                                                                                                                                                                                                                                                                                                                                     | 45    |
| 4877.* | " " with flame check, 6 inches high.                                                                                                                                                                                                                                                                                                                                                                                                                   | 45    |
| 4878.* | Spring Compressor, small, 10c.; large.                                                                                                                                                                                                                                                                                                                                                                                                                 | 20    |
| 4881.  | Stirring Rods, glass, 8 inches, 5c.; 12 inches.                                                                                                                                                                                                                                                                                                                                                                                                        | 08    |
| 4882.  | Albuminometer, Esbach's.                                                                                                                                                                                                                                                                                                                                                                                                                               | 75    |
| 4883.* | Parke Davis & Co.'s Physicians' Pocket Reagent Case, containing in addition to their urinary test tablets, a book of instructions for the use of Dr. Oliver's bedside tests, and the following apparatus: two test tubes, one of which is graduated; one graduated minim pipette; set of six specific gravity beads, corresponding with specific gravities respectively of 1.005, 1.010, 1.015, 1.020, 1.025 and 1.030. Price, with Reagents complete. | 2 00  |

All Instruments Illustrated are designated by a \*.



## Instruments for General Diagnosis.

### FOR EXAMINATION OF URINE.

#### 4885.\* Fermentation Saccharometer, for the Estimation of Sugar in Urine.

BY MAX EINHORN, M. D.

##### DIRECTIONS FOR USE.

Take one gramme of commercial compressed yeast (or  $\frac{1}{10}$  of a cake of Fleischman's yeast), shake thoroughly in the graduated test tube with 10 C.C. of the urine to be examined. Then pour the mixture into the bulb of the Saccharometer. By inclining the apparatus the mixture will easily flow into the cylinder, thereby forcing out the air. Owing to the Atmospheric pressure the fluid does not flow back, but remains there.

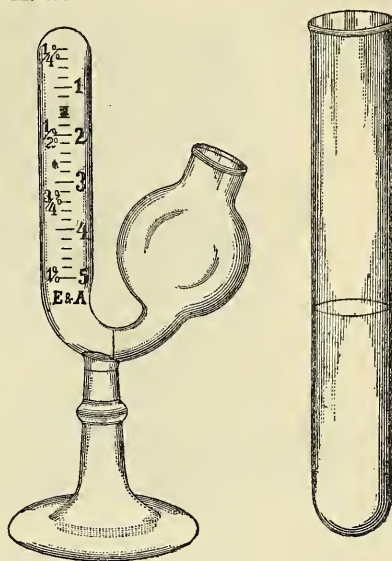
The apparatus is to be left undisturbed for 20 to 24 hours in a room of ordinary temperature.

If the urine contains sugar, the alcoholic fermentation begins in about 20 to 30 minutes. The evolved carbonic acid gas gathers at the top of the cylinder, forcing the fluid back into the bulb.

On the following day the upper part of the cylinder is filled with carbonic acid gas. The changed level of the fluid in the cylinder shows that the reaction has taken place and indicates by the numbers—to which it corresponds—the approximate quantity of sugar present.

If the urine contains more than one per cent. of sugar, then it must be diluted with water before being tested.

Single Tubes, 75 cts. each. For convenience of physicians we have put it up in a set consisting of two (2) Saccharometers and one graduated Test Tube, for \$1 50.



4885

#### 4886.\* Apparatus for the Rapid Estimation of Urea

DESIGNED BY CHARLES DOREMUS, M.D., PH.D.

Professor Adjunct of Chemistry and Toxicology, Bellevue Hospital Medical College.

The apparatus shown in the cut is designed for the rapid approximate estimation of urea. It yields, when the test is carefully made, results closely in accord with the theoretical.

Make a solution of Sodium Hydrate, 6 ounces to the pint of water. Keep this in a bottle with a paraffined or rubber stopper.

Sodium Hypobromide is prepared by adding 1 volume of Bromide to 10 volumes of this Sodium Hydrate solution and diluting with 10 volumes of water.

It is convenient to pour the Sodium Hydrate solution into the Ureometer to the mark, then by means of the nipple pipette to add its measure of Bromide and dilute with sufficient water to fill the long arm and bend.

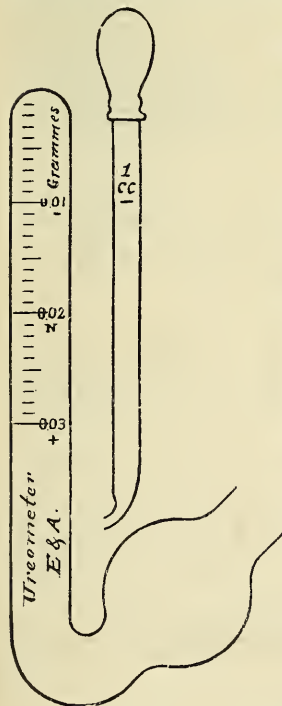
Tilt the Ureometer and allow the Hypobromite to flow into the long arm filling it completely.

Draw the urine to be tested into the pipette to the graduation. Pass the pipette into the Ureometer, as far as the bend and compress the nipple slowly. the urine will rise through the Hypobromite and the gas evolved will collect in the upper part of the tube.

Each division indicates one grain of Urea in a fluid ounce of Urine.

The quantity of urea voided in twenty-four hours is ascertained by multiplying the result of the test by the number of ounces of urine passed during that period.

Price of Apparatus, complete in box with pipette.....\$1 25

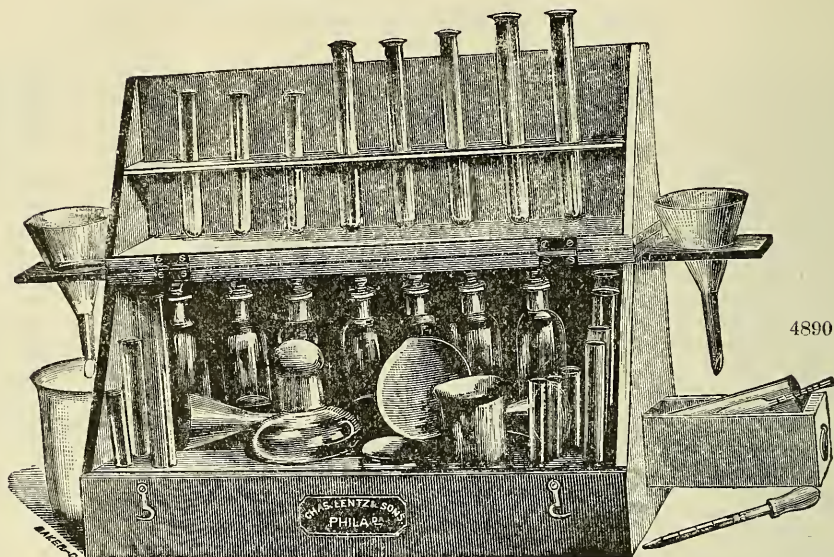


4886

*All Instruments Illustrated are designated by a \*.*

## Instruments for General Diagnosis.

## 4890.\* LENTZ'S URINE TEST CASE.



4890

This Case is made of hard wood, finely polished, and is constructed on a new principle which possesses many advantages. The upper part which forms the Test Tube rack when in use, can be closed down and fastened; the hollow slats holding the funnels slide into the case; the drawer can be returned to its socket, thus forming a neat, compact box that guards its contents from breakage and protects them from the injurious effects of dust, light and air, so that the contents may be kept clean and always ready for use. It contains eight Re-agent Bottles, two Glass Funnels, Alcohol Lamp, two Breakers, Porcelain Evaporating Dish, two small Glass Evaporating Dishes, fourteen Test Tubes, assorted sizes, Test Tube Holder, Urinometer, Graduated Pipette and Litmus Paper. Two of the Re-agent Bottles contain the two solutions now used in making Fehling's Test; one a solution of Sodio Potassic Tartrate, the other a solution of Cupric Sulphate, both so adjusted that, with the directions that accompany the Case, a physician may easily make both a qualitative and quantitative analysis for Glucose, thus enabling the practitioner not only to detect sugar in suspected cases, but to make comparative tests from time to time, in known cases of Diabetes. They are always ready for use, and will keep for any length of time.

Price of Case, with bottles all filled.....\$7 00.

## 4891.\* BARTLEY'S POCKET URINARY TEST CASE.

Manufactured of Hard Rubber with Nickel Plated Top.

**CONTAINING ALCOHOL LAMP.**

*Dimensions 4½ x 1½ x 1¼ inches.*

**THOUSANDS IN USE.**

The Re-agents (Powders) are prepared from the formulæ of Dr. E. H. Bartley, of the Long Island College Hospital, and chemist to the Board of Health of the City of Brooklyn. The Case is designed for the use of physicians at the bedside of the patient or for the office. With it a complete examination, for clinical purposes, of the urine can be made.

*These Re-agents leave nothing to be desired as regards delicacy and certainty. No filtering of the Urine necessary. The Re-agent can be renewed by your home druggist. It is unique, durable and cleanly.*

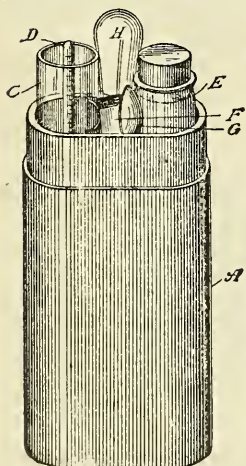
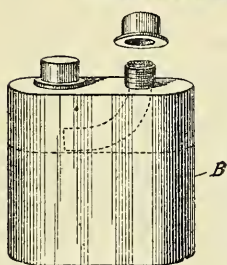
THE CASE contains a scientifically correct urinometer enclosed in a cloth bag to prevent breakage, a heavy glass test tube serving as a urinometer jar and test tube, a package of Litmus test papers, a pipette for convenience in handling the urine, two vials to contain the test powders, and spoon. With these the following points may be determined at the bedside, viz.: The quantity of urine passed, the color, transparency, reaction, specific gravity, total solids passed, and the presence or absence of sugar and albumen.

Each Bottle contains sufficient Powders for some 50 Tests.

A small hand-book containing instructions, formulæ for the powders and valuable information obtained by recent investigations of Dr. Bartley and others, accompanies the case.

Price .....\$2 00

*All Instruments Illustrated are designated by a \*.*

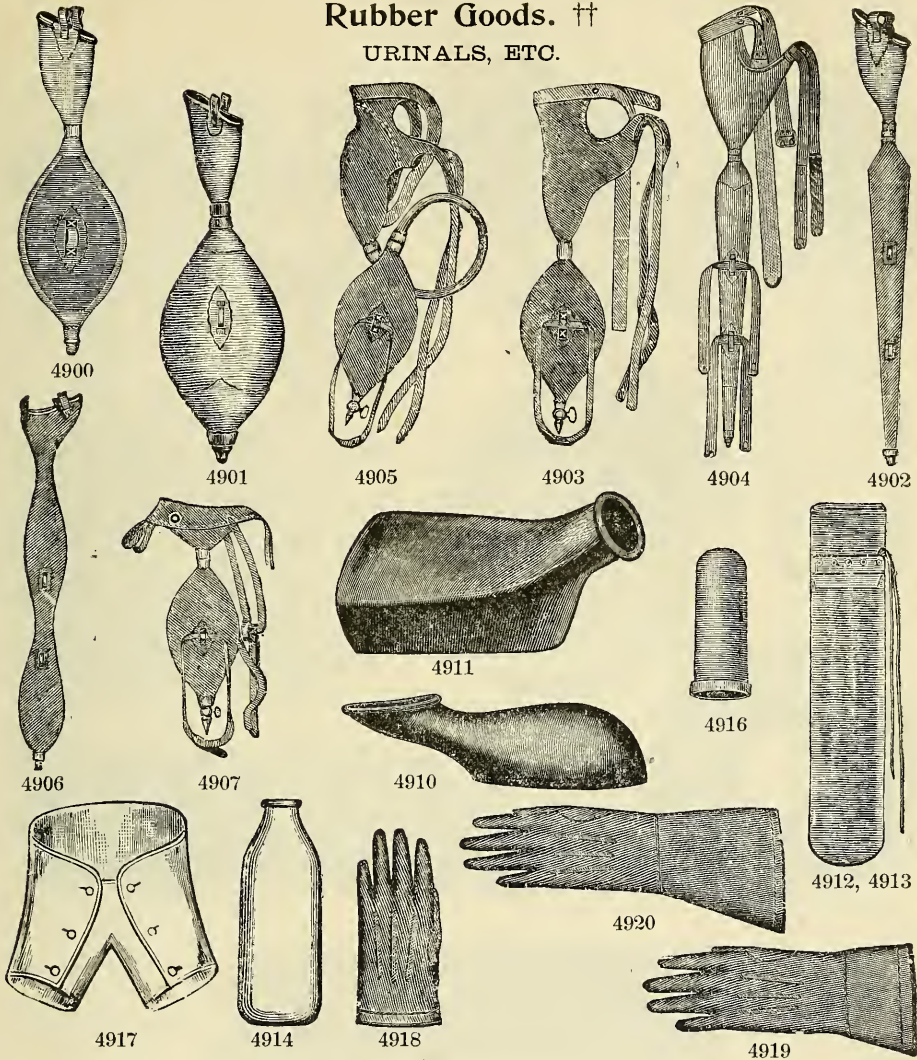


4891



## Rubber Goods. ††

URINALS, ETC.

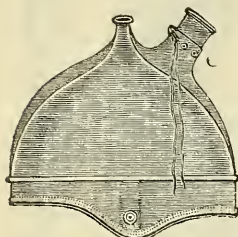


|        |                                                                                        |      |        |
|--------|----------------------------------------------------------------------------------------|------|--------|
| 4900.* | Urinal, pure gum, day, male, small and medium.....                                     | each | \$1 75 |
| 4901.* | “ “ “ “ “ large.....                                                                   | “    | 2 00   |
| 4902.* | “ “ “ “ “ and night, male.....                                                         | “    | 2 25   |
| 4903.* | “ “ “ “ “ male.....                                                                    | “    | 3 50   |
| 4904.* | “ “ “ “ “ and night, male.....                                                         | “    | 3 75   |
| 4905.* | “ “ “ “ “ and night, male, the middle tubing can be detached for day use.....          | “    | 4 50   |
| 4906.* | Urinal, pure gum, day, female.....                                                     | “    | 2 50   |
| 4907.* | “ “ “ “ “ “.....                                                                       | “    | 3 75   |
| 4908.* | “ “ “ “ “ female, child's, same style as No. 4907.....                                 | “    | 3 25   |
| 4909.* | “ “ “ “ “ and night, male, child's, same style as No. 4905.....                        | “    | 3 75   |
| 4910.* | “ “ “ “ “ female, hard rubber, \$3 25; agate iron, \$3 00; glass, with handle.....     | “    | 60     |
| 4911.* | “ “ “ “ “ male, “ \$3 25; “ \$3 00; “.....                                             | “    | 60     |
| 4912.* | Ice Bags, spinal, pure gum, 12 and 14 in., \$1 50; 16 and 18 in., \$1 75; 20 in. each  | “    | 2 00   |
| 4913.* | “ “ “ “ “ for throat “ “ 7, 8 and 9 in., each, \$1 00; 10 and 11 in.....               | “    | 1 25   |
| 4914.* | “ “ “ “ “ spinal, “ “.....                                                             | “    | 50     |
| 4915.* | “ “ “ “ “ Chapman's, with metal clamp.....                                             | “    | 4 00   |
| 4916.* | Finger Cots, pure gum, assorted sizes .....                                            | each | 10     |
| 4917.* | Diapers, made of rubber sheeting, small and medium, 75c.; large size.....              | “    | 90     |
| 4918.* | Gloves, ladies' short, sizes, 6 to 9, pair, \$1 75; men's short, sizes, 10 to 12, pair | “    | 2 00   |
| 4919.* | “ “ “ “ “ half long “ 6 “ 9, “ \$2 00; “ half long, “ 13 “ 15, “                       | “    | 2 25   |
| 4920.* | “ “ “ “ “ men's long, heavy, for acid.....                                             | “    | 4 50   |

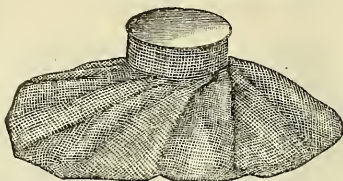
All Instruments Illustrated are designated by a \*.



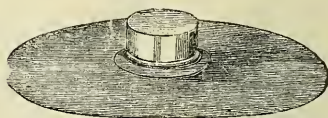
## Rubber Goods. ††



4927



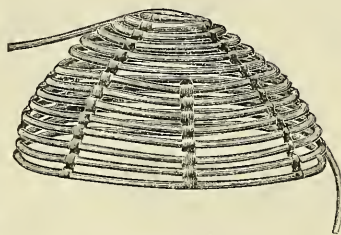
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4926



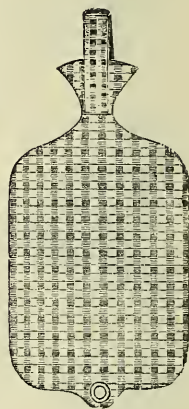
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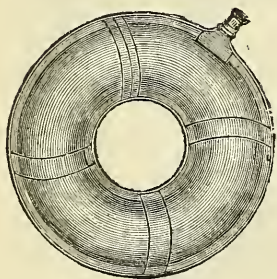
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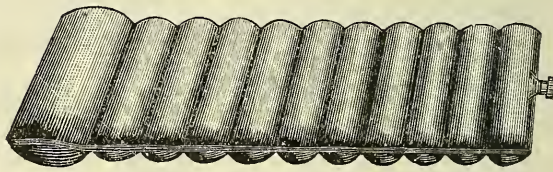
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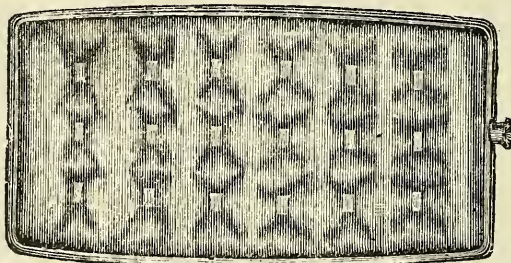
4934



4930



4932

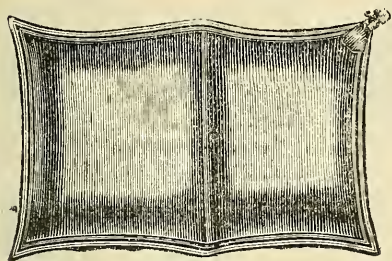


4931

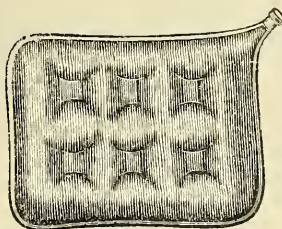
- 4925.\* Ice Cap, English pattern, screw cap.....\$1 00  
 4926.\* " " pure gum..... 2 50  
 4927.\* " " white gum, small, \$2 50; medium, \$2 75; large..... 3 00  
 4928.\* " Bag pure gum, for head..... 75  
 4929.\* Water Coil, pure gum tubing for head, 7 x 4, \$3 00; 7 x 5..... 3 50  
 4930.\* Invalid Cushion, 9 in., \$2 00; 10 in., \$2 25; 11 in., \$2 50; 12 in., \$2 75; 13 in., \$3 00; 14 in., \$3 25; 15 in., \$3 50; 16 in., \$3 75; 17 in., \$4 00; 18 in..... 4 75  
 4931.\* Water Beds, 24 x 36, \$20 00; 32 x 80, \$30 00; 42 x 80, \$40 00; 52 x 80 inch.....48 00  
 4932.\* Air Beds, with pillow, 32 x 80, \$33 00; 42 x 80, \$40 00; 52 x 80 inch.....50 00  
 4933.\* Water Bottles, cloth lined, best quality, 1 pint, \$1 50; 1 quart, \$1 50; 2 quarts, \$1 75; 3 quarts, \$2 00; 4 quarts..... 2 25  
 4934.\* Water Bottles, flannel covered, 2 quarts, \$2 25; 3 quarts, \$2 50; 4 quarts..... 2 75

*All Instruments Illustrated are designated by a \*.*

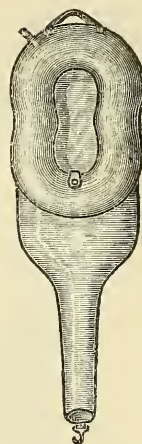
## Rubber Goods. ††



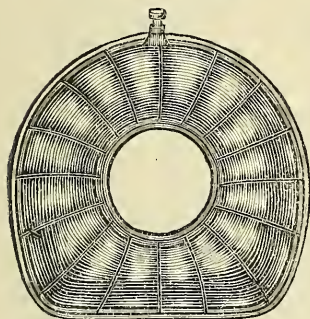
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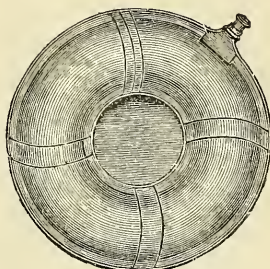
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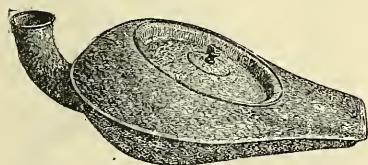
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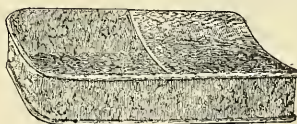
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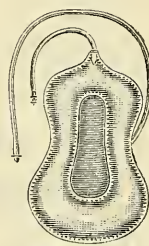
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4947

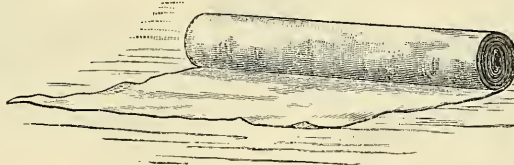


4948



LENTZ &amp; SONS

4945



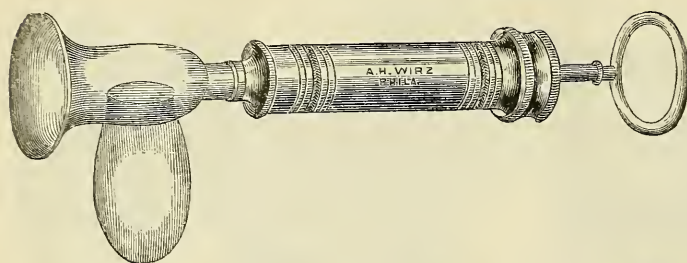
4949

|        |                                                                                              |        |
|--------|----------------------------------------------------------------------------------------------|--------|
| 4940.* | Air Pillows's, 9 x 13, \$2 50; 10 x 16, \$3 00; 12 x 18, \$4 00; 14 x 23 inch.....           | \$5 00 |
| 4941.* | Water Bags, 13 x 15, \$3 75; 14 x 18, \$4 25; 17 x 19 inch.....                              | 5 00   |
| 4942.  | Chair Cushion, half round.....                                                               | 5 50   |
| 4943.* | “ “ hospital size.....                                                                       | 5 00   |
| 4944.* | Bed Pan, slate color, inflatable.....                                                        | 3 75   |
| 4945.* | “ “ “ with inflating and outlet tube.....                                                    | 5 50   |
| 4946.* | “ “ and Cushion combined, extreme length, 39 inches; length of pan, 18½ in.                  | 7 50   |
| 4947.* | “ “ agate iron, with lid.....                                                                | 4 00   |
| 4948.* | “ and Douch Pan, agate iron, 15¾ x 11¾ x 3.....                                              | 4 00   |
| 4949.* | Rubber Sheeting, white, ¾ yard wide, 80c.; 1 yard wide, \$1 00; 1½ yard wide, per yard ..... | 1 20   |

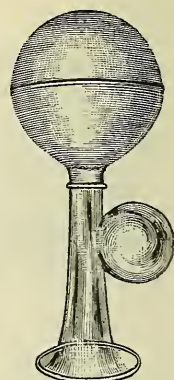
*All Instruments Illustrated are designated by a \*.*



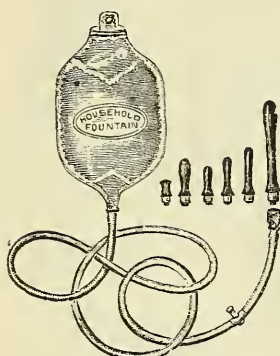
## Rubber Goods. ††



4963



4967



LENTZ &amp; SONS

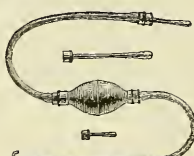
4962



4966

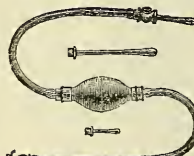


4965



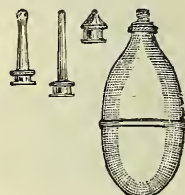
DAVIDSON RUBBER CO.

4959

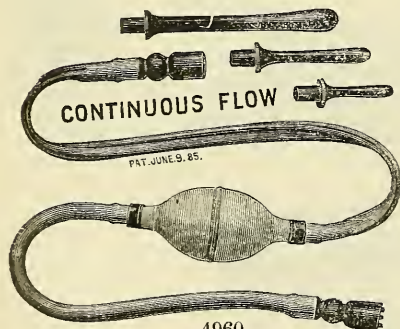


DAVIDSON RUBBER CO.

4958



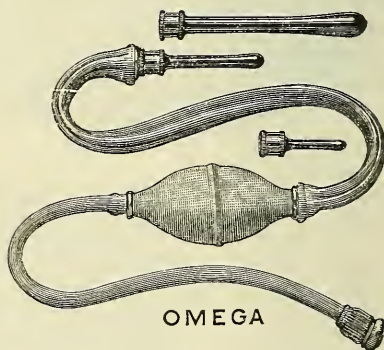
4963



4960

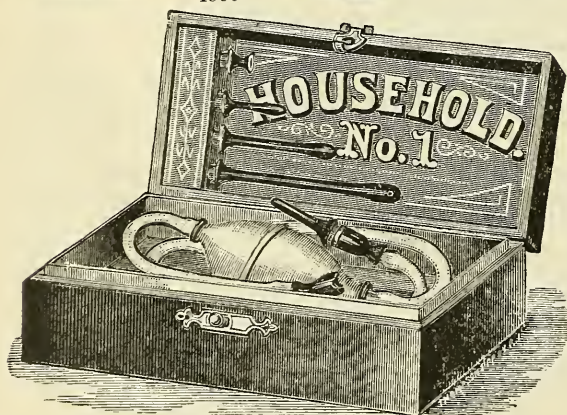


4964

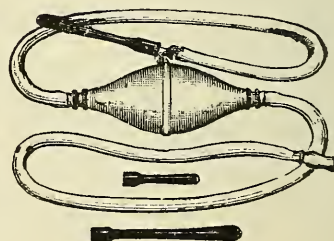


OMEGA

4961



4956



4955

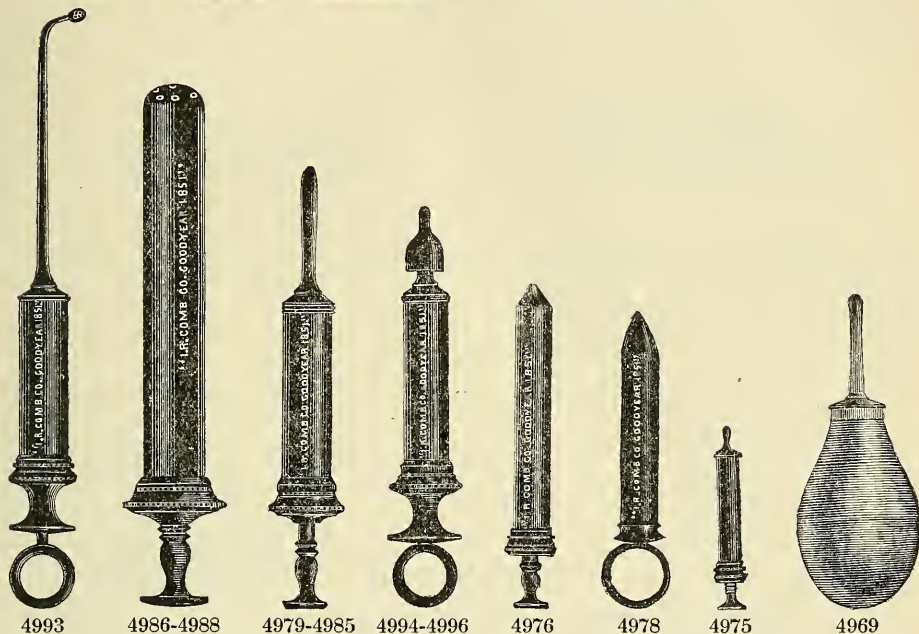


## Rubber Goods. ††

## SYRINGES.



4991 and 4992



|        |                                                                                                             |       |
|--------|-------------------------------------------------------------------------------------------------------------|-------|
| 4955.* | Bulb Syringe, with three hard rubber pipes, in box.....                                                     | \$ 75 |
| 4956.* | “ “ Household, No. 1, with five hard rubber pipes, in box.....                                              | 1 75  |
| 4957.  | “ “ “ 2 “ three “ “ “ .....                                                                                 | 1 25  |
| 4958.* | “ “ Davidson, “ 1 “ hard rubber vaginal pipe, other two of metal 2 25                                       |       |
| 4959.* | “ “ “ 2 “ “ “ “ “ .....                                                                                     | 1 85  |
| 4960.* | “ “ Alpha, has a continuous flow, with three hard rubber pipes.....                                         | 1 85  |
| 4961.* | “ “ Omega “ “ “ “ “ “ .....                                                                                 | 1 25  |
| 4962.* | Fountain “ Household, with six hard rubber pipes, 1 qt., \$1 50; 2 qts., \$2 00; 3 qts., \$2 25; 4 qts..... | 2 75  |
| 4963.* | Eye and Ear Syringe, metal pipes.....                                                                       | 60    |
| 4964.* | Ulcer “ “ all rubber.....                                                                                   | 35    |
| 4965.* | Bulbs for Syringes, single neck.....                                                                        | 25    |
| 4966.* | “ “ “ double “ .....                                                                                        | 30    |
| 4967.* | Breast Pump, English.....                                                                                   | 40    |
| 4968.* | “ “ Meig's.....                                                                                             | 1 00  |
| 4969.* | Bag Syringe, white, 6 oz., \$1 25; 10 oz., \$1 75; 16 oz.....                                               | 2 00  |

## HARD RUBBER SYRINGES. ††

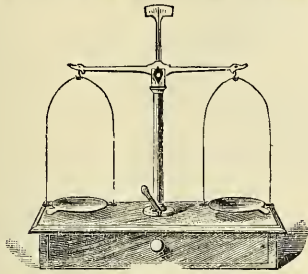
|        |                                                      |        |                                           |       |
|--------|------------------------------------------------------|--------|-------------------------------------------|-------|
| 4975.* | With Straight Pipe, No. 00, $\frac{1}{8}$ oz., \$ 50 | 4986.* | Vaginal, No. 1, $\frac{1}{4}$ oz.....     | \$ 60 |
| 4976.* | “ “ “ 0, “ 50                                        | 4987.* | “ “ 2, $\frac{3}{4}$ “ .....              | 65    |
| 4977.* | “ “ “ 1a, “ 60                                       | 4988.* | “ “ 3, 1 $\frac{1}{2}$ “ .....            | 90    |
| 4978.* | “ “ “ 12, “ 60                                       | 4989.  | “ with Shield, $\frac{3}{4}$ oz.....      | 1 00  |
| 4979.* | “ “ “ 1b, “ 75                                       | 4990.  | “ “ 1 $\frac{1}{2}$ “ .....               | 1 25  |
| 4980.* | “ “ “ 2, “ 75                                        | 4991.* | Uterine, Long Pipe, $\frac{1}{2}$ “ ..... | 1 15  |
| 4981.* | “ “ “ 3, 1 “ 90                                      | 4992.* | “ “ 2 “ .....                             | 1 65  |
| 4982.* | “ “ “ 3a, 2 “ 1 20                                   | 4993.* | Catarrhal, $\frac{1}{2}$ “ .....          | 1 25  |
| 4983.* | “ “ “ 4, 3 “ 1 40                                    | 4994.* | Ear, $\frac{1}{2}$ “ .....                | 1 00  |
| 4984.* | “ “ “ 5, 6 “ 1 75                                    | 4995.* | “ 1 “ .....                               | 1 25  |
| 4985.* | “ “ “ 6, 12 “ 2 50                                   | 4996.* | “ 2 “ .....                               | 1 75  |

All Instruments Illustrated are designated by a \*.



## Scales.

## Army Prescription Scales.

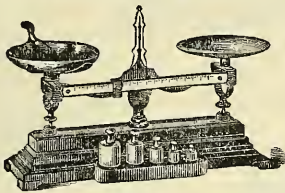


5010

On polished walnut box; scales take apart and pack away in drawer of box; a well finished and reliable scale, made in a mechanical way; well adapted for physicians' offices; a full set of weights are included.

| No.    | Beam.                | Weights.                          | Price.      |
|--------|----------------------|-----------------------------------|-------------|
| 5010.* | 0, 8 in.             | 2 drachms to $\frac{1}{2}$ grain. | net, \$6 00 |
| "      | 1, 7 " "             | "                                 | " 5 00      |
| "      | 2, $\frac{5}{8}$ " " | "                                 | " 3 50      |

## Troemner's Dispensing Scale. (New.)

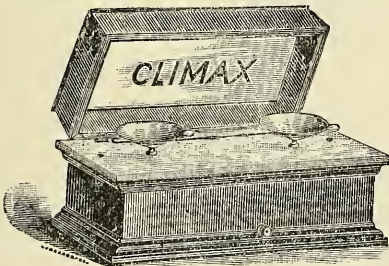


5011

Handsomely finished scale for rough prescription work; has  $\frac{3}{4}$ -inch nickel-plated movable pans; a side-beam in front of scale with a sliding weight; this beam is divided into 120 divisions, each division representing one grain; an extra row of metric divisions is placed on bottom edge of beam, representing one decigram. Platform or shelf is attached to base of scale in which are fitted a set of solid brass weights, 2 oz. and down. Scale sensible to a half grain.

| No.    | Diam. of Pans.    | Capacity. | Price.      |
|--------|-------------------|-----------|-------------|
| 5011.* | $\frac{3}{4}$ in. | 4 oz.     | Net, \$8 00 |

## "Climax" Box Prescription Scale.

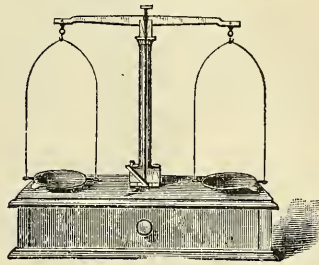


5012

This scale has  $\frac{3}{4}$ -inch nickel-plated pans; cherry-mahogany box and ebony mouldings; marble top; hinged cover; and is a reliable and substantial scale.

| No.    | Diam. of Pans.    | Price.       |
|--------|-------------------|--------------|
| 5012.* | $\frac{3}{4}$ in. | Net, \$12 50 |

## Prescription Scale.



5013

Scale has indicator pointing downward; slide attachment on needle; by shoving this to the right or left, scale is quickly balanced; has nickel-plated pans; entire scale lacquered, on a polished walnut box with drawer; total height,  $11\frac{1}{2}$  inches; a full set of weights included.

| No.    | Diam. of Pans.     | Weights.                          | Price.      |
|--------|--------------------|-----------------------------------|-------------|
| 5013.* | $2\frac{3}{4}$ in. | 2 drachms to $\frac{1}{2}$ grain. | Net, \$8 00 |

## Oak Box Pocket Scales.

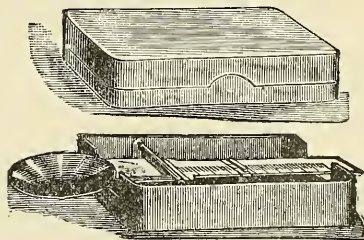


5014

English make, in oak box; steel beam, with the weights; this is a strictly reliable scale in all respects.

| No.    | Beam. | Pans.          | Price.      |
|--------|-------|----------------|-------------|
| 5014.* | 6 in. | $2\frac{1}{2}$ | Net, \$1 50 |

## 5015.\* Dr. Fitch's Patent Pocket Prescription Scales.



5015

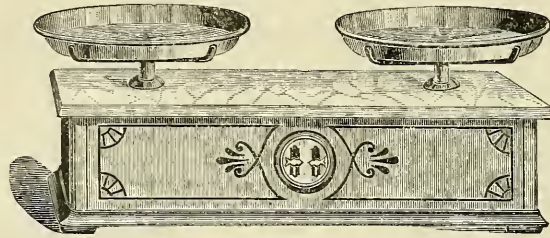
Can be carried in the vest pocket, no weights to lose. Size when closed,  $2\frac{3}{4}$  inches by  $1\frac{1}{2}$  inches, folding spatula in each case. Always ready and convenient.

Sent by mail on receipt of \$1 00, net.



**Scales.**

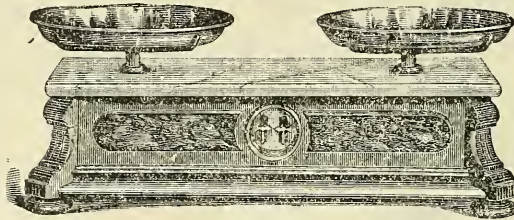
5016.\* **Cherry Box Scale.**



5016

Box made of cherry, with neat hand-carved decorations. Heavy *nickel-plated* pans; glass dial; marble top, etc.  
Diameter of pans, 8 inches, capacity, 20 pounds.....net price \$12 00

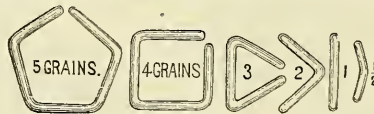
5017.\* **Oiled Walnut Box Scale.**



5017

Fine oiled walnut case, with bird's-eye maple panels; hand-carved feet, natural finish; heavy *nickel-plated* pans; marble top, made in three sizes.  
No. 0, diameter of pans, 7 inches, capacity, 10 pounds.....net price \$15 00  
" 1, " " 8 " " 15 " " " 17 00  
" 2, " " 9 " " 25 " " " 19 00

5018.\* **Troemner's Aluminum Grain Weights.**



5018

$\frac{1}{2}$  to 5 grains, per set.....net \$ 25

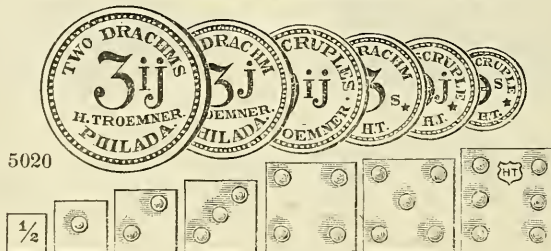
5019.\* **Troemner's Square Aluminum Grain Weights.**



5019

Made of pure sheet aluminum; made concave, so they can be picked up readily.  
 $\frac{1}{2}$  to 10 grains, per set.....net \$ 40

5020.\* **Troemner's Prescription Weights.**

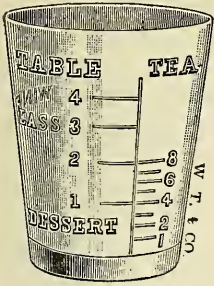


5020

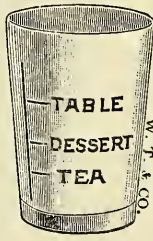
$\frac{1}{2}$  to 6 grains (nickel silver).....net \$ 10  
2 drachms, and down to  $\frac{1}{2}$  grain..... " 25

*All Instruments Illustrated are designated by a \*.*

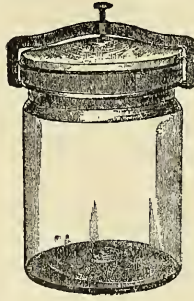
## Miscellanies.



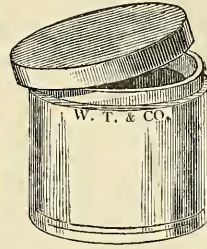
5007



5006



5036



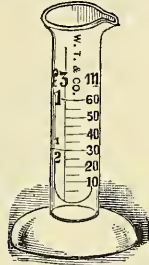
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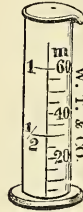
5028



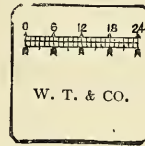
5029



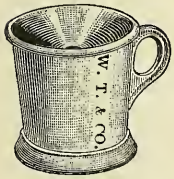
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5033



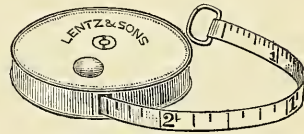
5031 &amp; 32



5037



5038



5039 &amp; 40

|        |                                                                                                                                                                                                                               |       |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 5025.  | Spatula, Steel, folding in handle for pocket.....                                                                                                                                                                             | \$ 80 |
| 5026.  | “ “ “ “ with 1 blade, either Scalpel or Bistoury.....                                                                                                                                                                         | 1 75  |
| 5027.  | “ “ “ “ “ 2 blades, Scalpel and Bistoury.....                                                                                                                                                                                 | 3 00  |
| 5028.* | “ “ wood handle, 3 in., 25c.; 5 in., 35c.; 7 in., 50c.; 9 in.....                                                                                                                                                             | 90    |
| 5029.* | Mortars and Pestles, glass, 1 oz., 35c.; 2 oz., 40c.; 3 oz., 50c.; 4 oz.....                                                                                                                                                  | 55    |
| 5030.  | “ “ “ porcelain, 3 in., 55c.; 4½ in., 80c.; 5½ in., \$1 00; 6½ in.....                                                                                                                                                        | 1 25  |
| 5031.* | Pill Tile, glass, engraved, with polished edges, 6 x 8, 90c.; 8 x 10, \$1 25; 10 x 12...                                                                                                                                      | 1 75  |
| 5032.* | “ “ earthenware, 6 x 8, 75c.; 8 x 10, \$1 00; 10 x 12.....                                                                                                                                                                    | 1 50  |
| 5033.* | Minim Glass, graduated 60 minims, 20c.; 120 minims.....                                                                                                                                                                       | 30    |
| 5034.* | “ “ “ with foot, 60 minims, 35c.; 120 minims.....                                                                                                                                                                             | 45    |
| 5035.* | Glass Boxes, for holding silk, cat gut, needles, &c., in solution, 1 oz., 12c.; 2 oz., 18c.; 4 oz., 25c.; 8 oz., 30c.; 16 oz.....                                                                                             | 40    |
| 5036.* | Museum Jars, for specimens, 3 x 4 in., ½ pint, 35c.; 3 x 10 in., 1 quart, 55c.; 4½ x 6 in., 1 quart, 80c.; 4½ x 8½ in., 3 pints, 90c.; 6 x 8 in., 1 gallon, \$1 25; 6 x 12 in., 1½ gallons, \$1 40; 9 x 8 in., 2 gallons..... | 1 90  |
| 5037.* | Spit Cups, white earthenware, with loose funnel.....                                                                                                                                                                          | 40    |
| 5038.* | “ “ agate iron, hinged funnel.....                                                                                                                                                                                            | 75    |
| 5039.* | Tape Measures, linen, in nickel-plated cases, with spring and stop, 3 ft., 65c.; 5 ft.,                                                                                                                                       | 75    |
| 5040.* | “ “ steel, “ “ “ “ “ 5 ft., \$1 35; 6 ft., 1 50                                                                                                                                                                               |       |

The Tapes are made of the finest tempered spring steel, ¼ inch wide, divided in inches on one side, and metres on the other.

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

### MEDICAL ELECTRICITY.

Electrical application, useful in diseases of the human body, are of two distinct methods : by induction (the faradic current), and by contact (the galvanic current).

The following brief explanation of the characteristic properties of these two kinds of current is intended to serve those of our patrons, not fully familiar with the subject, for their guidance in selecting the proper apparatus :

**The Faradic or Induced Current** is derived from the reactions of a strong, magnetic field, which is being created by passing a weak battery current from any sort of battery through the primary coil of an inductor enclosing an iron core, constituting "the Faradic Battery." By causing this primary current to be connected and disconnected in a very rapid succession by means of an intermitting device called the interrupter or buzzer, very highly intensified currents are produced in the secondary coil at every make and break. From the nature of these rapid intermissions and the high pressure obtained thereby, this current qualifies itself pre-eminently as an acute stimulator of motor and sensory nerves and muscles, either for a direct or a reflex effect.

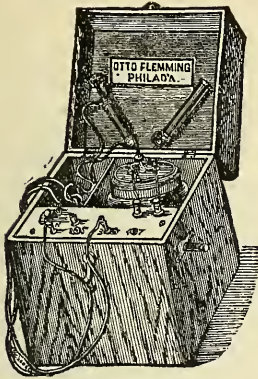
**The Galvanic Current**, generated in a multiple number of chemically-acting cells comprising "a Galvanic Battery," is drawn from its source direct, without the aid of any induction coil, and therefore is frequently called the direct or continuous current. It is of an entirely different effect, inasmuch as it does not depend on pressure and sudden interruptions, but on a steady flow of considerable volume, the intensity of which can be measured by the Mil-am-meter, and consequently be regulated. Sufficient pressure, however, is provided in order to overcome the resistance of those parts of the human body interposed between the two poles or electrodes. The galvanic current being a mild, steady, continuous and soothing flow of electricity, without producing shock or any unpleasant sensation beyond a gentle warming stimulation when applied to sensory nerves, except when interrupted, produces chemical changes in tissue and alters their trophic condition ; it stimulates nerves, increases capillary circulation and will give instant relief, and permanent benefit by more prolonged use in cases of neuralgia, sciatica, congestions and conditions of nervous excitement. A zinc-carbon acid battery of from 12 to 18 cells would probably prove efficient for these cases, while a battery of from 18 to 24 or 30 zinc-carbon cells should be selected for more extensive decomposing power as used in electrolysis, for destroying abnormal growths, in gynecology, etc. The tissue changes thus produced by the galvanic current, vary in intensity from a mere stimulation of natural functions to destructive electrolysis and superficial cauterization of the flesh, in accordance with the number of galvanic battery cells employed, showing the proportionate valuation of the current in milli-amperes at the meter.

This explanation of the functions of both kinds of apparatus, will convince the intelligent physician that he should be provided with both, the faradic as well as the galvanic battery. The two can be combined in one case very conveniently, but it is advisable for various reasons, to have each battery by itself, independent of the other. In conclusion it should be remarked that, although it was asserted above, that the ordinary galvanic battery of sufficient power, produces superficial cauterization, it should be stated, however, that it will not answer in surgical actual cautery, for heating up cautery knives, burners, etc.

*(The Cautery Battery is also a type of the Galvanic Batteries, but usually consists of one or two large cells having negative and positive plates of specially large surface in order to have its amperage increased and its internal resistance decreased. These Cautery Batteries furnish currents of from 15 to 30 amperes, with a current pressure of from 2 to 4 volts.)*

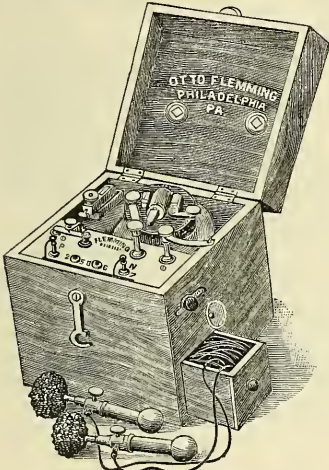


## Electrical Apparatus.



5050

5050.\* No. 00 Faradic Battery has been made to fill the demand for a good battery, suitable for family use, made in a neat and satisfactory manner, and at a low price. Metal parts are of brass, walnut case, has a pair of cotton-covered cords, and tubular tin handles..... \$10 00



5051

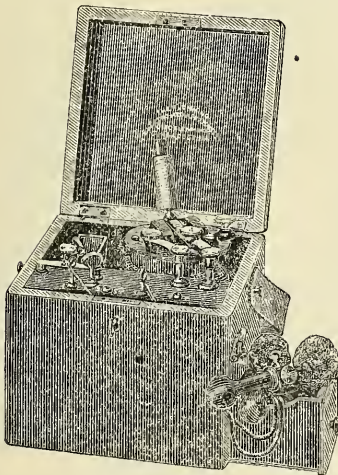
5050.\* No. 0 Faradic Battery same as above, with metal parts nickel-plated, polished walnut case, with handle, cotton-covered cords, one regular sponge electrode and one tubular tin handle..... 12 00

5051.\* No. 1 Faradic Battery is also for family use, and for physicians in making their daily visits for the purpose of diagnosis, or in treating simple cases where the Faradic Current is required. It is in a neat polished walnut wood case, 6 x 6 x 7½ inch, and has a patent fluid-tight cell, weight when charged only six pounds.

Price..... 15 00

Same battery as above with rapid and slow interrupter, specially adapted for applications in muscular paralysis.

Price..... 22 50



5052

5052.\* No. 2 Faradic Battery, a little larger and more powerful than No. 1, and with the addition of a Commutator for reversing the Polarity of the Electrodes during application. It is sufficiently powerful for nearly all cases where the Faradic Current is required, though for a physician in general practice who requires a battery for use in the more difficult as well as the simpler cases, we would, of course, recommend the more complete and more powerful, No. 3, see next page.

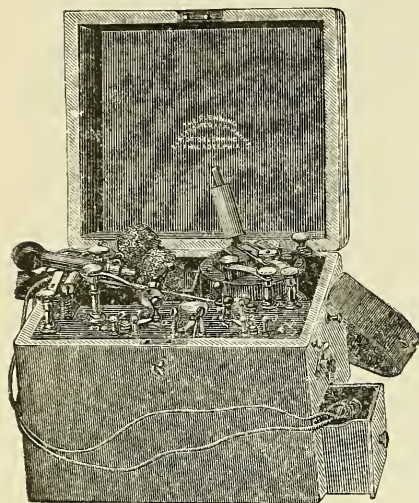
Put up in a polished walnut case, metallic work, nickel-plated.

Price..... 20 00

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

### 5053.\* No. 3.—FARADIC BATTERY.



5053

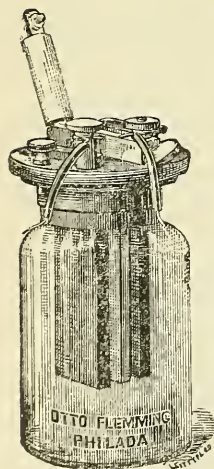
This is the finest and most complete Faradic battery ever manufactured. It is provided with a slow and a rapid rheotome, or current-interrupter—a commutator or polarity changer—scales by which the primary and secondary currents may be graduated to the utmost delicacy or greatest power—and with our new patent faradic cell. This cell is so made that when not in action the zinc is raised out of it altogether, and the aperture through which it passes covered with a rubber hydrostat, making the cell perfectly fluid-tight, and saving both the zinc and fluid from the effects of splashing in transportation or of immersion in case of an upset. By this plan also the cell can be filled to the top and the zinc be made twice the usual length, thus producing a stronger current and lasting a longer time.

The special advantages of this battery are : First, its great power ; we believe it to be the most powerful Faradic battery made. Second, its slow interrupter ; by this the interruptions can be made as slow as one

a second, which is of inestimable value in certain muscular affections where very slow interruptions will produce decided contractions when rapid interruptions would produce little or no result whatever. Third, the scales bringing any desired length of the coils into action, regulating by them and the tube the *intensity* in the most infinite degrees possible. The *quantity* can also be varied by immersing the zinc to any desired depth by means of the movable clamp securing it.

The Battery is put up in a handsome walnut case,  $7\frac{1}{2} \times 7\frac{1}{2}$  and  $8\frac{1}{2}$  inches, has all its metallic parts finely nickel-plated, and weighs, when charged, ten pounds.

Price.....\$30 00



5054

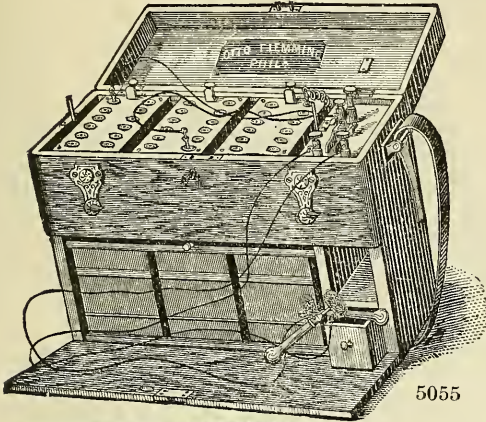
|                                                                                                            |        |
|------------------------------------------------------------------------------------------------------------|--------|
| 5054.* Faradic Cell, same as used in batteries, Nos. 00, 0, 1, 2 and 3, complete, with zinc and clamp..... | \$3 00 |
| Faradic Cell, without zinc and clamp.....                                                                  | 2 00   |
| “ Zinc Plates, by mail, including postage.....                                                             | 32     |
| “ “ “ .....                                                                                                | 25     |
| Zinc Clamps.....                                                                                           | 75     |
| Faradic Carbon Plates.....                                                                                 | 25     |
| Quick-silver.....per oz.                                                                                   | 25     |
| Battery Fluid.....“ qt.                                                                                    | 35     |
| Cotton-covered conducting cords.....“ pair                                                                 | 60     |
| Silk “ “ “ .....                                                                                           | 75     |
| Handles with sponge-covered discs.....                                                                     | 1 50   |
| “ without “ “ “ .....                                                                                      | 75     |
| “ tubular tin.....“ “                                                                                      | 50     |
| Hard Rubber Drip Cup.....                                                                                  | 40     |

All Instruments Illustrated are designated by a \*.



## Electrical Apparatus.

### 5055.\* PORTABLE CONSTANT GALVANIC CURRENT BATTERY.

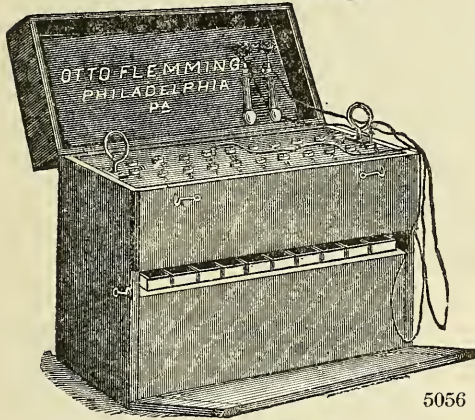


5055

This form of Galvanic Battery is the most complete ever offered to the Profession. The different sizes, from 10 to 40 cells, are so made in sections of 10 cells each that any one section, or any number of sections can be used independently of the others, or all used together. The elements are zinc and carbon, the fluid, Bichromate of Sodium, and the cells are hard rubber, which is lighter and more durable than glass. Covering the cells, when not in action, is a Hydrostat, or rubber cushioned sliding-board, which is pressed down tightly upon them when the lid is closed, thus preventing the fluid from spilling while being transported, or if by accident it should be upset. Unlike all other Batteries, the cells in this can be taken out in front for re-charging, obviating the annoyance and risk of breakage in removing the plates on top. Connected with the binding posts for receiving the Electrode cords is a Commutator for reversing the Polarity of the Electrodes, or for interrupting the current by hand. On special orders, an "Automatic Rheotome" for interrupting the current, or a "Current Controller" for varying the current at will and avoiding shock, is attached. The Walnut Cases of these Batteries are highly polished, and all the metallic parts finely nickel plated.

|                         |         |   |
|-------------------------|---------|---|
| 10 cell Battery.....    | \$25 00 | † |
| 20 " " .....            | 45 00   | " |
| 30 " " .....            | 65 00   | " |
| 40 " " .....            | 80 00   | " |
| Automatic Rheotome..... | 10 00   | " |
| Current Controller..... | 10 00   | " |

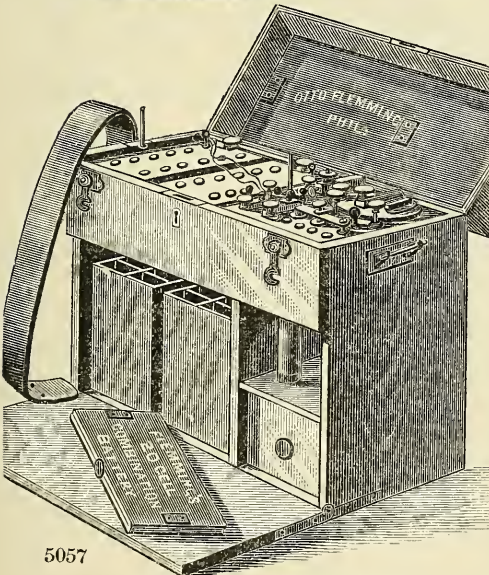
### 5056.\* GALVANIC FAMILY BATTERY.



5056

There is a demand among physicians for a cheap Galvanic Battery that may be put into the hands of their patients. To meet this want we have designed a simple Galvanic Battery to suit any desired number of Cells. The Cells are of Glass, set in a Movable Frame which can be easily raised up and set by two screw heads. The elements are Zinc-Carbon, and in the cut the manner is shown in which a certain number of Cells are brought into circuit.

|                     |         |   |
|---------------------|---------|---|
| 6 cell Battery..... | \$ 7 00 | † |
| 8 " " .....         | 9 00    | " |
| 10 " " .....        | 11 50   | " |
| 16 " " .....        | 17 50   | " |
| 20 " " .....        | 22 00   | " |
| 30 " " .....        | 32 00   | " |



5057

### 5057.\* PORTABLE COMBINATION BATTERIES.

(Physicians' style, or galvanic and faradic apparatus combined in one case.)

Galvanic part same as the Constant Galvanic Battery above described, and the Faradic part, same as the No. 1 Faradic Battery, with rapid interrupting helix.

|                                  |         |   |
|----------------------------------|---------|---|
| 10 cell Combination Battery..... | \$35 00 | † |
| 20 " " .....                     | 55 00   | " |
| 30 " " .....                     | 75 00   | " |

The same style of battery as above, but faradic apparatus provided with rapid and slow Interrupter:

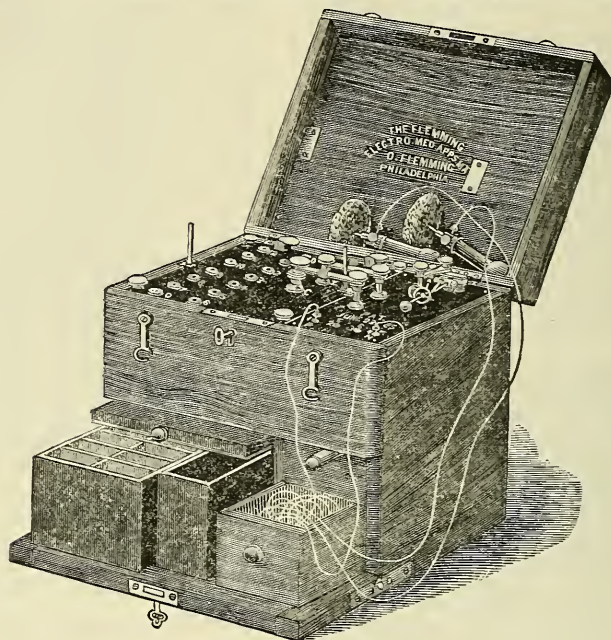
|                                  |         |   |
|----------------------------------|---------|---|
| 10 cell Combination Battery..... | \$50 00 | † |
| 20 " " .....                     | 70 00   | " |
| 30 " " .....                     | 90 00   | " |



## Electrical Apparatus.

### IMPROVED PORTABLE GALVANIC CELL BATTERIES.

With or Without the Combination of a Faradic Helix.



5058

Induced by numerous inquiries from physicians near and far, and as a result of extensive experience, Mr. Otto Flemming has devised a new series of a Zinc-Carbon-Chromate Battery.

Heretofore, the rubber cells of his superior galvanic batteries consisted of nest cells, of 10 compartments each, thus permitting the construction of batteries of 10-20-30 cells only. By the introduction of his new series, we are enabled to furnish batteries from 6 cells to any multiple of 6 cells, as per list below, either the simple galvanic, or combined with one of Flemming's approved induction coils.

The cells, which are of high electro-motive force, are provided with perfect rubber hydrotats, rubber cushioned, to prevent slopping or spilling of the fluid during carriage, and the cases made of thoroughly-seasoned, polished walnut; they are considerably diminished in height, as compared with the old issue, all metal parts being finely nickel-plated.

To avoid errors in forwarding orders for these improved batteries, the running number of a selected apparatus should be given.

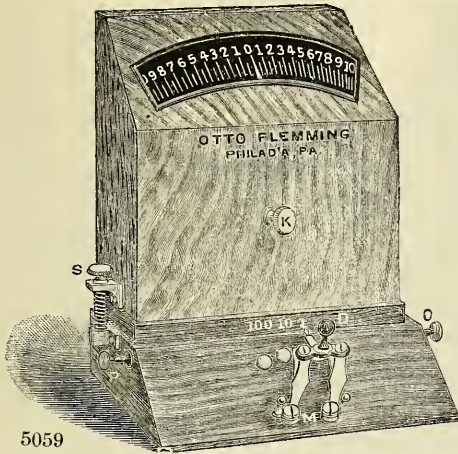
#### Price List.

|        |                                                    |         |
|--------|----------------------------------------------------|---------|
| No. 1. | Six Cell Galvanic Battery.....                     | \$20.00 |
| " 2.   | " " " and Faradic Battery (rapid Interrupter)..... | 30.00   |
| " 3.   | " " " " (rapid and slow Interrupter).....          | 38.00   |
| " 4.   | Twelve Cell Galvanic Battery.....                  | 30.00   |
| " 5.   | " " " and Faradic Battery (rapid Interrupter)..... | 40.00   |
| " 6.   | " " " " (rapid and slow Interrupter).....          | 48.00   |
| " 7.   | Eighteen Cell Galvanic Battery.....                | 40.00   |
| " 8.   | " " " and Faradic Battery (rapid Interrupter)..... | 50.00   |
| " 9.   | " " " " (rapid and slow Interrupter).....          | 58.00   |
| " 10.  | Twenty-four Cell Galvanic Battery .....            | 55.00   |
| " 11.  | " " " and Faradic Battery (rapid Interrupter)..... | 67.00   |
| " 12.  | " " " " (rapid and slow Interrupter)....           | 75.00   |
| " 13.  | Thirty Cell Galvanic Battery.....                  | 65.00   |
| " 14.  | " " " and Faradic Battery (rapid Interrupter)..... | 77.00   |
| " 15.  | " " " " (rapid and slow Interrupter).....          | 85.00   |
| " 16.  | Thirty-six Cell Galvanic Battery.....              | 75.00   |
| " 17.  | " " " and Faradic Battery (rapid Interrupter)..... | 87.00   |
| " 18.  | " " " " (rapid and slow Interrupter).....          | 95.00   |

## Electrical Apparatus.

### 5059.\* "FLEMMING" MILLI-AMPERE METER.

For Absolute Measurement of Galvanic Currents.

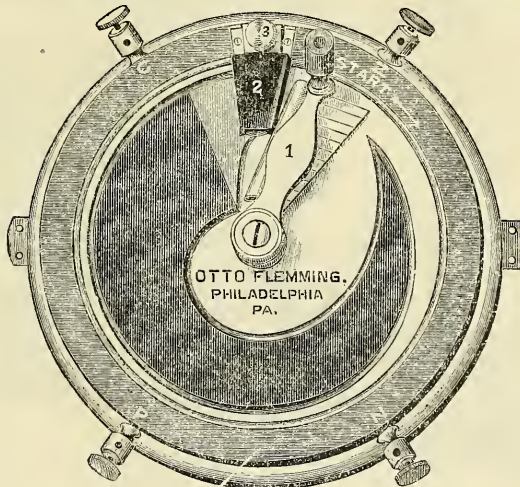


5059

In modern application of galvanic currents therapeutically and especially in Electro-Gynaecology, the dosage of amount of current passing through the patient by measurement, has become just as indispensable to the Electro-Therapist, as scales and weight to the Pharmacist. Fleming's Milli-ammeter stands high in reputation as being one of the best, most accurate, durable and simple of manipulation, and has frequently been alluded to in the writings of high authority.

Price.....\$25 00

### 5060.\* "MASSEY" CURRENT CONTROLLER.



5060

Its function is to vary the current at will by rapidly increasing or decreasing the resistance of the circuit, from a fraction of a milli-ampere to the full strength of the battery without shock. It consists of a porcelain plate, provided with a sickel-shaped conducting area of graphite (soft pencil), broadening and thickening up to the terminal, where the graphite unites with a metallic surface, which is in direct contact with the battery without any material resistance. When the crank C (Fig. 1) is placed to the right of the hard rubber bridge, the contact comb of the crank rests entirely on the porcelain and the circuit is broken; moving it slightly forward it soon touches the sickelpoint and the graphite mark permits the least amount of current to pass through, since the current must pass over the whole area of graphite. By turning the crank slowly and steadily onward, there is a gradual increase of current without shock until, finally the metallic surface is reached, when the whole power of the battery is turned on. A reversed action turns the current off. If the motion is made slowly, the increase and decrease is exceedingly gradual and the meter-needle points constantly to the exact current strength of the moment without oscillation. By its use, a more economical wear of the cells results, as all cells are worked alike. It may be used with a small or large number of voltaic cells, or in connection with an incandescent light circuit for medical galvanic work, but cannot be used for actual cautery.

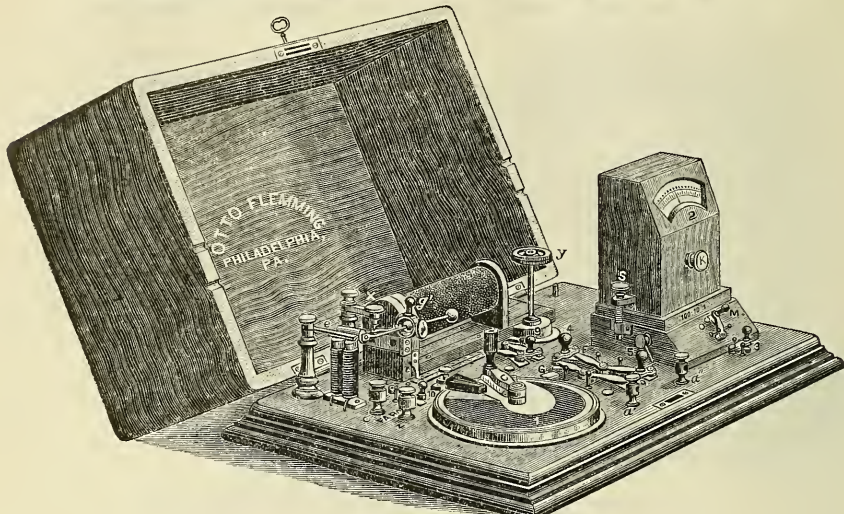
Price.....\$10 00

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

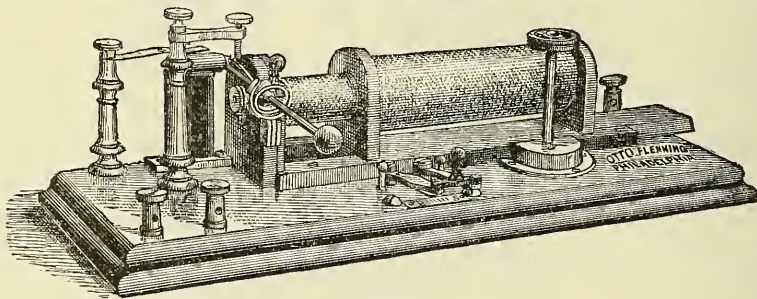
### 5061.\* ELECTRO-THERAPEUTIC-GYNÆCOLOGICAL SET.



5061

Comprising Massey's Current Controller; Flemming's Milliampere Meter; Dubois-Reymond's Induction Coil; DeWatteville's Current Combiner and Commutator; on walnut base with locking cover.....\$85 00<sup>1</sup>  
 Above set without cover.....80 00<sup>1</sup>

### 5062.\* FLEMMING'S DUBOIS-REYMOND INDUCTION COIL.



5062

This apparatus being made after Dubois-Reymond's excellent method of graduating the range of electro-motive force by sliding a powerful secondary coil over the primary by means of Flemming's original rack and wheel arrangement, and provided with Flemming's automatic rapid and slow current-interrupting device, as also with switches for selecting either the primary or secondary current and for closing and breaking the battery circuit, will be found the most efficient and convenient Faradic Induction Coil for use in a physician's office. The easy mode of gradually increasing or decreasing the current without shock and of enabling the production of "swelling" currents used for unstriated muscular stimulation, make this instrument especially valuable. For furnishing this coil without motive power, a Grenet Cell or two Law or Axo Cells seem best adapted. The platform of this apparatus measures  $6\frac{1}{2} \times 15\frac{1}{2}$  inches and the actuating cells may be placed under the table or in some adjoining closet.

#### Prices.

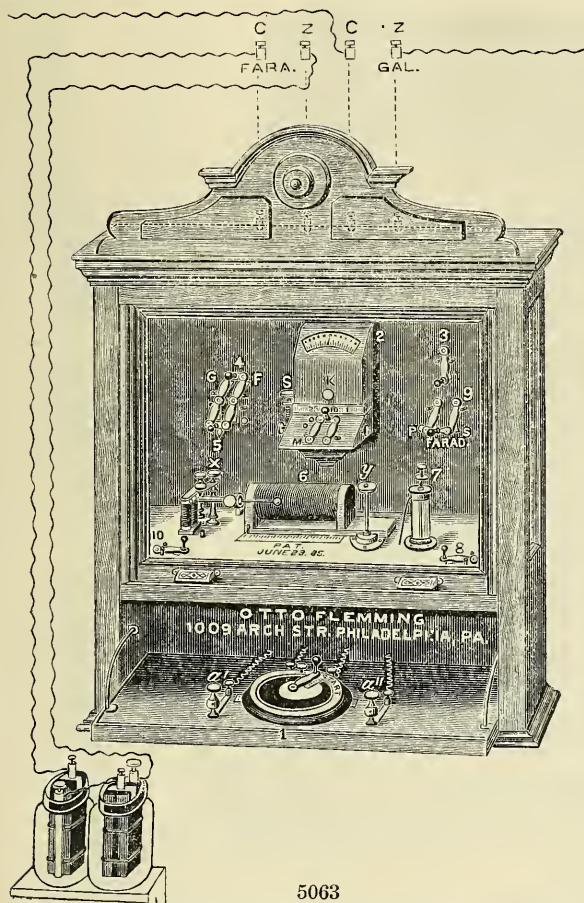
|                         |                      |
|-------------------------|----------------------|
| Coil without Cells..... | \$30 00 <sup>1</sup> |
| Two Law Cells.....      | 2 00 <sup>1</sup>    |
| One Grenet Cell.....    | 4 00 <sup>1</sup>    |

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

### 5063.\* ELECTRO-THERAPEUTIC-GYNÆCOLOGICAL WALL CABINET.



5063

Flemming's Wall Cabinet contains the following accessories, aiding in eliciting or modifying the galvanic or faradic currents, or both currents combined, at pleasure.

*Fig. 1.* The Massey Current Controller, for the purpose of varying the galvanic current at will, by rapidly increasing or decreasing the resistance in the circuit.

*Fig. 2.* The Flemming Milliampere Meter, for indicating the number of units of electricity passing through the entire circuit, including the patient.

*Fig. 3.* The Single Switch, for including or omitting the Milliampere Meter in the galvanic circuit.

*Fig. 4.* The De-Watteville Current Combiner, for combining the two currents (galvanic or faradic) simultaneously, and also for selecting either one or the other.

*Fig. 5.* The Commutator (or pole changer), and the two terminal posts *a'* and *a''*.

*Fig. 6.* The Dubois-Reymond Induction Coil, with slow and rapid interrupters and graduated.

*Fig. 7.* The Water Rheostat, for varying the faradic current by inserting a range of resistance into the circuit.

*Fig. 8.* The Single Switch, for omitting or including the Water Rheostat in the faradic circuit.

*Fig. 9.* The Faradic Double Switch, for selecting either the primary or secondary induction currents.

*Fig. 10.* The Single Switch, for starting or stopping the electric action in the faradic apparatus.

#### Dimensions of Cabinet :

33 $\frac{3}{4}$  inches high,  
28 $\frac{1}{2}$  " long,  
10 " wide.

Wall Cabinet as shown in cut,  
(without any cells)..\$125 00¶

Wall Cabinet, including 40  
cells .....\$175 00¶

With this Wall Cabinet the  
Law, Gonda or Axo Cell will be  
furnished, if so ordered.

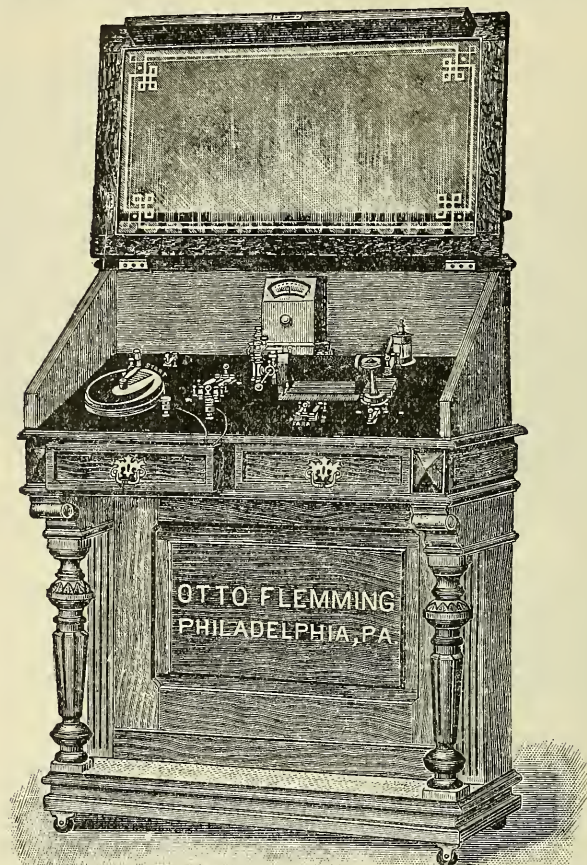
Wall Cabinet, including 50  
cells.....\$187 50¶

Wall Cabinet, including 60  
cells.....\$200 00¶

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

5064.\* ELECTRO-THERAPEUTIC-GYNÆCOLOGICAL CABINET.



5064

Comprising : Sixty semi-dry Cells for galvanic, and extra Cells for faradic action ; also :

*Fig. 1.* The Massey Current Controller, for the purpose of varying the galvanic current at will, by rapidly increasing or decreasing the resistance in the circuit.

*Fig. 2.* The Flemming Milliampere Meter, for indicating the number of units of electricity passing through the entire circuit, including the patient.

*Fig. 3.* The Single Switch for including or omitting the Milliampere Meter in the galvanic circuit.

*Fig. 4.* The De-Watteville Current Combiner, for combining the two currents (galvanic or faradic) simultaneously and also for selecting either one or the other.

*Fig. 5.* The Commutator, (or pole changer) and the two terminal posts *a'* and *a''*.

*Fig. 6.* The 'Dubois-Reymond Induction Coil with slow and rapid interrupters and graduated.

*Fig. 7.* The Water Rheostat, for varying the faradic current by inserting a range of resistances into the circuit.

*Fig. 8.* The Single Switch for omitting or including the Water Rheostat in the faradic circuit.

*Fig. 9.* The Faradic Double Switch, for selecting either the primary or secondary induction currents

*Fig. 10.* The Single Switch for starting or stopping the electric action in the faradic apparatus.

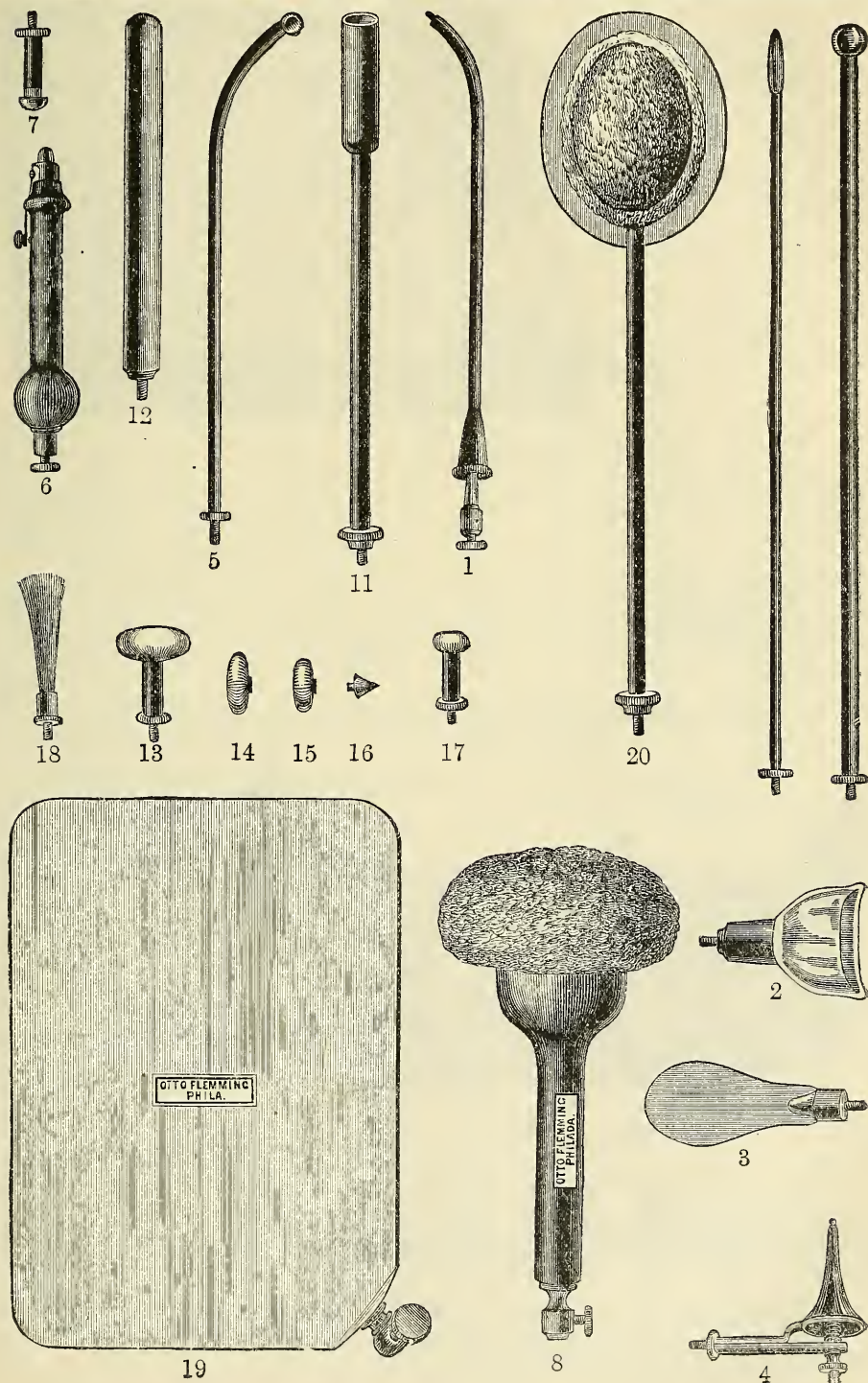
Price, \$200 00.†

*All Instruments Illustrated are designated by a \*.*



## Electrodes.

Forms of Electrodes used in the various kinds of Electrical Applications.



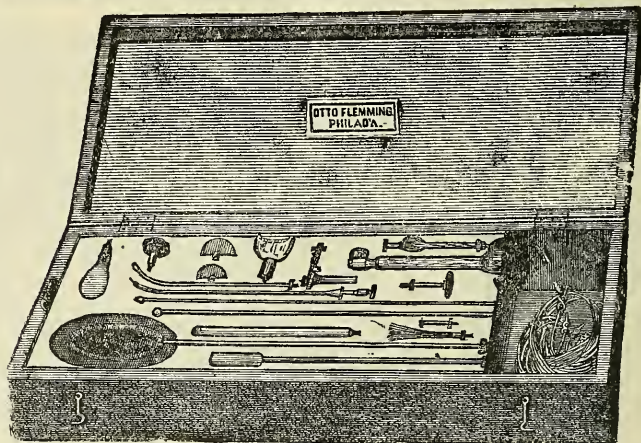


## Electrical Apparatus.

### GENERAL ELECTRODE CASE.

No. 1 Case, containing eleven Electrodes and one pair of Cords.....\$12 00 ¶

No. 2 Case, containing twenty Electrodes and Conducting Cords as described below..... 20 00¶

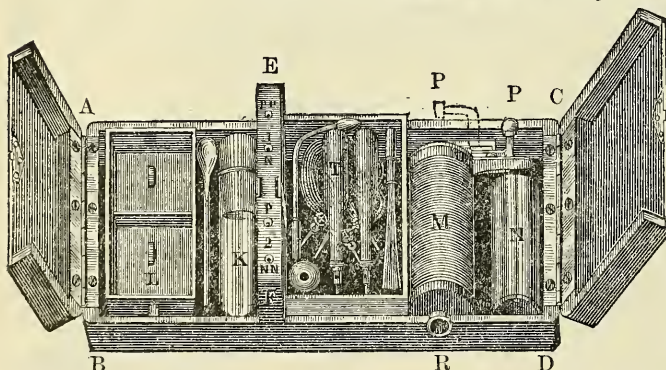


5085

### ELECTRODES. (See page 277.)

|                             |          |                                                      |          |
|-----------------------------|----------|------------------------------------------------------|----------|
| 1. Laryngeal Electrode..... | \$2 00 ¶ | 11. Cup-shaped for mouth of Womb Electrode.....      | \$1 50 ¶ |
| 2. Eye.....                 | 2 00 ¶   | 12. Vaginal.....                                     | 1 50 "   |
| 3. Tongue.....              | 75 "     | 13. Sympathetic Nerve.....                           | 1 00 "   |
| 4. Ear.....                 | 2 00 "   | 14, 15 and 16, Disk, olives, points, etc., each..... | 75 "     |
| 5. Nasal.....               | 1 00 "   | 17. Carbon.....                                      | 1 00 "   |
| 6. Interrupting Handle..... | 1 50 "   | 18. Wire-Brush.....                                  | 75 "     |
| 7. For Special Nerves.....  | 75 "     | 19. Foot-Plate.....                                  | 75 "     |
| 8. Large Sponge.....        | 1 00 "   | 20. Spinal.....                                      | 1 50 "   |
| 9. Uterine and Rectal.....  | 1 25 "   |                                                      |          |
| 10. Urethral.....           | 1 25 "   |                                                      |          |

### GAIFFE'S POCKET ELECTRO-MEDICAL APPARATUS. For Physicians' and Family Use.



5086

Zincs for Gaiffe's Batteries, 25 cts. per pair, net.

Price of the Battery, including Conducting Cords, two Insulated Handles, a spherical and an olive shaped Electrode, a Metallic Brush, and a bottle of Bi-Sulphate of Mercury, all contained in the case, net.....\$8 00  
Bi-Sulphate of Mercury, per ounce, net..... 15  
Extra Trough.....net 1 50

### Directions for Making the Battery Fluid for Flemming's Batteries.

Dissolve one and a half ( $1\frac{1}{2}$ ) ounces (avoirdupois) of Bi-Chromate of Soda in twenty-four (24) fluid ounces of hot water in an earthenware vessel, and add to it three-fourths ( $\frac{3}{4}$ ) ounce of Saltpetre. Allow it to cool to the temperature of the air, and then add three (3) fluid ounces of Commercial Sulphuric Acid. When cold again, add a solution of one-fourth ( $\frac{1}{4}$ ) ounce of Bi-Sulphate of Mercury in three (3) fluid ounces of cold water. This quantum will yield one quart of the battery fluid, and should not be used until cold.

### For Making the Amalgamating Solution for Flemming's Batteries.

Mix half a pound Nitric with one pound Muriatic Acid, to which add four ounces of Mercury. When the Mercury is dissolved add a pound and a half more Muriatic Acid.

To Amalgamate the Zinc, immerse it in the solution for a few seconds, then remove it quickly to a basin of clean water and rub it with a brush or cloth, when it will be found covered with a fine, even coat of Mercury. The solution should be kept in a covered vessel, and may be used many times.

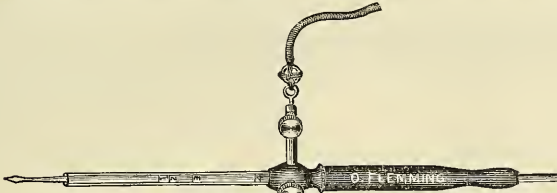
## Electrical Apparatus.

### ELECTRODES USED CHIEFLY IN ELECTRO-GYNÆCOLOGY.



5087

- 5087.\* Dr. Massey's Fibroid Spear of platinum or gold, (suitable for the positive pole), \$6 00<sup>¶</sup>



5088

- 5088.\* Dr. Apostoli's Fibroid Spear with platinum point and movable glass or hard rubber sheath.....\$ 7 00<sup>¶</sup>  
 5089. Hutchinson's Gong of six Fibroid platinum needles with furcated cords..... 12 00<sup>¢</sup>



5090

- 5090.\* Dr. Massey's Monopolar rigid-intra-uterine Electrode of platinum, (adaptable for the positive pole).....\$8 00<sup>¶</sup>  
 5091. The same, made of nickel-plated copper..... 1 50<sup>¢</sup>



5092

- 5092.\* Dr. Massey's Monopolar Flexible intra-uterine Electrode of platinum.....\$9 00<sup>¶</sup>  
 5093. The same, of plated copper..... 2 50<sup>¢</sup>



5094

- 5094.\* Dr. Apostoli's Monopolar intra-uterine Electrode of platinum.....\$ 9 00<sup>¶</sup>  
 " " " " " without handle..... 8 00<sup>¢</sup>

(This Electrode is made interchangeable with Apostoli's Spear, so that one handle will suit both.)

- 5095.\* Dr. Apostoli's Bi-polar intra-uterine Electrode, both poles of platinum.....\$10 00<sup>¶</sup>  
 5096. " " " " one pole " " ..... 8 00<sup>¢</sup>  
 5097. " " " " nickel-plated copper..... 4 00<sup>¢</sup>



5095

*All Instruments Illustrated are designated by a \*.*



Electrical Apparatus.

ELECTRODES USED CHIEFLY IN ELECTRO-GYNÆCOLOGY.



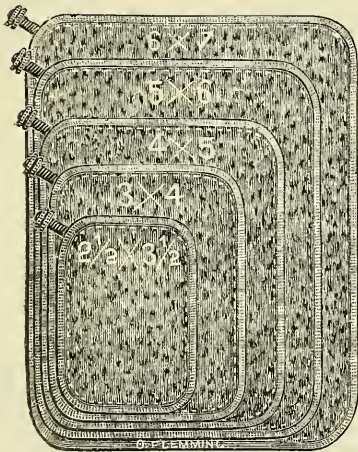
5098

5098.\* Dr. Massey's Monopolar-Vaginal Electrode in three sizes,  $\frac{9}{16}$ ,  $\frac{3}{4}$  and one inch diameter.....\$2 00



5099

5099.\* Dr. Massey's Bi-Polar Vaginal Electrode .....\$4 00  
5100. Dr. Apostoli's Cutaneous or Dispersing Abdominal Electrode,  
consisting of claypad and leadplate, 8 x 10 inches..... 1 50  
" " pure block-tinplate, 8 x 10 inches..... 2 50  
5101. Dr. Martin's Dispersing Electrode, gong-shaped and covered with a membrane for  
holding warm water, 8 inches in diameter..... 4 00

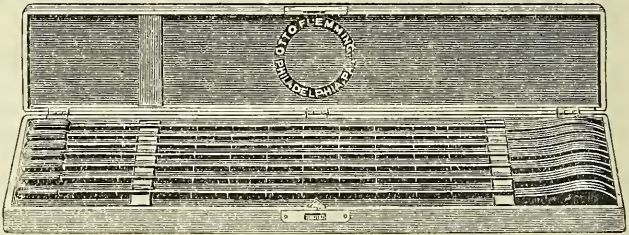


5102

5102.\* Flat Surface Electrode Pads, made of tinplated, pliable copper, with a rubber back and covered with felt or sponge.

| Size.               | Felt covering. | Sponge covering |
|---------------------|----------------|-----------------|
| 2½ x 3½ inches..... | \$ 50          | \$1 00          |
| 3 x 4 " .....       | 75             | 1 50            |
| 4 x 5 " .....       | 1 25           | 2 00            |
| 5 x 6 " .....       | 1 75           | 2 50            |
| 6 x 7 " .....       | 2 25           | 3 25            |

5103.\* Dr. Apostoli's Bulbous Carbon Electrodes, for superficial cautery in bleeding fibroids.



5103



In the accompanying engravings are shown a case of seven of the above carbon electrodes, scaled to one-fifth of actual size, and a gauge drawn to full size with numbers designating the diameter of each carbon ohve in millimetres.  
Single Electrodes.....each \$2 00 The full set in case.....\$12 00

All Instruments Illustrated are designated by a \*.



## Electrical Apparatus.

### CHLORIDE OF SILVER DRY CELL BATTERIES.

#### General Description of the Galvanic Batteries.

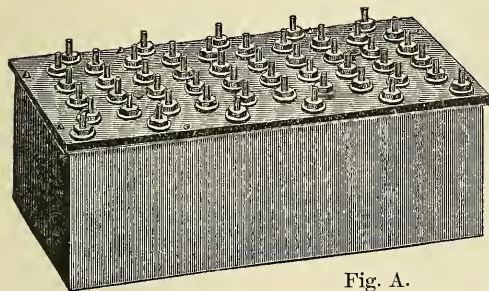


Fig. A.

Each instrument consists of a number of Chloride of Silver dry cells, hermetically sealed, arranged in series, and encased in a japanned metallic box to themselves, leaving nothing exposed but the connecting pins and nuts securing them to box-top, as shown in cut Figure A, which represents the inner, removable, cell case of a galvanic, constant current, battery.

When the elements are exhausted, this metal case and contents is the part which is renewed—a matter of mere exchange of one set of elements for another; so simple that no time is lost and labor greatly economized thereby. The cost of renewal is but 30 cents for each galvanic cell.

*Galvanic batteries of 24 or more cells have, in addition to the preceding parts, the following accessories:—*

#### 1.—A Current Reverser,

shown in Figure C. This is a hard rubber plate, secured within the box-top; has two metal posts with conical sockets to take free ends of electrode conducting cords, a lever or switch for making or breaking—closing and opening—the circuit, as well as for changing the poles; and two short fixed cords for uniting it with the cells.

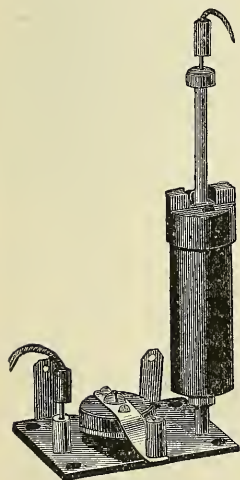


Fig. C.

#### 2.—A Water-Rheostat,

shown in Figure D, and also in Figure C, in position on the current reverser. This is of hard rubber, has removable screw cap for putting in fluid, a socket below to take either of the metal posts of current reverser, and a small socket in top of its piston to receive electrode conducting cord.

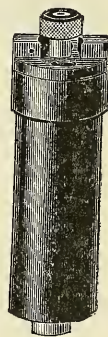


Fig. D.

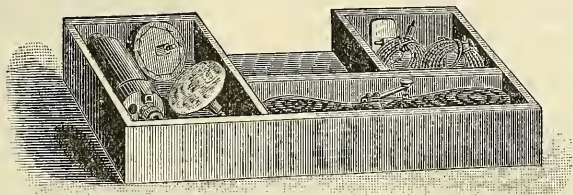


Fig. E.

#### 3.—A Strong and Durable Tray,

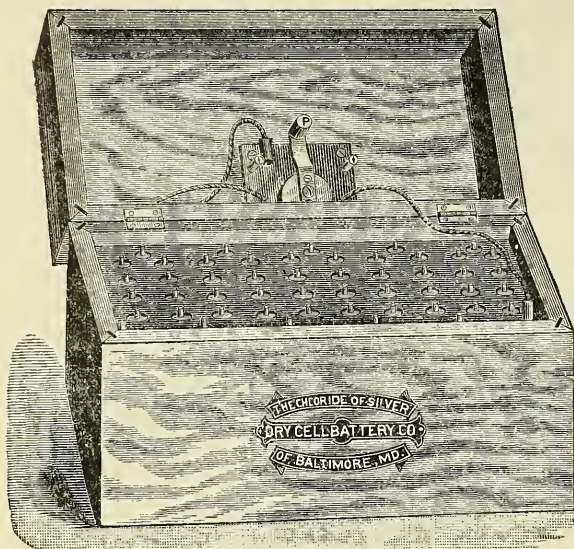
shown in Figure E. This fits within the box top, and as the cut explains itself, needs no particular reference here.

## Electrical Apparatus.

### Price List of Chloride of Silver Dry Cell Batteries, Net.

[NOTE.—In ordering any of the batteries listed below it might be noted that the Nos. 1 and 2 are intended for general medical use, and are capable of treating every case, no matter what its nature—from those requiring the mildest to the strongest galvanic current; the No. 2, of course, having the additional advantage of the induction coil. The No. 3 batteries, however, containing a small number of cells, are adapted to treatment of cases needing a mild current and to the electrolysis of small growths. They have full power for the work for which they are intended, but of course will not embrace so wide a field as the others.]

#### 5112.\* No. 1.—GALVANIC BATTERY.



5112

This is a constant-current Battery, designed especially for physicians' use. It is put up in a very handsome, light, hardwood box, 6x7x10 inches. Metal parts are all finely finished and nickel-plated, and each is provided with a hard rubber switch-board for making and breaking the current and changing the poles; a water rheostat, one plain and one interrupting handle, conducting cords and best quality sponge electrodes.

|              |                |
|--------------|----------------|
| 24-Cell..... | Price, \$38 00 |
| 32 " .....   | " 45 00        |
| 50 " .....   | " 65 00        |
| 60 " .....   | " 75 00        |
| 84 " .....   | " 95 00        |

The capacity of these Batteries is 720 hours of actual work. The cost of operating the 50-Cell is 2½ cents per hour. The others proportionately more or less, according to number of cells.

Charges for Renewing and Restoring Cells when exhausted, and Cells returned to us by express, prepaid :

|                                                            |       |
|------------------------------------------------------------|-------|
| For each Galvanic Cell.....                                | \$ 30 |
| " " Faradic Cell-Block to Combination Battery.....         | 1 50  |
| Directions, describing fully all parts, with each Battery. |       |

#### 5114.\* No. 3.—GALVANIC BATTERY.

This is a smaller and less complete constant-current Battery than the No. 1, and is intended for family as well as physicians' use, for electrolysis of small growths, hairs, etc.; in general, for the treatment of cases which do not need or could not stand a very powerful current. Put up in strong, well-finished walnut boxes, with conducting cords and sponge electrodes.

These Batteries will maintain the full strength of current for about 720 hours of actual work. The cost of operating the 6-Cell Battery is one-quarter of a cent per hour. That of the others is in exact proportion, according to the number of cells.

|                           |                |
|---------------------------|----------------|
| 6-Cell, size 4½x4½x5..... | Price, \$10 00 |
| 12 " " 5½x5½x5.....       | " 15 00        |
| 16 " " 5½x5½x5.....       | " 20 00        |



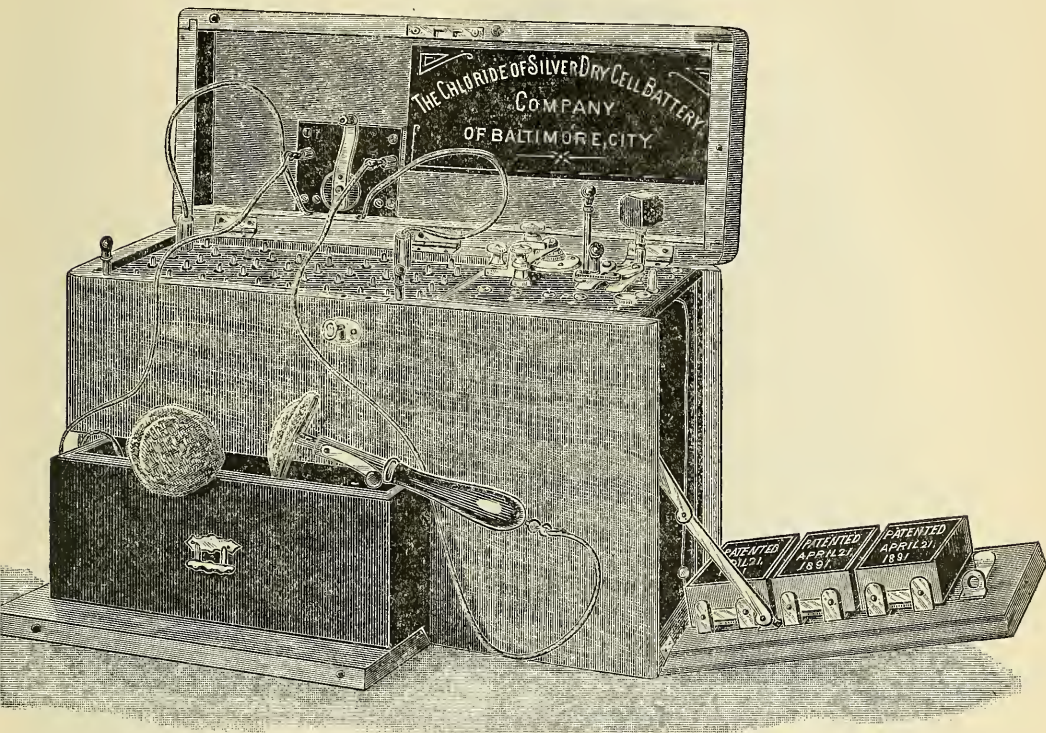
5114

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

5113.\* No. 2.—COMBINATION BATTERY.



5113

This combination battery, so far as the galvanic part is concerned, is precisely the same as the No. 1 preceding, but it contains in the same box a compact Faradic Coil, and cells, capable of producing the most intense and powerful induction current.

The Faradic part of the battery contains three cell blocks, and they are arranged in the box in such a manner as to admit of either one, two, or three being used at a time. For special work requiring a very heavy current, the whole three cell blocks may be employed, but as ordinary work requires but a moderate degree of strength, it will not be necessary to use more than one or two of these in most cases. The advantages possessed by this arrangement will be apparent to all, as it permits a careful man to economize the life of his cells very much. The Faradic part is also provided with a current reverser, and current breaker, and gives a steady and uniform current of three kinds: primary, secondary and combined, while the arrangements for increasing and modifying the current strength are perfect.

|              |                |
|--------------|----------------|
| 24 cell..... | price, \$58 00 |
| 32 cell..... | “ 65 00        |
| 50 cell..... | “ 85 00        |

Other sizes to order at short notice.

The galvanic part of these batteries have a capacity of about 720 hours of actual work, based on the average resistance offered by the human body, which is generally conceded to be about 3000 ohms.

The Faradic cell blocks have a life of 100 hours when all are used together, and this may be very much increased by following the directions for manipulating them, given above.

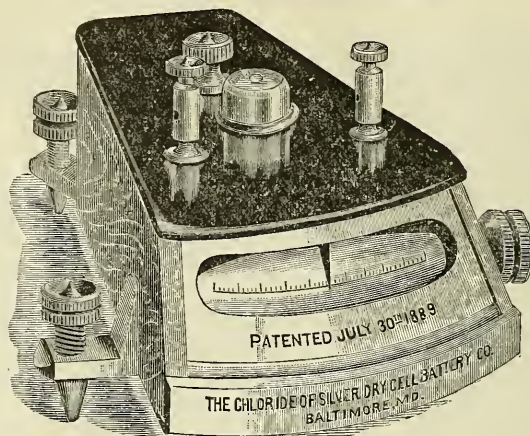
### CHARGES FOR RENEWING AND RESTORING.

|                                                         |       |
|---------------------------------------------------------|-------|
| For each galvanic cell.....                             | \$ 30 |
| For each Faradic cell block to combination battery..... | 75    |



## Electrical Apparatus.

5115. No. 4.—MIL-AM-METER.



5115.

Without discussing the question of the usefulness of this instrument in connection with medical galvanism—which seems as uncalled for as to try to demonstrate the usefulness of the apothecary's scales in the administration of doses of other medicine—it will be sufficient to describe the peculiar merits of our present improved form of meter and its adaptability to the service of the physician.

Experience has demonstrated to us just what are the desirable features to be embodied in an instrument of this kind, as will be recognized from the following—

*First.*—An absolute electrical meter should be *accurate*. The best conditions for this accuracy are the use of short magnetic needles in connection with a long pointer. In our meter the magnetic needles are less than one inch long, while the pointer—made of aluminum for lightness—is four inches long, thus securing an extended indication on the scale for a very slight movement of the needles.

*Second.*—Such a meter should be as free as possible from changes due to changes of time and surroundings. This double object we accomplish by employing a horizontal movement and an astatic system of magnetic needles, controlled by a fixed magnet, which is permanently under the influence of an armature or keeper, for preserving a uniform degree of magnetism. Such a system of needles is free from the influence of the earth's magnetism and is the most constant in its action.

*Third.*—Friction must be entirely absent. This we accomplish by the use of a perfectly-pointed steel pivot, working in a concave jewel, as in the best absolute galvanometers known to electricity.

*Fourth.*—The free parts of the instrument must be provided against accidental displacement. This is attained by a simple detail of mechanism, so that the magnetic needles cannot get off the pivot, even if shaken wrong-side-up or otherwise roughly used. A simple locking device also provides for lifting the needles from the pivot and holding them fixed for transportation.

*Fifth.*—A physician's Miliamperemeter should be readable from either a sitting or standing position. In our meter we pitch the face at the front at an angle which satisfactorily meets these points.

*Sixth.*—The perfect meter should have a wide range of measurement. This has been obtained in all other meters by a complicated and troublesome method of shunts, either by switches or plugs, involving the use of various multipliers in connection with a fixed scale. In our new meter, by an entirely new and wonderfully simple arrangement, we have provided for the widest possible compass, together with direct reading scales. Three independent reading scales are stamped at equal distances apart on the three faces of a celluloid roller. One of these scales is marked in 5 milamperes, divided into halves. The second scale is divided into 25 milamperes, and the third scale reads up to 250 milamperes. This roller is placed in the face of the meter, under the end of the pointer, on a shaft which passes through the side of the case, and terminates in a button by which the roller may be turned.

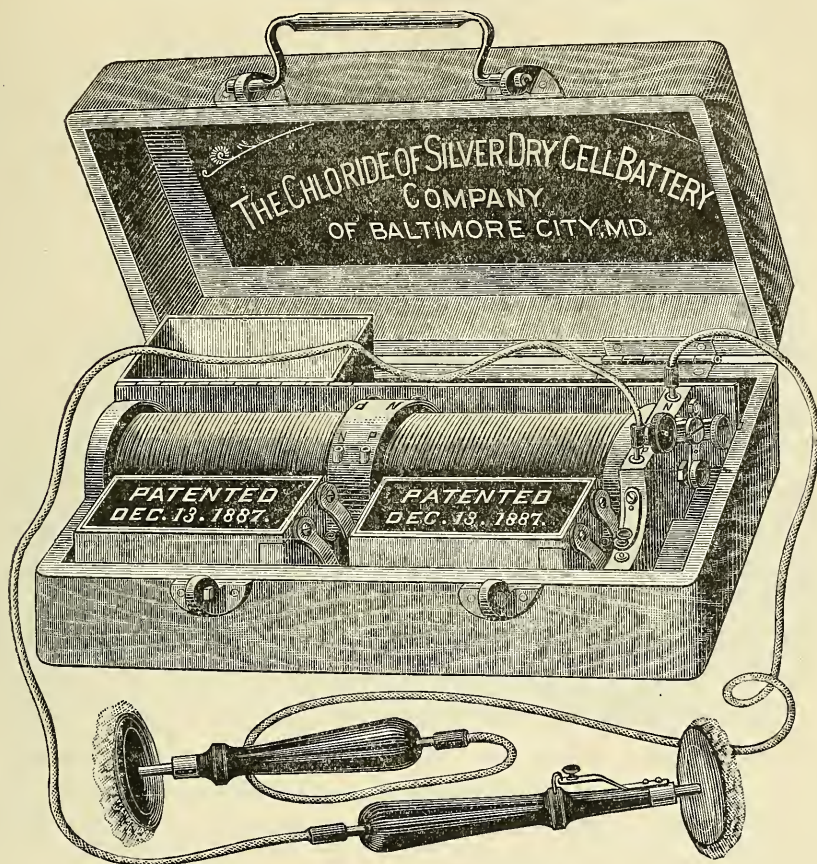
In connection with this roller is our novel device inside the case, by which, when the roller is turned so as to bring any one of the three scales to view under the pointer, the connections within the case are automatically adjusted so as to cause the meter to read directly and accurately, according to the scale so exposed to view. By this means the physician is saved the trouble of using multipliers with his scale readings, and has at command three separate scales meeting every desirable case, and each scale reading his measurements directly.

The satisfaction which physicians have in this novel and radical improvement in meters, together with the superiority of our meter in every other desirable characteristic, makes this instrument worthy of exclusive use amongst the profession of this country.

Price.....\$30 00

## Electrical Apparatus.

5116.\* No. 5.—DOUBLE COIL FARADIC BATTERY.



5116

An elegantly-finished compact instrument. Metal parts of the best material possible; carefully adjusted and handsomely nickel-plated. It has two hermetically-sealed cells, either one or both of which can be used as required; a Dubois-Raymond System Induction Coil, with interchangeable fine and coarse wire winding for secondary current on the outer bobbin; wire horse-shoe, for bringing primary current into circuit; plain and interrupting handles with best quality sponge electrodes and conducting cords, etc.

Put up in handsome hardwood box, with patent self-locking handle, which securely fastens the box and lid as soon as it is shut and attempt made to lift it.

The cells of these Batteries will work 100 hours continuously and cost  $1\frac{1}{2}$  cents per hour to operate.

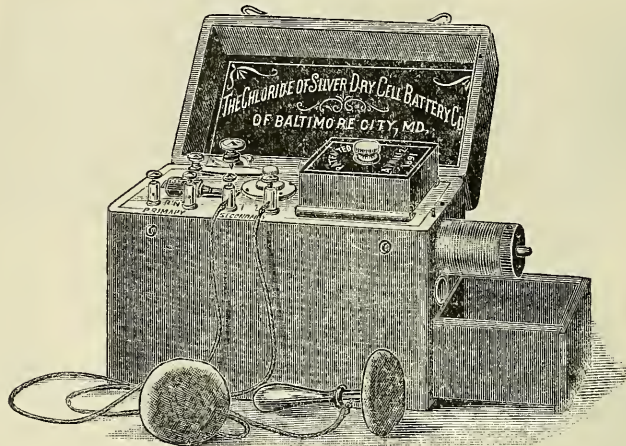
|                                                          |         |
|----------------------------------------------------------|---------|
| Price of Battery, complete.....                          | \$20 00 |
| Charge for renewing and restoring the 2-Cell Blocks..... | 1 50    |

*All Instruments Illustrated are designated by a \*.*



Electrical Apparatus.

5117.\* No. 6A, "UPRIGHT" FARADIC BATTERY.



5117

This instrument, designed especially for physicians visiting use, is one of the latest productions of the manufacturers, and is a very complete and beautiful battery. It is put up in a handsomely finished mahogany case,  $7\frac{1}{2} \times 7 \times 5$  inches, and all the metal parts are highly nickel-plated.

This battery has a very powerful induction coil and a four cell block, giving a very steady and uniform current of three kinds: primary, secondary, and combined; the coil is four inches in length, enabling the operator to make very fine divisions of the current strength; the force of which can be easily modified and made delicate enough for the most nervous, or sufficiently strong for the most robust patient.

A roomy compartment has been provided in the lower part of battery case, in which will be found, viz: two insulated handles, two sponge electrodes, two nickel-plated hollow metal handles, and one pair of silk covered conducting cords.

The cells of this battery will work 100 hours continuously, and cost but  $1\frac{1}{2}$  cents for each hour of actual service.

|                                                   |         |
|---------------------------------------------------|---------|
| Price of Battery complete .....                   | \$15 00 |
| Charge for renewing and restoring Cell Block..... | 1 50    |

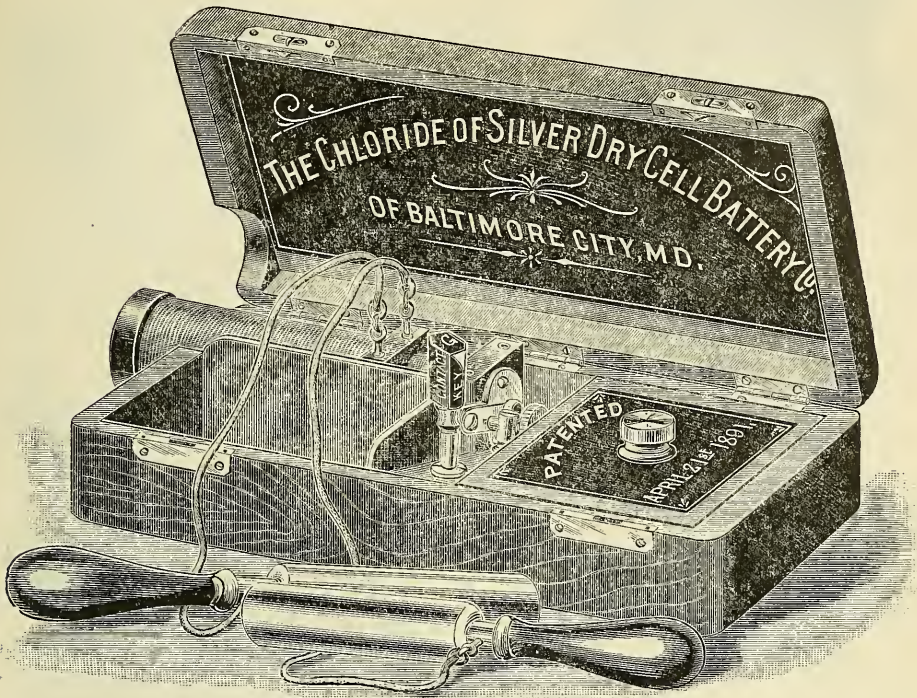
We carry in stock all the different styles of electrodes, made by the Chloride of Silver Dry Cell Battery Company. Can send at once, charged cells to replace those that have become exhausted. Be careful in stating for which battery you wish cell. Give number of battery.

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

5118.\* No. 7.—POCKET FARADIC BATTERY.



5118

This instrument is designed for the use of families as well as physicians, and is extremely handy, compact, durable and simple in its mechanism. It is put up in a handsome hardwood box— $8\frac{1}{2}$  inches long by  $4\frac{1}{2}$  inches wide and 2 inches deep—and furnished with a pair of conducting cords, one pair ebonite handles and one pair hollow metal electrodes. The induction coil, giving three currents—primary, secondary and combined—is of superior make and finish, and has no equal anywhere in the uniformity and smoothness of its current.

The cells of this Battery will work 100 hours continuously and cost  $1\frac{1}{2}$  cents per hour to operate. Each cell is secured in position on floor of its box by a verticle pin passing through it and held there by the large set screw shown in cut.

|                                                   |         |
|---------------------------------------------------|---------|
| Price of Battery, complete.....                   | \$10 00 |
| Charge for renewing and restoring Cell-Block..... | 1 50    |

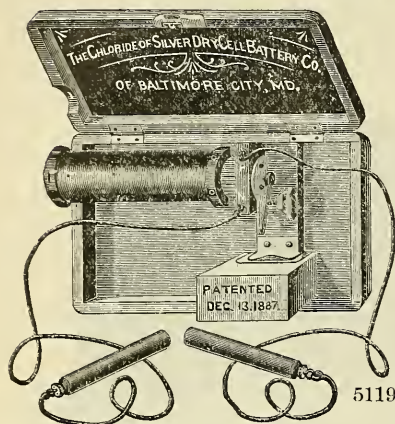
### NOTICE.

Every Battery and other electrical appliance sold by us is **warranted perfect** for the purpose intended, and each will be **carefully tested** before shipment to purchaser. However, no responsibility is assumed for loss or damage of any kind after goods have been delivered to the proper transportation company.

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

## 5119.\* No. 7 A.—FARADIC BATTERY.



The "Lord Baltimore" Family Faradic Battery, No. 7 A, meets all the requirements of a cheap, but *first-class*, machine. The case is of hard wood, highly polished, and measures only 4x5x2 inches. It is not only the best made and cheapest faradic battery on the market but it is also the most economical to maintain. No destructive acid! No corrosive materials!

To start the current it is only necessary to place the cell-block between the metal springs in such a way as to bring them and the metal strips on the sides of the block in good contact. See that the buzzer spring is properly adjusted, and the battery will work without further trouble or interference.

Owing to the care with which this battery is made, the *currents are perfectly smooth*. It will furnish a **primary**, a **secondary**, or a **combined current**, as desired. The apparatus is provided with a pair of conducting cords, and a pair of handsome nickel-plated electrodes.

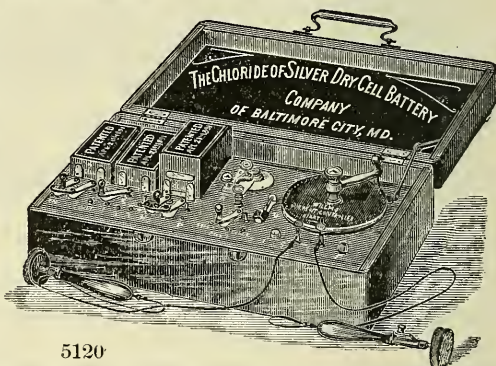
Price of Battery, complete.....\$6 50

" "renewing and restoring cell-block when it becomes exhausted..... 75

Life of Battery Cells, 40 hours. If cell-block is ordered to be returned by mail, add 6c. to cover postage.

## 5120.\* No. 8.—PHYSICIANS' FARADIC BATTERY.

The battery is composed of three cell-blocks, capable of furnishing a very wide range of current, and by means of the switch immediately to the front of the vibrator spring, the operator can throw either one, two, or the whole three cell-blocks in circuit; this being an extremely convenient arrangement, as, in the majority of cases but a moderate degree of strength is required, and it is thus possible to use one or two of the blocks for ordinary work, reserving the third for special cases, requiring a very strong current. Careful management will permit the owner to *economize the life of the cells*, very much by means of this arrangement.



5120

The instrument is provided with a primary and four distinct secondaries, with switches for controlling each, while provisions have also been made for combining the primary with each one of the secondaries, thus securing nine different currents. The switch in front of the first cell-block is the current reverser, and the ivory button "1" immediately to the left of the binding post "5" is the current breaker, for making and breaking the current.

It will be noticed that there are no coils exposed to view; these are concealed under the battery plate, and the current strength is increased or diminished by means of a "Willms" dry current controller, which is placed in the circuit. *Special attention* is requested to this arrangement, as this is the first *portable faradic apparatus on the market, in which the current is controlled in this manner*, and it is so infinitely superior to the old method of varying the current by moving one coil over the other, that there is really no comparison between the two. In using the current controller, the increase or decrease of strength is so gradual that it is much more pleasant for the patient, and this can be specially noticed in mucous membrane and other sensitive portions of the human body.

The battery and mechanical parts composing the instrument are enclosed in a finely-polished mahogany case, and the latter is provided with our patent self-locking handle, of same pattern as that which we use on the double coil battery No. 5.

Size, 15½x9½x6 inches.....Price, \$30 00  
Charge for renewing and restoring Cell-Blocks, two small sizes, each 75c.; one large size... 1 50

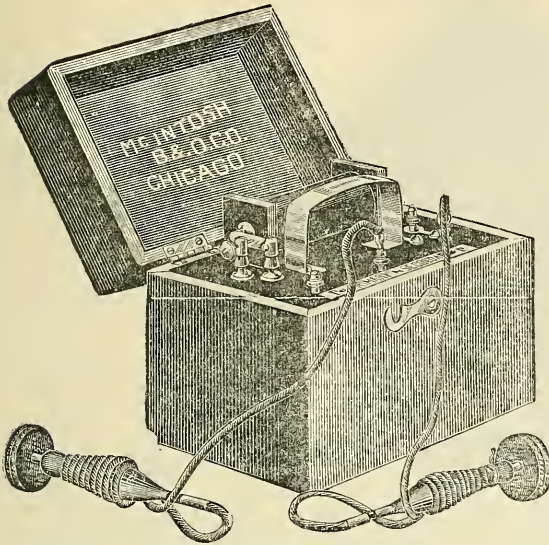
Life of each cell block when used separately is 100 hours, or an average life of about 150 hours for the three.

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

### 5125.\* McINTOSH'S FAMILY FARADIC BATTERY. †



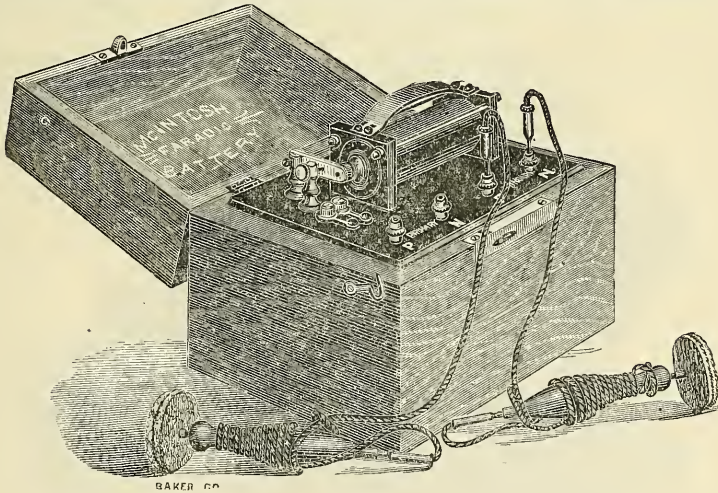
5125

It is made on the same principle as our higher-priced Faradic Batteries, and is portable. It is not intended to take the place of the Physicians' Battery, but for domestic use.

It is put up in a neat, black-walnut case,  $6\frac{1}{2}$  inches long, 6 inches high and 5 inches wide, with patent clasp fastening and handle, and furnished with electrodes and conducting cords; all the metal work is finely nickel-plated.

Price .....\$10 00†

### 5126.\* McINTOSH'S PHYSICIANS' FARADIC BATTERY.



5126

This battery is put up in a neat, polished black-walnut case, six inches in width, nine inches in length and seven inches in height, and weighs less than six pounds, charged. All the metal work is nickel-plated.

It is very convenient for a physician's visiting battery or family use, as it is light and perfectly portable and gives sufficient strength to treat any case where the Faradic or induced current is needed.

Price of battery, with first-class sponge electrodes, and our new cable conducting cords...\$18 00†

### 5126A. McINTOSH'S PHYSICIANS' FARADIC BATTERY, No. 3.

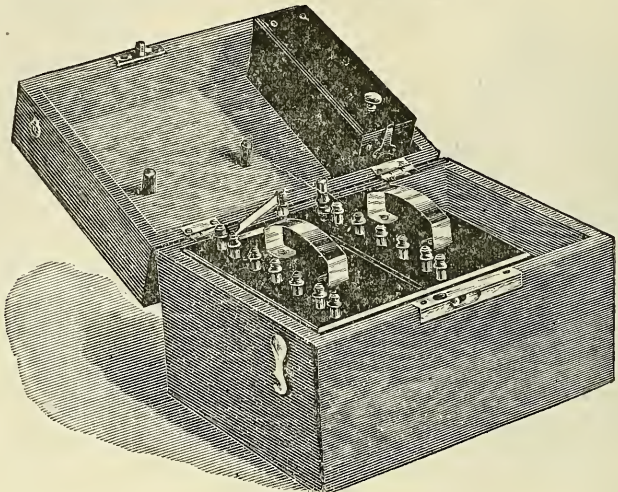
Price, with sponge electrodes and our cable conducting cord.....\$30 00†

*All Instruments Illustrated are designated by a \*.*



Electrical Apparatus.

5127.\* McINTOSH'S TWELVE-CELL GALVANIC BATTERY.

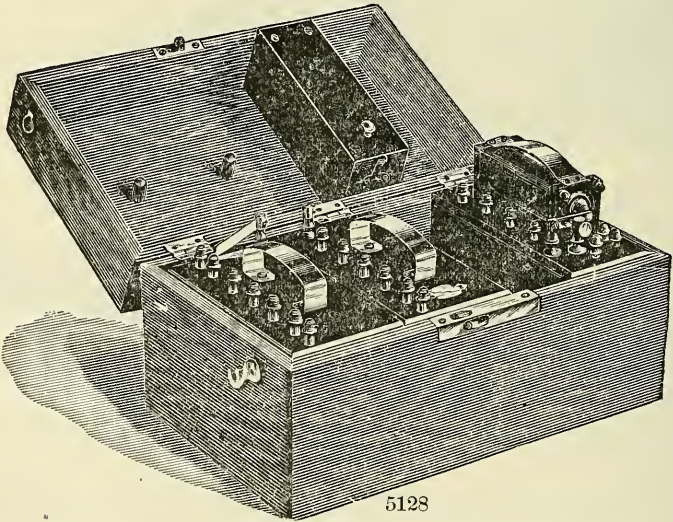


5127

In a polished black-walnut case, 10½ inches long, 8½ inches wide, 7¼ inches high, metal work all nickel-plated, lock and handle, sponge electrodes, cable conducting cords and hard rubber electrode box. This is a very convenient visiting battery, as it weighs only eleven pounds, and gives a Galvanic current of sufficient intensity to treat any case where it is indicated.

Price.....\$30 00†

5128.\* McINTOSH'S TWELVE-CELL COMBINED GALVANIC AND FARADIC BATTERY.



5128

Same style of case and finish as the above, 13½ inches long, 8½ inches wide, 7¼ inches high, with first-class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, electrodes, our new cable conducting cords and hard rubber electrode box. This battery gives a Galvanic current same as above described, and a Faradic current of sufficient strength to treat any case.

Price.....\$40 00†

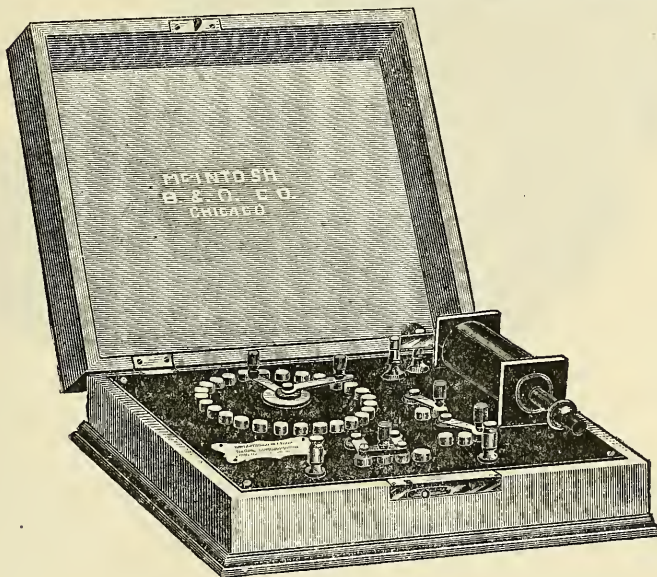
## Electrical Apparatus.

### McINTOSH'S GALVANIC AND COMBINED BATTERIES.

|       |                                                   |                |
|-------|---------------------------------------------------|----------------|
| 5129. | McIntosh's Eighteen-Cell Galvanic Battery.....    | price \$30 00† |
| 5130. | “ “ “ Combined Galvanic and Faradic Battery ..... | “ 52 50“       |
| 5131. | “ Twenty-four Cell Galvanic Battery.....          | “ 55 00“       |
| 5132. | “ “ “ Combined Galvanic and Faradic Battery.....  | “ 67 50“       |

The above batteries are made same as Figures 5127 and 5128.

### 5133.\* McINTOSH'S No. 2 OFFICE TABLE PLATE.



5133

This is an elegant piece of work, and will meet the wants of the profession where a less expensive battery is desired. The following accessories are neatly arranged on a polished hard rubber base 10 x 12 inches :

A galvanic patent *double* switch by which the operator is enabled to use cells from *any part* of the circle, thus obviating the necessity of using the first cells *first*. The buttons are arranged for 25 or more cells as the purchaser may desire ; a Faradic Coil with polished hard rubber ends and cover ; Pole Changer ; two Binding Posts, from which the galvanic, primary or secondary Faradic currents may be taken by means of a switch ; and a switch to connect the coil with one or more galvanic cells.

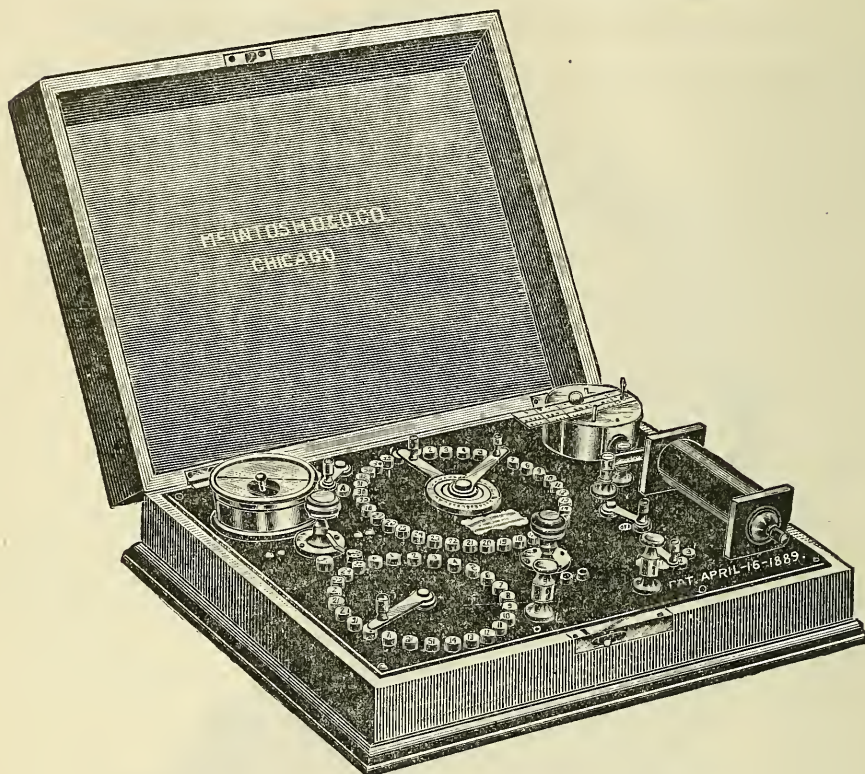
Price, as above described, in polished walnut case.....\$35 00†  
 “ without case..... 30 00“

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

5134.\* MCINTOSH'S No. 1 OFFICE TABLE PLATE.



5134

This was designed by Dr. McIntosh to meet the want of physicians who desire a compact and complete office battery. This arrangement is a beautiful piece of work. The following accessories, finely nickel-plated, are tastefully arranged on a plate of polished hard rubber, 12x16 inches: A Galvanic Double-Switch for thirty-two or more cells; an Automatic Rheotome, giving fast or slow interruptions; Milliamperemeter; Pole Changer; Current Indicator; Binding Posts; large Faradic Coil, with polished hard rubber ends and cover; a Coil Rheostat of twenty-five coils of one hundred ohms' resistance each, whereby from one hundred to two thousand five hundred ohms' resistance can be brought into either the Galvanic or Faradic circuit, by simply moving the circular switch. This can be furnished in black walnut or polished oak case, on an office table or cabinet case. This is a very perfect and elegant piece of work, and receives the approval of physicians at sight.

Where this instrument is fastened to a table or other piece of furniture not having room for the cells underneath, they may be placed in a closet or cellar out of the way, and require very little attention.

Price, as above described, with Milliamperemeter, in polished walnut or oak case.....\$105 00<sup>+</sup>

Price, without case..... 100 00<sup>+</sup>

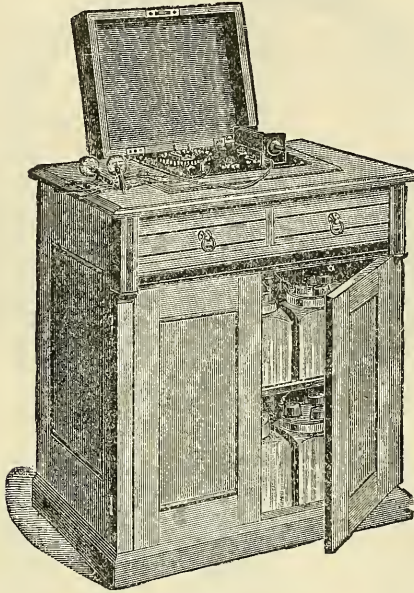
Any kind of Battery Cell furnished at prices hereinafter named.

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

5135.\* McINTOSH'S No. 2 CABINET BATTERY.



5135.

This cabinet has the No. 2 office table plate shown on page 291, and is the most elegant and complete office battery in the world, for the same money.

In this cabinet we use the Diamond Carbon or Laclede cells, the fluid of which is a solution of muriate of ammonia; the elements are zinc and carbon rods. The cells are so nearly perfectly sealed that evaporation is measurably prevented, a feature that in itself highly recommends any cell for office purposes. These cells have the following advantages:

1. Perfect cleanliness.
2. High Electro-motive force—1.50 volts.
3. Small internal resistance.
4. Great power of recuperation.

After this battery has been put in operation it requires *no attention* for many months.

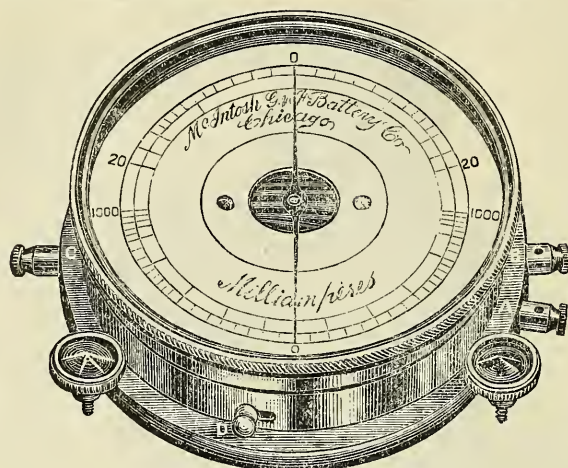
With the cabinet complete, we furnish insulated wire for connecting the cells to the table plate, and muriate of ammonia for charging, sponge electrodes and cable conducting cords.

|                                              |           |
|----------------------------------------------|-----------|
| Price, as above, without cells.....          | \$55 00 ‡ |
| “ complete with 36 Diamond Carbon Cells..... | 90 00 “   |
| “ “ “ 30 Laclede or Roboran Cells.....       | 80 00 “   |

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

5136.\* McINTOSH MILLIAMPERE METER.



(PATENT APPLIED FOR.)

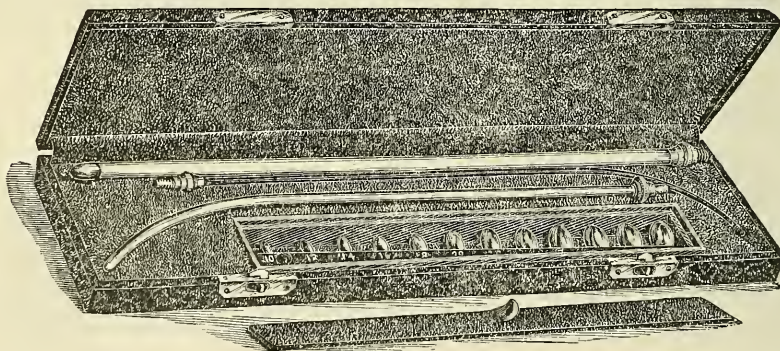
5136

The Milliampere Meter shown in cut is a new instrument of our own design. It is mounted on a circular wooden base, and all the metal parts are nickel-plated. It can be used with any galvanic Battery, the patient being in circuit, and is not liable to get out of order. If handled according to directions accompanying it, earth currents and magnetic material will not render it inaccurate, as occurs with all such instruments previously made. The importance of measuring the dose of electricity is just beginning to be appreciated, and has not been overrated. Hitherto the instruments designed for this purpose have been too delicate to withstand the effects of daily usage without frequent adjustment that could only be made by the manufacturer, and the great expense of those worthy of trial has deterred the profession from adopting them. These difficulties we believe to be obviated in the instrument here presented. Full directions accompanying each instrument.

Diameter of base,  $5\frac{1}{2}$  inches.

Price .....\$25 00†

5137.\* GENITO-URINARY ELECTRODE CASE.



5137

This case contains metallic sound, flexible and inflexible urethral electrodes and one dozen olives tips, numbered from 10 to 32, French scale, all contained in a velvet-lined morocco case, 12 inches long,  $3\frac{1}{4}$  inches wide.

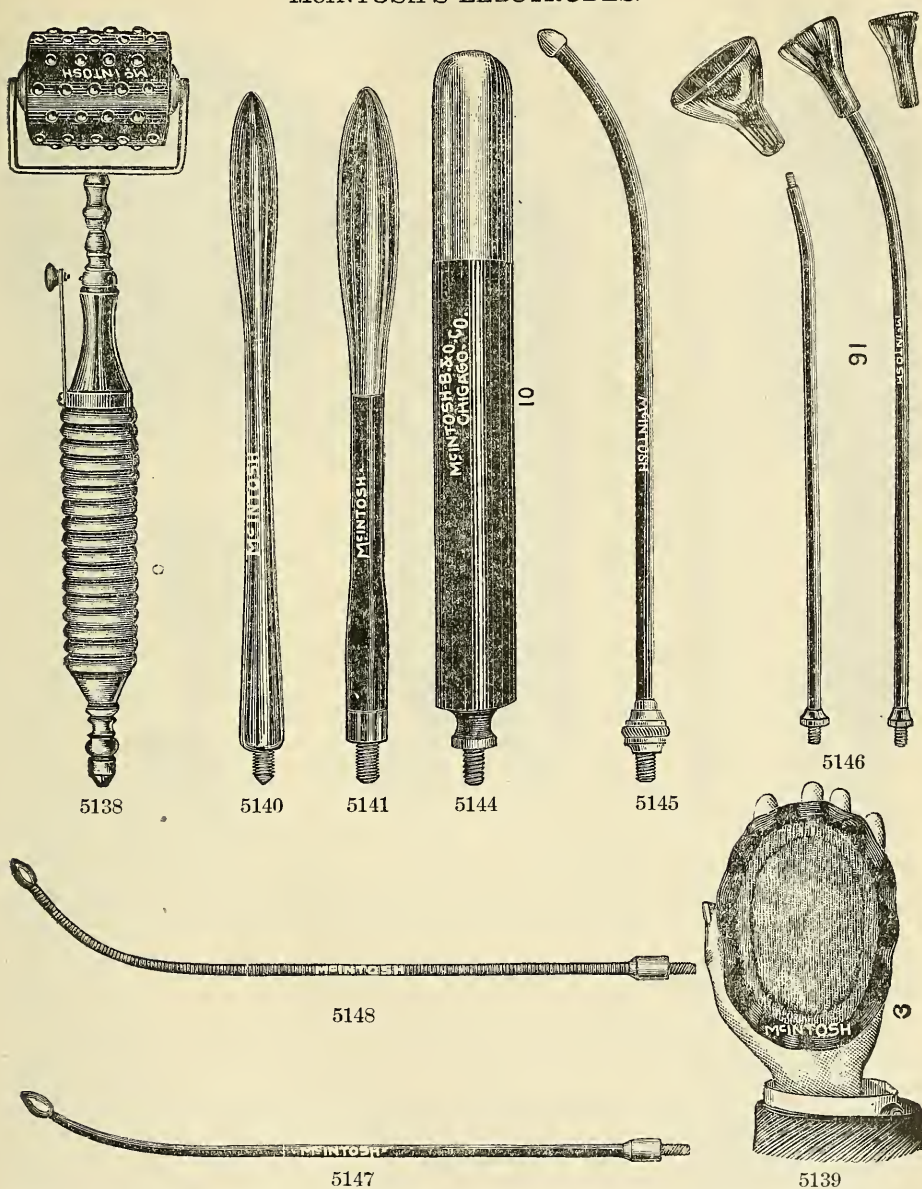
Price.....\$7 00†

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

### McINTOSH'S ELECTRODES.



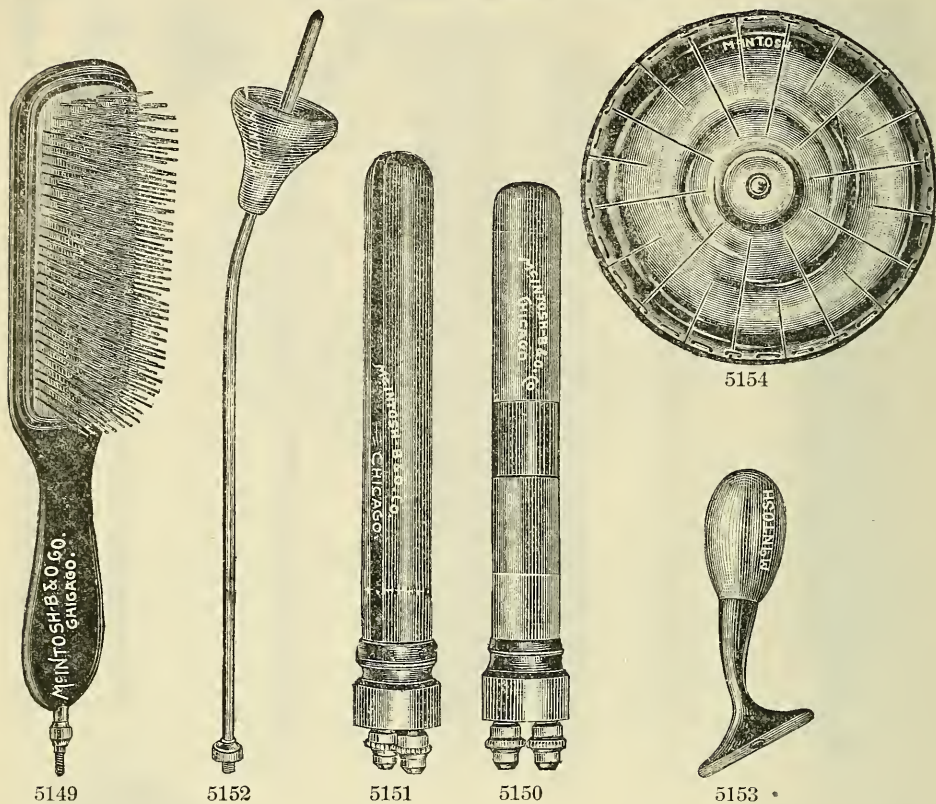
- |        |     |                                                                                                                                                 |         |
|--------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 5138.* | 0.  | Wheel Electrode of Hard Rubber, set with metallic points for muscular Faradization; universal hard rubber handle, with current interrupter..... | \$4 00† |
|        |     | Handle without wheel.....                                                                                                                       | 2 00"   |
| 5139.* | 3.  | Sponge-covered Electrode, insulated, with soft rubber for general application with the hand.....                                                | 1 50"   |
| 5140.* | 6.  | Rectal Electrode, nickel-plated.....                                                                                                            | 1 00"   |
| 5141.* | 7.  | " " insulated, with polished hard rubber.....                                                                                                   | 2 00"   |
| 5142.  | 8.  | " " large, nickel plated.....                                                                                                                   | 1 00"   |
| 5143.  | 9.  | Vaginal " nickel-plated.....                                                                                                                    | 1 25"   |
| 5144.* | 10. | " " insulated, with polished hard rubber.....                                                                                                   | 2 50"   |

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

## McINTOSH'S ELECTRODES.



|        |                                                                                     |            |
|--------|-------------------------------------------------------------------------------------|------------|
| 5145.* | 11. Nasal Electrode, nickel-plated.....                                             | \$1 00†    |
| 5146.* | 16. Cup-shaped Electrode, for Uterus, three sizes, insulated.....                   | each 2 00“ |
|        | 16. “ “ “ “ “ cup only.....                                                         | “ 1 25“    |
| 5147.* | 20. Uterine or Urethral Electrode, insulated with hard rubber.....                  | 1 00“      |
| 5148.* | 21. Spiral Flexible Uterine or Urethral Electrode, insulated.....                   | 1 00“      |
| 5149.* | 35. Hair Brush Electrode.....                                                       | 2 00“      |
| 5150.* | 42. Vaginal Electrode for both currents, insulated in the centre, nickel-plated.... | 4 00“      |
| 5151.* | 43. “ “ “ “ “ in halves.....                                                        | 4 00“      |
| 5152.* | 51. Uterine Electrode, with cup and stem (insulated).....                           | 2 50“      |
| 5153.* | 53. New style of Rectal Electrode, insulated.....                                   | 2 50“      |
| 5154.* | 66. Spongio Pilene Abdominal Electrode, tinned copper, \$2 00†; block tin.....      | 2 50“      |

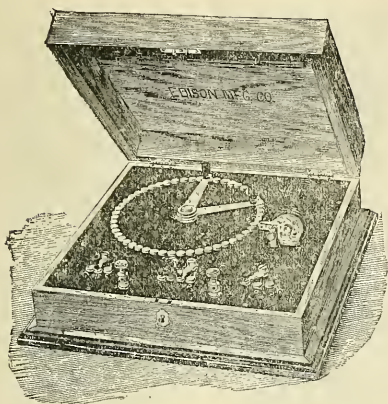
This Electrode is made of tinned copper (or block tin if preferred), covered with Spongio Pilene. It is less expensive than the membrane covered Electrode, and is becoming quite popular.

As we carry a full line of McIntosh's Electrical goods, we can furnish any other style of Electrodes they make, not here illustrated, also conducting cords for Faradic and Galvanic batteries, Zincs, Carbons, Rubber Cells, &c.

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

### 5160.\* THE EDISON-LALANDE GALVANIC BATTERIES—NET.



5160

The Edison-Lalande Galvanic Batteries for office work consist of 50 Edison-Lalande cells, Types "A" or "C," with switchboard, pole-changer, and faradic coil. This is the most complete outfit for a physician's operating room, and will furnish a perfectly even and constant current during the whole life of battery, during which time it needs absolutely no attention whatever.

Hard Rubber Switchboard, handsomely mounted in black walnut case, with 50 buttons, pole-changer, and induction coil...\$30 00

Complete Battery for office work, consisting of a Hard Rubber Switchboard, as above, and fifty Type "A" Cells (any number of which can be used on the induction coil), cords and sponge electrodes..... 75 00

The same battery as above, but with Type "C" Glass Cells, which will last over three times as long as Type "A"..... 90 00

Ditto, with Porcelain Cells..... 95 00

In both these batteries the price includes the necessary wiring from the cells to the switchboard.

### 5161.\* TYPE "A" CELL.

Size,  $2\frac{1}{2}$  in.  $\times$  5 in.; Capacity, 15 Ampere-Hours.

Price complete.....\$ 75

#### PRICE OF RENEWAL PARTS.

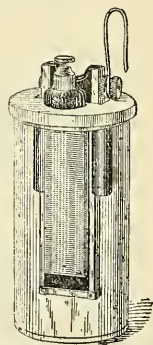
Copper Oxide Plate (capacity, 2 charges).....\$ 08

Zinc Plate (capacity, 2 charges)..... 07

Can containing 2 sticks Caustic Potash (1 charge)..... 08

Bottle Heavy Paraffine Oil, sufficient for 1 charge..... 04

NOTE.—The copper oxide plate and zinc in this cell will stand one renewal of caustic potash before being exhausted.



5161

### 5162.\* TYPE "C" CELL.

Size,  $3\frac{3}{4}$  in.  $\times$  6 in.; Capacity, 50 Ampere-Hours.

Price complete, with Glass Cell.....\$1 15

" " " Porcelain Cell..... 1 30

#### PRICE OF RENEWAL PARTS.

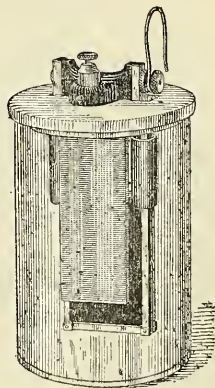
Copper Oxide Plate (capacity, 1 charge).....\$ 12

Zinc Plate (capacity, 1 charge)..... 10

Can containing 2 sticks Caustic Potash (1 charge)..... 12

Bottle Heavy Paraffine Oil, sufficient for 1 charge..... 05

We can supply vitrified Porcelain Jars with Type "C" Cell at an extra cost of 15c. per cell, and we recommend them most highly, as they are much stronger than glass, and are warranted not to crack from heat generated by potash dissolving.



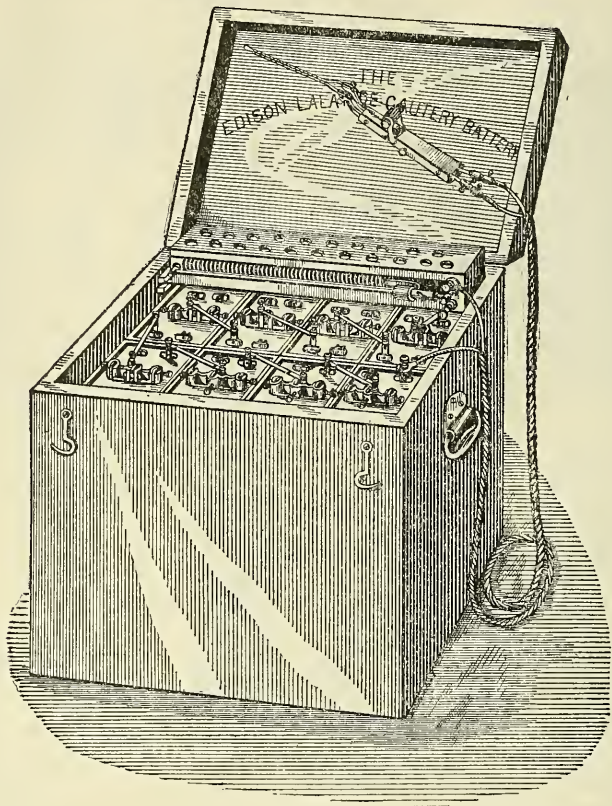
5162

*All Instruments Illustrated are designated by a \*.*



Electrical Apparatus.

5163.\* EDISON-LELANDE CAUTERY BATTERY "F"—NET.  
CAPACITY, 150 AMPERE-HOURS.



5163

In the "F" type, illustrated above, the cells, eight in number, are of porcelain, and are neatly placed in a lead-lined polished oak box. The sliding resistance is fitted into a groove in top of box, and is so made that the strength of current can be graduated with the greatest nicety.

The battery, when set up, will last with ordinary use in cautery work for several months, during which time it requires no attention whatever, and when exhausted, the elements can be renewed at a trifling cost.

The cells are closed and the elements do not have to be removed from the solution, as there is practically no action when cells are not in use, and consequently no waste in battery.

It is also equally well adapted for running small motors wound to suit battery, and for lighting electric headlights for throat work and other diagnostic purposes.

Being a primary battery it is entirely independent of any external system, and does not require to be sent to a central station for recharging, as is the case with storage batteries.

In polished oak case, with sliding resistance, battery cord, and double connectors, complete .....\$50 00

PRICE OF RENEWAL PARTS OF EACH CELL.

|                                                             |       |
|-------------------------------------------------------------|-------|
| 3 Zinc Plates (capacity, 1 charge), 16c. each.....          | \$ 48 |
| 4 Copper Oxide Plates (capacity, 3 charges), 25c. each..... | 1 00  |
| Can containing 2 sticks Caustic Potash (1 charge).....      | 18    |
| Bottle heavy Paraffine Oil sufficient for 1 charge.....     | 05    |

The Copper Oxide Plates will stand 2 charges of Zincs and Potash before being exhausted.

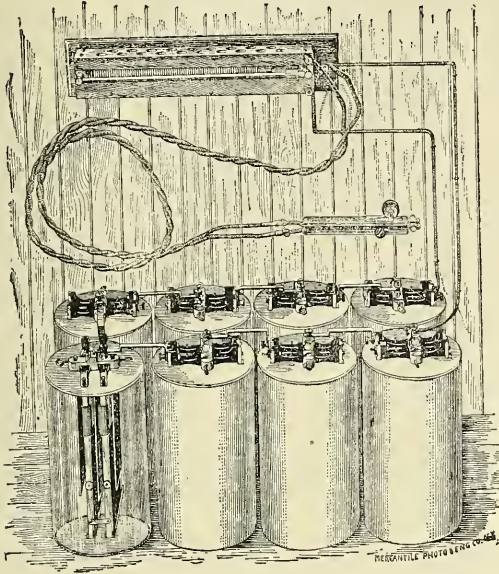
*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

### 5164.\* EDISON-LALANDE CAUTERY BATTERY "L"—NET.

Capacity, 300 Ampere-Hours.



5164

Battery consisting of 8 Type "L" Porcelain Cells, to be placed either in the cellar or closet, and which are connected to the rheostat with heavy wire leads.

The rheostat is handsomely mounted on a polished oak base to be fastened in any convenient place in the office.

(This battery has twice the life of our Cautery Battery "F.") Complete, with cords, necessary connections and wiring.....\$45 00

#### Price of Renewal Parts of each Cell.

|                                                                     |        |
|---------------------------------------------------------------------|--------|
| 3 Zinc Plates (capacity, two charges),<br>21 cts. each.....         | \$0 63 |
| 4 Copper Oxide Plates, (capacity two<br>charges), 25 cts. each..... | 1 00   |
| Can containing 2 sticks Caustic Pot-<br>ash (one charge).....       | 28     |
| Bottle Heavy Paraffine Oil, suffi-<br>cient for one charge.....     | 05     |

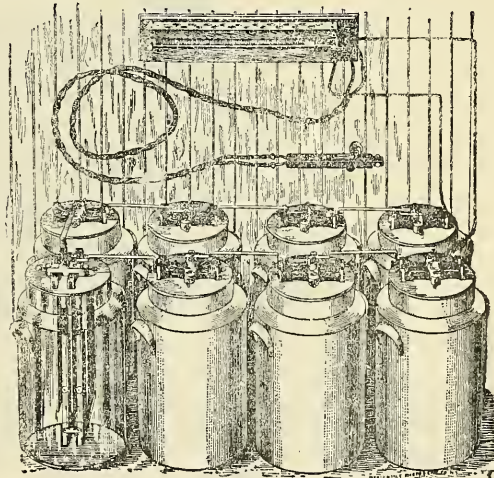
### 5165.\* EDISON-LALANDE CAUTERY BATTERY "M."

Capacity, 600 Ampere-Hours.

Same battery as Cautery Battery "L," but with Type "M" Porcelain Cells, instead of Type "L," which have twice the life of the latter.....\$60 00

#### Price of Renewal Parts of each Cell.

|                                                                     |        |
|---------------------------------------------------------------------|--------|
| 2 outside Zinc Plates, 21 cts. each ca-<br>pacity, one charge)..... | \$0 42 |
| 1 middle Zinc Plate, 38 cts. (capacity,<br>one charge).....         | 38     |
| 4 Copper Oxide Plates (capacity, 2<br>charges,) 46 cts. each.....   | 1 84   |
| Can containing 4 sticks Caustic Potash<br>(one charge).....         | 52     |
| Bottle Heavy Paraffine Oil sufficient<br>for 1 charge.....          | 08     |



5165

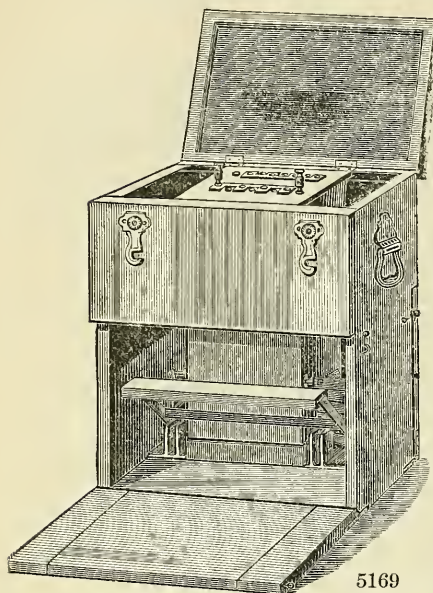
The oxide plates and zincs in these cells will stand one renewal of solution before being exhausted.

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

## CAUTERY BATTERY. ¶

## 5169.\* Seiler's Single-Cell Galvano-Cautery Battery.

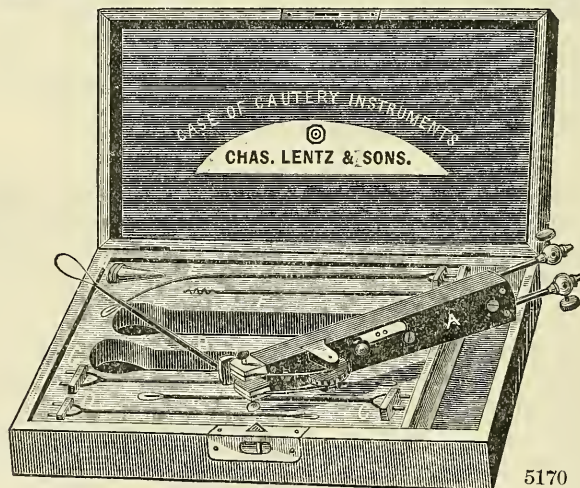


5169

Its great advantage as a Galvano-Cautery Battery over other batteries of this kind, consists in the facts that the operator can regulate the heat of this platinum loop to a nicety by the pressure of his foot, and is, therefore, independent of an assistant, a very important point when small operations in the nose or throat, or about the genital organs, are to be performed. Further, that as soon as he lifts off his foot the liquid leaves the plates, and no further action on them can take place, thus saving the zincs as well as the strength of the fluid; the quantity of the fluid being very large, the products of the chemical action of the acid upon the zinc fall to the bottom, and thus the upper portion of fluid remains fresh for a very long time, so that the fluid need not be renewed more than once in two or three months, according, of course, to the number of times the plates have been immersed. The simplicity of the connections, and the fact that they are placed above the platforms, out of the reach of the fumes of the acid, renders them but little liable to get out of order, and thus the battery is always ready when wanted.

Single-Cell Cautery, including double conducting cord.....\$30 00¶  
Double-Cell Cautery, including heavy double conducting cord..... 50 00“

## 5170.\* Set of Light Cautery Instruments for Naso-Pharyngeal Operations.



5170

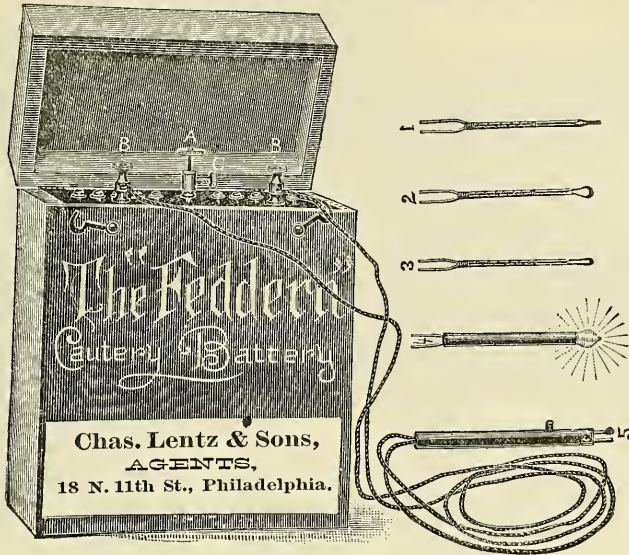
- (a) The Universal hard rubber handle with circuit closer to which any of the instruments below may be attached.....\$5 00 ¶  
(b) The Two Parallel Tubes with Platinum Loop Wire and Windlass..... 5 00 “  
(c) The short, straight Electrode or Knife for use in the anterior parts of nares..... 2 00 “  
(d) The Post-Nasal Electrode for introduction behind the soft palate..... 2 00 “  
(e) The Long Knife Electrodes for introduction through the nares to posterior ends of turbinated bones and pharynx..... 2 00 “  
(f) The Spiral or Moxa Electrode..... 2 00 “  
(g) One Metal Nasal Specula..... 1 50 “  
Complete in morrocco case.....25 00 “  
Cautery Cords.....each 2 00 “  
Rubber Cell..... 6 00 “  
Carbon Plate with Metallic connection.....each 1 50 “  
“ “ without “ “ “ “ 1 00 “  
Zinc “ “ “ “ “ “ “ 50 “  
Pedal Catguts, per pair..... 50 “

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

### 5171.\* THE FEDDERN CAUTERY BATTERY.



5171

SIMPLE, EFFECTIVE, COMPACT AND CHEAP.

The construction of this battery is so simple that any physician can operate it with satisfaction. The cords being attached to battery, the electrode selected and fitted into the handle, immerse the plates by lifting up the central rod, *A*, and fasten it with the thumbscrew, *C*. Press the projection on the side of the handle and the electrode will become heated at once. Care must be used not to allow the electrode to become so hot as to melt, this can be avoided by the proper manipulation of the projecting button on the handle, making and breaking the contact. The height to which the rod is lifted also regulates the degree of heat, as the power of the battery increases in proportion to the extent to which the plates are immersed in the fluid. Except in the case of damage by accident and the renewal of zincs, the proper working of the battery is guaranteed for one year.

In addition to the Cautery Electrodes, we supply a small electric lamp, which will be found invaluable for illuminating any of the cavities of the body.

Full directions for use and care of battery, and formula for solution given with each battery.

Height, 12 inches ; length, 10 inches ; width, 5½ inches ; weight when charged,  
about 12 pounds.

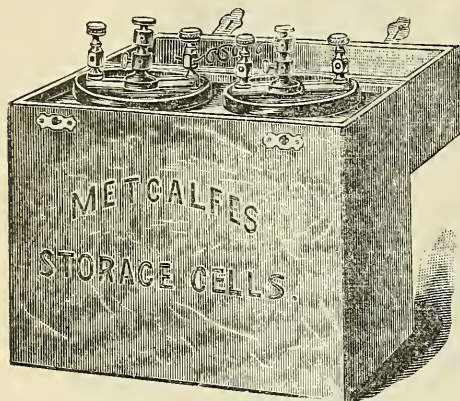
The battery, with conducting cords, universal handle, with interrupting button, one cautery point, one cautery curette, one cautery knife, and electric lamp, complete.....net \$18 00  
Extra electric lamp ..... " 3 00

*All Instruments Illustrated are designated by a \*.*

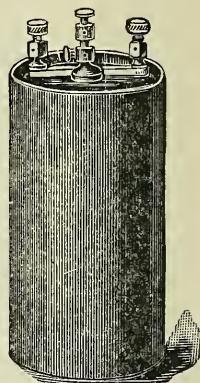


## Electrical Apparatus.

### 5173.\* THE METCALFE STORAGE BATTERIES.



5173—DOUBLE CELL IN BOX.



SINGLE CELL.

This invention clearly sets forth the fact, that it is practical to accumulate and reserve the energy of an electric current in a small space, and retain it, transport it to any distance and reproduce it whenever desired.

The electric current stored in these cells, is similar to that obtained from ordinary Galvanic cells, or the dynamo, and can be used for light, power, and cautery purposes.

The Metcalfe Storage Cell is an air-tight, acid proof or sealed receptacle for electric current, capable of undergoing internal chemical changes on the passage of said current through it, and of giving a powerful and uniform current, when required, on account of the reversal of these chemical changes, when the poles by which it entered are brought into contact with each other.

The cells do not leak, and the outlets of the Electrodes are so perfectly insulated that there is no likelihood of corrosion of the poles, and are therefore permanent.

Each cell will stand a discharge of 36 ampere hours, at the rate of from 1 to 36 amperes.

The electro motive force of each cell is 2-45-100 volts.

One cell is enough for any ordinary cautery. Two cells will answer for a 1, 2, 3 or 4 candle power incandescent lamp, if of proper voltage and will run for 36 hours. Two cells will be found sufficient to run a 1-8 horse power motor for driving the dental engine, drills, or any other light machinery.

The Improved Rheostat which is made to accompany each battery is a coil of wire, wound on a hollow glass tube, thereby allowing a constant current of cold air to pass through it, and so counteract the effect of any heat that may be generated in the passage of the electric current through the wire.

This Rheostat never burns or gets out of order, and will control the current with such exactness that the smallest electrodes may be used with absolute safety.

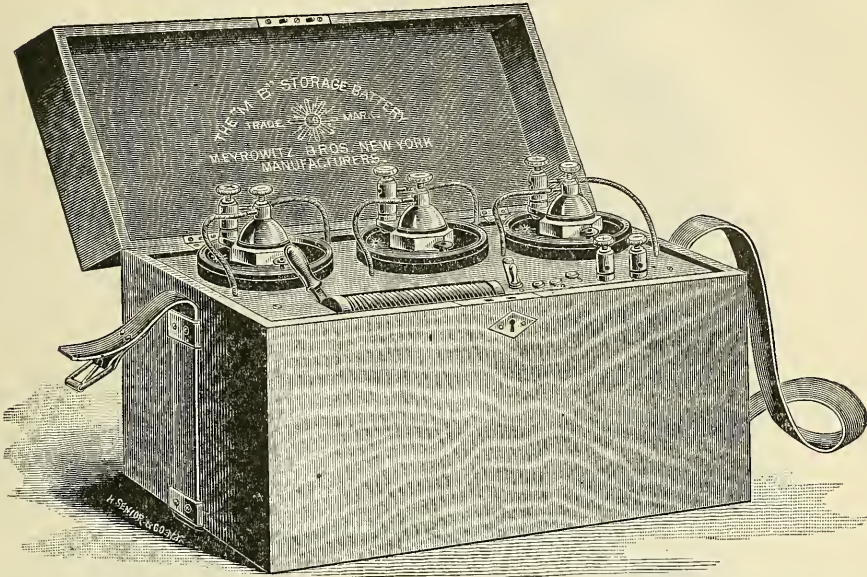
Each cell in a hard wood box, with handle and Rheostat, all metal parts plated.

|        |                                                                              |         |
|--------|------------------------------------------------------------------------------|---------|
| 5172.  | Metcalfe's Battery, 1 Hard Rubber Cell.....                                  | \$21 50 |
| 5173.* | " " 2 " " Cells.....                                                         | 35 00   |
| 5174.  | " " 3 " " " .....                                                            | 50 00   |
| 5175.  | " " 4 " " " .....                                                            | 65 00   |
|        | Cables, extra heavy silk, wound six feet long, per pair.....net              | 3 00    |
|        | Crowfoot Gravity Cell for charging, complete with zincs and coppers.....each | 75      |
|        | Crosby " Cells " " " " " " " " .....                                         | 1 35    |

*All Instruments Illustrated are designated by a \*.*

## Electrical Apparatus.

### 5178.\* "M. B." STORAGE BATTERIES.



5178

#### Three-Cell "M. B." Storage Battery.

Among the researches of the present age, the discovery of Secondary or Storage Batteries is second only to the discovery of Electricity itself, and there is perhaps nothing in Surgery to-day destined to occupy so high a position in the Armamentarium of the Surgeon as a thoroughly good and reliable Storage Battery.

To make, then, a Storage Battery, at once simple, easy of manipulation, and unfailing in its results, has been the aim of both the inventor and manufacturer, and it is with this object in view that the "M. B." Storage Battery is confidently placed upon the market.

It is, perhaps, well to state here that this Storage Battery is not intended for Galvanic or Faradic application, or for the purposes of Electrolysis, but it is strictly a battery for Electro-Cautery, driving of small Motors for Nasal and Dental Surgery, and lighting of small Incandescent Lamps used for Diagnostic Illumination.

#### Made in one, two, three or four cells. as follows:

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>5176. One cell, size <math>6\frac{1}{2} \times 7 \times 11\frac{1}{2}</math>; Electro-motive force, <math>2\frac{1}{4}</math> volts; current amperes, 1 to 20.<br/>Price, without primary cells.....\$25 00<br/>Price, with 4 crowfoot cells for charging, and 25 feet insulated copper wire..... 28 00</p> <p>5177. Two cell, size <math>11 \times 7 \times 11\frac{1}{2}</math>; Electro-motive force, <math>4\frac{1}{2}</math> volts; current amperes, 1 to 20.<br/>Price, without primary cells.....\$40 00<br/>Price, with 8 crowfoot cells for charging, and 25 feet insulated copper wire..... 46 00</p> | <p>5178.* Three cell, size <math>16 \times 7\frac{1}{4} \times 11</math>; Electro-motive force, <math>6\frac{1}{2}</math> volts; current amperes, 1 to 20.<br/>Price, without primary cells.....\$60 00<br/>Price, with 12 crowfoot cells, with 25 feet wire..... 69 00</p> <p>5179. Four cell, size <math>11\frac{1}{2} \times 12\frac{1}{2} \times 11</math>; Electro-motive force, <math>8\frac{1}{2}</math> volts; current amperes, 1 to 20.<br/>Price, without primary cells.....\$75 00<br/>Price, with 16 crowfoot cells for charging, and 25 feet wire..... 87 00</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

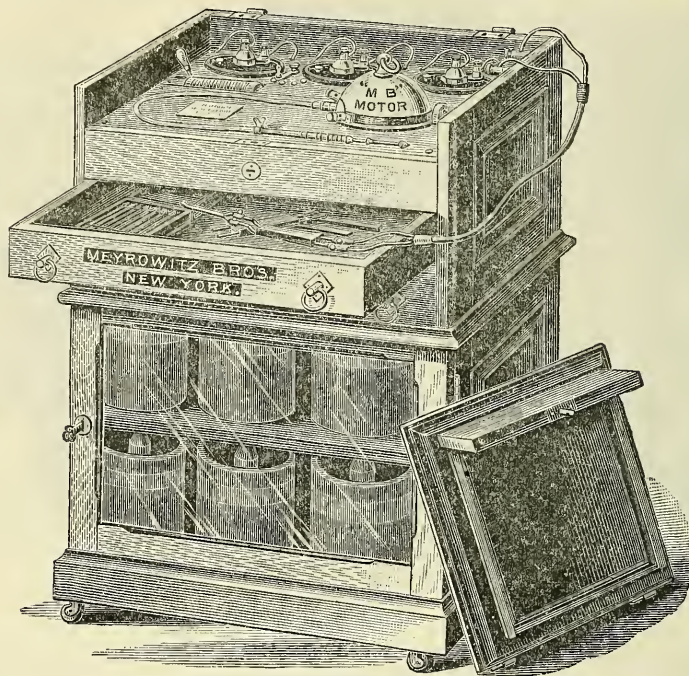
Catalogue for full description mailed on application.

*All Instruments Illustrated are designated by a \*.*



## Electrical Apparatus.

5183.\* "M. B." STORAGE BATTERY CABINETS—NET.



5183

### Three-cells. "M. B." Storage Battery Cabinet with Cautery and Motor outfit.

5180. Three-Cell "M. B." Storage Battery Cabinet with 12 Gethins' Primary Cells....\$100 00  
 5182. Four-Cell "M. B." Storage Battery Cabinet with 16 Gethins' Primary Cells..... 125 00  
 5183.\* Three-Cell "M. B." Storage Battery and Electro-Motor Cabinet (see cut)..... 150 00  
     Contains Electro Surgical Motor Outfit No. II., (see below.)  
     Electrode-Outfit No. IV., 12 Gethins' Primary Cells.  
 5184. Four-Cell "M. B." Storage Battery and Electro-Motor Cabinet..... 175 00  
     Contains Electro-Surgical Motor Outfit No. III., (see below.)  
     Electrode Outfit No. IV., 16 Gethins' Primary Cells.

Electrode Outfit No. IV., consists of one Universal Handle, No. 102; two Nasal Electrodes, straight, Nos. 20 and 25; two Laryngeal Electrodes, curved, Nos. 62 and 67; one Canula, No. 95; one coil of Platinum Wire, 16 inches long, in morocco case.....\$15 00

Outfit II. consists of one Three-Cell "M. B." Storage Battery; one "M. B." Electric Motor; one "M. B." Bracket; one Flexible Shaft and Hand-piece; three Nasal Drills; two Nasal Trephines; one Conducting Cable and Push-buttons.

Outfit III. consists of one Four-Cell "M. B." Storage Battery; one "M. B." Electric Motor; one "M. B." Bracket; one Flexible Shaft and Hand-piece; four Nasal Drills; four Nasal Trephines; one Conducting Cable and Push-button.

A two years' Guarantee accompanies each battery.

The lower part of these highly finished antique oak cabinets contains the Primary Cells, which are so arranged that they are constantly connected with the Storage Cells, charging them continuously and thus doing away with all further trouble in regard to charging the Storage Cells.

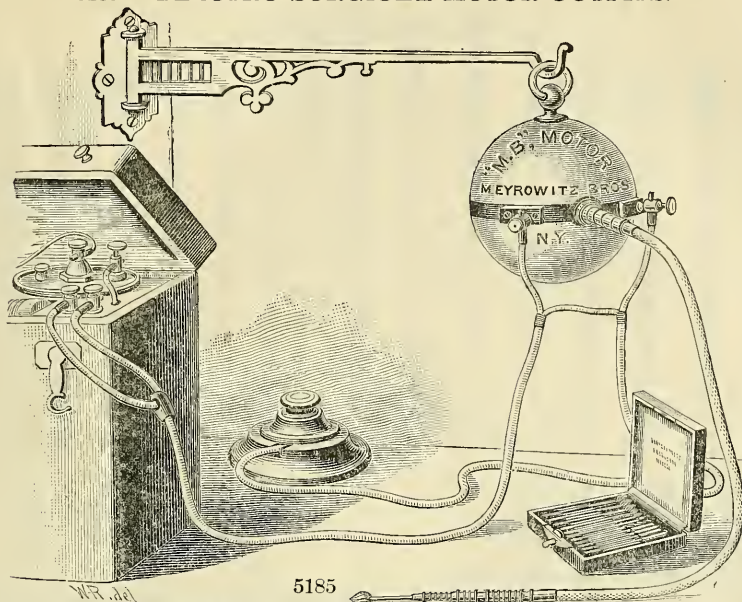
These Primary Cells will last about one year.

*All Instruments Illustrated are designated by a \*.*



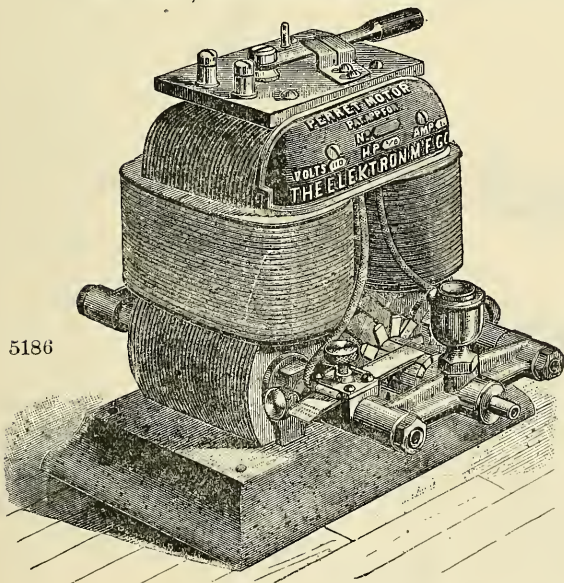
## Electrical Apparatus.

### 5185.\* ELECTRO-SURGICAL MOTOR OUTFITS.



This motor has been especially designed for operations upon the nose and teeth. It is made in the shape of a highly finished nickel-plated sphere, with all its mechanism perfectly protected and hidden from view. It is 5 inches in diameter, and weighs only 6½ lbs. complete, with flexible shaft and hand-piece. The motor presents a compact and elegant appearance; it can be suspended from a bracket and swung in any position, or placed upon a table, as may be desired by the operator.

- 5185.\* The "M. B." Electric Motor for operating burrs, drills and trephines, to use with either "M. B." Storage Battery, the Metcalfe or Edison.....\$20 00  
 Same, for use with Edison incandescent current..... 35 00  
 Wall Bracket, with swinging arm to hold motors, as shown above, highly nickel finish..... 5 00  
 Universal dental hand piece, with flexible attachment coil and sheath to fit all drills, burrs and trephines..... 16 50  
 Push Button, with double cable..... 5 00

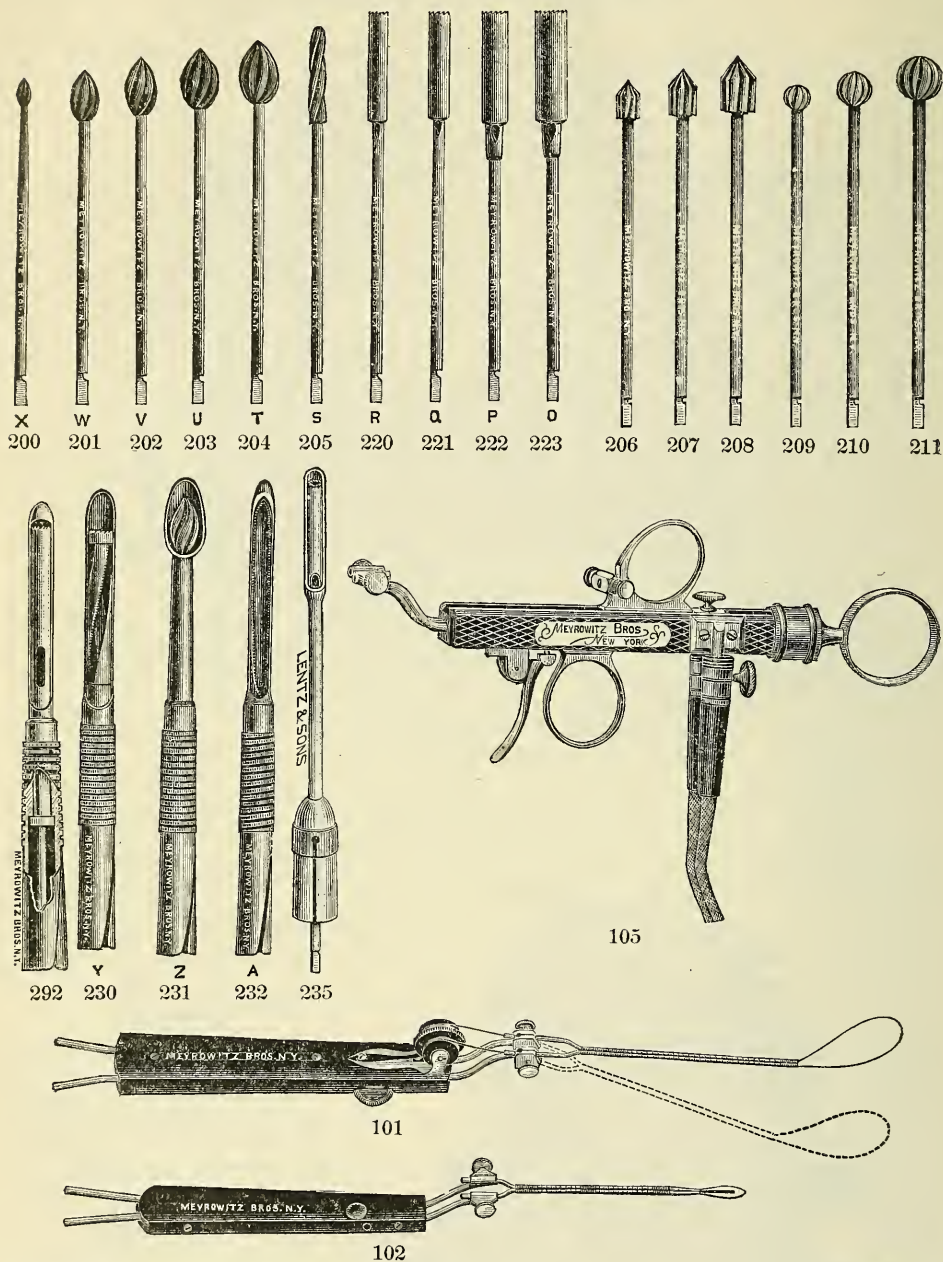


### PERRET ELECTRICAL MOTOR.

- 5186.\* Perret Motor, capacity, ½ H. P., voltage from 4 to 10, has 3 speed switches, for use with the "M. B." Metcalfe or Edison Storage Batteries.....\$22 00  
 Extra for attachment for dental hand piece..... \$2 00  
 Extra for metal hanger for wall bracket..... 2 00  
 Wall Bracket, as above..... 5 00  
 Heavy cables, with floor push button..... 5 00

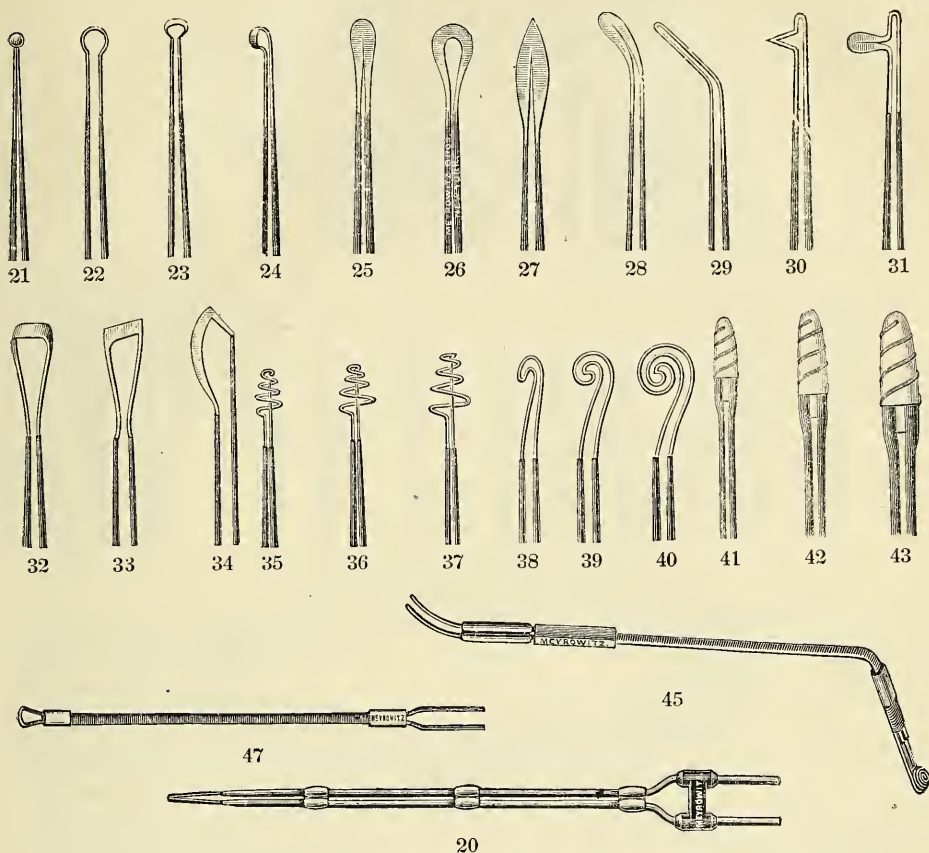
*All Instruments Illustrated are designated by a \*.*

## Burrs, Drills and Trephines.



|                                                                  |      |        |
|------------------------------------------------------------------|------|--------|
| Nasal Burrs, Nos. 200 to 211.....                                | each | \$2 00 |
| “ Trephines. Nos. 220 to 223.....                                | “    | 2 00   |
| Guards for Nasal Burrs.....                                      |      | 3 50   |
| “ “ “ Trephines.....                                             |      | 3 50   |
| Dr. Myles' Guarded Trephine, with shoulder, No. 229.....         |      | 6 00   |
| “ Goodwillie's Guarded Nasal Scissors Drill, “ 230.....          |      | 8 00   |
| “ “ “ “ Knife Drill, “ 231.....                                  |      | 7 00   |
| “ “ “ “ Burr “ 232.....                                          |      | 6 00   |
| “ Gleason's Nasal Trephine, with guard, extra long, No. 235..... |      | 6 00   |

### Nasal Electrodes.

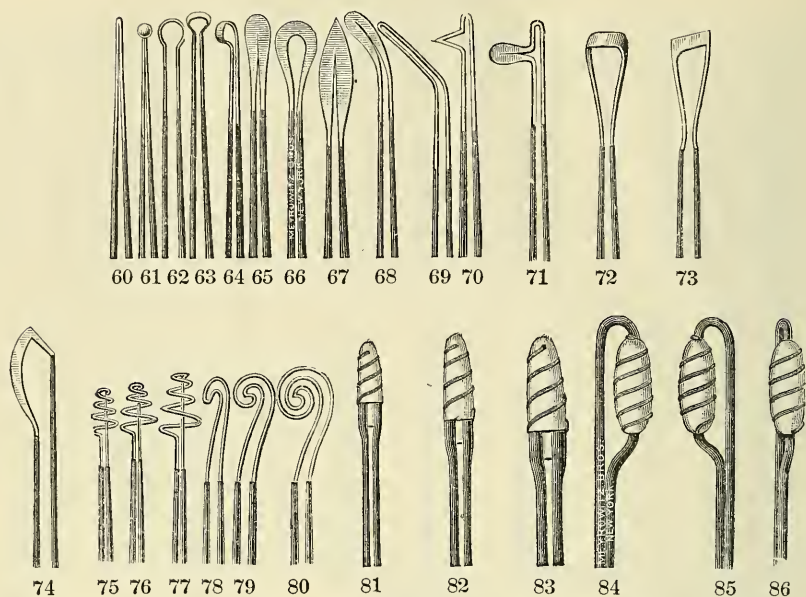


|     |                                      |        |     |                                                      |        |
|-----|--------------------------------------|--------|-----|------------------------------------------------------|--------|
| 20. | Point Electrode.....                 | \$1 50 | 34. | Side Cutting Electrode, right & left                 | \$2 00 |
| 21. | Bulb " .....                         | 1 50   | 35. | Spiral Dome " small.....                             | 2 00   |
| 22. | Loop " .....                         | 1 50   | 36. | " " " medium.....                                    | 2 00   |
| 23. | Curette " straight.....              | 1 50   | 37. | " " " large.....                                     | 2 00   |
| 24. | " " curved, right & left             | 1 50   | 38. | " Flat " small.....                                  | 2 00   |
| 25. | Knife " flat.....                    | 1 50   | 39. | " " " medium.....                                    | 2 00   |
| 26. | " " broad.....                       | 1 50   | 40. | " " " large.....                                     | 2 00   |
| 27. | " " lancet.....                      | 1 50   | 41. | Porcelain-core " small.....                          | 2 50   |
| 28. | " " curved, right & left             | 1 50   | 42. | " " " medium.....                                    | 2 50   |
| 29. | Point " angular " " "                | 1 50   | 43. | " " " large.....                                     | 2 50   |
| 30. | Side Point Electrode, right and left | 2 00   | 45. | Bosworth's Post-Nares Electrode,<br>with shield..... | 2 50   |
| 31. | " Knife " " " "                      | 2 00   | 47. | Bosworth's Naso-Pharynx Electrode                    | 2 00   |
| 32. | Square " " flat on top.....          | 2 00   |     |                                                      |        |
| 33. | Oblique Knife " right and left       | 2 00   |     |                                                      |        |

These Electrodes have *straight* or angular shanks, and are four and one-half inches long, and can be used on any cautery handle.



## Laryngeal Electrodes.



|                                         |        |                                           |        |
|-----------------------------------------|--------|-------------------------------------------|--------|
| 60. Point Electrode.....                | \$2 00 | 75. Spiral Dome Electrode, small.....     | \$2 50 |
| 61. Bulb " .....                        | 2 00   | 76. " " " medium.....                     | 2 50   |
| 62. Loop " .....                        | 2 00   | 77. " " " large.....                      | 2 50   |
| 63. Curette " straight.....             | 2 00   | 78. " Flat Electrode, small.....          | 2 50   |
| 64. " " curved, right & left..          | 2 00   | 79. " " " medium .....                    | 2 50   |
| 65. Knife " flat.....                   | 2 00   | 80. " " " large .....                     | 2 50   |
| 66. " " broad looped.....               | 2 00   | 81. Porcelain-core Tonsil Electrode, sm'l | 2 50   |
| 67. " " lancet.....                     | 2 00   | 82. Same, medium.....                     | 2 50   |
| 68. " " curved, right & left..          | 2 00   | 83. Same, large.....                      | 2 50   |
| 69. Point " angular, " " ..             | 2 00   | 84. Porcelain-core Tonsil Post-Nares      |        |
| 70. Side Point Electrode, " " ..        | 2 50   | Electrode, front.....                     | 2 50   |
| 71. Side Knife " " " ..                 | 2 50   | 85. Same, back.....                       | 2 50   |
| 72. Square Knife Electrode, flat on top | 2 50   | 86. " right.....                          | 2 50   |
| 73. Oblique " " right & left            | 2 50   | 87. " left.....                           | 2 50   |
| 74. Side Cutting " " " ..               | 2 50   |                                           |        |

These Electrodes have curved shanks, and are  $6\frac{1}{2}$  inches long.

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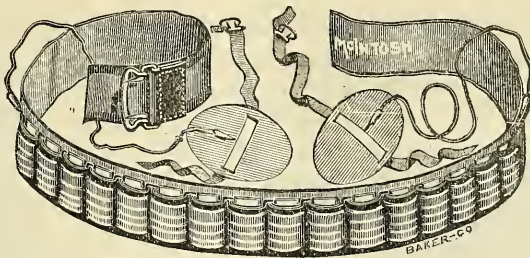
|                                                             |        |
|-------------------------------------------------------------|--------|
| Straight Nasal Canula, for snaring.....                     | \$1 50 |
| Angular " " " " .....                                       | 1 50   |
| Curved Laryngeal Canula, for snaring.....                   | 2 00   |
| Pure Platinum Wire, for snaring, per coil of 16 inches..... | 1 00   |
| Platinum Iridium, for snaring, " " " 16 " .....             | 1 25   |

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|                                                                              |        |
|------------------------------------------------------------------------------|--------|
| 101. Plain Interrupting handle, for nose and throat electrodes.....          | \$3 50 |
| 102. Universal Cautery and snare handle.....                                 | 8 00   |
| 104. White's Universal Cautery and cold handle, adjustable to any angle..... | 10 00  |
| 105. Schech's Cautery and snare handle.....                                  | 10 00  |

## Electrical Apparatus.

### McINTOSH'S ELECTRIC BELT.

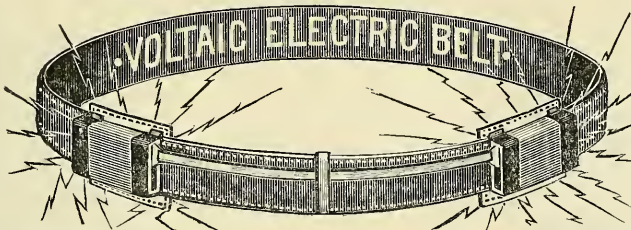


This belt has been carefully devised by Dr. L. D. McIntosh for the purpose of meeting all the wants of a mild Galvanic Battery. The belt consists of a combination of cups or cells placed in pockets on the belt, thus forming a complete Galvanic Battery. Each cell is composed of hard rubber lined with copper, which metal constitutes the negative plate. The cells, being covered with hard rubber, are perfectly insulated, or, in other words, do not permit the electric current to pass only on the conducting wires from the poles of the battery; plates of zinc of the proper size and thickness are wrapped in a porous material and placed in the cells; a wire soldered firmly to the zinc connects to the copper of the cells in such a manner as to give a hinge motion, thus making the belt pliable. By simply dropping a few drops of dilute vinegar in each cell, the electric current is generated, and will continue uninterrupted for twenty-four hours. The power of the current is so great that it will decompose water.

Price .....\$10 00†  
 " with suspensory..... 12 50†

Directions with each belt.

### THE VOLTAIC ELECTRIC BELT.



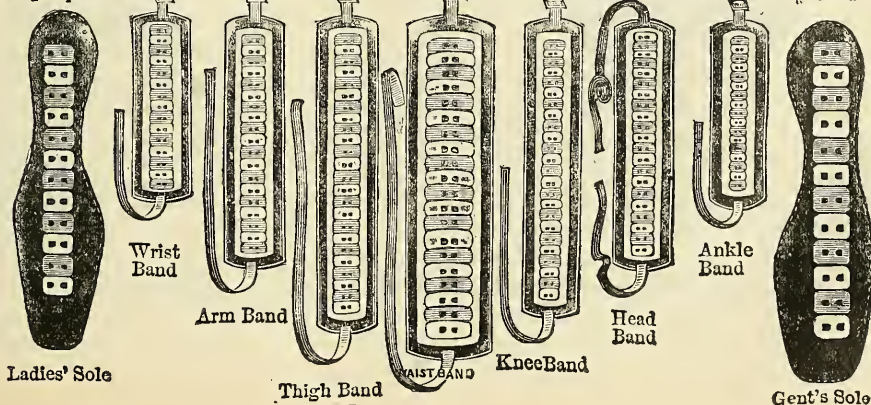
The Voltaic Electric Belt is not a magnetic appliance, or medicated humbug, but a double battery belt in which the electricity can positively be seen and felt. It is recharged without expense and can be regulated in strength to suit. Endorsed by every physician that has examined it. This powerful belt is not worn all day, only three to four hours at a time, several times a week. Short applications effect a cure. This belt must not be confounded with the many so called electric belts that are worn all day, without producing a perceptible current, or benefiting the patient.

The price of the plain belt is.....\$3 00†  
 " " " with suspensory..... 5 00†

### THE VOLTAIC ARMADILLO.

An Electro-Magnetic Remedy for Nervous Diseases.

\$1 per pair. 7 \$1 00. \$2 00. \$3 00. \$5 00. \$3 25. \$1 00 \$1 per pair





Electrical Apparatus.

THE PERFECTION IN POROUS CUP BATTERIES.

In the Axo Battery the defects which have been so long recognized, and have come to be regarded as inherent, in Porous Cup Batteries, are met and overcome. The improvement in form of construction alone is so great as to recommend it at once to all who are familiar with batteries.



"AXO" BATTERY COMPLETE.



"AXO" POROUS CUP.

"AXO" BATTERY.

|                                |        |
|--------------------------------|--------|
| Cell Complete.....             | \$1 00 |
| Porous Cup alone.....          | 75     |
| Glass Jar.....                 | 25     |
| Zinc.....                      | 08     |
| Sal Ammoniac, per package..... | 06     |

These prices are net.

"GONDA POROUS CUP" BATTERY.



"GONDA POROUS CUP"  
BATTERY COMPLETE.



GONDA POROUS CUP  
AND ZINC.

|                           |        |
|---------------------------|--------|
| Cell complete.....        | \$0 90 |
| Porus Cup, alone.....     | 65     |
| Glass Jar.....            | 20     |
| Zinc.....                 | 08     |
| Sal Ammoniac, in bag..... | 06     |

These prices are net.

We do not manufacture these cells, and therefore we do not guarantee them.



## Electrical Apparatus.

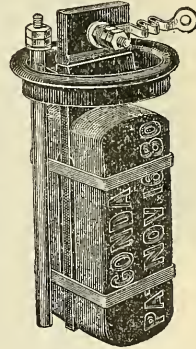
### THE "GONDA" CELL.



The "Gonda" Cell is an improvement upon the battery called by us the "Prism" Cell, and is a much better battery in every particular. "The "Prism" has many merits—but it has, also, undeniable faults from which the "Gonda" Cell is entirely free.

The "Gonda" Cell is too well-known all over the world to make an extended description of it necessary. Wherever high class electrical apparatus is used or work done, there you will find the "Gonda" Cell. It is the thoroughbred of batteries. For telephone service no battery which has ever been made can compare at all with it, and indeed, for all purposes, for which open circuit batteries are used, it is at the head.

We do not manufacture these cells, and therefore we do not guarantee them.

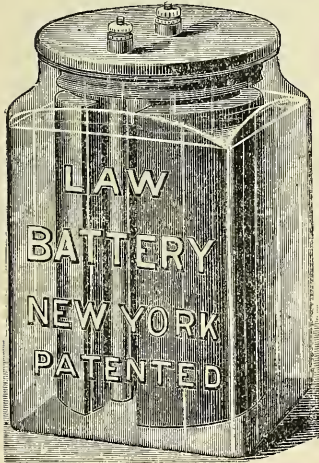


WITHOUT JAR.

#### "GONDA" CELL, COMPLETE.

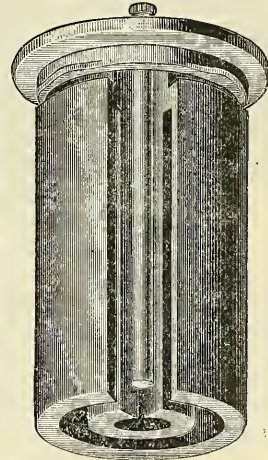
|                                          |        |
|------------------------------------------|--------|
| Battery complete.....                    | \$1 20 |
| Jar only.....                            | 20     |
| Gondas, per pair, with rubber bands..... | 70     |
| Carbon with connections.....             | 15     |
| Jar cover.....                           | 08     |
| Zinc Rod, with connection.....           | 10     |
| Sal Ammoniac, in bag.....                | 08     |

### THE IMPROVED DOUBLE CYLINDER LAW BATTERY.



In the construction of the cell, the cover is so made that by a slight turn it locks down tightly against a soft rubber ring, effectually sealing the jar against evaporation of the water and crawling out of the salt.

We do not manufacture these cells, and therefore we do not guarantee them.



|            |        |
|------------|--------|
| Price..... | \$1 25 |
|------------|--------|

#### THE MANUFACTURERS OF THE LAW BATTERY

claim the following points of excellence :

- Electromotive force, 1.5 volts.
- 2½ pints of solution against 1 pint found in a porous cup.
- 147 square inches of negative surface.
- Freedom from evaporation, creeping salts and corrosion.
- High efficiency combined with great durability.

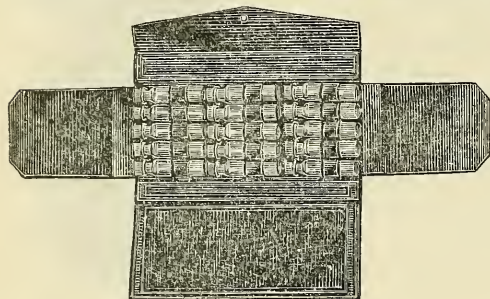
Use the battery carefully and keep it clean, and it will always be ready to respond to your demand for service.

|                              |        |
|------------------------------|--------|
| Law Battery, complete.....   | \$1 25 |
| Double Cylinder.....         | 75     |
| Jar.....                     | 30     |
| Cover, with rubber ring..... | 20     |
| Carbon Binding Post.....     | 15     |
| Zinc, with fender.....       | 10     |
| Zinc Binding Post.....       | 08     |
| Sal Ammoniac.....            | 08     |

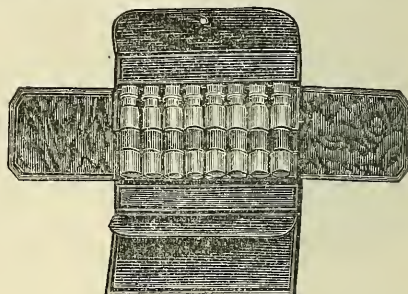
These prices are net.

## Pocket Medicine Cases.

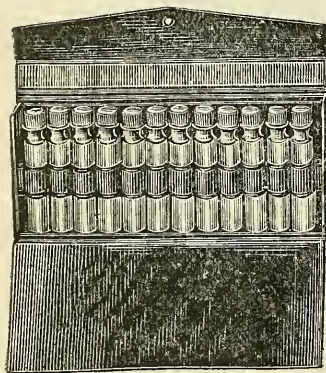
The descriptions given in ordinary price currents of Pocket Cases are meagre and imperfect. Little is noted beyond the number and size of vials, and thus it follows that physicians, as a rule, are dissatisfied with cases ordered by letter. To overcome this trouble, and for the convenience of our patrons, we have made careful and thorough descriptions of our new stock of cases. Physicians can now order a case with intelligence, knowing its size, style and construction.



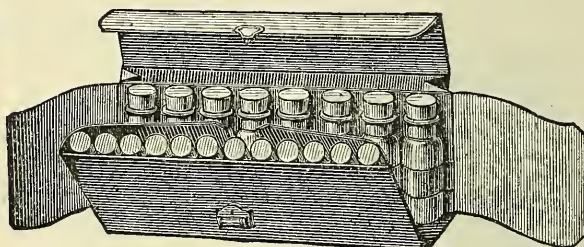
5230



5229



5228



5232

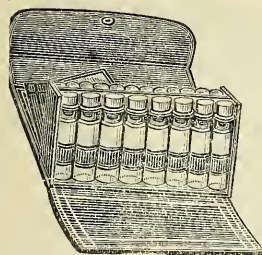
### Net Prices.

|        |                                                                                                                                                                                                                                                                                                                                  |       |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 5225.  | (6 vials). Red or dark morocco, size $3\frac{1}{2}$ inches long, $2\frac{1}{2}$ inches wide, $\frac{3}{4}$ inch thick, one pocket, morocco flaps, one row of 6 one drachm vials.....                                                                                                                                             | \$ 50 |
| 5226.  | (8 vials). Dark morocco, size of case, 6 inches long, 1 inch thick, 3 inches wide, one pocket, morocco flaps, one row of 8 two drachm corked vials.....                                                                                                                                                                          | 90    |
| 5227.  | (10 vials). Red or dark morocco, size of case, $7\frac{1}{2}$ inches long, 1 inch thick, $3\frac{1}{2}$ inches wide, one pocket, morocco flaps, one row of 10 three drachm cork-stoppered vials.....                                                                                                                             | 1 35  |
| 5228.* | (12 vials). Red morocco, stiff ends, size $7\frac{1}{2}$ inches long, 1 inch thick, $3\frac{1}{2}$ inches wide, one pocket, contains twelve $2\frac{1}{2}$ drachm corked vials.....                                                                                                                                              | 1 35  |
| 5229.* | (8 vials). Red or dark Russian leather, size $6\frac{3}{4}$ inches long, $1\frac{1}{4}$ inches thick, $3\frac{1}{2}$ inches wide, one row of 8 three drachm corked vials on one side and two pockets for powders on the other side, Russia leather flaps, silk-lined. This is one of the nicest and best wearing cases made..... | 2 50  |
| 5230.* | (15 vials). Dark morocco, long leather flaps, size of case 8 inches long, 1 inch thick, $3\frac{1}{2}$ inches wide, two pockets, three rows, each holding 5 one and one-half drachm vials, which are upright when carried in pocket.....                                                                                         | 1 85  |
| 5231.  | (18 vials). Red morocco, strong leather flaps, size of case, 7 inches long, $1\frac{5}{8}$ inches thick, $3\frac{1}{2}$ inches wide, one pocket containing two rows of 9 three drachm corked vials.....                                                                                                                          | 1 90  |
| 5232.* | (20 vials). Red morocco, size, 7 inches long, 3 inches wide, $1\frac{1}{2}$ inches thick, one pocket, two rows of vials one row containing 12 two drachm vials, the other row containing 8 four drachm vials.....                                                                                                                | 1 75  |
| 5233.  | (20 vials). Same case as No. 5232, black seal grain leather, flexible.....                                                                                                                                                                                                                                                       | 2 00  |

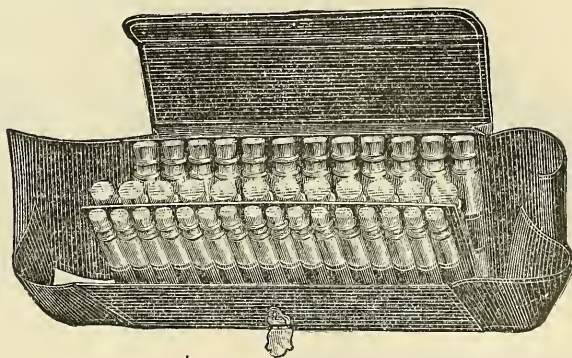
*All Cases Illustrated are designated by a \*.*



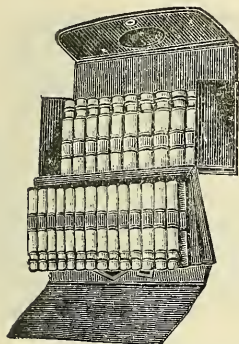
## Pocket Medicine Cases.



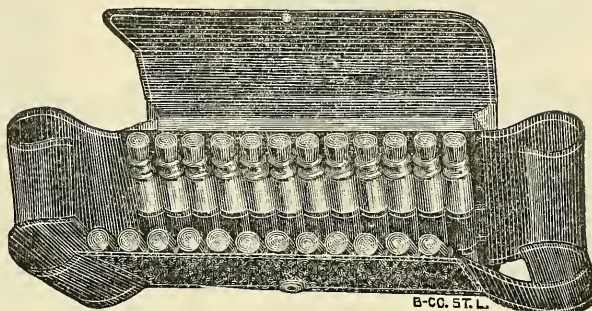
5240



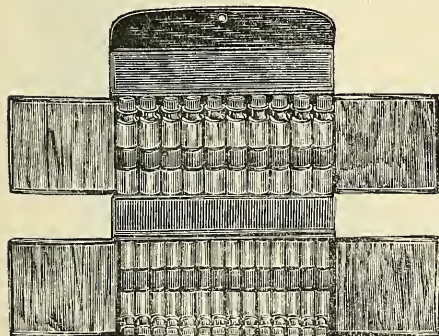
5247



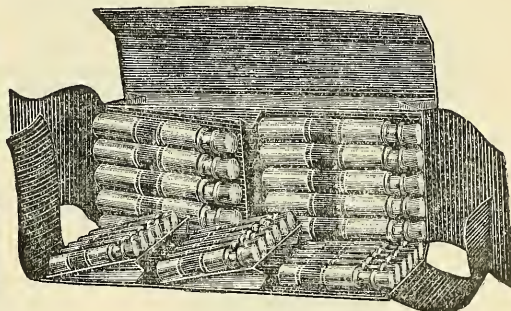
5241



5252



5237



5242

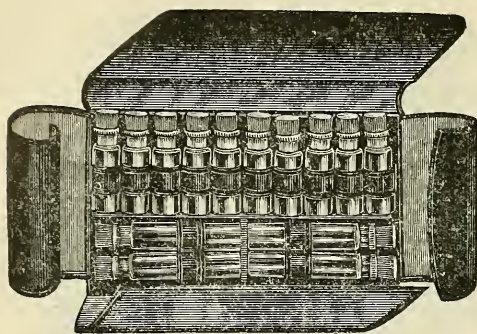
## Net Prices.

- 5237.\* (24 vials). Soft red or dark morocco, leather flaps, silk-lined. one pocket, case has metal ends, contains two rows of vials, on one side 10 three drachm and on the other side 14 one and one-half drachm corked vials, size of case  $7\frac{3}{4}$  inches long,  $1\frac{1}{2}$  inches thick,  $3\frac{1}{2}$  inches wide.....\$2 50
5238. (24 vials). Same case as No. 5237, black seal grain, flexible leather case..... 2 50
5239. (24 vials). Same case as No. 5237, fine calf leather..... 3 00
- 5240.\* (20 vials). Dark morocco, contains 12 two and one-half drachm and 8 six drachm vials, size of case  $8\frac{1}{2}$  inches long,  $3\frac{1}{2}$  inches wide, 2 inches thick..... 2 75
- 5241.\* (24 vials). Dark morocco, frame case, one pocket, contains 10 four drachm and 14 two drachm vials, size of case  $8\frac{1}{2}$  inches long,  $3\frac{1}{2}$  inches wide,  $1\frac{1}{2}$  inches thick... 2 35
- 5242.\* (28 vials). Dark morocco,  $7\frac{3}{4}$  inches long,  $1\frac{1}{2}$  inches thick,  $3\frac{1}{2}$  inches wide, contains on one side 10 four drachm vials, and on the other, 18 one and one-half drachm vials, three pockets. the vials are all upright when carried in the pocket..... 2 25

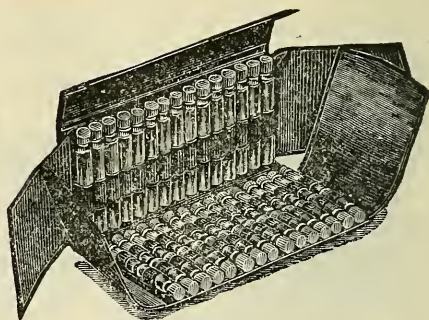
*All Cases Illustrated are designated by a \*.*



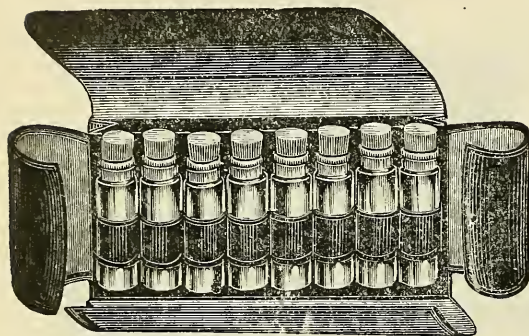
## Pocket Medicine Cases.



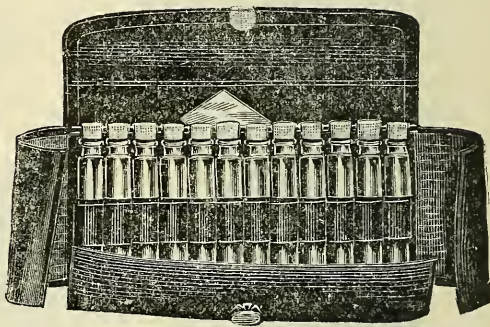
5253



5246



5250



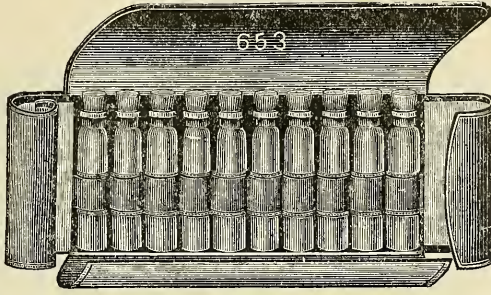
5251

## Net Prices.

5245. (30 vials). Soft red or dark morocco, metal ends, leather flaps, silk lined, one pocket, size  $7\frac{3}{8}$  inches long,  $1\frac{1}{4}$  inches thick, 4 inches wide, contains two rows, each holding 15 two drachm corked vials.....\$2 75
- 5246.\* (45 vials). Soft red or dark morocco, leather flaps, silk-lined, metal ends, one pocket, case contains two rows of vials, on one side 15 two drachm long, and on the other side 30 one drachm short vials cork stoppered, size  $7\frac{3}{8}$  inches long,  $1\frac{1}{4}$  inches thick, 4 inches wide..... 3 00
- 5247.\* (40 vials). Soft red or dark morocco,  $7\frac{3}{8}$  inches long, 2 inches thick,  $3\frac{1}{2}$  inches wide, strong leather flaps, two pockets, three rows of vials, one contains 16 one and one-half drachm each of the others contains 12 three drachm vials (see page 313)..... 2 50
5248. (12 vials). Fine morocco, flexible case, long flaps, no lock, one pocket, flaps lined with silk, containing one row of 12 one drachm vials, size 6 inches long,  $\frac{5}{8}$  inch thick,  $2\frac{1}{2}$  inches wide..... 1 50
- 5249.\* (10 vials). Same case as No. 5248, excepting that it contains one row of 10 two drachm vials, size  $6\frac{1}{2}$  inches long,  $\frac{3}{4}$  inch thick,  $3\frac{1}{4}$  inches wide..... 2 25
- 5250.\* (8 vials). Soft flexible case, no catch, containing 8 four drachm vials, size  $7\frac{1}{4}$  inches long,  $3\frac{3}{4}$  inches wide, 1 inch thick..... 1 50
- 5251.\* (12 vials). Genuine seal, flexible case, long flaps lined with silk, one pocket, size  $7\frac{3}{8}$  inches long,  $\frac{3}{4}$  inch thick,  $3\frac{3}{4}$  inches wide, contains one row of 12 two drachm vials..... 2 25
- 5252.\* (24 vials). Genuine seal, flexible case, long flaps, silk lined, one pocket, contains two rows, each holding 12 two drachm corked vials, size of case  $7\frac{3}{8}$  inches long,  $1\frac{1}{4}$  inches thick,  $3\frac{3}{4}$  inches wide (see page 313)..... 2 75
- 5253.\* (14 vials). Dark morocco, silk lined flaps, one pocket, containing 10 two drachm, 4 three drachm vials, size  $6\frac{1}{4}$  inches long, 4 inches wide, 1 inch thick..... 1 75

*All Cases Illustrated are designated by a \*.*

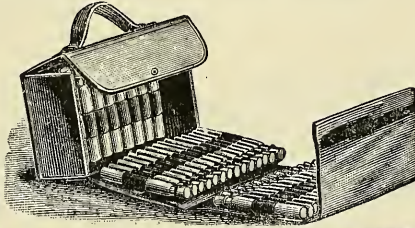
## Pocket Medicine Case.



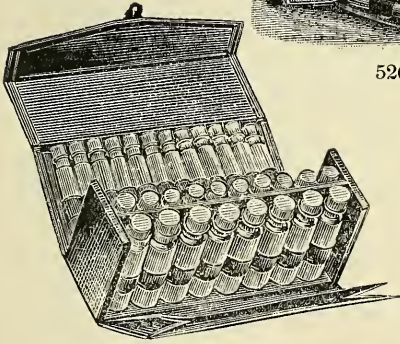
5249

5255. (18 vials). Genuine seal, flexible case, long flaps, lined with silk, one pocket, three rows, each holding 6 one drachm vials, which are upright when carried in the pocket, size 8 inches long,  $\frac{3}{4}$  inch thick,  $3\frac{3}{4}$  inches wide.....\$2 50
5256. (15 vials). Same case as No. 5255, contains three row of 15  $1\frac{1}{2}$  drachm vials..... 2 50
5257. 14 " " " " " " " one " 14 two " " ..... 2 50
5258. 12 " " " " " " " " 12 three " " ..... 2 50

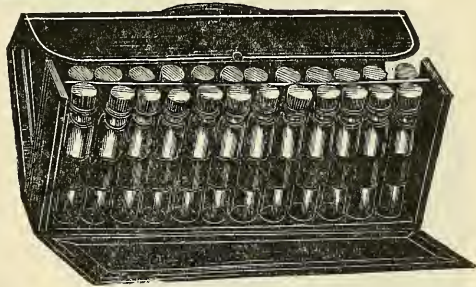
## HAND MEDICINE CASES.



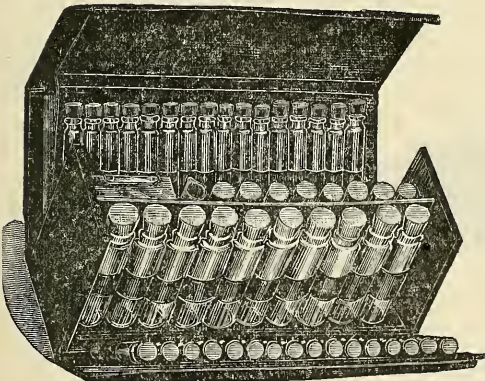
5267



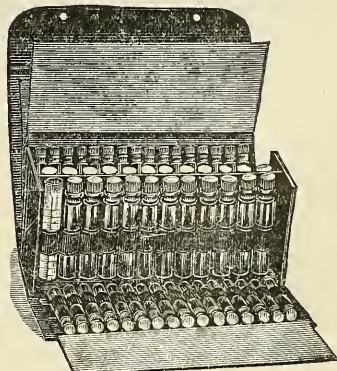
5265



5269



5270



5268

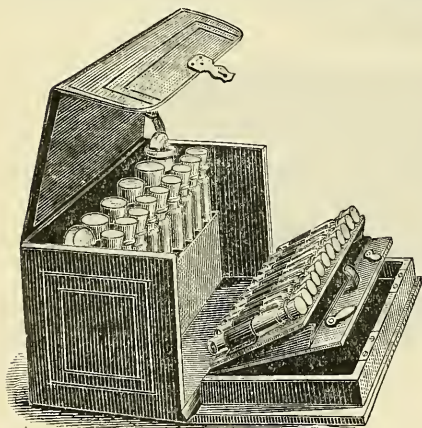


## Hand and Buggy Cases.

### Net Prices.

|                                                                                                                                                                                                                                                                                                                                                                                                     |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 5265.* (30 vials). Frame case, made very strong and handsome, dark morocco, size 9½ inches long, 3½ inches thick, 4 inches high, one pocket, three rows of vials, one containing 8 one ounce, one 10 six drachm, and the other 12 four drachm corked vials. (See page 315).                                                                                                                         |        |
| Price .....                                                                                                                                                                                                                                                                                                                                                                                         | \$4 00 |
| 5266. (38 vials). Same case as (No. 5265), size 9½ inches long, 2½ inches thick, 4 inches high, one pocket, three rows of vials, one containing 14 three drachm, and each of the other 12 four drachm corked vials.                                                                                                                                                                                 |        |
| Price .....                                                                                                                                                                                                                                                                                                                                                                                         | 3 75   |
| 5267.* (38 vials). Frame case, best red or black morocco leather, size 8 inches long, 4½ inches high, 2½ inches thick, contains 10 four drachm and 28 two and one-half drachm corked vials. (See page 315).                                                                                                                                                                                         |        |
| Price .....                                                                                                                                                                                                                                                                                                                                                                                         | 4 00   |
| 5268.* (56 vials). Frame case, dark seal grain leather, contains 24 four drachm and 32 two and one half drachm corked vials, a pocket for sundries, and a graduated minim measure. The addition of a minim measure to this case will, we think, be a convenience to the physician, who can thus secure perfect accuracy of dose. Size 9½ inches long, 4½ in. high, 3½ inches thick. (See page 315). |        |
| Price .....                                                                                                                                                                                                                                                                                                                                                                                         | 5 75   |
| 5269.* (24 vials). Dark morocco, one pocket, contains 24 four drachm vials, size 10 inches long, 4½ inches high, 2 inches thick, (see page 315).....                                                                                                                                                                                                                                                | 4 00   |
| 5270.* (50 vials). Dark morocco, one pocket, contains vials convenient for tablets or pills, a neat box for hypodermic syringe, one graduated minim measure, contains 10 six drachm, 8 four drachm, and 32 two and a half drachm vials, size 9½ inches long, 4½ inches high, 3¾ inches thick. See page 315).                                                                                        |        |
| Price .....                                                                                                                                                                                                                                                                                                                                                                                         | 5 75   |

### BUGGY CASES.



5274

5274.\* (27 vials). Black morocco, contains 4 one and one-half ounce, 9 six drachm, and 12 two and a half drachm corked vials. Also 2 one and a half ounce glass stoppered bottles. Contains a box and loops for instruments and sundries, size 8¾ inches long, 5 inches thick, 5¼ inches high.

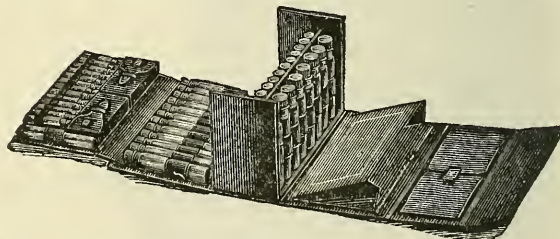
Price ..... 7 35

5275. (44 vials). Dark morocco, size 9½ inches long, 4½ inches thick, 6 inches high, one pocket, compartment for instruments, papers, etc., one row of vials, in a movable frame, which may be inclined forward, thus showing the labels on vials behind, case contains 8 one ounce cork stoppered vials, 12 four drachm cork stoppered vials and 24 two drachm cork stoppered vials.

Price ..... 6 75

5276.\* (45 vials). Dark morocco, contains 8 one ounce, 24 four drachm, 13 one and a half drachm corked vials, a graduated minim measure, small neat case for hypodermic syringe, and one for wire, silk, needles, etc. Also loops for surgical instruments, and a pocket, size 9½ inches long, 6 inches high, 4 inches thick.

Price ..... \$10 00



5276

*All Cases Illustrated are designated by a \*.*



## Buggy Cases.

Net Prices.



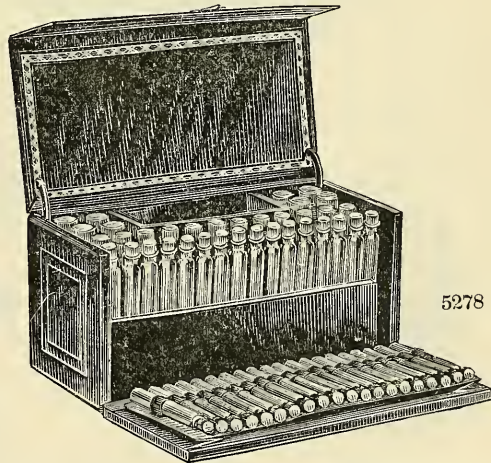
5277

5277.\* (36 vials). Dark morocco, size 10 inches long,  $4\frac{1}{2}$  inches wide and 6 inches high, patent hinges. top of case contains a compartment with elastic loops, and lined morocco flaps for surgical instruments, three rows of vials, two of which are in movable frames, and arranged to incline forward and display the labels on the vials behind, thus bringing all the vials into view while in position. The case contains 8 one and a half ounce glass stoppered bottles, 10 one ounce cork stoppered vials, 8 four drachm cork stoppered vials and 10 two drachm cork stoppered vials.

Price.....\$8 75

5278.\* (56 vials). Genuine seal skin, size  $11\frac{3}{4}$  inches long, 6 inches wide, and  $5\frac{3}{4}$  inches high. Patent hinges, one large pocket for papers, etc. Open space for sundries and instruments, four rows of vials, three of which are in movable frames and arranged to incline forward and display the labels on the rows behind, thus permitting a view of all the vials of the case while in position. The case contains 8 two ounce cork stoppered vials, 12 one ounce cork stoppered vials, 16 four drachm cork stoppered vials, and 20 two and a half drachm cork stoppered vials. This case is very compact, complete and strong, and is one of the most desirable of buggy cases.

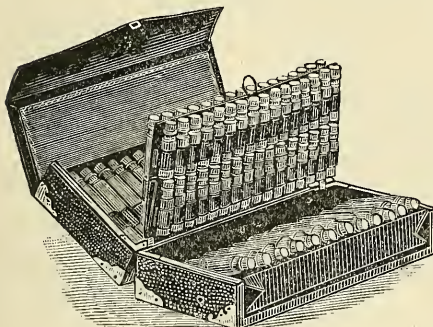
Price.....\$10 00



5278

5279.\* (70 vials). Dark morocco, size 12 inches long, 4 inches wide,  $6\frac{1}{4}$  inches high, case opens in centre, and protected by metal corners, one pocket and open space for instruments. Size  $11\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{3}{4}$  inches, contains 12 one and one-half ounce, 26 four drachm, and 32 three drachm corked vials.

Price.....\$10 35



5279

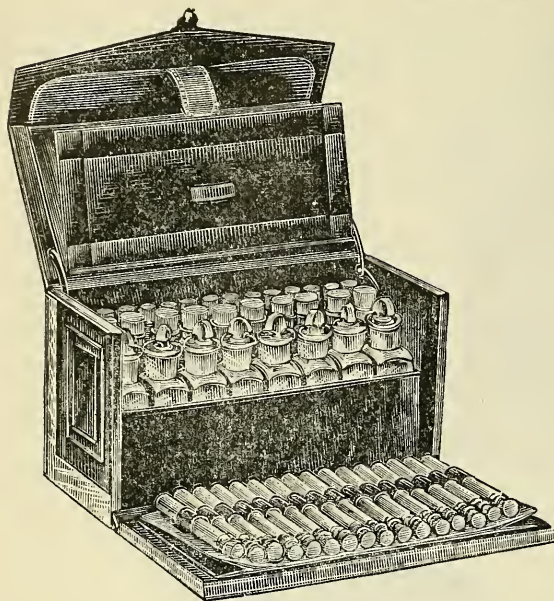
5280. (74 vials). Dark morocco,  $12\frac{1}{2}$  inches long, 4 inches wide,  $6\frac{1}{2}$  inches high, opens in centre same as No. 5279, and protected by metal corners. One pocket contains 12 one and one half ounce, 14 one ounce, 16 six drachm, and 32 three drachm corked vials.

Price.....\$10 35

*All Cases Illustrated are designated by a \*.*

## Buggy Cases.

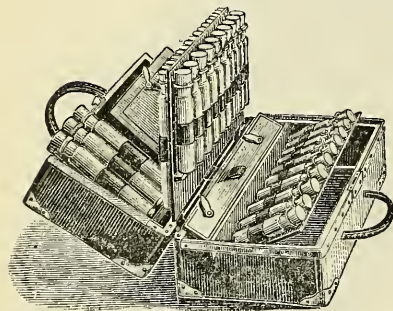
Net Prices.



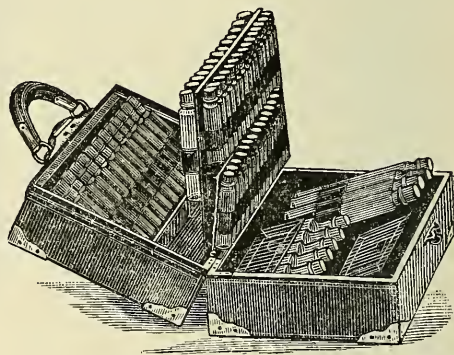
5281

5281.\* (48 vials). Red or dark morocco, size 10 inches long 6 inches wide, and 5 inches high. Patent hinges, two pockets for papers, etc. Case protected with metal strips around the bottom and back edges. Contains four rows of vials, three of which are in movable frames and arranged to incline forward, exhibiting the labels on the vials behind, and thus permitting a view of all the vials in the case while in position. Case contains 8 one and a half ounce glass stoppered vials, 10 one ounce cork stoppered vials, 14 four drachm cork stoppered vials and 16 two drachm cork stoppered vials.

Price.....\$10 00



5282



5283

5282.\* (38 vials.) Dark morocco, contains 3 three ounce, 20 one ounce and 15 long four drachm corked vials. Two covered spaces for instruments and sundries. Thoroughly protected from wear by nickel trimmings. Case opens in centre. Size 11 inches long, 5 inches wide, 7½ inches high.

Price.....\$12 50

5283.\* (65 vials). Dark morocco, size 12 inches long, 5 inches wide, 7½ inches high, opens in centre with a good spring Yale lock, two spaces for instruments, one 11½ x 1½ x 2, and the other 6½ x 2½ x 1½, case protected by large metal corners, contains 4 two ounce, 12 one ounce, 14 six drachm, 30 three drachm, 5 one ounce square corked vials.

Price.....\$13 50

5284. (36 vials). Dark morocco, size 10½ inches long, 5 inches high, 5 inches thick, containing a large open space for sundries, one pocket, patent hinges, 4 one and a half ounce glass stoppered square vials, 12 six drachm, 8 four drachm cork stoppered vials and 12 two drachm cork stoppered vials. One row of vials is in a movable frame, and so arranged that the labels of all the vials can be read as they stand in the case.

Price.....\$ 7 35

*All Cases Illustrated are designated by a \*.*



## Buggy Cases.

Net Prices.



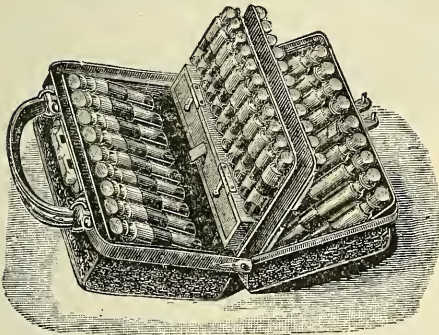
5285

5285.\* (36 vials). Cabin Bag, black seal grain leather, size 10½x6x7 inches, contains 36 four drachm bottles and pocket, vials on removable cards; in the middle of bag is room for pocket instrument case and other sundry articles. This new style has the advantage that not a particle of space need be wasted. It might also serve as an emergency satchel for carrying various instruments and dressings, by simply taking out the cards holding the bottles.....\$11 50

5286. Cabin Bag, the same, but contains 24 four drachm and 24 two drachm bottles..... 11 25

5287. Cabin Bag, also the same, but contains 10 one ounce and 24 four drachm bottles..... 10 50

5288. Cabin Bag, also the same, but contains 48 four drachm bottles..... 11 50



5290

## SATCHEL CASES.

Made of Black Seal Grain Leather.

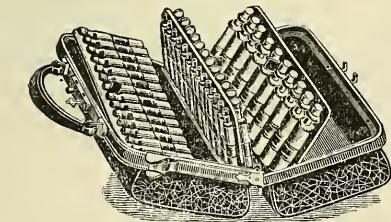
5290.\* (40 vials). 10 inch frame, contains 18 one ounce, 11 six drachm and 11 four drachm corked vials, ample loops for instruments, box for sundries, and a neat, plush lined case for Hypodermic Syringe. Size 10 inches long, 7 inches high, 6 inches wide.....\$11 75

5291. (66 vials). Satchel for Homœopathic Physicians, same size and style as the No. 5290, but holding 11 six drachm, 11 four drachm, and 44 three drachm corked vials..... 12 75

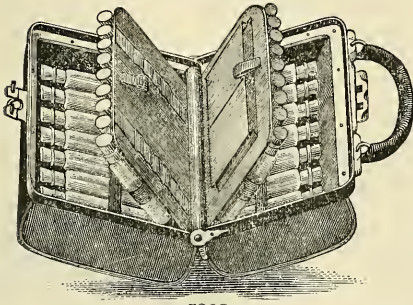
5292.\* (50 vials). Satchel for Homœopathic Physicians, with patent metal springs for holding bottles, 10 inch frame, contains 10 four drachm, 12 three drachm, 28 two drachm corked vials, loops for instruments on back of one of the side partitions, size 10 inches long, 5 inches high, 3½ inches wide..... 9 00

5293.\* (34 vials). 8 inch frame, best black grain leather, finest nickel mountings, containing 18 four drachm and 16 eight drachm corked vials, powder paper pockets and instrument loops. Size 8x6x4..... 9 75

5294. (44 vials). 10 inch frame, same as No. 5293, containing 20 eight drachm and 24 five drachm corked vials, pockets for papers, and loops for instruments. Size 10x7x5..... 12 50



5292



5293

*All Cases Illustrated are designated by a \*.*



## Buggy Cases.

### Net Prices.

These cases are made with the patent metal springs, as shown by cut herewith, in which the bottles are held in place instead of by leather loops. They can be easily picked out instead of being drawn out lengthwise from the leather loops, and thus flanges at the head of the corks are afforded to prevent them from coming out and the contents of the bottle from spilling.

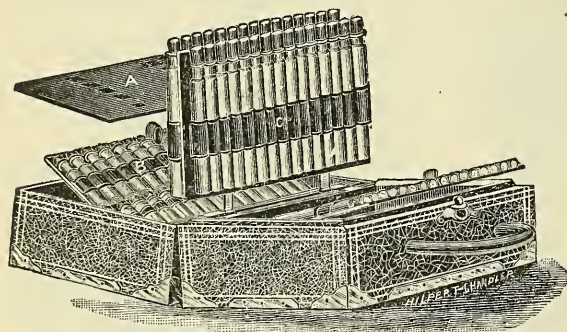
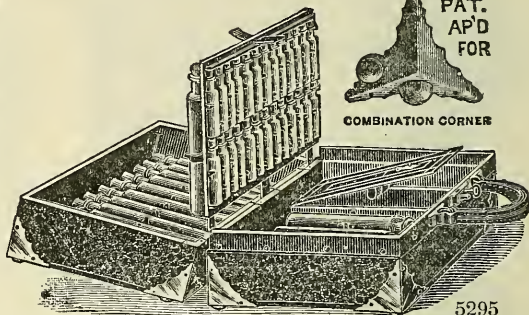
The springs are very durable, and with the combination metal corner and foot on these cases, make them almost indestructible.

5295.\* Contains five 2½ ounce bottles, 26 three drachm vials, and 26 one ounce vials. Space for powder papers, loops for instruments, etc. Dimensions, 12 inches long, 6½ inches high, 5 inches wide. Case made of black grained leather, (cow hide) leather lined, and mounted with nickel combination corners, nickel spring lock, with key, and nickel name plate.....\$12 00

5296. Same case as No. 5295, covered and lined with cheaper and lighter material .....\$10 00



METAL SPRINGS.  
Pat. Sept. 2, 1890.



5297

With patent springs to hold vials.....\$11 00  
With leather loops “ “ ..... 10 00

5298. (51 vials). Same case as No. 5297. has one row of one ounce vials, the other partition four drachm vials, center partition one row on each side of 3 drachm vials; case complete has 9 one ounce, 12 four drachm, 30 three drachm vials.

With patent springs to hold vials.....\$10 75  
With leather loops to hold vials..... 9 75

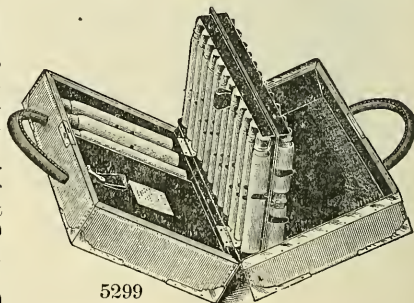
5299.\* (39 vials). Dimensions, 10¾ inches long, 6½ inches high, 4 inches wide.

The outside of case is covered with box leather, stitched, leather lined throughout. Mounted with German silver corners, nickel catch and nickel band around the case, making a most rich and substantial looking case. Has two handles.

Contains 1 row of 12-1 oz. bottles; 2 rows each of 12-3 dr. bottles; 3 only 2½ oz. bottles, and space for sundries 5½ x 5½ x 1 inch deep, with patent springs to hold vials.....\$10 00

5300. (27 vials). Construction same as No. 5299. Contains 2 rows each of 12-1 oz. bottles, 3-2½ oz. and space for sundries, 5½ x 5½ x 1 inch deep \$10 00

5301. (51 vials). Construction same as No. 5299. Contains 4 rows each of 12-3 dr. bottles, 3-2½ oz., and space for sundries, 5½ x 5½ x 1 inch deep.....\$10 00



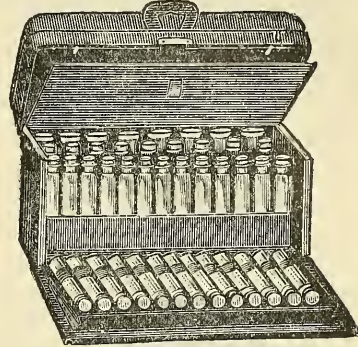
5299

## Seamless Edge Buggy Cases.

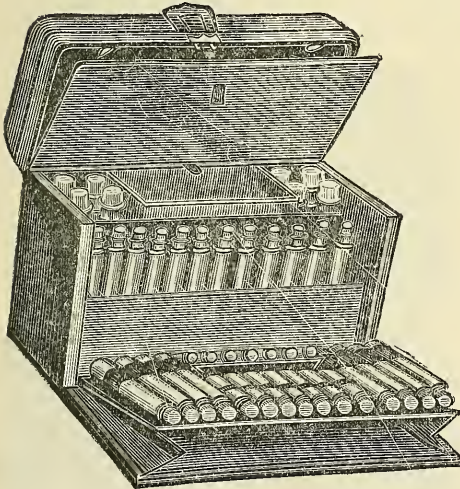
They are strong and handsome cases. Made of the very best quality leather, strong made nickel-plated locks, nickel-plated trimmings and superior quality of bottles. They are on the patented seamless principle, have all round edges, without seam or stitching on the edge, and lined throughout with velvet. Made of russet, black seal grain and plain black calf leather.

### Net Prices.

5306. (26 vials.). Contains six  $1\frac{1}{2}$  oz. glass stoppered vials; eight 1 oz. and twelve 3 drachm corked stoppered vials, 10 inches long,  $6\frac{3}{4}$  inches high  $4\frac{1}{2}$  inches wide, space in top for instruments.....\$10 00
- 5307.\* (43 vials). Contains eight  $1\frac{1}{2}$  oz. glass stoppered vials; nine 1 oz. and twenty-six 3 drachm cork stoppered vials, 11 inches long,  $6\frac{3}{4}$  inches high,  $5\frac{1}{2}$  inches wide, space in top for instruments.... 12 00



5307



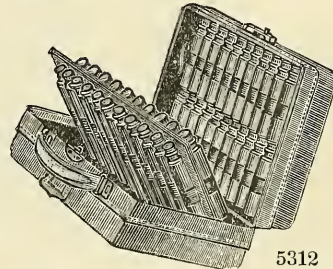
5310

5308. (60 vials). Contains eight  $1\frac{1}{2}$  oz. glass stoppered vials; nine 1 oz., thirteen 3 drachm and thirty  $1\frac{1}{2}$  drachm cork stoppered vials, 11 inches long,  $6\frac{3}{4}$  inches high,  $5\frac{1}{2}$  inches wide, space in top for instruments...\$12 00
5309. (43 vials). Contains sixteen  $1\frac{1}{2}$  oz. glass stoppered vials; eleven 1 oz. and sixteen 3 drachm cork stoppered vials, space in top for instruments..... 14 00
- 5310.\* (42 vials). Contains eight  $1\frac{1}{2}$  oz. glass stoppered vials; twelve 4 drachm, eight 3 drachm and fourteen  $1\frac{1}{2}$  drachm cork stoppered vials,  $12\frac{1}{4}$  inches long,  $7\frac{1}{4}$  inches high  $5\frac{3}{4}$  inches wide, space in top for instruments, also a large space in body of case.....\$13 00

5311. (36 vials). Contains eight  $1\frac{1}{2}$  oz. glass stoppered vials; twelve 4 drachm and sixteen 3 drachm cork stoppered vials. Size of space for sundries in body of case,  $5 \times 4\frac{1}{2} \times 2\frac{1}{2}$  inches; size of case,  $12\frac{1}{2}$  inches long,  $6\frac{1}{2}$  inches high,  $5\frac{1}{4}$  inches wide,...\$12 00

### VALISE SHAPE BUGGY CASES.

- 5312.\* (43 vials). Contains twenty-two 2 drachm, eleven three drachm and ten 6 drachm, cork stoppered vials,  $9\frac{1}{2}$  inches long, 6 inches high,  $3\frac{1}{2}$  inches wide..... \$8 50
5313. (55 vials). Contains forty-four 2 drachm, eleven 3 drachm, cork stoppered vials,  $9\frac{1}{2}$  inches long, 6 inches high,  $3\frac{1}{2}$  inches wide..... 8 50



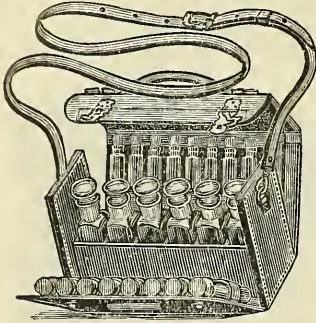
5312

*All Cases Illustrated are designated by a \*.*

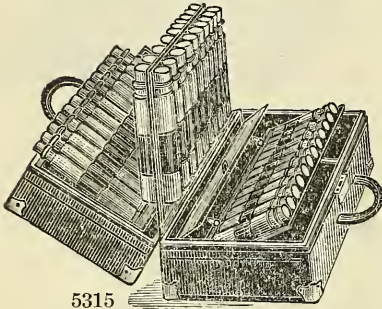


## Buggy Cases.

### Net Prices.



5314



5315

5314.\* Solid Sole Leather, all hand sewed, with a shoulder strap that can be attached or detached as required, contains 6 one ounce glass stoppered bottles, 8 six drachm and 9 four drachm vials (23 vials), also a pocket for sundries. 8 in. long, 5 in. high, 4 in. wide.....\$ 5 50

5315.\* Valise Shape Buggy Case, black or brown seal grain leather, with stitched edges; mounted with heavy nickel corners, nickel spring lock, with key, and nickel name plate; contains 12 four drachm, 12 one ounce, and 20 one and one-half ounce cork stoppered vials (44 vials), and box and pocket for sundries. Size 11½ in. long, 7½ in. high, 5 in. wide..... 14 00

5316. Valise Shape Buggy Case, black or brown seal grain leather, same style of case as No. 5315; contains 10 one ounce salt mouths, 10 one ounce liquid, rubber stoppers, 10 one-half ounce liquid, rubber stoppers, 10 one-half ounce salt mouths (40 vials). Size 10¼x7½x4 in..... 12 00

## SEAMLESS EDGE LEATHER MEDICINE CHESTS.

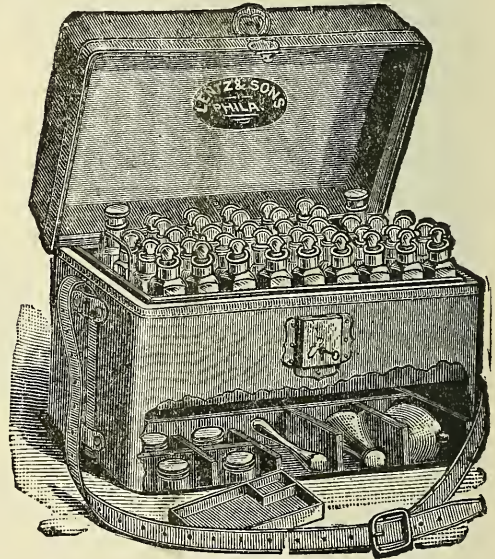
### Net Prices.

The neatest, most durable and cheapest Leather Medicine Chests in the market. They have all rounded edges, without any seam or stitching on the edges, and are finished in the neatest manner.

They have NICKEL-PLATED LOCKS and TRIMMINGS.

They contain Improved GLASS MUSH-ROOM STOPPERED BOTTLES.

The following contain glass stoppered bottles in mahogany trays, also a mortar, a graduated measure, four jars, tray for scales, and space for instruments under bottles.



5328

|        |                  |          |          |         |              |                 |              |              |              |
|--------|------------------|----------|----------|---------|--------------|-----------------|--------------|--------------|--------------|
| 5325.  | Contains 4 4-oz. | 18 2-oz. | 20 1-oz. | 8 ½-oz. | —50 bottles. | Price, \$19 50. | 15½ in long, | 9¼ in. wide, | 9¼ in. high. |
| 5326.  | " 4 "            | 16 "     | 18 "     | 6 "     | 41 "         | " 18 00.        | 14½ "        | 9¼ "         | 9¼ "         |
| 5327.  | " "              | 16 "     | 18 "     | " "     | 34 "         | " 14 50.        | 11½ "        | 8 "          | 8½ "         |
| 5328.* | " 2 "            | 16 "     | 19 "     | " "     | 37 "         | " 16 00.        | 12¾ "        | 8½ "         | 9½ "         |
| 5329.  | " 2 "            | 14 "     | 16 "     | " "     | 32 "         | " 14 50.        | 11 "         | 8¼ "         | 9½ "         |
| 5330.  | " 2 "            | 12 "     | 13 "     | " "     | 27 "         | " 13 50.        | 9¾ "         | 8¼ "         | 9½ "         |
| 5331.  | " "              | " "      | 28 "     | " "     | 28 "         | " 12 00.        | 11 "         | 7¾ "         | 8½ "         |

The following without mortar, measures or jars.

|       |                  |          |         |                  |                 |              |              |              |
|-------|------------------|----------|---------|------------------|-----------------|--------------|--------------|--------------|
| 5332. | Contains 4 4-oz. | 10 2-oz. | 6 1-oz. | —20 bottles..... | Price, \$10 50. | 9½ in. long, | 7½ in. wide, | 8¼ in. high. |
| 5333. | " 15 1½-oz.,     | " "      | " "     | " "              | " 8 50.         | 8¾ "         | 5¾ "         | 7¼ "         |

The following with a tray in front of the bottles.

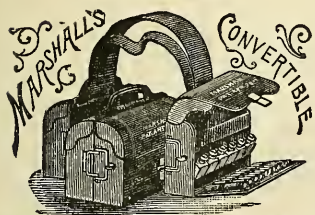
|       |                  |         |          |         |              |                 |              |             |              |
|-------|------------------|---------|----------|---------|--------------|-----------------|--------------|-------------|--------------|
| 5334. | Contains 4 4-oz. | 9 2-oz. | 12 1-oz. | 6 ½-oz. | —31 bottles. | Price, \$13 00. | 13 in. long, | 9 in. wide, | 5¾ in. high. |
| 5335. | " 5 "            | 7 "     | 6 "      | " "     | 18 "         | " 10 00.        | 11 "         | 7½ "        | 5¾ "         |
| 5336. | " 10 "           | 4 "     | " "      | " "     | 14 "         | " 8 50.         | 9 "          | 6½ "        | 5¾ "         |

All Cases Illustrated are designated by a \*.



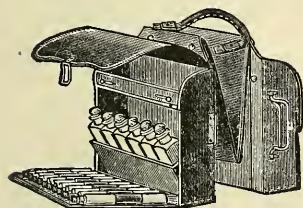
## Physicians' Saddle Bags.

### MARSHALL'S CONVERTIBLE BUGGY CASE BAGS—NET.



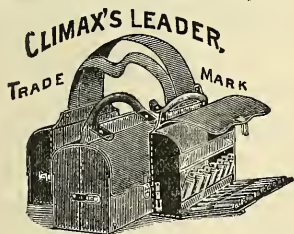
**BUGGY CASE SADDLE BAGS**  
FIG. 3.

36 or 57 bottles (either).  
Russet.....\$16 00  
Black..... 15 00  
36. Russet Body, Patent  
Leather Cover Lid,  
shape as on Cut 4..... 12 50



**OUR CUT 4.**  
37 bottles.

Black.....\$15 50



**OUR CUT 5.**  
No 32 BOTTLE.

Black.....\$10 00

5339.\* Hoff's Patent Saddle Bags are made both of black and russet leather, nickel-plated trimmings; the bottles have acid proof rubber stoppers, and are separated from each other by leather partitions. The Bags have no drawers but are so adjusted that every bottle can be reached readily. A large space for instruments in Bags.

#### Net Price, per pair.

Small size contains eight  $\frac{3}{4}$  oz. sixteen  $\frac{1}{2}$  oz. vials.....\$7 50  
Large size contains ten  $\frac{3}{4}$  oz., twenty  $\frac{1}{2}$  oz. vials..... 8 50

Printed Labels in each Bag.

The number of case indicates the bottles and vials contained.

Size of Nos. 36, 37 and 57 is 6x8x8; of No. 32 is 5x6x7 $\frac{1}{2}$ . All have two spaces for sundries—one on either side. Large, 7 $\frac{1}{2}$ x2 $\frac{1}{4}$ x2 $\frac{1}{2}$ . Small size is one inch shorter. No. 36 contains 12  $\frac{1}{2}$ -oz.; glass-stoppered vials, 16 6-dr.; 8 2-dr., cork-stoppered vials.

No. 37. Same, except has 2 more 2-dr., and 1 less 6-dr. vials.

No. 57 has 2  $\frac{1}{2}$ -oz., glass, 9 6-dr., rubber, 18 5-dr., 6 4-dr., 14 3-dr., 8 2-dr. cork-stoppered vials.

No. 32 contains 14 1-oz. rubber, 16 6 dr. cork-stoppered vials.

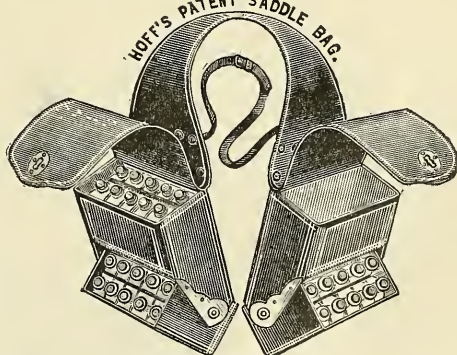
Fig. 3.—A most elegantly shaped case. Adjusts by sliding the saddle piece up or down as wanted. When down and the hinge is closed, "a perfect solid case" is formed, the two half handles forming into one grip handle.

Cuts 4 and 5 operate alike. These raise or drop the saddle piece, as wanted, and clasp or unclasp one side of the round grip handle, adjusting the end hinge. Cut 4 shows bags in process of adjustment.

Cuts 3 and 5 show bags arched over the case, into which they may be instantly changed at will of user. One article in two perfect forms. They are all first-class buggy cases and possess the novel convenience of instantly converting into superior saddle bags, or vice versa. Made of best leather and materials, silver mounted, nicely lined, fine and most durable finish, both in and outside.

Proof against the entrance of water, dust and horsehair. Have no extra cumbersome parts—no tin to rattle or rust—but have economy of space, carrying more than any other case or bags for size, and roof over bottles and vials is so constructed as to fit snugly against top of corks and stoppers when case is closed, thus preventing any motion, breakage of bottles and spilling of contents. When open, all interior is in view and of most easy access.

Printed Labels in each Case.



5339

*All Cases Illustrated are designated by a \*.*

# MICROSCOPE DEPARTMENT.

*Please address "Microscope Department," if you wish us to aid you in making a selection of an outfit that we can guarantee to fully meet your requirements.*

\* \* \* \* \*

OUR STOCK COMPRISES  
 Many Different Designs of     
  Microscope Stands,  
 At Prices within the reach of all Physicians.

## TESTIMONIALS

From physicians having these microscopes in use are more convincing and conclusive than what we may claim or say regarding them. We have sold many of these microscopes throughout the United States, and likely the reader has had an opportunity of making a practical examination of them.

\* \* \* \* \*

*Our Microscope Department is under the supervision of an experienced person and every instrument is carefully tested and adjusted before shipment.*

## Microscopes.

### CARE OF THE MICROSCOPE.

*Care of Stand.*—One of the first rules should be to keep the instrument free from dust. This may be done in a manner formerly prescribed. If dust settles on any part of the instrument, remove it first with a camel's hair brush, and then wipe carefully with a chamois skin, with the grain of the finish and not across it, as in the latter case, it is likely to cause scratches. Keep the working and sliding parts absolutely free from dust, as this grinds and will soon cause play.

*Use no alcohol* on any part of the instrument, as it will remove the lacquer. As the latter is for the purpose of preventing oxydation of the metals, it is important to observe this rule.

In using draw-tube, impart a straight up and down motion to it. If a spiral motion is given to it, it will cause scratches, and in time, will wear off the nickel.

If it becomes necessary to lubricate any of the parts, use a slight quantity of soft tallow or good clock oil.

In an instrument which is in constant use, it sometimes occurs that the pinion works loose, and occasionally to such an extent that the body drops of its own weight. Tightening screws are provided to take up the play are either at the back of the pinion or in the slide where they can be seen by removing the body.

In using a screw-driver, grind its two larger surfaces so that they are parallel and not wedge-shape, and so it will exactly fit in the slot of the screw-head. In inclining the stand always grasp it at the arm and never at the tube, as in the latter case it may loosen the slide, or tear off some of the parts.

When repairs or alterations are necessary, always have these made by the makers; they can, from the system of duplicated parts, not only do it cheapest, but best.

*Care of Eye-pieces.*—It is necessary to keep these free from dust. When indistinct, dark specks show in the field, the cause may usually be looked for in the field-lens, although sometimes in the eye-lens also. The dust may be removed by a camel's hair brush, but when this is not sufficient, use a well washed piece of linen, such as an old handkerchief.

*Care of Objective.*—This same method applies to cleaning objectives.

Clean an immersion objective invariably after it has been used, first by removing the fluid by a moist linen and then by using dry piece. Keep the objectives especially in such a place where they are not subject to extreme and sudden changes of temperature, as the unequal expansion and contraction of glass and metal may cause the cement between the lenses to crack. Also keep them from direct sun-light, screw them into the nose-piece and unscrew by grasping milled edges. Avoid any violent contact of the front lens with the cover-glass. Usually the latter suffers, but it is as liable to occur to the former, "Manipulation of the Microscope."

Book "Manipulation of the Microscope," 100 pages, free with every microscope purchased.



EXTRACT FROM  
◁PRACTICAL HINTS ON URINARY ANALYSIS.▷

—BY—

DR. W. B. CANFIELD,

PUBLISHED BY

GEORGE S. DAVIS.

We will furnish this excellent book of 90 pages for 25cts. in paper cover,  
and 50cts. cloth cover.

*Physicians now generally recognize the fact,* that an examination of the urine forms an important part in making the diagnosis of any disease. In many cases negative results may satisfy, as excluding certain diseases. It is a matter of common occurrence, that one physician not being successful in the treatment of a case, a consultant or another physician is tried, who, carefully examining the urine, a thing which the first adviser had failed to do, finds enough to throw considerable light on the malady and its treatment. In urinary analysis, an examination both *chemical* and *microscopical*, should be made in all doubtful cases.

The principal object of the microscopical examination of the urine is to see if casts are present or absent. Although they are found in some of the acute diseases, and at times without sufficient explanation, still their continual presence cannot fail to be alarming. They should be looked for whether albumen be present or not. Albumen is often absent at the time of the microscopical examination, it having appeared at an earlier stage of the disease. Albuminuria without casts is said to be more common than it really is, and the majority of investigators agree in believing that casts are present though they cannot always be found. This was deduced from autopsies. In an interesting case of cyclic or physiological albuminuria, I was never able to find casts although I looked at intervals.

I generally draw off a little of the sediment with a pipette, and drop it on a hollow slide and examine it with a low power. The sediment may be then seen floating about. Most books warn against taking up too much fluid on the slide; I find this an advantage. I take up a large drop on an ordinary slide, and as the fluid runs along the slide, an opportunity is offered to review the sediment as it passes by, taking care, of course, that it does not get on the stage of the microscope. If casts are found, then another drop may be taken, and, before putting on a cover glass, a small bit of broken cover glass or a hair is put by the preparation and then covered. This prevents the casts from being crushed. I generally prefer to examine first without a cover glass, because it is rarely necessary to use such a high power that the objective comes near the preparation. Some writers suggest that when there is much sediment, to roll the cover glass backward and forward with two fingers. I have done that several times and succeeded in making casts when there were none there. When a cover glass is used, as little liquid as possible should be taken up; and as this lessens the chance of finding them if few are present, it is not always advisable. Staining is generally superfluous, but if desirable, it is better to drop a little staining fluid in the urine, as staining under the cover glass causes the sediment to fly across the field at an alarming rate of speed and settle on the outside of the glass. This may be prevented by allowing the casts to dry on the slide and then staining; but this is apt to change their appearance and is not advisable. The best way is to stain them before the cover glass is put on.

Numerous substances, such as camphor, carbolic acid, salicylic acid, borax, etc., etc., when added to urine containing casts, preserve these casts indefinitely. The urine may contain such a variety of sediment that careful study is very necessary in recognizing the various substances found. According as the urine is acid, or alkaline, concentrated or dilute, the sediment varies, hence a reference to the following table will assist in the examination. Some of these substances are passed out with the urine from the bladder, while others are formed after the urine has been passed.

## Urinary Sediment—"After Simon."

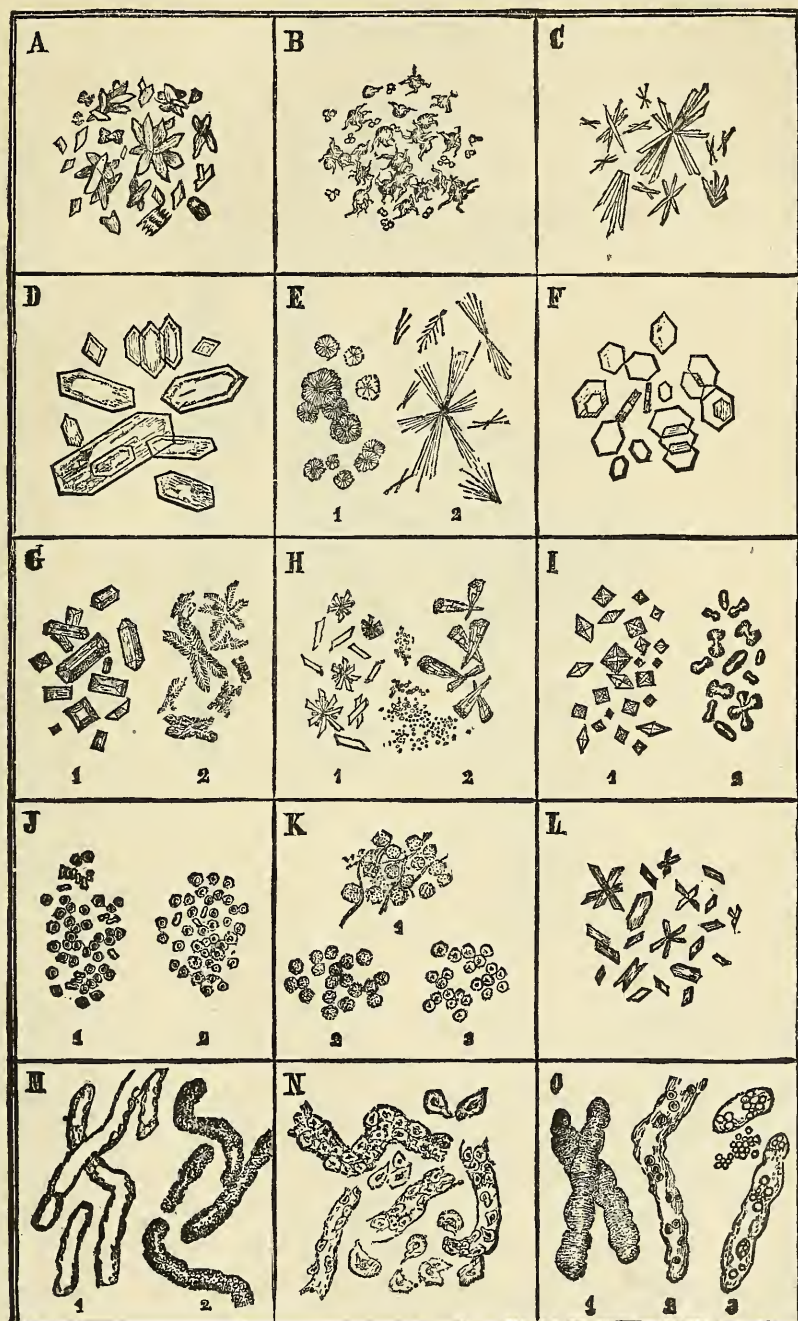


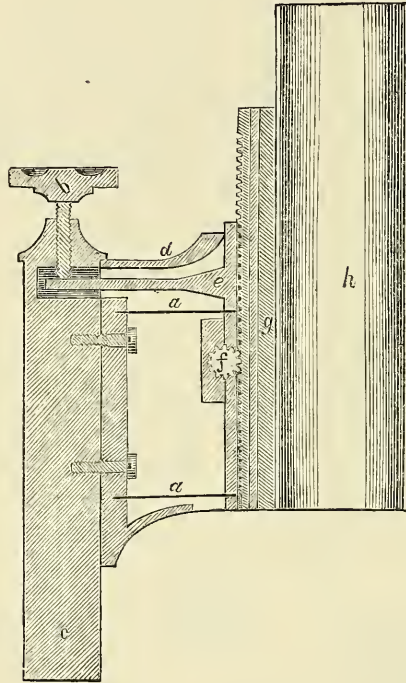
FIG. 15.—URINARY SEDIMENT.—A, Uric acid ; B, Acid ammonium urate ; C, Sodium urate ; D, Urea nitrate ; E, (1) Leucin and (2) tyrosin ; F, Cystin ; G, Magnesium ammonium phosphate or triple phosphate ; H, Calcium phosphate ; I, Calcium oxalate ; J, Blood corpuscles ; K, Mucus and pus ; L, Haemin crystals ; M, (1) Hyaline casts, (2) Granular casts ; N, Epithelial casts and cells ; O, (1) Waxy casts, (2) Casts with blood corpuscles, (3) Casts with fat globules.

—“After Simon.”

## Microscopes.

### IMPORTANT ADVANTAGES.

We wish to call attention to several advantages of our instruments, the most important of which is our Fine Adjustment.

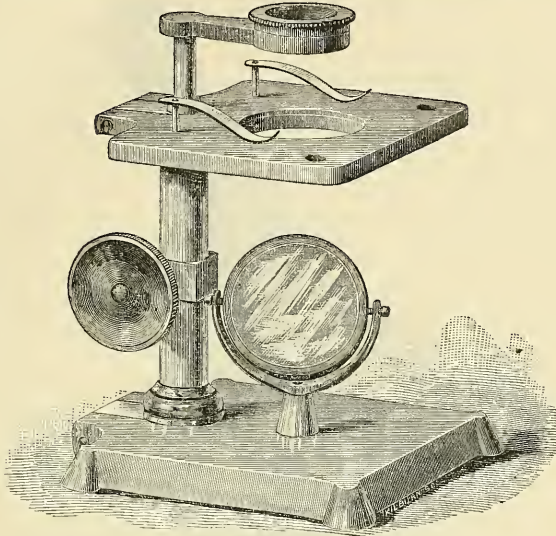


The figure represents it as applied to our Investigator Microscope. *aa* represent two strong parallel blades of finely tempered steel, securely fastened on one end to the back of case *d*, on the other to the arm *e*, which carries the rack and pinion. *b* shows the micrometer screw, which is fitted to the upper part of the upright arm *c*. *f* is the pinion, *g* the rack and slide, *h* the tube. Two screws fasten the adjustment case *d* to the pillar *c*. An arm projects from the part *e* and passes into a recess in the pillar *c*. The springs support the entire body, and as their tension is upward, the projecting arm bears continually against the micrometer screw *b*, and it is evident that the distance traversed by the screw involves the same movement of the arm *e* and consequently the body. The only points of contact are at the ends of the springs *aa*, where they are fastened respectively at *d* and *e* and on the micrometer screw, and as in the former there is absolutely no friction, there is no wear; while that which may eventually take place in the latter is taken up by the force of the springs.



## Microscopes.

### 5340. THE FOLDING DISSECTING MICROSCOPE.



(Cut one-third of actual size.)

The cut represents the Microscope for use.

The base is neatly japanned and of large dimensions, thus insuring firmness. The stage is of brass, blackened, has spring clips, and in its centre contains a removable glass disc. It is of convenient height, so that any amount of work may be done without any fatigue to the arms or hands.

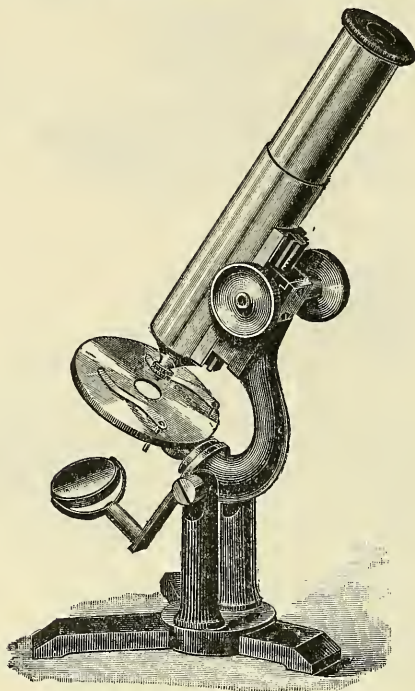
5340. With two mounted lenses, respectively of 2 and 1 inch focus, and nickel-plated pliers accompany the instrument. The lenses, as well as the single lenses of higher power, are so arranged that they may be placed above one another and thus used for obtaining different and higher powers. The whole packed in a neat case, with receptacles for each part.....\$12 60

We have devised, especially for this instrument, a Compound Erecting Body, which we believe offers a number of advantages over any similar apparatus. It consists of an achromatic objective, composed of two systems, which may be used together or separately, acting like achromatic magnifiers, and giving magnifying powers of 5 to 25 diameters. By attaching the tube which carries the sliding eye-piece, a compound body is formed, in which change of magnifying power is effected by varying the distance of eye-piece from objective; and intermediate power between 10 and 125 may be thus gained, the working distance with the highest being as much as  $\frac{1}{2}$  inch, while it increases with the decrease in power. A receptacle is provided in the case for the body when ordered with the instrument.

|                                                                                                                                    |         |
|------------------------------------------------------------------------------------------------------------------------------------|---------|
| Compound Erecting Body.....                                                                                                        | \$12 00 |
| Hand Rests.....                                                                                                                    | 2 00    |
| Arm for lenses, with joint in place of single arm.....                                                                             | 1 00    |
| Single Lenses, $\frac{3}{4}$ , $\frac{1}{2}$ or $\frac{1}{4}$ inch focus,.....each                                                 | 1 00    |
| Coddington Magnifiers, 1 inch, $\frac{3}{4}$ or $\frac{1}{2}$ inch focus.....                                                      | 2 50    |
| Achromatic Triplets, giving large flat field with beautiful definition, 1 inch, $\frac{3}{4}$ or $\frac{1}{2}$ inch focus.....each | 6 00    |

## Microscopes.

### 5341A. THE "NOVICE" MICROSCOPE.



(Cut one-third of actual size.)

This instrument is especially designed to meet the requirements of physicians who are limited financially, and desire a microscope for only ordinary investigations.

This Microscope has japanned foot and arm with joint for inclination. The adjustment is by rack and pinion of such delicacy that it is readily serviceable with a high power objective. The body is provided with draw-tube and society screw. The eye-pieces intended to be used with this instrument are of the continental pattern; the mirror is concave, swinging so as to give oblique illumination and capable of being brought above the stage for illumination of opaque objects. The stage is provided with spring clips.

We make two forms of this instrument: No. 5341 A, as described above, and No. 5341 B the same, but with the addition of an adjustable stage plate, provided with micrometer screw, which, while limited in its motion, forms a serviceable fine adjustment.

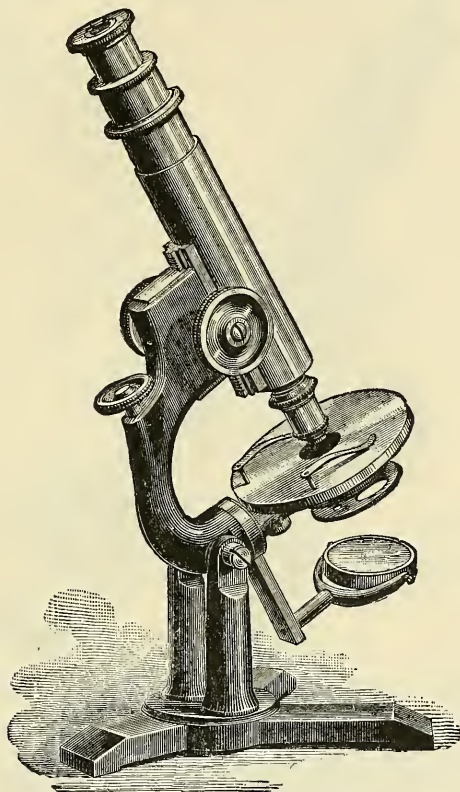
5341 A. Stand with 1 eye-piece and 1 inch and  $\frac{1}{4}$  inch objectives, in upright case...\$30 00

5341 B. " " 1 " " 1 " "  $\frac{1}{4}$  " " " " ... 33 00

For table of magnifying powers, refer to page 348.

## Microscopes.

### 5342. THE PRACTITIONER'S "FAVORITE" MICROSCOPE.



(Cut one-third of actual size.)

The Microscope illustrated above is the favorite instrument for the busy physician. No other microscope of such efficiency made in America or Europe has met with such extensive sale. It is admirably adapted for urinary analysis and general investigation. The  $\frac{1}{2}$  inch objective is  $110^\circ$  angular aperture, and of such excellent definition that it will show clearly the bacillus tuberculosis. Owing to the simplicity of this Microscope the novice can become familiar with its use in a short time. This instrument has a japanned iron base. Coarse adjustment is by perfect rack and pinion, fine adjustment by a delicate micrometer screw. Attached to lower side of stage is a sub-stage ring to which a condenser can be adapted.

5342. One Eye-piece, "C," objectives  $\frac{3}{4}$  inch, and  $\frac{1}{2}$  inch, the latter  $110^\circ$  angular aperture, all in upright handsomely polished case, with handle and lock.....\$48 00

An extra eye-piece "A," for this microscope..... 4 00

5343. A movable substage can be specially fitted to this microscope before shipment at an additional expense of..... 5 00

5344. Improved glass stage, with slide carrier which slips over brass stage, extra..... 5 00

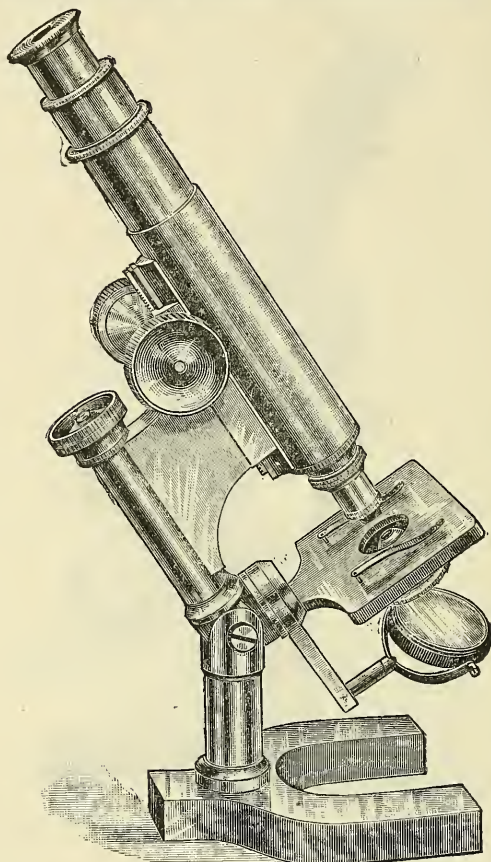
'Any accessory can be adapted to this microscope.

For table of magnifying powers, refer to page 348.



## Microscopes.

## 5345. THE HARVARD MICROSCOPE.



(Cut one-third of actual size.)

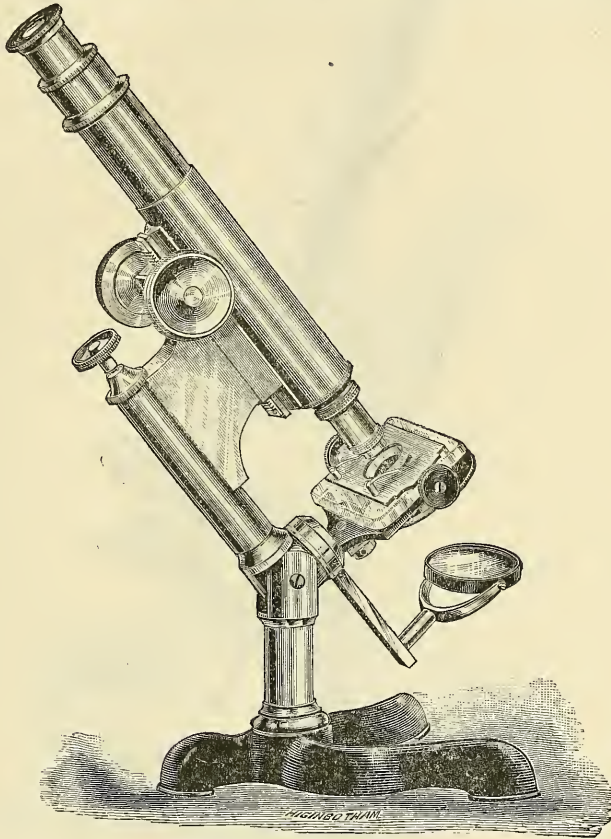
The stand is made entirely of brass and so proportioned that it will give the most effectiveness to the various parts. Although constructed so as to be as compact as possible and allow its convenient use in an upright position on an ordinary table, it still gives sufficient range of adjustment for all ordinary work. The base is of the horse-shoe form, with a projection at the back to give it steadiness when the body is inclined. Coarse adjustment is by perfect rack and pinion; fine adjustment is by micrometer screw, with milled head of more than ordinary size, acting on our patent movement. The main tube also has a cloth lining and is provided with a draw-tube with a mark indicating standard length. The stage is large and stiff and provided with spring clips; our Iris diaphragm is attached to its lower surface in such a manner as to allow its centering and entire removal for oblique light. By removing the diaphragm, a sub-stage ring may be attached, so that all ordinary sub-stage accessories may be used. The mirrors are plane and concave, of large size, and swing with the mirror-bar to any obliquity below the stage, and above it for the illumination of opaque objects; they also have adjustment on the mirror-bar which permits their exact adjustment on the object.

5345. With eye-pieces A. and C. objectives, 3-4 inch and 1-5 inch, the latter 110° angular aperture; forceps, slides and covers, all fitted in upright polished case, with lock.....\$62 00
5346. Movable sub-stage can be adapted.....extra 5 00
5347. Sub-stage ring to receive all sub-stage accessories and particularly the series of sub-stage condenser.....extra 1 50

For table of magnifying powers, refer to page 348.

## Microscopes.

### 5348. THE LATEST HISTOLOGICAL MICROSCOPE.



(Cut one-third of actual size.)

The base of this Microscope is japanned and of neat design. Pillar and arm of bronze, connected by a well-fitting joint; for inclination of the body to any angle. Coarse adjustment is by rack and pinion, giving a long range; fine adjustment by micrometer screw, acting on our patent movement; main tube has draw-tube, provided with society screw, which works with an exceedingly agreeable movement in the cloth lining of the main tube. The stage consists of our *square glass stage* and slide-carrier attached to a firm projecting fork, to which is also attached the sub-stage.

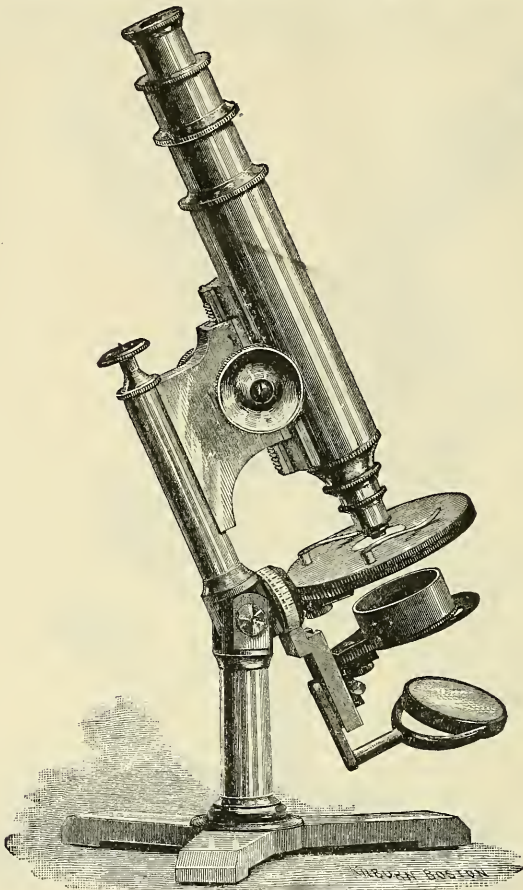
5348. With eye-pieces A and C objectives, 3-4 inch and 1-5 inch, the latter 110° angular aperture, camera lucida, eye-piece micrometer, forceps, slides and covers; all in upright polished case.....\$67 00

Any accessory can be adapted to this microscope.

For table of magnifying powers refer to page 348.

Microscopes.

5349. THE IMPROVED PATHOLOGICAL MICROSCOPE.



(Cut one-third of actual size).

The base of this Microscope is of brass and has the tripod form ; pillar and arm of brass, connected by a solid joint, which allows inclination of body to any angle ; rack and pinion for coarse adjustment, fine adjustment by our patent frictionless motion ; main tube with two draw-tubes, which is an unquestionable improvement.

The mirrors are plane and concave and of large size. The sub-stage is adjustable along the mirror-bar and entirely removable. It contains a diaphragm which may be brought directly under the stage The ring is of standard size and is easily centered by a set-screw. Steel pin for centering stage and sub-stage accompanies the instrument.

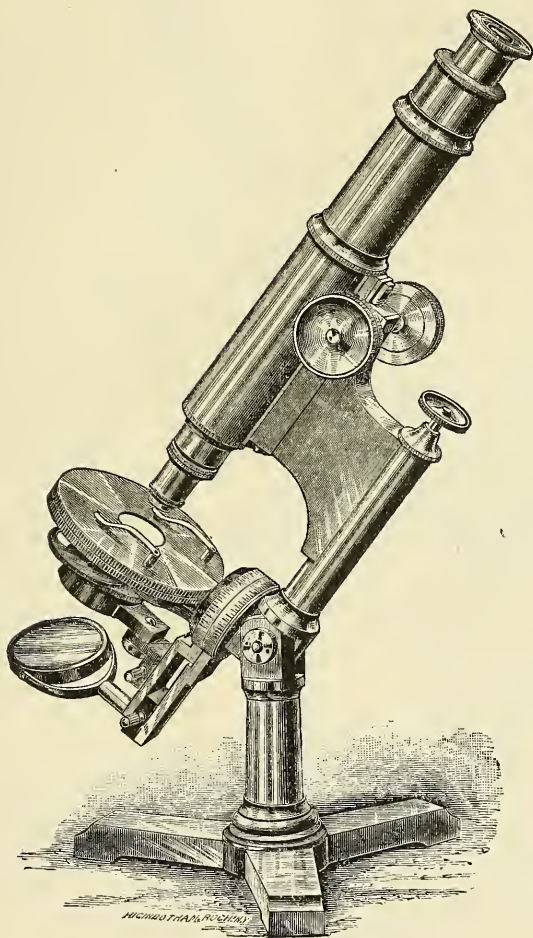
5349. With eye-pieces A and C, objectives  $\frac{3}{4}$  inch, and  $\frac{1}{2}$  inch, the latter 110° angular aperture, camera lucida, eye-piece micrometer, forceps, slides and covers; in upright polished case, with handle and lock, drawer for accessories and receptacles for eye pieces and objectives.....\$72 00

Any accessory can be adapted to this Microscope.

For table of magnifying powers refer to page 348.



## Microscopes.



(Cut one-third of actual size).

5350. THE AMERICAN PHYSICIAN'S MICROSCOPE.

## Microscopes.

### 5350. THE AMERICAN PHYSICIAN'S MICROSCOPE.

This instrument may be considered the pioneer of modern American Microscopes and, since its first introduction, has been improved in various parts so that it now combines the features of a first-class, high-price instrument at a moderate cost.

It is especially adapted for Bacteriological investigation, and it will fully meet the requirements of the physician in every day practice as well.

The various compensating bearings, which obviate friction and retain smooth movements under the most severe usage, have been applied to this Microscope. It was made in answer to a popular demand, is elegant in design and of the best possible work and finish.

The base is of the tripod form and made of brass; it has on its lower surface three soft rubber pads, and is of such weight as to sustain the instrument firmly at any inclination of the body. The brass pillar is large and heavy, and connected by joint for inclination of the arm. A heavy thumb-screw permits the instrument to be rigidly fastened in any position on the base, so that it may be made more than ordinarily steady either upright or inclined. The coarse adjustment is by rack and pinion, and of sufficient range to admit of the use of very low-power objectives; the fine adjustment is by micrometer screw acting on our patent frictionless motion. The main tube has two draw-tubes, by which a considerable range in length may be attained; they may be contracted to less than the standard, or may be extended beyond it; both draw-tubes have society screw, and the main tube has broad-gauge screw and adapted for society screw. A new and valuable improvement is the addition of the cloth linings in which both draw-tubes move. The stage has concentric, revolving motion with removable spring clips, and its upper surface lies in the same plane as centre of mirror-bar movement and joint for inclination; it is thin to allow the greatest obliquity, but firm under any manipulation. The mirrors are plane and concave and of large size, and both these and the sub-stage, carrying dome diaphragm, are adjustable on their respective bars; the circular bearings of these are large and are graduated to degrees and silvered. A steel pin for centering stage and sub-stage accompanies the instrument.

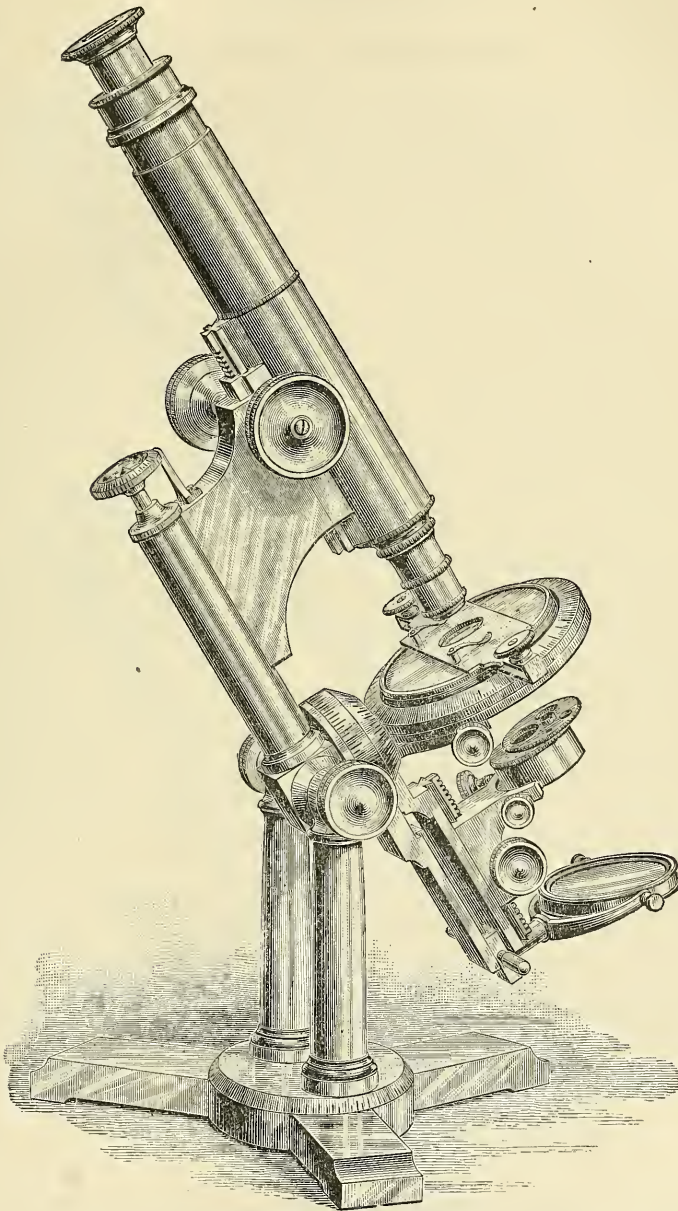
The mirror and sub-stage bars have their axes in the plane of the stage and move independent of one another or together to any obliquity below or above the stage.

|       |                                                                                                                                                                                                                                                                                                |         |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 5350. | With eye-pieces A and C, objectives $\frac{3}{4}$ and $\frac{1}{2}$ inch, the latter 110° angular aperture, camera lucida, eye-piece micrometer, forceps, slides and covers, in polished case, with handle and lock, drawer for accessories and receptacles for eye-pieces and objectives..... | \$82 00 |
| 5351. | With new sub-stage condenser.....                                                                                                                                                                                                                                                              | 98 00   |
| 5352. | With mechanical stage, in place of the revolving stage.....                                                                                                                                                                                                                                    | 99 00   |
| 5353. | Glass stage and slide-carrier, with either of the above, extra.....                                                                                                                                                                                                                            | 5 00    |
| 5354. | Double nose-piece, when ordered with either of the above, extra.....                                                                                                                                                                                                                           | 5 00    |
| 5355. | Rack and pinion adjustment to the sub-stage, with either of the above, extra.....                                                                                                                                                                                                              | 15 00   |
| 5356. | Centering adjustments by micrometer screw to either stage or sub-stage, for either of the above, extra for each.....                                                                                                                                                                           | 15 00   |

Any accessory can be adapted to this Microscope.

For table or magnifying powers, refer to page 348.

Microscopes.



(Cut one-third of actual size.)

5357. THE PROFESSIONAL MICROSCOPE.



## Microscopes.

### 5357. PROFESSIONAL MICROSCOPE.

This instrument possesses all the features which our experience and knowledge of the wants of the public have been able to suggest. It is chaste and elaborate in all its details, and possesses a number of new additions which enhance its value, and which we believe entitle us to the claim that it is superior to any instrument designed for the highest investigations.

It is constructed entirely of brass, and stands about eighteen inches high when ordinarily in use. The base is of the tripod form, and contains on its lower surface three soft rubber pads. Two upright pillars are fastened to a circular plate which completely rotates upon the base, and is graduated upon its edge. The arm is fitted to the pillars by joint with steel axis which permits inclination of the body from the vertical to the horizontal position. Two screws with large milled heads are fastened to the ends of the axis, and serve to tighten or loosen the connections by means of which the arm may be made to move with more or less ease. The upper part of one pillar is graduated and forms a valuable index for the point of illumination, when the body must be brought to the upright position, in changing immersion objectives. The coarse adjustment is by rack and pinion, the latter having specially large milled heads; the fine adjustment by delicate micrometer screw, the milled head of which is graduated. The draw-tube works in the cloth lining of the main tube and is provided with adapter, having society screw; it has the same diameter as the sub-stage, and thus permits the use of eye-pieces as condensers.

The mirror and sub-stage bar are separate and move independent of one another. Their axes, as well as the axis for inclination, are in the plane of the stage, so that when the body is inclined to the horizontal position, the centre of the stage is in the axes of all the revolving parts. Both bars move freely in a circle around the stage and above it as far as the arm, and are provided with large graduated circles reading to degrees. They are arranged with spring stops which act when they are in the optical axis, and move simultaneously when the arm on the mirror is placed in a recess in the sub-stage bar provided for it. The mirrors are plane and concave, of large size, and are adjustable along the mirror-bar, two milled heads being provided for convenience. The sub-stage is of standard size and is supplied with our patent Iris diaphragm; its distance from the object may be varied by rack and pinion movement, and may be entirely removed; it is provided with centering adjustment and is arranged to swing on a pivot at one side of the bar, out of the optical axis, so that whatever accessory is attached, it may be instantaneously displaced without disturbing any other part of the instrument.

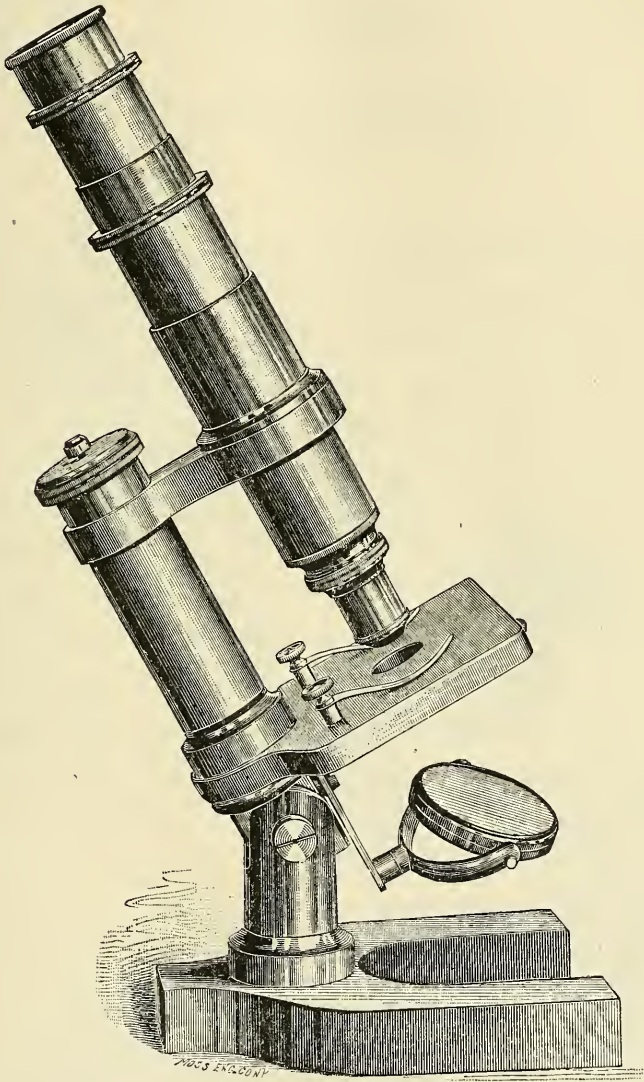
The stage is four and one-half inches in diameter and is graduated to degrees and silvered on its beveled edge. It revolves upon a strong ring, which in turn is firmly held by a projecting arm, and may be easily removed for the attachment of the mechanical stage. It is as thin as is consistent with firmness to allow great obliquity. It is provided with both a metal stage-plate and glass stage and slide-carrier, either of which is readily attached. The centering adjustment of the stage is effected by a new device which overcomes the difficulties of the methods hitherto used. Two screws, acted upon by two milled heads, promptly carry the stage to any point, where it is firm without requiring the use of binding screws. All the graduations are silvered.

---

|       |                                                                                                                                                         |          |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 5357. | Stand, with any two of our Huyghenian eye-pieces, in polished case with drawer.<br>receptacles for eye-pieces and objectives, handle, lock and key..... | \$135 00 |
| 5358. | Stand with two eye-pieces and $\frac{3}{4}$ inch and $\frac{1}{2}$ inch objectives .....                                                                | 158 00   |
| 5359. | “ “ “ “ “ 2 “ $\frac{3}{4}$ inch and $\frac{1}{2}$ inch objectives.....                                                                                 | 164 00   |
| 5360. | “ “ “ “ “ 2 “ $\frac{3}{4}$ “ $\frac{1}{2}$ inch and $\frac{1}{2}$ inch objectives.....                                                                 | 182 00   |
| 5361. | “ “ three “ “ $\frac{3}{4}$ “ and $\frac{1}{2}$ inch objectives.....                                                                                    | 162 00   |

For table of magnifying powers refer to page 348.

Microscopes.



(Cut one-half of actual size.)

5362 B. THE CONTINENTAL MICROSCOPE.

Small.

Microscopes.

5362. THE CONTINENTAL MICROSCOPE.

Small.

The base of this stand has the horseshoe form, and is of japanned iron. Pillar is upright and of brass, the stage is square and has spring clips which are readily removable; to the underside of the stage a revolving diaphragm is attached having four different size apertures. The mirror-bar is secured to the arm and can be swung to any obliquity below the stage; it carries the mirror fork and mirror, which latter is 1½ inches diameter and plane and concave. Coarse adjustment is by sliding tube, and fine adjustment by micrometer screw acting on triangular bearing of the arm. Main tube is provided with draw-tube, which will allow extension of tubes to the long standard.

The instrument is made in two forms: No. 5362 A, with solid pillar and arm, and No. 5362 B, with joint for inclination.

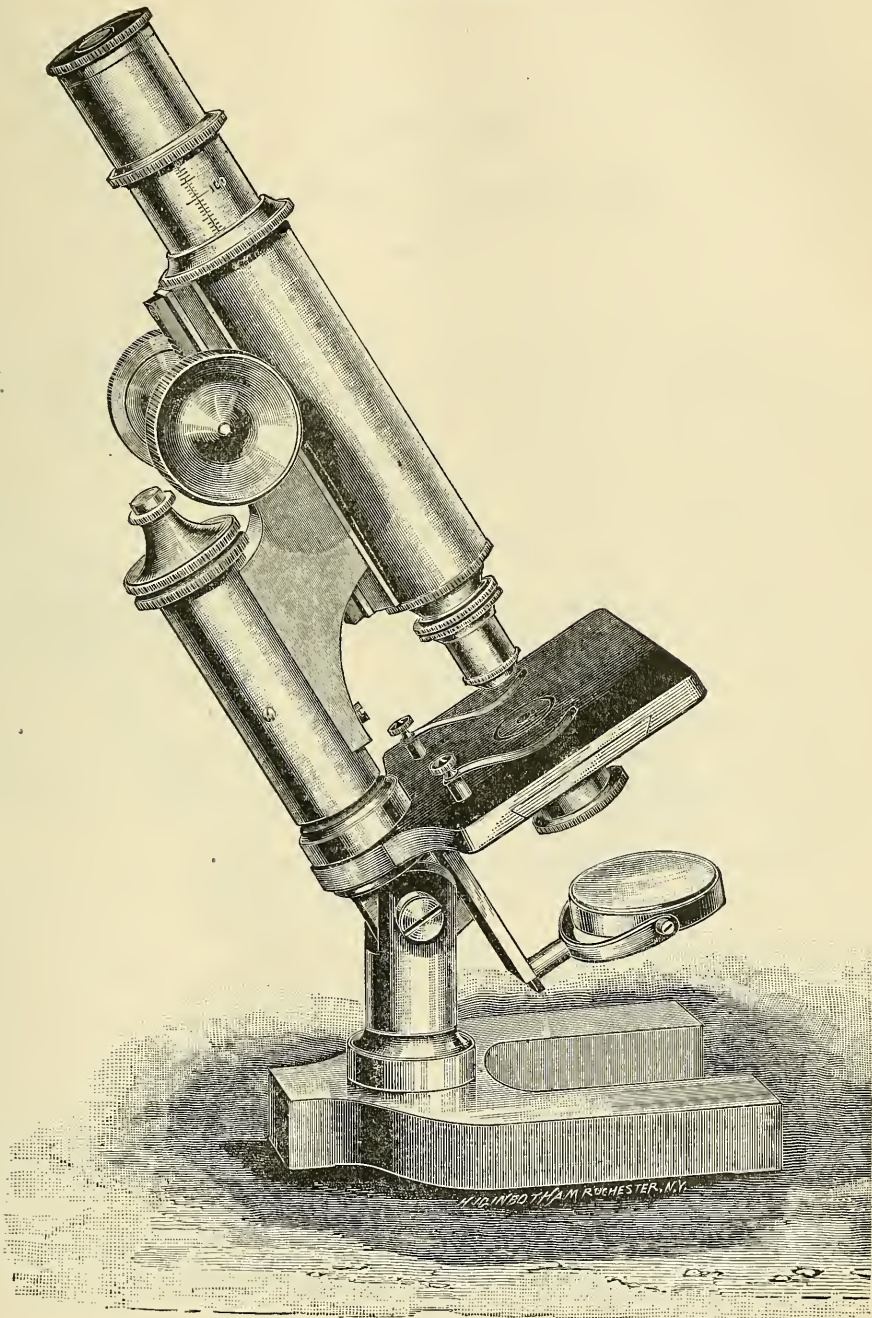
These instruments are supplied with continental eye piece and objectives corrected for the short standard of tube length. Total height with draw-tube closed, 9 inches.

|         |                                                                                    |         |
|---------|------------------------------------------------------------------------------------|---------|
| 5362 A. | Stand with one eye-piece, in polished case.....                                    | \$18 00 |
| 5362 B. | Stand with one-piece, in polished case.....                                        | 20 00   |
| 5363 A. | With objectives $\frac{2}{3}$ in. and $\frac{1}{6}$ in. of Continental series..... | 40 00   |
| 5363 B. | With objectives $\frac{2}{3}$ in. and $\frac{1}{6}$ in. of Continental series..... | 43 00   |
|         | Double nose-piece, extra.....                                                      | 5 00    |

For table of magnifying powers, refer to page 348.



Microscopes.



(Cut one-half of actual size.)

5364C. CONTINENTAL MICROSCOPE.  
Medium.

## Microscopes.

### 5364. CONTINENTAL MICROSCOPE.

#### Medium.

The microscope is made of brass throughout, highly polished and lacquered. The base is of larger dimensions than any of the foreign instruments, and therefore more firm, particularly when the body is inclined. The stage is also of large size, thus allowing the use of culture slides without the danger of tilting; a groove is provided on its lower surface for the slide with cylinder diaphragms, for convenience called slide A. This slide may be replaced by another (slide B), carrying standard size sub-stage, arranged to be centered, provided with our dome diaphragm. To this may also be fitted any of our regular sub-stage accessories, particularly the series of sub-stage condensers. Fine adjustment is by large micrometer screw and works on the triangular bearing of the arm. The main tube has a draw-tube, which, when contracted, gives short standard of tube length with double nose-piece. The draw-tube may be extended and is graduated in millimeters.

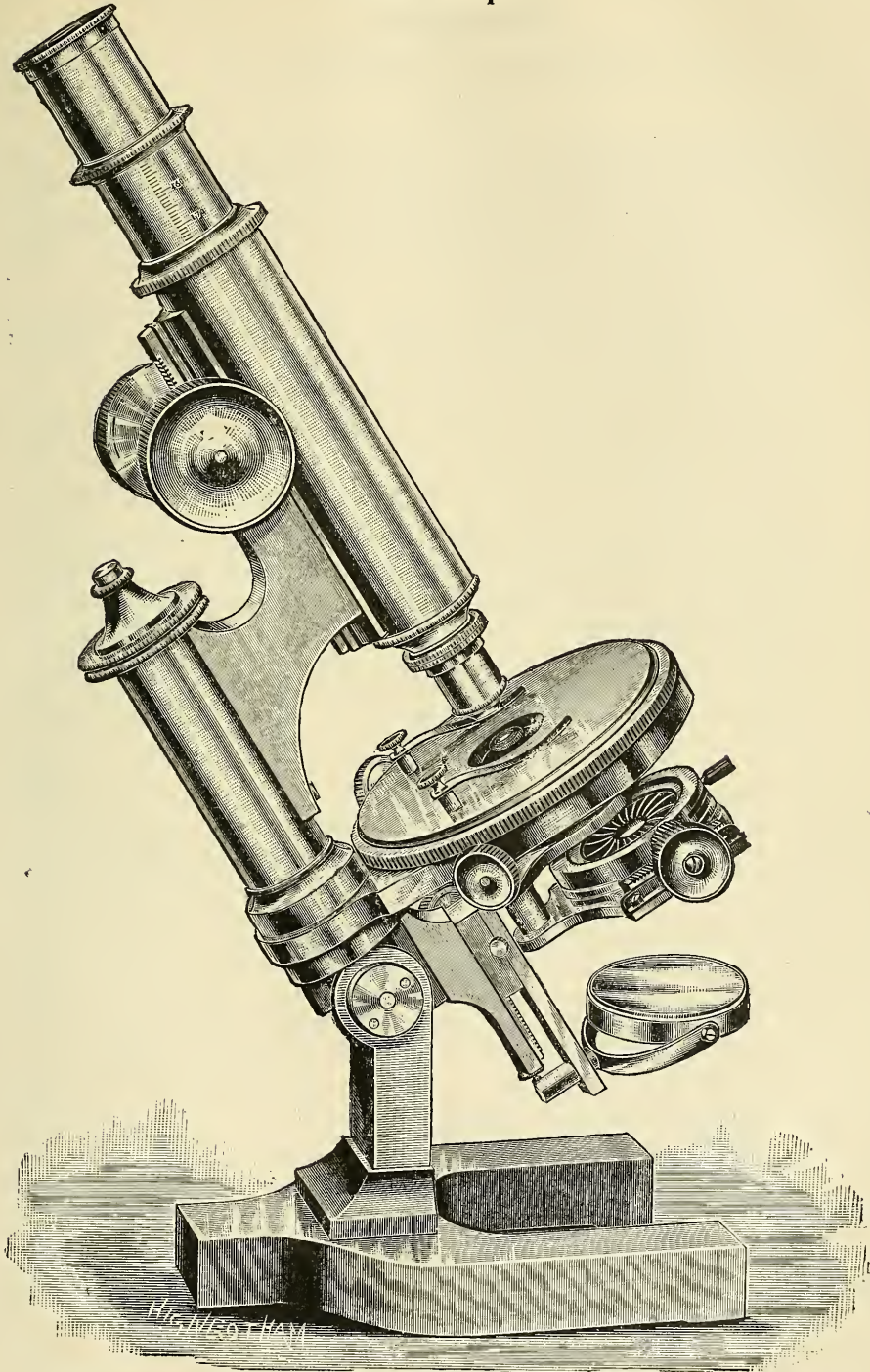
The instrument is made in two forms: No. 5364 B, with joint for inclination and sliding tube for coarse adjustment, and No. 5364 C, with joint of inclination and rack and pinion for coarse adjustment.

These instruments are supplied with Continental eye-pieces.

|        |                                                                                                        |         |
|--------|--------------------------------------------------------------------------------------------------------|---------|
| 5364B. | Stand with one eye-piece, in polished case.....                                                        | \$25 00 |
| 5364C. | “ “ “ “ “ “ .....                                                                                      | 35 00   |
| 5365B. | With eye-pieces A and C, objectives $\frac{3}{8}$ in. and $\frac{1}{6}$ in. of Continental series..... | 50 00   |
| 5365C. | “ “ “ “ “ “ “ “ .....                                                                                  | 60 00   |
| 5366.  | Slide B, carrying standard sub-stage ring, with dome diaphragm, extra.....                             | 4 00    |
|        | Abbe condenser, 1.42 N. A., in Iris diaphragm mounting, extra.....                                     | 16 00   |
|        | Homogeneous Immersion Objective $\frac{1}{2}$ in. 1.25 N. A., of Continental series, extra.....        | 45 00   |
|        | Double nose-piece, extra.....                                                                          | 5 00    |
|        | Triple nose-piece, extra.....                                                                          | 9 00    |

For table of magnifying powers refer to page 348.

Microscopes.



(Cut one-half of actual size.)

5367 CC. THE CONTINENTAL MICROSCOPE.

Large.



## Microscopes.

### 5367. CONTINENTAL MICROSCOPE.

#### Large.

This instrument is made entirely of brass ; the base is of large dimensions and heavy, to secure extreme steadiness under manipulation in an inclined, upright or horizontal position ; coarse adjustment is by rack and pinion ; fine adjustment by large micrometer screw working on the triangular bearing of the arm ; the head of the micrometer screw is graduated to 100 parts, an index point is provided. The main tube has a draw-tube which is graduated. When contracted, the tubes give short standard tube length with double nosepiece.

This instrument is made up in five forms :

- C. Plain square stage with groove, fitted with slide and cylinder diaphragms. Swinging mirror-bar with adjustable plane and concave mirrors.
  - CA. Plain square stage as in C ; sub-stage attachment, complete, No. 5468.
  - CB. Revolving stage with centering arrangement ; swinging mirror-bar with adjustable plane and concave mirrors.
  - CC. (As in cut.) Revolving stage with centering arrangement ; sub-stage attachment, complete, No. 5468.
  - CD. Mechanical stage, revolving, with graduations and vernier ; rectangular movements with graduations ; centering arrangement ; sub-stage attachment, complete, No. 5468.
- \*Eye-pieces and objectives are the Continental Series. Upright polished case, with receptacles for eye-pieces and objectives, accompanies the outfit.

|      |                                                                                                               |          |
|------|---------------------------------------------------------------------------------------------------------------|----------|
| C.   | Stand with 1 eye-piece (any power).....                                                                       | \$ 55 00 |
| C1.  | " " 1 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 77 00    |
| C2.  | " " 2 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 80 00    |
| CA.  | " " 1 " (any power).....                                                                                      | 80 00    |
| CA1. | " " 1 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 102 00   |
| CA2. | " " 2 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 105 00   |
| CA3. | " " 2 " and 2 in., $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                    | 111 00   |
| CA4. | " " 2 " and $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives.....        | 150 00   |
| CA5. | " " 2 " and 2 in., $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives..... | 156 00   |
| CB.  | " " 1 " (any power).....                                                                                      | 65 00    |
| CB1. | " " 1 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 87 00    |
| CB2. | " " 2 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 90 00    |
| CB3. | " " 2 " and 2 in., $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                    | 96 00    |
| CB4. | " " 2 " and $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion objectives.....         | 135 00   |
| CB5. | " " 2 " and 2 in., $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives..... | 141 00   |
| CC.  | " " 1 " (any power).....                                                                                      | 90 00    |
| CC1. | " " 1 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 112 00   |
| CC2. | " " 2 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 115 00   |
| CC3. | " " 2 " and 2 in., $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                    | 121 00   |
| CC4. | " " 2 " and $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives.....        | 160 00   |
| CC5. | " " 2 " and 2 in., $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives..... | 166 00   |
| CD.  | " " 1 " (any power).....                                                                                      | 130 00   |
| CD1. | " " 1 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 152 00   |
| CD2. | " " 2 " and $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                           | 155 00   |
| CD3. | " " 2 " and 2 in., $\frac{2}{3}$ in. and $\frac{1}{6}$ in. objectives.....                                    | 161 00   |
| CD4. | " " 2 " and $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives.....        | 200 00   |
| CD5. | " " 2 " and 2 in., $\frac{2}{3}$ in., $\frac{1}{6}$ in. and $\frac{1}{12}$ in. oil immersion, objectives..... | 206 00   |

For table of magnifying powers refer to page 348.

## Objectives.

Our list of objectives has been added to from time to time, and now embraces a variety from which a suitable selection may be made for every field of investigation. Our objectives are all carefully computed for the utmost freedom of color, largest amount of light, greatest working distance, and extreme flatness of field for their respective angular apertures and magnifying powers. The process of production is carried out on a system which was developed after constant efforts to reach the highest results, and eliminates every possibility of chance, so common to optical work generally. A faulty objective never leaves our hands, and every opportunity for improvement is utilized. The glass employed is of the celebrated Jena production, but only such is used, which after years of constant use has proven itself to be not liable to the least deterioration. The many thousands of objectives which are in constant use, and the constantly increasing demand, fully attest their comparative merits as well as moderate prices.

Our objectives are all classified according to their numerical aperture and divided into series. All objectives have the standard society screw and are furnished in neatly finished brass boxes.

All non-adjustable objectives are corrected for a cover thickness of 0.16 mm. (about 0.006 in.), and the medium point of adjustment in all adjustable objectives is for the same thickness. This thickness is about the average in the No. 2 cover glass, but there is a wide difference between the two extremes. While a variation in thickness of the cover glass is admissible in the low powers, it disturbs the correction in medium powers and very considerably so in high powers, and, as a consequence, objectives fail proportionately to give good results. Cover glasses should therefore either be measured, for which purpose our Cover Glass Gauge is admirably adapted, and to which we call particular attention, or, where means will permit, adjustable objectives should be selected. With these it is possible to obtain the highest degree of their performance under any condition, and where correct thickness is used, they may be left at the medium point of adjustment.

## Objectives.

### OBJECTIVES FOR CONTINENTAL MICROSCOPES.

These objectives were specially designed for the Continental Microscopes, and are corrected for the short tube length of 160.0 mm. They are, therefore, not suited for use with our other instruments, unless the length of tube is decreased to the proper point by means of the draw-tube. The  $\frac{3}{8}$  inch has an unusual flatness of field with excellent definition; the  $\frac{1}{6}$  inch has good resolving power, resolving *P. Angulatum* easily with central light and good working distance; the  $\frac{1}{4}$  inch homogeneous immersion is mounted in non-adjustable mounting, and so perfectly corrected that it will resolve *A. Pellucida* with good manipulation; it is well suited to the study of BACTERIOLOGY and all work requiring a higher power than the dry objective.

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### STUDENT SERIES.

These objectives possess qualities which fit them excellently for the requirements of every-day work. They are unexcelled by any objectives of approximate price, and indeed by many which are higher in cost and more pretentious. We use them in making up our outfits. In this respect we have made a change, however, by omitting the 1 inch and  $\frac{1}{4}$  inch and substituting therefor the  $\frac{3}{4}$  inch and  $\frac{1}{2}$  inch. After many years we find that these are better adapted to general work, as well as more convenient with the double nose-piece. While in our judgment these are best, we gladly make up other outfits to suit the convenience of purchasers.

The lower powers of this series up to  $1\frac{1}{2}$  inch are composed of a single system triplet; they give good definition. The 1 inch,  $\frac{3}{4}$  inch and  $\frac{1}{2}$  inch are two system of excellent definition and exceptionally flat field. The remainder of the series are three system and offer various advantages. The  $\frac{1}{4}$  inch  $75^\circ$ , and  $\frac{1}{5}$  inch  $75^\circ$ , have extraordinary long working distance, sufficient to illuminate opaque objects, and they resolve *P. Angulatum* by oblique light; while the working distance of the  $\frac{1}{4}$  inch  $100^\circ$ , and  $\frac{1}{5}$  inch  $110^\circ$ , is closer, it is still sufficiently large for all ordinary work, and both resolve *P. Angulatum* by central light, the former in lines, the latter in beads. Unless it is expressly stated which objectives are desired, we always send No. 5373 and No. 5378 with our instruments. The  $\frac{1}{5}$  inch is good for general histological work where higher power is desired, although on account of the unavoidable loss of light, we recommend objectives of the higher grades when these powers are required.



## Objectives.

### PROFESSIONAL SERIES.

These objectives have a better resolving and defining power than the preceding, and from the fact that they have larger lenses, give better illumination under the same conditions. They are substituted for those in the outfits for the difference in price. The lower powers up to and including the  $\frac{3}{4}$  inch, are composed of two systems, each in itself achromatic and of such a combination as will give the highest attainable results. The 4 inch, 3 inch, 2 inch,  $1\frac{1}{2}$  inch, have a particularly flat field. The balance are all three system, and except the  $\frac{1}{2}$  inch, are all in mountings, adjustable for thickness of cover and with graduated collar. The front of the immersion objectives is not affected by fluids. The  $\frac{1}{2}$  inch resolves *P. Angulatum* with oblique light. The  $\frac{1}{3}$  inch,  $\frac{1}{4}$  inch and  $\frac{1}{5}$  inch are newly constructed objectives of such excellence that they excel the performance of ordinary immersion objectives, and possess such working distance that no difficulty is experienced in comfortably working through any cover-glass thickness.

The water immersion objectives are notable for their long working distance and clearness of definition.

The homogeneous immersion are new objectives, and have a numerical aperture of about 1.18. Although not designed for the highest class of investigations, they are admirably adapted to close work of every-day occurrence, in which very large working distance and excellent resolving power are required. They will resolve *A. Pellucida*.

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### FIRST-CLASS SERIES.

These objectives are of the highest attainable perfection, and we believe stand unrivaled. They are the result of arduous labor and an endeavor to attain the very highest optical results. They will bear almost any amount of amplification. The low powers of the dry objectives are two system, while the medium and high powers are three system. Besides their other good qualities, the lower powers have a shorter working distance than others of the same power, and so do not necessitate so long a range of adjustment in the instrument. The  $\frac{1}{2}$  inch easily resolves *P. Angulatum*, while the  $\frac{4}{10}$  inch will show the lines on No. 16 Møller's balsam plate. The  $\frac{1}{3}$  inch stands pre-eminent as a dry objective; it has a resolution which approaches that of the highest grade immersion lens, and for ordinary as well as close and protracted examinations, is particularly valuable on account of its freedom from inconvenience and immersion fluids. It resolves No. 18 of Møller's balsam plate; its adjustment is by rectilinear movement of the posterior system, and it has graduated and silvered collar.

The homogeneous immersion objectives are four system, and we believe are unequalled in those qualities which are necessary in objectives of this class—extreme angular aperture with large working distance, resolution and flatness of field. Their numerical aperture is not less than 1.40, and the resolving power is commensurate with it.

Microscopes.

LINEAR MAGNIFYING POWERS OF OBJECTIVES AND EYE-PIECES.

| STANDARD TUBE LENGTH; 8.5 in., 216 mm. |           |       |       |        |       |       |       |       |
|----------------------------------------|-----------|-------|-------|--------|-------|-------|-------|-------|
| OBJECTIVES.                            |           | 3 in. | 2 in. | 1½ in. | 1 in. | ¾ in. | ½ in. | ¼ in. |
| EYE-PIECES.                            | 2 in. (A) | 15    | 25    | 33     | 40    | 50    | 70    | 176   |
|                                        | 1½ " (B)  | 21    | 35    | 42     | 55    | 70    | 102   | 247   |
|                                        | 1 " (C)   | 30    | 50    | 66     | 80    | 100   | 140   | 353   |
|                                        | ¾ " (D)   | 42    | 70    | 84     | 110   | 140   | 205   | 495   |
|                                        | ½ " (E)   | 60    | 100   | 132    | 160   | 260   | 280   | 705   |

| STANDARD TUBE LENGTH, 8.5 in., 216 mm. |           |       |       |       |       |       | TUBE LENGTH, 160 mm. |       |       |       |
|----------------------------------------|-----------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|
| OBJECTIVES.                            |           | ½ in. | ⅙ in. | ⅓ in. | ⅙ in. | ⅙ in. | 2 in.                | ⅔ in. | ⅙ in. | ⅙ in. |
| EYE-PIECES.                            | 2 in. (A) | 210   | 265   | 360   | 450   | 570   | 690                  | 18    | 29    | 135   |
|                                        | 1½ " (B)  | 295   | 385   | 540   | 660   | 845   | 1025                 | 26    | 42    | 260   |
|                                        | 1 " (C)   | 420   | 530   | 720   | 900   | 1140  | 1380                 | 37    | 58    | 370   |
|                                        | ¾ " (D)   | 590   | 770   | 1080  | 1320  | 1690  | 2050                 | 52    | 84    | 520   |
|                                        | ½ " (E)   | 840   | 1060  | 1440  | 1800  | 2280  | 2760                 | 74    | 116   | 740   |

INSTRUCTIONS FOR USING EYE-PIECE MICROMETER.

As the eye-piece micrometer is not compared directly with the object itself, but only with the image of it formed in the focus of the eye-piece, it is only when the exact proportion between the size of the object and that of its image is known, that measurements of the object can be readily determined by the eye-piece micrometer.

This proportion depends upon : 1st, the focus of the objective ; 2d, the distance of the image from the object ; 3d, the focus and the place of the field-lens when the latter is situated between the objective and the image.

As these relative conditions are not of equal value in all microscopes, and consequently the relative sizes of the images, as formed by different objectives of the same rating, are not always the same, these sizes have to be ascertained for each microscope and objective separately.

To reach this result, a reliable stage micrometer should be used as an object, and its image accurately measured with the eye-piece micrometer.

The figures designate the proportion of the linear measure of the object, the latter being taken as 1.

The actual size of any object is therefore obtained when the size of its image, which is obtained by direct measurement by means of the eye-piece micrometer, is divided by the figures so obtained.

For adjustable objectives, the figures are intended for close adjustment.

In instruments having draw-tube, make measurements when tube is at standard length.  
25.4 mm.=1 in.

**Microscopes.**  
**STUDENT SERIES—OBJECTIVES—DRY.**

| NUMBER. | FOCUS.  | ANGULAR AP. | ADJUSTMENT.     | PRICE.  |
|---------|---------|-------------|-----------------|---------|
| 5368    | 4 inch. | 6°          | Non-Adjustable. | \$ 6 00 |
| 5369    | 3 "     | 9°          | "               | 6 00    |
| 5370    | 2 "     | 12°         | "               | 6 00    |
| 5371    | 1½ "    | 16°         | "               | 6 00    |
| 5372    | 1 "     | 20°         | "               | 6 00    |
| 5373    | ¾ "     | 27°         | "               | 8 00    |
| 5374    | ½ "     | 42°         | "               | 9 00    |
| 5375    | ¼ "     | 75°         | "               | 14 00   |
| 5376    | ⅓ "     | 100°        | "               | 14 00   |
| 5377    | ⅓ "     | 75°         | "               | 15 00   |
| 5378    | ⅓ "     | 110°        | "               | 15 00   |
| 5379    | ⅓ "     | 115°        | "               | 18 00   |

**PROFESSIONAL SERIES—OBJECTIVES—DRY.**

| NUMBER. | FOCUS.       | ANGULAR AP. | ADJUSTMENT.     | PRICE.  |
|---------|--------------|-------------|-----------------|---------|
|         |              |             | Variable.       | \$18 00 |
| 5380    | 3 to 5 inch. | 10°         | Non-Adjustable. | 13 00   |
| 5381    | 3 "          | 12°         | "               | 13 00   |
| 5382    | 2 "          | 15°         | "               | 13 00   |
| 5383    | 1½ "         | 24°         | "               | 15 00   |
| 5384    | 1 "          | 36°         | "               | 15 00   |
| 5385    | ¾ "          | 40°         | "               | 15 00   |
| 5386    | ½ "          | 65°         | "               | 18 00   |
| 5387    | ¼ "          | 125°        | Adjustable.     | 24 00   |
| 5388    | ⅓ "          | 130°        | "               | 28 00   |
| 5389    | ⅓ "          | 135°        | "               | 30 00   |

**WATER IMMERSION.**

| NUMBER. | FOCUS.  | ANGULAR AP. | ADJUSTMENT. | PRICE.  |
|---------|---------|-------------|-------------|---------|
| 5390    | ⅛ inch. | 170°        | Adjustable. | \$25 00 |
| 5391    | 1/10 "  | 170°        | "           | 28 00   |
| 5392    | 1/12 "  | 175°        | "           | 30 00   |
| 5393    | 1/16 "  | 175°        | "           | 35 00   |

**HOMOGENEOUS IMMERSION.**

| NUMBER. | FOCUS.  |      |         | ADJUSTMENT.     | PRICE.  |
|---------|---------|------|---------|-----------------|---------|
| 5394    | ⅛ inch. | 1.18 | Oil Im. | Non-Adjustable. | \$40 00 |
| 5395    | 1/10 "  | 1.18 | "       | "               | 40 00   |
| 5396    | 1/12 "  | 1.18 | "       | "               | 45 00   |
| 5397    | 1/16 "  | 1.18 | "       | "               | 55 00   |



## Objectives.

## FIRST-CLASS SERIES—OBJECTIVES.

| NUMBER. | FOCUS.              | NUMERICAL AP. |                | ADJUSTMENT. | PRICE.  |
|---------|---------------------|---------------|----------------|-------------|---------|
| 5398    | $\frac{1}{8}$ inch. | 0.94          | Dry.           | Adjustable. | \$40 00 |
| 5399    | $\frac{1}{8}$ "     | 1.40          | Oil Immersion. | "           | 75 00   |
| 5400    | $\frac{1}{10}$ "    | 1.40          | " "            | "           | 80 00   |
| 5401    | $\frac{1}{12}$ "    | 1.40          | " "            | "           | 90 00   |
| 5402    | $\frac{1}{16}$ "    | 1.40          | " "            | "           | 125 00  |

## OBJECTIVES FOR MICRO-PHOTOGRAPHY.

|      |                  |     |                 |         |
|------|------------------|-----|-----------------|---------|
| 5403 | 1 inch.          | 26° | Non-Adjustable. | \$22 00 |
| 5404 | $\frac{3}{4}$ "  | 42° | "               | 22 00   |
| 5405 | $\frac{1}{2}$ "  | 52° | "               | 24 00   |
| 5406 | $\frac{4}{10}$ " | 65° | "               | 25 00   |
| 5407 | $\frac{1}{4}$ "  | 84° | "               | 25 00   |

Although these objectives are intended especially for Micro-Photography, and as such give excellent results, they are very well adapted to ordinary microscopic work, when flat field and beautiful definition are required.

## OBJECTIVES FOR PROJECTION.

|      |                                           |   |   |   |   |         |
|------|-------------------------------------------|---|---|---|---|---------|
| 5408 | 2 inch, with adjustable front diaphragm.. |   |   |   |   | \$20 00 |
| 5409 | $1\frac{1}{2}$                            | " | " | " | " | 20 00   |
| 5410 | 1                                         | " | " | " | " | 20 00   |
| 5411 | $\frac{3}{4}$                             | " | " | " | " | 20 00   |

These objectives are especially made to give flat field and good definition for the projection microscope for class illustration, but they also give excellent results in ordinary work.

## OBJECTIVES FOR CONTINENTAL MICROSCOPES.

| No.  | FOCUS.                          | NUMERICAL AP. | PRICE. |
|------|---------------------------------|---------------|--------|
| 5412 | 2 inch.                         | 0.10          | \$6 00 |
| 5413 | $\frac{2}{3}$ "                 | 0.25          | 7 00   |
| 5414 | $\frac{1}{6}$ "                 | 0.85          | 15 00  |
| 5415 | $\frac{1}{12}$ " Oil Immersion. | 1.25          | 45 00  |

## Eye-Pieces.

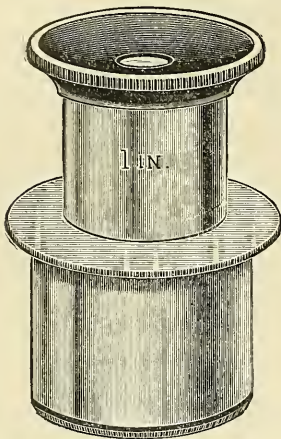
Our regular eye-pieces are all provided with adjustable cap on eye-lens ; they give the largest and flattest possible field. We have adopted the par-focal plan and nomenclature as recommended by the committee of the American Society of Microscopists on eye-pieces, which is the same as that used on objectives, and designates them according to the equivalent foci of the lenses. This method give an approximate idea of the amplification.

All of these eye-pieces, except when they vary from our standards, are so constructed that the neck or small tube, flange with milled edge, and large tube, are made of continuous metal, which insures not only extreme rigidity, but enables us to make the various parts exactly true with one another.

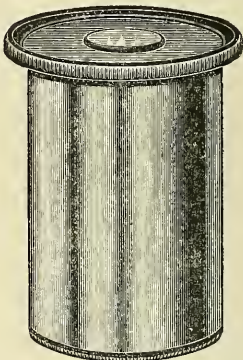
In addition to the above regular eye-pieces, we make a series after the so-called Continental pattern, which consists of a straight tube, with the eye-lens and field-lens attached at each respective end. They are entirely contained in the tube of the microscope with the exception of the mounting for eye-lens and are intended to be used particularly with the Continental microscopes.

The solid eye-pieces consist of one piece of homogeneous glass. They are fixed in a standard size mounting which slips into an adapter for microscope tube.

Microscopes.



HUYGHENIAN.



CONTINENTAL.

HUYGHENIAN EYE-PIECES.

|       |    |           |              |
|-------|----|-----------|--------------|
| 5416. | 2  | inch..... | price \$4 00 |
| 5417. | 1½ | " .....   | " 4 00       |
| 5418. | 1  | " .....   | " 4 00       |
| 5419. | ¾  | " .....   | " 4 00       |
| 5420. | ½  | " .....   | " 4 00       |

5417, 5419 and 5420 can be arranged with slot to receive micrometer, covered by cap to exclude light, eye-lens being adjustable for focus with micrometer, extra. 1 75  
5416 and 5417 can only be used with micrometer No. 5486.

EYE-PIECES FOR CONTINENTAL MICROSCOPE.

|       |    |           |              |
|-------|----|-----------|--------------|
| 5421. | 2  | inch..... | price \$3 00 |
| 5422. | 1½ | " .....   | " 3 00       |
| 5423. | 1  | " .....   | " 3 00       |
| 5424. | ¾  | " .....   | " 3 00       |
| 5425. | ½  | " .....   | " 3 00       |

Micrometer No. 5486 can only be used with the above.

SOLID EYE-PIECES.

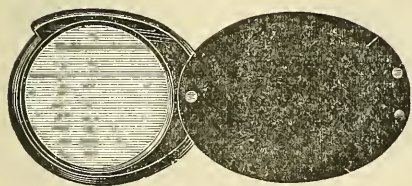
|       |   |                                           |              |
|-------|---|-------------------------------------------|--------------|
| 5426. | ½ | inch, with adapter for any size tube..... | price \$6 00 |
| 5427. | ⅓ | " " " " " " " " .....                     | " 6 00       |
| 5428. | ¼ | " " " " " " " " .....                     | " 6 00       |
| 5429. | ⅕ | " " " " " " " " .....                     | " 6 00       |
| 5430. | ⅙ | " " " " " " " " .....                     | " 6 00       |

DIRECTIONS FOR ORDERING EYE-PIECES.

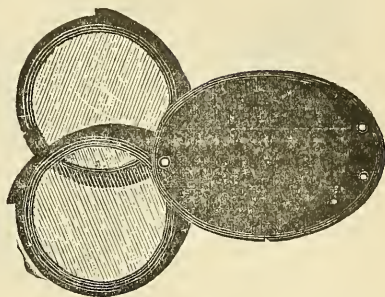
When orders for eye-pieces are given by measurement for other instruments than our own, we follow them exactly ; but our experience has shown that this method is unreliable from the fact that the ordinary means of measuring are not sufficiently accurate. We would suggest that the best method of informing us of the size desired, is to send us a strip of good paper, of such a length that when wound around the eye-piece, the two ends will just meet.



## Magnifiers.



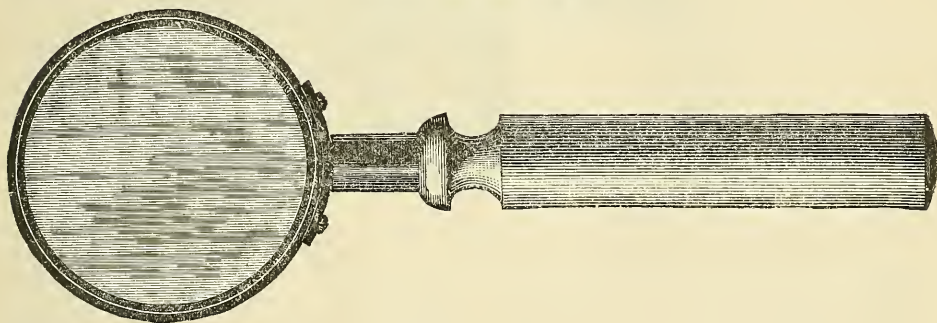
5431



5434

|       |                       |                                                                  |       |
|-------|-----------------------|------------------------------------------------------------------|-------|
| 5431. | Rubber Case,          | size of glass, $\frac{3}{4}$ inch diameter .....                 | \$ 30 |
| 5432. | “ “ same as No. 5431, | “ “ “ 1 “ “ .....                                                | 40    |
| 5433. | “ “ “ “ 5431,         | “ “ “ $1\frac{1}{4}$ “ “ .....                                   | 60    |
| 5434. | “ “ “ “               | “ “ glasses, $\frac{5}{8}$ and $\frac{3}{4}$ inch diameter ..... | 60    |
| 5435. | “ “ “ “ 5434,         | “ “ “ $\frac{7}{8}$ “ 1 “ “ .....                                | 80    |
| 5436. | “ “ “ “ 5434,         | “ “ “ $1\frac{1}{8}$ “ $1\frac{1}{4}$ “ “ .....                  | 1 00  |

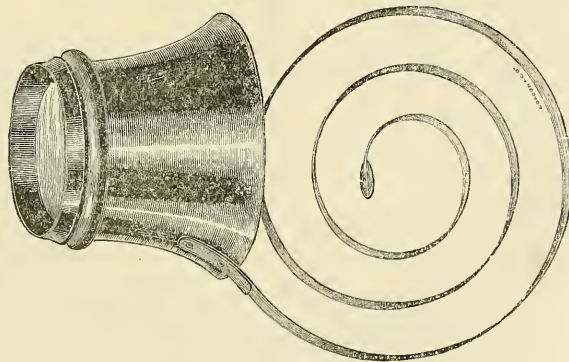
Various other sizes in stock.



5437

|       |                                                                                 |       |
|-------|---------------------------------------------------------------------------------|-------|
| 5437. | Rubber Frame and wood handle; size of glass, $1\frac{1}{2}$ inch diameter ..... | \$ 50 |
|-------|---------------------------------------------------------------------------------|-------|

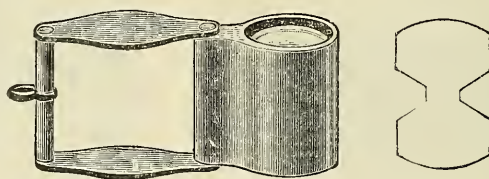
Various sizes in stock of rubber and metal frames.



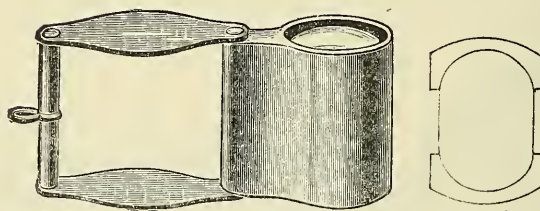
5438

|       |                                                                          |       |
|-------|--------------------------------------------------------------------------|-------|
| 5438. | Watchmaker Glasses, with springs (three sizes and different focus) ..... | \$ 60 |
|-------|--------------------------------------------------------------------------|-------|

## Achromatic Triplets and Coddington Magnifiers.



5440



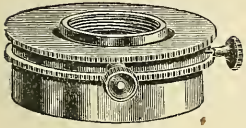
5446

|       |                       |                           |                             |       |        |
|-------|-----------------------|---------------------------|-----------------------------|-------|--------|
| 5439. | Coddington Magnifier, | $\frac{1}{2}$ inch focus, | in German silver mounting   | ..... | \$2 00 |
| 5440. | "                     | "                         | $\frac{3}{4}$ " " " " " "   | ..... | 2 00   |
| 5441. | "                     | "                         | 1 " " " " " "               | ..... | 2 00   |
| 5442. | "                     | "                         | 2 " " " " " "               | ..... | 2 00   |
| 5443. | Doublet Magnifier,    | new construction,         | giving large and flat field | ..... | 4 00   |
| 5444. | Achromatic Triplet,   | $\frac{1}{2}$ inch focus, | in German silver mounting   | ..... | 6 00   |
| 5445. | "                     | "                         | $\frac{3}{4}$ " " " " " "   | ..... | 6 00   |
| 5446. | "                     | "                         | 1 " " " " " "               | ..... | 6 00   |

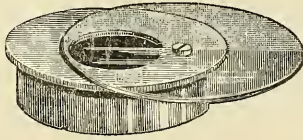
The above Coddington Magnifiers are of the best possible construction, and are made with great care throughout. Although the size of the field is limited, it is flat and the definition excellent.

The Achromatic Triplets are, as their name implies, thoroughly achromatic systems composed of one crown and two flint glass lenses cemented together. The image given by them is the nearest approach to that given by the compound microscope, and for preliminary examinations where powers up to twenty diameters are required, will well take the place of low-power objectives. They give a very large and flat field, have great depth of focus, and give perfect definition even when the optical axis is held at great obliquity.

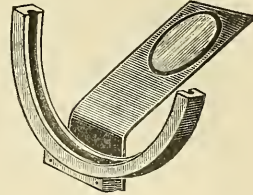
## Camera Lucidas, &amp;c.



5449



5451

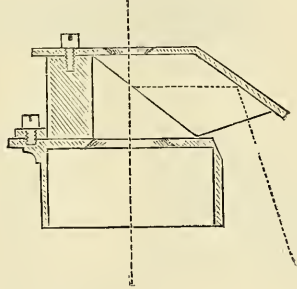
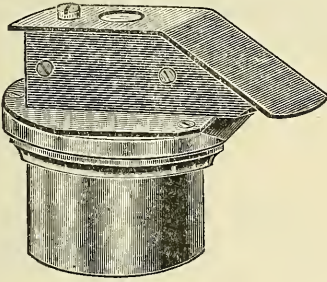


5452

5447. Adapter for foreign objectives, (as there is no standard among foreign objectives, all those to be fitted to adapters should be sent us).....\$1 00  
 5448. Adapter for fitting objectives in sub-stage..... 1 00  
 5449. " same, with centering adjustment..... 5 00  
 5450. Amplifier, achromatic, with society screw, in brass box..... 7 50  
 5451. Blue Glass, Hopkins', graduated..... 3 50

This glass is in the form of a disk. It revolves upon the adapter and gives intermediate shades between white and dark blue, both transparent and translucent.

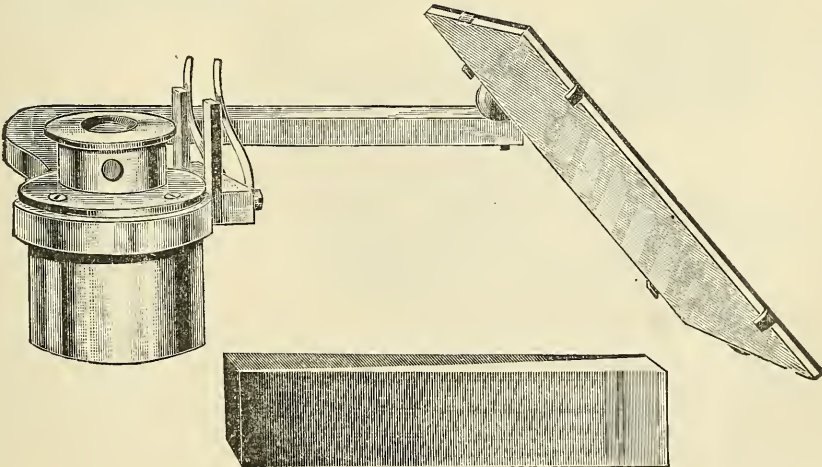
5452. Camera Lucida, in brass mounting..... 1 50



5453

5453. Camera Lucida, Double Prism..... 7 50

It may be used with the instrument in an upright or inclined position, and shows the image and pencil point clearly at the same time. It is far superior to the Wollaston in size of field and non-distortion of image.



5454



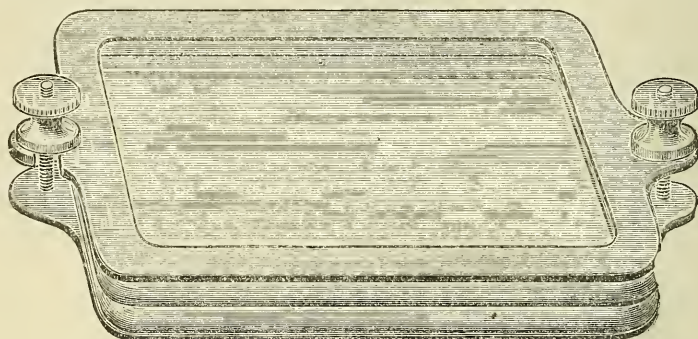
5454. Camera Lucida, Improved Abbe.....\$10 00

This form of Camera Lucida is without question the best form in giving distinct image of the object and pencil point. To obtain distinct pencil point, a series of different colored smoke glasses have been required in the Abbe form, which have been inconvenient. Our mounting is improved to take a smoke glass wedge, counterbalanced by a transparent wedge to avoid the prism effect, which is interposed between the prism and mirror and held by spring clips. Any degree of modulation is thus easily obtained. This Camera Lucida is provided with adapter to fit the neck of our eye-pieces.

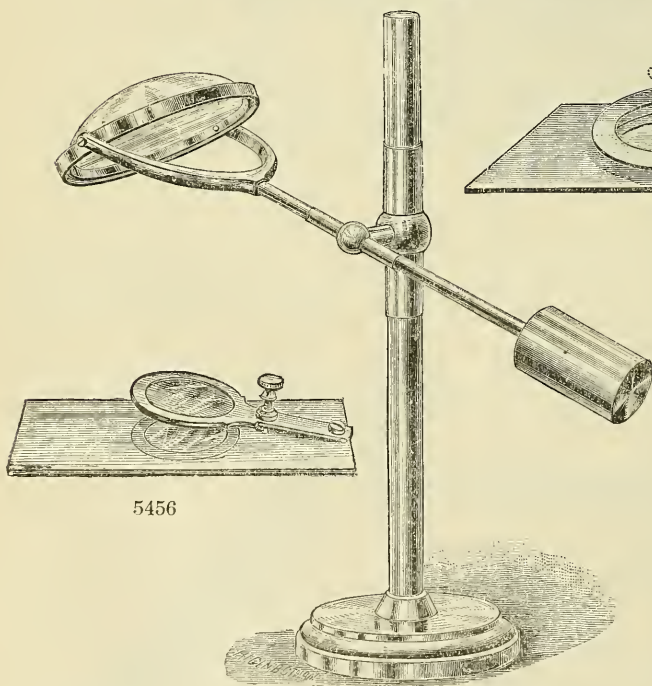
5455. Camera Lucida, Improved Abbe.....\$11 00

Same as above, but provided with binding and centering screws, to attach to our or other eye-pieces as well as microscope tubes.

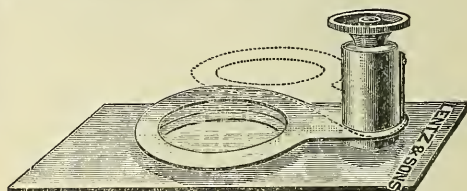
In ordering, the outside diameter of tube to be fitted should be given us, preferably as in eye-pieces.



5458



5456



5457

5461

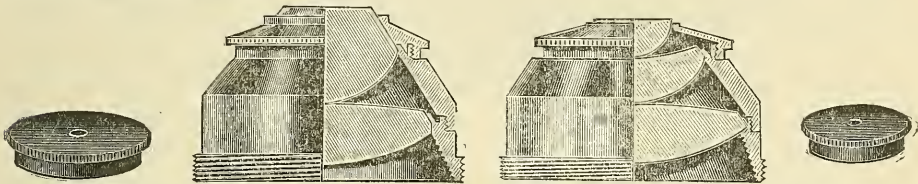
|       |                                                                                                             |         |
|-------|-------------------------------------------------------------------------------------------------------------|---------|
| 5456. | Compressor, Wenham's.....                                                                                   | \$ 1 50 |
| 5457. | “ Parallel, .....                                                                                           | 3 50    |
| 5458. | “ new construction, large size In use by the Bureau of Animal Indus-<br>try for the inspection of pork..... | 2 00    |
| 5459. | Condenser, Bulls-eye, lens $1\frac{1}{2}$ inch diameter.....                                                | 4 00    |
| 5460. | “ “ “ $2\frac{1}{2}$ “ “ .....                                                                              | 7 00    |
| 5461. | “ “ “ 3 “ “ .....                                                                                           | 10 00   |

## Accessories.

### SUB-STAGE CONDENSERS, ABBE.

The lenses composing these condensers are of such a size that they will utilize almost all the rays which may pass through the sub-stage ring. Their numerical aperture are about 1.20 and 1.42; the former suited for objectives of medium angular aperture, the latter will do justice to objectives of the largest angular aperture; its volume of light is sufficient with the highest amplification, and although it gives an intense light at the focal point, it may be distributed over a large space, or its volume decreased by varying its distance from the object. It will work both dry and immersion. The pin-hole cap provides means for exactly centering the condenser.

These condensers can be fitted to mountings No. 5465 and 5466, as desired. The condensers are reversible and adjustable in the adapters, thus they can be used on any stand having standard size of sub-stage.

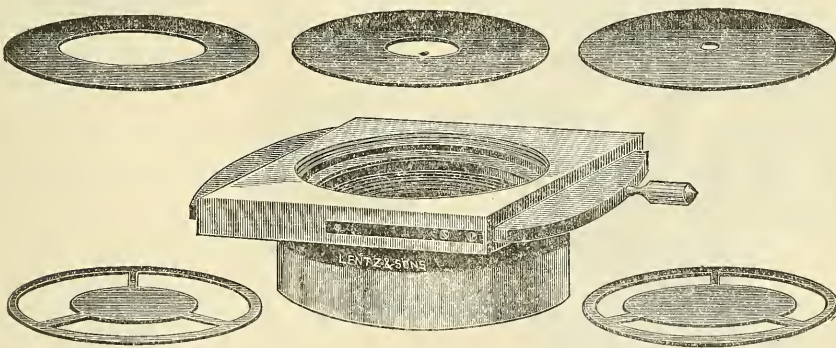


Optical part of Condenser 1.20 N. A.

Optical part of Condenser 1.42 N. A.

5462. Sub-stage Condenser, Abbe, 1.20 N. A., in plain sub-stage adapter, without means for regulating light, with pin hole cap, in morocco case.....\$ 8 00
5463. Sub-stage Condenser, Abbe, 1.42 N. A., same as above, in morocco case..... 10 00
5464. Sub-stage Condenser, Abbe, achromatic 1.0 N. A., with pin hole cap, in morocco case..... 20 00

This condenser gives a colorless image of the source of light. While desirable for general work, it is particularly useful in photo-micrography. It is specially adapted to mountings No. 5465 and 5466, and when so used the mounting is placed between the systems of the condenser.



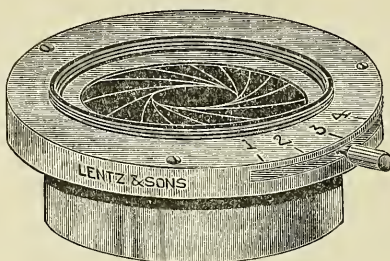
5465

5465. Condenser Mounting, with five stops and diaphragms and blue glass.....\$ 5 00

The mounting is simplified to the greatest extent. It is reversible, adjustable and can be used on any sub-stage! The diaphragms are separate, and may be used so or in conjunction with a blue glass, by dropping into the slide, which passes diametrically below the condenser. A click is provided when it is in central position. It can be used with Condensers Nos. 5462, 5463 and 5464.



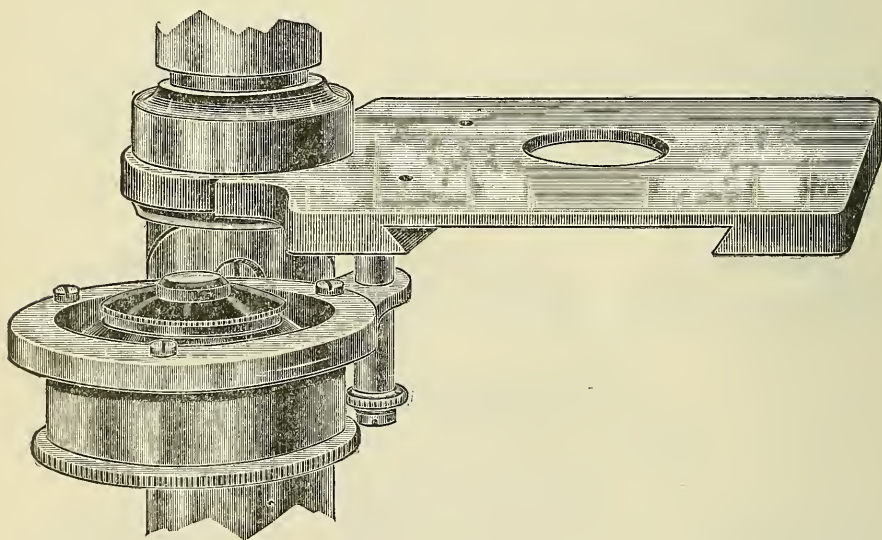
## Accessories.



5466.

5466. Condenser Mounting, with Iris diaphragm.....\$6 00

This mounting offers a ready means for controlling the volume of light, and is well suited to the ordinary needs of the physician and student. The diaphragm may be decreased from full opening to a pin hole by means of a lever, and a graduated scale is provided for making record of the aperture used ; central stops and blue glass accompany same. The mounting is reversible and can be attached to any sub-stage, and may be used with Condensers Nos. 5462, 5463 and 5464. For bacteriological work it is to be preferred to mounting No. 5465.



5467

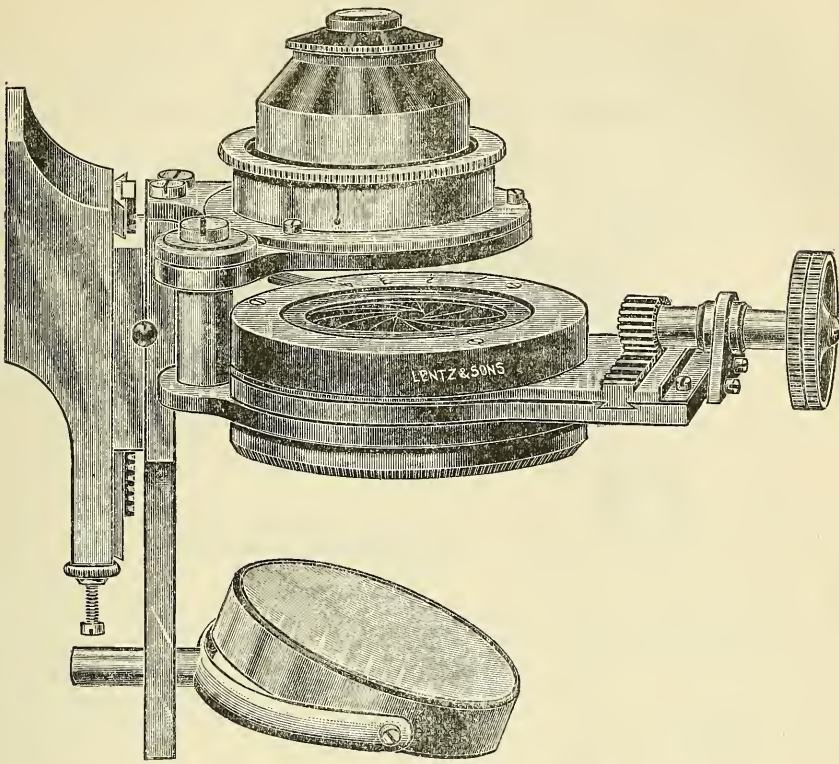
(Showing the swinging sub-stage with Condenser attached as applied to the stage of medium, Continental stand.

5467. Swinging Sub-stage Attachment (exclusive of Condenser),.....\$6 00

This is adaptable to the stages of all of the Continental, as well as Harvard and Favorite stands. It is simple in construction, yet a very serviceable accessory, being adjustable ; a Condenser attached to the same can be readily focused ; centering arrangement is also provided.



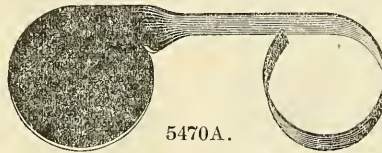
## Accessories.



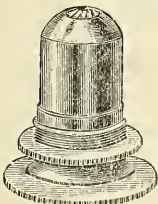
5468

5468. Sub-stage Attachment, complete, with mirror, (exclusive of Condenser).....\$25 00

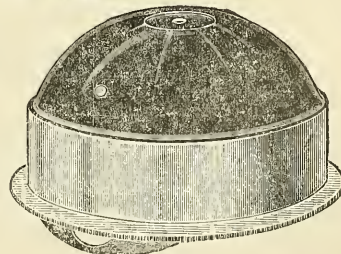
This complete sub-stage arrangement can be used on any of our microscopes, excepting the less expensive forms. It is unquestionably the most perfect of any heretofore introduced. Adjustment to the sub-stage is by rack and pinion, the Condenser mounting provides a movement similar to No. 5465, but by rack and pinion, it also swings on its axis, leaving the Condenser stationary; it has in addition the Iris diaphragm and recess for receiving diaphragms with central stops and blue glass, which are furnished with it. Mirror is plane and concave and of large size.



5470A.



5469



5470

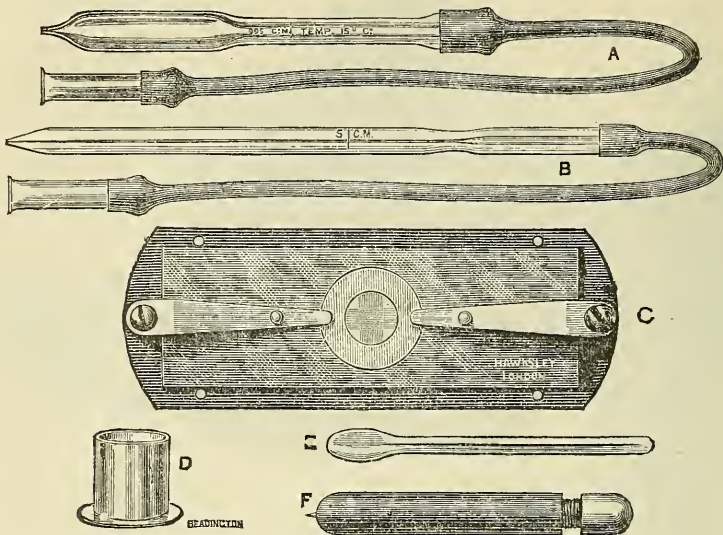
5469. Diaphragm, Iris, with sub-stage adapter, having society screw.....\$3 00

5470. Diaphragm Dome, can be used on any sub-stage.....2 00

State when ordering, whether it is to be inserted in the sub-stage from above or below.

5470A. Eye-Shade Wards.....50

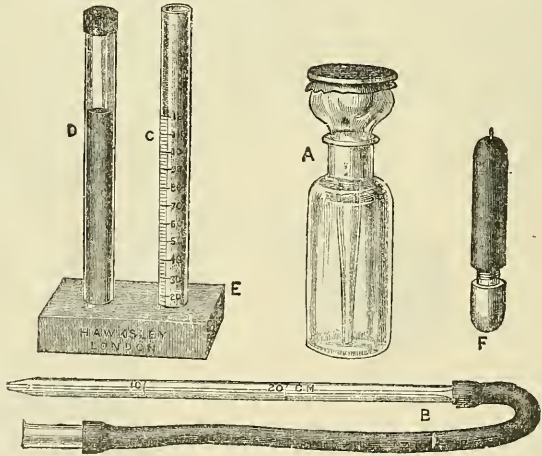
Gowers' Hæmacytomoter.



5471

5471. Hæmacytometer, for the numeration of blood corpuscles, Gower's; a standard instrument; complete, in morocco case.....\$28 00  
See description on pages 361 and 362.

5472. Hæmacytometer, for the numeration of blood corpuscles, Thoma's; a standard instrument; complete, in morocco case..... 14 00



5473

5473. Hæmoglobinometer, Gower's, for the approximate estimation of hæmoglobin, accurate within two or three per cent.; used independently of the microscope; complete, in morocco case.....\$ 9 50

See description on page 363.

5474. Hæmometer, Fleischl's, for the close estimation of hæmoglobin; used independently of the microscope; complete, in case..... 28 00



## Gowers' Hæmacytometer.

The following is a description of the instrument given by Dr. Gowers in the *Lancet*:

"The Hæmacytometer consists of (1) A small pipette, which, when filled to the mark on its stem, holds exactly 995 cubic millimetres. It is furnished with an indiarubber tube and mouthpiece to facilitate filling and emptying. (2) A capillary tube marked to contain exactly 5 cubic millimetres, with indiarubber tube for filling, etc. (3) A small glass jar in which the dilution is made. (4) A glass stirrer for mixing the blood and solution in the glass jar. (5) A brass stage plate, carrying a glass slip, on which is a cell,  $\frac{1}{2}$  of a millimetre deep. The bottom of this is divided into  $\frac{1}{16}$  millimetre squares. Upon the top of the cell rests the cover glass, which is kept in its place by the pressure of two springs proceeding from the ends of the stage plate.\*

"Various diluting fluids have been recommended in order to change as little as possible the aspect of the corpuscles. It is not well, however, to observe the characters of the corpuscles during the numeration. Whatever solution be employed, the corpuscles are more or less changed by it. One which answers very well is a solution of sulphate of soda in distilled water, of a specific gravity of 1025.

"The mode of proceeding is extremely simple. 995 cubic millimetres of the solution are placed in the mixing jar; 5 cubic millimetres of blood are drawn into the capillary tube from a puncture in the finger, and then blown into the solution. The two fluids are well mixed by rotating the stirrer between the thumb and finger, and a small drop of this dilution is placed in the centre of the cell, the covering glass gently put upon the cell, and secured by the two springs, and the plate placed upon the stage of the microscope. The lens is then focussed for the squares. In a few minutes the corpuscles have sunk to the bottom of the cell, and are seen at rest on the squares. The number in ten squares is then counted, and this multiplied by 10,000 gives the number in a cubic millimetre of blood.

"The average of healthy blood was decided by Vierordt and Welcker to be 5,000,000 per cubic millimetre, and later results agree with this sufficiently nearly to justify the adoption of this number as the standard, it being remembered that in a healthy adult man the number may be a little higher, in a woman a little lower. The number per cubic millimetre is the common mode of stating the corpuscular richness of the blood; but by employing this dilution, and squares of this size, a much more convenient mode of statement is obtained. Taking 5,000,000 as the average per cubic millimetre for healthy blood, the average number in two squares of the cell is 100. These two squares contain .00002 cubic millimetre of blood, and it is proposed to take this quantity as the 'hæmic unit.' The number per hæmic unit, *i. e.* in two squares (ascertained by counting a large number, 10 or 20, and taking the mean), thus expresses the percentage proportion of the corpuscles to that of health, or, made into a two-place decimal, the proportion which the corpuscular richness of the blood examined bears to healthy blood taken as unity. This is a much more simple method than any hitherto used. The proportion of white corpuscles to the red, or their number per hæmic unit, is best ascertained by observing the number of squares visible in the field of the microscope, and noting the number of white corpuscles in a series of ten or twenty fields. The number of red corpuscles corresponding to the ten or twenty fields is easily computed, and thus the proportion of white to red is ascertained. The normal *maximum* of white per two squares (hæmic unit) is .3."

### PRECAUTIONS.

In making an examination of blood, the following precautions should be observed:—The blood should be obtained by a puncture with the point of the lancet sufficient to permit the escape of a drop without much pressure. If the finger be much pressed, squeezed, or ligatured,

\* A very sharp spear-pointed lancet or needle in ivory case, and a piece of chamois skin, spare covering glasses, and a camel's hair brush, complete the contents of the case.



the relative amount of serum and corpuscles is affected. It is somewhat difficult to draw the *exact* quantity of blood into the capillary tube, because in removing the blood from its point a little is easily drawn out of the tube; it is therefore better to draw rather more than the required quantity into the tube, then to remove the blood from the point with a soft cloth, and keep the cloth in contact with the point while the extra blood is blown out. A little of the diluting fluid should be drawn into the tube, after the blood is ejected, to ensure the removal of all the corpuscles.

The smaller end of the stirrer may be used to remove the drop from the mixer to the cell. The drop must be deposited *in the middle* of the cell, and care must be taken not to rub the stirrer on the bottom of the cell. The lines which form the divisions of the micrometer cell may be made more distinct in the following manner:—With a sharp penknife scrape a little of the lead of an ordinary propelling pencil so that it falls into the middle of the micrometer cell, then, with a clean dry finger-tip or a knot tied in a small piece of chamois leather, well rub the powdered lead all over the cell; it may then be wiped in the ordinary way, and any of the lead which remains in the corners of the cell is easily dusted away by means of the brush. The covering glass should be placed upon the cell as nearly horizontal as possible. When this is done, the drop of solution should appear as a disc in the *middle* of the cell, or thereabout: its edges must not touch the sides of the cell. Carefully place the two springs opposite each other by *lifting* them on to the covering glass, and not by *sliding* them. The corpuscles should be counted in or near to the centre of the drop. In distinguishing the red from the white corpuscles, it must be remembered that a weak diluting solution causes many corpuscles to swell up to twice the size of the others, and care is required to distinguish these from the white cells. By raising the objective out of the focus the white cells may readily be distinguished by their greater refractive power. A quarter-inch objective is the most convenient to employ. The whole process from beginning to end does not occupy more than a quarter of an hour.

The blood should not be drawn until the diluting solution has been placed in the mixing jar, and the capillary tube is ready for use. The blood should be expelled immediately.

The pipette and capillary tube should be immersed in clean water *immediately* after use. If any obstruction appears, a horse hair or bristle will best remove it. Drawing air through the tubes by the mouth will render them quite dry. If the capillary tube should become blocked with blood corpuscles, in consequence of a little blood being left in the tube, it may be cleared by placing it in nitric acid.

The residual fluid, that which unavoidably adheres to the inner walls of the tubes, has been allowed for, so that the quantity ejected is exactly that indicated by the division upon each tube.

To cleanse the cell after each observation, use the small hair brush and some clean water, dry with a soft cloth, and carefully remove with the chamois leather any particles of matter that may remain. The cell must not be used whilst damp, or the globule of fluid will at once disperse over its surface.

Charts have been prepared for recording the variations in the number of corpuscles, red and white.

The following diluting solutions have been employed:—

A solution of sulphate of soda and distilled water of specific gravity 1025.

1.—*Gowers' Solution*:—Sulphate of soda, 104 grains. Acetic acid, 1 drachm.  
Distilled water, 4 ozs.

2.—*Potain's Solution*:—Solution of gum acacia sp. gr. 1020. One volume.

Equal parts of sulphate of soda and chloride of sodium, in solution of specific gravity 1020. Three volumes. Mix.

3.—*Keyes' Solution*:—“Take urine slightly phosphatic, easily obtainable after a meal, about 1020 sp. gr., and make of it a saturated solution with borax. Clouds of earthy phosphates are thrown down. Filtration yields a clear alkaline fluid of sp. gr. about 1030. One-half of water added will reduce the specific gravity to 1020, and the fluid is ready for use.

## Gowers' Hæmoglobinometer.

The following is a description of Dr. Gowers' Apparatus for the Clinical Estimation of Hæmoglobin :

The tint of the dilution of a given volume of blood with distilled water is taken as the index to the amount of hæmoglobin. The distilled water rapidly dissolves out all the hæmoglobin, as is shown by the fact that the tint of the dilution undergoes no change on standing. The color of a dilution of average normal blood one hundred times is taken as the standard. The quantity of hæmoglobin is indicated by the amount of distilled water needed to obtain the tint with the same volume of blood under examination as was taken of the standard. On account of the instability of a standard dilution of blood, tinted glycerine-jelly is employed instead. This is perfectly stable, and by means of carmine and picocarmine the exact tint of diluted blood can be obtained.

The apparatus consists of two glass tubes of exactly the same size. One contains a standard of the tint of a dilution of 20 cubic m.m. of blood, in 2 cubic centimetres of water (1 in 100).

The second tube is graduated, 100 degrees = two centimetres (100 times twenty cubic millimetres).

The twenty cubic millimetres of blood are measured by a capillary pipette (similar to, but larger than that used for the hæmacytometer). This quantity of the blood to be tested is ejected into the bottom of the tube, a few drops of distilled water being first placed in the latter. The mixture is rapidly agitated to prevent the coagulation of the blood. The distilled water is then added drop by drop (from the pipette stopper of a bottle supplied for that purpose) until the tint of the dilution is the same as that of the standard, and the amount of water which has been added (*i. e.*, the degrees of dilution) indicates the amount of hæmoglobin.

Since average normal blood yields the tint of the standard at 100 degrees of dilution, the number of degrees of dilution necessary to obtain the same tint with a given specimen of blood is the percentage proportion of the hæmoglobin contained in it, compared to the normal.

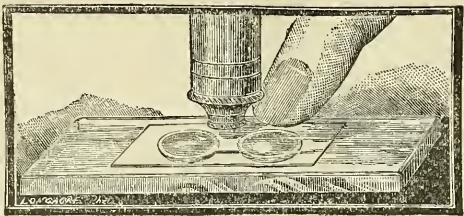
For instance, the twenty cubic millimetres of blood from a patient with anæmia gave the standard tint at 30 degrees of dilution. Hence it contained only thirty per cent. of the normal quantity of hæmoglobin.

By ascertaining with the hæmacytometer the corpuscular richness of the blood, we are able to compare the two. A fraction, of which the numerator is the percentage of hæmoglobin, and the denominator the percentage of corpuscles, gives at once the average value per corpuscle. Thus, the blood mentioned above containing thirty per cent. of hæmoglobin, contained sixty per cent. of corpuscles; hence the average value of each corpuscle was  $\frac{30}{60}$  or  $\frac{1}{2}$  of the normal. Variations in the amount of hæmoglobin may be recorded on the same chart as that employed for the corpuscles.

In using the instrument the tint may be estimated by holding the tubes between the eye and a window, or by placing a piece of white paper behind the tubes; the former is perhaps the best. Care must be taken that the tubes are always held in the line of light, not below it. In the latter case some light is reflected from the suspended corpuscles from which the hæmoglobin has been dissolved. If the value of the corpuscles is small, then a perceptibly paler tint is seen when the tubes are held below the line of illumination. If all the light is transmitted directly through the tubes, the corpuscles do not interfere with the tint.

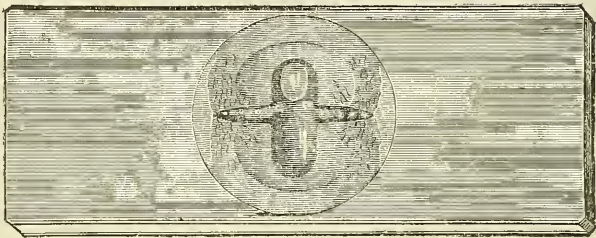
In using the instrument, it will be found that during six or eight degrees of dilution it is difficult to distinguish a difference between the tint of the tubes. It is therefore necessary to note the degree at which the color of the dilution ceases to be deeper than the standard, and also that at which it is distinctly paler. The degree midway between these two will represent the hæmoglobin percentage.

The instrument is only expected to yield approximate results, accurate within two or three per cent. It has, however, been found of much utility in clinical observation.



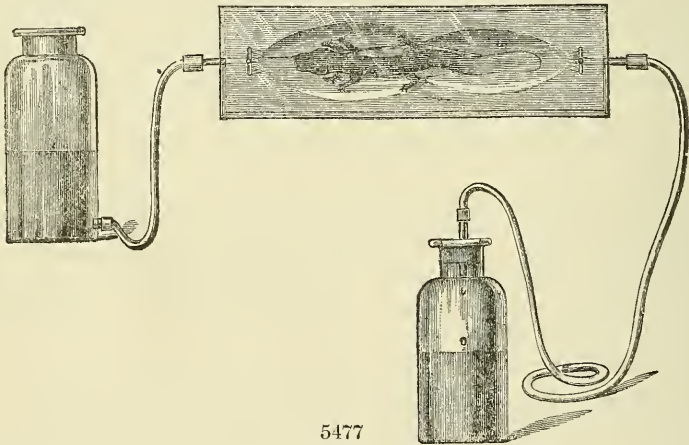
5475

5475. Holman's Current-Slide, with cover, in box.....\$1 50



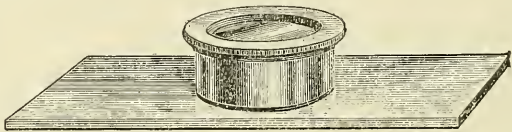
5476

5476. Holman's Life-Slide, with cover, in box.....\$1 50



5477

5477. Holman's Syphon-Slide, cover and flexible tubes, no bottles.....\$4 00

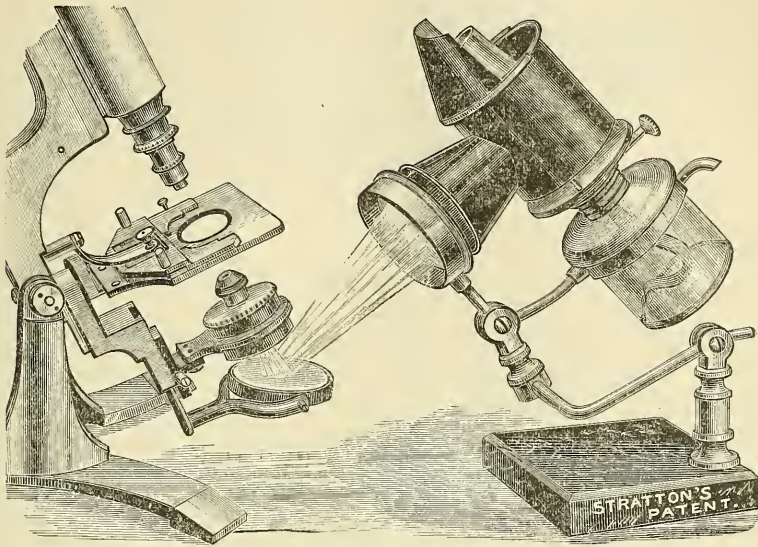


5478

5478. Life-Box, .....\$2 00  
5479. " extra large size..... 3 00  
5480. " with spiral open slot for obtaining close adjustment..... 3 50



## Combined Microscope Lamp and Condenser.



5481

5481. Combined Microscope, Lamp and Condenser.....\$5 00

A plain wooden case, with handle, for the above, extra..... 50

The Combination Microscope, Lamp and Condenser has adjustments that can be easily and readily made to any height or angle of inclination, by frictional joints, and without the use of set screws.

Various modifications of light are provided, for either direct or oblique illumination of opaque or transparent objects; without altering the position of the microscope, the mirror or the sub-stage condenser.

The illuminator has a revolving lamp and burner, by means of which the edge, flat side, or any angle of the flame from the half-inch wick can be used with the condenser.

It also has a revolving shade that surrounds the light. This shade consists of a metal cylinder with a lateral cone, that carries the blue and ground glass mediums and directs the light to the condenser, and a movable light shield to intercept all reflection from the chimney. The condenser, which is nearly three inches in diameter, has an independent support, from the revolving shade and lamp; this allows the use of the light direct from any angle of the flame in almost any position without the use of the condenser.

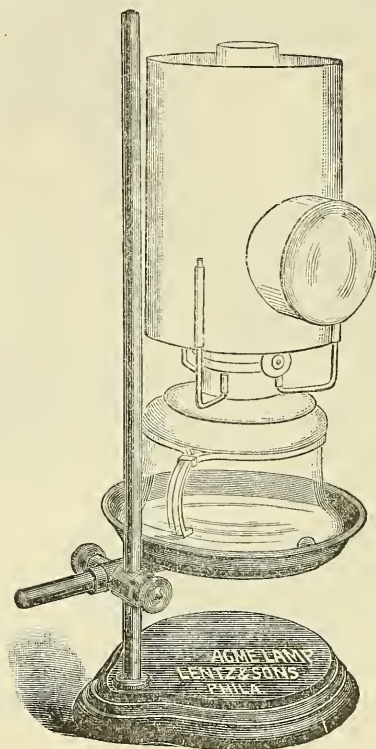
The illuminator rests upon a heavy base and is perfectly steady at any height.

## The Acme Lamp and Stand

5482. FOR USE WITH THE MICROSCOPE.

Price.....\$3 50

*In order to use the Microscope successfully, proper illumination is indispensable, hence the introduction of the Acme Lamp.*



5482

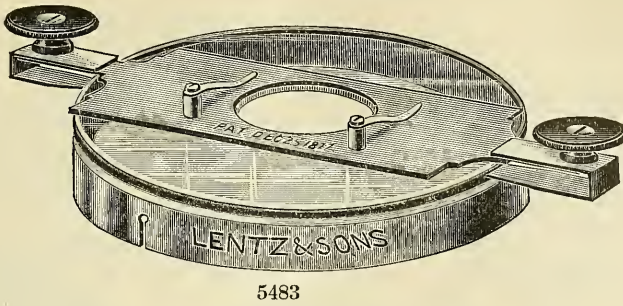
The designer being fully cognizant of the wants of the microscopist, has certainly "turned on the light" for perfect illumination, without the annoyance of heat, and at a price unprecedented in cheapness.

The small bull's-eye lens used in emitting the light is very carefully ground and polished, and so powerful is the beam that abundance of light is obtained for high power objectives. The wick and flame of the lamp being very small, positively no heat is felt at the distance the lamp is placed when in use. The shade is made neatly of japanned tin, which is adjustable on stout wire bearings.

The lamp-holder and stand has various adjustments to lower, raise or incline the lamp, so that the light may be exactly concentrated on any mirror, and for illuminating opaque objects.

If you are experiencing any annoyance on account of poor illumination, *do not continue in the dark, but send for an Acme Lamp, and if you do not find it as represented, will refund your money.*

The blue-tinted and ground glasses to modify the light, can be adapted to the Acme Lamp. Price, \$1 00 extra.



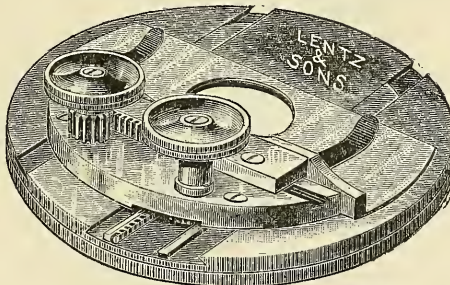
5483

5483. Glass Stage and Slide Carrier, as illustrated, is intended as a substitute for the mechanical stage to a certain extent, and will fit stages  $3\frac{1}{2}$  inches in diameter....\$5 00

It consists of a polished plate of glass, incased in a brass ring which clamps on the circular stage. The slide-carrier which moves on it, consists of a light metallic plate, and has protruding from its lower surface four small points; at its two ends are prolongations, which are bent downward and inward and, acting as springs, press against the lower surface of the glass. As the contact between glass stage and slide-carrier is only at these six points, friction is reduced to a minimum, and the action of the latter, although firm, is smooth and steady.

It enables work to be done with far more facility than with the ordinary brass stage, where the entire surface of the slide bears on it, and is altogether more agreeable.

The slide-carrier is provided on each end with small milled heads for manipulation, and has spring clips and a stop for Maltwood finder.



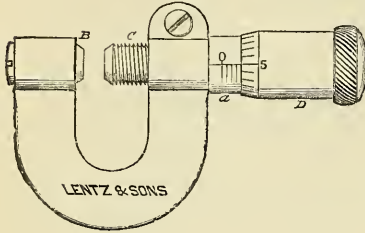
5484

5484. Mechanical Stage.....\$20 00

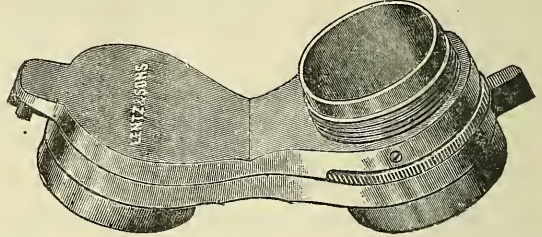
The advantages of mechanical stages for every variety of work, now generally conceded, and particularly in original research, are as follows: The ability to systematically examine the entire surface of an object; the easy manipulation of an object, especially with high powers; the ability to count objects within a given space; its use as a finder after repeated examinations. Further than this there is nothing in their construction which would prevent their use as ordinary stages.



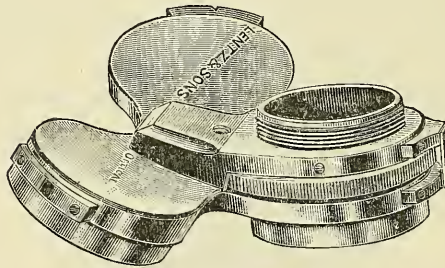
|       |                                                                                                              |        |
|-------|--------------------------------------------------------------------------------------------------------------|--------|
| 5485. | Maltwood Finder, in case.....                                                                                | \$3 50 |
| 5486. | Micrometer, eye-piece, disk, fitted to any eye-piece.....                                                    | 1 50   |
| 5487. | “ stage, $\frac{1}{10}$ and $\frac{1}{100}$ inch.....                                                        | 1 25   |
| 5488. | “ “ $\frac{1}{100}$ “ $\frac{1}{1000}$ “ .....                                                               | 1 50   |
| 5489. | “ “ $\frac{1}{10}$ , $\frac{1}{20}$ and $\frac{1}{50}$ mm. ....                                              | 2 00   |
| 5490. | “ “ $\frac{1}{10}$ and $\frac{1}{100}$ mm. ....                                                              | 2 00   |
| 5491. | “ “ $\frac{1}{10}$ , $\frac{1}{100}$ , $\frac{1}{1000}$ inch and $\frac{1}{10}$ and $\frac{1}{100}$ mm. .... | 4 00   |



5492



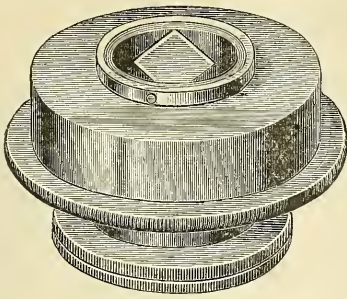
5493



5494

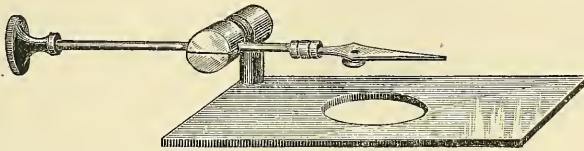
|         |                                                                                                                                                                                             |        |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 5492.   | Micrometer Gauge, reading to thousandths of an inch, suitable for pocket, and very useful for measuring accurately thickness of cover glass, sheet metals, wire etc., in morocco case ..... | \$4 50 |
| 5493.   | Nose-piece, double, brass finish.....                                                                                                                                                       | 5 00   |
| 5493 A. | “ “ aluminum .....                                                                                                                                                                          | 6 75   |
| 5494.   | “ triple brass finish.....                                                                                                                                                                  | 9 00   |
| 5494 A. | “ “ aluminum.....                                                                                                                                                                           | 11 00  |

Since the introduction of our various nose-pieces, they have become very popular and are now in general use. This is no doubt due to the perfection of their construction and practical adaptation in the first place, and then to the low price at which they are offered. The advantages of using two, three or four objectives on an instrument, either of which can be used without the removal of one and attachment of the other, are so apparent that they need no argument. Further than this, when objectives are ordered with the apparatus, they are exactly centered, which is ordinarily not the case even in objectives of the same manufacture. We also adjust objectives to correspond exactly in focus with a certain eye-piece, so that they require no adjustment except with the micrometer screw. On account of the work involved to obtain this convenience, we make an extra charge of \$1.00 for each objective, except in pairs, No. 5373 and No. 5378, which are constructed with this object in view.



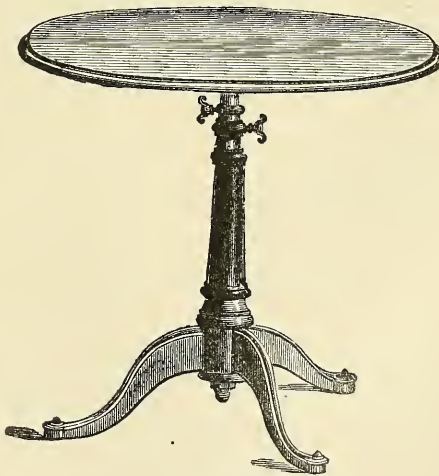
5495

5495. Polariscope, with one selenite, in morocco case with velvet lining.....\$12 00



5496

5496. Stage Forceps, on slide.....\$2 00



5497

5497. Table for use with microscope. It has a very heavy and firm tripod base of cast-iron, handsomely finished, and of neat and graceful appearance, mounted on casters. The top is of handsomely finished walnut, 28 inches in diameter, and will not warp. A novel feature is that the top may be set and rotated at any height, from 26 inches up, thus adapting it to microscopes of different sizes ; or it may be clamped solid at any height. The table is of substantial and first-class workmanship throughout, and is one that we can thoroughly recommend, \$12 00  
Crating for shipment..... 85

Labels printed, furnished to order.

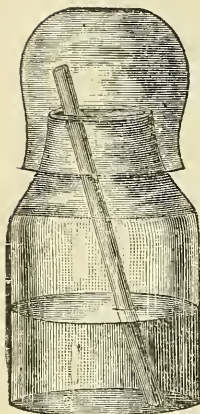


## Mounting and Staining Media.

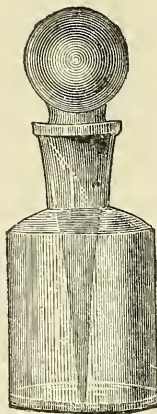
|                                                                           | Oz.<br>Bottle<br>Solution. | Pint.<br>Bottle<br>Solution. | Dry<br>per oz. |
|---------------------------------------------------------------------------|----------------------------|------------------------------|----------------|
| 5526. Xylol, pure.....                                                    | \$ 20                      | \$1 50                       | \$             |
| 5527. Absolute Alcohol, Dr. Squibb's.....                                 | 20                         | 1 50                         |                |
| 5528. Benzole, pure.....                                                  | 20                         | 1 00                         |                |
| 5529. Canada Balsam, paper filtered, in flexible tubes.....               | 25                         | 2 75                         | 30             |
| 5530. " " in benzole.....                                                 | 50                         | 4 25                         |                |
| 5531. " " in chloroform.....                                              | 50                         | 5 00                         |                |
| 5532. " " in Xylol.....                                                   | 50                         | 5 00                         |                |
| 5533. Damar, in benzole.....                                              | 50                         | 3 50                         |                |
| 5534. Deane's Medium.....                                                 | 35                         |                              |                |
| 5535. Farrant's ".....                                                    | 50                         |                              |                |
| 5536. Glycerine, pure.....                                                | 25                         | 1 00                         | per lb.        |
| 5537. " camphorated, for delicate vegetable tissues.....                  | 25                         |                              |                |
| 5538. " jelly.....                                                        | 50                         |                              |                |
| 5539. Oil of Cloves.....                                                  | 35                         | 4 00                         | per lb.        |
| 5540. Asphaltum.....                                                      | 25                         | 2 00                         | " pint.        |
| 5541. " quick drying.....                                                 | 35                         |                              |                |
| 5542. Turpentine.....                                                     | 25                         | 60                           |                |
| 5543. Brown's Transparent Rubber Cement.....                              | 35                         |                              |                |
| 5544. Brunswick Black.....                                                | 25                         | 2 00                         |                |
| 5545. Gold Size.....                                                      | 25                         | 2 00                         |                |
| 5546. Hollis' Glue.....                                                   | 30                         |                              |                |
| 5547. King's Amber Cement, transparent, with directions.....              | 25                         |                              |                |
| 5548. " White ".....                                                      | 25                         |                              |                |
| 5549. " Lacquer Cell and Finish, scarlet, with directions.....            | 50                         |                              |                |
| 5550. " " " " blue, ".....                                                | 50                         |                              |                |
| 5551. Marine Glue, hard, melting point 250° F., box.....                  | 35                         |                              |                |
| 5552. " " fluid.....                                                      | 35                         |                              |                |
| 5553. " " colorless.....                                                  | 40                         |                              |                |
| 5554. White Zinc Cement.....                                              | 50                         |                              |                |
| 5555. Ammonia, Carmine, Beale's.....                                      | 25                         | 2 00                         |                |
| 5556. Borax, Carmine.....                                                 | 25                         | 2 00                         |                |
| 5557. Picro, ".....                                                       | 25                         | $\frac{1}{8}$ oz.            | 75             |
| 5558. Aniline, blue.....                                                  | 20                         | 2 00                         | 50             |
| 5559. " green.....                                                        | 20                         | 2 00                         | 40             |
| 5560. " red.....                                                          | 20                         | 2 00                         | 35             |
| 5561. " violet.....                                                       | 20                         | 2 00                         | 60             |
| 5562. Methyl, blue.....                                                   | 20                         | 2 00                         | 1 00           |
| 5563. " violet.....                                                       | 20                         | 2 00                         | 1 00           |
| 5564. " green.....                                                        | 20                         | 2 00                         | 50             |
| 5565. Eosine.....                                                         | 20                         | 2 00                         | 50             |
| 5566. Haematoxylin.....                                                   | 20                         | 2 00 $\frac{1}{8}$ oz.       | 75             |
| 5567. Sulpho-Indigotate Soda.....                                         | 20                         | 2 00 $\frac{1}{8}$ oz.       | 75             |
| 5568. Burrl's Stain for Bacillus Tuberculosis, with directions.....       | 35                         |                              |                |
| 5569. Gentian Violet.....                                                 | 20                         | 2 00                         | 60             |
| 5570. Bismarck Brown.....                                                 | 20                         | 2 00                         | 30             |
| 5571. Osmic Acid, $\frac{1}{32}$ oz. or 1 gramme.....                     | 2 00                       |                              |                |
| 5572. Carmine Injecting Gelatine, Dr. Seiler's.....                       | 1 00                       |                              |                |
| 5573. Aniline Oil, pure, for use in preparation of Bacillus Tuberculosis, | 20                         | 2 50                         |                |
| 5574. Paraffine, pure, soft, melting point 109° F., pound.....            | 50                         |                              |                |
| 5575. " hard, " " 129° F., ".....                                         | 50                         |                              |                |
| 5576. Celloidine, 1 oz. box.....                                          | 1 25                       |                              |                |
| 5577. Cedar Oil, for microscopic purposes.....                            | 50                         |                              |                |
| 5578. Dr. Gibbes Double Stain for Bacillus Tuberculosis.....              | 50                         |                              |                |
| 5579. Fuchsin.....                                                        | 25                         |                              | 50             |
| 5580. Saffranine.....                                                     | 25                         |                              | 40             |
| 5581. Vesuvium.....                                                       | 25                         |                              | 40             |
| 5582. Nitric Acid in Alcohol, 3 per cent. Solution.....                   | 25                         |                              |                |
| 5583. Iodo-Iodide Potassa, 0.3 " " ".....                                 | 25                         |                              |                |
| 5584. Caustic Potassa, 0.5 " " ".....                                     | 25                         |                              |                |
| 5585. Carbonate of Potash, 0.3 " " ".....                                 | 25                         |                              |                |
| 5586. Phenolphthaline.....                                                | 25                         |                              |                |
| 5587. Pot. Ferro-Cyanide, with 0.1 per cent. Acetic Acid.....             | 25                         |                              |                |

These media we guarantee to be of the quality best suited for microscopical purposes and are put up in the neatest possible manner; each bottle is plainly labeled and enclosed in paper carton.

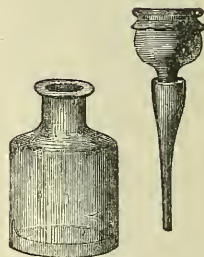
## Glassware used in Microscopical Work.



5588

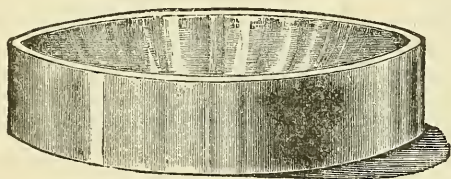


5590

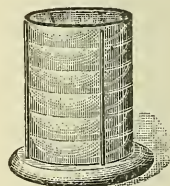


5591

|       |                                                                          |       |
|-------|--------------------------------------------------------------------------|-------|
| 5588. | Capped Bottles, for holding mounting fluids, with glass pipette.....each | \$ 40 |
| 5589. | “ “ with triangular stopper, to prevent gumming..... “                   | 50    |
| 5590. | Dropping “ “ glass bulb .....                                            | 25    |
| 5591. | “ “ rubber top..... “                                                    | 30    |



5592



5593

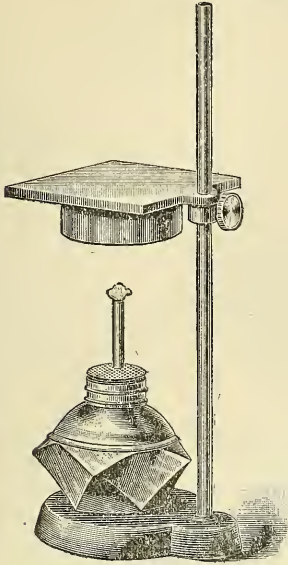
5592. Watch glasses, Syracuse solid.

|        |                                                               |      |
|--------|---------------------------------------------------------------|------|
| No. 1. | Unground edges, each 10 cents ; in set of six.....\$          | 50   |
| “ 2.   | Ground and polished edges, each 15 cents ; in set of six..... | 75   |
| “ 3.   | “ “ “ “ and concaves, each 50 cents ; in set of six.....      | 3 00 |

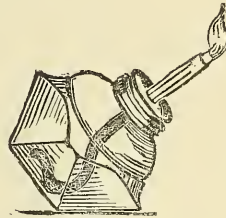
The Syracuse solid watch glass rests solidly upon the table or microscope stage, and is not liable to be overturned and its contents spilled. In it, on the microscope stage, can be examined from time to time, or dissected and studied, transparent tissues while in water, alcohol, oil of cloves or other bath. When the edges are cut and the top covered, specimens may remain for long staining or soaking without becoming dirty and without loss of fluid by evaporation.

|       |                                                                                |    |
|-------|--------------------------------------------------------------------------------|----|
| 5593. | Stand for the above, in nest of six or less.....\$                             | 50 |
| 5594. | Watch glasses, ordinary form,.....per doz.                                     | 40 |
| 5595. | Porcelain saucers, 2 $\frac{3}{8}$ inch diameter, in nest of 5 with cover..... | 60 |
| 5596. | “ “ 3 $\frac{1}{4}$ “ “ “ “ 5 “ “ .....                                        | 80 |

## Mounting Stand and Lamps.



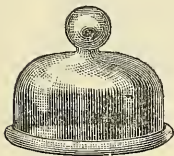
5597



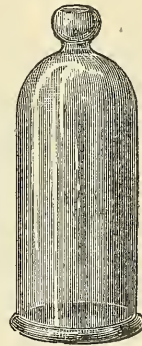
5598

5597. Mounting Stand, with lamp and separating sand-bath.....\$2 00  
 5598. Glass Spirit-Lamp, No. 1, with extinguisher,  $\frac{3}{16}$  inch burner..... 75  
       " " " " 2, " "  $\frac{1}{4}$  " " ..... 90  
       " " " " 3, " "  $\frac{1}{2}$  " " ..... 1 10

These lamps are recommended as being the best for mounting purposes. The font is provided with nine facets, by means of which the lamp may be inclined, and the size of the flame may be regulated by a sliding tube. A cap to prevent evaporation accompanies them. When used, inclined, fill but one-third.



5599



5600

5599. Low Bell-Glass, 6 inches inside diameter, for preserving objects from dust during preparation.....\$ 50  
 5600. Tall Bell-Glass, to cover microscope, inside diameter, 7 inches; height in centre, 13 inches; (2 gallon)..... 1 75

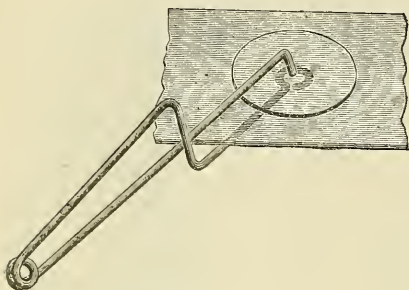
This number is suitable for "Favorite" Microscope.

5601. Tall Bell-Glass, to cover microscope, inside diameter, 8 inches; height in centre 15 inches; (3 gallon)..... 2 25

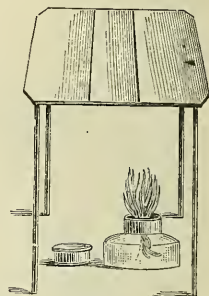
This number is suitable for "American Physicians' Microscope."



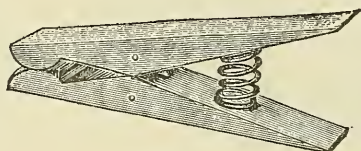
## Sundry Apparatus and Instruments used in the Preparation of Microscopical Specimens.



5603



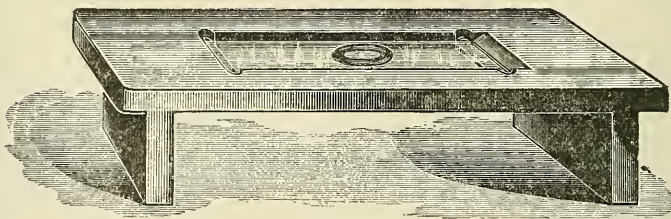
5602



5604

- |       |                                                                                                                                                            |        |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 5602. | Brass table, with lamp, for heating slides.....                                                                                                            | \$1 50 |
| 5603. | Spring compressors, of nicked wire, for holding down thin covers in mounting specimens, per dozen.....                                                     | 40     |
| 5604. | Spring compressors, wood, for holding slides over a flame, or for strong compression in the preparation of some objects (as whole insects), per dozen..... | 25     |

### MOUNTING TABLE.

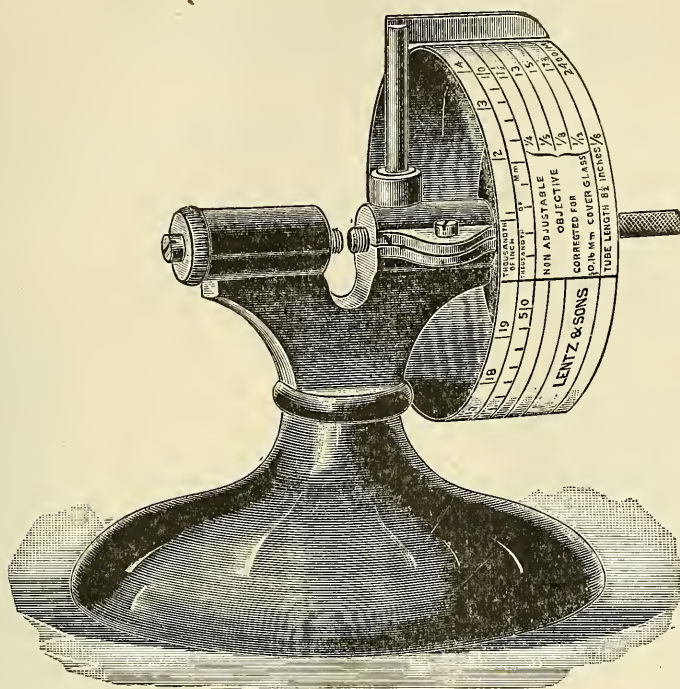


Half-size.

- |       |                     |       |
|-------|---------------------|-------|
| 5605. | Mounting table..... | \$ 80 |
|-------|---------------------|-------|

This mounting table was devised by J. M. Van Cott, Jr., adjunct Professor of Histology and Pathology at Long Island College Hospital, Brooklyn, N. Y. Its value lies in the greater facility it affords for the accurate preparation of mounted slides and above all the opportunity it gives for the study of stained sections in gross. The elevation of the section on the slide from the table admits of the greater certainty of its being thoroughly "cleared" and also gives opportunity for the study of the localized action of differential stains.

## Cover-Glass Gauge.



(Full Size.)

5606. Cover-Glass Gauge..... \$3 00

While the first purpose of this apparatus is to determine the thickness of cover-glass, it goes further, in introducing a new system of cover-glass correction by means of the draw-tube. In devising it, the object has been to provide a mechanical means for obtaining the best optical results without any possibility of doubt and it is conceded by prominent workers that it accomplishes its purpose admirably.

This instrument is provided with a stand of japaned iron; cut horizontally through the top is a thread  $\frac{1}{50}$  inch pitch and  $\frac{3}{16}$  inch outside diameter. A recess is cut in the top below the line of the screw and at right angle to it, for placing the covers. The one-half of the top of the stand, which receives the micrometer screw, is slotted longitudinally to the depth of the screw, and is provided with a set-screw to take up wear; the other half has the fixed screw, adjustable, however, for final adjustment. The end of the micrometer screw is milled, but of a smaller diameter, so that no force can be exerted so as to endanger the cover-glass. Fixed on the screw between two nuts is a brass drum with a  $\frac{1}{2}$  inch face. A knife-edge index finger is fixed to the top of the stand and projects over the top of the drum.

To the outside diameter of the drum is fixed a strip of glazed paper provided with a series of divisions. The first gives the thickness of cover-glass in one-thousandth inches, the second one-hundredth millimetre. The third indicates the proper tube length with various thickness of cover-glass with a non-adjustable  $\frac{1}{2}$  corrected under a tube length of  $8\frac{1}{2}$  inches and cover thickness of 0.16 mm.; the fourth gives the tube length of a  $\frac{1}{2}$  inch objective under the same conditions; the fifth for a  $\frac{1}{3}$ , and the sixth for a  $\frac{1}{2}$  for same conditions of tube length and cover; the seventh is for a  $\frac{1}{4}$  with the same cover and tube length of 160.0 mm.

In objectives provided with cover-correction the graduation is so arranged as to read to  $\frac{1}{100}$  mm. No matter what the power of objective or whether dry or water immersion, the number gives proper correction for a thickness corresponding to it.

Its price has been reduced to a minimum so as to put it in the power of every microscopist to have one in his possession. *It should be found on the work-table of every one possessing a microscope.*



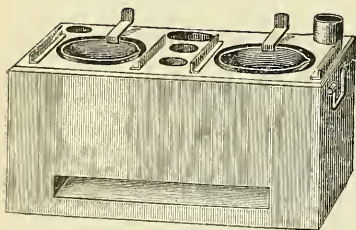
5607

5607. Jackson's Drying Board, with spring clips, for hardening one dozen balsam mountings at once.....\$1 00

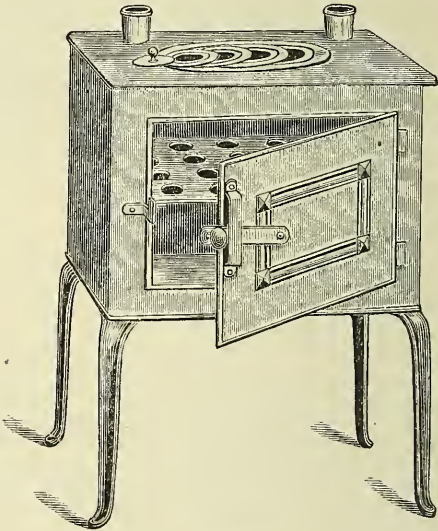


5608

5608. Nickel-plated Trowel, or Lifter, for transferring sections, etc., to slide ; with thin, small blade at end for centering objects, removing bubbles, etc..... 50



5609



5610

5609. Paraffine Bath, polished copper, tin lined, with nickel-plated copper cups ; size 3½ x 7 inch.....\$7 50

5610. Water Bath and Oven, square form, 8 x 10 inch, on 4 legs, with 4 rings for taking dishes from 1 to 3½ inch diameter..... 9 00

5611. Water Bath and Oven, square, form 10 x 12 inch, on 4 legs, with 5 rings for taking dishes from 1 to 4½ inch diameter.....12 00

Thermometer 212 F, engraved on stem, for above..... 1 50



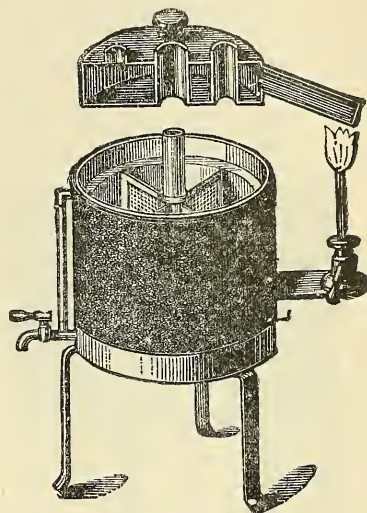
## Apparatus for the Investigation of Micro-organisms.

5612. Steam Sterilization Apparatus, as designed by Dr. R. Koch. Large size, felt covered, with stop-cock and gauge.....\$22 00  
 With thermometer..... 24 00

*Directions for using:* Fill the apparatus with water to point indicated on gauge; place the helmet on, having previously inserted in it a thermometer; apply heat, and when the thermometer has reached 100° C. (which will be indicated by escaping steam) then the material should be put in, but no sooner. The hooks on the side serve as supports for the material, or the latter is placed in the inner vessel.



5612



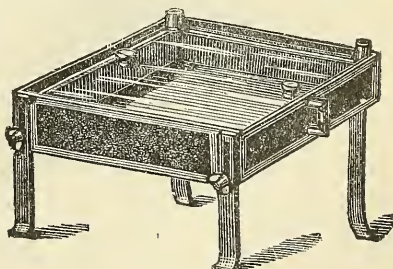
5613

5613. Steam Sterilization Apparatus, for Blood Serum, with gauge, stop-cock and felt covering.....\$24 00

*Directions for using:* Fill both, cover and apparatus with water, being careful to keep the inner space perfectly dry. By means of two burners raise the temperature to 60° C. the blood serum contained in the sterilization glasses, which have been sterilized in apparatus No. 5615 is placed in the hollow space of the apparatus, the helmet placed on, and the inner temperature raised as quickly as possible to 58° C. (consequently it is not advisable to place too many tubes in at one time). The blood serum must remain perfectly liquid, therefore the temperature must not be raised above 60° C.

5614. Apparatus for Solidifying Blood Serum, to take 50 or 100 tubes, the whole apparatus covered with felt, having glass cover and movable legs. Large.....\$24 00

*Directions for using:* The blood serum having been sterilized in apparatus No. 5613, is put in this apparatus (laying the tube in a slanting position) and heated from 65° to 75° C. The serum, as a result of this treatment, must become a transparent solid, therefore the heating has to be continued, and the tubes frequently examined, until this result has been attained. The small quantity of water which forms is allowed to remain, as it serves as Nutritive (Nährboden).



5614

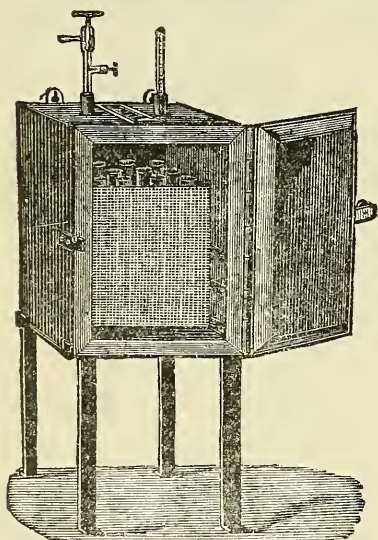
## Apparatus for the Investigation of Micro-Organisms.

5615. Double Wall Sterilization Apparatus, forsterilizing at higher temperatures. Large size, with 3 shelves, iron rod and fork to support burner, hooks to fasten against the wall, and 4 legs to set on table, complete, large.....\$30 00

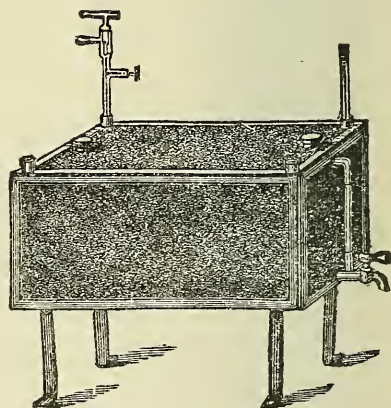
This apparatus is used to sterilize the vessels, intended to receive the matter to be worked with, viz: The receivers for the blood serum, Erlenmeyer's flasks, glass plates for the nutritive gelatine supports, etc. The sterilization tubes, closed by a stopper of pure cotton, are placed in the galvanized frame (see No. 5616), the frame is put into the apparatus and heated for one hour to 140° C.; (the cotton will carbonize slightly). The glass plates for the water investigations are placed into the covered iron box (see No. 5617), and heated as above.

The Erlenmeyer's flasks closed with cotton stoppers, are heated directly in the apparatus to 140° C.

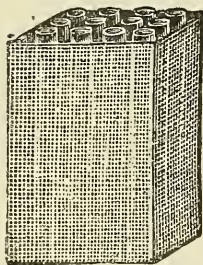
For other Sterilizers, see pages 6 and 7, of Surgical Instrument Catalogue.



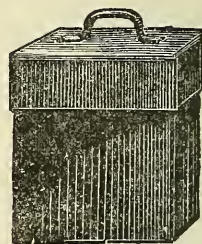
5615



5618



5616

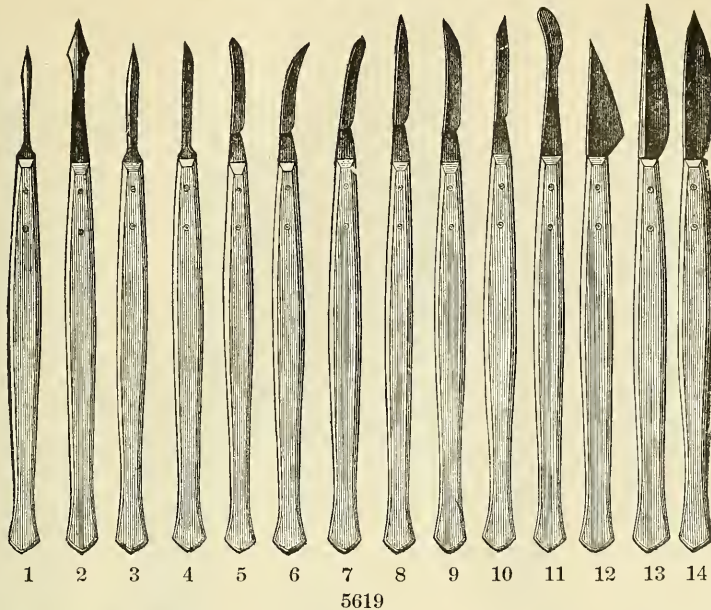


5617

5616. Basket of tinned metal for receiving the sterilization tubes, (as described in No. 5615).....each \$1 50
5617. Metal Box to receive the glass plates to be sterilized, (see No. 5615)..... " 2 50  
10 glass plates to fit..... 1 00
5618. Vegetation Apparatus of lead-lined metal, with glass and felt covering on legs, large size, complete, with water gauge and stop-cock (Thermostat and Thermometer shown in cut, extra).....36 00



## Knives, Forceps, &amp;c.



5619 Dissecting Knives, small.....each \$ 65



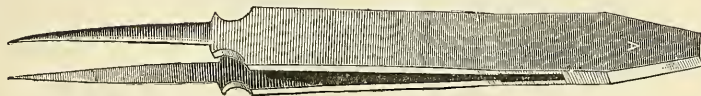
5626



5624



5622



5621



5620

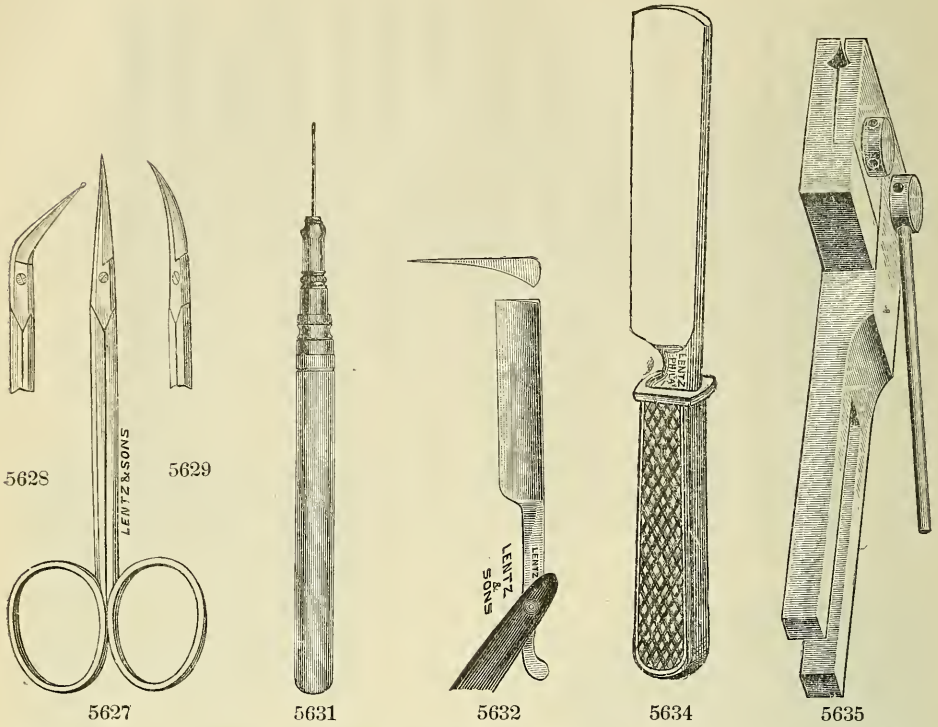
- |       |                                                                                       |             |
|-------|---------------------------------------------------------------------------------------|-------------|
| 5620. | Cover-Glass or Slide Forcep, steel, nicked, 4 inch long.....                          | each \$1 00 |
| 5621. | Steel Forceps, nickel-plated, with fine accurately meeting points; a good article.... | 40          |
| 5622. | " " 4 inch long, nickel-plated, finely finished, straight.....                        | 75          |
| 5623. | The same size as above, very delicate.....                                            | 1 00        |
| 5624. | Steel Forceps, 4 inch long, nickel-plated, curved.....                                | 75          |
| 5625. | The same style as above, very delicate.....                                           | 1 00        |
| 5626. | Steel Forceps, larger than No. 5621, delicate points.....                             | 75          |

For other Dissecting Forceps, Scalpels, etc., see page 241.

*We can furnish any special set of Dissecting Instruments in morocco leather case.*



Scissors, &c.

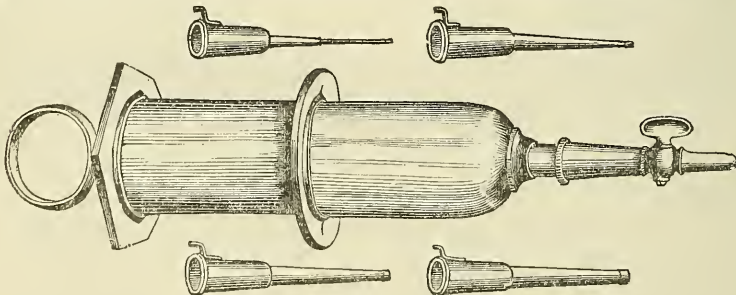


- |       |                                                                                         |        |
|-------|-----------------------------------------------------------------------------------------|--------|
| 5627. | Dissecting Scissors, very delicate, straight points.....                                | \$1 25 |
| 5628. | “ “ “ “ angular “ .....                                                                 | 1 25   |
| 5629. | “ “ “ “ curved “ .....                                                                  | 1 25   |
| 5630. | Dissecting Scissors, not as fine as above, very desirable for students in laboratories. | 50     |

For list of other scissors, see page 241.

- |                                                                                   |                                                                                      |      |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------|
| 5631.                                                                             | Dissecting Needle Holder, with binding screw, bone handle.....                       | 10   |
| 5632.                                                                             | Razor, ground flat on one side, for section cutting, keenly honed, ready for use.... | 1 25 |
| Please state whether knife is to be drawn toward the operator or pushed from him. |                                                                                      |      |
| 5633.                                                                             | Section Knife, with strong ebony handle, in morocco case, small size.....            | 3 25 |
| 5634.                                                                             | “ “ “ “ “ “ “ “ large size.. ..                                                      | 5 00 |
| 5635.                                                                             | Knife-Holder.....                                                                    | 2 50 |

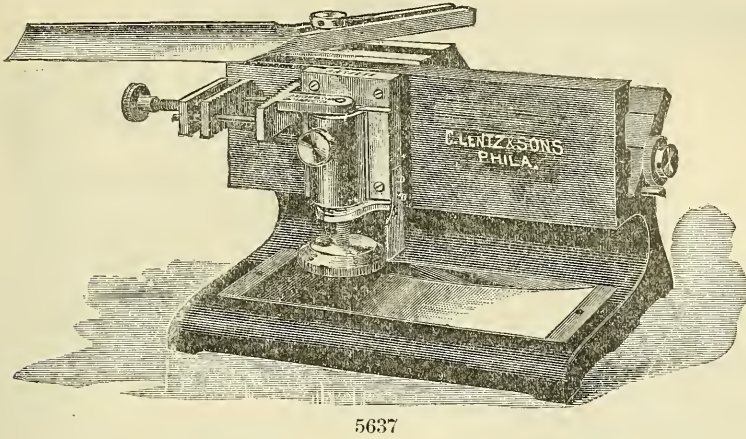
This attachment has been devised for holding other knives than those which are especially made for the microtomes. It is provided with a slot, so that it may be adjusted upon the block, and with set-screws, so that the angle of the cutting edge of the knife may be varied. The knife is firmly fixed by the thumb-screws.



5636.

- |       |                                                                                                                    |      |
|-------|--------------------------------------------------------------------------------------------------------------------|------|
| 5636. | Injecting Syringe, nickel-plated, one-half ounce capacity, with four pipes and one stop cock, in morocco case..... | 7 00 |
|-------|--------------------------------------------------------------------------------------------------------------------|------|

## Microtomes.



5637

### STUDENT MICROTOME.

|                                    |         |
|------------------------------------|---------|
| 5637. Student Microtome.....       | \$15 00 |
| 5638. Knife for same, in case..... | 3 00    |

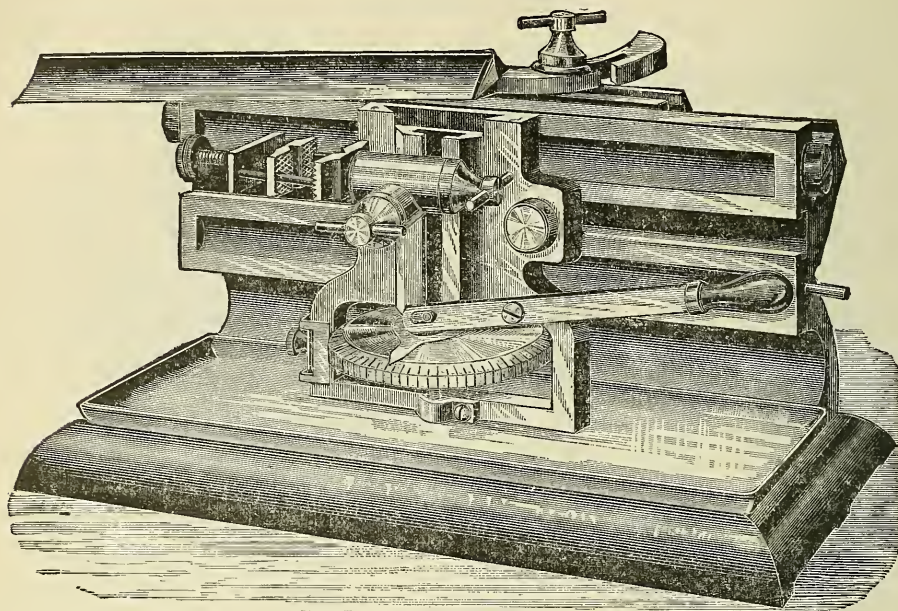
This instrument is of smaller dimensions than the laboratory, but the construction of bed, curved arm, V-shaped bed, knife carrying block and pan, is the same. The feed-screw attachment is placed at one end of the bed, and for all ordinary work the best position of clamp is as shown in cut. For serial sections it may be swung on its axis to the middle of the bed and fastened in this position.

### DIMENSIONS.

|                                              |                  |
|----------------------------------------------|------------------|
| Length of bed.....                           | 6 inches.        |
| Total height.....                            | 4 "              |
| Limit of adjustment by micrometer screw..... | $\frac{1}{2}$ "  |
| Limit of adjustment for clamp.....           | 1 "              |
| Diameter of graduated disk.....              | $1\frac{3}{8}$ " |
| Pitch of screw.....                          | $\frac{1}{50}$ " |
| Graduation of disk.....                      | 10               |
| Length of cutting edge of knife.....         | $3\frac{1}{4}$ " |

*If you are having any trouble in Cutting Sections, send us your knife, as we are makers of microtome knives, and know how to HONE them properly.*

## Microtomes.



5639

## LABORATORY MICROTOME.

|       |                                                                                                             |         |
|-------|-------------------------------------------------------------------------------------------------------------|---------|
| 5639. | Laboratory Microtome, No. 1, without knife.....                                                             | \$38 00 |
| 5640. | Knife for same, in morocco case.....                                                                        | 10 00   |
| 5641. | Both, when taken together.....                                                                              | 47 50   |
| 5642. | Laboratory Microtome, No. 2, without knife.....                                                             | 32 50   |
| 5643. | Knife for same, in morocco case,.....                                                                       | 8 00    |
| 5644. | Both, when taken together.....                                                                              | 40 00   |
| 5645. | Polished Case, with lock and key, a strap for carrying, and removable cover, for<br>either size, extra..... | 2 50    |

A pamphlet giving complete instructions in preparing, cutting, staining and mounting specimens, and on the manipulation of the microtome, has been specially written for us by Dr. J. E. Reeves, and accompanies each instrument. Separate copies.....each 50

Since attention was first drawn to mechanical microtomes, we have given the subject particular study and have had the benefit of suggestions from men who from long experience were most capable of giving them. We have taken advantage of every possible opportunity for improvement, and are giving every possible care to the details of construction and nicety of fittings which is requisite in an instrument of this character. Every instrument is carefully tested with the individual knife which accompanies it, and must work with absolute accuracy and reliability the full extent of the feed-screw before it is sent out. In almost all institutions in this country where microtomes are used, they are of our manufacture, and the quality of work done with them is of the highest order.

While for individual work the large instruments have not been generally used on account



of the expense, we have endeavored to overcome this objection by providing an instrument in the Student microtome which, while simplified to the utmost without sacrificing the really necessary work, and which is thus less pretentious, is thoroughly efficient and convenient as well as low in price. A large number of these have been supplied to the United States army, and individuals as well as schools, and are giving complete satisfaction. On account of the character of the work done on these instruments, lacquered brass is not suited to them. We therefore use iron for its rigidity as much as possible, and nicely finish it by japanning, while brass is used for the delicate parts and highly polished and nickel-plated.

In the course of years we have found that the Section Cutters formerly made by us and other manufacturers are totally unsuited to modern requirements. We have therefore ceased to make them and have replaced them by new instruments which we shall hereafter class under the head of microtomes, and which are described under their proper head.

Razors with thin cutting edges are not suited to this work; others will give fair results, but the most satisfactory work is always accomplished with knives which are specially made for this purpose. Those which we furnish with the Laboratory and Student have curved handles with slots, so that any part of the cutting edges or their entire length may be used; the slots, unlike those in European knives, are open at the ends thus making them doubly rigid.

---

### DESCRIPTON AND DIMENSIONS.

The base, curved arm, upright and V-shaped beds are made of one continuous casting, thus insuring extreme rigidity, without excessive weight. The knife carrying block is fitted in the angular way in such a manner that the knife moves steadily through it without deviating from its plane and without requiring any extra pressure. Stop-screws with soft rubber cushions are fastened at the ends of the way, which serve to overcome any sudden concussions, and thus prevent a vibration of the knife. The upper surface of the block is provided on its entire length with a grooved slot, to which is fitted a sliding thumb-screw, so that the knife may be fastened at any point upon it.

The front vertical bed is planed and polished, and is arranged with a grooved slot its full length. The adjustable carriage is fitted to it, and may be securely fastened at any point upon it by means of two heavy screws. The tightening pin for these, when not in use, has a receptacle in the solid bed. It will thus be seen that whether it is desired to make a straight or very oblique cut, the carriage with object may be placed at such a point where it is the most convenient in relation to the cutting edge.

To the carriage are directly fitted the micrometer screw with graduated disk and a slide which is acted upon by the former. A provision is made for taking up the possible wear on the screw. At one side of the carriage a spring is attached which works in the grooves on the edge of the disk with a pronounced click, so that the feed may be controlled without watching it; this may be loosened so that it will not act when it is desired to use the index only. A lever with ivory handle is connected with the slide in the large size, so that this may be returned after the screw has come to the limit of its motion.

The slide is provided with a grooved slot, which admits of the quick verticle adjustment of the universal joint and clamp for specimens of different lengths. The universal joint permits inclination in any direction, and the clamp is arranged in such a manner (*not shown in cut*) that it swings on an axis and may be independently adjusted for height, thus giving five different adjustments for the specimens.

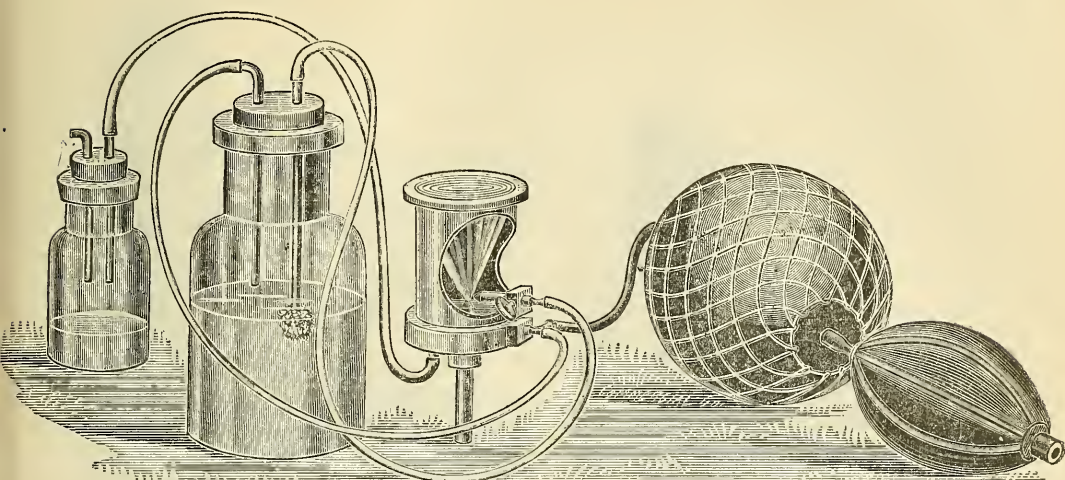
A nickel-plated drip-pan is countersunk in the upper surface of the bed, and is easily removable for the purpose of cleaning.

## No. 1.

|                                              |                  |         |
|----------------------------------------------|------------------|---------|
| Length of bed.....                           | 10               | inches. |
| Total Height.....                            | 6                | "       |
| Limit of adjustment by micrometer screw..... | $\frac{3}{4}$    | "       |
| "    "    "    for clamp.....                | $1\frac{1}{2}$   | "       |
| Diameter of graduated disk.....              | $3\frac{1}{2}$   | "       |
| Pitch of screw.....                          | $\frac{1}{50}$   | "       |
| Graduation of disk.....                      | 80               |         |
| Finest degree of feed, by click.....         | $\frac{1}{4000}$ | "       |
| Length of cutting edge of knife.....         | 6                | "       |

## No. 2.

|                                              |                  |   |
|----------------------------------------------|------------------|---|
| Length of bed.....                           | $7\frac{1}{2}$   | " |
| Total height.....                            | 5                | " |
| Limit of adjustment by micrometer screw..... | $\frac{1}{2}$    | " |
| "    "    "    for clamp.....                | $1\frac{1}{4}$   | " |
| Diameter of graduated disk.....              | 3                | " |
| Pitch of screw.....                          | $\frac{1}{50}$   | " |
| Graduation on disk.....                      | 40               |   |
| Finest degree of feed, by click.....         | $\frac{1}{2000}$ | " |
| Length of cutting edge on knife.....         | 4                | " |



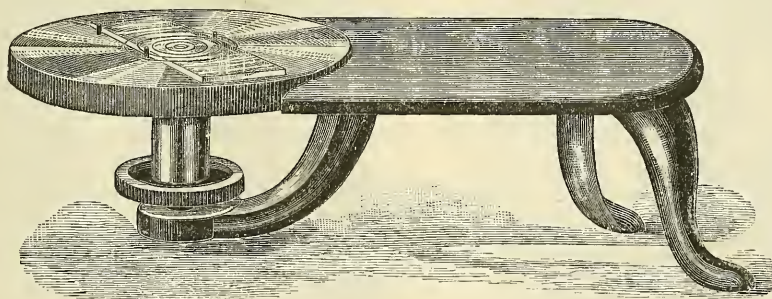
5646

5646. Freezing Attachment.....\$9 00

This attachment consists of nickel-plated cylinder with atomizer, and is fastened in the place of the clamp. The object to be frozen is placed upon it. The bottle for fluid is connected on one side with the atomizer, on the other with the pressure regulating bladder and hand-bulb. Objects may be frozen with it in from one to three minutes, and may be easily kept in this condition. This method of freezing commends itself for effectiveness, cleanliness and economy in time. Ether or Rhigolene may be used.

(Adaptable to our Student and Laboratory Microtomes, but as fittings vary, state when ordering for which instrument it is needed.)

- We have in preparation a new Freezing Attachment which will be more simple in construction than above and will cost about..... 7 00



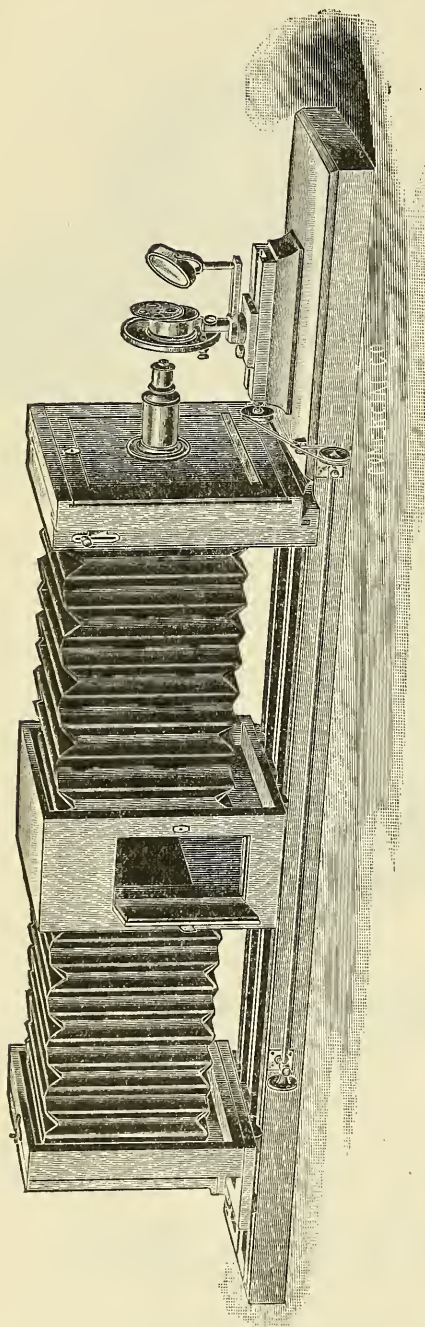
5649

5647. Turn-Table, "National".....\$2 50  
 5648. " " same, with detachable hand-rests..... 3 00  
 5649. " " "National," centering..... 3 50

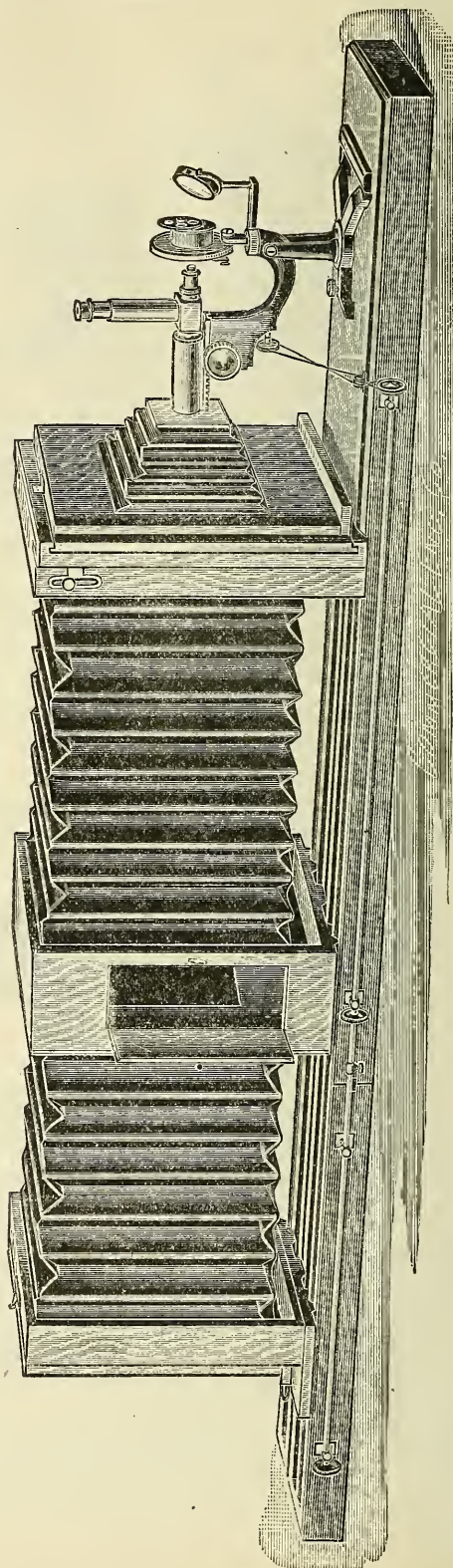
The centering arrangement of this turn-table consists of three stops, against which the slide is placed and is held in position by the spring clips. Although not strictly centering, it is approximately so on the usual slide, and, for all ordinary purposes, quite efficient.

5650. Same, with detachable hand-rests..... 4 00  
 5651. Turn-Table, self-centering with hand-rests. The advantage which this turn-table has over others, is, that glass slips of the various standard sizes used, can be centered thereon..... 6 00





5653



5657

## Improved Photo-Micrographic Camera.

### SMALL SIZE.

The camera portion of this apparatus is in general construction the same as the large size described on page 388, except that the size is  $4\frac{1}{4} \times 5\frac{1}{2}$  inch, and that the front is so arranged that  $4 \times 5$  plate in kit can be adjusted directly to the same, which in the case of the large size, using  $6\frac{1}{2} \times 8\frac{1}{2}$  inch plate would require the use of the plate holder. Kits  $3\frac{1}{4} \times 4\frac{1}{4}$  and  $4 \times 5$  accompany this outfit. The microscope attachment is simple; the tube to receive objective is fastened directly to the front board, and is arranged with draw-tube to receive eye-piece if such is required to be used. The coarse adjustment is effected by sliding the stage of mirror-bar upon a solid base and is focused at any point by a screw with pin. The fine adjustment is contained in the base plate, and is acted upon by a micrometer screw at the back and the connecting rod as shown.

The camera bellows when drawn out have an extension of 2 feet 6 inch. Microscope attachment the same as No. 5657 can also be applied to this camera.

|       |                                                                          |         |
|-------|--------------------------------------------------------------------------|---------|
| 5652. | Improved Photo-Micro Camera, small size, (no microscope attachment)..... | \$30 00 |
| 5653. | “ “ “ “ as described above and as shown in cut.....                      | 42 00   |
| 5654. | “ “ “ “ with microscope attachment, same as No. 5657.....                | 65 00   |

New rectangular tube with prism, can be fitted to any microscope or camera, extra, 10 00

Fitting other microscopes than our own to camera, extra, according to the amount of work involved.

Revolving stage, with removable spring clips, extra..... 5 00

Glass stage, with slide carrier, which slips over either plain or revolving stages, extra..... 5 00

Mechanical stage No. 5484, in place of the regular, extra..... 18 00

Graduated mirror bar, with mirror and sub-stage (both adjustable), same as used on Investigator, in place of one accompanying stand, extra..... 5 00

Abbe Condenser, 1.20 N. A., in mounting No. 5466, extra..... 14 00

“ “ 1.42 “ “ “ “ 5466, “ ..... 16 00

“ “ Achromatic, 1.0 N. A., in mounting No. 5466, extra..... 26 00

## Improved Photo-Micrographic Camera.

### LARGE SIZE.

This camera is designed for photo-micrographic, copying, enlarging and reducing work. The camera sections are made of mahogany highly finished, bellows of rubber and well made. The camera slides on V-shaped ways; the sections have clamps, thus allowing each to be fastened at any point upon the bed and insuring extreme firmness. The centre section is arranged to receive front board for rectilinear lens. The front of the camera has adjustment in two directions (rising and falling front and side movements); plate-holder can either be used in the front or the back of the camera, as the case may require. The ground glass is removable and cover glass is cemented to the matted surface of the same to allow of more delicate focusing. Alongside of the bed the focusing rod is attached, which is separable at the junction of the two sections of the bed; by means of a clamping screw the connection of the rod can easily be made.

The size of plate is  $6\frac{1}{2} \times 8\frac{1}{8}$  inch. Kits  $3\frac{1}{4} \times 4\frac{1}{4}$ ,  $4 \times 5$  and  $4\frac{1}{4} \times 5\frac{1}{2}$  accompany the outfit. The plate-holder is single and reversible.

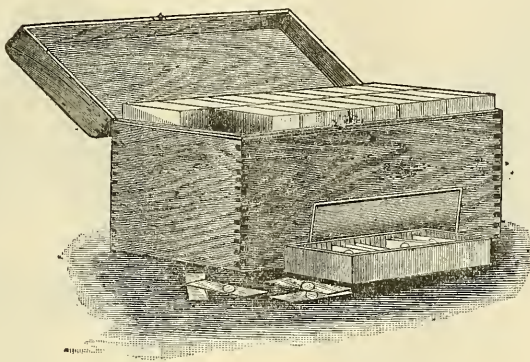
The microscope attachment consists of our Favorite stand (see description page 331) having draw-tube, thus giving short and long standard of tube length in cases where eye-pieces are used. A valuable feature in connection with the microscope is our new rectangular tube carrying a prism in mounting, which is attached to the nosepiece. By raising or lowering the latter, the prism is brought in or out of the field of the image circle. In the case of the former the object is plainly visible in the eye-piece, and may be centered at will and light adjusted, by withdrawing the tube all light is excluded and the object can be focused on the ground glass of the camera. The microscope is fastened to the bed by cleats and thumb-screw, and is easily removable when the attachment is not required. The camera bellows when drawn out have an extension of 3 feet 6 inch.

Microscope attachment as No. 5653 can also be applied to this camera.

|       |                                                                                     |         |
|-------|-------------------------------------------------------------------------------------|---------|
| 5655. | Improved Photo-Micro Camera, large size, (no microscope attachment).....            | \$40 00 |
| 5656. | “ “ “ “ with microscope attachment, same as No. 5653.....                           | 52 00   |
| 5657. | “ “ “ “ “ “ “ as described above,                                                   |         |
|       | and shown in cut, including Continental eye-piece (any power).....                  | 75 00   |
|       | New Rectangular Tube, with prism, can be fitted to any microscope or camera,        |         |
|       | extra.....                                                                          | 10 00   |
|       | Fitting other microscopes than our own to camera, extra, according to the amount    |         |
|       | of work involved.                                                                   |         |
|       | Revolving stage, with removable spring clips, extra.....                            | 5 00    |
|       | Glass stage, with slide carrier, which slips over either plain or revolving stages, |         |
|       | extra.....                                                                          | 5 00    |
|       | Mechanical stage No. 5484, in place of the regular, extra.....                      | 18 00   |
|       | Graduated mirror bar, with mirror and sub-stage (both adjustable), same as used     |         |
|       | on Investigator, in place of one accompanying stand, extra.....                     | 5 00    |
|       | Abbe Condenser, 1.20 N. A., in mounting, No. 5466, extra.....                       | 14 00   |
|       | “ “ 1.42 N. A., “ No 5466, “ .....                                                  | 16 00   |
|       | “ “ Achromatic, 1.0 N. A., in mounting No. 5466. extra.....                         | 26 00   |



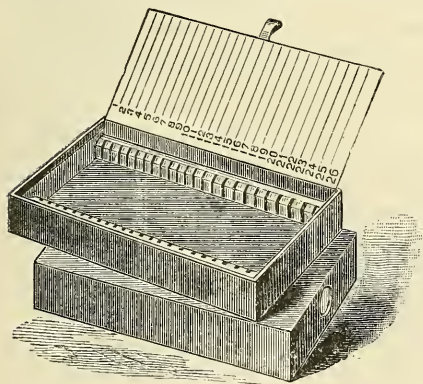
## Boxes and Cabinets for Objects.



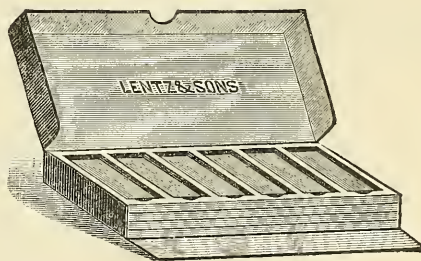
5660

5658. Pillsbury box, white wood, for 25 objects, each space numbered, with index.....\$ 1  
 5659. Portable Cabinet, Pillsbury's, containing 10 boxes, for 250 slides..... 3 00  
 5660. " " " " 20 " " 500 " ..... 4 00

The Pillsbury Cabinet consists of a finely polished cherry case, with lock, containing 10 or 20 boxes, with racks to receive 25 slides each. When the boxes are in place in the cabinet, the slides lie horizontally. The top (or end) of each box is provided with an index, and on the bottom of the box, inside, is a corresponding number to show the proper location of each slide. The boxes may also be furnished singly.



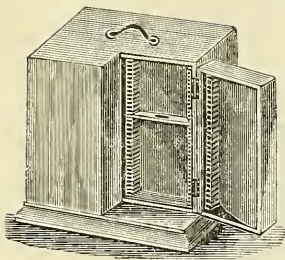
5661



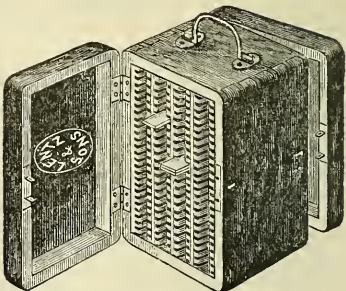
5662

5661. Cloth-covered Slide Box, to hold 25 objects, of stout card-board, with lid and sliding cover, having ruled and numbered index printed on fine linen paper on inside of lid. It is covered with dark-green book-binder's cloth, and is made in the neatest and most substantial manner.....\$ 35  
 5662. Pocket Cabinet, cloth-bound, with 4 trays, holding 24 objects; very neat..... 50  
 5663. Portable Cabinet, of whitewood, 4 trays, holding 24 objects..... 1 00

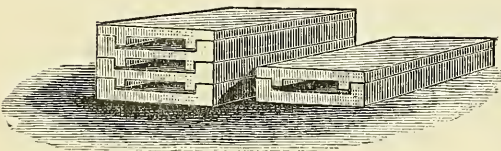
Cabinets.



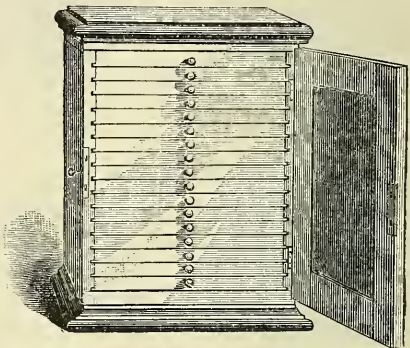
5664



5665A.



5666



5667

5664. Portable Cabinet, of walnut, with racks, holding 200 objects, shellac finish, with brass handle ; a compact and excellent cabinet.....\$4 50
5665. Portable Cabinet, handsomely polished, mahogany or walnut, with racks, holding from 200 to 400 objects, (the latter number, if slides are placed back to back, which can generally be done except where the objects are mounted in deep or large cells) ; each row is numbered in order to make index of each slide contained therein ; with strong handle and locks..... 7 00
- 5665 A. The above without being numbered..... 5 00
5666. The new mailing case here illustrated is designed to supply a demand for some safe and cheap means of packing one or more microscope slides for mailing. The entire device comprises three differently shaped pieces of wood so formed that two, three, or more may be put together as shown in the cut. For one slide the two pieces are used, for two slides three pieces, and so on to any convenient number. Every dozen tops and bottoms is accompanied with twenty-four strips of gummed paper which may be used on the edges to secure the pieces before wrapping for mailing. If one slide is to be sent the strips may be gummed lengthwise on the edges. If centers are used for more slides the strips may be used to pass around on to top and bottom. The use of these gummed strips as described does not constitute a sealed package, as the slide may be removed and replaced without injury, but the slight shrinking of the moistend paper in drying pinches the slide sufficiently to hold it securely.
- |                           |    |
|---------------------------|----|
| Price per dozen Tops..... | 06 |
| “ “ “ Bottoms.....        | 06 |
| “ “ “ Centers.....        | 06 |
5667. Polished mahogany cabinet, with raised ledges in each drawer to allow of the easy removal of objects for 350 slides, 17 drawers, with lock.
- This cabinet is handsomely finished and is very suitable for Physician's Office..... 16 00

## Microscopical Specimens.

5668. Urinary Deposits, per dozen, \$6.00; each, 60 cents.

|                                  |                                  |
|----------------------------------|----------------------------------|
| Carbonate of Lime, Horse.        | Triple Phosphate, in Rheumatism. |
| “ “ Man.                         | “ “ in Ulceration of Knee-Joint. |
| Chloride of Sodium.              | Tyrosine.                        |
| Cholesterine.                    | Urate of Ammonia.                |
| Creatinine.                      | “ Lime.                          |
| Cystine, or Cystic Oxide.        | “ Magnesia.                      |
| Hippuric Acid.                   | “ Soda.                          |
| Leusine.                         | Urea.                            |
| Murexide.                        | Uric Acid from Boa Constrictor.  |
| Nitrate of Urea.                 | “ “ “ Man.                       |
| Oxalate of Lime, Dumb-bell form. | “ “ “ Fusiform.                  |
| “ “ Ellipsoidal “                | Uric Acid from Man, Rectangular. |
| “ “ Octahedral “                 | “ “ Rhombic.                     |
| “ of Urea.                       | “ in Cirrhosis of Liver.         |
| “ of Ammonia.                    | “ in Congestion of Lungs.        |
| Phosphate “ amorphous.           | “ in Dysentery.                  |
| Phosphate of Lime.               | “ in Eczema.                     |
| Sugar in Diabetes.               | “ in Gastralgia.                 |
| “ of Milk.                       | “ in Gastric Fever.              |
| Taurine.                         | “ in Gout.                       |
| Triple Phosphate, Rhombic.       | “ in Hæmaturia.                  |
| “ “ Stellate.                    | “ in Pneumonia.                  |
| “ “ in Catarrh of Bladder.       | “ in Rheumatism (Acid).          |
| “ “ in Hepatitis.                | “ in Rheumatic Endocarditis.     |
| “ “ in “ (Syphilitic).           | “ “ Fever.                       |
| “ “ in Hip-Joint Disease.        | “ “ Gout.                        |
| “ “ in Paralysis.                | “ “ Pericarditis.                |
| “ “ in Renal Calculus.           | “ in Scurvy.                     |

Tube Casts, \$1.00.

5669. Blood Discs, per dozen, \$6.00; each, 60 cts.

|                |                             |
|----------------|-----------------------------|
| Amphiuma.      | Salmon.                     |
| Bat.           | Sheep.                      |
| Camel.         | Slow-worm.                  |
| Canary.        | Mouse.                      |
| Cat.           | Newt.                       |
| Dog.           | Rabbit.                     |
| Domestic Fowl. | Rat.                        |
| Eel.           | Rhinoceros.                 |
| Hedge-hog.     | Sheep.                      |
| Horse.         | Wolf.                       |
| Lepidosiren.   | Sparrow.                    |
| Man.           | Sturgeon.                   |
| Monkey.        | Swallow.                    |
| Mouse.         | Toad.                       |
| Ostrich.       | Triton.                     |
| Ox.            | White Mouse.                |
| Pigeon.        | Hæmatoecrystallin.          |
| Salamander.    | From Human Blood, (75 cts.) |

5670. Spermatozoa, per dozen, \$6.00; each, 60 cts.

|           |              |
|-----------|--------------|
| Dog.      | Boar.        |
| Elephant. | Bull.        |
| Fish.     | Camel.       |
| Goat.     | Deer.        |
| Horse.    | Man, 75 cts. |
| Ass.      |              |

5671. Tumors, per dozen, \$6.00; each, 60 cts.

|                          |              |
|--------------------------|--------------|
| Fibroma.                 | Myxoma.      |
| Asteoma.                 | Chondroma.   |
| Sarcoma, round celled.   | Myoma.       |
| Sarcoma, spindle celled. | Papilloma.   |
| Carcinoma (hard.)        | Adenoma.     |
| “ (soft.)                | Epithelioma. |



## Histological Preparations.

5672. Injected, Stained, or both Injected and Stained, each, 75 cts; per dozen, \$7.50.

|                                                                                    |                                                                                 |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Artery, Human.                                                                     | Ovary, Human Child.                                                             |
| Bladder, " "                                                                       | Pancreas, Human.                                                                |
| Bone, (Femur), Human.                                                              | Parotid Gland, Human.                                                           |
| "    "    "    Fœtal.                                                              | Penis, Human, Child.                                                            |
| "    (Parietal), " "                                                               | "    Rat.                                                                       |
| Brain, (Cerebellum), Human.                                                        | Placenta, Human.                                                                |
| "    (Cerebrum), " "                                                               | Prostate Gland, Human.                                                          |
| "    (Medulla oblongata), Human.                                                   | Scalp, Human, Caucasian.                                                        |
| "    (Pons Varolii), Human.                                                        | "    "    vertical section, double-stained, very fine, \$1.00.                  |
| Cartilage, yellow fibrous, Ear of Cow.                                             | Scalp, Human, Caucasian, horizontal-section, double-stained, very fine, \$1.00. |
| "    Human, from Sternum.                                                          | Scalp, Human, Negro.                                                            |
| "    "    Fœtal.                                                                   | Skin, Frog, showing pigment cells.                                              |
| "    cellular, Ear of Mouse.                                                       | "    Human, African, showing pigment cells.                                     |
| Crystalline lens, showing ultimate fibre.                                          | "    "    vertical section, showing sweat ducts, etc.                           |
| Cuticle, Human.                                                                    | Spinal Cord, Cat.                                                               |
| Epithelium, Human, from Mouth.                                                     | "    "    Human, Longitudinal Section.                                          |
| Eyelid, Human.                                                                     | "    "    "    Transverse Section.                                              |
| Finger-Nail, Human.                                                                | Spleen, Human.                                                                  |
| Hoof, Horse.                                                                       | Stomach, " "                                                                    |
| "    Sheep.                                                                        | "    "    double-stained, very fine, \$1.00                                     |
| Horn, Buffalo.                                                                     | Sub-lingual Gland, Human.                                                       |
| "    Rhinoceros.                                                                   | Sub-maxillary Gland, " "                                                        |
| Pneum, Rabbitt, mucous membrane.                                                   | Supra-renal Capsule, " "                                                        |
| "    Bear, Transverse Section.                                                     | Tendon, Human, Transverse.                                                      |
| Kidney, Cat.                                                                       | "    "    Longitudinal.                                                         |
| "    Human, Adult.                                                                 | Testicle, Cat.                                                                  |
| "    "    Child.                                                                   | "    Human, Adult.                                                              |
| "    Adult, doubly injected, and stained, very handsome, \$1.00.                   | "    "    Child.                                                                |
| Larynx, Human, Infant.                                                             | Thymus Gland, Human.                                                            |
| Liver, Cat.                                                                        | Thyroid " "                                                                     |
| "    Human.                                                                        | Tongue, Cat.                                                                    |
| Lung, " " Fœtal.                                                                   | "    Human.                                                                     |
| "    "    Adult.                                                                   | Tooth, Human, (Incisor), Longitudinal Section.                                  |
| "    "    vessels injected with two colors, air-cells inflated, very fine, \$1.00. | "    "    "    Transverse Section.                                              |
| Lymphatic Gland, Human.                                                            | "    "    (Molar), Longitudinal Section.                                        |
| Mammary " " quiescent.                                                             | "    "    "    Transverse Section.                                              |
| "    "    "    in Lactation.                                                       | Umbilical Cord, Human.                                                          |
| Muscle, Human, voluntary.                                                          | Uterus, Human, Adult.                                                           |
| "    "    involuntary.                                                             | "    "    Infant.                                                               |
| Optic Nerve, Human, transverse.                                                    | Whalebone.                                                                      |
| Ovary, Cat.                                                                        | Yellow Elastic Tissue, Neck of Cow.                                             |
| "    Human, Adult.                                                                 |                                                                                 |

5673. Bacteria, Bacilli, Micrococci (Pathogenic and Innocuous Microbes), Stained. Each, 85 cents; per dozen, \$9.00.

|                                                                             |                                                                     |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------|
| Achorion schoenleini (favus), from head.                                    | Gonococcus, Neisser (of gonorrhœa).                                 |
| Actinomyces bovis, ox.                                                      | Micrococcus prodigiosus, culture.                                   |
| Bacillus acidi-lactici (of sour milk).                                      | "    septicæmiæ, culture.                                           |
| "    anthracis (of charbon, carbuncle, anthrax), culture.                   | "    urææ (of ammoniacal fermentation of urine).                    |
| Bacillus anthracis, in section of spleen.                                   | Micrococcus of diphtheria, in section of trachea.                   |
| "    butyricus (of rancid butter).                                          | "    of vaccine virus (animal lymph).                               |
| "    cyanogenes (of blue milk).                                             | Oidium albicans, " thrush," mouth.                                  |
| "    Löffler's (of diphtheria).                                             | Pneumococcus (Friedländer), of pneumonia.                           |
| "    malleus (of glanders).                                                 | "    (Frankel), of pneumonia, cerebro-spinal meningitis, etc.       |
| "    œdemæ (of malignant œdema).                                            | Sarcina ventriculi.                                                 |
| "    pyocyaneus (of green pus).                                             | Spirillum of relapsing fever.                                       |
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| "    of cancer (Scheuerlein), culture.                                      | Streptococcus erysipelatis (of erysipelas) culture.                 |
| "    of leprosy, in section of skin.                                        | Streptococcus pyogenes (of pus).                                    |
| "    of rouget (hog erysipelas).                                            |                                                                     |
| "    of tetanus, (Kitasato).                                                |                                                                     |
| Bacterium termo.                                                            |                                                                     |

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Femur, Round-celled Sarcoma.  
Frontal, Spindle-celled Sarcoma.  
Scapula, Alveolar Sarcoma.

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Encephaloid Cancer.  
Cerebellum, Locomotor Ataxia.  
Cerebrum, Acute Inflammation.  
Cerebrum, Atrophy.  
“ General Paralysis  
“ Meningitis.  
“ Softening.  
Medulla Oblongata, Diabetes.  
Medulla Oblongata, Locomotor Ataxia.  
Medulla Oblongata, Myelitis  
Pons Varolii, Diabetes.  
“ “ General Paralysis.  
Pons Varolii, Locomotor Ataxia.

### BREAST—

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“ Recurrent Fungoid

### EYE—

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Melanotic.

### HAND—

Epithelioma.  
Round-celled Sarcoma.

### HEART—

Fatty Degeneration.  
“ Infiltration.  
Fibroid Degeneration.

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Inflammation.  
Tubercle.  
Ulceration, Typhoid.

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Epithelioma.  
Fibroid Cyst.  
Tumor, Myeloid.

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Atrophy.

Amyloid,  
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Cirrhotic and Amyloid.  
Fatty.

Embolism.  
Gouty or Red Degeneration.  
Hypertrophied.  
Indurated.  
Medullary Cancer.  
Nephritis, Acute. (Desquamative, Scarlet Fever, etc.)  
Nephritis, Chronic. (Suppurative, etc.)

### KNEE—

Osteo-Sarcoma.

### LIP—

Epithelioma.

### LIVER—

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“ and Fatty Degeneration.  
Cancer and Cirrhosis.  
Carcinoma.  
Cirrhosis.  
Fatty Degeneration.  
Indurated with Atrophy of Lobules.  
Nutmeg.  
Red Atrophy.  
Syphilitic.

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Catarrhal Pneumonia.  
Croupous “  
Emphysema.  
Hæmorrhagic Pneumonia.  
Melansarcoma.  
Miliary Tubercle.  
Phthisis.  
Pleurisy.  
Pneumonia.  
Pyæmic Tuberculosis.  
Saw-grinder's.  
Tubercle.

### LYMPHATIC GLAND—

Carcinoma.  
Chronic Inflammation.  
Spindle-celled Sarcoma.

### MUSCLE—

Inflamed.  
Trichinous.

### NECK—

Simple Lymphadenoma.

### OVARY—

Cancer.  
Dermoid Tumor.

### PANCREAS—

Carcinoma.

### PENIS—

Epithelioma.  
Prepuce, chancre.

### PROSTATE GLAND—

Enlarged.

### SCALP—

Recurrent Sarcoma.

### SKIN—

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Inflamed.  
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Pityriasis.  
Scarlet Fever.  
Small-Pox, Hæmorrhagic.  
“ Simple.

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“ Round-celled.

### THIGH—

Papilloma.

### THYROID GLAND—

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### TONGUE—

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Ulee.

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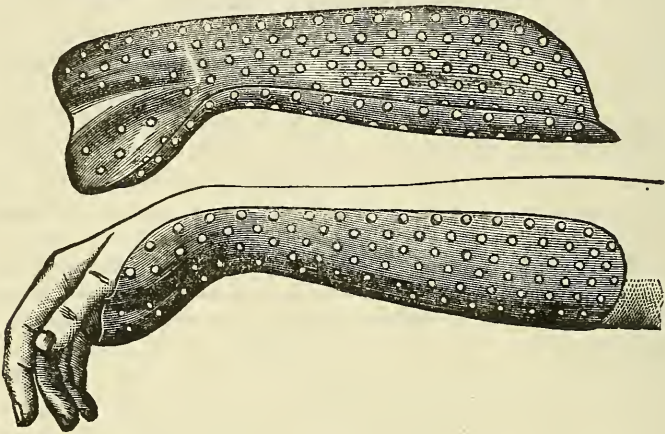
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Four in each Set.....\$1 00 for each piece.

FOR FRACTURE OF LOWER END OF THE RADIUS.



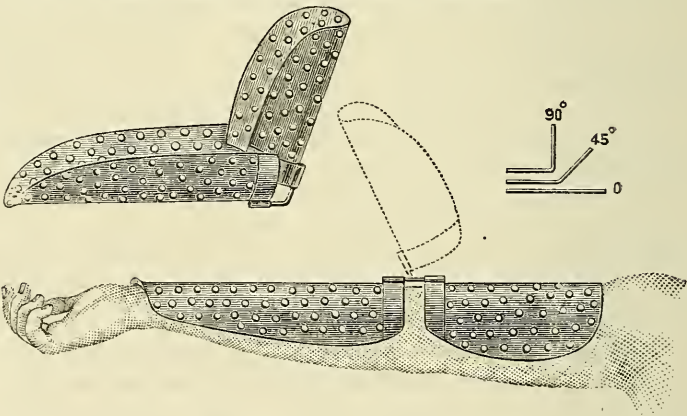
6001

6002.\* No. 2. ADJUSTABLE ANGULAR SPLINT.

This Splint can be applied either anteriorly or posteriorly, and is conformable and adjustable to any angle.

The pieces are detachable, and can be used separately.

This Splint is also applicable to diseases and to resections of the Elbow Joint.



6002

For all Fractures of the Elbow Joint, and of the Arm and Forearm, excepting those of the lower end of the Radius.

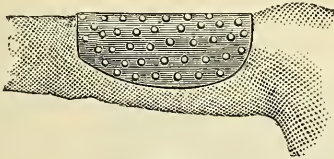
Two in each Set.....\$1 50 each.

*All Splints Illustrated are designated by a \*.*

## Splints.

### 6003.\* No. 3. HUMERUS SPLINT.

Two in each Set.....50 cents each.



6003

For Fractures of the Humerus.

### 6005.\* No. 5. CLAVICLE SPLINT.

Two in each Set.....75 cents each.

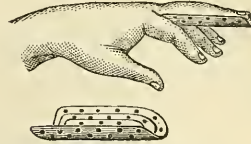


6005

This Splint forms a cap for the shoulder, and can be applied to fractures of the clavicle and humerus.

### 6004.\* No. 4. PHALANGES SPLINTS.

Three in each Set.....15 cents each piece.

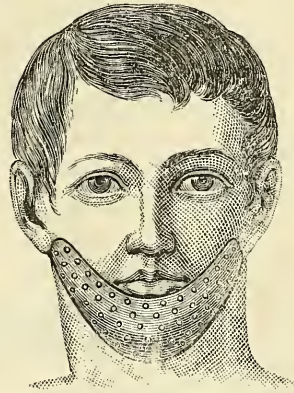


6004

For Fractures of Fingers or Toes.

### 6006.\* No. 6. MAXILLA SPLINT.

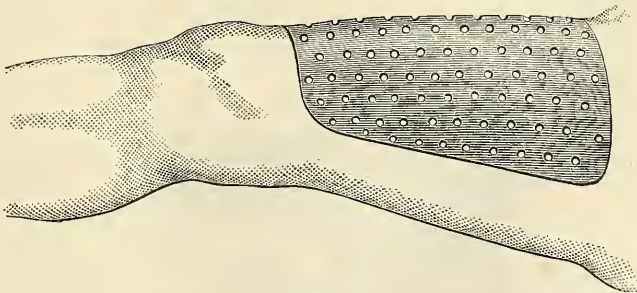
Two in each Set.....75 cents each.



6006

This Splint forms a complete cap or covering for the entire chin and lower maxillary bones, and keeps the fractured parts rigidly in the correct position.

### 6007.\* No. 7. FEMUR SPLINT.



6007

Two in each Set.....50 cents each.

For Fracture of Femur, Ribs and Hip Joint.

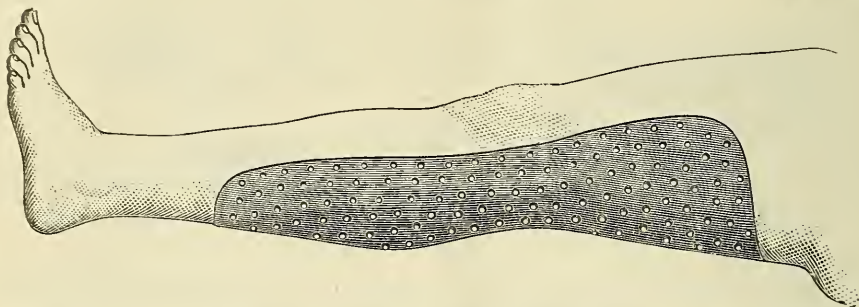
*All Splints Illustrated are designated by a \*.*



## Splints.

### 6008.\* No. 8. PATELLA SPLINT.

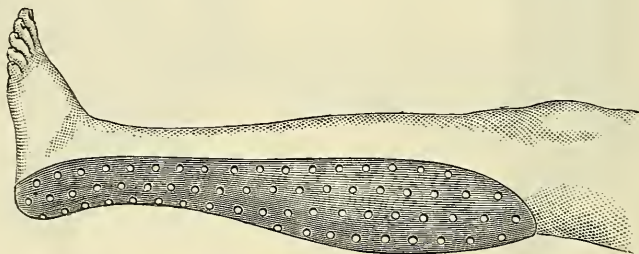
Two in each Set.....\$1 00 each.



This Splint can be applied to all Fractures from middle of Femur to middle of Tibia and Fibula, and is particularly well adapted for Fractures of the Patella and all other Fractures occurring near the Knee Joint, either above or below it.

### 6009.\* No. 9. TIBIA AND FIBULA SPLINT.

Two in each Set.....\$1 00 each.



For all Fractures and other injuries of the Leg below the Knee, and especially adapted for those at or about the Ankle Joint.

This Set consists of twenty-one pieces, just described, in a neat, compact case, with handle.....\$15 00

### LEE'S SET OF INFANTS' SPLINTS.

This set consists of eleven pieces, and is only intended for Infants of three years of age and under. They are made in the same shapes as the larger Set, No. 1 being made in Rights and Lefts, and all the other shapes made to fit the same on either limb.



For prices, see next page.

*All Splints Illustrated are designated by a \*.*

## Splints.

### PRICES OF THE DIFFERENT PIECES.

|                  |             |                  |             |
|------------------|-------------|------------------|-------------|
| No. 1—Price..... | \$ 75 each. | No. 5—Price..... | \$ 50 each. |
| " 2— " .....     | 1 00 "      | " 6— " .....     | 50 "        |
| " 3— " .....     | 25 "        | " 7— " .....     | 25 "        |
| " 4— " .....     | 10 "        | " 8— " .....     | 75 "        |
| No. 9—Price..... |             | 75 cents each.   |             |

Above Set contains Eleven Pieces, put up in a Walnut Case, Price.....\$5 00

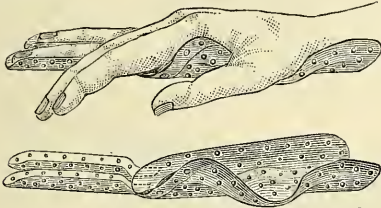
This Infant Set will never be included in the Regular Adult and Children Set, unless so specified in the order.

The Regular Set of twenty-one pieces, and this Infant Set of eleven pieces combined, thirty-two pieces in all, put up in one case, Price.....\$18 00

### H. A. Wilson's Metacarpal Splint.

6011.\* No. 11. FOUR IN EACH SET.

Is made in *Rights and Lefts* for *Adults and Children*.

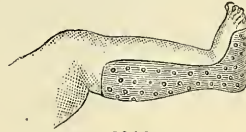


6011

75 cents for each piece, not including any  
Phalanges Splints.

6010.\* No. 10. TWO IN A SET.

Splint for Treatment of Club Foot and Weak  
Ankles.



6010

Made of perforated and nickel-plated copper, in two sizes, for infants from 3 months to 3 years of age. They are made so as to fit the same on either limb, and are especially adapted to have shoes made over them, or to be fastened to the inside of ordinary shoes (the leg part can be trimmed off at the top of the shoe, unless needed for support).....75 cents each.

### New Combined Fore-Arm and Hand Splint.

Made in two forms, as shown in the cuts. These splints are designed to fill a long-felt want for a Splint that could be universally used for all fractures and injuries of the fore-arm, hand and fingers. Thus, the bandage can be applied (if necessary) above and below the injury, leaving it open or exposed for treatment.

6012.\* No. 12.

#### COMBINED FORE-ARM SPLINT.

Rights and Lefts.  
Adults and Children.  
Four in each Set.

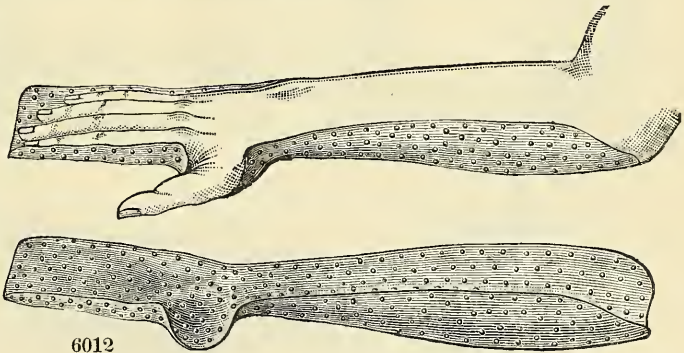
For all Fractures and Injuries of Fore-Arm, Hand and Fingers.....\$1 00 each.

6013.\* No. 13.

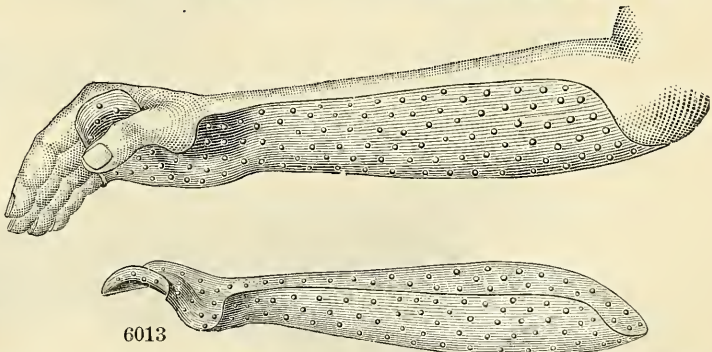
#### COMBINED FORE-ARM SPLINT.

(Improved Bond's Splint.)

Rights and Lefts.  
Adults and Children.  
Four in each Set.



6012



6013

For all Fractures and Injuries of Fore-Arm and Hand.....\$1 00 each.

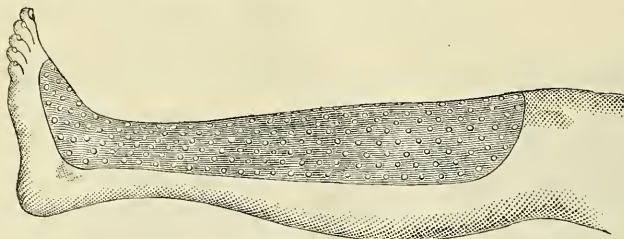
*All Splints Illustrated are designated by a \*.*

## Splints.

6014.\* No. 14. ANTERIOR TIBIA SPLINT.

Two in each Set. Adults and Children.

Can be used separately or in combination with No. 9 Splint.....\$1 00 each.

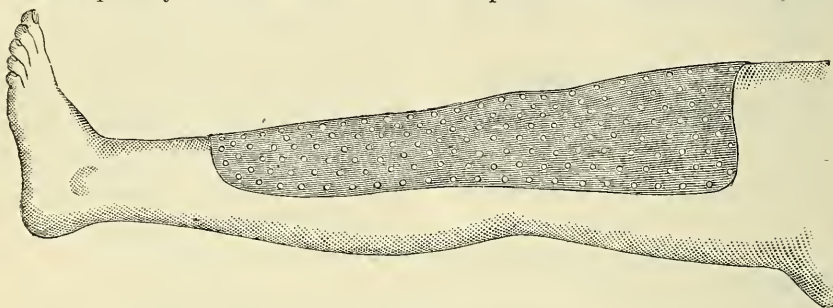


6014

6015.\* No. 15. ANTERIOR PATELLA SPLINT.

Two in each Set. Adults and Children.

Can be used separately or in combination with No. 8 Splint.....\$1 00 each.

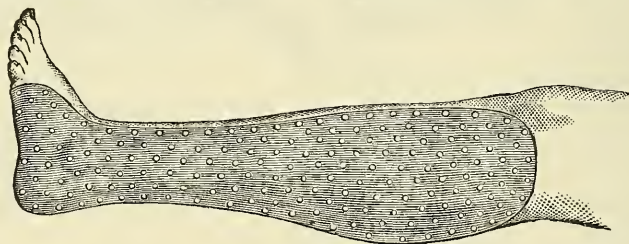


6015

6016.\* No. 16. EXTERNAL ANKLE SPLINT.

Four in each Set. Rights and Lefts. Adults and Children.

This is designed to replace the old fashioned Wooden Splint.....\$1 00 each.

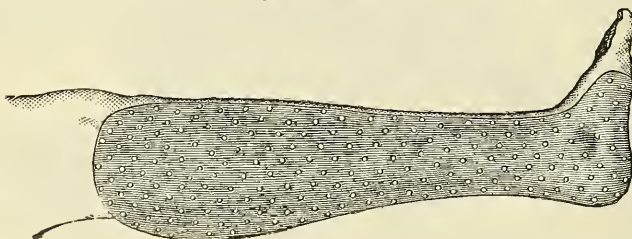


6016

6017.\* No. 17. INTERNAL ANKLE SPLINT.

Four in each Set. Rights and Lefts. Adults and Children.

\$1 00 each.



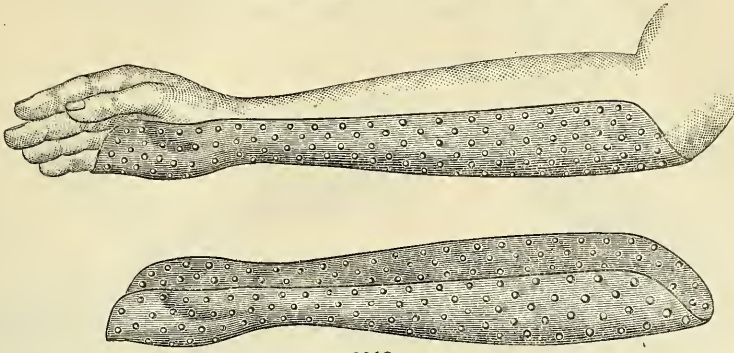
6017

*All Splints Illustrated are designated by a \*.*



## Splints.

### 6018.\* NO 18. ULNA OR FOREARM SPLINT.



6018

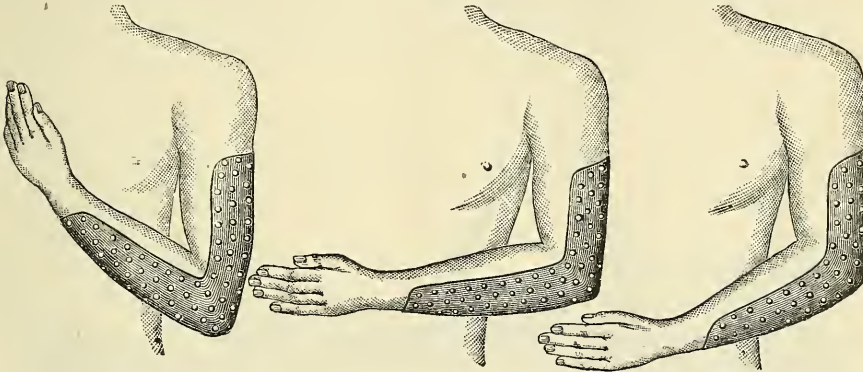
For fractures and sprains of the forearm and dislocations at the wrist joint; four in each set. Rights and Lefts—two for adults and two for children. Each.....\$1 00

### 6019.\* POSTERIOR ELBOW SPLINT.

No. 19.

No. 20.

No. 21.



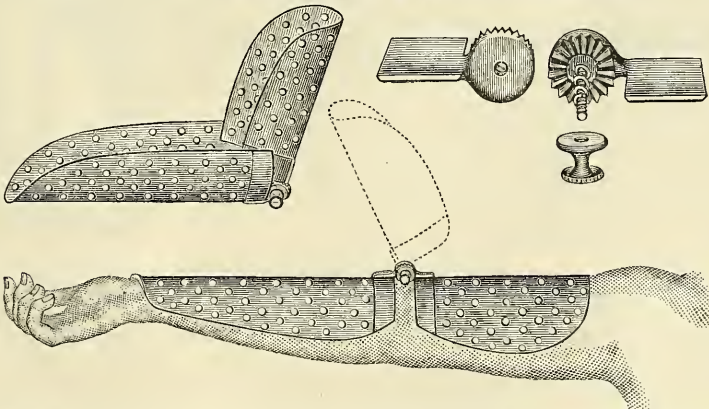
ACUTE ANGLE,  
Two in each Set.  
Adults and Children.

RIGHT ANGLE,  
Two in each Set.  
Adults and Children.

OBTUSE ANGLE,  
Two in each Set.  
Adults and Children.

Each.....\$1 00

### 6022.\* NO. 22. ADJUSTABLE ANGULAR SPLINT.



For fractures of the elbow joint, and of the arm and forearm near the joint, the Splint can be applied either anteriorly or posteriorly, and is conformable and adjustable to any angle. Two in each Set. Adults and children. Each.....\$1 50

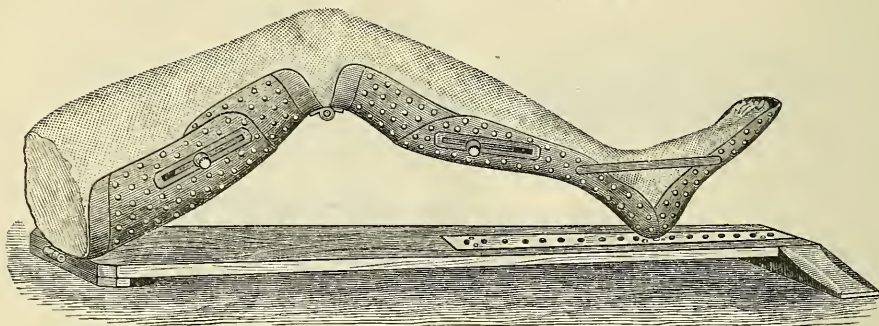
*All Splints Illustrated are designated by a \*.*

## Splints.

6023.\* No. 23. DOUBLE INCLINED PLANE SPLINT.

Two in each Set. One for Adults and one for Children.

Price.....\$5 00 each.



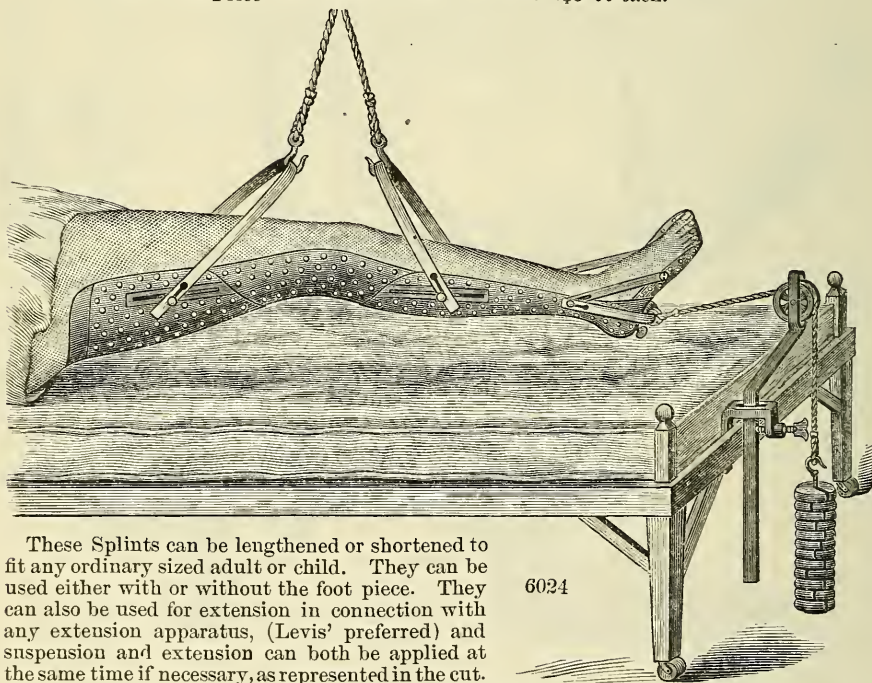
6023

These Splints can be lengthened or shortened to fit any ordinary sized adult or child very quickly and easily, and any desired angle can be obtained at the knee joint.

6024.\* No. 24. COMBINED EXTENSION AND SUSPENSION SPLINTS.

Two in each Set. One for Adults and one for Children.

Price.....\$5 00 each.



6024

These Splints can be lengthened or shortened to fit any ordinary sized adult or child. They can be used either with or without the foot piece. They can also be used for extension in connection with any extension apparatus, (Levis' preferred) and suspension and extension can both be applied at the same time if necessary, as represented in the cut.

### A Full and Complete Set

of all the herein described Splints consists of (75) seventy-five pieces, 31 for adults, 31 for children, and 13 for infants. They are packed in a neat cherry case, 38 inches long by 13 inches wide by 13 inches deep, outside measurement, and weigh packed 42 pounds. They consist of the following sizes and numbers :

|           | No. 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | Total. |
|-----------|-------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|
| Adults,   | 2     | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1  | 0  | 2  | 2  | 2  | 1  | 1  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 31     |
| Children, | 2     | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 0  | 2  | 2  | 2  | 1  | 1  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 31     |
| Infants,  | 2     | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 13     |

Total.....75

Price for above 75 pieces in case, \$60 00

*All Splints Illustrated are designated by a \*.*



## Fracture Apparatus.

6030. AHL'S POROUS FELT SPLINTS.

Prices of single pieces are Net. Regular set from No. 1 to 14; 25 Adult's and 25 Child's.  
Price.....Net, \$26 00.

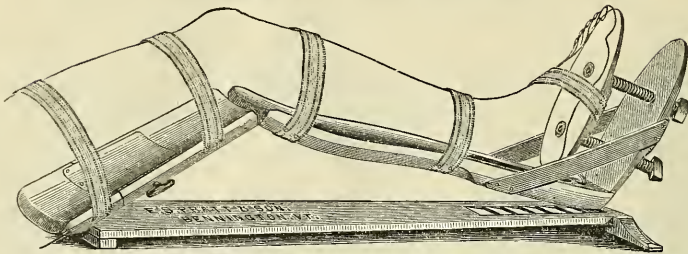
| Number. | Name and character of Splint, Right or Left.                          | ADULT.           | CHILD'S.                                        |
|---------|-----------------------------------------------------------------------|------------------|-------------------------------------------------|
|         |                                                                       | Price per piece. | Price per piece.                                |
| 1       | Inferior Maxillary.....                                               | \$0 50           | \$0 25                                          |
| 2       | Clavicle.....                                                         | 75               | 50                                              |
| 3       | Shoulder Cap.....                                                     | 75               | 50                                              |
| 4       | Humeral.....                                                          | 35               | 25                                              |
| 5       | Elbow.....*R.                                                         | 75               | 50                                              |
| 5       | Elbow.....*L.                                                         | 75               | 50                                              |
| 6       | Radial.....R.                                                         | 75               | 50                                              |
| 6       | Radial.....L.                                                         | 75               | 50                                              |
| 7       | Ulnar.....R.                                                          | 75               | 50                                              |
| 7       | Ulnar.....L.                                                          | 75               | 50                                              |
| 8       | Femoral.....                                                          | 75               | 50                                              |
| 9       | Knee-Joint, Anterior.....R.                                           | 1 00             | 75                                              |
| 9       | Knee-Joint, Anterior.....L.                                           | 1 00             | 75                                              |
| 10      | Knee-Joint, Posterior.....R.                                          | 1 00             | 75                                              |
| 10      | Knee-Joint, Posterior.....L.                                          | 1 00             | 75                                              |
| 11      | Tibial, Anterior.....R.                                               | 1 00             | 75                                              |
| 11      | Tibial, Anterior.....L.                                               | 1 00             | 75                                              |
| 12      | Fibula, Posterior.....R.                                              | 1 00             | 75                                              |
| 12      | Fibula, Posterior.....L.                                              | 1 00             | 75                                              |
| 13      | Straight Pieces for Fingers and Toes.....                             | 25               |                                                 |
| 14      | Club Foot (mention age).....R.                                        |                  | 75                                              |
| 14      | Club Foot (mention age).....L.                                        |                  | 75                                              |
| 15      | Levis-Johnstone, Palmar.....R.                                        | 75               | 75                                              |
| 15      | Levis-Johnstone, Palmar.....L.                                        | 75               | 75                                              |
| 16      | Levis-Johnstone, Dorsal.....R.                                        | 75               | 75                                              |
| 16      | Levis-Johnstone, Dorsal.....L.                                        | 75               | 75                                              |
| 17      | Combined Arm and Forearm, Anterior, Right Angle.....R.                | 2 00             | These Splints are not made in Children's Sizes— |
| 17      | Combined Arm and Forearm, Anterior, " ".....L.                        | 2 00             |                                                 |
| 18      | Combined Arm and Forearm, Posterior, " ".....R.                       | 2 00             |                                                 |
| 18      | Combined Arm and Forearm, Posterior, " ".....L.                       | 2 00             |                                                 |
| 19      | Combined Arm and Forearm, Anterior, Obtuse Angle.....R.               | 2 00             |                                                 |
| 19      | Combined Arm and Forearm, Anterior, " ".....L.                        | 2 00             |                                                 |
| 20      | Combined Arm and Forearm, Posterior, " ".....R.                       | 2 00             |                                                 |
| 20      | Combined Arm and Forearm, Posterior, " ".....L.                       | 2 00             |                                                 |
| 21      | Forearm Condyle, Anterior.....R.                                      | 75               |                                                 |
| 21      | Forearm Condyle, Anterior.....L.                                      | 75               |                                                 |
| 22      | Forearm Condyle, Posterior.....R.                                     | 1 00             |                                                 |
| 22      | Forearm Condyle, Posterior.....L.                                     | 1 00             |                                                 |
| 23      | Straight Splint for Elbow and Lower Third of Humerus Anterior.....R.  | 1 50             |                                                 |
| 23      | Straight Splint for Elbow and Lower Third of Humerus Anterior.....L.  | 1 50             |                                                 |
| 24      | Straight Splint for Elbow and Lower Third of Humerus Posterior.....R. | 1 50             |                                                 |
| 24      | Straight Splint for Elbow and Lower Third of Humerus Posterior.....L. | 1 50             |                                                 |
| 25      | Right Angle Elbow, Anterior.....R.                                    | 1 00             |                                                 |
| 25      | Right Angle Elbow, Anterior.....L.                                    | 1 00             |                                                 |
| 26      | Right Angle Elbow, Posterior.....R.                                   | 1 00             |                                                 |
| 26      | Right Angle Elbow, Posterior.....L.                                   | 1 00             |                                                 |
| 27      | Obtuse Angle Elbow, Anterior.....R.                                   | 1 00             |                                                 |
| 27      | Obtuse Angle Elbow, Anterior.....L.                                   | 1 00             |                                                 |
| 28      | Obtuse Angle Elbow, Posterior.....R.                                  | 1 00             |                                                 |
| 28      | Obtuse Angle Elbow, Posterior.....L.                                  | 1 00             |                                                 |
| 29      | Metacarpal, Index and Middle Fingers.....R.                           | 50               | 50                                              |
| 29      | Metacarpal, Index and Middle Fingers.....L.                           | 50               | 50                                              |
| 30      | Metacarpal, Little and Ring Fingers.....R.                            | 50               | 50                                              |
| 30      | Metacarpal, Little and Ring Fingers.....L.                            | 50               | 50                                              |
| 31      | Metacarpal, Thumb.....R.                                              | 50               | 50                                              |
| 31      | Metacarpal, Thumb.....L.                                              | 50               | 50                                              |
| 32      | Malleolus, Internal.....R.                                            | 1 00             | 1 00                                            |
| 32      | Malleolus, Internal.....L.                                            | 1 00             | 1 00                                            |
| 33      | Malleolus, External.....R.                                            | 1 00             | 1 00                                            |
| 33      | Malleolus, External.....L.                                            | 1 00             | 1 00                                            |



## Fracture Apparatus.

## SPLINTS.

Day's Carved Wood Splints.



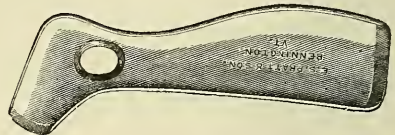
6031.\* Double Incline Plane.

| Size.       | Price. |
|-------------|--------|
| Small.....  | \$3 25 |
| Medium..... | 4 00   |
| Large.....  | 4 75   |



6032.\* Interosseous Splint.

| Size.      | Price. |
|------------|--------|
| No. 1..... | \$ 25  |
| " 2.....   | 30     |
| " 3.....   | 40     |
| " 4.....   | 45     |
| " 5.....   | 55     |



6033.\* Right and Left Ankle Splint.

| Size.      | Price.     |
|------------|------------|
| No. 0..... | each \$ 60 |
| " 1.....   | " 80       |
| " 2.....   | " 1 00     |
| " 3.....   | " 1 20     |



6035.\* Extension Bar

| Size.      | Price. |
|------------|--------|
| Small..... | \$4 00 |
| Large..... | 4 75   |



6034.\* Patella Splint.

| Size.      | Price. |
|------------|--------|
| No. 1..... | \$ 65  |
| " 2.....   | 70     |
| " 3.....   | 80     |
| " 4.....   | 1 00   |



6036.\* Right and Left Radius Splints

| Size.      | Price.     |
|------------|------------|
| No. 1..... | each \$ 40 |
| " 2.....   | " 45       |
| " 3.....   | " 50       |
| " 4.....   | " 60       |

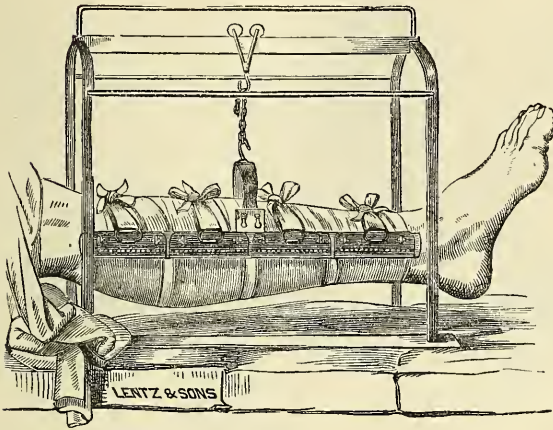
All Splints Illustrated are designated by a \*.



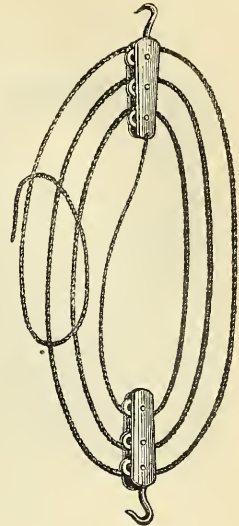




## Fracture Apparatus.



6057



6054

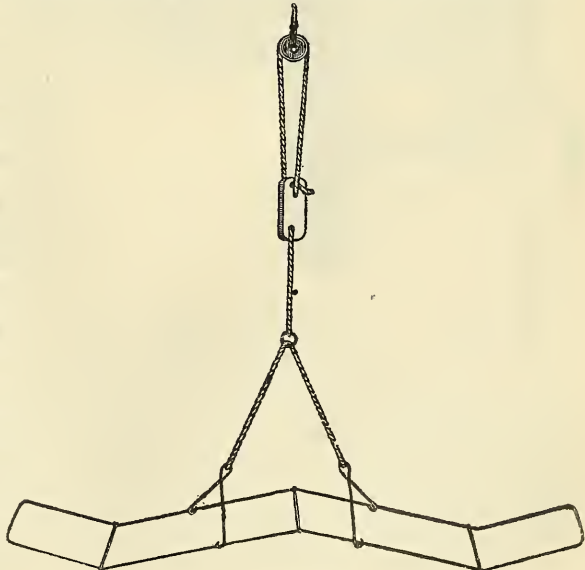
- 6054.\* Compound Pulleys and Cord for Dislocations.....per pair, \$4 50  
 6055.\* Arched Frame for protecting a fractured limb from the pressure of the bed clothes. The limb can also be suspended from the top..... 2 50  
 6056. Arched Frame for body..... 3 50  
 6057.\* Salter's Fracture Cradle or Swing..... 20 00

For protecting a fractured limb from the pressure of the bed-clothes, and to permit change of position without the risk of displacing the bones. It is a frame resting upon the bed and having on its central bar a small railway, upon which travel two pulleys, suspending by a chain the wounded limb (placed in such splinting as the surgeon may select) and protecting it from all external pressure.

**6058.\* Nathan R. Smith's Anterior Splint and Suspending Apparatus for Fractures of the Leg and Thigh.**

This Splint is simply a frame composed of stout wire, which, being suspended, allows the limb, fastened to it by rollers, to be suspended in turn, the rollers passing around both limb and splint, from the foot to the groin. The splint should extend from above the anterior superior spinous process of the ilium to a point beyond the toes. The lateral bars of the splint are separated about three inches. One of the spring double hooks fastened to the short cord for suspension ought to be nearly over the seat of fracture, the other a little above the middle of the leg.

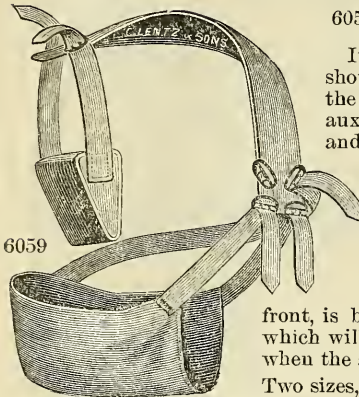
Price.....\$2 50



6058

## Fracture Apparatus.

### SPLINTS AND EXTENSION APPARATUS.

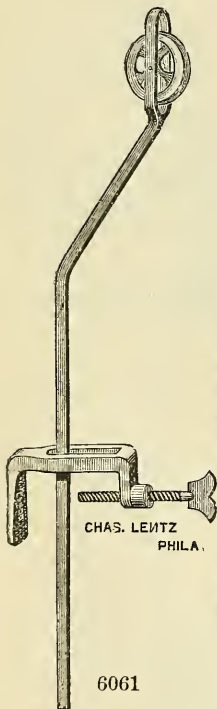


6059.\* Levis' Splint for Fracture of the Clavicle.

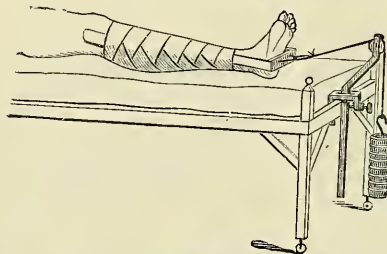
It consists of a short, firm pad in the axilla, by which the shoulder is held from the side, and over which, as a fulcrum, the elbow is drawn to the side. To the front and back of the axillary pad are fastened straps, which pass directly upwards, and are buckled to a wide main supporting band which passes from the shoulder across the upper part of the back, and over the shoulder of the sound side, and terminates on the front of the chest. To the front end of the wide supporting band is suspended a sling, by which the elbow is supported. On the back of the sling, at a short distance above the point of the elbow, a strap is attached, which passes obliquely across the back, and, coming in front, is buckled to the main supporting band. The extra buckle, which will be noticed at the front end of the wide band, comes in use when the apparatus is reversed for the opposite shoulder.

Two sizes, adult's and child's .....each, \$3 50

6060. Fox's Splint for fracture of the clavicle, two sizes, adult's and child's..... " 3 75



6061.\* Dr. Levis' Extension Apparatus.



The application of the principle of weight-extension to the treatment of fractures, and in diseases and deformities of joints, is of such importance as to require more effectual and convenient apparatus than is ordinarily used. It is desirable that the mechanical appliances for this object should be convenient and inexpensive, portable, not cumbersome, and

readily and securely applicable to various forms of bedsteads and couches. It is also important that the amount of tension by weight can be estimated and varied to the requirements of the case.

All these requisites are secured in an accurate and mechanical manner by the apparatus devised by Dr. R. J. Levis, which has been used for a number of years in the Pennsylvania Hospital, and also to some extent in the Hospitals of London.

The wood-cuts will render a full description of the apparatus unnecessary. An adjustable clamp holds in position the upright rod which supports the pulley. The rod and pulley can be adjusted at any required elevation. The clamp will grasp either a

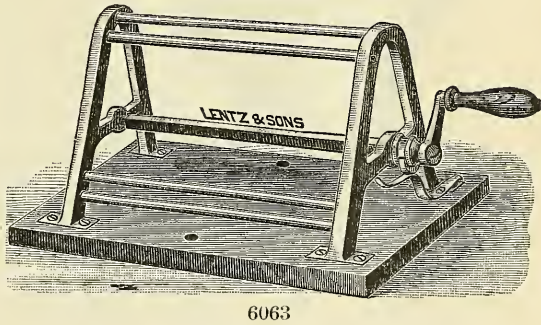
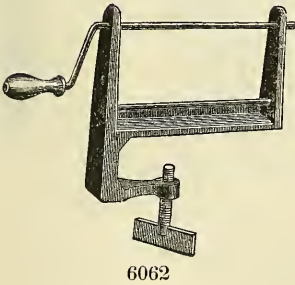
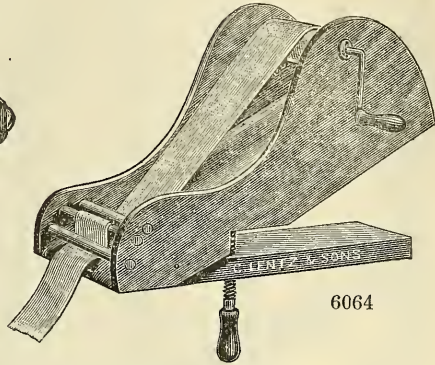
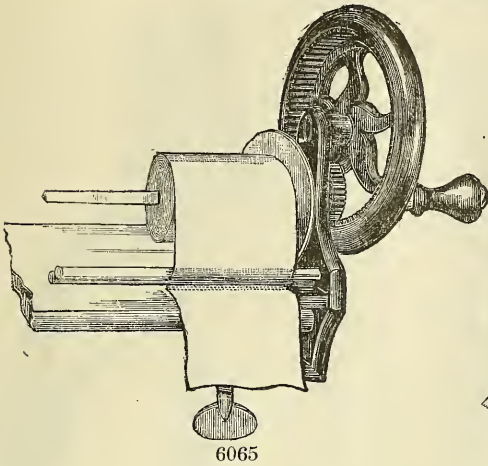
wide or narrow bar at the foot of the bedstead, or it can be attached to the back of a chair, to the end of a table, or to any object of sufficient security and steadiness. It can be reversed so as to grasp an under edge when such hold is more convenient.

The amount of weight extension is simply effected by a series of one pound weights suspended upon a rod, bent into the form of a hook at the top, for catching in a loop in the extending cord. The upper portion of this rod (an inch and a half or two inches) is flattened or narrowed, the remainder of the rod maintaining a uniform diameter. In the centre of the weights a hole is drilled, into which the rounded or lower portion of the rod fits very tightly, and from which centre hole a slot is cut (B) that, while it permits the passage of the rod in the upper constricted and flattened portion, is too narrow to allow of the weights slipping off the rod, no matter in what direction or with what force a blow may be struck or the apparatus displaced.

Price of apparatus complete, in strong wood box.....\$4 50

## Fracture Apparatus.

## BANDAGE ROLLERS AND SHEARS.



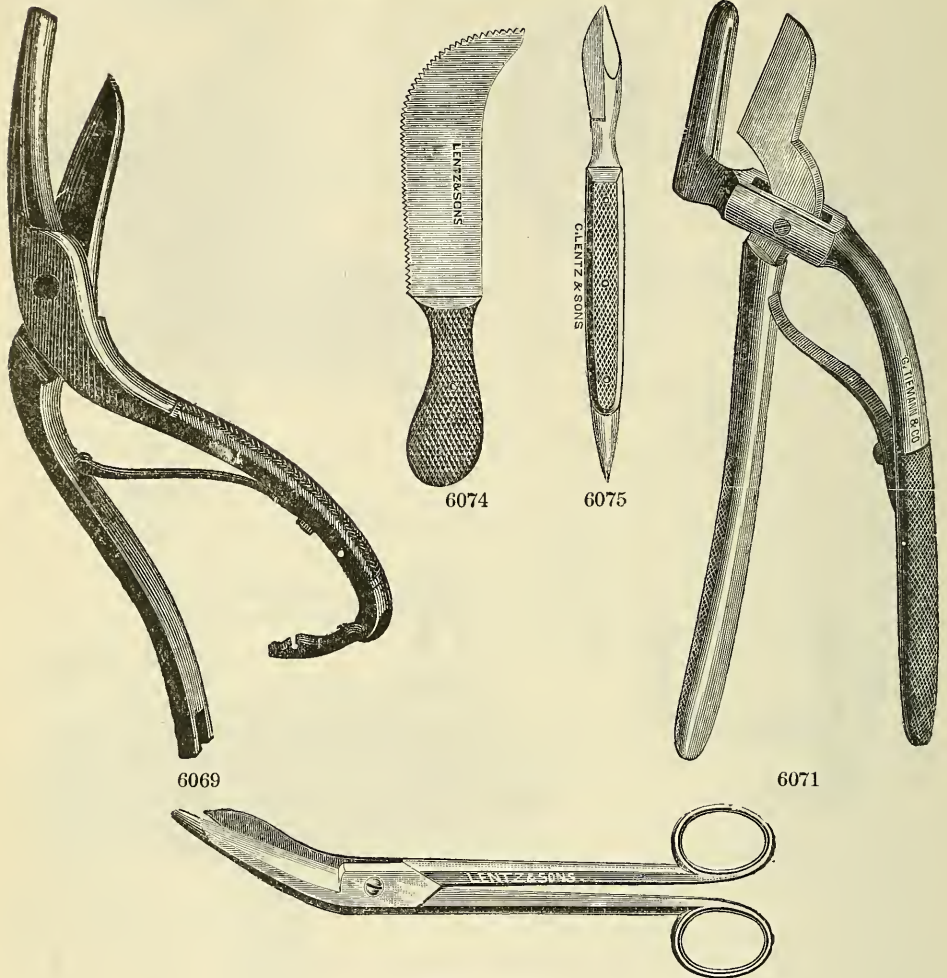
|        |                                                                       |       |
|--------|-----------------------------------------------------------------------|-------|
| 6062.* | Bandage Roller, very simple and can be adjusted to fit any table..... | \$ 75 |
| 6063.* | “ “ metal, nickel-plated, on wood base.....                           | 3 00  |
| 6064.* | “ “ walnut wood.....                                                  | 3 25  |
| 6065.* | “ “ Crocker's.....                                                    | 4 00  |
| 6066.* | “ Shears, 7½ inch.....                                                | 1 75  |
| 6067.* | “ “ 9 “ .....                                                         | 2 75  |
| 6068.  | Plaster of Paris Bandage Shears, Esmarch's.....                       | 3 00  |
| 6069.* | “ “ “ “ Henry's.....                                                  | 5 00  |
| 6070.  | “ “ “ “ Wight's.....                                                  | 2 75  |
| 6071.* | “ “ “ “ Sayre's.....                                                  | 5 25  |

*All Instruments Illustrated are designated by a\*.*



## Fracture Apparatus.

PLASTER BANDAGES, SPLINT MATERIAL, &amp;c.



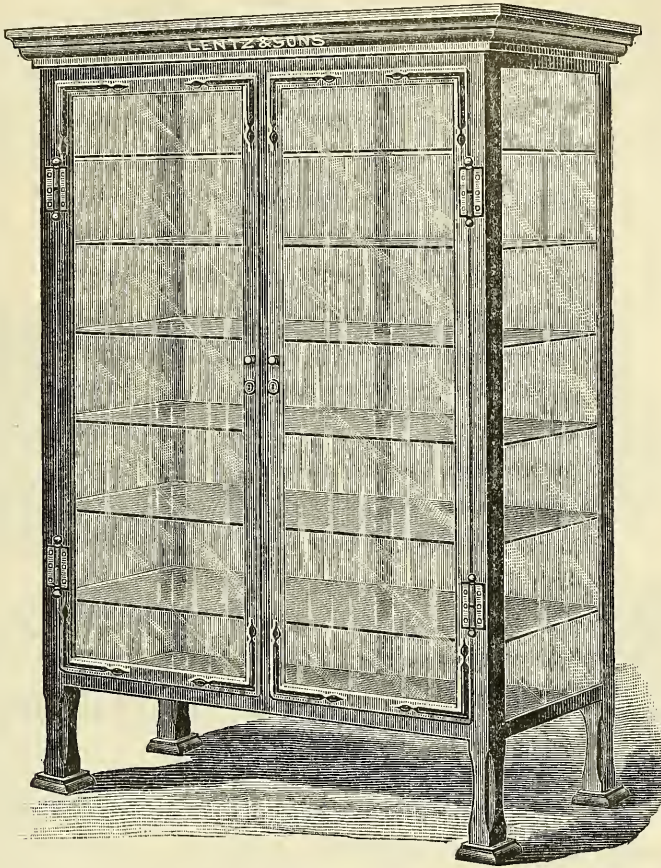
6066 and 6067

|                                     |                                                                                |                                           |
|-------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------|
| 6074.*                              | Bandage Saw, Hunter's, for removing Plaster of Paris Bandages.....             | \$1 75                                    |
| 6075.*                              | “ Knife and Wedge, Esmarch's, for removing Plaster of Paris Bandages.....      | 1 35                                      |
| 6076.                               | “ “ stout, for removing Plaster of Paris Bandages.....                         | 1 25                                      |
| 6079.                               | Plaster of Paris Bandages, each Bandage packed in wax paper in a neat tin box. |                                           |
| 2 inches by 5 yards, per dozen..... | \$1 20                                                                         | 3 inches by 6 yards, per dozen.....\$1 90 |
| 2½ “ “ 5 “ “ .....                  | 1 50                                                                           | 3 “ “ 8 “ “ ..... 2 40                    |
| 6080.                               | Splint Material, wood, 3 or 4 inches wide, 3 feet long, per piece.....         | \$ 20                                     |
| 6081.                               | “ “ Binder's Board, per sheet.....                                             | 30                                        |
| 6082.                               | “ “ Felt, in sheet, per square foot, 75 cents ; per square yard.....           | 6 00                                      |

*All Instruments Illustrated are designated by a \*.*

## Hospital Supplies.

6095.\* ASEPTIC INSTRUMENT SAFE.



6095

This has been constructed for the purpose of supplying hospitals and surgeons with a safe that will prevent instruments, when not in use, from becoming contaminated ; also to have all the instruments in view, which facilitates the selection of instruments desired for an operation.

The safe as here shown, is constructed entirely of iron and glass, accurately fitted together, thereby making it as nearly as practicable dust proof. It is very handsome in appearance being painted white and lacquered both in and outside, lock and key to the doors. Contains 12 plate glass shelves 17x23 inches, which can be readily taken out to clean. Height from floor to top 6 feet 2 inches, width of the front 4 feet, depth from front to back 18 inches.

6096. Aseptic Instrument Safe, same as above with three doors, contains 18 plate glass shelves, 17x23 inches. Height from floor to top 6 feet 2 inches, width of the front 5 feet 11 inches, depth from front to back 18 inches.

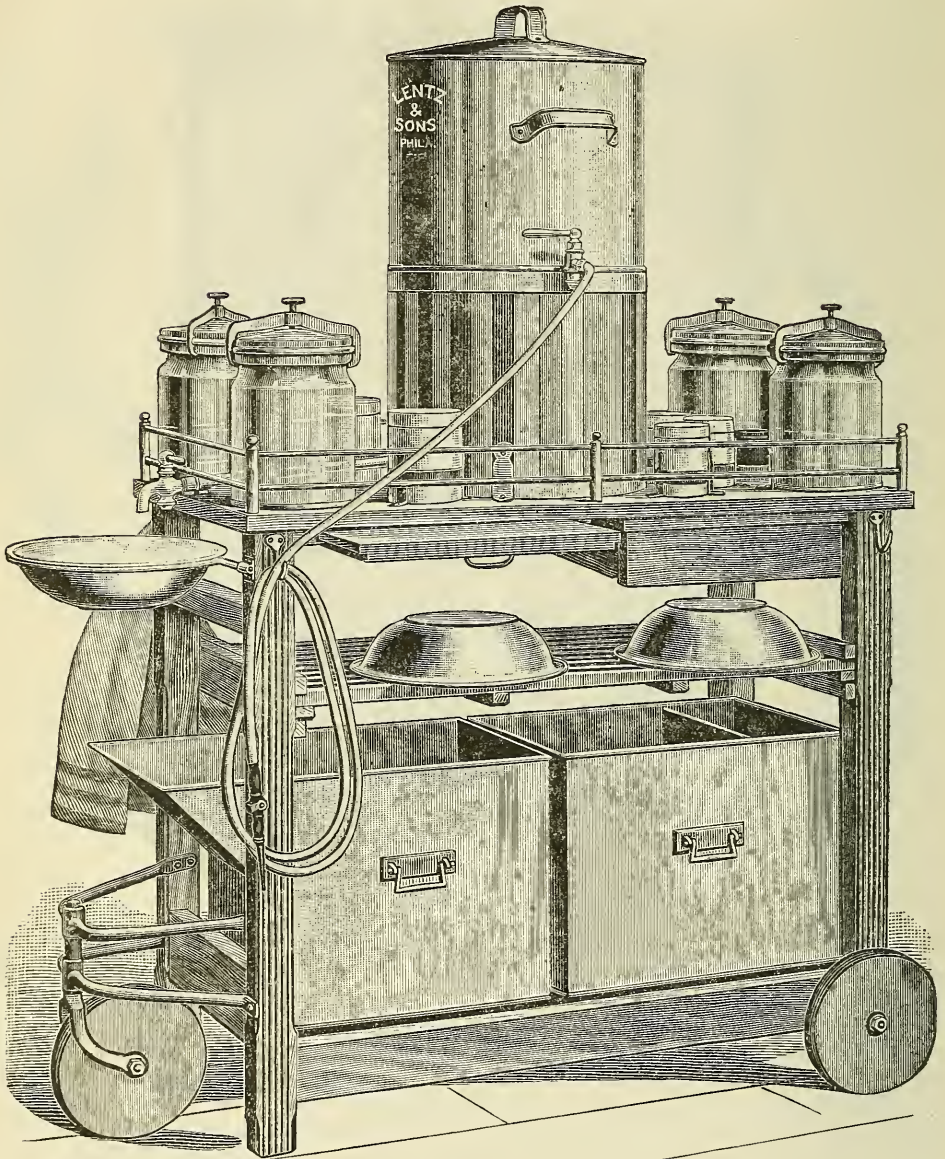
Prices and full description given on application.

We are prepared to make any size or style instrument safes desired, and will cheerfully furnish plans and estimates. As we make a specialty of supplying Hospitals, we have the facilities for executing orders promptly and satisfactory at lowest prices.



## Hospital Supplies.

6100.\* LENTZ'S IMPROVED WARD CARRIAGE.



6100

Made of ash wood, with brass railing on top, wheels with rubber tires, and fitted out with the following:

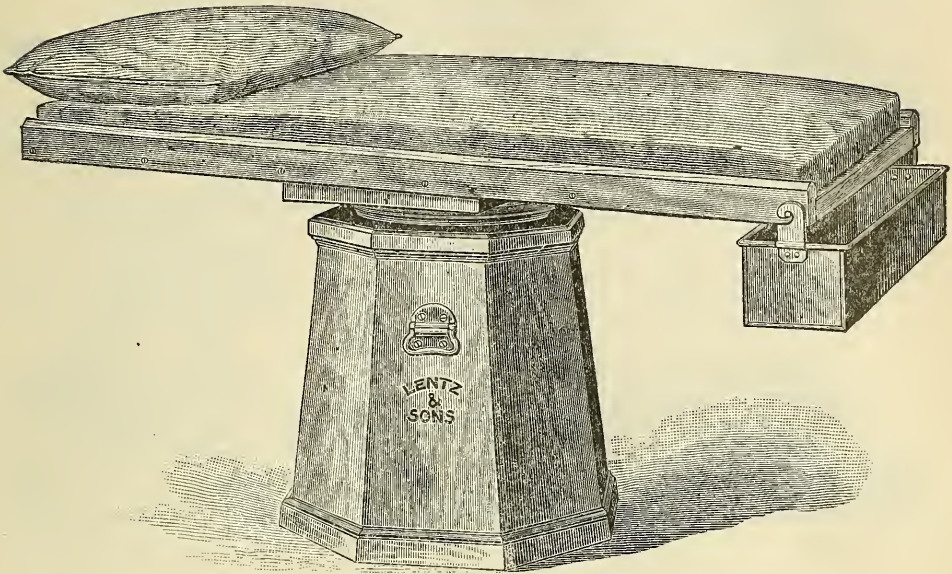
Stone-jar, (wood covered), for antiseptic solution, with pipe and spigot leading to wash basin; copper water kettle, with spigot, tubing and stop-cock, for irrigating purposes; 4 large museum jars for sponges, gauzes, cat-gut, etc.; 6 ointment pots; 1 hard rubber iodoform duster; (for these jars and pots, brass fittings are provided in order to prevent sliding and rattling); 1 copper box, with small and large space for bandages and absorbent cotton, towels, etc.; 1 copper box for the reception of waste water, soiled bandages, etc.; 3 agate wash basins; 1 sliding table; 1 drawer; 4 hooks, one on each leg, for towels, bandages, shears, etc.

Price on application.



## Hospital Supplies.

### 6102.\* REVOLVING OPERATING TABLE.

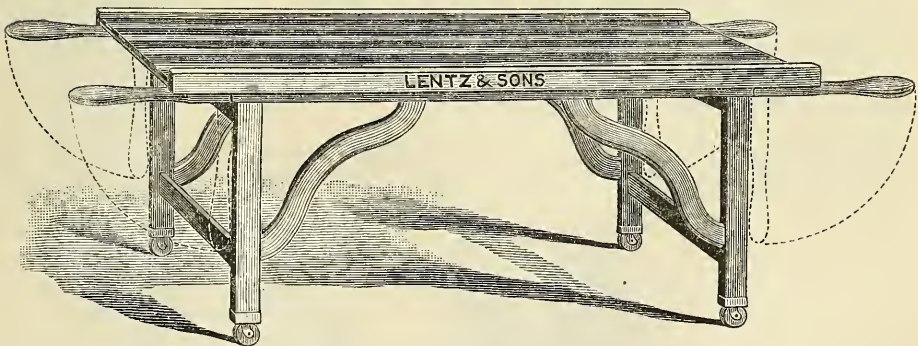


6102.

Made of ash wood, with copper box at end for waste matter, and rubber covered mattress. Through the base extends a screw with large iron wheel (shown in cut) which is used as a handle for lowering and raising the table. On the side of the base is a brake (not shown in illustration) by means of which the table is held firm in any desired position.

Price on application.

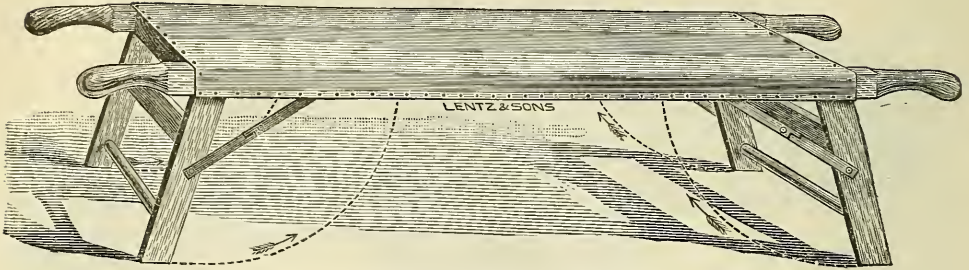
### 6103.\* WHEEL STRETCHER.



6103.

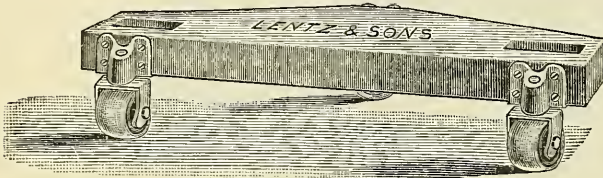
Made of ash wood, with four iron, rubber covered wheels, removable top (ash and walnut wood) for lifting patients on operating table or bed. When not in use, the handles drop down (shown in illustration by dotted lines), so that the stretcher takes up the least possible space.

|                          |         |
|--------------------------|---------|
| Price .....              | \$27 50 |
| Boxing for shipment..... | 2 00    |

**Hospital Supplies.****6104.\* HAND STRETCHER.**

6104

Hand Stretcher, canvas top, feet can be turned under when carrying. Price.....\$14 00  
Boxing for shipment..... 2 00

**6107.\* BED TRUCK.**

6107

Hospital-Bed Truck, for moving beds through wards, on elevator, or to operating room; has three rubber covered noiseless wheels. Price, per pair \$12 00

**6109.\* THE CROSBY INVALID BEDSTEAD.**

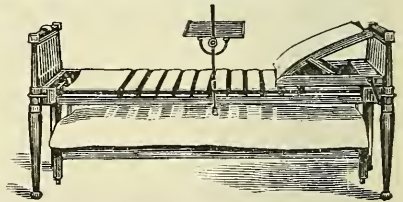
This Bedstead is designed to give comfort and ease to those patients so exhausted from disease that they are obliged to be lifted from one bed to another to have it made up; also to prevent bed-sores and cure those already existing. In all cases of Fractures, Amputations, Dysentery, Acute Rheumatism, the last stages of Consumption and Typhoid Fever, attended with great prostration and involuntary discharges, it affords easy access to the body—permitting the bed-clothes to be changed, the bed made up, securing perfect cleanliness, without fatigue or annoyance, and allowing defecation to be performed without moving the patient. It is also especially adapted for use in cases of Child-Bed.

One person can perform all the necessary duties to a sick person, make up the bed, wash and ventilate the body, dress bed-sores, and use the bed-pan, without assistance or disturbing the patient.

It is simple in its construction, and not liable to get out of order. A child twelve years old can manage it. Hundreds of them in use, and in no instance have they failed to give satisfaction.

Ash Bedstead.....\$25 00  
Black Walnut Bedstead..... 35 00  
Adjustable Table and Book Rest Combined..... 5 00

Head Rest.....\$ 5 00  
Soft Top Excelsior Mattress..... 3 00  
African Fibre Mattress..... 5 00  
Curled Hair "..... 10 00



6109

6110

**6110.\* Folding Bed Tray and Back Rest.**

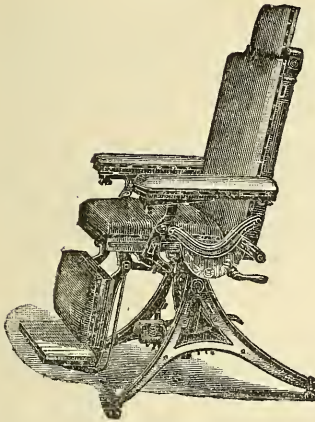
Folding Bed Tray of walnut, size 15x23 inches, 7 inches high.....\$3 00  
Folding Bed Tray of walnut, size 18x26 inches, 8 inches high..... 4 00  
Comfort Back Rest without arms or head rest, ash wood frame..... 3 50  
Comfort Back Rest with arms, but without head rest, ash wood frame..... 4 50  
Comfort Back Rest with both arms and head rest, ash wood frame, as illustrated 5 50



## Office Supplies.

### SURGICAL CHAIRS.

#### 6112.\* The Harvard Physician's and Surgeon's Chair.



6112

The Harvard Chair can be adjusted to any position desired by the surgeon, gynecologist, or oculist, having nine positions, it is capable of backward and lateral motion and rotation; can be easily raised or lowered, and rigidly set in any position. The base is of iron.

No. 1.—Without Harvard Headrest, the back being extended to form support for the head. Iron work painted and neatly ornamented. Upholstered in a fine quality of imitation leather, maroon or olive-green.....\$48 00

No. 13.—Same as No. 1, with stirrups nickel-plated; upholstered in genuine leather, maroon or olive-green..... 65 00

Nos. 1 and 13 are so made that all the wood-work is covered by the upholstering. They have all the movements of the other chairs, except those of the headrest. No headrest furnished with Nos. 1 or 13, unless ordered.

No. 17.—Cherry, walnut or antique oak frame, hard oil finish, Harvard nickel-plated headrest, nickel-plated stirrups, iron-work highly finished and ornamented in gold bronze; upholstered in maroon or olive-green leather..... 70 00

No. 22.—Same as No. 17; upholstered in embossed leather or crimson mohair plush..... 75 00

Oculists' Headrest, extra..... 5 00

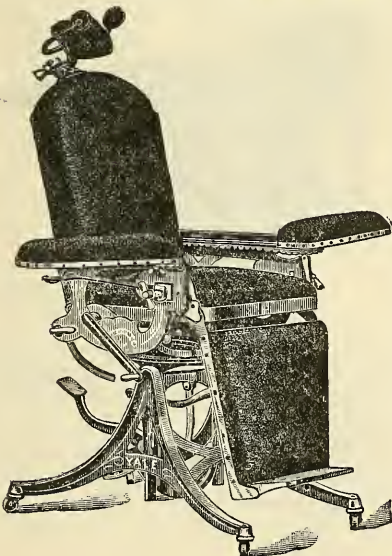
Anti-friction Castors under all chairs.

For chairs to match office furniture, write for estimates, giving style and upholstery desired.

Circular illustrating the chair placed in different positions, with full description and testimonials, mailed on application.

Write to us for special terms.

#### 6113.\* THE IMPROVED YALE SURGICAL CHAIR.



6113

The Yale is a very complete chair for any work desired by the surgeon, gynecologist, oculist or aurist. Every position known to the profession is easily and quickly obtained. It can be firmly locked in any position. The base is of iron. Each chair is supplied with the most complete stirrups for gynecological practice, also with the Gould headrest, which is adapted for the aurist and oculist.

No. 10. Leather Set Pattern .....\$90 00

No. 11. Embossed Maroon Leather..... 80 00

No. 12. Frieze Mohair Plush..... 87 00

No. 14. Plain Mohair Plush..... 85 00

No. 15. Crushed Cardinal Mohair Plush..... 82 00

No. 16. Plain Maroon Leather..... 75 00

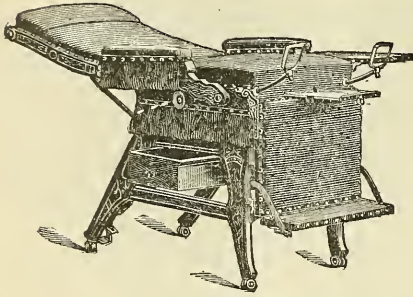
Descriptive catalogue of this chair will be furnished upon application.

Write to us for special terms.



## Office Supplies.

## 6114.\* THE "ALLISON" PHYSICIAN'S CHAIR.



6114

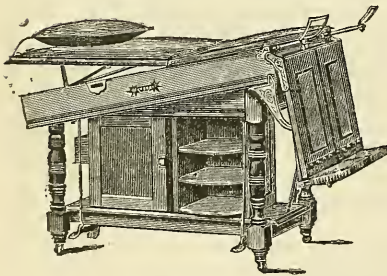
The Allison Chair is simple in construction; substantial; noiseless; convenient; practical. Can be instantly adjusted to any desired position with perfect ease. No lost motion. No complicated machinery.

The large drawer, side table, shelf in front, movable pillow, adjustable stirrups and the convenient arrangement for adjusting the back to any angle are a few of the advantages of this chair. Made in the following styles :

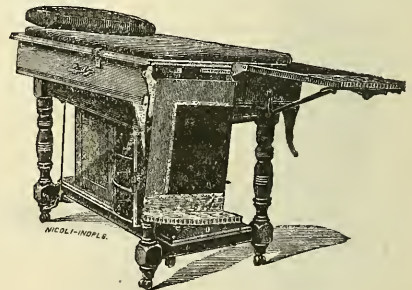
- No. 1.—Leather, improved Mohair plush, (plain, crushed or embossed with movable pillow, metal parts nickel-plated; hand carved and polished..... \$70 00
- No. 2.—Fine imported pattern plush, variegated colors, patterns made especially for chair; or embossed leather; with movable pillow; metal parts nickel-plated; hand carved and polished..... 75 00
- No. 3.—Fine pattern embossed leather, artistic designs, made especially for chair; movable pillow; nickel cuspidor and holder; metal parts nickel-plated; antique brass, or royal copper ..... 80 00
- Antique or 16th Century oak, ebony finish, walnut, cherry or imitation mahogany.

Send for descriptive catalogue.

## 6115.\* THE "ALLISON" OPERATING TABLE.



6115



6115

The above illustrations show the Allison Surgical and Gynæcological table, any position desired can easily be obtained, same as in a chair. They have the Gynæcological attachment, and arm rest which can be used on either side, metal parts are nickel-plated.

The Tables are made in antique or 16th Century oak, walnut, ebony finish, cherry or imitation mahogany. Top covered with maroon or olive green leather. The movable cushion is made plain or tufted, is fastened at the sides, and can be easily detached.

Made in ten styles, price from \$50 00 upward.

Send for descriptive catalogue.

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## Office Supplies.

## 6116.\* DR. CHADWICK'S GYNÆCOLOGICAL TABLE.

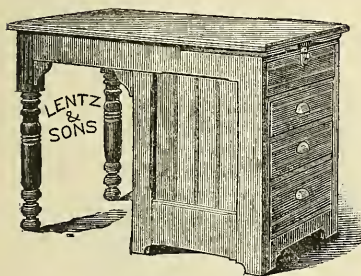


Fig. 1

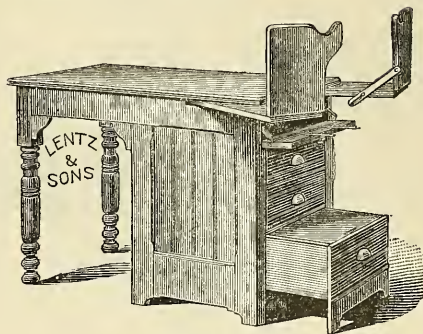


Fig. 2

The Chadwick Table is highly recommended by Gynæcologists and is very well adapted for general operating.

It is made of quartered oak and black-walnut, well fitted and finished, and when not in use will pass for an ordinary desk, as is shown by Fig. 1. The panelled end is on castors: the other end is devoid of them, so that the table may not move too freely during examinations. The latter should be lifted when the table is moved.

The smooth polished top is three feet and a half long by two feet wide: at the top of the panelled end two broad leg-rests draw out to a distance of two feet, making the entire length five feet and a half, which is quite sufficient for any woman reclining at full-length.

Either leg-rest swings out sideways until it stands at an angle of  $130^{\circ}$ – $140^{\circ}$  with the end of the table; thus being in position to support the legs when the woman is in Sims' position.

The leg-rests are further provided with hinges at about their middle, so as to turn up, and be caught at right angles, thus supporting the feet during examination in the dorsal positions (Fig. 2.) The foot-rests are made in projections from the body of the leg-rests, it having been found that the knees fall outwards when the feet are brought near to each other, and the exploration is thus rendered easier.

A mattress filled with curled hair is supplied with the table; its top and edges are of best English hair cloth; the underside of strong cotton-duck, to which are attached two straps, whereby the mattress, and with it the patient, may be drawn to the edge of the table, in place of the latter being lifted. The mattress is doubled, and packed in the upper drawers, when not in use.

The second and third drawers are for clean towels, dressings, pessaries, instruments, etc.

The lowest drawer pulls out to form a step, whereby the patient mounts upon the table. The top of the drawer then slides back revealing a large space intended for the soiled specula, instruments, cotton and towels, and should be concealed by the sliding cover before the patient rises, all shock to the feelings by the sight of blood, soiled towels, etc., being thus averted.

The following advantages are claimed for this table:

1. That its presence in a physician's office would never excite suspicion as to its use.
2. That it is perfectly adapted for examinations in all positions.
3. That in it may be kept readily accessible all the instruments, appliances, and medicaments likely to be needed.
4. That its moderate price makes it easily obtainable by every physician.

In addition to the uses referred to above, it will be found perfectly adapted to examinations and treatment in diseases of the rectum and genito-urinary organs, while often convenient as a general operating table.

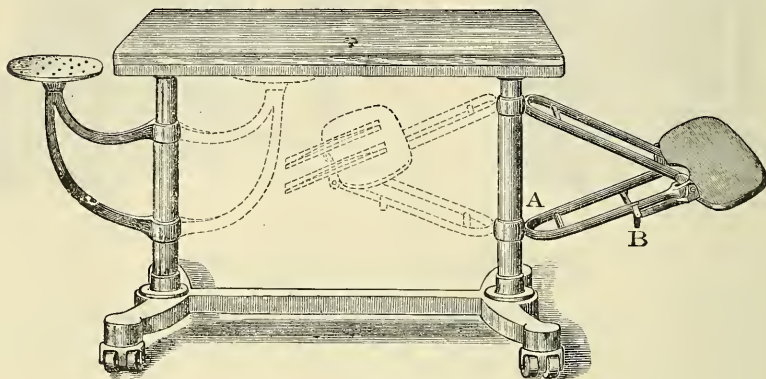
|                          |         |
|--------------------------|---------|
| Price .....              | \$50 00 |
| Boxing for shipment..... | 2 50    |

## Office Supplies.

## 6117.\* ANTISEPTIC OPERATING TABLE.

## For Laparotomy and Gynæcological Work,

Devised by Dr. Howard A. Kelly, of Johns Hopkins' Hospital, Baltimore, Md.



6117

The Antiseptic Operating Table, as shown in the above cut, is made entirely of brass and bronze, highly polished, with a one inch thick plate glass top, polished edges.

The table is 32 inches high, 21 inches wide and 44 inches long; the extreme length when the seat and foot rest are extended is 6 feet 6 inches. The base of the table is cast in one piece, supported by four Yale Castors; the two uprights are of heavy tubing. Attached to the lower collar of the support of the foot-rest at *A*, there is a spring-catch which holds the same in a fixed position when extended. At *B*, there are two fingers, one on each side of the support, to change the angle of the foot-rest. The plate glass top rests on a cast frame, firmly held in position by lugs on the sides and ends. The lug at the lower end can be turned down by loosening the thumb-screw, the glass plate can then be slid forward and removed with ease.

The whole table is massively built and has an elegant appearance.

When not in use the seat and foot-rest can be turned under the table as shown by the dotted lines in the cut above.

One of the above tables is in use at the Johns Hopkins' Hospital, also one in the hospital of Dr. Joseph Taber Johnson, Washington, D. C.

## Eureka Operating Chair.

Price.....\$25 00 to \$40 00

## Daggett Examining Table.

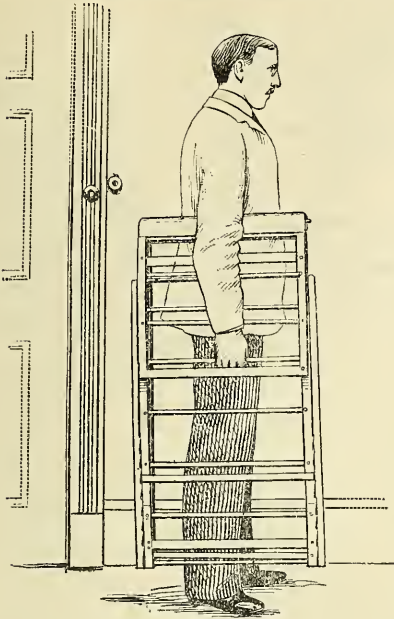
Price.....\$30 00 to \$70 00

Illustrated descriptive pamphlets and price lists on application.

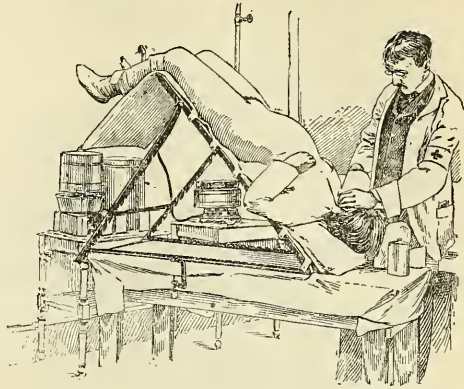


## Office Supplies.

## 6118.\* KRUG'S PORTABLE FRAME FOR TRENDLENBURG'S POSTURE.



6118 .



Dr. Florian Krug's Portable Frame, as devised by him for the use of Trendelenburg's Posture is made of galvanized iron and has a removable cover of sail canvas on which straps are provided to hold the patient's knees and ankles. It weighs about twenty pounds only, can be folded together and is easily carried or taken along in a street car or doctor's carriage. In this way it is particularly adapted for emergency cases, or wherever laparotomy has to be performed in the patient's house. It can be attached to a kitchen or ordinary table, as well as to any kind

of surgical table. It thus meets with all requirements for hospital practice as well as for outside operations. Briefly told, its advantages are:

1. It is easily cleansed and sterilized.
2. While strong enough for the heaviest patient, it is very light and easily portable.
3. While answering every requirement it is incomparably cheaper than other appliances devised for that purpose.

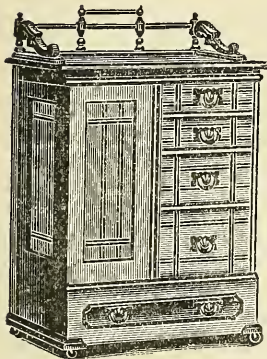
Price.....\$20 00

6119. Edebohls' Combined Laparotomy and Gynæcological Operating Table, made in three styles, prices.....\$55 00; \$70 00 and \$90 00

6120. Edebohls'-Morris Table, with attachments to make it available for general operations. Made in three styles, prices.....\$70 00; \$90 00 and \$110 00

Full description of above sent on application.

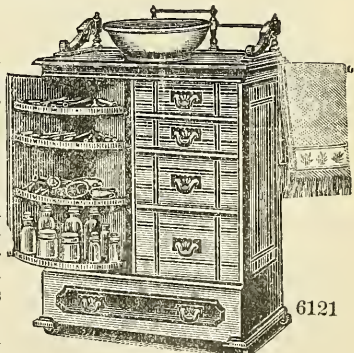
## 6121.\* PHYSICIANS' CABINET.



6121 Cabinet Closed.

It is a very tasty and convenient piece of office furniture manufactured exclusively for the use of the gynæcologist, surgeon, oculist, dentist, and the general practitioner.

It comprises five drawers, four revolving shelves, a towel rack, and a sliding table. The revolving shelves are so arranged that when open the operator has the instruments conveniently within reach. When closed it can be locked so as to lock the four upper drawers. It can be easily moved



Same Cabinet Opened.

to any part of the office, being mounted on boxwood castors. It is made of solid walnut, antique oak, and cherry wood, hard oil finished, with ornamented metal handles.

Height from floor to top, 34 inches; width, 28 inches; depth, 16 inches.

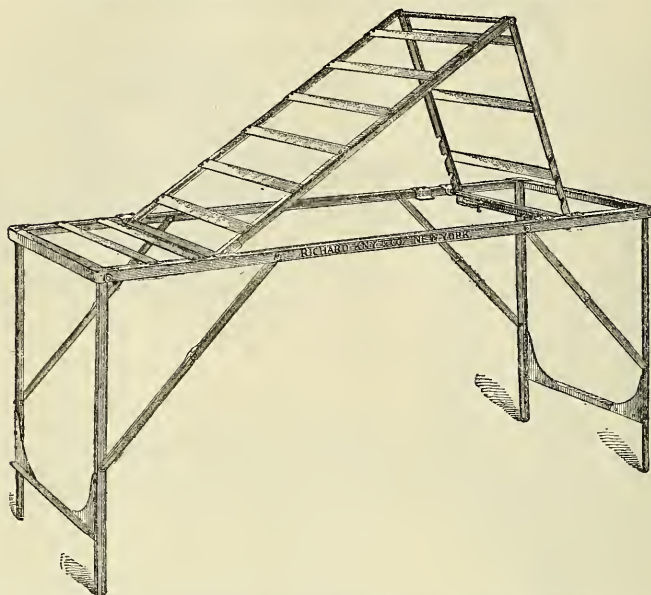
Price.....\$16 50



## Office Supplies.

6122.\* FOERSTER'S GYNÆCOLOGICAL OPERATING TABLE.

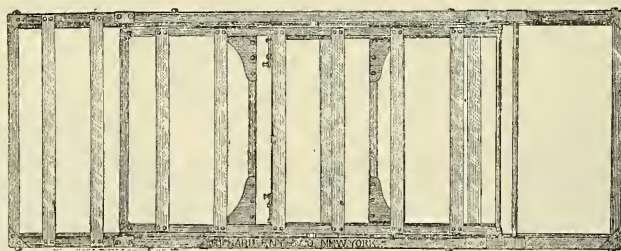
With Facilities for Trendelenburg's Posture.



6122

*View of Foerster's Operating Table when Open.*

Surgeons called upon to perform an operation at the patient's own home, will sometimes be at a loss to find there an article of furniture suitable for their use. The dining table is usually too broad and clumsy; the kitchen table may answer, provided that it is built solidly and has not seen too many days of use. Compelled to compromise with anything, this piece of furniture is called into service. Everything may go well, but it may be one's misfortune that the table, at the moment when least expected, gives way, and the operation must be continued under the most embarrassing circumstances. Such an accident is so much the more likely to happen when trying to get the patient into Trendelenburg's posture by putting boxes under one end of the table to elevate the same, thus weakening the whole structure. To prevent such an occurrence, Dr. Francis Foerster devised the Portable Table, as shown in above cut.

*View of Foerster's Operating Table when Closed.*

It is neatly constructed of angle iron and nickel-plated steel bands. Folded up it forms a grate-like frame, the legs being fastened by hinges, and fitting when closed exactly into the frame. The top is formed of a series of steel bands, each one and a quarter of an inch wide, at a distance of four to five inches from each other. The greater part of the top is taken up by the arrangement for Trendelenburg's Posture. This arrangement is very similar to the Krug's Frame, see page 419.

When irrigation is indicated, the fluid will flow off directly through the grate-like table, and be conducted to a vessel by means of a rubber cloth, which may be fastened to the four legs.

While the Table is constructed with the special view in mind to carry it along for outside operations, it is very convenient for office use, especially where space is limited, as it can be folded together and placed against the wall.

Price.....\$35 00

## Office Supplies.

## 6124.\* PHYSICIAN INSTRUMENT CABINET.

This is designed especially for physicians and surgeons. It has unique features not heretofore found in a piece of furniture of this character, particularly the swinging shelves, six in number, which are pivoted at the front left corner. When the door is open, each shelf may be swung out independently of the others, turning upon its pivotal point. The illustration shows the cabinet open with the lower shelf swung out. This is more desirable than the method heretofore adopted of using drawers, fixed shelves or a series of shelves all swinging together, as in the method adopted by us, each shelf swinging independent of the others and being placed in the upper part of the cabinet, the shelf may be readily inspected and any instrument selected without the necessity of stooping to look between the shelves, thereby saving in point of space and making it much more convenient to distinguish any instrument in the cabinet. On the six swinging shelves combined is space for the reception of instruments, equal to a table 30 x 44 inches. Each shelf has a flange surrounding it, the lower ones being deeper than the upper ones, to prevent the instruments from falling off.

The shelves are covered and the whole interior of the cabinet above the drawers, is lined with Hartford plush.

We make these with or without glass door.

The swinging shelves are placed in upper part of cabinet, the lowest swinging 27 inches from the floor.

The cabinet mounted upon castors is 4 feet 7½ inches from the floor to the top, not including in this measurement the ornamental rail on the top.

Width of the front, 24 inches.

From front to back, 18 inches.

Lower drawer, 16½ inches wide, 15½ inches front to back, 7 inches deep.

Middle drawer, 16½ inches wide, 15½ inches front to back, 4½ inches deep.

Upper drawer, 16½ inches wide, 15½ inches front to back, 3½ inches deep.

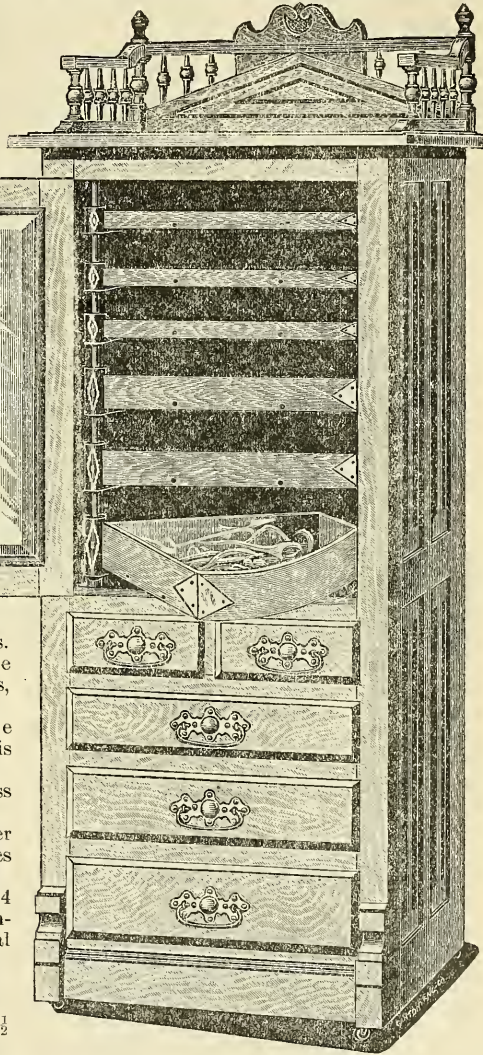
These drawers are made with a flange setting in front of the opening, thereby making them as nearly as practicable dust proof.

## STYLE OF FINISH.

This cabinet is well made in every part, the hardware and trimmings being oxidized brass, lock and key to the door, making on the whole an elegant piece of office furniture. It is finished in antique oak, 16th Century oak, cherry or black walnut. Finished in hard oil.

## PRICE.

|                                                 |         |
|-------------------------------------------------|---------|
| No. 3, with Panel Door.....                     | \$33 00 |
| No. 5, with Plain Glass Door.....               | 35 00   |
| No. 7, with French Bevel Plate Glass Door.....  | 37 00   |
| No. 9, with French Bevel Plate Mirror Door..... | 40 00   |



6124

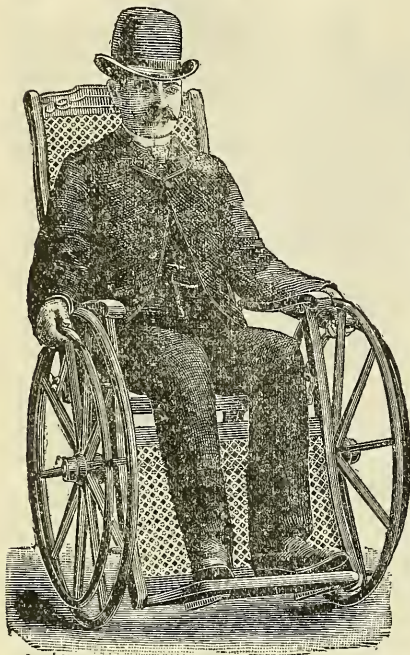


## Invalid Rolling Chairs.††

### 6125.\* INVALID'S RECLINING ROLLING CHAIR

is constructed in such a manner that the occupant may sit or recline in any desired posture.

It is automatically adjustable to any position, and may be made rigid at any point between, by the turning of the hand nut at the joint of the seat and back.



6125

The joints of the back, seat, and leg-rest correspond with those of the human body, and it is proportioned in accordance with anatomical demands.

The perfect shape, curves and pitch of the chair, on which the comfort of its user depends, has been evolved by years of experience and study.

In construction, it is the lightest possible consistent with the necessary strength to insure durability.

The under frame, on which the seat rests, is of oak, bent in circular form at the back, which is very light, strong, graceful, and forms a most perfect bearing for the attachment of the running gear.

The side wheels are made of shaved hickory spokes, with iron tires shrunk on, the hand rims are of bent oak.

The chair is made of oak finished in natural color, with caned seat, back and leg-rest.

#### DIMENSIONS.

|                                     |            |
|-------------------------------------|------------|
| Width over all.....                 | 29 inches. |
| Diameter of Side Wheels.....        | 28 "       |
| Diameter of Swivel Wheels.....      | 10 "       |
| Height of Back from Seat.....       | 32 "       |
| Height of Seat from Floor.....      | 19½ "      |
| Height of Seat from Foot-rest.....  | 17 "       |
| Height of Arms from Seat.....       | 9 "        |
| Width of Seat between the Arms..... | 19 "       |
| Depth of Seat.....                  | 19 "       |

Price .....\$28 00

Price, without hand rims ..... 27 00

No. 6126. Same style and dimensions as above, except the seat is only 17 inches wide, and width over all 27 inches.

Price same as above.

### 6127.\* Child's Rolling Reclining Chair

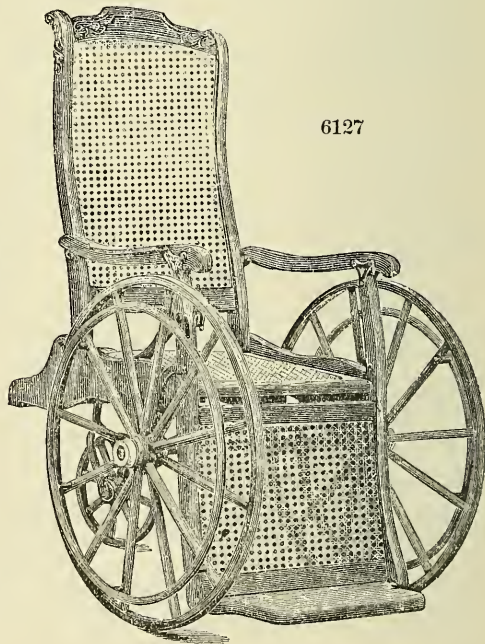
is made in the same manner as chair above described, excepting that the proportions are reduced to suit the size of a child, or a very small adult, of not over five feet in height.

#### DIMENSIONS.

|                                   |             |
|-----------------------------------|-------------|
| Height of Back from Seat.....     | 23½ inches. |
| Height of Arms.....               | 8 "         |
| Height of Seat from Floor.....    | 18 "        |
| Height of Seat from Foot-rest.... | 14 "        |
| Width of Seat.....                | 15 "        |
| Depth of Seat.....                | 15 "        |
| Diameter of Side Wheels.....      | 24 "        |
| Diameter of Swivel Wheels.....    | 10 "        |
| Width over all.....               | 25½ "       |

Price in oak .....\$25 00

Elliptic steel springs between seat and gear on above chairs, \$3 50 extra.

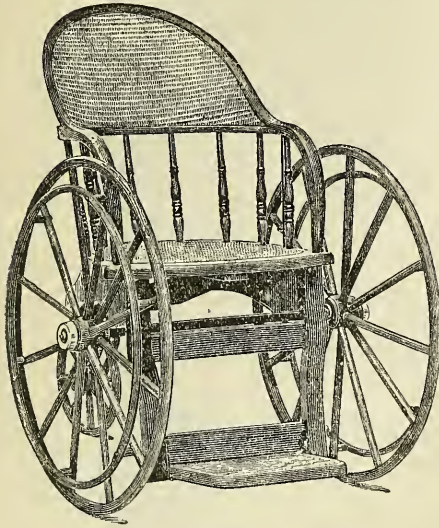


6127



## Invalid Rolling Chairs. ††

### 6129.\* INVALID ROLLING CHAIR



6129

Made of oak wood, woven cane seat and back, has outside hand rim on wheels for street use, to save hands from coming in contact with mud. Made in the most improved fixed shape (not reclining), affording rest to the occupant.

Height of back from seat.....23 in.

Width of seat.....18 "

Height of wheels from floor.....28 "

Will pass through a doorway not less than 28 inches wide.

Price .....\$21 00

### 6130.\* INVALID ROLLING CHAIR

Made in oak or black walnut, constructed on the same principle as the above chair; has same style wheels and axles, also hand rims, woven cane seat and back; is not reclining.

Height of back of seat.....22 in.

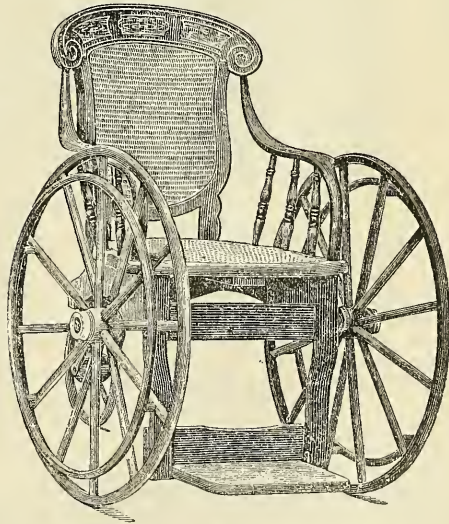
Width of seat.....18 "

Height of seat from floor.....20 "

Will pass through a doorway not less than 28 inches wide.

Price in oak.....\$22 00

" " walnut.....24 00



6130

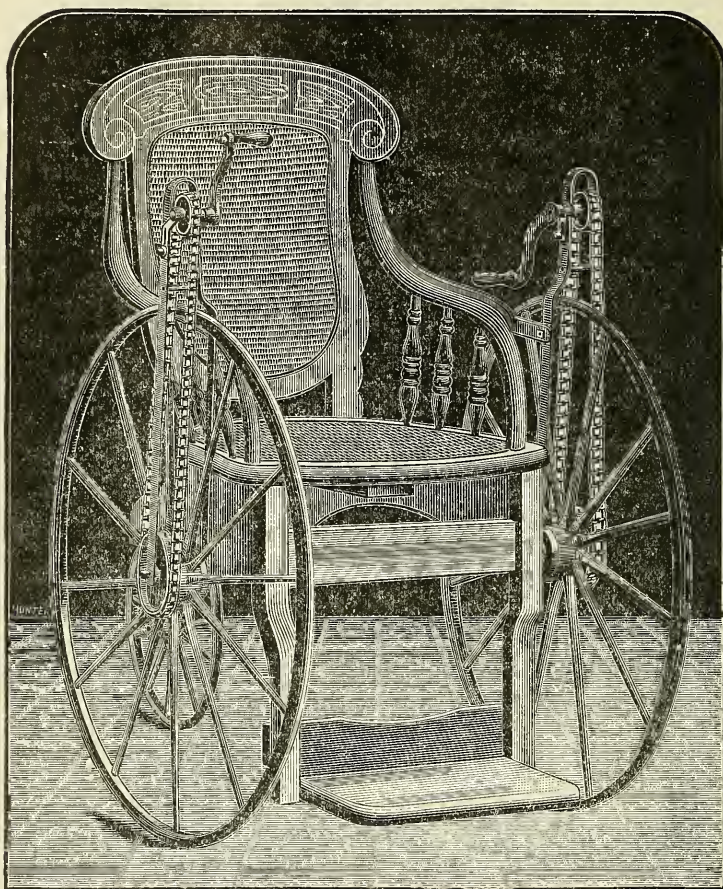
Cushions for above chairs, according to quality.....from \$3 50 to \$ 6 00

Tempered steel elliptic springs, placed between seat and gear, extra.....3 50

Without hand rims, less on above prices.....1 00

## Invalid Chairs. ††

## 6131.\* INVALID'S TRICYCLE ROLLING CHAIR.



6131

This chair has a new crank movement, with the endless chain and sprocket wheel. Each wheel works independently of the other, enabling the operator to turn the chair within its own space. The mechanical construction of the chair is unique, simple and durable, as well as light running, requiring the slightest effort to propel it at a rate of speed equaling an ordinary walk. Another important consideration in favor of this crank propeller is, that it can be run over uneven surfaces and up ordinary grades with comparative ease. This is on account of the continuous power applied to the cranks.

The chain-belt is arranged by an adjustable bolt, so it can be made either longer or shorter. The chair is of a late design, with woven cane seat and back.

|                                       |               |
|---------------------------------------|---------------|
| Height of back from seat.....         | 22 inches.    |
| Width of seat.....                    | 18 "          |
| Depth of seat from front to back..... | 18 "          |
| Weight of chair.....                  | about 50 lbs. |
| Height of seat from floor.....        | 20 inches.    |
| "    "    "    foot-board.....        | 17 "          |
| "    "    arms above seat.....        | 10 "          |
| "    "    wheels from floor.....      | 28 "          |

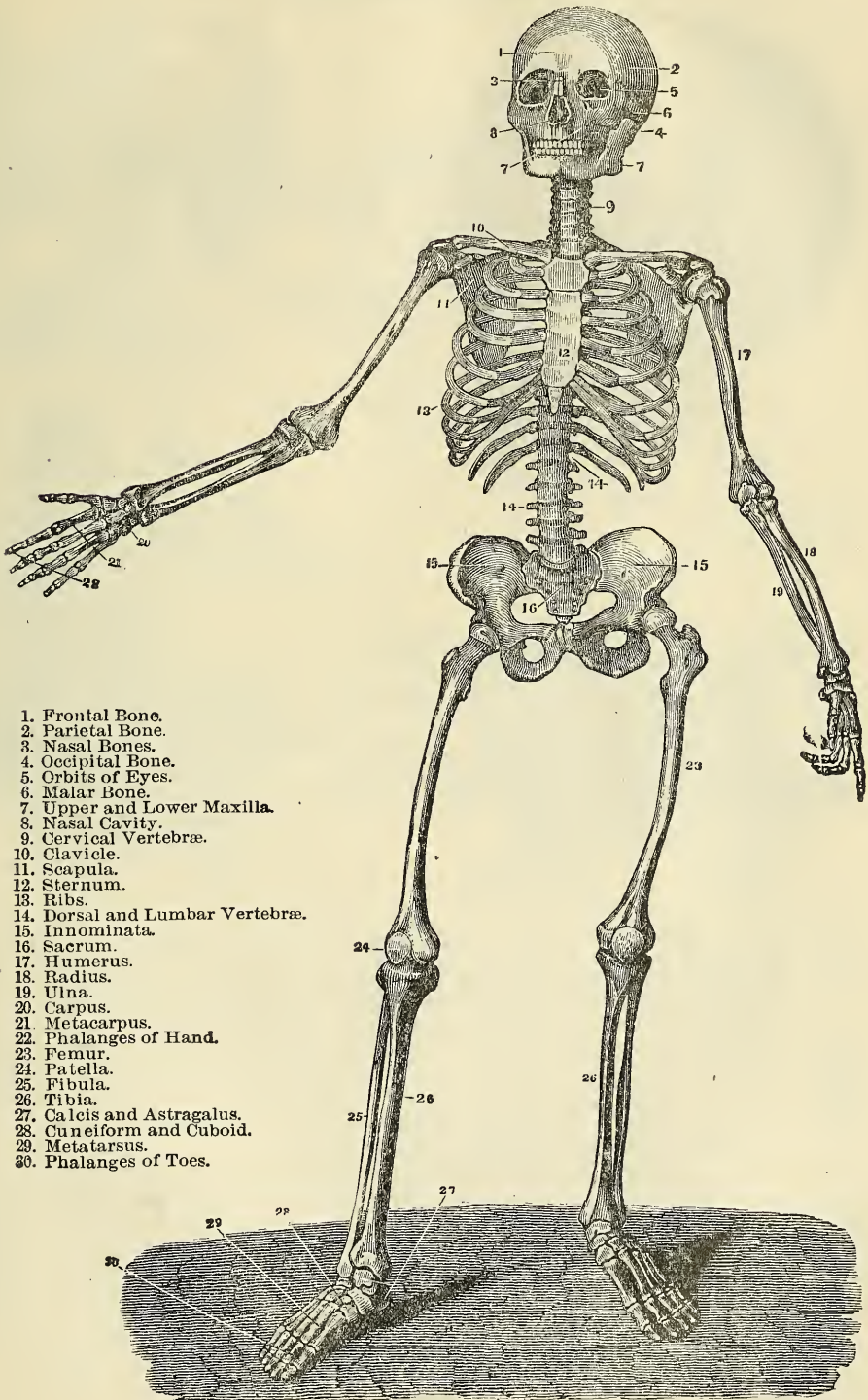
Will pass through a doorway not less than 28 inches wide.

Made in oak or black walnut wood.

|                                                                                 |                |
|---------------------------------------------------------------------------------|----------------|
| Price, oak .....                                                                | \$35 00        |
| "    walnut.....                                                                | 36 50          |
| Cushions for above chair.....                                                   | \$3 50 to 6 00 |
| Ten-paired steel elliptic springs, placed between the seat and gear, extra..... | 3 50           |



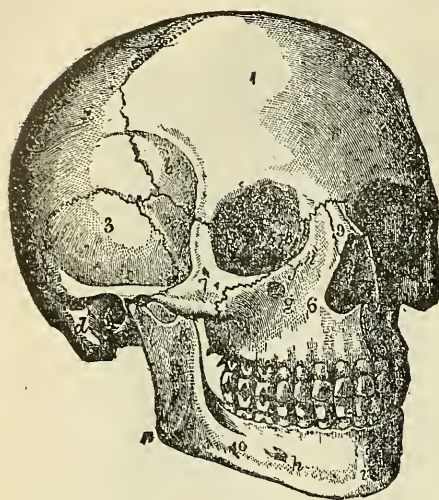
## Human Osteology.



1. Frontal Bone.
2. Parietal Bone.
3. Nasal Bones.
4. Occipital Bone.
5. Orbits of Eyes.
6. Malar Bone.
7. Upper and Lower Maxilla.
8. Nasal Cavity.
9. Cervical Vertebrae.
10. Clavicle.
11. Scapula.
12. Sternum.
13. Ribs.
14. Dorsal and Lumbar Vertebrae.
15. Innominate.
16. Sacrum.
17. Humerus.
18. Radius.
19. Ulna.
20. Carpus.
21. Metacarpus.
22. Phalanges of Hand.
23. Femur.
24. Patella.
25. Fibula.
26. Tibia.
27. Calcis and Astragalus.
28. Cuneiform and Cuboid.
29. Metatarsus.
30. Phalanges of Toes.



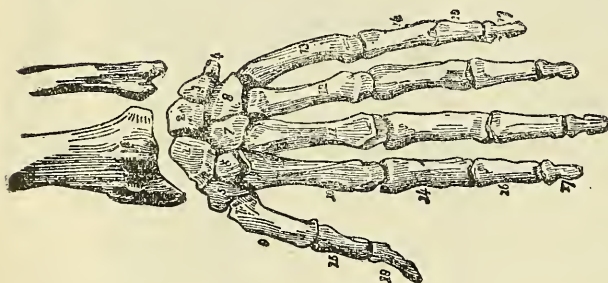
## Human Osteology.



6153



6159



6161



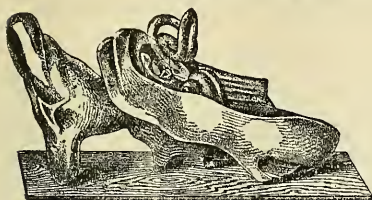
6160

|        |                                                                                                                                                                                                                                   |                                    |       |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------|
| 6150.* | Articulated Skeletons, to suspend, male or female.....                                                                                                                                                                            | \$25 00, \$30 00 to \$40 00        |       |
| 6151.  | Disarticulated Skeletons.....                                                                                                                                                                                                     | \$20 00 to 30 00                   |       |
| 6152.  | Half Skeletons, disarticulated, in boxes; consisting of the skull, spinal column, twelve ribs, sacrum, one os innominatum, one arm and one leg, hand and foot; the latter two and the vertebrae are held together by cat-gut..... |                                    | 21 00 |
| 6153.* | Skulls, Plain.....                                                                                                                                                                                                                | American, \$7 00; French \$8 00 to | 12 00 |
| 6154.  | “ with one horizontal cut.....                                                                                                                                                                                                    |                                    | 8 00  |
| 6155.  | “ “ two cuts.....                                                                                                                                                                                                                 |                                    | 12 00 |
| 6156.  | “ “ five cuts.....                                                                                                                                                                                                                |                                    | 13 50 |
| 6157.  | “ “ seven cuts, showing the sinus; the temporal bones disarticulated to show the middle and internal ear.....                                                                                                                     |                                    | 15 00 |
| 6158.  | “ disarticulated, in boxes with apartments for each bone, according to quality.....                                                                                                                                               | \$13 00 to                         | 16 00 |
| 6159.* | “ and thigh bones, for societies.....                                                                                                                                                                                             | \$6 00 to                          | 10 00 |
| 6160.* | Foot, strung on cat-gut.....                                                                                                                                                                                                      |                                    | 4 50  |
| 6161.* | Hand “ “ “.....                                                                                                                                                                                                                   |                                    | 4 50  |
| 6162.  | Female Pelvis, without ligaments, \$9 00 to \$12 00; with ligaments, \$12 00 to                                                                                                                                                   |                                    | 15 00 |
| 6163.  | Fœtal Skull.....                                                                                                                                                                                                                  |                                    | 3 50  |
| 6164.  | Spinal Column, strung on cat-gut.....                                                                                                                                                                                             |                                    | 6 50  |

The different prices of Skeletons are based upon their degrees of hardness and whiteness, upon the development of the bones, and the amount or absence of fat in their extremities.

Prices subject to change without notice.

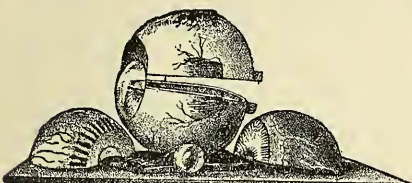
## Anatomical Models of Papier Maché.



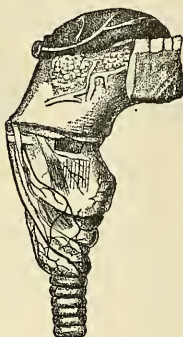
6176



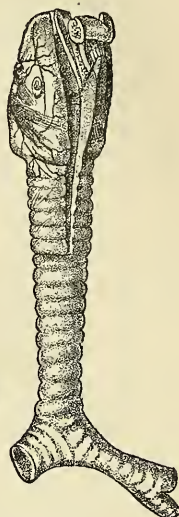
6173



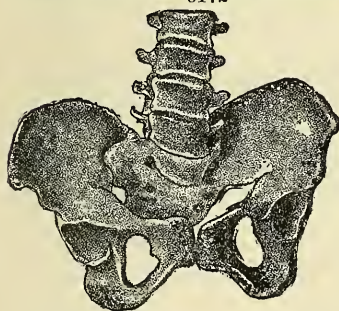
6172



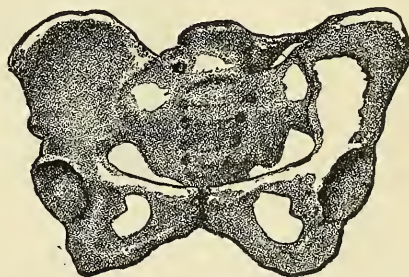
6183



6184



6188



6189

6165. Brain, natural size vertically cut, divisible, with medulla oblongata and spinalis as well as the nerve-roots.....\$ 4 50  
 6166. Brain, divisible into 4 parts, the first ventricle finely executed, otherwise like 6165..... 6 00  
 6172.\* Eye-ball, 10 times enlarged, with attachment of the muscles divisible into cornea, choroïdea, vitreous body and crystalline lens..... 9 00  
 6173.\* Eye in the orbita with nervus opticus, otherwise like 6172..... 10 00  
     See also models of the Eye on page 78.  
 6175. Organ of hearing, 10 times enlarged, dismountable..... 9 50  
 6176.\* Organ of hearing, 10 times enlarged with pinna, dismountable..... 13 00

### Respiratory Organs.

6179. Larynx, natural size with muscles, divisible into 2 parts..... 3 50  
 6180. Larynx, natural size with cartilages and ligaments divisible into 2 parts..... 4 00  
 6181. Larynx with muscles, arteries, nerves and glands, dismountable..... 5 00  
 6182. Larynx with tongue, divisible into 2 parts..... 5 50  
 6183.\* Larynx with tongue, divisible into 5 parts..... 8 50  
 6184.\* Larynx, double size with muscles, cartilages and arteries, showing the trachea down to the bifurcation; the different muscles are dismountable..... 9 00

### Collection of Abnormal Female Pelvis.

Copies of the collection of Pelves from the Royal Clinic of Midwifery of Berlin.

- 6188.\* Pelvis in development..... 9 00  
 6189.\* Pelvis with exaggerated diameters..... 9 00



Restraints for the Humane Care of the Violent Insane.

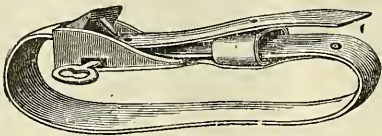
THE LYNCH RESTRAINT BUCKLE

Is constructed upon a principle somewhat similar to that of the Yale lock—is nickel-plated and very neat in appearance.

It is unlocked with a neat flat key, and locked by slipping back the bolt with the finger ; a spring pin prevents locking till desired. Its advantages are :

1. There are no steel springs to rust, break or get out of order.

2. Nothing can reach the works to clog or impede their action.



3. The straps cannot be cut or broken at the buckle-tongue.

4. A one inch strap with this will stand more strain than a three-inch one with

any other buckle ; this result is secured by an exceedingly simple mechanical device. It can be attached and detached much easier than any other buckle.

5. It cannot be picked by the patient.

6. Its adoption secures a uniformity of keys throughout the institution.

7. It is more economical than any other. It is more durable than any other. In short, it is unrivalled in every necessary particular.

With Waist Strap of Best Russet Belting .....\$2 50  
Buckle alone..... 2 00

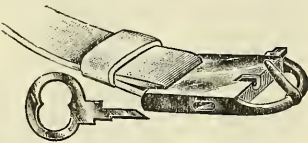
DIRECTION FOR USING BUCKLE.

To UNLOCK—Push in the key straight.

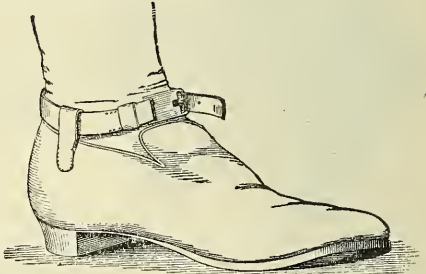
To LOCK—Press down small pin in end of bolt with the fore-finger of the right hand, then push in the bolt with thumb of same hand.

The pin is to prevent locking till ready. When not in use slip in the bolt.

SHOE AND CLOTHING BUCKLE.



We are also now offering a very neat small buckle, a modification of the larger, for fastening shoes and clothing. It is nickel plated ; can be readily attached ; locks and unlocks on the same principle as the larger buckle.

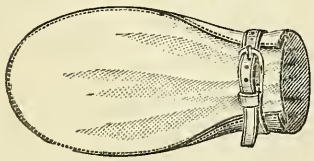


SLIPPER SHOWING BUCKLE ATTACHED.

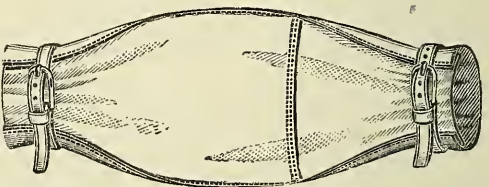
Saves its price in a day.

Price, with Straps and Loops, ready to attach to Slipper, per doz.....\$9 00  
Buckle alone, per doz..... 8 00

CANVAS MITT.



CANVAS MUFF.



Mitt and Muff of drab canvas—above illustrated—have become great favorites in many hospitals. They are neat in appearance, light, durable and washable. The use of our small Lock Buckle on the wristlet renders it impossible to obstruct circulation in the hand by too tight buckling.

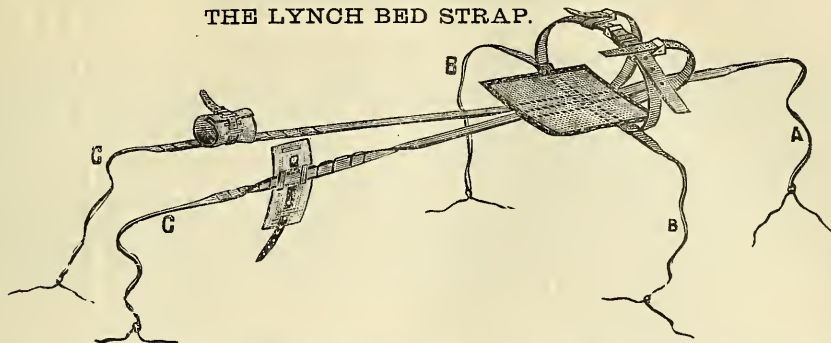
In the Muff the hands are separated by a thickness of the canvas.

Price each complete, with Waist Straps and Buckle.....\$ 5 00  
Straight Jacket, made of canvas for confining the violently insane, long and heavy..... 10 00



# Restraints for the Humane Care of the Violent Insane.

## THE LYNCH BED STRAP.



In offering this new device for keeping delirious patients in bed, we feel that we are supplying one of the most important articles in the whole Hospital Armamentarium.

It deserves to, and we believe it will quickly find its way into every hospital and every place where delirious persons are treated or detained.

It is the product of many months' experimentation, stimulated by hundreds of inquiries for such an apparatus, and aided by the suggestions and criticisms of a large number of the most expert physicians and surgeons in this country.

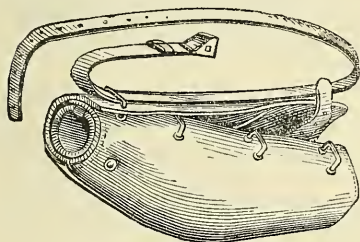
1. It is new, simple, practical and durable.
2. It is quickly and easily attached to beds of every size.
3. It is adjustable to persons of every size.
4. It is made of strong hemp web manufactured especially for this purpose.
5. The ankle is of soft, pliable, woven material which will not chafe.
6. While it secures the patient firmly to the bed, sufficient freedom of motion may be permitted to allow him to rest on either side.

A. Attachment to head rail. B B. Attachments to side rails. C C. Attachments to foot rail.

Turn cords around rails two or three times and tie with small cords at end, draw tightly.  
To permit patient to turn on one side, relax at B or B.

Price.....\$10 00

## The Lynch Muff



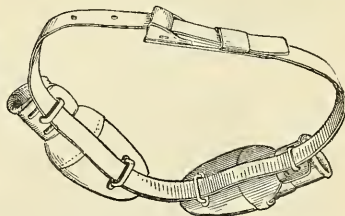
Is of a new design, much superior to all the older styles, and made of russet leather. Its form is permanent. Permanent wristlets are attached and so fitted with buckles as to be adjustable to any size of wrist. These wristlets are turned on the edge and lined with best buckskin, as are also the seams in the muff. The most thorough ventilation is secured by perforations on the under surface and back.

Price, with waist strap and patent lock buckle, complete.....\$8 00

## Mitts.

This cut represents the leather mitt. The wristlet and upper part of palm are made of heavy russet leather, and lined with best buckskin. The front and back of hand are of calf russet, soft and pliable. Ventilation by perforation in the back. Attachment to waist strap by two brass staples on each wrist, as shown in cut.

Price per pair, with waist strap and patent lock buckle complete.....\$8 00



## Anklets.

There are two styles of anklet, one with small and one with large buckles. Those with small buckles do not become separated when detached from the patient, but are always together when required for use. They are adjustable to any ankle and are especially designed for day use.

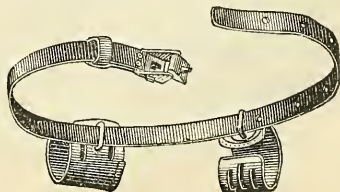
Those with large buckles may be used separate, and are best adapted for night use. Both are made of No. 1 russet leather, lined with best buckskin, and rolls are turned on both edges.

Price of either, complete, with straps and buckles.....\$6 00

## Wristlets.

These are made of the best heavy russet stock and lined with best buckskin. A roll is turned on the side next the hand. The wristlet is attached to the waist strap by a brass staple and plate, and is adjustable for three sizes of wrists.

Price, complete, with waist strap and patent lock buckle.....\$5 00



## Repairing, Nickel-Plating, &c.

We will receive Surgical Instruments and Medical Apparatus of every description for any required repairs, sharpening, polishing, gold, silver or nickel-plating, &c. While space does not admit of an extended price-list for these items, the following, relating to many instruments in general use, will be found convenient. Charges for repairing sets and large collections of instruments will be in proportion to time expended.

Attention is invited to the desirableness of Nickel-Plating, as an ornament and protection from rust, &c., for many instruments of steel and of other metals.

Instruments may be sent to us, plainly addressed, by mail or other conveyance. As we frequently receive similar articles by the same mail; in order that we may recognize each and avoid mistakes, besides our address, senders will please write "From," followed by their own address upon each parcel. (Nothing besides the above should be written upon or within the package.) A letter or postal card should be mailed at the same time, stating number and kind of instruments sent, and kind of repairs required.

|                                                                                                                                                             |                |                                                                                  |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------|--------------|
| Amputating Knives sharpened and polished.....                                                                                                               | \$ 25 to \$ 75 | Hypodermic Syringes, needles sharpened and cleared.....                          | \$ 25        |
| Amputating Saws, large.....                                                                                                                                 | 50 to 1 00     | Knives, minor operating, sharpened and polished, each.....                       | 15           |
| "    "    small.....                                                                                                                                        | 25 to 30       | Knives, uterine, sharpened and polished, each.....                               | 15 to 25     |
| Artery Forceps polished and nickel-plated                                                                                                                   | 20 to 30       | Lancets, abscess, bleeding, vaccinating, sharpened and polished.....             | 15           |
| "    "    new spring.....                                                                                                                                   | 30 to 40       | Mirrors, laryngoscopic, re-silvered.....                                         | 25           |
| Aspirator Pumps repacked and polished....                                                                                                                   | 50 to 1 00     | "    "    new glass.....                                                         | 50           |
| Aspirator Needles sharpened.....                                                                                                                            | 15             | "    reflecting, new glass costs as much as a complete new mirror, see page 111. |              |
| "    "    cleared.....                                                                                                                                      | 25 to 40       | Obstetrical Instruments.                                                         |              |
| Atomizers, steam, repaired, brass parts polished.....                                                                                                       | 1 00           | Delivery Forceps polished and nickel-plated.....                                 | 1 00 to 1 50 |
| Atomizers, steam, brass parts polished and nickel-plated.....                                                                                               | 2 00           | Blunt Hooks and Crotchets polished and nickel-plated.....                        | 50 to 1 00   |
| Atomizers, steam, new medicine cup, 10c.; drip cup, 15c.; glass tube, 20c.; face shield.....                                                                | 25 to 35       | Perforators polished and nickel-plated...                                        | 75 to 1 00   |
| Atomizers, hand, new bulbs (single).....                                                                                                                    | 30 to 40       | Placenta Forceps polished and nickel-plated.....                                 | 60 to 1 00   |
| "    "    valves, each.....                                                                                                                                 | 10 to 15       | Pocket Case Instruments, knives, sharpening and polishing each blade.....        | 10 to 15     |
| "    tubes cleared.....                                                                                                                                     | 10 to 25       | Scissors, sharpening and polishing.....                                          | 15 to 25     |
| Bone Forceps polished.....                                                                                                                                  | 25 to 50       | Forceps, polishing, &c.....                                                      | 15 to 25     |
| "    "    and repaired.....                                                                                                                                 | 75 to 1 00     | New cases for 2 fold, \$2 25, \$3 00; 3 fold, \$3 75; 4 fold.....                | 4 75         |
| "    "    and nickel-plated....                                                                                                                             | 50 to 75       | Syringes, Enema, new bulbs and cleansed..                                        | 50 to 75     |
| Catheters, Silver, form restored, soldered, &c.....                                                                                                         | 50 to 1 00     | "    "    new valves, each.....                                                  | 10 to 25     |
| Catheters, Silver, recurved.....                                                                                                                            | 50 to 1 00     | "    "    tubing.....                                                            | 25 to 50     |
| Catheters, cracked from use, cannot be repaired.                                                                                                            |                | Stethoscopes, Camman's metal tubes, nickel-plated.....                           | 50           |
| Crutches, lengthened, per pair.....                                                                                                                         | 1 00           | Stethoscopes, Camman's new, hard-rubber ear tips.....                            | 50           |
| Dissecting Scalpels sharpened and polished                                                                                                                  | 10             | Stethoscopes, Camman's new, flexible tubing attached.....                        | 65           |
| Dissecting Forceps polished.....                                                                                                                            | 15             | Specula, metallic, rectal and vaginal, polished and nickel-plated.....           | 75 to 1 50   |
| "    "    and nickel-plated.....                                                                                                                            | 25 to 40       | Scarificators sharpened and polished, each blade.....                            | 12           |
| Ecraseurs polished and nickel-plated.....                                                                                                                   | 50 to 1 00     | Teeth Extracting Forceps polished.....                                           | 30           |
| Eye Knives, Forceps, and Scissors sharpened and polished.....                                                                                               | 15 to 35       | "    "    "    and re-pointed.....                                               | 50 to 75     |
| Galvanic Batteries, Electrical Machines, &c., cleansed, repaired and supplied with new conductors, elements, &c., from any manufacturer at moderate prices. |                | Teeth Extracting Forceps polished and nickel-plated.....                         | 50           |
| Hypodermic Syringes, new barrels, glass, plain and packing.....                                                                                             | 50             | Tourniquets, new straps.....                                                     | 35           |
| Hypodermic Syringes, new barrels, glass, graduated and packing.....                                                                                         | 60             | Tonsilotomes, sharpened, polished and nickel-plated.....                         | 75 to 1 50   |
| Hypodermic Syringes, new pistons, including packing.....                                                                                                    | 35             | Trocars, hydrocele, &c., polished and re-pointed.....                            | 15 to 25     |
| Hypodermic Syringes, repacked.....                                                                                                                          | 25             | Trusses, new spring.....                                                         | 75 to 1 25   |
| "    "    new needles, steel, good, each.....                                                                                                               | 30             |                                                                                  |              |
| Hypodermic Syringes, new needles, steel, best reinforced, Platinum plated.....                                                                              | 50             |                                                                                  |              |
| Hypodermic Syringes, needles sharpened and polished.....                                                                                                    | 15             |                                                                                  |              |

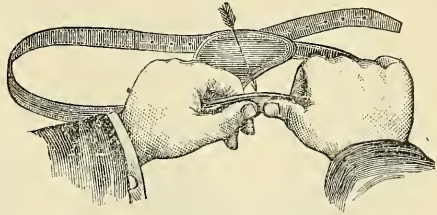
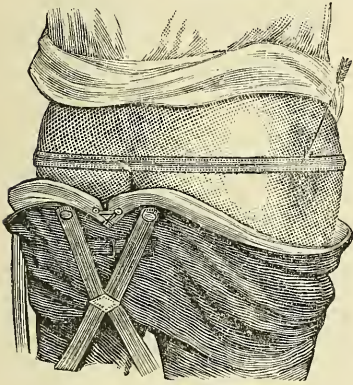


## Trusses for Hernia. ††

### LEATHER-COVERED TRUSSES.

With an experience in the manufacture and application of trusses which has extended over a period of many years, and aided by the practical advice of many eminent surgeons with whom we have been brought into contact in the treatment of complicated cases of Hernia, we are enabled to adapt apparatus successfully to every form of this affliction. Our patrons may be assured that we will spare neither labor nor expense to produce appliances that will meet their requirements and to maintain our reputation in the superiority of material, excellence of workmanship and correctness of shape in this line of goods.

### DIRECTIONS FOR FITTING AND SHAPING.



Place the patient in a reclining position, and reduce the Hernia; this will show you the exact size and location of hernial ring, but if in doubt as to size, carefully plug the hernial ring, using the tips of one or more fingers, as may be found necessary, then let the patient rise and test the accuracy of your judgment by coughing, or otherwise putting pressure on the bowels; the amount of pressure used and size of plug found necessary, will guide in selecting strength of spring and size of pad required; the location of the Hernia indicating the style of truss necessary; make sure of these points, then, if form is irregular in shape, see that spring is adjusted properly, as shown above, using *all* fingers, the *thumbs* doing the bending, while the fingers hold and brace the spring and spread the strain, thus lessening chances of breaking in shaping. Never give the spring a sharp bend, or force shape too rapidly, but humor carefully.

Our springs are made of such shapes, as a long experience has shown us to be suited to most cases, but the human form varies so in shape, that to fit a truss properly and give perfect satisfaction, it will be found necessary in many cases to slightly reshape as above directed.

### DIRECTIONS FOR ORDERING—READ CAREFULLY.

In ordering special trusses, etc., observe the following directions:

State if hard-rubber or leather trusses are wanted.

State if for *Inguinal*, *Scrotal*, *Femoral* or *Umbilical Hernia*, whether right or left, or double, and the circumference of the body, one to two inches *below* the tips of the hips, avoiding the fullness of the abdomen; state pressure required, shape of form, size of Hernia and general appearance.

For an *Umbilical Hernia*, the circumference of the body at line of rupture, size of rupture and the pressure required.

When possible, give sex, age, weight, occupation and length of time ruptured. Also, has the patient worn a truss already.

Regular sizes of Adults' Trusses run from 29 to 44 inches. Youths' from 21 to 28 inches, and a child's from 12 to 20 inches.

**SPECIAL NOTE.**—Fitting and adjusting special cases given careful attention at our office; always send a letter of introduction with the patient and get credit for the sale.

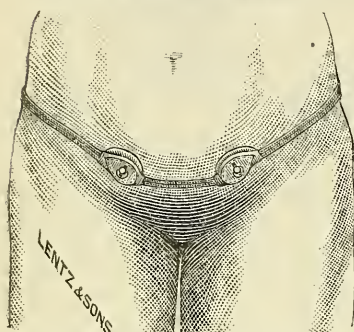


## Trusses for Hernia.††

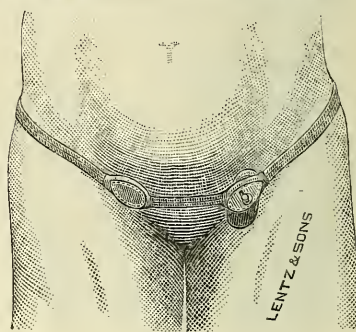
During our experience in applying trusses, we have never met a case of Hernia which could not be relieved by the Perfect "Hood" Pattern Truss. The practical knowledge obtained in fitting trusses daily, enables us to manufacture these trusses of the correct pattern, this together with the correct shapes and bearings of our pads and springs, complete appliances that are readily fitted with the certainty of giving relief and comfort. No motion, position or effort will be found to remove them from place, when properly applied to the body.

When used as a single truss a Sympathetic Pad only is applied on the unaffected side. The pads can be placed in any required position, and accurately adjusted to hold the rupture.

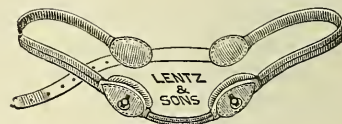
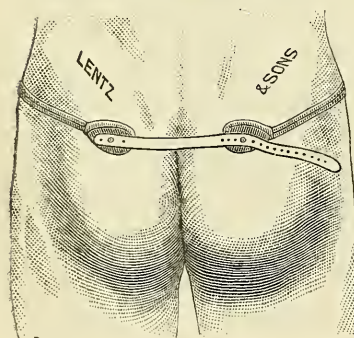
Hood's Truss Applied.



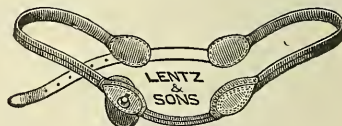
Hood's Femoral Truss Applied.



Hood's Truss Applied.



6200



6201

### 6200.\* Hood's Truss for Single or Double Inguinal Hernia.

|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| Adult's..... | Leather Covered, \$6 00 ; Hard Rubber, \$8 00 ; Celluloid, \$10 00 |
| Youth's..... | " " 4 00 ; " " 5 00 ; " 6 00                                       |
| Child's..... | " " 3 00 ; " " 4 00 ; " 5 00                                       |

### 6201.\* Hood's Truss for Femoral Hernia.

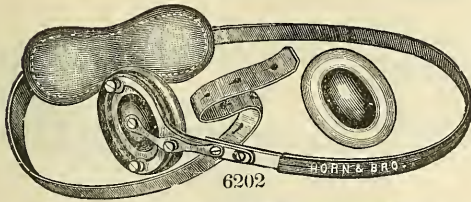
|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| Adult's..... | Leather Covered, \$6 00 ; Hard Rubber, \$8 00 ; Celluloid, \$10 00 |
|--------------|--------------------------------------------------------------------|

The Leather Covered Trusses are furnished with Cedar or Fine Kid Pads.

Either style trusses furnished with the improved "Water Pads" at an additional price of 75 cents each.

## Trusses for Hernia,††

### LEATHER-COVERED SINGLE TRUSSES.

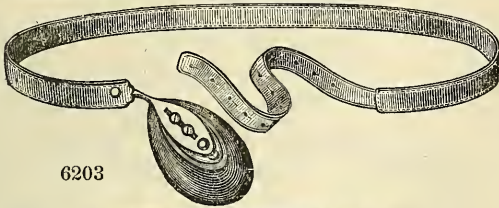


6202

#### 6202.\* Genuine Radical Cure

with Adjustable Pad. Fine Calf Cover; Nickel-Plated Fixtures and Springs; Spring Steel Back Pad; Polished Hard Rubber Oval Pad, with Soft Rubber Ring Cushion.

Applied from the well or opposite side..\$6 50



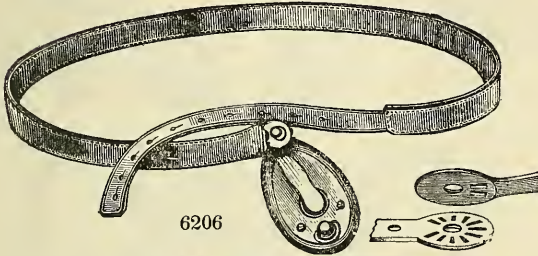
6203

#### 6203.\* Chase's Genuine, Cedar

Pad, Calf Leather Cover.....\$2 50

#### 6204. Chase's Femoral, Cedar

Pad, Calf Leather Cover, Kid Lining ..... 3 00



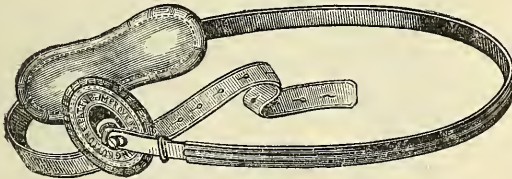
6206

#### 6205. Chase's Femoral, Fine

Kid or Water Pad, Calf Leather Cover, Kid Lining..... 3 50

#### 6206.\* Set Screw or Lock Pad,

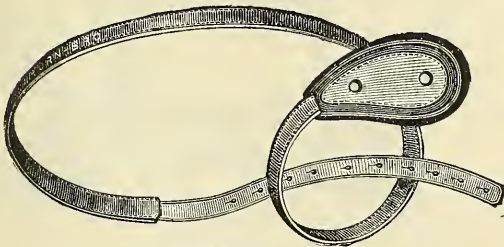
applicable to either side, Cedar or Fine Kid Pad, Leather Cover 3 00



6207

#### 6207.\* Self-Adjusting, applica-

ble to either side; Nickel-Plated Fixtures and Springs; Fine Calf Cover and Kid Pads. Applied from the well or opposite side.. 3 50



6208-6211

#### 6208.\* Plain French, Chamois

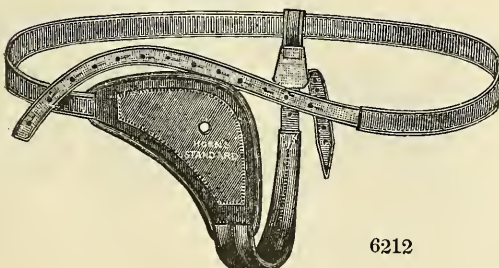
Pad..... 1 50

#### 6209.\* Medium French, Fine

Chamois Lined Cover and Pad 2 00

#### 6210.\* Fine French, Calf Cover

and Fine Kid Pad..... 2 50



6212

#### 6211.\* Extra Fine French, Calf

Cover, Kid Lining and Kid Pad 3 00

#### 6212.\* Rhenish or Improved

German, Fine Calf Cover, and very large Kid Pad, with Folded Kid Understrap for severe cases of Scrotal Hernia.. 4 00



## Trusses for Hernia. ††

### LEATHER-COVERED TRUSSES.

6213.\* Elastic Truss, Reversible for right or left side, Extra Heavy Elastic Webbing, with Cedar or Fine Kid Pad, Single.....\$ 2 50

6214.\* Elastic Truss, Extra Fine, Heavy Silk Elastic Webbing, Gold-Embossed Front, with Hard Rubber or Water Pad..... 3 50

6215. Elastic Truss, with Extra Heavy Elastic Webbing, Cedar or Fine Kid Pads, Double..... 4 00

6216. Elastic Truss, Double, same style and finish as No. 6214..... 5 50

6217.\* Chase's Genuine, Cedar Pads, Leather-Cover, Double..... 4 00

6218.\* Chase's Genuine, Cedar or Hard Rubber Pads, Calf Leather Cover, Double..... 5 00

6219.\* French, with Flexible Back Pad, Fine Chamois Pads, Double 3 00

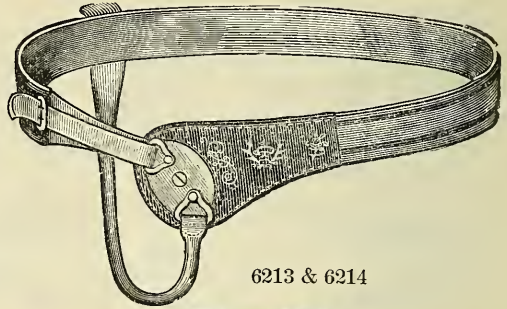
6220.\* Medium French, Improved Spring Back Pad, Fine Chamois Pads, Double..... 3 50

6221.\* Fine French Calf Cover, Improved Spring Back Pad, Fine Kid Pads, Double..... 4 00

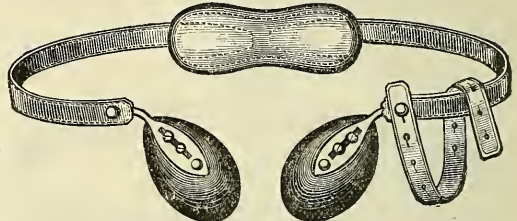
6222.\* Extra Fine French, Improved Spring Back Pad, Fine Kid Pads, Double..... 5 00

6223.\* Set Screw or Lock Pad, with Kid Back Pad and Polished Cedar or Fine Kid Pads, Double.....\$ 5 00

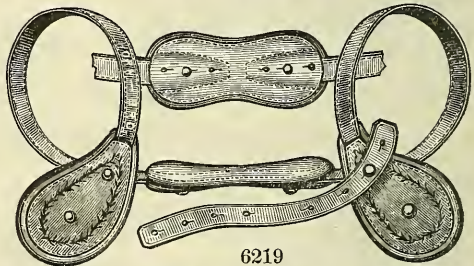
6224. Genuine Radical Cure, Double, with Flexible Back Pad, same as No. 6202..... 10 00



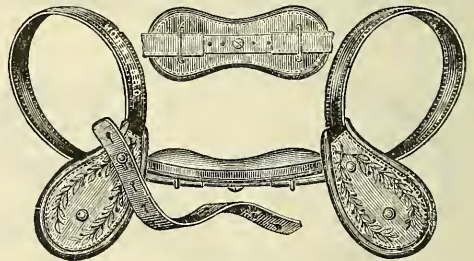
6213 &amp; 6214



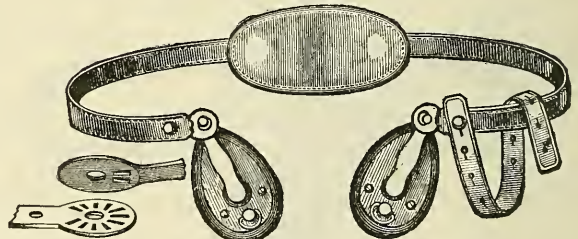
6217 &amp; 6218



6219



6220 to 6222



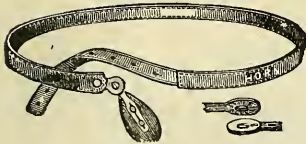
6223

*All Trusses Illustrated are designated by a \*.*

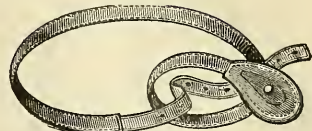


## Trusses for Hernia. ††

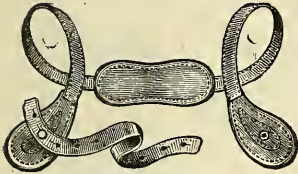
### YOUTH'S AND CHILDREN'S.



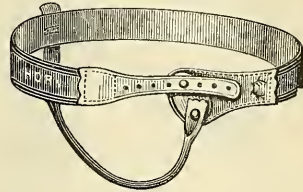
6225



6227 and 6229



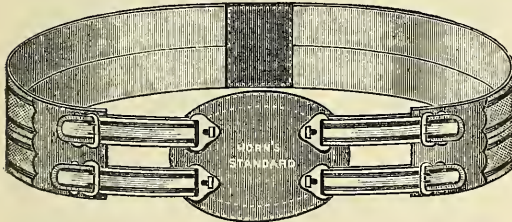
6228 and 6230



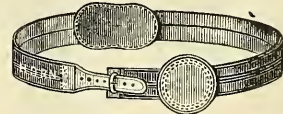
6231

|        |                                                                            |        |
|--------|----------------------------------------------------------------------------|--------|
| 6225.* | Improved Chase's, applicable to either side, Cedar or Kid Pad, Single..... | \$1 50 |
| 6226.  | “ “ Movable Pads, Cedar or Kid Pads, Double.....                           | 2 50   |
| 6227.* | Medium French, Chamois Pad, Single.....                                    | 1 50   |
| 6228.* | “ “ “ Double.....                                                          | 2 50   |
| 6229.* | Best French, Kid Pads, Single.....                                         | 1 75   |
| 6230.* | “ “ “ Double.....                                                          | 3 00   |
| 6231.* | Elastic Reversible, for right or left side, Single.....                    | 1 50   |
| 6232.  | “ “ Double.....                                                            | 2 50   |

### UMBILICAL TRUSSES.



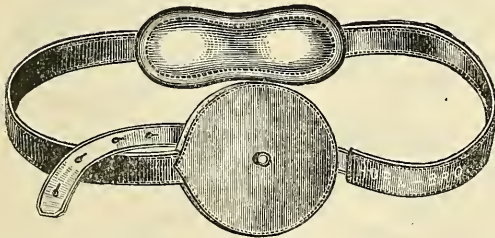
6235



6236



6241



6239



6237 and 6238

|        |                                                                                |        |
|--------|--------------------------------------------------------------------------------|--------|
| 6235.* | Elastic Umbilical, Soft Kid Pad, Adult's.....                                  | \$4 00 |
| 6236.* | “ “ “ “ Child's.....                                                           | 1 75   |
| 6237.* | “ “ “ “ Celluloid “.....                                                       | 2 50   |
| 6238.* | “ “ “ “ Adult's.....                                                           | 5 00   |
| 6239.* | French, “ “ Fine Chamois Cover and Pads, Adult's.....                          | 4 50   |
| 6240.  | “ “ “ “ Kid Cover and Pad, Child's.....                                        | 1 75   |
| 6241.* | Child's “ “ Belt, Soft Rubber, to lace, with Inflatable Pad, 10 to 18 inches.. | 1 25   |

## Trusses for Hernia. ††

DIRECTIONS FOR SHAPING HARD RUBBER TRUSSES.

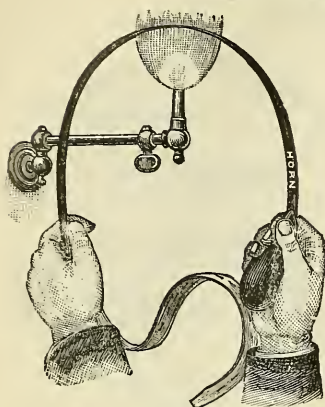


Fig. B.

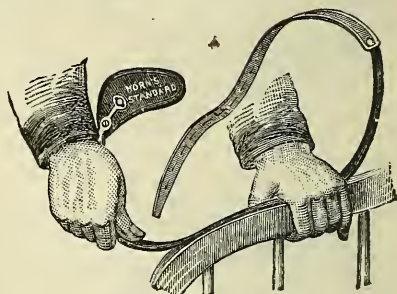


Fig. C.

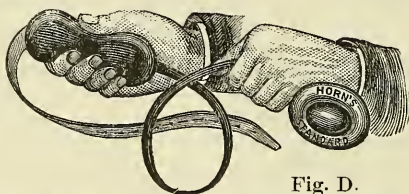


Fig. D.

Pass through a flame, made by a gas jet, spirit-lamp, or twisted paper, pass quickly back and forth the Spring to be manipulated, until warm (not hot) to the touch, when the Truss is in a proper condition to shape to the form required, then manipulate it the same as you would a Leather Covered Truss, or over arm of chair, as shown in Fig. C, and when cool, the rubber will be found to have taken the new set or shape given the Spring. To *increase the power of Truss*, warm as described above, then draw Spring well together, holding as shown in Fig. D, until entirely cool; to *weaken power*, warm as above shown, then open gradually, or bend carefully over arm of chair, holding open until cool.

**SPECIAL NOTE.**—Fitting and adjusting special cases given careful attention at our office; always send a letter of introduction with the patient and get credit for the sale.

## HARD RUBBER COVERED, SINGLE TRUSSES.

6245. Chase's Genuine, with Improved Neck, Nickel-Plated. ....\$3 50

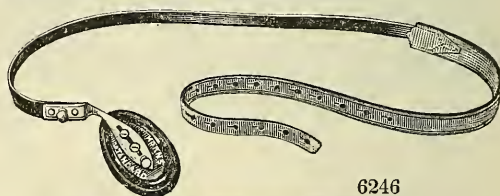
6246.\* Chase's Femoral, with Pad suitable for Femoral Hernia, Improved Neck, Nickel-Plated..... 4 00

6247.\* Chase's Improved, with Reversible Clutch Joint Neck, applicable to either side..... 3 50

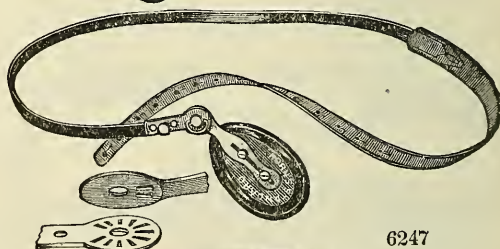
6248.\* French Pattern, very light, most suitable when light pressure is desired..... 3 00

Same Pattern, Celluloid Covered..... 4 00

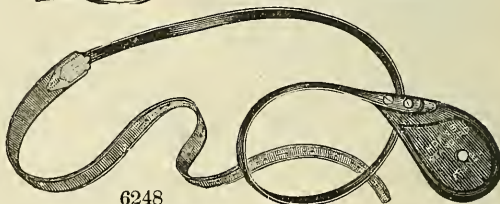
"Water Pads" can be furnished to either of the above trusses at an additional price of 75 cents.



6246



6247



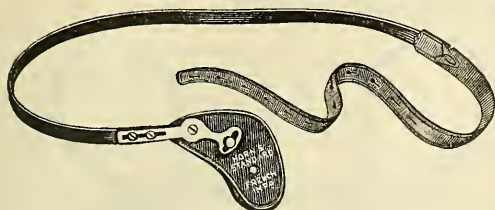
6248

All Trusses Illustrated are designated by a \*.



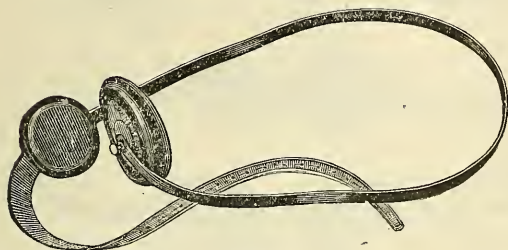
## Trusses for Hernia.††

HARD RUBBER COVERED, SINGLE.



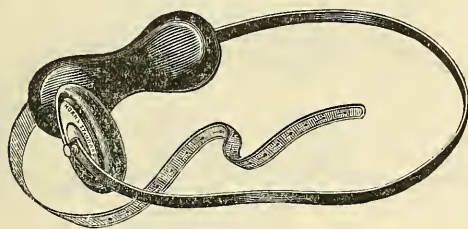
6250

6250.\* Improved French Adjustable, Large Pad.....\$3 50  
Same pattern, Celluloid Covered.. 4 50



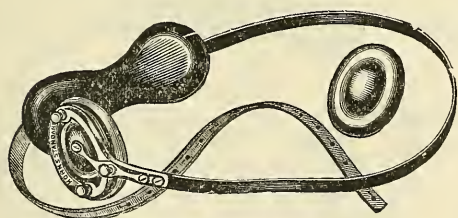
6251

6251.\* English Cross Body, with Continuous Spring and Hip Pad, applicable to either side..... 3 00  
Same pattern, Celluloid Covered.. 4 00



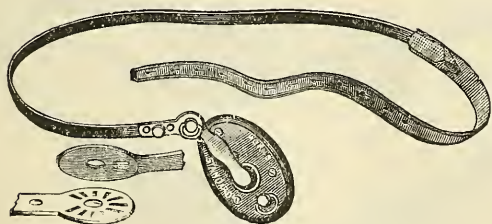
6252

6252.\* English Cross Body, with Continuous Spring and Back Pad, applicable to either side..... 3 50



6253

6253.\* Genuine Radical Cure, with Adjustable Pad, Nickel-Plated Fixtures and Springs. Hard Rubber Oval Pad with Soft Rubber Ring Cushion. Applied from the well or opposite side..... 8 00



6254

6254.\* Set Screw or Lock Pad, with Reversible Clutch Joint Neck, applicable to either side..... 4 00

“Water Pads” can be furnished to either of the above trusses with exception of No. 6253, at an additional price of 75 cents.



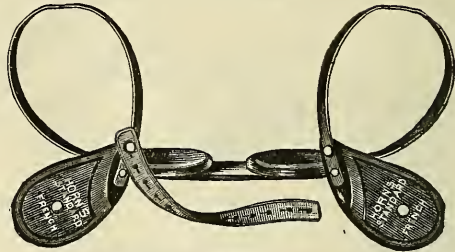
## Trusses for Hernia. ††

HARD RUBBER COVERED, DOUBLE.

6255.\* French Pattern Spring

Back Pad.....\$5 00

Same pattern, Celluloid Covered 7 00

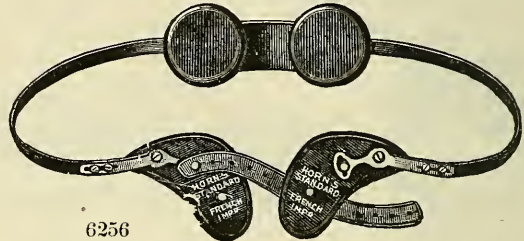


6255

6256.\* Improved French Ad-

justable, Large Pads and

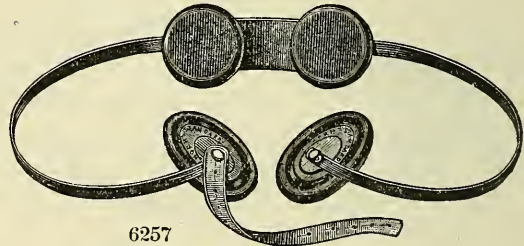
Spring Back Pad..... 5 50



6256

6257.\* English Pattern Spring

Back Pad..... 5 50

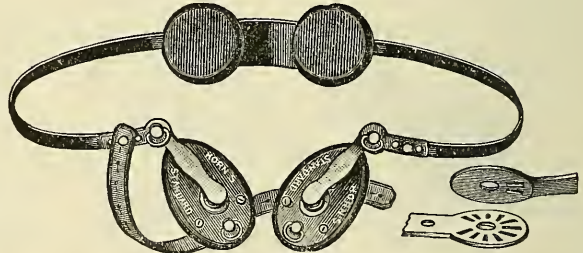


6257

6258.\* Set Screw or Lock Pad,

with Reversible Clutch

Joint Neck..... 6 00

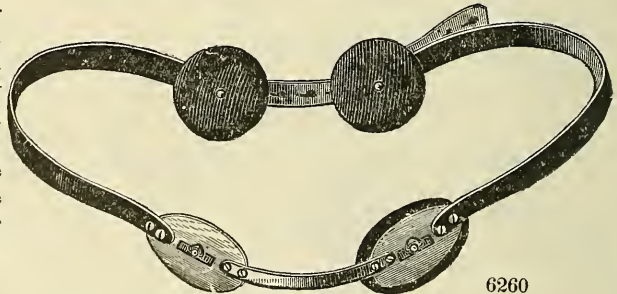


6258

6259. Genuine Radical Cure,

Double, same as No. 6253..10 00

6260.\* Hood's Single and Double; when fitted for single, there is a thin, flat hard rubber sympathetic pad only applied on the unaffected side. In ordering single, state if right or left, as the pads have the genuine shape and are not reversible. For further description and price, see page 431.



6260

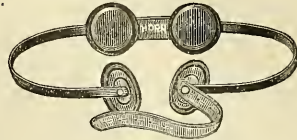
*All Trusses Illustrated are designated by a \*.*

## Trusses for Hernia. ††

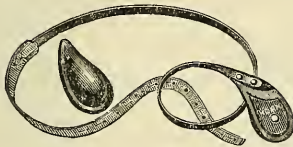
HARD RUBBER, YOUTH'S AND CHILDREN'S.



6265



6266



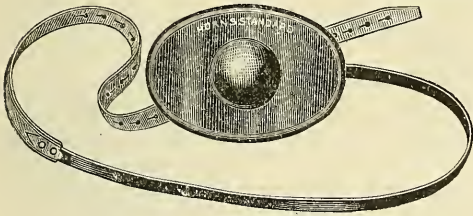
6267



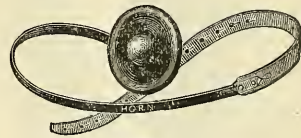
6268

|        |                                                                                   |        |
|--------|-----------------------------------------------------------------------------------|--------|
| 6265.* | English Pattern, Cross Body, with Hip Pad, applicable to either side, Single..... | \$2 50 |
| 6266.* | “ “ with Spring Back Pad, Double.....                                             | 4 00   |
| 6267.* | French “ Very Light, Single.....                                                  | 2 50   |
| 6268.* | “ “ with Spring Back Pad, Double.....                                             | 4 00   |

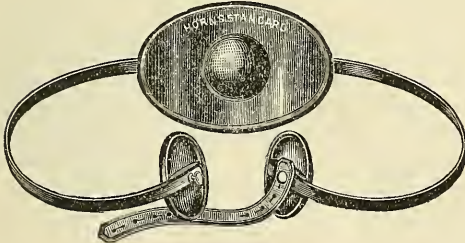
## HARD RUBBER UMBILICAL TRUSSES. ††



6271



6270



6272

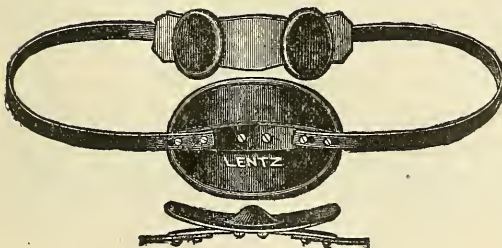
|        |                                    |         |
|--------|------------------------------------|---------|
| 6270.* | Child's, French Pattern.....       | \$ 2 50 |
| 6271.* | Adult's, “ “<br>Single Spring..... | 5 00    |

|        |                                                |      |
|--------|------------------------------------------------|------|
| 6272.* | Adult's, French Pattern,<br>Double Spring..... | 7 00 |
|--------|------------------------------------------------|------|

|        |                                                        |       |
|--------|--------------------------------------------------------|-------|
| 6273.* | Adult's Improved French<br>Pattern, Double Spring..... | 10 00 |
|--------|--------------------------------------------------------|-------|

Made with double springs to fasten in front, on a small bow spring, with centre only bearing directly on centre of Umbilical Pad; this, while giving an addition to the pressure of body springs, allows the pad to accommodate itself better to the abdomen around navel.

See our combination of this style with our Fig. 6285, Elastic Abdominal Belt, on page 442.



6273

Adult's Umbilical Trusses are made in three sizes of Abdominal Plates and three sizes of Centre Pads up to 44 inches. Larger sizes made to order at advanced prices.

*All Trusses Illustrated are designated by a \*.*



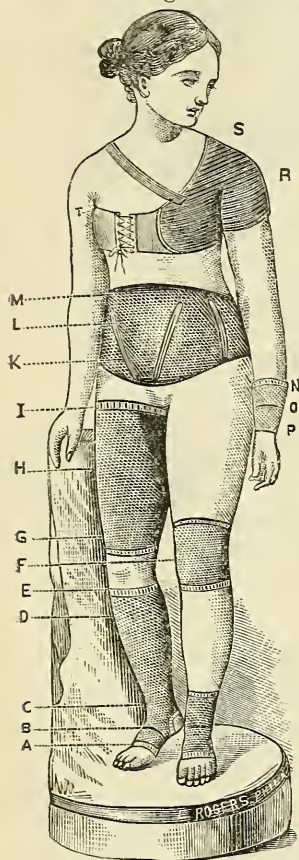
## Elastic Stockings, Belts and Supporters. ††

For the relief and support of varicose veins, weak, swollen or ulcerated limbs, corpulency, abdominal weakness and tumors.

### DIRECTIONS FOR MEASUREMENTS

Which should be taken in the morning when practicable. Give the exact measurement of body or limb. We allow for compression.

Fine silk goods sent unless others are indicated in the order.



For a THIGH STOCKING.—Circumference at A, B, C, D, E, F, G, H, I. Length from sole of foot to F, and from F to I.

For a THIGH LEGGING.—Circumference at C, D, E, F, G, H, I. Length from C to F, and from F to I.

For a THIGH KNEE CAP.—Circumference at E, F, G, H, I. Length from F to I.

For a THIGH PIECE.—Circumference at G, H, I. Length from G to I.

For a KNEE STOCKING.—Circumference at A, B, C, D, E, F, G. Length from sole of foot to F.

For a KNEE LEGGING.—Circumference at C, D, E, F, G. Length from C to F.

For a KNEE CAP.—Circumference at E, F, G.

For a GARTER STOCKING.—Circumference at A, B, C, D, E. Length from sole of foot to E.

For a GARTER LEGGING.—Circumference at C, D, E. Length from C to E.

For an ANKLET.—Circumference at A, B, C. Length from sole of foot to C.

For a WRISTLET.—Circumference at N, O, P. Length from N to P.

For an ABDOMINAL BELT.—Circumference at K, L, M.

For a SHOULDER CAP.—Circumference at R, S, T.

ATTENTION is called to above explicit directions for measuring Elastic Stockings, etc. By carefully observing them, an accurate fit can always be secured, and a fresh and reliable article can always be depended upon. The measures should be taken moderately tight at points required as per annexed diagrams. Morning measurements are preferable, as the limbs become increased in size as the day advances. Especially for the first time, and also as a rule, stockings should be put on immediately after rising. The damage caused to stockings by drawing on and removing is greater than by actual wear.

Every stocking is made to order, strictly according to measurements given, so that an equal pressure is obtained at all points, which is not the case with goods usually obtained of dealers who supply orders from ready-made goods, which seldom fit properly.

|                      | Superior<br>Fine Silk. | Fine Silk. | Stout Silk. | Thread. |
|----------------------|------------------------|------------|-------------|---------|
| Thigh Stocking.....  | \$10 00                | \$8 00     | \$9 00      | \$6 50  |
| “ Legging.....       | 9 00                   | 7 00       | 8 00        | 6 00    |
| “ Knee Cap.....      | 7 50                   | 6 00       | 6 75        | 4 25    |
| “ Piece.....         | 3 50                   | 2 50       | 3 00        | 2 00    |
| Knee Stocking.....   | 7 50                   | 6 00       | 6 75        | 4 25    |
| “ Legging.....       | 6 50                   | 5 00       | 5 75        | 4 00    |
| “ Cap.....           | 3 00                   | 2 25       | 2 75        | 1 75    |
| Garter Stocking..... | 4 50                   | 3 50       | 4 25        | 2 50    |
| “ Legging.....       | 3 00                   | 2 25       | 2 75        | 1 75    |
| Anklet.....          | 3 00                   | 2 25       | 2 75        | 1 75    |
| Wristlet.....        | 1 75                   | 1 25       | 1 50        | 1 00    |
| Shoulder Cap.....    |                        |            | 6 00        | 5 00    |



## Elastic Hosiery and Abdominal Supporters.



Fig. 1.

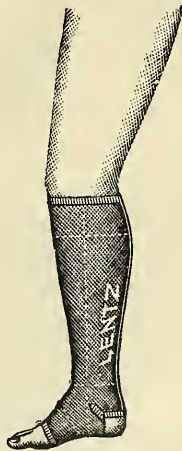


Fig. 2.



Fig. 3.

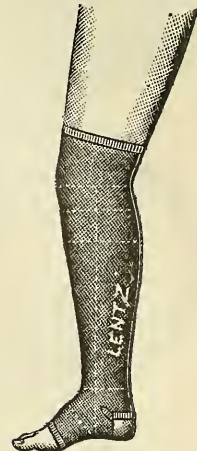
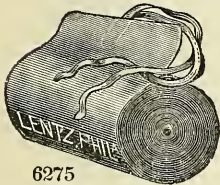


Fig. 4.

Figure 1, Thigh Stocking.  
Figure 3, Ankle and Knee Cap.

Figure 2, Garter Stocking.  
Figure 4, Knee Stocking.



6275

### 6275.\* RUBBER BANDAGES. ††

For the Treatment of Varicose Veins and Diseases of the Skin

|                            |      |                 |      |                 |      |
|----------------------------|------|-----------------|------|-----------------|------|
| 2 in. wide, 9 ft. long, \$ | 75   | 12 ft. long, \$ | 90   | 15 ft. long, \$ | 1 10 |
| 2½ " " " "                 | 90   | 12 " " " "      | 1 10 | 15 " " " "      | 1 30 |
| 3 " " " "                  | 1 10 | 12 " " " "      | 1 40 | 15 " " " "      | 1 60 |

Best Stout Rubber, all with Tapes.



6277

### 6276.\* Empire Elastic Bandage, Net.

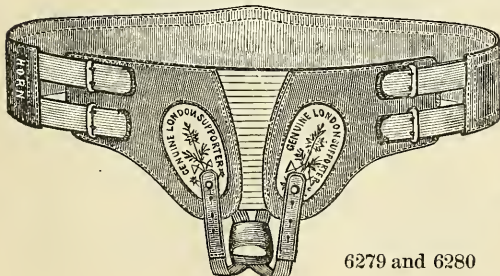
This Bandage is made of cotton, interwoven with rubber, and is used for the treatment of Varicose Veins and Diseases of Skin. Made in the following sizes, stretched :

|                               |                   |                  |
|-------------------------------|-------------------|------------------|
| 3 yds. long, 2 in. wide, 50c. | 2½ in. wide, 60c. | 3 in. wide, 75c. |
| 5 " " " 2 " " 65c.            | 2½ " " " 75c.     | 3 " " " \$1.00   |

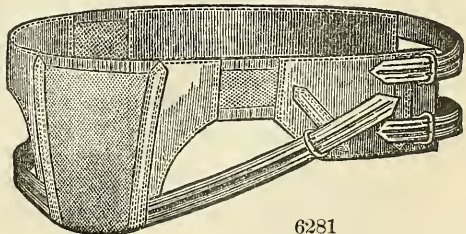


6276

- 6277.\* Empire Abdominal Supporter, made in any size, width of regular size 8 in. ....net, \$2 50  
 6278.\* " " " " extra large size, width in front 11 in. ....net, 3 00  
 6279.\* London Abdominal Supporter, russet leather, fine. .... †† 3 00  
 6280.\* " " " " fine calf leather, extra finish. .... †† 4 00  
 6281.\* Plain Lift-up Abdominal Supporter, silk elastic front and sides, up to 36 inch.. †† 3 50

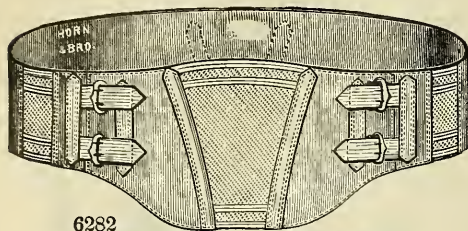


6279 and 6280

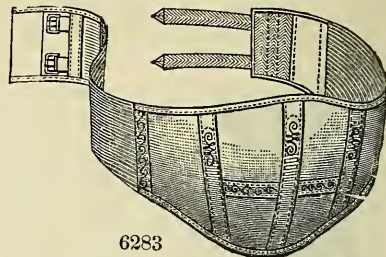


6281

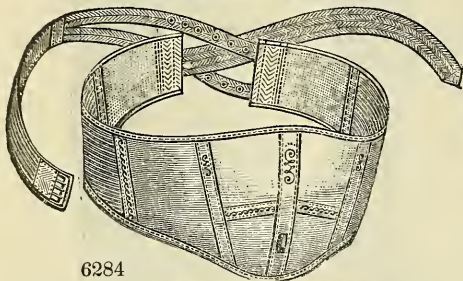
## Abdominal Supporters.††



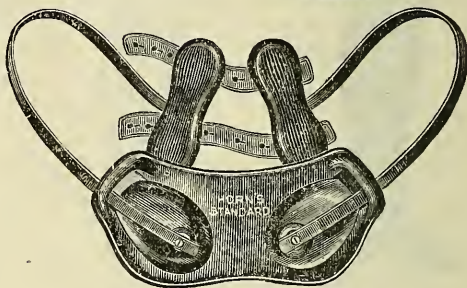
6282



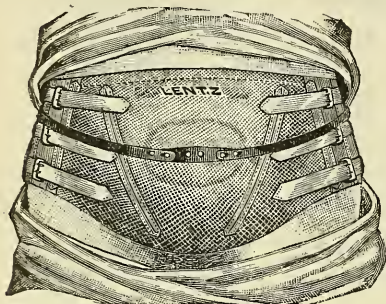
6283



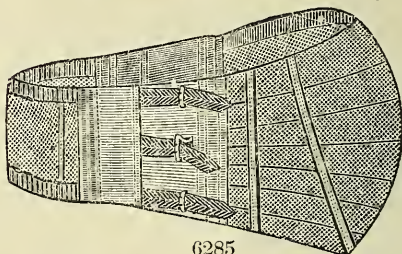
6284



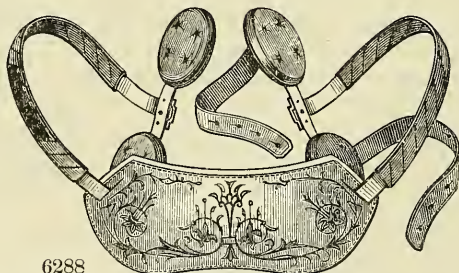
6285



6286



6287



6288

- 6282.\* Philadelphia Abdominal Belt. Made of silk elastic front and back, and satteen sides, buckled at sides; any size up to 40 inches.....\$ 5 00
- 6283.\* Teufel's Plain Supporter, natural color, white lining, elastic on sides, buckled in back, any size from 28 to 40 inches..... 3 00
- 6284.\* Supporter of Gray Lasting, White Lining, elastic insertions at sides, Elastic bands, with buttons and eyelet holes at back, to buckle in front; any size from 28 to 40 inches..... 4 00
- 6285.\* Abdominal Belt, all elastic, either Stout Silk or Lisle Thread.  
This belt is adapted for very stout people, buckled on sides, or laced.  
Best quality, heavy silk elastic..... 10 00  
Best quality, lisle thread..... 8 00  
The above belt furnished with the double hard rubber, umbilical truss, see Fig. 6273, also as applied to belt as illustration, Fig. 6286.  
Belt of silk, and hard rubber umbilical truss..... 20 00  
Belt of thread, and hard rubber umbilical truss..... 18 00

Extra prices above 44 inches.

- 6287.\* Hard Rubber Abdominal Supporter..... 6 00
- 6288.\* Fitch's Abdominal Supporter, velvet or kid covered..... 4 00

When ordering abdominal supporters, give measurements at K. L. & M. See measuring guide, page 440.

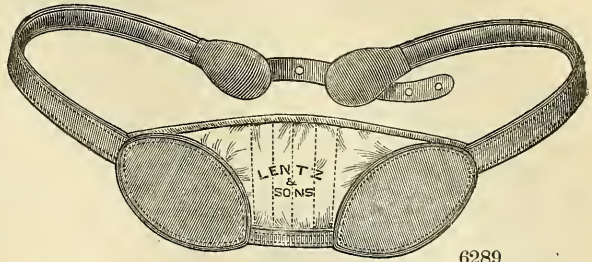


## Abdominal Supporters and Diana Girdle. ††

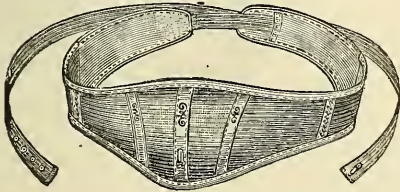
### 6289.\* Hood's Abdominal Supporter,

Leather Covered Springs and  
Pads, with Satteen Front.

Price.....\$6 00



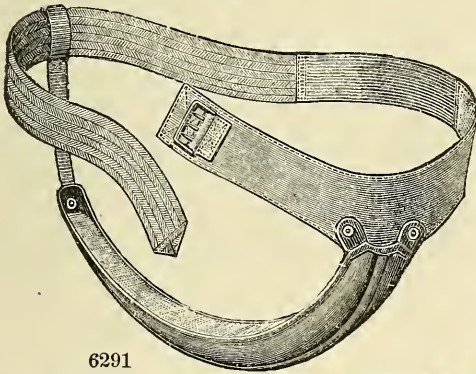
6289



6290

6290.\* **Impr'd Adominal Supporter**,  
made of gray elastic, with elastic bands  
fastened in front, is very narrow, the best  
belt for use when worn with corset, also  
after operation.

Price.....\$5 00



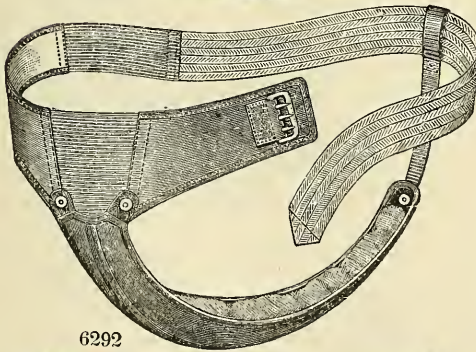
6291

“**Diana Girdle**” (Menstrual Bandage).  
From the following description and illustra-  
tion, it will be seen that the “Diana  
Girdle” is of faultless construction, and  
will, in every way fully meet the demands  
made upon it, in the most simple and prac-  
tical manner.

It is a well-known fact, that during the  
menstrual period, cleanliness of the parts is  
essential to perfect hygiene.

Furthermore every woman having due  
regard for cleanliness of person, will, with  
pleasure avail herself of any appliance for  
easily attaining this object during the men-  
strual period.

Is made in two styles as per figures 6291  
and 6292.



6292

6293. Is a trough shaped receptacle of  
rubber, for holding absorbing pad.

6294. Is a antiseptic pad, filled with  
sublimated wood wool or cotton wadding.

6291.\* Made of satteen front, with elastic  
webbing, inserting.

Price.....\$2 00

6292.\* Made of satteen, with elastic  
front and side.

Price..... 2 65

6294.\* Extra Absorbing Pads, per  
dozen..... 1 00



6293



6294

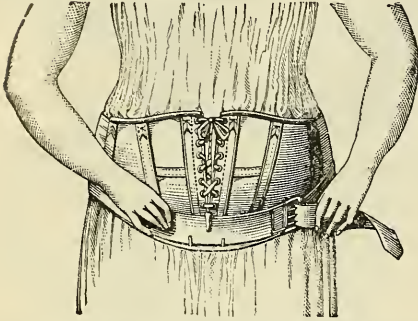


## Teufel's Patent Universal Abdominal Supporters. †

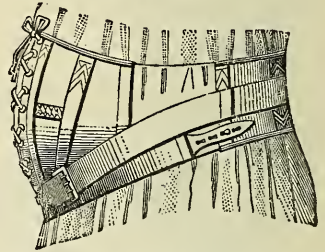
Patented in all Europe and the United States.

*Charles Lentz & Sons, Sole Agents for Eastern Pennsylvania, New Jersey and Delaware.*

System I.



System II.

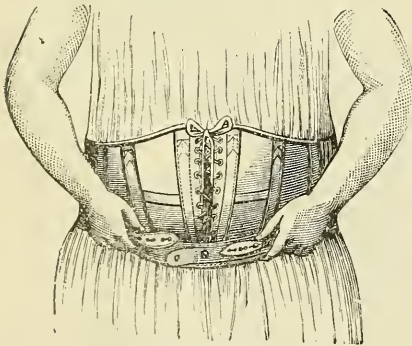


SYSTEM I.—Renders most effective service in pregnancy, by greatly diminishing the suffering and burden usually entailed; much reduces the danger of the confinement; and is the best preventive of premature delivery, sinking of the womb, anteversions and anteflexions, affording immediate assistance when such derangements have taken place.

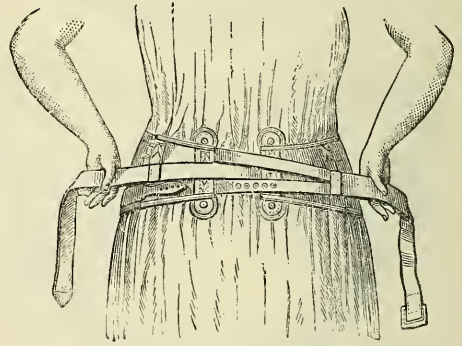
SYSTEM II.—Pre-eminently useful before and after confinement, affording the most effectual support to the abdominal viscera, preventing pressure upon the body of the fundus, and serving as a preventive from the numerous diseases and deformities which are liable to occur from improper care at these critical periods. Furthermore, this form of supporter, by reason of its admirable shape and construction, will fit the form perfectly, prevent pendulous abdomen after confinement, improve the form, whilst giving to the lower abdomen an agreeable, even support.

To gentlemen who are troubled with corpulency, or weakness in the abdominal regions, this supporter will prove of inestimable service, it being the greatest aid ever devised for giving comfort and support during locomotion, riding over rough roads, or any active exercise whatever.

System III.



System IV.



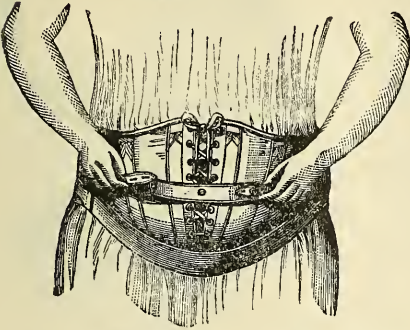
SYSTEM III.—Should be employed when pregnancy causes exceptional enlargement, or for ladies suffering from corpulency, and is unsurpassable in point of efficiency and comfort. Its action is also most beneficial in cases of pressure of the womb on the bladder, and of the consequences resulting therefrom, as well as in the pains which so frequently make themselves felt in the hips, loins and sides. A peculiarly constructed, very flexible steel spring, with well-cushioned pad attached, maintains an even and gentle pressure immediately above the pubes.

SYSTEM IV.—This supporter, by its peculiar construction, is particularly well adapted for relieving pains in the back, as also other disorders, often caused by weakness of the spine. Attached to the terminal ends of this supporter are two well-covered flexible steel springs, and to the ends of each of the latter are secured well-cushioned pads, which act as agreeable and powerful stays to the spine.

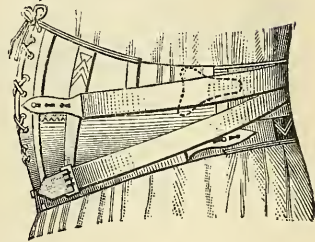
In obese persons with pendulous abdomens, above described springs with pads prevent the supporter from cutting into the back, also pressure upon the spine.

## Teufel's Abdominal Supporters. ††

System V.



System VI.



SYSTEM V.—Is of unequalled service in cases of umbilical hernia, as its excellent construction causes it to maintain its position; and by its exceedingly comfortable support to the abdomen and the internal abdominal organs, it most effectually fulfills its purpose.

SYSTEM VI.—Is the only successful remedy in case of displacement of the kidneys, which its excellent construction retains in their natural position, without injury or troublesome pressure, and with immediate cessation of pain. In ordering this Supporter, information should be given as to whether the displacement is on the right, or the left, or on both sides.

### Directions for Measurements.

Give circumference between illiac crest and trochanter major over the fullness of the abdomen.

Prices, from 28 to 40 in. in length, Systems I. & II .....quality A \$7 00; quality E \$10 00  
 “ “ “ “ “ “ III. & V..... “ “ 8 80; “ “ 11 80  
 “ “ “ “ “ “ IV. & VI..... “ “ 8 00; “ “ 11 00

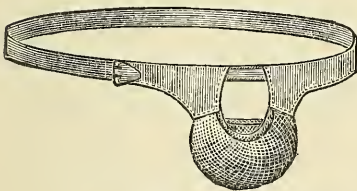
For lengths 42 in., add 30 cts. to the above prices, 44 in., add 60 cts.; 46 in., add \$1 00;

48 in., add \$1 50; 50 in., add..... 2 00

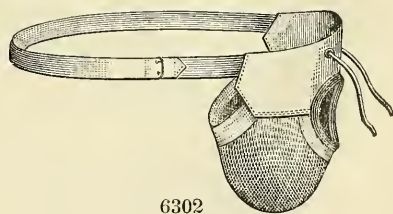
Quality A consists of Satin Jean; quality E consists of horse hair web. The latter is equally light, strong and porous and makes a fine material especially for summer wear.

Complete illustrated catalogue of the above and also of other Supporters sent on application

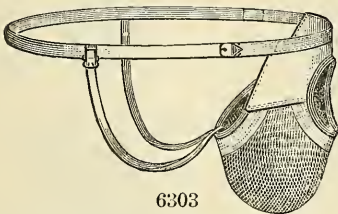
### Suspensories. ††



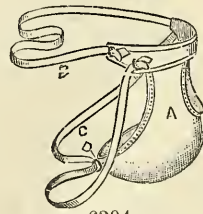
6301



6302



6303

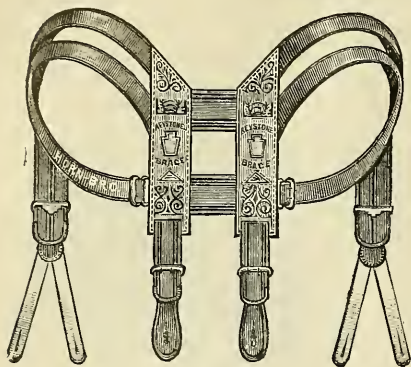


6304

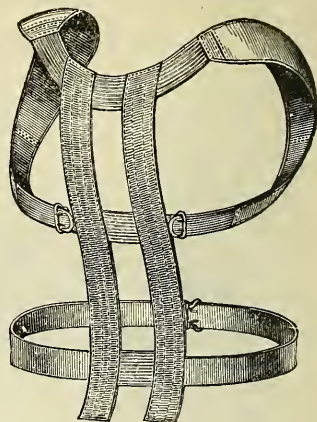
- 6301.\* Elastic Front and Back.....thread, 40c.; silk, \$ 60  
 6302.\* Perfection, with draw strings..... “ 40c.; “ 60  
 6303.\* U. S. Army and Navy, with elastic waist band and elastic buttock strap,  
 .....bag of thread, 75c.; of silk, 1 00  
 6304.\* “Syracuse,” with elastic waist band and elastic buttock strap, bolting cloth bag. 1 00



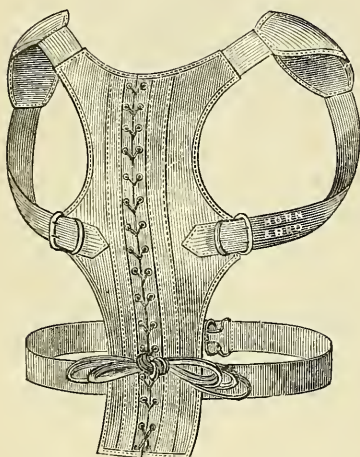
## Shoulder Braces. ††



6305



6306



6307



6309

|        |                                                                    |        |
|--------|--------------------------------------------------------------------|--------|
| 6305.* | Improved Keystone Shoulder Brace.....                              | \$1 50 |
| 6306.* | Steel Spring Back “ “ .....                                        | 1 75   |
| 6307.* | Laced or Corset “ “ .....                                          | 2 00   |
| 6308.* | Improved Spring Back “ “ extra strong, made to order.....          | 6 00   |
| 6309.* | Teufel's Corrector.....small, \$2 50 ; medium, \$2 75 ; large 3 00 |        |

## 6310.\* Teufel's “Aufrecht” Universal Shoulder Brace and Back Supporter. ††

Owing to its Perfect Anatomical Construction it has the Following Advantages:

1. It conforms perfectly with the shape of the body, and is not visible through the dress or clothing.
2. Exerts in consequence of its exceptionally perfect construction, a direct pressure upon the back below the shoulder blades, at the same time draws the shoulders back, supporting and straightening the spine and enlarging the thoracic cavity.

Are made in six sizes, each of which may be easily lengthened or widened to fit the patient perfectly.

Price, No. 0, \$4 50 ; No. 1, \$5 00 ; No. 2, \$5 50 ; No. 3, \$6 00 ; No. 4, \$6 50 ; No. 5, \$7 00.

## DIRECTIONS FOR MEASURING FOR SHOULDER BRACES.

Distance across back from tip to tip of shoulders, also length of back and circumference of waist.



6310



## Orthopædic Apparatus. ††

### APPLIANCES FOR DEFORMITIES AND DEFICIENCIES CONGENITAL OR ACQUIRED.

Having had many years' extensive experience, under the patronage of the most eminent physicians, in the manufacture and adjustment of appliances for the correction of distortions and deformities of the human frame, we are enabled and thoroughly prepared to make and fit in the most skillful manner, all apparatus that may be necessary in any case of disease, deformity or deficiency requiring mechanical treatment or artificial support. All apparatus made by us are of the finest material, and of the very best workmanship that mechanical skill and ingenuity can produce. The illustrations given in the following pages are those of the more prominent and approved forms of apparatus only, but though not covering the entire field of Orthopædic Surgery, will still be found sufficiently numerous and varied to facilitate the ordering of mechanical appliances for each and every part of the body. By careful reference to them physicians at a distance can have apparatus made for their patients with every certainty of perfect comfort and complete satisfaction. Very accurate adjustment is always requisite in fitting of Braces for Wry Neck and diseases of the Spine, and this is more readily and surely accomplished by having the model immediately before us and in convenient proximity to our factory. If, however, proper outlines are sent us, from distant places, we can give the Braces the required shape to a nicety, thus insuring a good fit.

While we prefer, in each case, to work under the direction of the attending physician, executing his wishes with all possible accuracy, yet should advice or consultation be needed, we will always stand ready in any way within our power to assist, that the physician and patient may be alike benefited.

#### Our Terms on Orthopædic Apparatus.

When order is sent to us by the physician, we allow 25 per cent. discount from the catalogue prices; but when the patient is sent to us to be measured and fitted, we can allow only 10 or 15 per cent. discount from price charged. (Discount on Artificial Limbs given on application).

Physicians will please collect from their patients at least one-third of the amount in advance, and remit same to us when ordering. Apparatus will then, as soon as finished, be sent direct to the patient, collecting the balance C. O. D., thus relieving the physician of all financial responsibility. In cases of this kind, we collect the full price of the brace and pass the commission to the credit of the physician, or remit same to him, if desired. We suggested this plan some time ago, because of the numerous requests made by the physicians for an extended credit on appliances of this kind, they claiming that they could not afford to pay us cash for them and then wait the will and pleasure of their patrons.

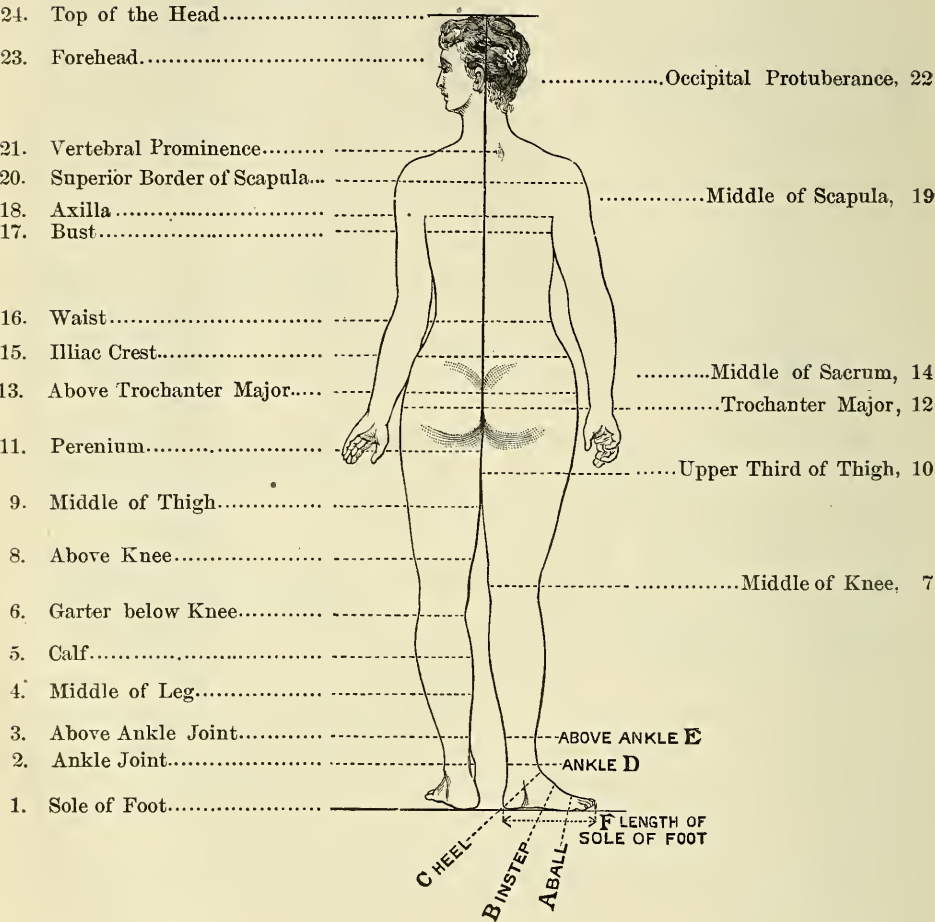
All appliances for deformities are manufactured to order, therefore physicians will see the necessity of requiring their patients to pay a portion of the amount when the order is taken and the balance on delivery of the apparatus.

Experience has shown us that the appliances of this character are not always comfortable when first worn, and that patients are at that time easily discouraged or dissatisfied with trivial matters; and while we will make any changes necessary without charge (where the fault is ours), we must ask physicians to protect themselves and us to the fullest extent.

Where shoes are to be worn with braces, customers are requested to send us well-fitting shoes *to lace*. If we are to furnish shoes, careful measures should be sent us according to directions on page 448.

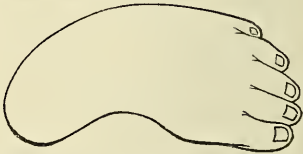
Diagram for Orthopædic Measurements.

EXPLANATION OF FIGURES AND LETTERS.



MEASUREMENTS FOR SHOES AS PER DIAGRAM.

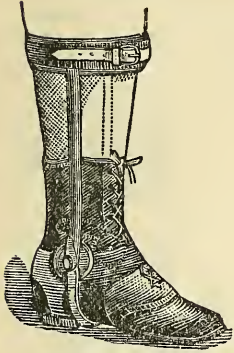
- Give circumference of ball of foot, A.  
" " of instep, B.  
" " over heel, C.  
" " at ankle, D.  
" " above ankle, E.  
Length of sole of foot, F.



Take also outline of the sole of the foot, by placing it on a sheet of paper and tracing a line around it.

## Orthopædic Apparatus.††

### 6400.\* APPARATUS FOR SUPPORT OF WEAK ANKLES.



6400

This apparatus is a very effective one for the support of Weak Ankles. Its construction is readily seen by the illustration; a pad or T shaped strap is placed at the ankle to support and keep it in its corrected posture.

Measurements required as per diagram on page 448 :

1. Patient's name (or sex).
2. Patient's age.
3. State whether ankle turns in or out.
4. Right, left or both feet.
5. Length from sole of foot to ankle joint (1 to 2).
6. Length from sole of foot to calf (1 to 5).
7. Circumference above ankle (3).
8. Circumference at calf (5).

Send a well-fitting shoe or shoes, to lace, or measurements as per directions on page 448.

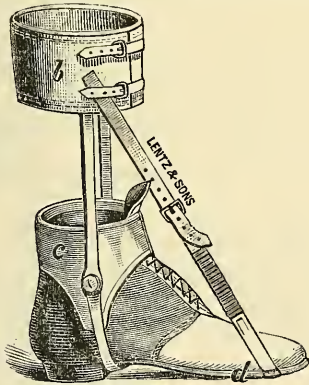
Price for one Brace, according to size.....from \$6 00 to \$10 00

“ “ a pair of Braces, according to size.....from \$10 00 to 18 00

Shoes are charged extra.

### 6402.\* Apparatus for Weak Ankle and Contracted Tendo-Achillis.

(TALIPES EQUINUS.)



6402



Should there be contraction of the tendo achillis, and consequent dropping of the toes, it is conveniently corrected by means of an artificial elastic muscle, one end of which is fastened to the sole of the shoe, the other to the calf-band (b); it may be regulated to any degree of tension desired.

In ordering the apparatus, send measurements same as for No. 6400, and the following in addition :

State whether Tendo Achillis is contracted.

Price for one Brace, according to size.....from \$8 00 to \$11 00

“ “ a pair of Braces, according to size.....from \$15 00 to 20 00

Shoes are charged extra.

**PLEASE DO NOT CUT OR MUTILATE THIS BOOK.**

In ordering, state number of apparatus and give directions required, and we can execute order satisfactorily. Cutting out illustrations does not aid us any but destroys the page for future reference.

See information and terms on page 447.



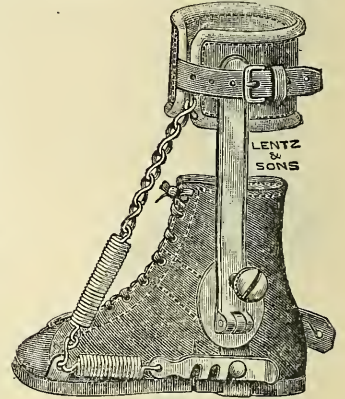
## Orthopædic Apparatus.††

### 6404.\* LENTZ'S CLUB-FOOT APPARATUS FOR TALIPES VARUS.



The shoe is made of strong leather with a jointed steel sole allowing lateral motion. A strong spiral spring draws the foot outward by constant and elastic tension which can be regulated by fastening the spring with notched end to a button at the foot piece. The single outside upright bar, with hinged ankle joint, is fastened around the limb by a calf-band and so constructed that the screw at the ankle-joint forces the foot flat upon the floor, which foot in almost all cases is turned under as indicated by the sketch. The spiral spring attached to a chain and fastened near the toes upon the outside of the foot elevates the toes and stretches the tendo-achillis, thus drawing the foot to a normal position, and the contraction of the leather above the heel prevents the shoe from slipping off. The strap around the instep depresses any undue prominence of the arch of the foot, and within the shoe a broad tongue keeps the toes flat upon the sole of the shoe.

On the opposite side of shoe there are two steel plates, one at the ball of foot, the other at the heel to make counter-pressure, to the latter the instep strap is fastened. This apparatus resembles the regular shoe, and shows no deformed appearance, it is preferable for children from a few months to three years of age.



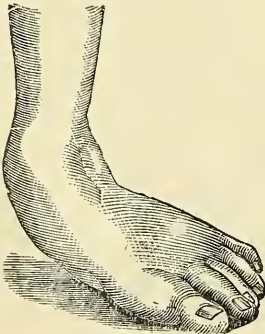
6404

Direction for measurements same as for No. 6400, and for shoe as per directions on page 448.  
 Price of single shoe, complete, according, to size.....from \$10 00 to \$13 00  
 Price of a pair of shoes, complete, according to size..... “ 19 00 to 25 00

### 6406.\* TALIPES VALGUS.

For Talipes Valgus, the same apparatus as for Talipes Varus, is supplied, but with reversed action.

Direction for measurements and prices same as for Talipes Varus, No. 6404.



6406. TALIPES VALGUS.

Three straps are attached, one at the ball to press the foot down flat to the sole of the splint, and one over the instep to depress any undue prominence of the arch, and one around the calf of leg.

A spiral spring is attached to a chain and is fastened near the toes upon the outside of foot, which elevates the toes and stretches the tendo-achillis, thus drawing the foot to its natural position. Suitable for infants of a few weeks to six months of age.

Measurements, same as for No. 6400.

Price of single splint, \$6 00 ; per pair, \$11 00.

### 6408.\* LENTZ'S CLUB-FOOT SPLINT FOR INFANTS.

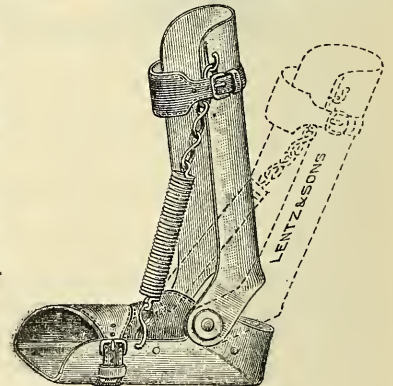
Experience has shown that considerable difficulty is encountered in applying club-foot shoes to infants, we have therefore constructed this simple, but effective splint of very light metal, with a joint at the ankle.

Three straps are attached, one at the ball to press the foot down flat to the sole of the splint, and one over the instep to depress any undue prominence of the arch, and one around the calf of leg.

A spiral spring is attached to a chain and is fastened near the toes upon the outside of foot, which elevates the toes and stretches the tendo-achillis, thus drawing the foot to its natural position. Suitable for infants of a few weeks to six months of age.

Measurements, same as for No. 6400.

Price of single splint, \$6 00 ; per pair, \$11 00.



6408

See information and terms on page 447.

## Orthopædic Apparatus.††

### 6410.\* CLUB-FOOT WALKING APPARATUS.

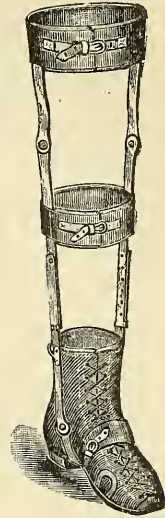
This represents a walking club-foot shoe for children over two years of age. It is suited for the after-treatment of club-foot—when the foot can be pressed into proper position but the muscles have not yet gained sufficient strength to keep the entire sole of the foot on the ground during the act of walking with an ordinary shoe. The shoe is made to lace clear to the toe. It has a steel plate between the leather soles. Attached to the inner side of sole is a steel ring which arches over the projection at the base of the great toe. A strap passes over the instep from the outside to the inside, and this, together with the ring over the ball of the great toe, serves to keep the sole of the foot at all times in contact with the sole of the shoe. To the shoe are attached two lateral bars of steel with joints at the ankle and knee,—well padded steel collars are secured below and above the knee to give proper support,—if necessary we also attach the elastic tension, to overcome the shortening of the tendo-achillis as shown in the following cut. Measurements required as per diagram on page 448.

1. Patients name, (or sex.)
2. " age.
3. State whether Valgus or Varus.
4. Right, left, or both feet.
5. Length from sole of foot to ankle joint (1 to 2).
6. Length from sole of foot to middle of knee (1 to 7.)
7. Length from sole of foot to middle of thigh (1 to 9.)
8. Circumference at calf (5.)
9. " at middle of thigh (9.)

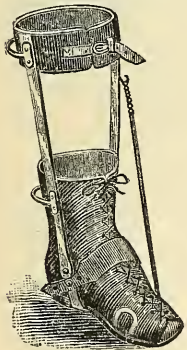
Measurements for shoe as per directions on page 448.

Price of a single apparatus, according to size.....from \$14 00 to \$20 00

Price of a pair.....from 25 00 to 35 00



6410



6412

### 6412.\* CLUB-FOOT WALKING APPARATUS.

This apparatus consists of a frame shoe same as 6410 with the addition of a rubber muscle, when the contraction of the tendo-achillis has not been overcome yet, but has no knee-joint, or support above the knee, and is only preferable when the muscular portion of the knee-joint is sufficiently strong.

Measurements required same as for No. 6400, and for shoe as per direction on page 448.

Price of a single apparatus.....from \$10 00 to \$13 00

Price of a pair..... " 18 00 to 24 00

### 6414.\* NIGHT SHOE FOR CLUB-FOOT.

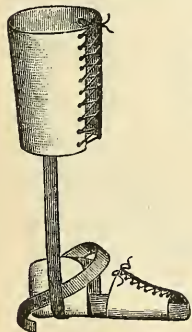
The importance of a night-shoe for club-foot cannot be too highly appreciated. While it is important that the deformed foot should be held in the proper position by a regular apparatus during the day, it is also important that this same position should be retained by the use of a suitable shoe during the night. The device illustrated here answers this purpose: it is light, inexpensive and simple in its application.

Direction for measurements as per diagram on page 448.

1. Length from sole of foot to calf (1 to 5.)
2. Circumference of Calf (5.)
3. Right, left, or both feet.

Measurements of foot for shoe as per direction on page 448.

Price according to size, each.....\$1 00 to \$7 00



6414

See information and terms on page 447.

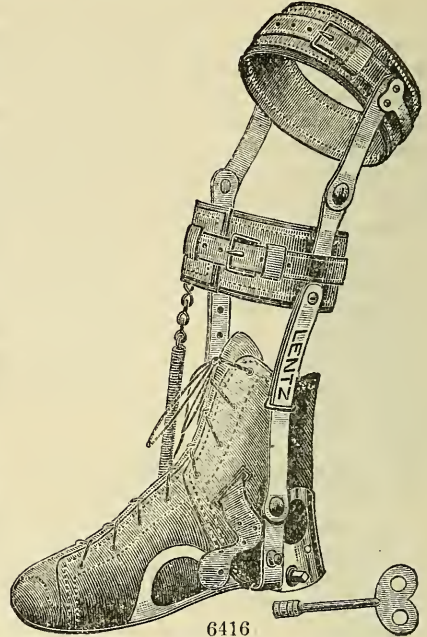


## Orthopædic Apparatus.††

### 6416.\* IMPROVED GROSS' CLUB-FOOT ARTICULATING SHOE.

The accompanying illustration gives a correct idea of a delicate apparatus for the treatment of talipes varus, talipes valgus and equinus. The leading characteristic is the device used in the construction of the shoe part. This is made of light steel covered with leather and well padded inside. The front part of the shoe is articulated with the heel underneath the medio-tarsal joint. By this arrangement the front part of the shoe is first turned inward to receive the foot in its abnormal position, and then by the adjustment of a screw which is turned by a key, it is turned outward again and thereby gradually turns the foot around to its normal position. A spiral spring or piece of rubber tubing attached at points above and below the ankle joint is used to overcome the shortening of the tendo-achilles in talipes varus and equinus. The upper portion of the apparatus consists of two lateral bars, with thigh and calf bands, and is made to lengthen between the ankle and the knee-joints to meet the requirements of a growing child.

If the muscular power of the knee joint is not defective the apparatus may be made without

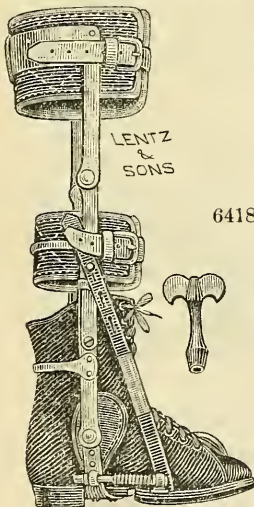


6416

support above the knee, which will make a slight difference in the price as shown below. Directions for measurements same as for No. 6410; measure for shoe as per directions on page 448.

Price of a single apparatus, without support above knee,  
from \$13 00 to \$18 00

Price of a single apparatus, as per cut,.....from \$17 00 to 22 00



6418

### 6418.\* LENTZ'S CLUB FOOT SHOE.

This apparatus is similar to No. 6416, but instead of having the screw for making lateral motion of the sole of the foot in a steel heel, it is placed on the outside of the shoe as shown in the illustration, so that it can be easily cleaned and oiled, which is very important, as it is difficult to keep concealed screws in working order.

Direction for measurements same as No. 6410 and measurements for shoes as per directions on page 448.

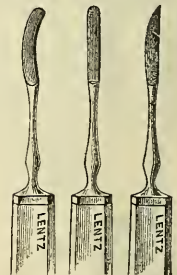
Price of single apparatus, without support above the knee,  
from \$12 00 to \$16 00

Price of single apparatus, as per cut, .....from \$16 00 to 20 00

6419.\* Tenotomes Allis, set of three; aseptic handles; in case, \$4 00;  
single piece, either form.....\$1 25

See also Tenotomes on pages 31, 48, 50.

See information and terms on page 447.



6419



## Orthopædic Apparatus.††

### 6420.\* APPARATUS FOR TALIPES EQUINUS (Improved).

The improvement on this brace consists of the artificial muscles on steel brackets, fastened to the lower part of the steel bars below the ankle-joint, in which position they work more effectively and are not so liable to catch anywhere or trip the patient as is the case when the elastic straps are fastened to the front part of the shoe, as it is on the old style braces for this deformity. Sewed to the elastic are leather straps with a series of holes, which fasten on a metal button on the side bar, so the tension may be regulated sufficiently strong to lift up the foot.

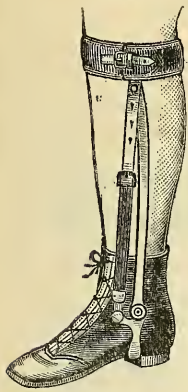
Direction for measurements same as for No. 6400.

Send a well fitting shoe or shoes to lace or measurement as per directions on page 448.

Price for one brace according to size.....from \$ 7 00 to \$11 00

“ “ a pair of braces according to size..... “ 13 00 to 21 00

Shoes are charged extra.



6420

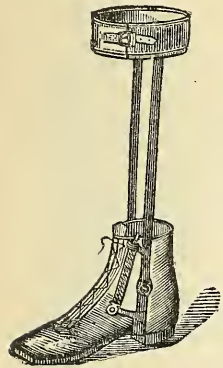
### 6422.\* APPARATUS FOR TALIPES CALCANEUS.

This shows best form of apparatus for this deformity. It consists of the two lateral braces, with brackets above and below the ankle joint, with a spiral spring between them, which serves to depress the toe by extension. There is not so much danger of falling, when descending stairs, with this form of apparatus, as with those with the means of extension at back part of apparatus.

Direction for measurements same as for No. 6400.

Send well fitting shoe or shoes to lace

or measurements as per directions on page 448.



6422



TALIPES CALCANEUS.

Price for one brace according to size.....from \$ 8 00 to \$12 00

“ “ a pair of braces according to size..... “ 15 00 to 23 00

Shoes are charged extra.

### 6424.\* APPARATUS FOR TALIPES CALCANEUS.

This represents another form of apparatus for Calcaneal Club-foot, having a strong elastic strap attached on a steel hook fastened to the heel of the shoe, this elastic strap can be regulated by means of a buckle attached to the calf-band. By the action of the elastic the elongation of the tendo-achillis is overcome. The sole of the shoe is provided with a steel plate sufficiently strong to maintain the normal position of the plantar arch.

Direction for measurements as per diagram on page 448.

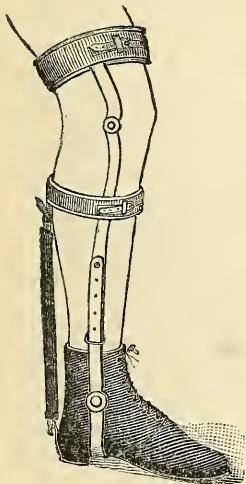
- |                                                          |                                                                                              |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1. Patient's name (or sex).                              | 7. Circumference above ankle(3).                                                             |
| 2. “ age.                                                | 8. “ at calf (5).                                                                            |
| 3. Right, left or both feet.                             | 9. “ “ middle of                                                                             |
| 4. Length from sole of foot to ankle joint (1 to 2).     | thigh (9).                                                                                   |
| 5. Length from sole of foot to knee joint (1 to 7).      | 10. Send a well fitting shoe or shoes to lace or measurements as per directions on page 448. |
| 6. Length from sole of foot to middle of thigh (1 to 9). |                                                                                              |

Price for one brace according to size.....from \$12 00 to \$16 00

“ “ a pair of braces according to size..... “ 23 00 to 30 00

Shoes are charged extra.

See information and terms on page 447.

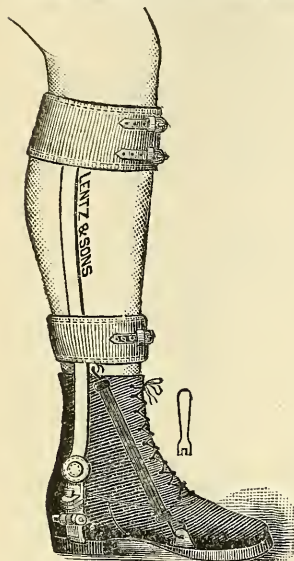


6424

## Orthopædic Apparatus.††

### 6426.\* STILLMAN'S SINGLE BAR ANKLE BRACE, WITH CLAMPS.

This apparatus is for Weak Ankles when associated with Inverted Feet, for the less severe forms of Talipes Varus, especially when due to Infantile Paralysis, and for the after-treatment of such cases as have been subjected to operation.



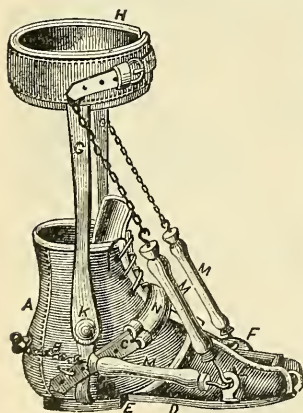
6426

by the girths, the foot will be turned in its long axis so that the patient will walk on the inner instead of the outer side. This effect may be varied by the ratchet in the side-strip, so that the brace may be anything from a simple vertical support to an agent for the production of valgus, so completely does this clamp place the limb under the control of the surgeon.

The third and last indication is combated by the use of elastic webbing, provided with hooks, passing from an eyelet in the sole opposite the base of the little toe to a point on the side-strip at about the lower girth.

Direction for measurements same as for No. 6400, and for shoes as per directions on page 448.  
Price for Ankle Brace, including shoe, according to size.....from \$15 00 to \$18 00  
“ “ a pair Ankle Braces, including shoes, according to size.....from \$28 00 to 34 00

### 6427.\* DR. L. A. SAYRE'S CLUB-FOOT SHOE.



6427

The idea of Dr. Sayre's shoe is to fix the heel and the front part of the foot firmly in their respective portions of the shoe, and, by a ball and socket joint in the sole under the instep, to permit motion in every direction at that joint. The insole is made of sheet-steel, in two parts, with a ball and socket joint at (e). The upper is of leather made in two sections, as shown in the cut, and laced clear to the toe. To keep the heel in position an elastic band (n) passes over the front of the instep and is hooked to the upright stem just below the ankle-joint. Two lateral steel stems (g) with joints at the ankle (k) are fastened to the heel and to the collar (h) around the calf. An upright steel plate (f) is attached to the inner side of the forward part of the insole to correct the tendency of the ball of the great toe to turn inward. The horizontal rubber muscle (m) is attached to the points (a) and (l) and draws the foot outward. The upright rubber muscles (m m) serve to flex the foot. The artificial muscles are made of rubber tubing with chains at their ends to adjust the amount of tension.

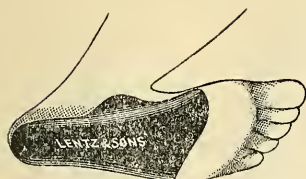
Direction for measurements, same as for No. 6400.

Price for single shoe, complete, according to size,  
from \$14 00 to \$18 00  
Price for a pair of shoes complete, according to size,  
from \$27 00 to \$35 00



## Orthopædic Apparatus.††

### 6430.\* SUPPORT FOR FLAT FOOT.



6430

We have been making for some time these supports for Flat Foot, which give general relief and satisfaction. They are made from handsome non-corrosive metal, carefully fitted to the normal curves of the arch of the foot, and can be worn within the shoe without being noticed. In ordering, send plaster cast of foot. This may be obtained by placing a thin towel or piece of cloth in the hollow of the foot, and drawing it up to as near a normal position as possible and maintain this position until the plaster is set. State weight and sex of person,

and send a well-fitting shoe or shoes, or measurements as per direction on page 448.

Price for one sole, according to size.....from \$2 50 to \$3 00  
 " " a pair, " " " " " 5 00 " 6 00

### 6431.\* BIGG'S APPARATUS FOR BUNIONS.

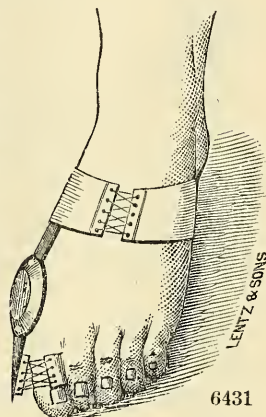
(HALLUX VALGUS)

This apparatus consists of a delicate lever of spring steel, with an oval ring in the centre, which is provided with hinges at its anterior and posterior margin. The apparatus is attached to the instep by a laced band, and the toe to the extremity of the spring by a piece of webbing. It affords the articulation freedom of motion in the natural plane, whilst the malposition of the toe is gradually rectified by constant lateral traction. It can be worn in a shoe.

Direction for measurement as per diagram on page 448.

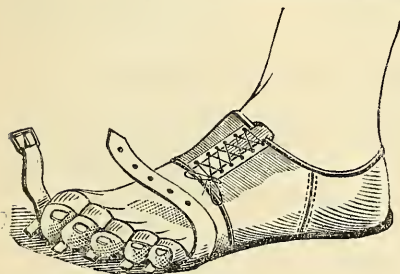
1. Place the foot on paper and trace an outline.
2. Circumference of ball of foot (A).
3. Circumference of instep (B).

Price of apparatus.....\$6 00 to \$8 00



6431

### 6432.\* APPARATUS FOR OVER-RIDING TOES.



6432

This apparatus for over-riding or "hammer toes," consists of a non-corrosive metal sole, arranged with slits corresponding to the spaces between the toes. A strap of webbing is passed through these slits and over the contracted toe (or over each and all, as the case may require), and buckled or tied under the sole, tense enough to straighten the toe. This apparatus is kept in place by a thin silk, linen or cotton covering, laced to the instep, and may be worn in an ordinary shoe.

Direction for measurement as per diagram on page 448.

1. Place the foot on paper and trace an outline.
2. Circumference of ball of foot (A).
3. Circumference of instep (B).

Price of apparatus.....\$7 00 to \$9 00

See information and terms on page 447.

**NOTICE.**—When not stated to send shoes, it is to be understood that they must be made to measurement, as ordinary shoes cannot be used with the apparatus, and the shoes are always included in the price.



## Orthopædic Apparatus.††

### 6434.\* APPARATUS FOR BOW-LEGS.

(Genu Varum).



6434

The mechanical treatment of bow legs is very simple.  
1. The bones in a softened condition, yielding under the weight of the body, must be assisted by extraneous help.  
2. The arched bones must be restored to their normal condition. The apparatus illustrated by the cut answers the purpose admirably.

The support is given by two steel stems secured to a shoe carried up as high as the thigh—jointed at the ankle and knee to allow the patient perfect freedom of motion. They are kept in place by calf and thigh-bands.

The bow is corrected by pads being placed respectively against the ankle and knee on the concave side of the limb, whilst a strap passed around on the highest point of the arc, inside of the outer stem, tightly buttoned to the steel stem on the concave side, gradually compels the leg to become parallel with it.



Direction for measurements as per diagram on page 448.

- |                                                                 |                                                                 |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| 1. Patient's name (or sex).                                     | 7. Length from sole of foot to knee, joint outer side (1 to 7). |
| 2. " age.                                                       | 8. Length from sole of foot to middle of thigh (1 to 9).        |
| 3. Right, left or both legs.                                    | 9. Circumference above ankle (3).                               |
| 4. Length from sole of foot to ankle joint (1 to 2).            | 10. " at calf (5).                                              |
| 5. " " " " " highest point of arch.                             | 11. " at middle of knee (7).                                    |
| 6. Length from sole of foot to knee-joint, inner side (1 to 7). | 12. " at middle of thigh (9).                                   |

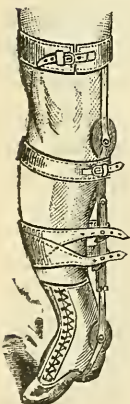
Send well fitting shoe or shoes to lace or measurements as per directions on page 448, also give outline of limbs.

Price of brace for one leg made to lengthen between the ankle and knee joints

according to size.....from \$12 00 to \$14 00

Price of a pair of braces according to size.....from 22 00 to 25 00

### 6435.\* APPARATUS FOR BOW-LEGS, WITH SINGLE BAR.



6435

This apparatus consists of a single steel bar with ankle and knee joints, placed on the inner side of the leg, where it is secured by a well padded band around the calf, also one above the knee to give proper support. A bifurcated band passes around the curved part of the leg, and is buttoned from two sides on the steel bar.

This instrument is applicable in slight cases of bow-legs only, the simplicity of its application, and its low price, should commend it to favorable consideration.

Direction for measurements same as for No. 6434.

Price of brace for one leg made to lengthen between the ankle

and knee joints according to size.....from \$ 9 00 to \$11 00

Price of a pair of braces according to size.....from 17 00 to 21 00

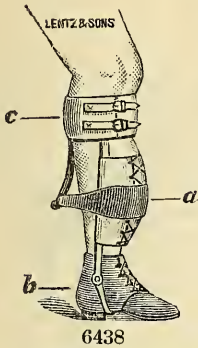
Shoes are charged extra.

See information and terms on page 447.

**NOTICE.**—When not stated to send shoes, it is to be understood that they must be made to measurements, as ordinary shoes cannot be used with the apparatus, and the shoes are always included in the price.

## Orthopædic Apparatus.††

### 6438.\* Brace for Correcting Anterior Curvature of the Tibia.



This cut is a fair representation of the instrument. It consists of two upright steel stems, fastened below to a shoe and terminating above in the calf-band. The deformity is corrected, either by passing a leather bandage around the stems and tightly lacing it in front over the arc of the curvature (*a*), or by a strap passed over the arc of the curvature and fastened to a spur suspended from the calf-band behind (*c*).

The points of resistance being in either case the heel of the shoe (*b*) and the posterior trough of the calf-band (*c*).

Direction for measurements as per diagram on page 448.

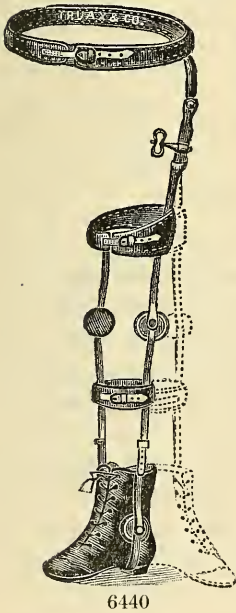
1. Patient's name (or sex).
2. " age.
3. Right, left or both legs.
4. Length from sole of foot to ankle-joint (1 to 2).
5. " " " " " highest point of arc.
6. " " " " " calf (1 to 5).
7. Circumference at calf (5).

Send a well fitting shoe or shoes to lace, or measurements as per directions on page 448.

Price of a brace for one leg.....from \$10 00 to \$13 00  
 " of a pair of braces....." 18 00 to 24 00

Shoes are charged extra.

### 6440.\* SAYRE'S ROTATING SPLINT FOR EVERSION AND INVERSION.



"To accomplish this object I had constructed a brace with the additional attachment of a rotating screw, which fulfills the indication completely. It is the application of the same principle which I have for so long a time used in the outward rotation of the femur in the third stage of hip-disease. In applying this force for the outward rotation of the foot, in cases of club-feet, a light metallic rod or shaft is secured to the bottom of the shoe, in front of the heel, passed up on the outer side of the limb, and connected with a well padded pelvic belt, having joints, of course, opposite the ankle, knee and hip. Just below the joint, opposite the hip, the shaft is divided into two sections, and at this point is an endless screw, placed transversely to the shaft. The screw is worked by a key, and is capable of producing rotation through two-thirds of the arc of a circle. There is a well padded band at the calf and another band above the knee."

—"Orthopædic Surgery and Diseases of the Joints."

LEWIS A. SAYRE, M. D.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age
3. Right, left or both legs.
4. Eversion or Inversion.
5. Length from sole of foot to ankle-joint (1 to 2).
6. " " " " " knee " (1 to 7).
7. " " " " " middle of thigh (1 to 9).
8. " " " " " trochanter major (1 to 12).
9. " " " " " iliac crest (1 to 15).
10. Circumference above ankle (3).
11. " at calf (5).
12. " middle of knee (7).
13. " middle of thigh (9).
14. " iliac crest (15).

Send well fitting shoe or shoes to lace, or measurements as per direction on page 448.

Price of brace for one leg according to size.....from \$25 00 to \$35 00  
 " " " " both legs " " 40 00 to 60 00

Shoes are charged extra.

**PLEASE DO NOT CUT OR MUTILATE THIS BOOK.**

In ordering state number of apparatus and give directions required, and we can execute order satisfactorily; cutting out illustrations does not aid us any, but destroys the page for future reference.

See information and terms on page 447.



## Orthopædic Apparatus.††

### 6442.\* APPARATUS FOR KNOCK-KNEE.

(GENU-VALGUM.)



6442

Knock-knee is an inward inclination of one or both knees, caused by a relaxed and elongated condition of the internal lateral ligament of the knee-joint, and increased by the superincumbent weight of the body. To relieve this deformity, numerous mechanical contrivances have been constructed and employed. The one represented is the simplest and most convenient in slight cases for the patient to wear, while its efficacy is none the less. It consists of a plain shoe, to which two lateral steel bars, reaching to the upper third of the thigh, are attached, and connected with calf and thigh bands; and it is provided with joints corresponding with the natural articulations, to allow locomotion. The knee is confined in its normal condition by a well-padded pad.

Direction for measurements as per diagram on page 448.

- |                                                      |                                                          |
|------------------------------------------------------|----------------------------------------------------------|
| 1. Patient's name (or sex).                          | 6. Length from sole of foot to middle of thigh (1 to 9). |
| 2. " age.                                            | 7. Circumference above ankle (3).                        |
| 3. Right, left or both legs.                         | 8. " at calf (5).                                        |
| 4. Length from sole of foot to ankle joint (1 to 2). | 9. " " middle of knee (7).                               |
| 5. Length from sole of foot to knee joint (1 to 7).  | 10. " " middle of thigh (9).                             |

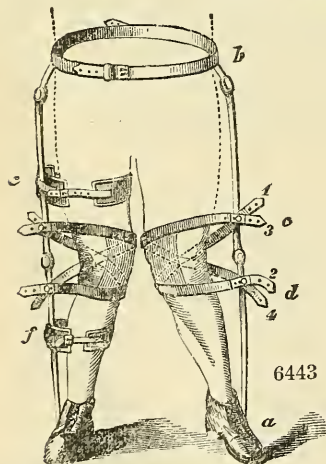


Send outline of limbs and well-fitting shoe or shoes, to lace, or measurements as per directions on page 448.

Price of brace for one leg, according to size.....from \$12 00 to \$14 00  
 " " a pair of braces " " " " " 22 00 " 25 00

### 6443.\* APPARATUS FOR KNOCK-KNEE.

(GENU-VALGUM.)



6443

For the treatment of knock-knee this apparatus is the most effectual one of which we know. It consists of two lateral stems, with ankle, knee and hip joints, extending from the heels of strong shoes (a) to a pelvic band (b) which encircles the body. Two padded straps are buttoned on each side of the steel stems, one above and one below the knee-joints, crossing each other behind. We also make instead of the two straps, leather caps, placed on the inside of the knee-joints and buttoned to the steel stems on the outside, and padded bands above the ankle (f) and around the thigh (e) aid in directing the force outward.

Direction for measurements as per diagram on page 448.

- |                                                   |                                                                                                           |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 1. Patient's name (or sex).                       | 8. Circumference at calf (5).                                                                             |
| 2. " age.                                         | 9. Circumference at middle of knee (7).                                                                   |
| 3. Right, left or both legs.                      | 10. " above knee (8).                                                                                     |
| 4. Length from sole of foot to ankle joint (1-2). | 11. " at middle of thigh (9).                                                                             |
| 5. " " " " " knee joint (1-7).                    | 12. " " iliac crest (15).                                                                                 |
| 6. " " " " " trochanter major (1-12)              | 13. Send outline of limbs and well-fitting shoes, to lace, or measurements as per directions on page 448. |
| 7. " " " " " iliac crest (1-15)                   |                                                                                                           |

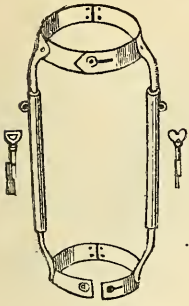
Price of apparatus, according to size.....from \$25 00 to \$35 00

See information and terms on page 447.



## Orthopædic Apparatus.††

### 6444.\* Dr. L. A. Sayre's Apparatus for Inflammation of the Knee-Joint.

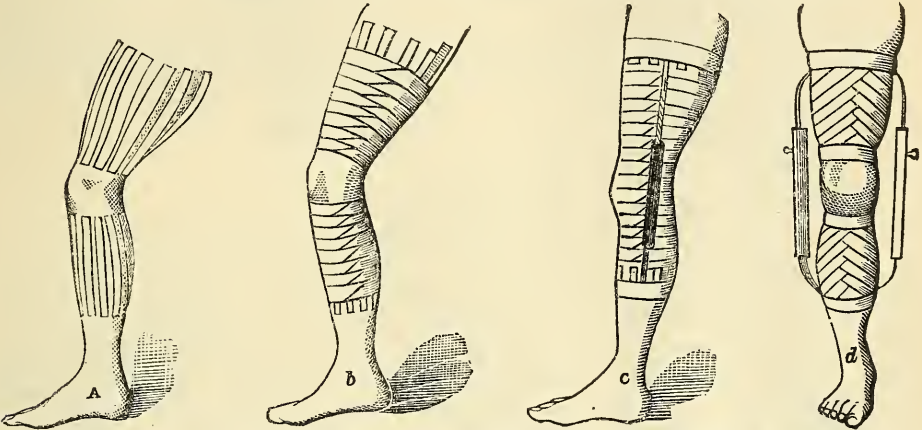


6444

It consists of two bands or collars of sheet-steel, about an inch wide, embracing the limb—the one above the ankle, the other at the upper third of the thigh admitting of adjustment by means of a hinge and slide, and may be locked at any given point, by turning the nut with the key fitted for this purpose. They are connected on either side by an extension rod, of the rack and pinion (or screw) construction.

To apply this instrument, adhesive plaster is required, spread on twilled goods, and cut in strips one inch wide and long enough to reach from just below the knee to near the ankle, and from the knee upwards several inches as here represented in (a).

These plasters are secured to within an inch of their extremities by a snugly adjusted roller, seen in the cut (b). The instrument is then placed on the limb, the collars fastened sufficiently to be comfortable, and the loose ends of the adhesive plasters turned over and secured by a roller.

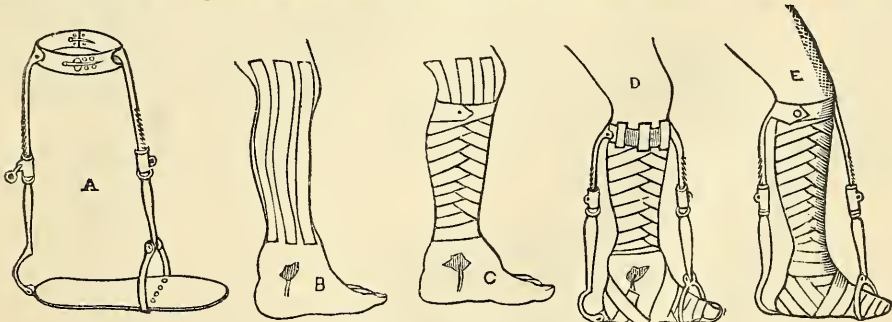


The connecting rods are extended simultaneously, by the keys of the rack and pinion construction, or by turning the screws if made the latter way, the articulating surfaces of the tibia and femur separated from each other, and the limb brought nearly straight as in (c) and (d), until pressure can be made on the foot without pain. A roller is applied over the foot and leg up to the instrument, to prevent oedema. A large, coarse sponge is placed in the popliteal space, and other pieces of sponge completely surround the knee-joint; these are secured by a tight roller and then saturated with cold water. The cold water not only reduces the inflammation of the joint, but, by increasing the pressure of the sponge, promotes the absorption of the deposits that generally occur around and in a joint in this condition of chronic inflammation.

Direction for measurements, as per diagram on page 448.

- |                                                 |                                        |
|-------------------------------------------------|----------------------------------------|
| 1. Patient's name (or sex).                     | 4. Circumference at middle of leg (4). |
| 2. " age. (4 to 9).                             | 5. " at knee (7).                      |
| 3. Length from middle of leg to middle of thigh | 6. " at middle of thigh (9).           |
- Price according to size.....from \$17 00 to \$20 00

### 6445.\* Dr. L. A. Sayre's Apparatus for Chronic Inflammation of Ankle-Joint.



6445

See description on next page.

## Orthopædic Apparatus.††

### Description of Sayre's Apparatus for Chronic Inflammation of Ankle-Joint.

This instrument, Fig. *a*, consists of a firm steel plate, made to fit the sole of the foot; at the heel is a hinge-joint, and attached to it a rod, slightly curved at the bottom, and extending up the back of the leg to near the knee. Over the instep is an arch, like the top of a stirrup, with a hinge joint at its summit from which springs another rod, which runs in front of the leg, up to an equal height, with the one behind. These rods are made with a ratchet and cog for extension, and connected at the top by a firm band of sheet steel, with a slot on each side and may be locked at any given point by fastening the nuts.

The instrument is applied with firm adhesive plaster, cut in strips about one inch in width, and long enough to reach from the ankle to near the tubercle of the tibia, and placed all round the limb, as in Fig. *b*.

The plaster is secured in its position, to within an inch of its upper extremity, by a well adjusted roller, as seen in Fig. *c*.

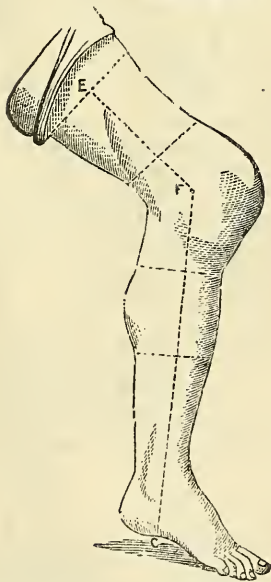
The instrument is fixed, and the foot firmly secured by a number of strips of adhesive plaster, as seen in Fig. *d*. A roller should be carefully applied over this plaster to prevent its slipping, and the ends of the plaster at top of the instrument turned over the collar, which has been previously locked, just tight enough to be comfortable, and secured by a turn or two of the bandage, as seen in Fig. *e*.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age.
3. Length from sole of foot to garter (1 to 6).
4. Circumference at garter (6).
5. Trace an outline of the sole of foot on a piece of paper and send it to us.

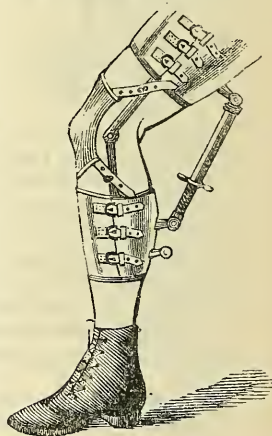
Price according to size.....from \$18 00 to \$22 00

### 6447.\* APPARATUS FOR ANCHYLOSIS OF THE KNEE-JOINT.



This apparatus is designed for overcoming muscular contractions of the knee-joint and for favoring the re-establishing of motion in cases of false ankylosis. It consists of two metal troughs for the reception of the thigh and leg, and connected underneath the knee with a screw by means of which the limb may be flexed in any direction. These two troughs are connected by two lateral shafts jointed at the knee and provided with a knee-cap which is adjusted so as to exert pressure upon the patella, it is a powerful instrument, and as it can be moved swiftly it is adapted to the breaking up of adhesions, should the surgeon prefer this method to gradual extension.

The illustration explains the action of the screw-movement, it is simple in its construction. We also make this apparatus to extend to the sole of foot, with ankle-joint, in order to give a better support, and prevent it from slipping. If desired, the shoe can be detached from the apparatus, for the greater comfort of patients who are obliged to wear the apparatus continually, but wishing to remove the shoe at night.



6447

Direction for measurements as per diagram on page 448.

- |                                                       |                                        |
|-------------------------------------------------------|----------------------------------------|
| 1. Patient's name (or sex).                           | 7. Circumference at middle of leg (4). |
| 2. " age.                                             | 8. " at calf (5).                      |
| 3. Right, or left leg.                                | 9. " garter (6).                       |
| 4. Length from sole of foot to ankle joint (1 to 2).  | 10. " middle of knee (7).              |
| 5. " " " " knee joint (1 to 7).                       | 11. " above knee (8).                  |
| 6. " " knee joint, to upper third of thigh (7 to 10). | 12. " at upper third of thigh (9).     |

Price for apparatus as per cut.....from \$18 00 to \$22 00

" " with shoe attachment.....22 00 to 28 00

Send well fitting shoe to lace or measurements as per direction on page 448.

Shoes are charged extra.

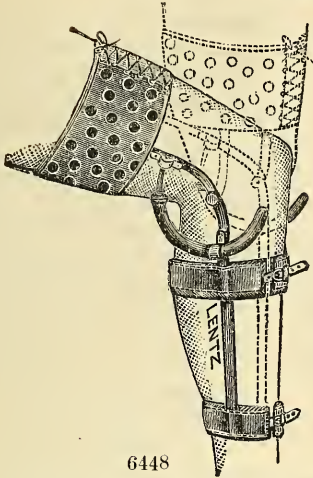
See information and terms on page 447.



## Orthopædic Apparatus.††

### 6448.\* HOOPER'S KNEE EXTENSION APPARATUS.

For Overcoming Muscular Contractions.



6448

It consists of a band encircling the thigh, another for the calf, and one above the ankle. These are fastened to two lateral shafts, provided with joints, at the knee. Two semi-circular brass tubes fastened to the lower calf shafts, containing each a spiral spring, acting on bows fastened to the shaft, thus exerting constant elastic extension, which is sure to overcome muscular contraction.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age.
3. Right or left leg.
4. Length from sole of foot to above ankle (1 to 3).
5. " " " knee-joint (1 to 7).
6. " " knee to upper third of thigh (7 to 10).
7. Circumference above ankle (3).
8. " at calf (5).
9. " at knee (7).
10. " above knee (8).
11. " at upper third of thigh (10).

Price according to size.....from \$24 00 to \$30 00

### 6449.\* Dr. JOHN S. MILLER'S APPARATUS FOR DISLOCATION OF SEMILUNAR CARTILAGES.



6449

But little explanation of this apparatus is required, beyond that furnished by an inspection of the accompanying cut. In cases of old sprains of the knee, rupture of the lateral or internal ligaments of the knee-joint, or in limbs weakened by long ligamentous union of fractured patella, this device will be found to answer an exceedingly useful purpose. A pad may be placed with a regulating screw to exert pressure on the point of the dislocated semilunar cartilage. The pad can be placed on the inner or outer side of the knee-joint. In cases of ununited fracture of the lower and middle thirds of the femur, this brace will frequently accomplish better results than more complicated, weighty and expensive supports. The width of both thigh-band and leg-band can be varied to suit the requirements of the individual case, and the hinge joints can be made to work loosely or tightly as may seem best to the surgeon.

Direction for measurements same as for 6448. Also place the leg on a sheet of paper, and draw a line from the perineum down the inner side of the leg around the foot, and up the other side to obtain its contour.

Price according to size.....from \$15 00 to \$20 00

### 6450.\* Marsh's Clamp to Prevent Dislocation of Semilunar Cartilages.

This apparatus is more efficient than an elastic knee cap, as the pressure is directed more thoroughly to the affected parts. It consists of a metallic fenestrated cap, well padded, and provided with a spring passing around the popliteal space and exerting pressure on the lateral surfaces of the knee.

Direction for Measurements.

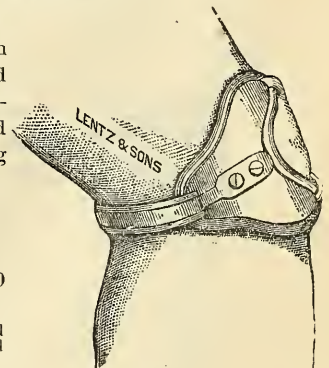
1. Right, left or both.
2. Circumference at knee-joint.

Price.....\$6 50

**DO NOT CUT OR MUTILATE THIS BOOK.**

In ordering, state number of apparatus and give directions required, and we can execute order satisfactorily. Cutting out illustrations does not aid us any but destroys the page for future reference.

See information and terms on page 447.

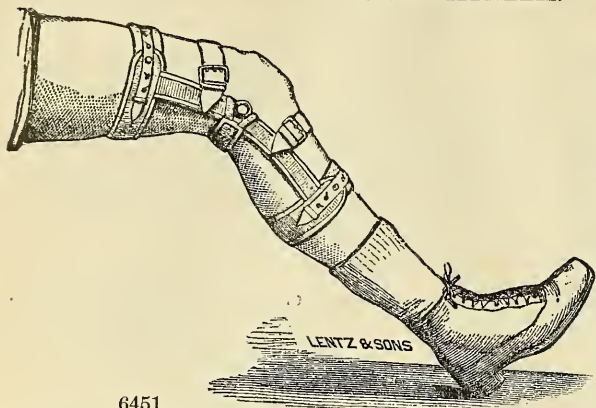


6450



## Orthopædic Apparatus.††

### 6451.\* MARSH'S APPARATUS FOR CHRONIC DISLOCATION OF THE PATELLA.



6451

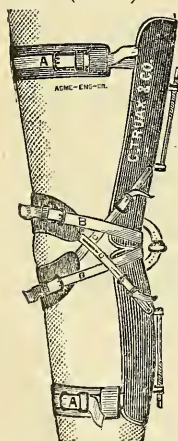
This apparatus consists of two lateral steel bars, extending from the middle of the thigh to the middle of the leg, and is provided with joints at the knee. Two straps encircling the limb, one above the patella, and one below, with well padded thigh and calf bands. The patella is held in its normal position by the straps above and below this bone and also receives adequate lateral support by the joints and band passing around the popliteal space.

Direction for measurements as per diagram on page 448.

- |                                                   |                                        |
|---------------------------------------------------|----------------------------------------|
| 1. Length from middle of leg to knee joint (4-7). | 3. Circumference at middle of leg (4). |
| 2. " " knee joint to middle of thigh (7 to 9).    | 4. " " knee joint (7).                 |
|                                                   | 5. " " middle of thigh (9).            |

Give outline of limb—state if for right or left limb.

Price.....\$12 00 to \$15 00



6453

### 6453.\* MARKLEY'S PATELLA SPLINT.

This splint is intended for the treatment of fractures of the patella and dislocations of the knee joint and may be utilized in cases of fractures either just above or below the knee.

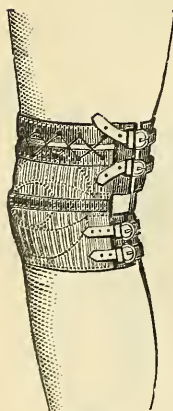
It consists of two well padded iron troughs connected with hinges and circle stop so that it may be used straight, or flexed to any desired angle. Traction on the pads may be made by means of the two long screws, which are shown on the under side of the splint and turned by a wrench. Each screw is provided with a sliding nut, which moves in a slot cut in the trough and to which is attached the traction bands (cc). The bands (bb) assist in holding the pads firmly in place, while the bands (aa) hold the splint to the limb.

Direction for measurements, same as for Hooper's knee apparatus, No. 6448. Price according to size.....\$12 00 \$16 00

6454. Levis' Apparatus for Fracture of the Patella.....\$6 00

6455. Hartshorn's Apparatus for Fracture of the Patella..... 7 00  
(See also splints " " " " on page 406.)

### 6456.\* KNEE CAP FOR AFTER TREATMENT OF FRACTURED PATELLA.



6456

This knee cap is made for the purpose of controlling the patella after the fracture has been healed, and is to prevent the rupture of the ligaments of the newly formed union. It consists of a knee cap made of satin-jeans, which is adjusted to the knee by buckles or laces, and has two pads—one above, the other below the patella, and drawn together by laces.

Direction for measurements as per diagram on page 448.

1. Right or left.
2. Circumference at garter (6).
3. " at knee (7).
4. " above knee (8).

Price.....\$5 00 to \$6 00

See information and terms on page 447.

## Orthopædic Apparatus.††

### 6458.\* Lentz's Apparatus for After Treatment of Compound Fracture of the Tibia and Fibula.

The cut represents an apparatus for after treatment of compound fracture of the tibia and fibula, it has proved very successful in such cases where the new formed union is not firm enough to bear the weight of the body, or in cases of un-united fractures.

It is constructed of two lateral bars which are made to shorten or lengthen, and held securely by a thumb-screw, the top band which is made of sheet steel and covered with leather and well padded so that it can be fitted directly under the head of the tibia, thereby the weight of the body is taken off of the limb, and transferred to the brace.

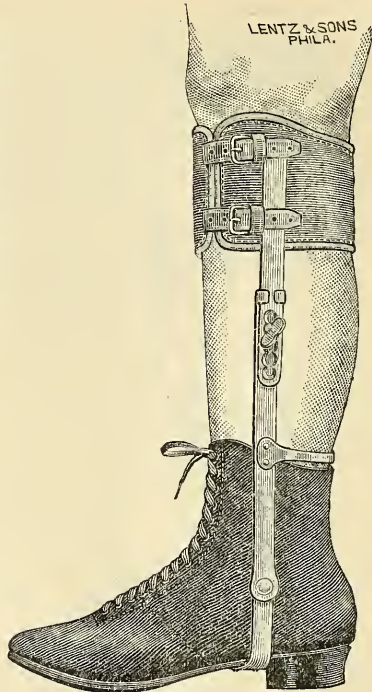
Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age.
3. " weight.
4. Right or left leg.
5. Length from sole of foot to ankle joint (1 to 2).
6. " " " garter (1 to 6).
7. Circumference at calf (5).
8. " at garter (6).
9. Place the leg on a sheet of paper and draw an outline from centre of knee along both sides of the limb.

Price of apparatus according to size.....\$12 00 to \$15 00

Send a well fitting shoe to lace, or measurements as per directions on page 448.

Shoes are charged extra.



6458

### 6459.\* LOCK-JOINT APPARATUS FOR PARALYSIS.

This apparatus is made for paralysis of one limb. By an improved mechanism the knee-joint is locked while walking, and when the wearer wishes to sit down, he merely pushes a lever by pressing with his finger outside his pantaloons above the knee; this unlocks the joint and permits him to bend his knee. When he rises and straightens the limb the joint automatically locks itself. The side bars and ankle and knee-joints are made somewhat stronger than in those cases in which the patient has control of his knee-joint.

The encasements for the thigh and leg are of strong leather and well padded. The illustration also shows an artificial muscle to overcome the contraction of the muscles of the leg. A similar apparatus may also be worn for resection of the femur or tibia. In such cases, the collar for the calf should be from two to four inches broader, or supplemented by a second attached above the ankle in order to give all possible support. This apparatus is an excellent one for the treatment of ununited fractures, permitting the patient to go about.

Direction for measurements as per diagram on page 448.

- |                                                                |                                     |
|----------------------------------------------------------------|-------------------------------------|
| 1. Patient's name (or sex).                                    | 8. Circumference above ankle (3).   |
| 2. " age.                                                      | 9. " at calf (5).                   |
| 3. Right or left leg.                                          | 10. " at garter (6).                |
| 5. Length from sole of foot to ankle joint (1 to 2).           | 11. " at middle of knee (7).        |
| 6. Length from sole of foot to knee joint (1 to 7).            | 12. Circumference above knee (8).   |
| 7. Length from sole of foot to upper third of thigh (1 to 10). | 13. " at upper third of thigh (10). |

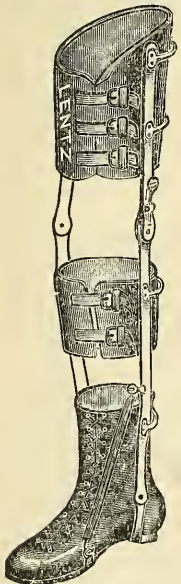
Place the leg on a sheet of paper and draw an outline from the perineum down to sole of foot and up the outer side to obtain its contour.

Price of apparatus according to size.....\$24 00 to \$30 00

Send a well fitting shoe or shoes to lace, or measurements as per directions on page 448.

Shoes are charged extra.

See information and terms on page 447.



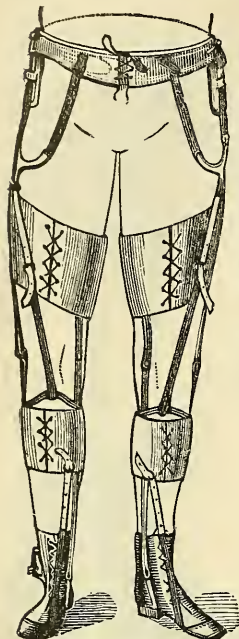
6459



## Orthopædic Apparatus.††

### 6459.\* APPARATUS FOR PARTIAL PARALYSIS OF BOTH LIMBS.

(PARAPLEGIA.)

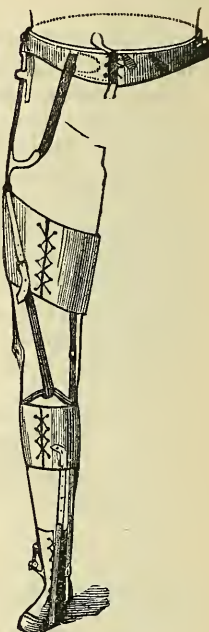


6459

This apparatus is made for paraplegia affecting the limbs to the knee-joint, and answers both as a support and in aiding the restoration of the mobility of the muscles. It is well adapted for cases of wasting palsy or when certain groups of muscles become atrophied, losing their power to perform their functions, it excites the muscles to action, aiding them by artificial substitutes made of elastic, rubber or steel placed on the brace so as to gently exercise the affected parts. We can attach these artificial muscles for flexion or extension, as the case may require.

Direction for ordering as per diagram on page 448.

1. Patient's name (or sex.)
2. " age and weight.
3. Length from sole of foot to ankle-joint (1 to 2)
4. " " " " knee " (1 to 7)
5. " " " " perineum (1 to 11)
6. " " " " trochanter major (1 to 12)
7. " " " " iliac crest (1 to 15)
8. Circumference above ankle (3).
9. " at calf (5).
10. " at garter (6).
11. " at knee-joint (7).
12. " above knee (8).
13. " at middle of thigh (9).
14. " at upper 3d of thigh (10).
15. " at iliac crest (15).



6460

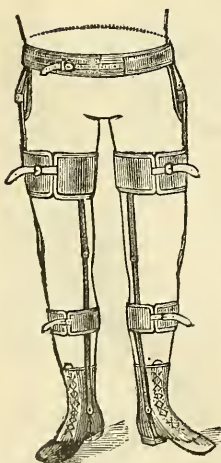
Send well fitting shoe or shoes to lace, or measurements, as per directions on page 448.

Price of apparatus, according to size.....\$35 00 to \$50 00

Shoes are charged extra.

### 6460.\* APPARATUS FOR PARTIAL PARALYSIS OF ONE LIMB.

(HEMIPLEGIA.)



6462

This apparatus is made for hemiplegia, and is similar to No. 6459, except that it is only intended for one limb.

Direction for measurements same as for No. 6459 ; state whether for right or left limb.

Price of apparatus, according to size.....\$28 00 to \$40 00

### 6462.\* APPARATUS FOR THE SUPPORT OF WEAK LEGS.

This apparatus is for the support of weak legs, when, by reason of relaxed joints, softening of the osseous structure, or partial paralysis, they cannot quite bear the weight of the body ; but where the muscles still retain some power to perform their respective functions. Very light steel bars are secured to the shoes and carried up the sides of the legs to the pelvis, they are provided with joints corresponding to the natural ones and secured to the calf, thigh and pelvis by well padded bands and buckles.

Direction for measurements same as for No. 6459.

Price of apparatus, according to size.....\$35 00 to \$45 00

Shoes are charged extra.

See information and terms on page 447.



## Orthopædic Apparatus.††

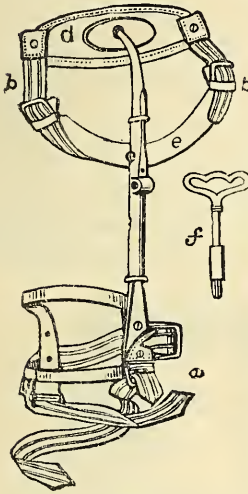
### APPARATUS FOR HIP-JOINT DISEASE (MORBUS COXARIUS).

"The treatment of morbus coxarius may be divided into: 1. Local; 2. General.

"Many of the general remedies employed have been given to counteract the scrofulous diathesis which was supposed to underlie these joint diseases. Of course, if the disease occurs in a patient who happens to be scrofulous, it will be necessary to bear in mind the diathesis which complicates the trouble, and employ the proper remedies. But these 'white swellings' of joints have no necessary connection with scrofula, and occur indifferently in the weak and robust, according as the exciting causes, generally traumatic are brought into action. It would, then, be highly illogical to subject every case of joint disease to a course of anti-scrofulous medication. You will, however, generally find that these patients are benefited by those remedies, such as tonics, cod-liver oil, and stimulants, which are of value in the treatment of any disease of long duration and debilitating tendency. \* \* \*

"The local treatment, which has grown into favor during the past few years, but which I have advocated since 1845, is such as to give absolute rest and freedom from pressure of the parts involved in the disease, without materially interfering with the mobility of the joint or ordinary exercises of the patient Bonnet's method—*fixation without extension*—for local treatment has been the plan abroad. In this country, however, *fixation with extension* has been chiefly employed."—"Orthopædic Surgery and Diseases of the Joints." Lewis A. Sayre.

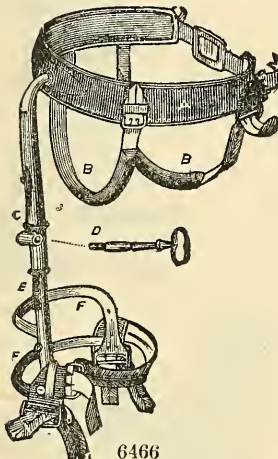
#### 6465.\* DR. L. A. SAYRE'S SHORT SPLINT FOR THE TREATMENT OF HIP JOINT DISEASE (ORIGINAL).



6465

of the connecting rod are now slid past each other so as to render the rod as short as possible; the perineal band is fixed firmly in place, and the webbings are buckled snugly. The key is now inserted and the proper amount of extension applied.

#### 6466.\* DR. L. A. SAYRE'S SHORT SPLINT (IMPROVED.)



6466

This instrument consists of a pelvic band (a), passing partly around the body under the crest of the ilium, well padded on its inner surface, to which usually two perineal straps (b, b), are fastened for counter extension; the outer surface of the pelvic band holds a ball and socket joint terminating into a tubular steel rod, same as on above apparatus, the extension and application is also made in the same manner.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age and weight.
3. General appearance.
4. Right or left hip.
5. Length from knee joint to above trochanter major (7 to 13).
6. Circumference above knee (8).
7. " at middle of thigh (9).
8. " of body above trochanter major (13).

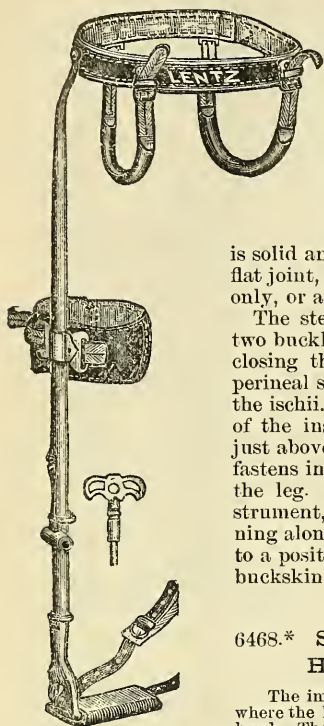
Price for the original splint, No. 6465.....\$15 00 to \$18 00

" " improved splint, No. 6466.....\$17 00 to 20 00

See information and terms on page 447.

## Orthopædic Apparatus.

### 6467.\* Dr. L. A. Sayre's Long Splints for Hip-Joint Disease. (MORBUS COXARIUS.)



This splint differs from the short ones before described in the following particulars: In the first place it extends the entire length of the limb, receives the weight of the body upon a cross bar under the foot and a steel girdle encircling the pelvis, having two perineal straps. The long hollow steel tube reaching from the pelvis to the sole of the foot, has a solid steel rod running inside of it, furnished with a ratchet, movable up and down for lengthening and shortening, by a key which works in the ratchet through an opening on the outer side of the tube. The contrivance for locking is the same as that described on the shortsplints. The upper part of the long hollow steel tube

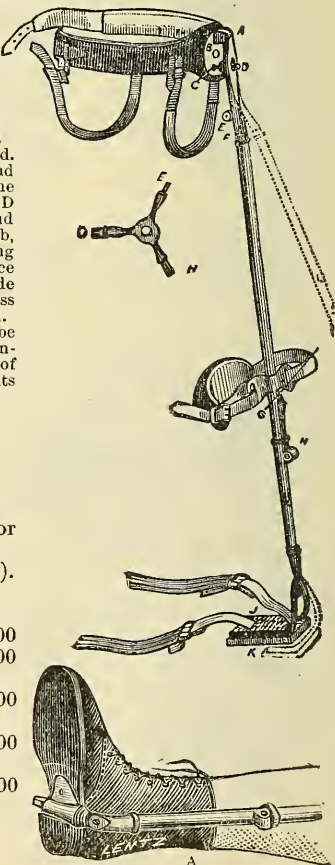
is solid and strong, fastened to the steel girdle by a simple bolt making a flat joint, permitting forward and backward movements of the hip-joint only, or a ball and socket joint.

The steel girdle is well-padded on its inner surface, and terminates in two buckles, in which are buckled a partly padded strap of webbing for closing the belt. From two points in front to two points in the back perineal straps for counter extension pass along the perineum and under the ischii. A stout leather sole is fastened to the cross bar at the bottom of the instrument, and a strong leather strap passes through apertures just above the cross bar, turns up an end on each side of the ankle and fastens into the buckles attached to the tabs from the adhesive plaster of the leg. This completes the attachments at the lower portion of the instrument, for making extension. There is also attached to the bar running along the outer side of the limb a cross piece which can be adjusted to a position conforming to that of the knee-joint, unto this is buckled a buckskin knee-cap for the steady support of the knee.

### 6468.\* Sayre's Long Splint for Hip-Joint Disease.

The improved parts of this apparatus are where the long rod is attached to the pelvic band. The long rod is attached at A to a round revolving plate or platform, B, which is fastened to the pelvic band. When the plate B is moved upon its axis, the long rod is moved forward and backward. From the point, A, the long rod moves from and towards the leg, as shown by the dotted lines towards L. C is a screw terminating at D into a small square stem of steel, fitting to a key. This screw turns in and out of the revolving plate, B, and has at the end of its thread a little knob, which is a little larger than the perforation at the upper end of the long rod, so that when the key is applied at D and turned, the screw C will force the long rod in the direction towards L. In this manner abduction is made at F; the long rod is divided into two parts, the lower part holds an endless screw transversely, which is worked by a key, and rotation thus produced.

As a matter of comfort and where the application of plaster cannot be borne, we also manufacture cylindrical spring-boxes, as shown on the annexed cut Fig. A fastened to the sole of the shoe, into which the foot-piece of the splint is sprung and firmly held in place by a spring. These permits free motion of the ankle-joint.



Direction for measurements as per diagram on page 446.

1. Patient's name (or sex).
2. " age and weight.
3. Right or left leg.
4. Length from sole of foot to above trochanter major (1 to 13).
5. Circumference of body above trochanter major (13).

|                                                                          |                    |
|--------------------------------------------------------------------------|--------------------|
| Long Hip Splint, with plain joint like No. 6467 .....                    | \$25 00 to \$30 00 |
| Long Hip Splint, with ball and socket joint... ..                        | 25 00 to 30 00     |
| " " platform joint and abducting screw.....                              | 30 00 to 35 00     |
| Long Hip Splint, with platform joint, abducting and rotating screws..... | 40 00 to 45 00     |
| Any of the above with spring box, see Fig. A, extra .....                | 5 00               |
| For the application of the long splints, see next page.                  |                    |

See information and terms on page 447.



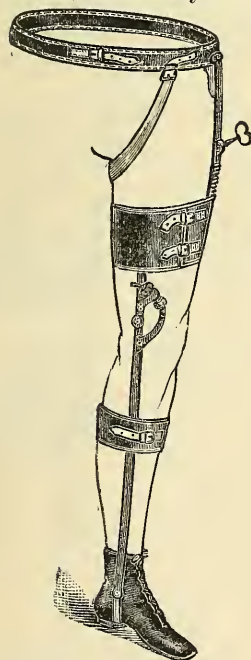
## Hip-Joint Apparatus. (Morbus Coxarius.)

### APPLICATION OF THE LONG SPLINTS.

Take two strips of strong moleskin adhesive plaster from two to four inches in width, according to the size of the patient and the entire length of the limb, divide the upper extremity of the plaster into strips, two or three inches long, and sew strong webbing with buckles attached on below. These plasters are then applied on either side of the leg in such a manner, as to leave the buckles a little above the ankle joint, and are secured by a snugly adjusted roller, so applied as to leave the tags with the buckles hanging loose, the roller being carried up over the knee, and as far up the thigh as can be done with convenience. The upper split-ends of the plasters are reversed and braided in the roller as it turns down the thigh, securing it smoothly. The stocking is then pulled up on the foot, holes having been cut on either side for the buckles to pass through, and the shoe applied, with holes cut through in the same manner. The instrument is now placed on the outer side of the leg; and the cross-bar at the bottom brought in front of the heel of the shoe, and securely buckled to the tags above described. The pelvic band is next brought around the hips and secured by the buckle upon the opposite side, and the perineal straps attached as firmly as need be. The knee-pad-band is then slipped up or down, until it is made to rest opposite the knee, when it is passed around and buckled fast. Extension is now made by the key upon the ratchet until full compression is borne without pain. The abducting screw may then be used, and daily increased.

If the limb is strongly flexed, an additional strap is applied at the posterior part of the instrument at the knee, running up the back of the thigh, and secured to the posterior position of the pelvic band, and made tighter as occasion may require for the purpose of extending the limb. The latter strap should be elastic for the purpose of keeping up a constant tractile force; and, at the same time, allow of flexion when the patient wishes to sit down.

By this means, many cases that have gone to the third stage of the disease, may, in the course of time, recover without exsection, with tolerably good form and a moderate degree of motion, without any further procedure.



6469

### 6469.\* J. C. HUTCHISON'S HIP-JOINT APPARATUS.

This apparatus is portable, and, being fastened to a shoe, needs no adhesive strips. Two rods of steel extend from the foot to the upper third of the thigh and are secured to the leg with calf and thigh-bands. The outside rod, longer than the other one, is ratched, and slides in a steel tube which is hinged by a ball and socket joint to a pelvic band. To this pelvic band is attached a perineal strap for counter-extension. Extension is made by working the splint with a key. The splint is provided with joints for the ankle and knee, the latter one is adjustable to any degree of flexion and extension, and may be fixed at any point or its motion limited, by an arrangement of a screw and two nuts.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age and weight.
3. General appearance.
4. Right or left leg.
5. Length from sole of foot to ankle-joint (1 to 2).
6. " " " " knee-joint (1 to 7).
7. " " " " perineum (1 to 11).
8. " " " " above trochanter major (1 to 13).
9. Circumference at calf (5).
10. " at garter (6).
11. " at knee (7).
12. " above knee (8).
13. " at middle of thigh (9).
14. " of body above trochanter major (13).

Send well fitting shoe to lace, or measurements as per directions on page 448.

Price of apparatus.....\$30 00 to \$35 00

Shoes are charged extra.

Moleskin Adhesive Plaster for extension purposes, per yard, roll 7-inch wide.....\$1 00  
Roller Bandages, see page 14.

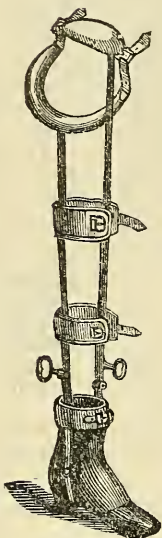
See information and terms on page 447.

**NOTICE.**—When not stated to send shoes, it is to be understood that they must be made to measurements, as ordinary shoes cannot be used with the apparatus, and the shoes are always included in the price.



## Orthopædic Apparatus.

### 6470.\* BAUER'S APPARATUS FOR HIP-JOINT DISEASE.



6470

This apparatus affords extension in a verticle line and complete immobility of the joint, by being fastened to the shoe it utilizes the foot for extension, the tuber ischii for counter extension, and the key rack and pinion for a moving power. No adhesive strips are used with this apparatus.

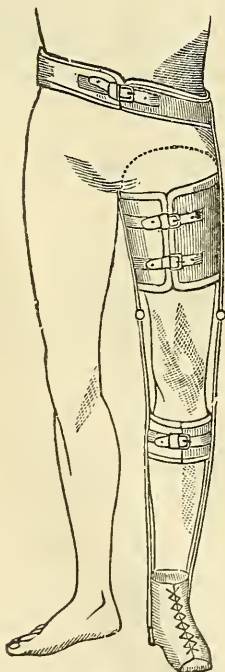
Direction for measurements, as per diagram on page 448.

1. Patient's name (or sex).
2. Patient's age and weight.
3. General appearance.
4. Right or left leg.
5. Length from sole of foot to perineum (sound leg.) (1 to 11)
6. " " " " " " (diseased leg.) (1 to 11)
7. " " " " " " iliac crest (1 to 15)
8. Circumference at calf (5)
9. Circumference at middle of thigh (9)

Price, according to size.....\$25.00 to \$30.00

Send well-fitting shoe to lace, or measurements as per directions on page 448.

### 6471.\* DR. D. H. AGNEW'S APPARATUS FOR HIP-JOINT DISEASE.



6471

This apparatus consists of the two lateral braces fastened to the shoe, but without joints for the knee. These braces have a ratchet which allows them to be longer or shorter at pleasure. Attached to the upper end of these braces is a metallic band about six inches wide covered with leather and thickly padded, especially at its upper edge that the tuberosity of the ischium may rest upon it without injury to the soft parts between. It will be seen that if the apparatus is applied to the leg and the braces lengthened so that the edge of the upper band bears firmly on the tuberosity of the ischium, that when the weight of the body is thrown on the affected side it will bear upon the apparatus through the tuberosity on the principle of a crutch, instead of bearing upon the hip-joint, thus giving the joint rest and an opportunity to recuperate. No adhesive plaster is used with this apparatus.

Direction for measurements same as for No. 6469, with the following in addition :

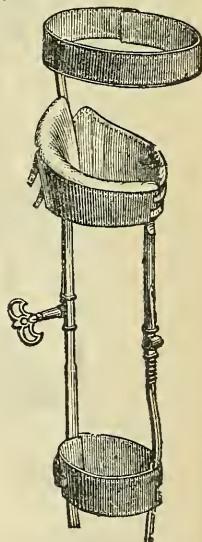
Circumference at upper third of thigh(10).

Send well-fitting shoe to lace, or measurements as per directions on page 448.

Price of apparatus, according to size.....\$30.00 to \$35.00

Shoes are charged extra.

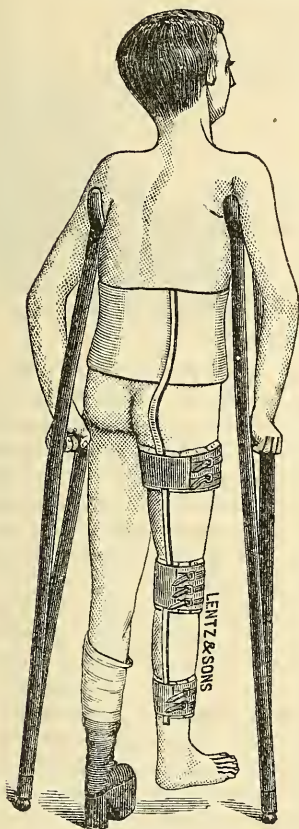
See information and terms on page 447.



Side view of No. 6471.

## Orthopædic Apparatus.

### 6472.\* AGNEW'S MODIFICATION OF THOMAS' HIP SPLINT.



6472

This cut, represents the posterior splint or apparatus for the treatment of all stages of hip diseases or coxalgia. The upper or pelvic portion is made of leather, formed in the same manner as the spinal leather jacket from a plaster cast. To this is attached the posterior bar of steel, covered with leather and extending down over the buttock, fitting closely against the leg to just above the ankle—the pelvic part laces on with hooks, and there is a band around the thigh, one around directly over the knee, and one above the ankle. When this apparatus is firmly attached to the body and leg, there is no possibility of motion at the hip joint in any position the patient may place itself. A shoe with a steel or cork elevation is fitted to the well foot two and a half to three and a half inches high, and a pair of crutches furnished.

In ordering this splint a plaster of paris jacket should be made extending from above trochanter major to half way to axilla, in cases where the spine is affected it may reach up somewhat higher. Before the jacket is cut off a mould should be taken from above ankle over the buttock up to the top of the plaster jacket on the posterior part of the leg and body, with a piece of lead say  $\frac{1}{8} \times \frac{1}{2}$  inch wide, or pliable wire about  $\frac{3}{16}$  inch thick, mark on the strip the points above ankle, middle of knee, upper third of thigh and top of plaster jacket, with this mould trace an outline on a sheet of paper and mark all the points mentioned above, in addition to these instructions, measurements are required as per diagram on page 448.

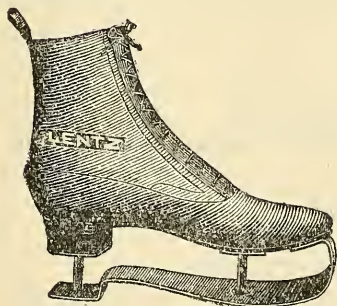
1. Patient's name (or sex).
2. " age.
3. General appearance.
4. Right or left leg.
5. Cork shoe or steel elevation.
6. Circumference above ankle (3).
7. " at knee joint (7).
8. " middle of thigh (9).
9. " of upper third of thigh (10).

Send a well fitting shoe for well foot if steel elevation is desired, or measurement as per directions on page 448.

Price of splint, with cork shoe and crutches...\$30 00 to \$40 00  
 " " with steel elevation (if shoe is furnished) and crutches.....\$26 00 to \$36 00

## Extension for Shortened Limb.

### 6474.\* STEEL ELEVATION.



6474

For a short leg, the result of infantile paralysis, when the bones have not kept pace in growth with those of the corresponding extremity, we make an elevation to correct the patient's limp, and to guard against the danger of spinal curvature. The apparatus consists of a steel frame of proper height, securely fastened under a plain shoe. The steel base has a leather sole attached, avoid noise when walking on pavements, stone or wooden floors, and to prevent falling on slippery ground. These elevations are light and comfortable. We also make a different pattern of elevation, on which the frame is forged of steel and has no leather sole attached, it will stand rougher usage than the former. Price is the same for either style. Send us a well-fitting shoe and give the height of the elevation as per instruction on next page.

Price of steel elevation (if shoe is furnished), \$6 00 to \$8 00

See information and terms on page 447.



## Orthopædic Apparatus.††

### Extension for Shortened Limb.

#### 6475.\* CORK ELEVATION SHOE.

The cork shoe has the advantage of being lighter, neater and less conspicuous than any other form of elevation.

#### Instructions and Direction for Measurements.

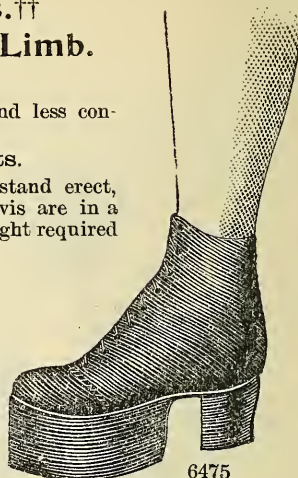
To determine the height, have the patient (both feet bare) stand erect, place books under the short foot until the shoulders and pelvis are in a horizontal plane, then measure these books, which will be the height required for extension.

1. Patient's name (or sex).
2. " age.
3. State if for right or left foot.
4. Height of elevation.

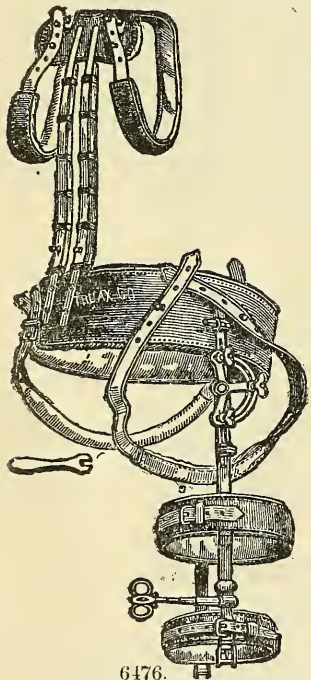
Send measurement for shoe as per directions on page 448.

Price of cork shoe, according to size of shoe and

height of cork required,.....from \$10 00 to \$14 00



#### 6476.\* STILLMAN'S SECTOR JOINT HIP SPLINT.



This consists of a hip brace provided, *1st*, with a back frame; *2d*, with sector at the hip; *3d*, with a clamp above the sector for fixing the angles of abduction and adduction, and one below for fixing the angle of rotation. These are changed by the wrench shown in the illustration. The sector is operated by thumb-screws, and is provided with a removable clamp by which motion in the hip may be limited to any given arc. Two pieces of moleskin plaster with webbings attached are placed on the thigh, as in applying Sayre's brace.

To apply the brace, the clamps and straps are all loosened and the extension ratchets shortened as much as possible. The pelvic band is then fastened around the pelvis and the two perineal bands buckled tightly in place. The shoulder straps and abdominal band are then buckled, so as to secure the back frame tightly against the back. The thigh is next to be attached, the webbing tabs are to be passed over the rollers at the end of the brace and buckled tightly, the girths around the thigh having been previously buckled.

Traction may now be exerted, either under chloroform, which is preferable, or gradually by the hand until the limb is in the position desired, when the clamps are tightened, thus fastening the thigh on the pelvis. Extension is now to be exerted by the key. The addition of the high heeled shoe on the sound limb, and a pair of crutches completes the outfit.

6476.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age.
3. General appearance of patient.
4. Right or left leg.
5. Length from above knee to trochanter major (8 to 12).
6. " " above " " iliac crest (8 to 15).
7. " " above trochanter major to superior border of scapula (13 to 20).
8. Circumference above knee (8).
9. " " at middle of thigh (9).
10. " " at iliac crest (15).
11. " " at waist (16).
12. " " at axilla (18).

Measurements for shoe for well foot as per directions on page 448.

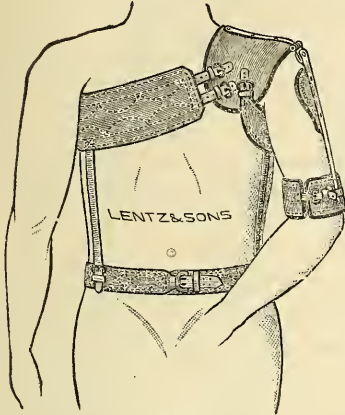
Price of splint without shoe or crutches.....\$35 00 to \$45 00

See information and terms on page 447.



## Orthopædic Apparatus.

### 6478.\* Apparatus for Un-united Fracture or Resection of the Humerus and for Preventing Dislocation of the Shoulder Joint.



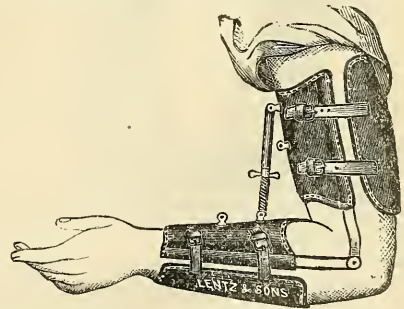
6478

make this apparatus fit well, the patient must either visit us for adjustment, or, if this is inconvenient, the surgical attendant must send us an accurate plaster-of-paris cast of the shoulder, and the following measurements :

- |                                                          |                                              |
|----------------------------------------------------------|----------------------------------------------|
| 1. Patient's name (or sex).                              | 5. Circumference of the arm above the elbow. |
| 2. Right or left shoulder.                               | 6. Circumference of the arm below axilla.    |
| 3. Length of the arm from axilla to forearm when flexed. | 7. " " chest under "                         |
| 4. Length from tip of shoulder to elbow.                 | Price,.....\$25 00 to \$40 00                |

### 6479.\* Strohmeier's Apparatus for Real and False Anchylosis of the Elbow-Joint.

The apparatus represented here is for the gradual extension of contracted muscles. Its screw arrangement is made on the same plan as a similiar apparatus for the knee-joint, on page 460 Fig. 6447. By persistent and daily passive and active exercise, a flexible and useful joint may be restored. It may also be used for forcible breaking up of false anchylosis, if the surgeon prefers this to gradual extension. It forms also a safeguard against malposition, for should it be deemed impossible to effect a cure the arm may be fixed in such a position to anchylose as shall give it the greatest usefulness. We also make an improved form of this apparatus, in which the regulation screw is so placed as not to materially interfere with the patient's clothing, the sockets instead of being fastened with buckles are provided with hooks, this enables the wearer to apply and fasten the apparatus himself, and does not show through the clothing so much as the buckles.



6479.

#### DIRECTION FOR MEASUREMENTS.

- |                                                  |                                      |
|--------------------------------------------------|--------------------------------------|
| 1. Patient's name (or sex).                      | 5. Length from elbow-joint to wrist. |
| 2. Right or left arm.                            | 6. Circumference at wrist.           |
| 3. Length from shoulder to elbow-joint outside.  | 7. " " below elbow.                  |
| 4. Length from axilla to the elbow-joint inside. | 8. " " above "                       |
|                                                  | 9. " " below axilla.                 |

State the degree of flexion.

Price as per illustration.....from \$15 00 to \$20 00  
 Price of improved form....." 16 00 to 22 00

See information and terms on page 447.

## Orthopædic Apparatus.

### APPARATUS FOR DEFORMITIES AND DISEASES OF THE SPINE.

#### Spinal Curvature.

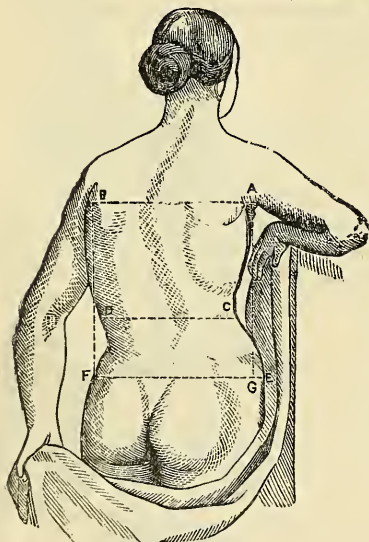
"The spine is subject to various deviations, malformations, or deformities, known by the general appellation or curvature. The abnormal deviations of the spine may be arranged under the three heads of *lateral*, *posterior* and *anterior* their respective frequency being in the order here stated. From this list I purposely exclude that form of curvature caused by tuberculosis, caries, or *Pott's disease* of the spine, and generally known as *angular curvature*. These several deformities may exist singly, as the only departure from the natural standard, or, as not infrequently happens, they may occur in connection with each other. However this may be, they all are due, as was long ago correctly remarked by Cruveilhier, to the following causes: 1. The wasting of the vertebræ by caries or softening; 2. Want of equilibrium between the strength of the vertebral column and the weight of the body, either alone or when oppressed by burdens; 3. Muscular traction; 4. The frequent repetition of any attitude in which the column is bent."—*System of Surgery*. Gross.

#### Shoulder-Braces.

There are certain cases of "round shoulders" which are not sufficiently pronounced to be considered deformities, but which are sufficiently noticeable to call for mechanical treatment. They occur particularly in school children, seamstresses, clerks and others of sedentary occupations. For such we can confidently recommend the braces shown on page 446. A persistent use of these braces will in a majority of cases not only prevent the increase of the mal-posture, but correct that which already exists. We have a variety of other styles than those shown in cuts.

### Measurements Required for Spinal Apparatus.

(AS PER DIAGRAM ON PAGE 448.)



6480

1. Patient's name (or sex).
2. " age.
3. General appearance of patient.
4. State if the convexity of the curve is to the right or left side.
5. Length from middle of the sacrum (14) to the first vertebræ involved.
6. Length from middle of the sacrum (14) to the last vertebræ involved.
7. Length from middle of the sacrum to the superior border of scapula (14 to 20).
8. Length from above trochanter major to axilla, right side (13 to 18).
9. Length from above trochanter major to axilla, left side (13 to 18).
10. Distance from the centre of one scapula to the centre of the other.
11. Circumference of pelvis above troch. major (13).
12. Circumference of waist (16).
13. " " chest (over bust) (17).
14. " " " under axilla (18).

Take a piece of lead about  $\frac{1}{8} \times \frac{1}{2}$  inch wide or a piece of pliable wire about  $\frac{3}{16}$  of an inch and make a mould of each side, from axilla (with arms down) to above trochanter major (18 to 13).

And one of each side, of the spine from middle of sacrum to superior border of scapula (14 to 20).

Also make mould over back of pelvis  $\frac{2}{3}$  of its circumference, for pelvic band, as shown in illustration No. 6481.

Place these moulds on a sheet of paper and trace outlines which must be sent to us.

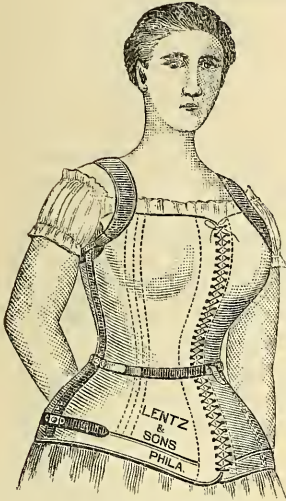
See information and terms on page 447.



## Orthopædic Apparatus.

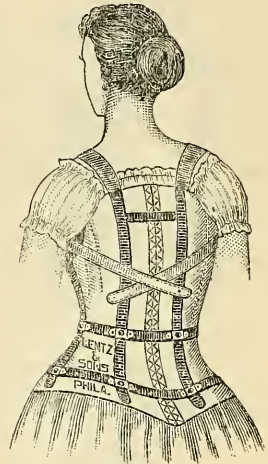
### 6481.\* DR. THOMAS G. MORTON'S SPINAL CORSET.

For Lateral and Antero-Posterior Curvatures.



6481

The illustrations represent one form of corset for weak spine and early stages of lateral curvature, also for posterior curvature (Pott's disease). The corset is made of the finest English sateen, fitted accurately to the body and to this a steel frame is added, which consists of a steel band which embraces the pelvis just above the trochanters, from this arise four steel supports, one on either side extending to the axilla, and one on either side of the spine to the superior border of the scapulæ; to these shoulder straps are attached which pass over the shoulders under the arms through loops and buttoned to the same.



6481

These uprights are connected by steel bands at the waist and at the inferior angle of the scapulæ, which gives firmness to the entire frame.

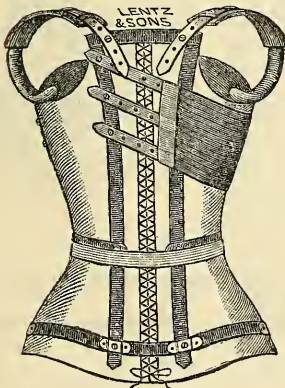
The apparatus is neat, light, comfortable and at the same time effectual and strong.

(Direction for measurements, see page 472).

Price according to size.....from \$18 00 to \$28 00

### 6482.\* LENTZ'S IMPROVED SPINAL CORSET, WITH ADJUSTABLE CRUTCHES FOR LATERAL CURVATURE.

(Scoliosis).

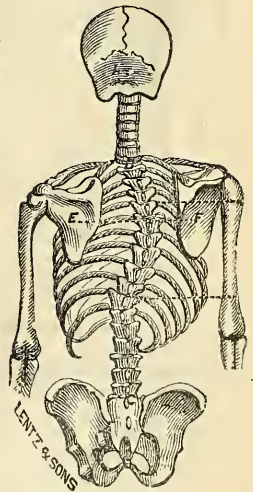


6482

This illustrates the improved form of spinal corset for extreme cases of lateral curvature; its construction is the same as the above (No. 6481), with the addition of well-padded crutches, terminating in straps passing over the shoulders and buttoned to the cross piece.

The advantage of the adjustable crutches permit lengthening as growth or improvement may require.

A broad band of elastic webbing attached to one of the side supports passes over the protruding ribs and attached to the upright support on the opposite side of the spine as shown in the cut; with this artificial muscle, constant tension is exerted.



Price according to size.....from \$22 00 to \$35

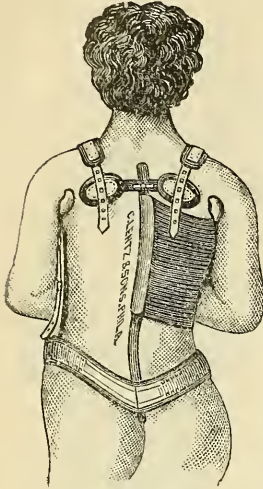
(Direction for measurements, see page 472).

See information and terms on page 447.



## Orthopædic Apparatus.

### 6484.\* APPARATUS FOR LATERAL CURVATURE OF THE SPINE. (Scoliosis.)



6484.

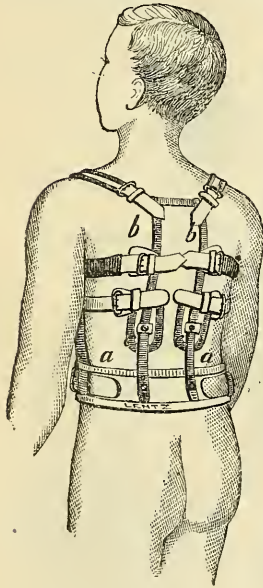
This brace is intended to fulfill two indications—to remove the weight of head and upper portion of the trunk from the affected vertebrae and transfer it to the pelvis, and to furnish constant elastic pressure upon the protruding ribs. It consists of a pelvic band, two upright bars on the sides to which padded crutches are attached, an upright bar attached to the back of the band, and a broad band of elastic webbing passing from the upright bar obliquely over the protruding ribs, passing around the front of the body and fastened by means of straps to the lower part of opposite side bar. To give firmness to the upright bar and to support the upper part of the spine, two adjustable pads are attached to the upright bar and rest upon the shoulder blades. To each pad is hooked a shoulder strap passing from the anterior horn of the corresponding crutch. This apparatus is suitable for patients that cannot bear tight pressure over the chest or abdomen owing to heart disease, asthma, or dyspepsia. It is light, and each part which comes in contact with the body is softly padded.

Direction for measurements, see page 472.

Price of apparatus.....from \$25 00 to \$35 00

### APPARATUS FOR POSTERIOR CURVATURE OF THE SPINE. (Pott's Disease.)

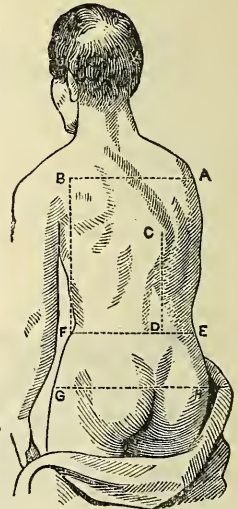
#### 6485.\* Dr. Chas. Washburn's Brace.



6485.

In the accompanying figure *aa* is a steel band which passes half way around the pelvis, just above the trochanters, *bb* are two flat bars of steel, parallel to each other, and curved to the form of the spine to which the apparatus is fitted. These bars are curved a little less than the spine, so that when secured in position, their elasticity will constantly operate to rectify the spinal curve. The cross bar at the upper ends of the parallel ones is firmly riveted to them, and is to cross the back just above the spines of the scapulae. At the ends of this bar are affixed buckles to receive the shoulder straps; *cc* are two moveable pads which slide upon the bars to which they are attached. The compresses are to be brought one upon each side of the projecting knuckle of spine and secured firmly by means of the screws provided for that purpose. Buckles are attached to various parts of the brace, by means of which it is secured to the front part of the apparatus, which consists of a piece of twilled muslin, or other strong material, which covers the chest and abdomen and is provided with straps. Such parts as are in contact with the body are carefully padded.

Direction for measurements.



6486.

1. Patient's name (or sex).
2. " age.
3. General appearance of patient.
4. Length from middle of sacrum (14) to centre of curvature.
5. Length from middle of sacrum to superior border of scapula (14 to 20).

6. Length from above trochanter major to axilla (13 to 18).
7. Circumference of pelvis above trochanter major (13).
8. Circumference of waist (16).
9. " " chest (over bust) (17).
10. " " " under axilla (18).

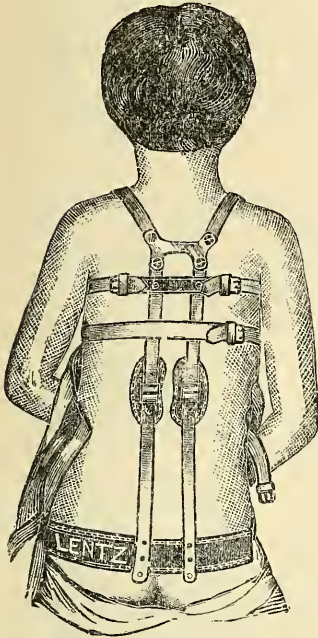
Trace outlines of the body on paper as directed on page 472, but make mould over spine from middle of sacrum to superior border of scapula, marking thereon the centre of curvature.

Price of apparatus.....from \$15 00 to \$25 00

See information and terms on page 447.

## Orthopædic Apparatus.

### 6487.\* TAYLOR'S APPARATUS FOR POSTERIOR CURVATURE OF THE SPINE. (Pott's Disease.)



6487

With this apparatus direct pressure is exerted upon the transverse processes of the vertebrae of the spinal column with the additional suspension necessary in the mechanical treatment of such diseases. The object of this arrangement is to exert direct pressure upon the affected parts where most needed, and where the disease can be best controlled.

Pads are made of chamois skin, filled with hair, making them soft, durable and flexible, especially moulded to the parts involved, which presents a smooth and easy surface. To the brace is attached by buckles (as seen in cut) a broad belt, covering the abdomen and chest, which assist in holding the apparatus in the proper position.

Direction for measurements same as for No. 6485.

Price.....from \$20 00 to \$30 00

### 6488.\* TAYLOR'S APPARATUS WITH CERVICAL OR WRY NECK ATTACHMENT.

Should the disease have developed itself in the upper dorsal or cervical region of the spine, the apparatus should be constructed with an attachment for sustaining the head. The effect and form of this attachment is that of a lever, acting backwards to raise the head and neck, as shown in cut.

Measurements required same as for No. 6485, and the following in addition: make a mould of the spine from middle of sacrum to occipital protuberance marking thereon centre of curvature, vertebral prominence and occipital protuberance, circumference of head around the chin and back of the neck.

Price.....from \$28 00 to \$40 00



6488

**PLEASE DO NOT CUT OR MUTILATE THIS BOOK.**

In ordering state number of apparatus and give directions required, and we can execute order satisfactorily; cutting out illustrations does not aid us any, but destroys the page for future reference.

See information and terms on page 447.



## Orthopædic Apparatus.

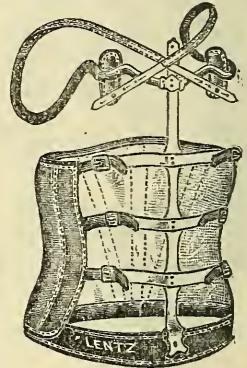
### ANTERIOR CURVATURE OF THE SPINE (Lordosis).



"The treatment of this variety of spinal distortion must be conducted upon the same principles as that of posterior curvature. The pressure must be made to bear more particularly upon the abdomen and the lower portion of the chest in front, and upon the back and pelvis behind. A piece of elastic webbing will be found of great service in equalizing the compression of the abdomen, a matter of no little moment in regard to the comfort of the patient, as well as to his ultimate recovery. When the curvature involves the cervical region, proper attention must be given to the support of the head."—*System of Surgery.*" Gross.

#### 6490.\* Johnston's Spinal Support for Anterior Curvature of the Spine or Lordosis.

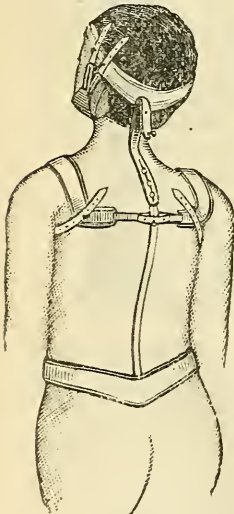
For this deformity a very simple though elegant brace or spinal assistant is made which can be applied or removed readily, thereby overcoming the objections of the plaster jacket. The illustration gives a fair idea of the brace. Attached to a well-padded pelvic band is an upright steel bar to which are fastened by an adjustable arm, pads for the scapulae. This adjustable arm terminates in well-padded crutch horns fitted accurately under the axilla to relieve the weight of the body, the straps passing over the shoulder, continuing diagonally across the back, and buttoning on the scapular pad of that side. On the upright steel bar three or more steel springs, well tempered, are fastened. These springs are so shaped that they act as strong levers. The broad abdominal band is made of sateen jean, interlaced with some elastic material and buckle by straps to these springs; not only affording support, but producing a certain amount of pressure to the abdominal muscles, and by so doing reduces the enlarged or pouched appearance that is so well marked in this trouble. The corset part is made concave so as to act as an abdominal supporter. This brace can be adjusted so readily that it does not interfere in the least with any other treatment indicated in cases of this kind.



6490

Direction for measurements same as for No. 6485.

Price..... \$18 00 to \$24 00



6491

#### 6491.\* MARKOE'S APPARATUS FOR TORTICOLLIS.

This apparatus consists of a well-padded pelvic band to which a steel bar is attached extending upward along the spine to the superior border of the scapula; to this a short adjustable stem is attached extending to the occiput to which a well-padded metal band is fastened, reaching almost from eye to eye backward around the skull, and terminates in a leather band over the forehead and is provided with two buttons on each side to receive the chin piece. To the upright bar is also attached a cross piece which passes over the shoulders from middle of scapula and terminates in leather straps which pass under the axilla and button to the cross piece. A ball and clamp socket joint allows movements of the head into the proper position. The short stem projects backward from the back of the headband, terminating in a ball, which is grasped by a clamp at the end of the upright bar passing up along the spine. The pressure of this clamp is regulated by a thumb screw which is tightened after the head has been brought into a proper position.

Direction for measurements same as No. 6496.

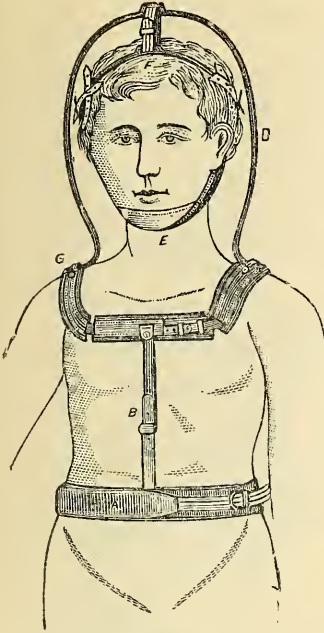
Price..... \$30 00 to \$40 00

See information and terms on page 447.



## Orthopædic Apparatus.

6492.\* DAVIS' APPARATUS FOR TORTICOLLIS.



6492

This apparatus, Fig. 6492 consists of a steel bar (*d*), surrounding the head at a distance of about two inches, which is held in position at (*g*) by a collar brace (*c*), connected by (*b*) and a similar bar on the back, to the pelvic band (*a*). At the top of the bar (*d*), the head is held by a strong, elastic band, connected to a curved piece of steel (*f*), to which a band (*e*), passing under the chin is fastened. By these means a constant elastic tension is effected upon the contracted muscles and the deformity thus counteracted. This apparatus also carries the whole weight of the head, thus giving relief to the spine, which in many cases of Torticollis is also affected. When ordering this apparatus



649:3

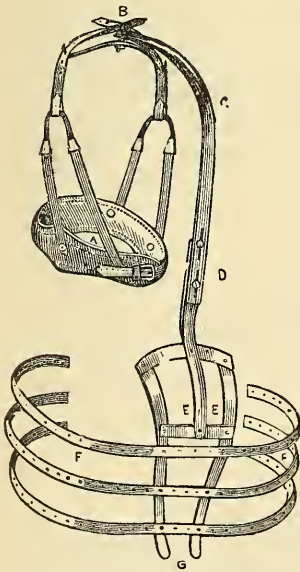
the shape of the steel bar (*d*), should be ascertained, by giving its desired shape to a piece of pliable wire and making a tracing of the latter on a piece of paper.

This apparatus is also made for the sake of cheapness, without the pelvic band as shown by No. 6093.

Measurements required as per diagram on page 448.

- |                                                                      |                                                                             |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1. Patient's name (or sex).                                          | 7. Distance around shoulder avoiding the arm pit.                           |
| 2. " " age.                                                          | 8. Circumference of body above trochanter major (13).                       |
| 3. General appearance of patient.                                    | 9. Circumference of the head passing under the chin to the top of the head. |
| 4. Length from middle of the sacrum to middle of scapula (14 to 19). |                                                                             |
| 5. Length from middle of the sacrum to top of the head (14 to 24).   |                                                                             |
| 6. Distance from centre of one scapula to centre of the other.       |                                                                             |

|                     |               |                    |
|---------------------|---------------|--------------------|
| Price for apparatus | No. 6492..... | \$25 00 to \$30 00 |
| “ “ “               | No. 6493..... | 20 00 to 25 00     |



6495

## 6495.\* SAYRE'S JURY MAST.

This consists of two pieces of malleable iron, bent to fit the curve of the back. To the lower portion are attached three or more roughened tin strips, long enough to go nearly around the body. From two cross pieces of the upper extremity springs a central shaft, carried in a curve over the head and capable of being elongated at will. To this is attached at its upper extremity a swivel cross bar with hooks, from which depend straps supporting a head and chin collar.

*Application.*—The patient having been encased, in the usual manner, in a few thicknesses of plaster roller, the Jury Mast Apparatus is put over this, care being taken that the iron strips are bent so as to conform to the surface of the plaster, and that the shaft over the head be kept in the same line with the spinous processes. The perforated tins are carried around the body, their ends, however, not being allowed to meet. The apparatus having been carefully adjusted, fresh layers of plaster bandage are now applied in order to hold the instrument firmly in its place.

Directions for measurements see next page.

See information and terms on page 447.

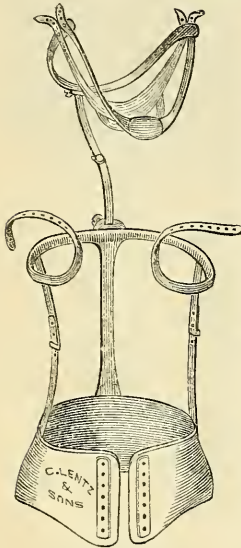
## Orthopædic Apparatus.

### MEASUREMENTS REQUIRED FOR SAYRE'S JURY MAST.

1. Lay a thin and flexible strip of lead along the spine, moulding it exactly to the spine and all its sinuosities from the top of head to the middle of sacrum. With this pattern trace carefully the shape of the spine and head on a sheet of paper, marking the points opposite the upper and lower borders of the scapulæ and the crest of the ilium, also the affected parts of the spine. Send this tracing to us.
2. Circumference of head, under the chin and over the head.
3. Circumference of head, around the chin and back of the neck. In taking this measure care should be exercised that the tape encircles these parts in an even horizontal line.
4. Circumference of body at crest of ilium.

Price without plaster jacket.....\$12 00

### 6496.\* APPARATUS FOR WRY NECK (TORTICOLLIS).



6496

This is another form of apparatus for the support of the head and spine, it is very light easily applied and very effective.

It consists of a broad pelvic band which reaches from above the trochanter major to the waist. Three upright bars are attached to the steel part of the pelvic band, one along the spine which receives the head support and one on either side, to which the crutch horns are fastened; these crutch horns are also connected to the back bar, they are well padded and provided with straps which pass over the shoulders and button to the back part of the same.

The head support is arranged in such a manner so as to give the head any desired position, either rotary or upward and downward movement, the rotary movement is made by means of ratchet centres, the upward and downward movements are made by a thumb screw where the head band is connected by a hinge to the back bar.



6497

The head and chin straps are connected by a strap as shown in illustration (No. 6497) to prevent them from slipping.

Direction for measurements as per diagram on page 448.

1. Patient's name (or sex).
2. " age.
3. General appearance of patient.
4. Length from middle of sacrum to middle of scapula (14 to 19).
5. " " " " to occipital protuberance (14 to 22).
6. " " above trochanter major to axilla (13 to 18).
7. " " the centre of the spine passing under axilla over the shoulder to centre of spine again.
8. Circumference of body above trochanter major (13).
9. " " at waist (15).
10. " " under axilla (18).
11. Distance from above ear around chin to above ear on the opposite side.

Take a piece of pliable wire and mould it to the contour of the spine from the middle of the sacrum to the occiput, trace an outline on paper marking thereon vertebral prominence and occiput, also make a mould of body under axilla over back,  $\frac{2}{3}$  of its circumference.

Price of apparatus.....from \$25 00 to \$35 00

See information and terms on page 447.



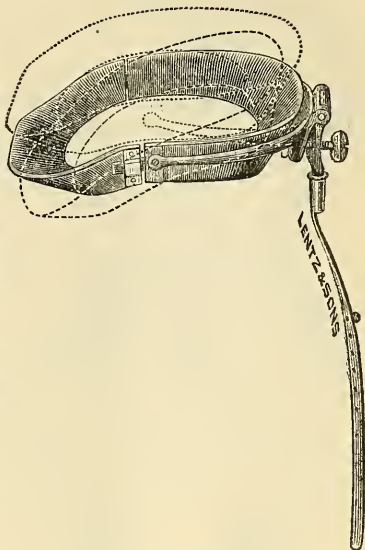
## Orthopædic Apparatus.

### 6499.\* Apparatus for Antero-Posterior Curvature of the Spine with Improved Headrest.



6499

While the ordinary jury masts, with elastic straps, probably fulfills the more important mechanical indications for treatment, it is nevertheless, on some accounts, very objectionable. It, like all supports that pass over the head, is unsightly in appearance, and never fails to fix the eyes of the curious on the already over-sensitive patient whenever he chances to appear in public highways. Mothers, too,



6500

usually find fault with it, because of attracting so much attention. For these reasons, among others, we devised this apparatus which, while not extending over the head, will exert continuous elastic traction upon the diseased vertebrae, and permit of voluntary motion of the cervical vertebrae.

It consists of a well-padded metal collar, which is made in two parts, permitting easy removal and reapplication, fitted accurately to the occiput and under the chin; this collar is attached to an arch-like spring jointed at each side, this spring is hinged to a short stem which is fitted into a socket at the upper end of the cervical piece; by this combination the head will have free antero-posterior as well as rotary motion as shown by the dotted lines, and extension is made turning the screw below the hinge as shown in illustration No. 6500.

This headrest is attached to our Improved Spinal Corset in such a manner that it can be easily removed and the corset can be worn without it, or the headrest can be removed without disrobing.

Directions for measurements as given on page 472 with the following addition:

Make a mould with pliable wire from middle of sacrum to occipital protuberance, marking thereon the exact length of same, also the first and last vertebrae involved.

Circumference of head around the chin and back of the neck.

See information and terms on page 447.

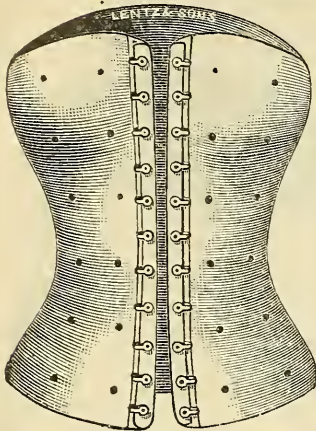
### NOTICE.

As numerous and various orthopædic apparatus are constantly brought forward and suggested in medical journals as well as text books, it is quite impossible for us to show them all in our catalogue; we would therefore respectfully suggest, that physicians in ordering an apparatus which we do not show in the catalogue, would state the name and date of the journal or other publication in which they are described or illustrated.



## Orthopædic Apparatus.

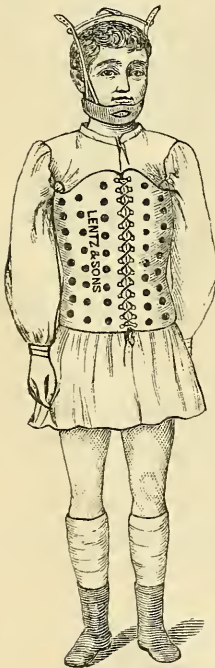
6503.\* Perforated Hardened Sole Leather Jacket for Anterior, Posterior and Lateral Curvatures of the Spine.



6503

acting as a spinal support. It is also perforated, making it perfectly porous and not heating to the body. To this apparatus Dr. Sayre's

Jury Mast may be added, as shown in No. 6504, this supports the head in an erect position, and the spine is relieved of superincumbent weight by a rod reaching above the back of the head, and from which supporting bands extend beneath both occiput and lower jaw; the weight of the leather jacket is almost *nil* comparatively, being about one-third of that of the plaster-paris jacket; in some cases a fenestra is cut in the jacket to allow for the prominences of the anterior superior spinous processes of the ilium. Narrow bands of steel are placed on the back and sides of the jacket. The apparatus will stand a great amount of rough usage and not be broken or bent out of shape.



6505

Leather Jacket and Jury Mast Applied.

When ordering a Jury Mast with the above jacket, send us also, in addition to the mould the following measurements :

1. Lay a thin and flexible strip of lead along the back, moulding it exactly to the spine from the top of the head to the middle of sacrum; with this pattern trace carefully the shape of the spine and head on a sheet of paper, and send the tracing to us.
2. Circumference of head, under the chin and over the head.
3. Circumference of head around the chin and back of the neck. In taking this measure care should be exercised that the tape encircles these parts in an even horizontal line.

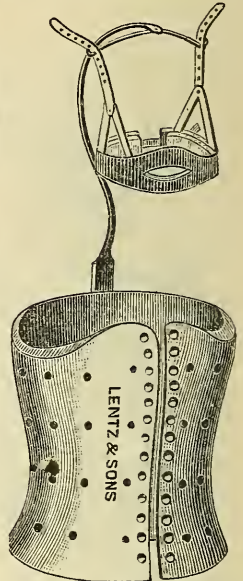
Price of Sole Leather Jacket, \$25 00 to \$35 00; with Jury Mast Attached.....\$35 00 to \$45 00

6506.\* Porous Felt Jacket with Jury Mast.

In ordering this jacket a plaster of paris mould and same measurements are required as for leather jacket.

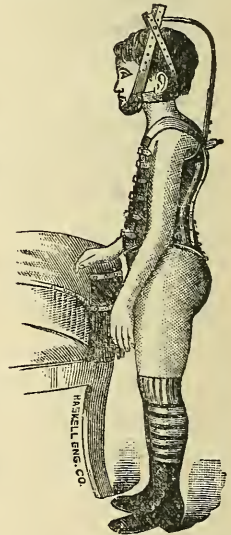
Price of Jacket with Jury Mast, \$30 00 to \$35 00; without Jury Mast.....\$20 00 to \$25 00  
See information and terms on page 447.

In ordering a leather jacket an accurate mould of the body must be taken by means of the plaster-paris jacket, the patient of course being suspended. Before becoming entirely set, the jacket is cut open in front, in the middle line, the mould thus obtained should be sent to us. We are enabled to reproduce it exactly of hardened sole leather. It is provided with eyelet hooks and lacing cords in front, so that if desirable the apparatus may be removed at night, the mattress then



6504

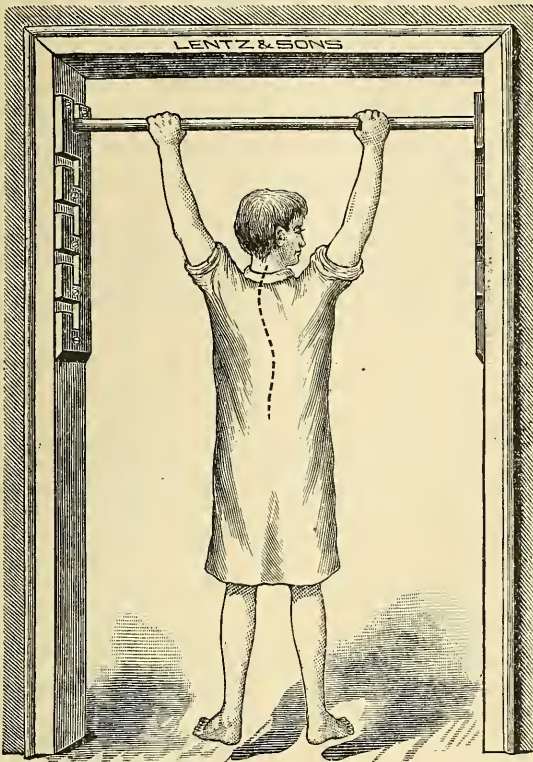
Hardened Sole Leather Jacket, with Jury Mast Attached.



6506

## Orthopædic Apparatus.

### 6507.\* HORIZONTAL BAR FOR GYMNASTIC EXERCISES.



6507

Gymnastic exercise in connection with appropriate spinal apparatus is a well recognized necessity, and it is the exercise on the horizontal bar which has especially a tendency to develop the muscles of the shoulder and back.

To induce children to take such exercise, an apparatus should be uncomplicated lest it might create fear, and it should be a matter of amusement rather than compulsion.

The amount and character of the exercise should however, be under the guidance of the attending physician.

The apparatus may be fastened to any door-frame in the manner shown in illustration. The simplicity of its construction is at once apparent, and it can be used by either child or adult. The bar is made of hard wood, long enough to suit any ordinary door-frame.

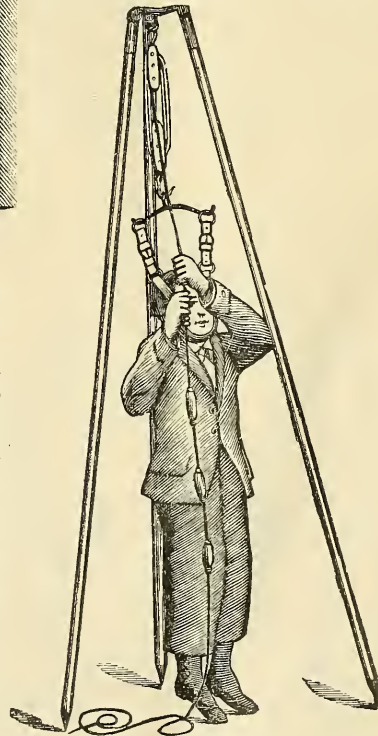
Price complete.....\$4 50

### Sayre's Apparatus for the Gymnastic Exercising of Patients Suffering from Pott's Disease and Lateral Curvature of the Spine.

Another mode of extension is shown in an accompanying cut for the above named purposes, the patient pulling himself up by means of a rope and compound pulleys, the former having egg-shaped blocks, secured by the rope being tied into a knot under each, and at regular intervals; these blocks enable the patient to draw himself up with ease. A padded chin-piece only looped into an iron rod, completes the apparatus. No other person should pull the ropes in this exercise, and the patient should always hold both hands elevated, one nearly opposite the forehead and the other above. This contrivance can be hung up in any part of the house.

State if wanted for child or adult.

|        |                                    |         |
|--------|------------------------------------|---------|
| 6508.  | Apparatus without Tripod.....      | \$ 9 00 |
| 6509.* | “ complete with Tripod.....        | 18 00   |
| 6510.  | “ “ with Disjointed Tripod } ..... | 22 00   |
|        | put up in canvass pouch            |         |
| 6511.  | Tripod.....                        | 9 00    |
| 6512.  | Disjointed Tripod.....             | 13 00   |



6509

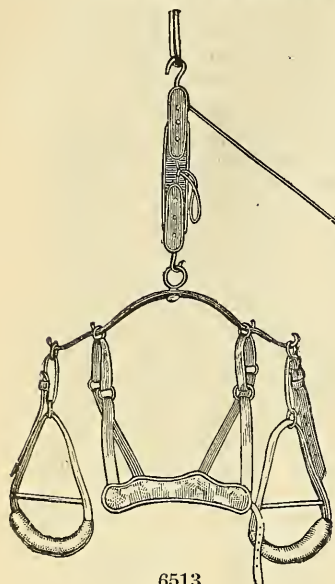
### WRITER'S CRAMP APPARATUS.

|                                            |         |
|--------------------------------------------|---------|
| Velpeau's.....                             | \$10 00 |
| Mathieu's, for Thumb and Index Finger..... | 6 00    |
| Charrière's.....                           | 9 00    |
| For Index and Middle Finger.....           | 5 50    |



## Orthopædic Apparatus.

6513.\* Dr. L. A. Sayre's Apparatus for Suspending Patients, to Apply Plaster of Paris Jackets and for the Treatment of Locomotor Ataxia.



6513

It consists of a curved steel rod, having an eye in its centre and hooks at each end.

From the end hooks loops pass down under each axilla, and also to the chin and occiput, to support the head. The length of these loops can be graduated to suit every patient, by separate straps and buckles that connect the loops with the iron rod. Those parts of the loops that pass under the axillæ and chin are well padded.

The whole apparatus is attached by the eye in the centre of the iron rod to one of a set of compound pulleys; and the opposite pulley being secured to the ceiling or some other safe attachment of sufficient height; the patient is easily elevated by the bands under the axillæ, chin and occiput, until the heels cannot touch the floor.

Price .....\$12 00

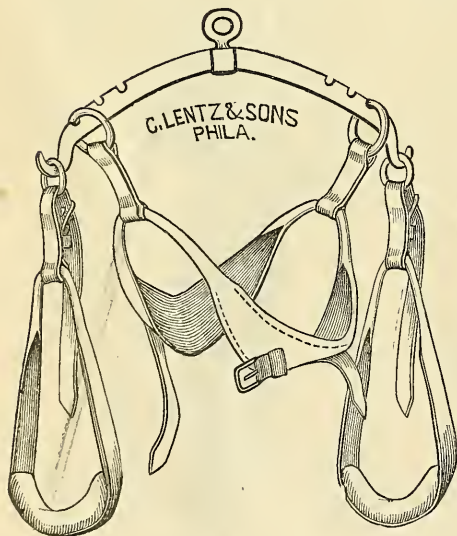
Extra Chin Neck-Bands, different sizes, each, \$2 50.

The above apparatus is furnished with the best compound pulleys, each of the latter containing three rollers; when specially mentioned, we furnish the same apparatus with sets of plainer compound pulleys, containing only two rollers each; the elevation of the patient by the latter is more difficult than with the former, as more power is required.

Apparatus with Plain Compound Pulleys.....\$9 00

Tripod see page 481.

6514.\* CHARCOT'S SUSPENSION APPARATUS



6514



6515

Is similar to Sayre's, with a slight modification of the curved steel rod and chin neck-band.

Price Complete with plain Compound Pulleys.....\$9 00

6515.\* Showing chin neck-band applied.

See information and terms on page 447.



## Orthopædic Apparatus.

### 6516.\* AN IMPROVED FORM OF SUSPENSION APPARATUS IN THE TREATMENT OF ATAXIA, ETC.

By S. Weir Mitchell, M. D.,

*Senior Physician to the Infirmary for Nervous Diseases, Philadelphia.*

Reprint from *Medical News*, April 13th, 1889.

Suspension in various ways has been so much used in the Infirmary for Nervous Diseases that the novel treatment of ataxia by it has created with us little surprise. A large number of patients are at present using this means, and before long I shall report results; they are so far encouraging.

It has seemed to me, however, that suspension by the armpits is but a stupid plan; for most people it is so painful as to cause the real limit to the time of suspension, which otherwise might be experimentally prolonged.

In watching the application of the Russian apparatus, I recalled the ease with which a child may be lifted from the elbows. Out of this thought came the apparatus figured. It has these advantages: It bruises no nerves; does not arrest the circulation; is painless, and can be borne a long time, if we need to use it long, and so makes it possible to learn the value of more prolonged suspension. It will be seen that a separate pulley and cord govern the amount of pull on the head. The lift is made from the elbows, and then the head is drawn upon as may be required.

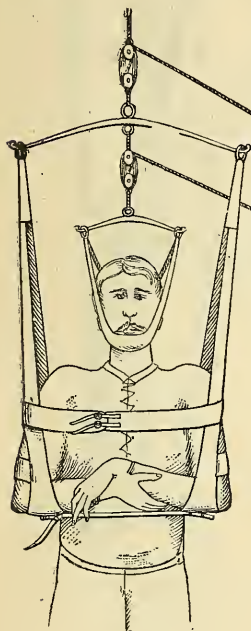
The apparatus is simply two leather slings for the elbows; a band confines the arms to the waist. (See illustration.) The relative comfort of this means of suspension is really remarkable.

By the use of this device we have been able to suspend a person over twenty minutes in perfect ease. To distribute the pressure upon the arms and trunk the vertical straps are widened under each elbow to about four or five inches and reinforced with leather. Sweeping round from the front to the back upright is a wide band which comes against the outer aspect of the upper arm, yet leaving the point of the elbow free from contact. From one elbow leather to the other and securely riveted to each, both across the front and back, pass stout straps adjusted each by a buckle. Again, across the upper part of the chest another strap encircling the trunk gives additional support—not very essential, but well for nervous folk who fear they may fall.

The adjustment of the head was a vexatious problem, but we have solved that now to our satisfaction by one of two ways. By the second pulley, described above, or by a simple mechanism thus: To the ring of each cheek-piece is attached a stout cord which passes over a hook dependent from the large metal cross-bar and thence by a strap inserted in a buckle made fast to the rear elbow leather one on each side. These hooks are about fourteen inches apart. With either of these mechanisms we can raise a patient from the ground by his elbows, and then proceed to adjust the amount of pull needed for his head.

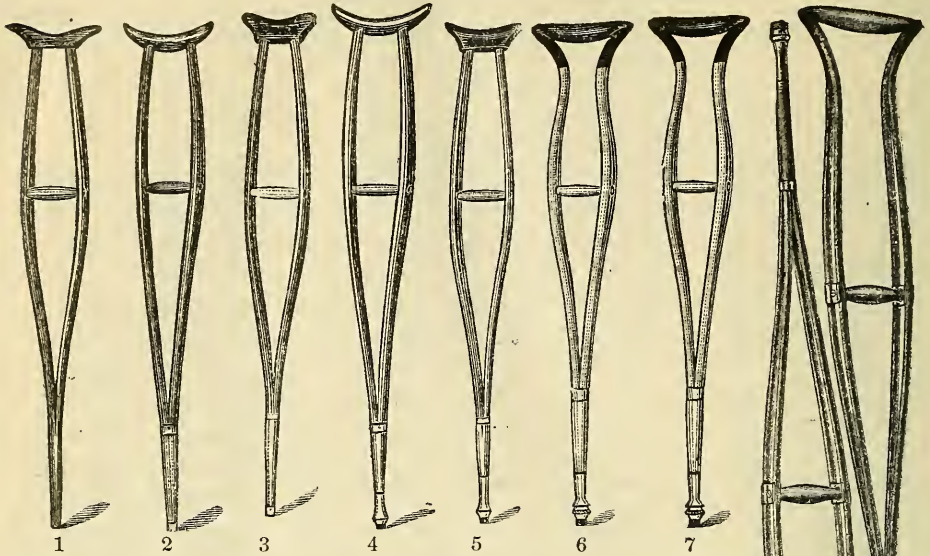
Price of Apparatus Complete.....\$18 00

See information and terms on page 447.



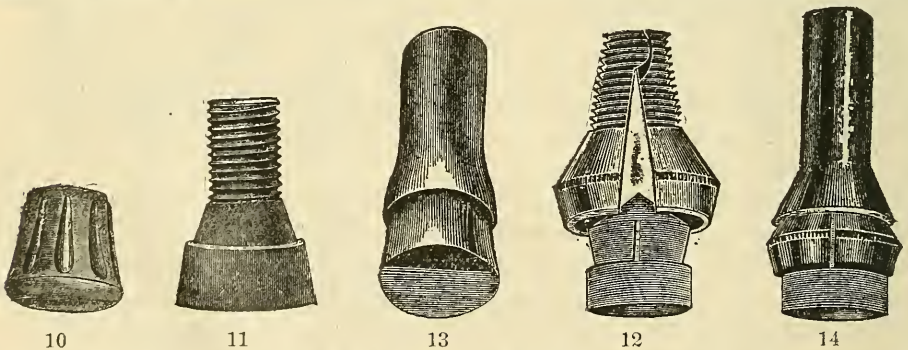
6516

Crutches.††



- |                                                                                                                                                                                                                         | Per Pair. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| No. 1. Strong maple split crutch, with polished cherry wood arm pieces, and handles.....                                                                                                                                | \$ 2 00   |
| No. 2. Rock maple crutch, with polished hard wood round top arm pieces, and plain ferrules.....                                                                                                                         | 2 50      |
| No. 3. Rock maple crutch, with padded leather covered arm pieces, and plain ferrules.....                                                                                                                               | 3 00      |
| No. 4. Rock maple crutch, with polished cherry wood round arm pieces, nickel-plated metal sockets, and rubber bottoms.....                                                                                              | 4 00      |
| No. 5. Rock maple crutch, with padded leather covered arm pieces, nickel-plated metal sockets, and rubber bottoms.....                                                                                                  | 4 50      |
| No. 6. Lancewood crutch, with spring arm pieces of genuine Russia leather, nickel-plated metal sockets, and rubber bottoms.....                                                                                         | 10 00     |
| No. 7. Rosewood crutch, with spring arm pieces of genuine Russia leather, nickel-plated metal sockets, and rubber bottoms.....                                                                                          | 10 00     |
| No. 8. The "Pluche" patent crutch, with adjustable hand-pieces, made of selected hard wood, polished rods, dark rosewood or ebony finish, with mahogany arm pieces, nickel-plated metal sockets and rubber bottoms..... | 9 00      |
| No. 9. Same with spring arm pieces, metal sockets and rubber bottoms.....                                                                                                                                               | 10 00     |

When ordering Crutches, send measurement from arm-pit to floor, when in a fully erect position, *with arm down.*



- |                                                                               |                   |
|-------------------------------------------------------------------------------|-------------------|
| No. 10. Rubber Bottoms for Nos. 1, 2 and 3 crutches, four sizes.....per pair, | 25                |
| No. 11. " " " Nos. 4 and 5 crutches, three sizes.....                         | 40, 45 and 50     |
| No. 12. " " " Nos. 6, 7, 8 and 9 crutches, two sizes.....                     | 25                |
| No. 13. Nickel-plated metal Sockets for Nos. 4 and 5 crutches, three sizes    | 1 00              |
| No. 14. " " " " Nos. 6, 7, 8 & 9 crutches, 2 sizes....                        | \$2 25 and \$2 50 |



## Artificial Limbs.

The making of artificial limbs is a business which requires mechanical skill and experience, but there are no secret methods peculiar to any manufacturer, nor are there any patents now in force which give special value to any make of limbs. This fact is gradually becoming known, and in consequence the prices being reduced, and limbs for leg amputations, which a few years since were held at \$100 00 can now be had for \$75 00. Many makers, however, hold at the old prices, and use the extra profit in extravagant and expensive advertising.

In the following illustrations we give a correct idea of the character of our artificial limbs, and we assure our patrons that they will get, for a moderate price, the very best that can be made.

### ARTIFICIAL LEG FOR AMPUTATION BELOW KNEE.

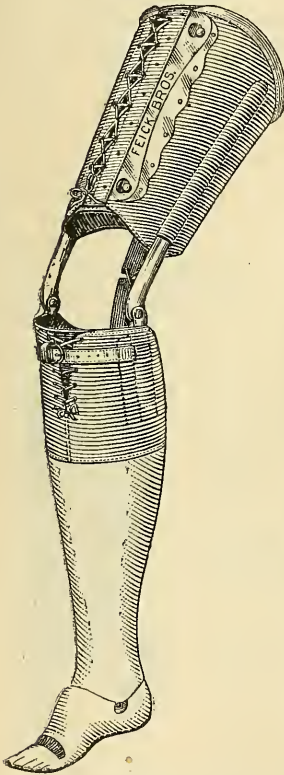


FIG. 1.

Fig. 1, represents our artificial leg for any amputation between the ankle joint and knee joint. About two-thirds of all amputations are of this class, and consequently this leg is made more frequently than any other style. The frame of the lower portion of the leg, together with the foot, is made of selected English Willow, which has no equal in regard to elasticity and lightness. This frame-work is covered with raw-hide specially prepared for the purpose. The external surface is enamelled so as to be water-proof, and is of a life-like flesh color. On the upper third of the leg there is attached an adjustable leather socket which receives the knee. The importance of this device can be seen at a glance; in nearly all cases the weight is carried partly on the thigh and partly on the anterior surface of the stump, just below the knee. The advantages of an adjustable leather socket at that point cannot be too highly appreciated, as the wearer is enabled by means of the laces to regulate the size of the socket to suit his comfort, and the size of the stump which is apt to become thinner in time. To secure greater firmness a strap is buckled over the laces.

The knee joint and thigh straps are made of the best steel, well tempered and polished, and to prevent rusting are nickel-plated. The upper part of the leg or thigh socket is made of the best possible leather, specially prepared to resist the effects of the perspiration for years, and is lined with calf leather. The adjustment of this thigh socket is as simple as it is advantageous to the wearer.

Our improved clasp for thigh fastening enables the wearer to put on his artificial leg in a moment, whereas with the old style lacing sockets, or those held in place by straps and buckles, from five to ten minutes are required. The device is so simple that it can be instantly adjusted at any hour of the day or night, even without lighting the room; besides the matter of convenience which is so important, this clasp does away with the constant replacing of worn out laces, as in the old style. The device is clearly shown in illustration. The clasp consists of two plates of steel, highly polished and nickel-plated; on the under plate are fixed two strong steel buttons which are received into corresponding slots in the upper plate. By means of laces this part can be set at any width when the thigh becomes thinner.

We are confident that the artificial leg as manufactured by us combines all the possible merits of a substitute for the natural member. Its lightness combined with durability, its comfortable fit and its easy adjustment recommend it to all who are unfortunate enough to require an artificial leg.

Price of Leg for amputation below knee.....\$75 00



## Artificial Limbs.

### ARTIFICIAL LEG FOR THIGH AMPUTATION.

Fig. 2 represents our artificial leg for any amputation above the knee. The lower part of the leg is made of willow wood, the same as Fig. 1. It is covered with rawhide, enamelled, and finished in flesh color. Its walls are worked out almost to a shell in order to reduce the weight to the minimum. The knee-joint has been greatly improved and works automatically. The upper part of the leg is provided with a leather socket for receiving the stump; this socket may be adjusted to the size of the stump by means of laces and buckles as shown in the illustration. This is the lightest and most comfortable leg for thigh amputation ever made, and it is guaranteed to give full satisfaction in every particular.

Price.....\$90 00

### KNEE BEARING LEG.

There are certain cases of amputation below the knee in which the stump is short and the knee cannot be fully straightened. In such cases we make a special kind of leg in which the weight of the body rests upon the bended knee. Fig. 3 represents such a leg. From the knee to the foot the leg is made of willow wood, carved as nearly the shape of the natural leg as its construction will allow. It is hollowed to obtain lightness and its external walls are covered with enamelled rawhide, finished in flesh color. The upper part or thigh-socket is made of substantial leather and is tightened by laces. We make also the same

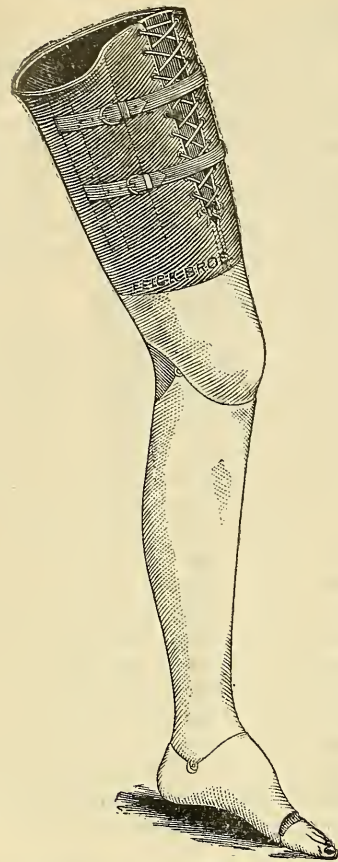


FIG. 2.

style of leg with some modifications to be used for knee amputations.

Price.....\$90 00

### ARTIFICIAL FOOT FOR SYMES OR PYROGOFF'S AMPUTATION.

Fig. 4 represents an artificial foot to be worn after amputation at the ankle-joint—known as Symes' operation. This amputation enables the patient to bring his weight to bear upon the stump. The leather socket which receives the stump is made to fit exactly, is tightened by laces and reaches up to the knee. In case the stump is tender, the knee weak, or the shin-bone cannot bear the pressure of the socket, we make this foot with a knee-joint and support it above the knee by a narrow leather thigh-piece. This foot is simple in construction and durable, and the lameness of the wearer is hardly noticeable.

Price.....\$50 00

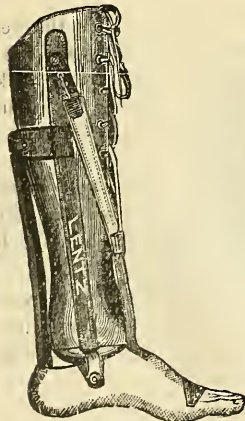


FIG. 4.

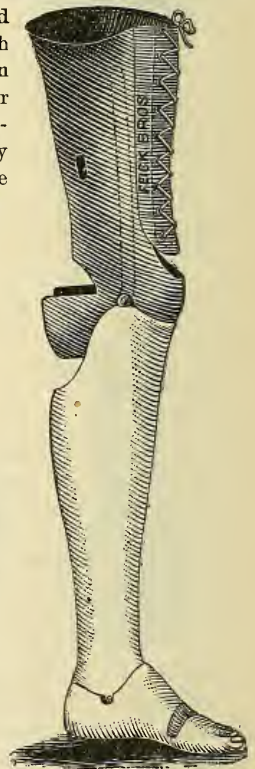


FIG. 3.

## Artificial Limbs.

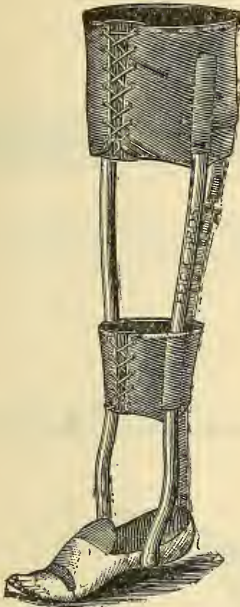


Fig. 5



Fig. 6

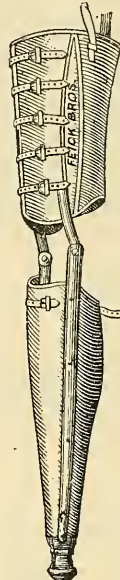


Fig. 8

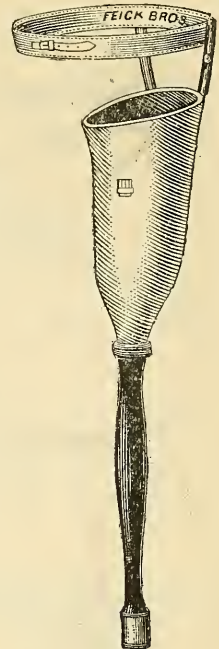


Fig. 7

Fig. 5 illustrates another form of artificial foot to be worn after Chopart's or Pyrogoff's operation.

The perfection attained in the construction of this peculiar artificial substitute has overcome all the objections made against the above named operations. It fully supplies the important necessity of comfort in locomotion, etc. To secure a perfect fit a plaster cast of the stump extending to near the knee should be taken for either Symes' or Chopart's operation.

Price .....\$50 00

Fig 6 represents the ordinary "peg leg" for amputations between the knee and the ankle, the weight of the body resting upon the bended knee. It is intended for laboring men and others whose means will not permit of the purchase of an expensive artificial limb. It is also the best appliance in recent amputations while the patient is waiting till the stump is ready for a socket leg. In either case its superiority to crutches is beyond question.

The bended knee rests on a well-padded cushion and on the bottom of the peg a piece of rubber is fastened, by which the wearer of the leg is enabled to walk easily and comfortably.

Price .....\$10 00

Fig. 7. Bucket Leg, for Thigh Amputation..... 25 00

" 8. " " with knee joints, for Leg Amputation..... 35 00

### IN ORDERING.

Parties ordering artificial limbs must remember that it is preferable to have the patient present to be fitted than to rely on the accuracy of measurements alone, but with our new system of measurements we are now enabled to so adjust the manufacture of these appliances that a good fit can be guaranteed, provided perfect measurements have been sent us. Parties at a distance can thus order from us without necessitating the heavy expense incident to a long journey, and suitable blanks for this purpose will be sent on application. There are some cases, particularly those of joint amputations, such as the knee, and ankle, elbow or wrist, where a plaster cast of the limb is necessary, especially if the stump has any irregular or uncommon shaped surfaces. Our blanks contain plain instructions, so that almost any one of ordinary intelligence can make the measurements without difficulty.

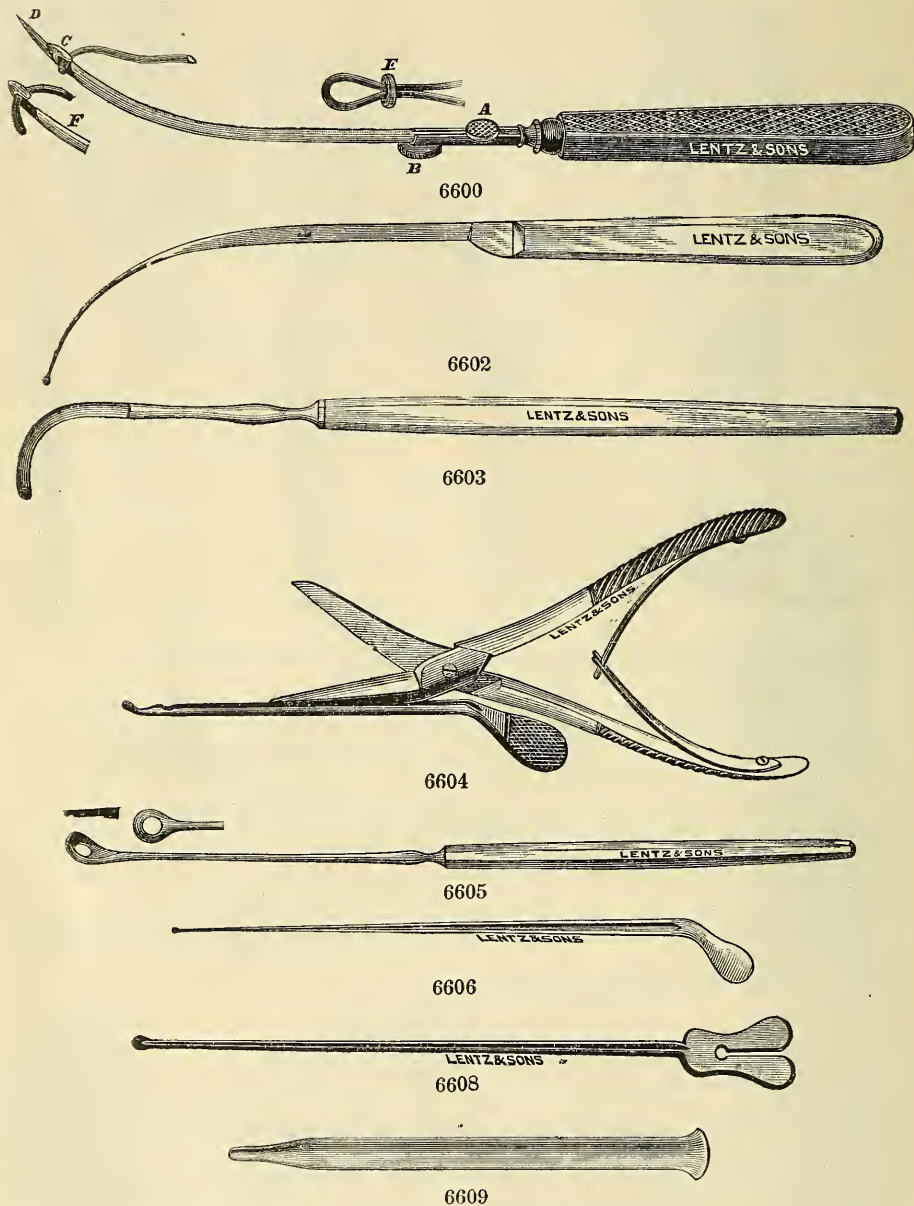
### TERMS.

At least one-half the price of a limb must be paid in advance when the order is placed, and the balance when the limb is completed. We call physicians' particular attention to this on page 447, and ask that they be rigidly enforced between physician and patient. As we guarantee to deliver a perfectly fitting limb, and to warrant it against poor material or inferior workmanship for five years, customers take no risks in paying in advance, while they protect us against loss.



## Supplement.

### RECTAL INSTRUMENTS.

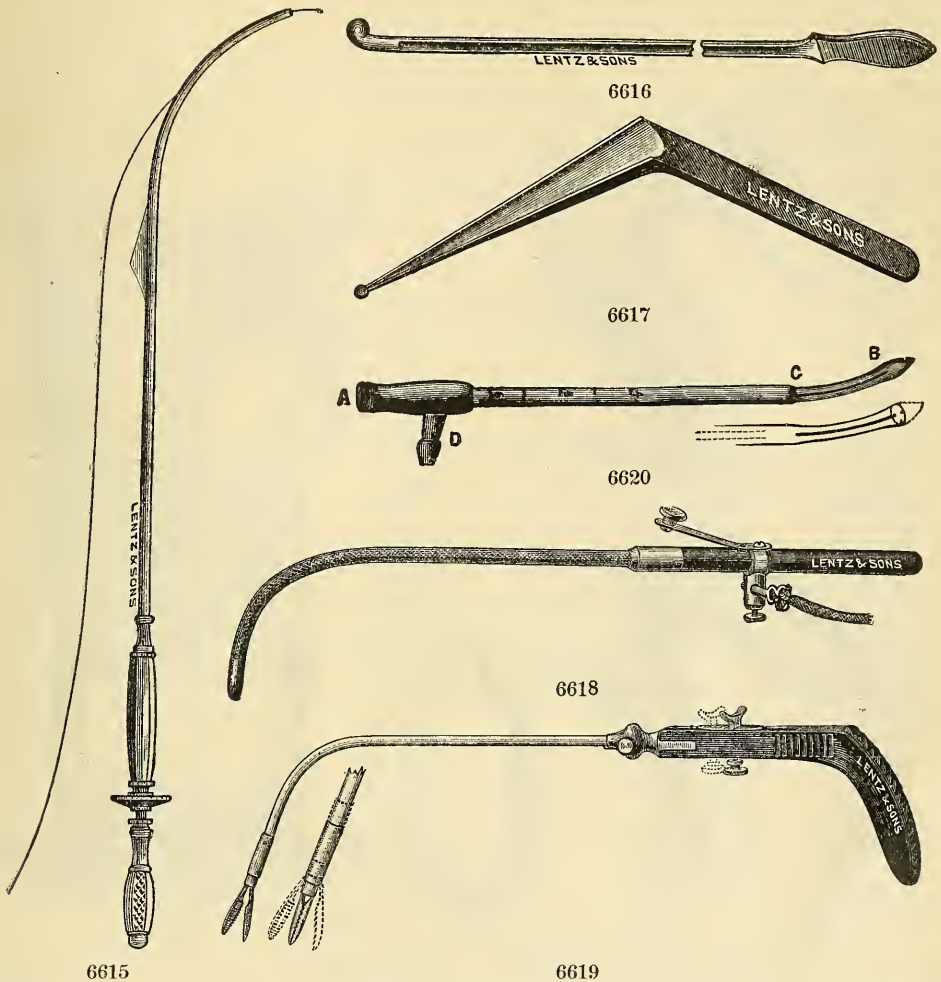


|        |                                                                    |        |
|--------|--------------------------------------------------------------------|--------|
| 6600.* | Helmuth's Ligature Carrier.....                                    | \$2 75 |
| 6602.* | Kelsey's Knife, for anal fissure.....                              | 1 85   |
| 6603.* | “ Curved Rectal Bistoury .....                                     | 1 75   |
| 6604.* | Allingham's Scissors and Director, for anal fissure.....           | 5 00   |
| 6605.* | Delatour's Sinus Curette.....                                      | 1 25   |
| 6606.* | Flexible Silver Grooved Director, probe pointed, light.....        | 1 10   |
| 6608.* | “ Grooved Director, probe pointed.....plated, \$1 00 silver        | 1 50   |
| 6609.* | Wales' Soft Rubber Rectal Bougie, Olivary, twelve sizes, each..... | 1 75   |

Other Rectal Instruments see pages 234 to 240.

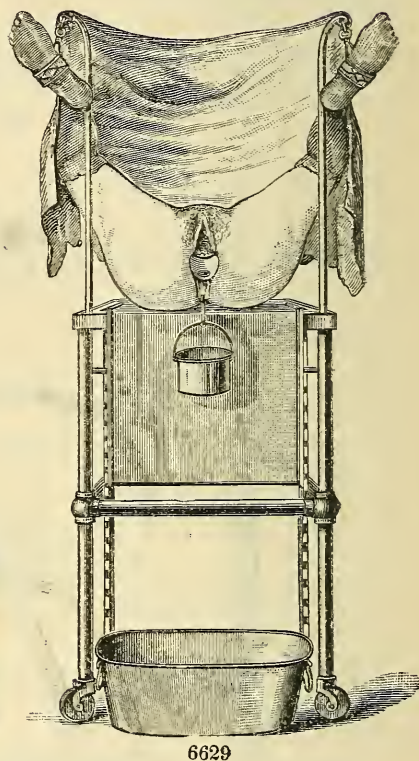
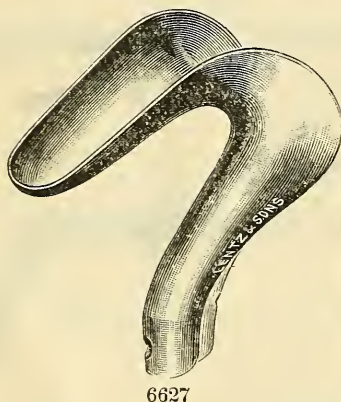
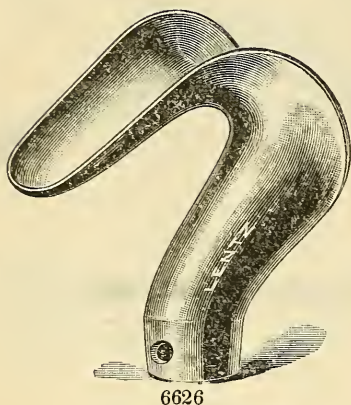


## Supplement.



|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 6615.* | Teevan's Stricturotome with tunnel and filiform guide..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \$ 9 00 |
| 6616.* | Wheelhouse's Staff for external urethrotomy.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 50    |
| 6617.* | Teale's Probe Gorget " " " .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 85    |
| 6618.* | Mackenzie's Improved Laryngeal Electrode for paralysis of the vocal cords.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3 50    |
| 6619.* | Schroetter's Improved Laryngeal Tube Forceps.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10 00   |
| 6620.* | Waechter's Improved Hard Rubber Catheter for treating chronic inflammation of the urethra, can be separated into three parts for cleansing. The accompanying figure demonstrates itself. The injecting fluid enters at A, running through a narrow canal, and making its issue at the point B, whose openings are directed backward. The fluid comes then in contact with the mucous membrane, re-enters the catheter at C, and flows off at D. Consequently the anterior part of the canal is entirely avoided, and strong solution of nitrate silver, etc., can locally be applied without producing any considerable pain. |         |
|        | Price of Catheter, including a $\frac{1}{4}$ oz. Hard Rubber Syringe.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4 00    |

## Supplement.



6626.\* Edebohls' Self-retaining Speculum with tin vessel.....\$4 00

6627.\* J. S. Miller's modification of Edebohls' Self-retaining Speculum..... 3 00

While the blade is the same as Edebohls', the tubal portion is open anteriorly, which equally facilitates the flow of the irrigation; and the construction of the instrument thus being simplified, its cost is reduced considerably.

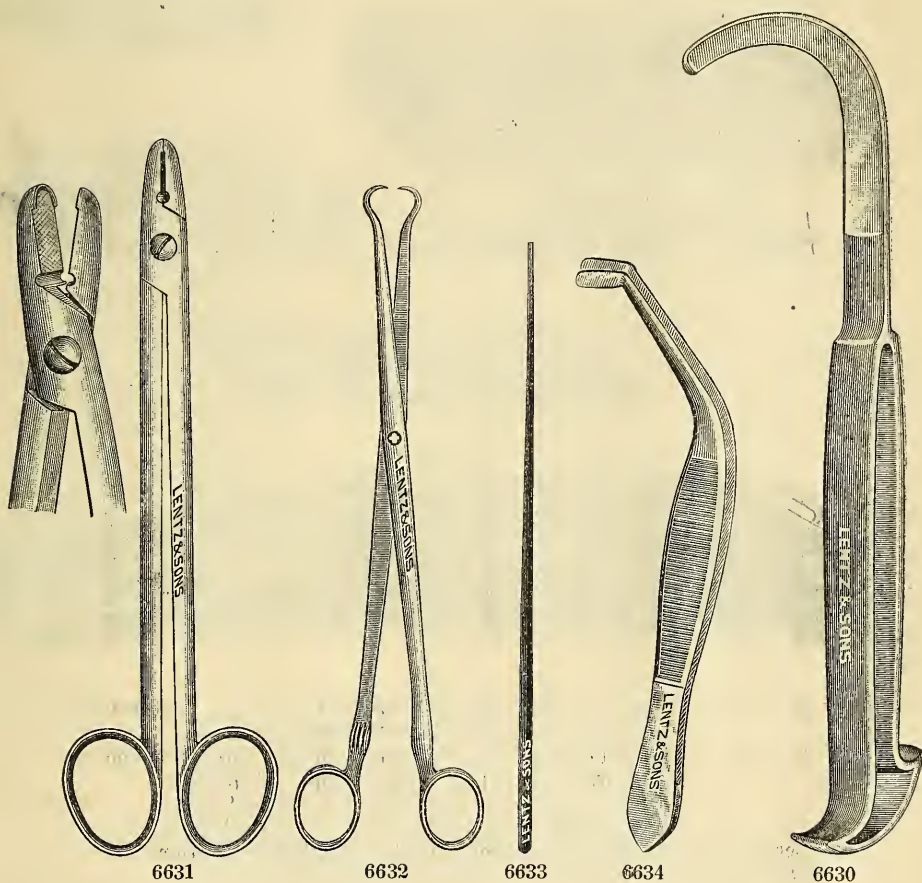
6628.\* Rubber Water Bag, capacity 16 oz., to attach to the above Speculums..... 75

This bag is preferable to the tin vessel as it is more convenient in use and takes up very little room when collapsed.

6629.\* Edebohls' Speculum in use, with patient in position on the Edebohls' Table.

(Price of table see page 419.)

## Supplement.



- 6630.\* Galbiati's Knife for performing Symphysiotomy.....\$3 00
- 6631.\* J. S. Miller's Shot Compressor and Ligature Cutter Combined..... 4 50
- The beaks have two semi-circular, raised cutting edges for cutting off the ligatures after the shot is compressed. This combination saves much time, as it avoids the necessity of taking up the scissors for each ligature.
- 6632.\* Goodell's Double Tenaculum Forceps, 10 inches long.....'2 50
- 6633.\* C. P. Noble's Uterine Applicator Whalebone..... 60
- 6634.\* Ball's Cover Glass Forceps..... 1 25



## Supplement.



Fig. 1.

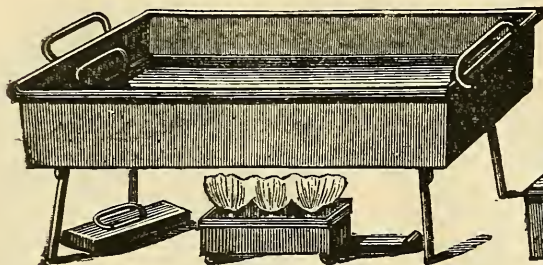


Fig. 3.

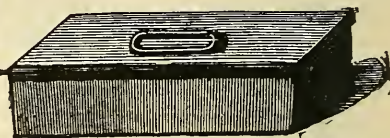
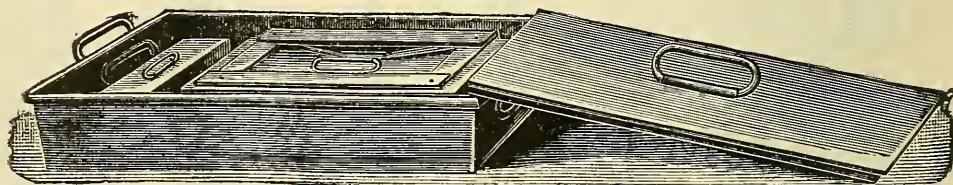


Fig. 2.



Fig. 4.



6636

**6636.\* Rotter's Compact Sterilizing Apparatus for boiling instruments in 1 per cent. Soda Solution.**

The outfit consists of three dishes, with cover, of the following dimensions :

|         |      |        |      |   |        |      |   |        |          |
|---------|------|--------|------|---|--------|------|---|--------|----------|
| Fig. 1. | Dish | 6½ in. | long | x | 4½ in. | wide | x | 1½ in. | deep.    |
| " 2.    | "    | 9      | "    | " | x      | 5    | " | "      | x 1½ " " |
| " 3.    | "    | 13     | "    | " | x      | 6    | " | "      | x 2¼ " " |

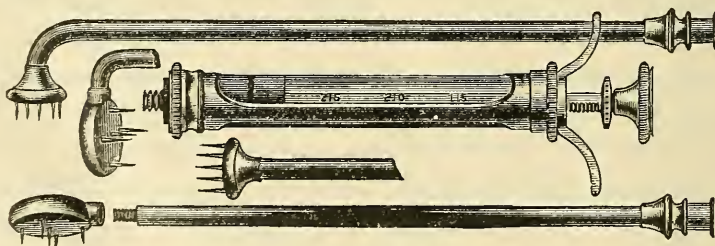
Each dish with cover and inside tray (Fig. 4.) for lifting out instruments.

1 Folding Support on 4 legs.

1 Alcohol Lamp of peculiar construction, rendering sufficient heat to sterilize instruments within 4 minutes.

The apparatus replaces by its compactness and cheapness many other sterilizers in the market. It is made of sheet iron, heavily tin lined.

Price, complete.....\$10 00



6637

**6637.\* SEIBERT'S DIPHTHERIA SYRINGE.**

Two tubes. Two tips with ⅓ in. points. Two tips with ⅕ in. points. Syringe and Amber Bottle.

|                                 |         |                                |       |      |
|---------------------------------|---------|--------------------------------|-------|------|
| Complete in metal case.....     | \$10 00 | Tips, extra .....              | each, | 1 50 |
| " " morocco, satin lined case.. | 7 50    | Tubes, straight or curved..... | "     | 75   |

Circular on application giving full directions for operating, also for making the chlorine water.

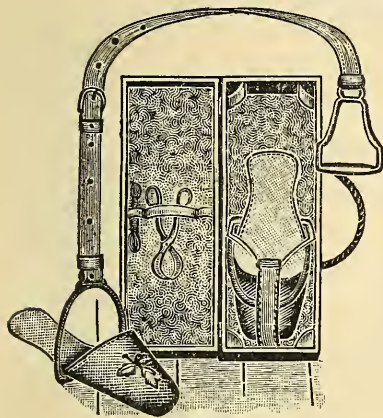
### Supplement.

DR. KLINE'S OBSTETRIC SLIPPERS.



PATENT APPLIED FOR.

## Simplicity is its Own Recommendation.



6639

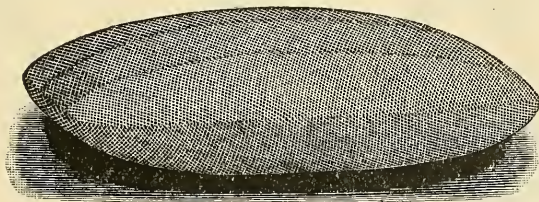
|        |                                      |        |
|--------|--------------------------------------|--------|
| 6638.  | Slippers per pair, without case..... | \$6 00 |
| 6639.* | "    "    "    with    "    .....    | 7 00   |

|        |                                 |      |
|--------|---------------------------------|------|
| 6639.* | Shippers per pair, without case | 7 00 |
| 6639.* | “ “ with “                      | 7 00 |

We present for the consideration of the profession, a neat, simple, perfect device, which, as every experienced physician sees at a glance, does away with hand-pulling, and all crude, cumbrous makeshifts, and greatly facilitates labor by providing the means for a good "PULL," thus giving a woman measure of comfort during the most trying time of her life.

The SLIPPER was invented by an experienced physician, and is the result of his many contrivances to relieve his patients. It consists of a pair of stout slippers connected by adjustable straps connected to nickel steel handles ; they are easily put on and off, are not in the way if left in the bed, and can be used by the patient in any posture. One pair will last a lifetime, and as their utility is apparent, no argument is necessary.

The first engraving shows the Slippers in use, while the second engraving shows them in a cloth-covered case, which also has spaces for Catheter, Probe, Bottles of Ergot, Ether, Chloroform, etc.



6640

6640.\* TORSION BRAIDED WIRE PILLOW.

The Pillow is made of the finest tempered watch-spring steel wire; is soft and pleasant, and by its use the head does not become heated, the slightest movement changing the air beneath it.

The danger, and often fatal result, of a chill from a pillow dampened by night-sweats, in cases of extreme weakness, is well understood. With the Braided Wire Pillow the dampness can extend only to the covering, which can readily be changed.

The Pillow can also be used in supporting the back of a patient sitting up in bed or in a reclining chair. In fevers, inflammatory rheumatism, suppurating sores or wounds, or in surgical cases, where a comfortable support, which can be promptly and entirely cleansed, is needed, these Pillows, once used, are considered indispensable.

The child's size is in a closed case of ticking and the adult's size in a quilted hair case ticking which can be readily removed for cleansing if necessary.

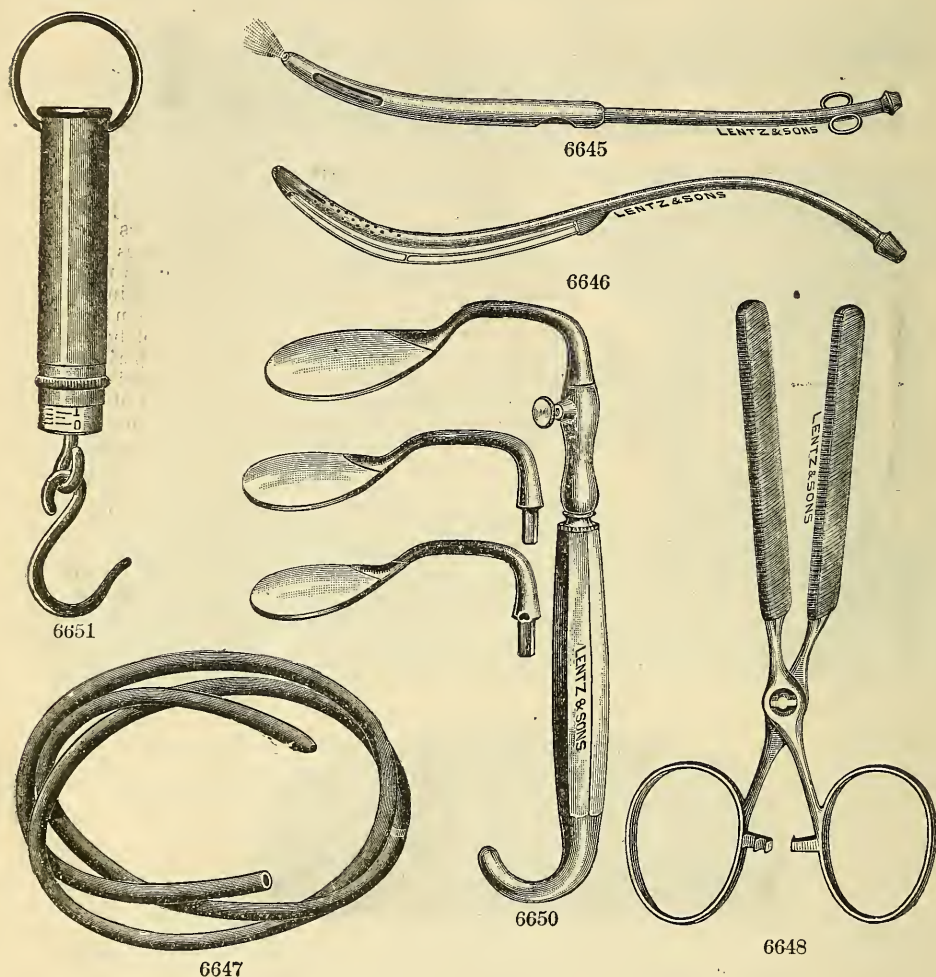
|                         |        |  |                         |        |
|-------------------------|--------|--|-------------------------|--------|
| Child's size, each..... | \$2 50 |  | Adult's size, each..... | \$3 50 |
|-------------------------|--------|--|-------------------------|--------|

|       |                                                                                                     |                    |
|-------|-----------------------------------------------------------------------------------------------------|--------------------|
| 6641. | Torsion Braided Wire Mattresses, made same as the pillows, according to quality of hair wanted..... | \$20 00 to \$30 00 |
|-------|-----------------------------------------------------------------------------------------------------|--------------------|

For further information write for pamphlet giving full description, prices and testimonials.



## Supplement.



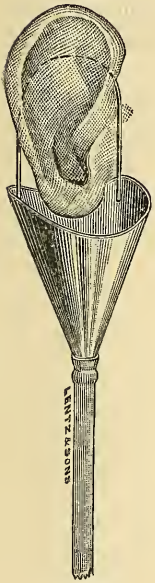
|        |                                                                                                                                                                            |        |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 6645.* | Baer's Aseptic Uterine Douche.....                                                                                                                                         | \$2 00 |
| 6646.* | Haynes' " " " improved.....                                                                                                                                                | 2 25   |
| 6647.* | Langdon's Colonic Irrigation and Rectal Feeding Tube of thick soft rubber, five feet long.....                                                                             | 1 50   |
| 6648.* | Wathen's Intestinal Clamp Forceps.....                                                                                                                                     | 2 75   |
| 6650.* | Tuereck's Tongue Depressor, aluminum handle, three blades,.....                                                                                                            | 3 50   |
| 6651.* | Obstetrical Scales. For weighing the baby. Small, light, and accurate. Weighs to 15 lbs. To adjust, slide the inner movable portion down to the line indicating zero ..... | 50     |



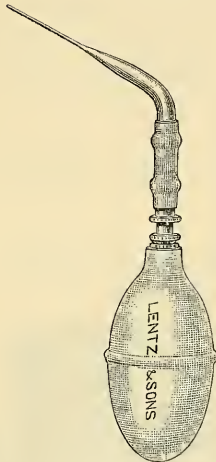
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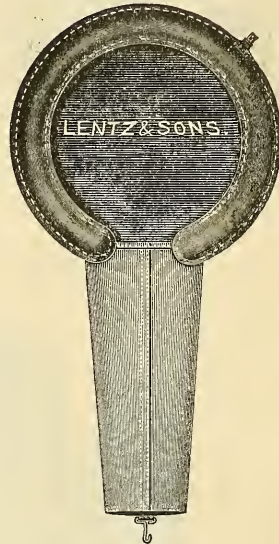
6653



6656



6655



6657



6654

|        |                                                               |        |
|--------|---------------------------------------------------------------|--------|
| 6653.* | C. H. Thomas' Stricturotome.....                              | \$1 75 |
| 6654.* | Freeman's Post Nasal Syringe, hard rubber, with Catheter..... | 1 50   |
| 6655.* | Freeman's Continuous Ear Syringe, with metal point.....       | 1 25   |
| 6656.* | Metal Ear Spout with tubing.....                              | 65     |

Surgical Rubber Cushions with tube or covered channel for conducting fluid into the bucket, a stout spring at the opening allows an unobstructed flow.

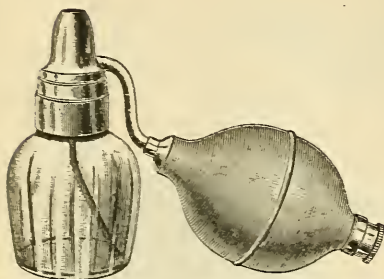
Made in two sizes, as follows:

|        |                                                         |      |
|--------|---------------------------------------------------------|------|
| 6657.* | Diameter of Cushion, 20 in.; length of tube, 25 in..... | 6 00 |
| 6658.  | " " " 24 " " " " 25 " .....                             | 7 50 |

## Supplement.

### 6659.\* DELANO ATOMIZER.

For Atomizing Cosmoline, Albolene, Benzoinol, Glymol, Etc., Etc.



OINTMENTS liquified by immersing the bottle in hot water MAY BE SUCCESSFULLY SPRAYED.

This instrument will commend itself to the medical profession for its simplicity of construction, and the facility with which it can be cleansed, by removing the hood or cap from the bottle collar, thus giving free access to the small tubes and vent.

In these respects it is unique and as a spray producer cannot be surpassed.

Price.....each, \$1 00

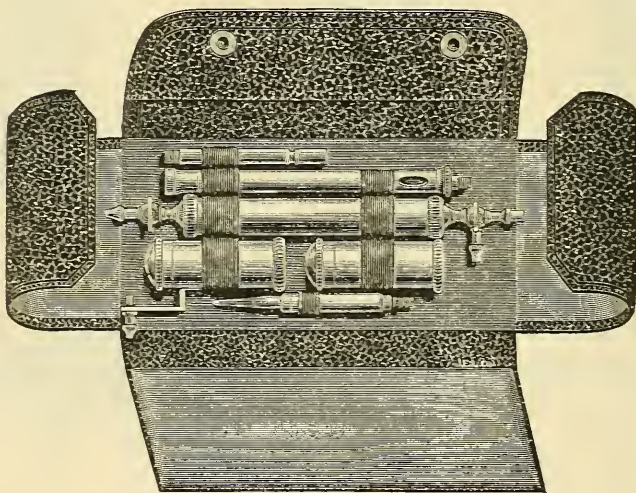
" .....per dozen, 9 00

6660.\* C. & S. Vaseline Atomizer (No. 3261, page 129) reduced price..... 1 00

" " " " per dozen..... 9 00

### 6661.\* NEW THERMO-CAUTERY.

Pocket Case Style.



The compactness of this instrument combined with its completeness, makes it very desirable and convenient for outdoor practice. In the reservoir is concealed a sponge to receive the benzine.

In a Metal Reservoir pour in enough benzine to saturate the sponge, and any surplus which the sponge does not hold pour out again. This must be observed carefully, or the benzine will be pumped into the combustion chamber instead of the gas, and fill it with soot.

Further description and information of Thermo-Canteries, see page 199.

Complete, with Double Bulbs, two Points, and Metal Reservoir.....\$20 00

6662.\* Paquelin's Thermo-Cautery (No. 4015, page 199) reduced price.....\$22 00















