

MARCH, 1905.

Established 1837.

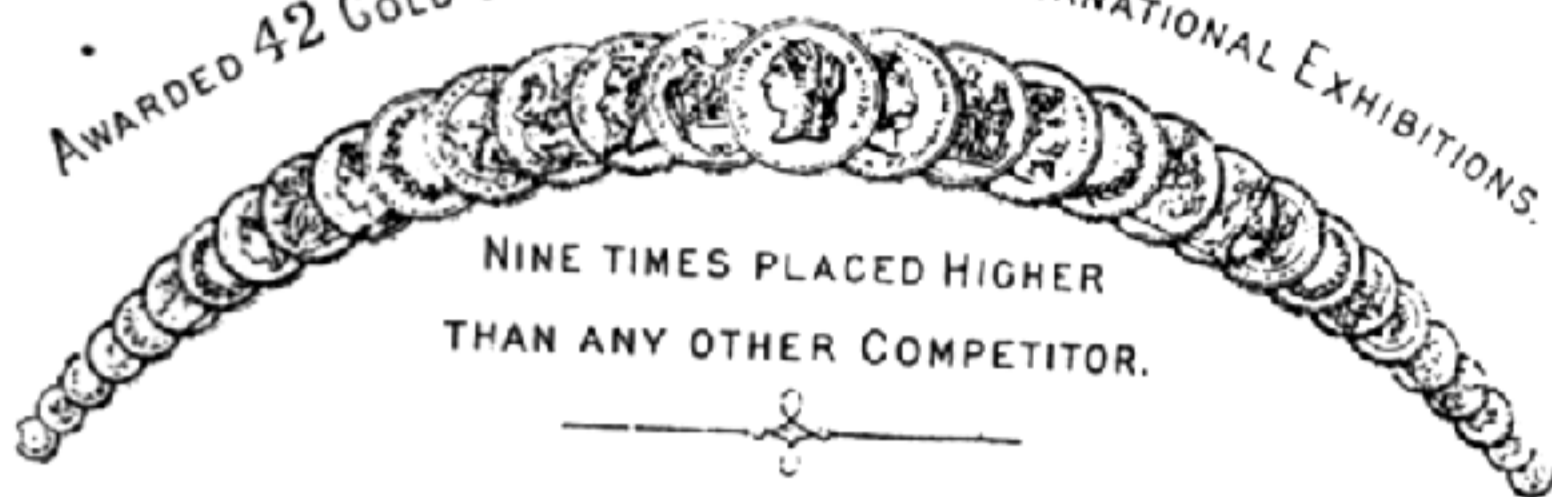
DEPT.
No. 2

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"Camera, Edinburgh."

Telephone: London, No. 6979 Central.

DEPT.
No. 2

AWARDED 42 GOLD & OTHER MEDALS AT INTERNATIONAL EXHIBITIONS.



NINE TIMES PLACED HIGHER
THAN ANY OTHER COMPETITOR.

ABRIDGED SPECIAL LIST

OF

**MICROSCOPES, OBJECTIVES,
ACCESSORY APPARATUS,
RE-AGENTS, &c.**

Suitable for the use of Students & Laboratory Workers
in Biology, Bacteriology, &c.

W. WATSON & SONS,

(Opticians to H.M. Government),

2, EASY ROW, BIRMINGHAM.

Head Office · 313, HIGH HOLBORN, LONDON, W.C.

And Branch at 16, FORREST ROAD, EDINBURGH.

NOTE.—Watson's Complete Illustrated Catalogue (158 pages)
of Microscopes may be had, post free, on application.

WATSON & SONS' MICROSCOPES

are **UNIQUE** in the advantages they offer for reliable, accurate, rapid, and comfortable working.

A Microscope for scientific work, so constructed as to be incapable of Scientific Manipulation, defeats its own object.

THE WATSON MICROSCOPES

are scientifically constructed for scientific work.

All the leading workers of Great Britain use **Watson** Microscopes, and they are to be found in the Laboratories of original workers throughout the world.

Because

No other Microscopes offer such facilities for convenient and accurate manipulation, combined with comfort and rigidity.

There are no superfluous adjustments, but all such as are essential for modern work with Objectives and Condensers of large aperture.

The Workmanship is the very finest.

Prices are most moderate.

Please apply for Watson's full Catalogue of Microscopes and Accessories (158 pages) if you are interested. A perusal of the description of the constructional details of the Watson Instruments

Will convince you

that **the** Microscope that is to last you a **life-time** must be by Watson & Sons.

Watson's Catalogue of MICROSCOPIC OBJECTS (No. 3)

is the most comprehensive in the world. It contains particulars of specimens illustrating Physiology, Pathology, Bacteriology, Public Health, Parasites, Botany, Geology, Entomology, in fact, every branch of Science.

For a Subscription of 21/- you can have 240 Micro Specimens on loan.
Send for particulars.

SPECIAL NOTICE.

The various Instruments and Accessories quoted in this list will be invariably found in stock at our Branch, 2, Easy Row, Birmingham. In the event of anything being temporarily unavailable, it will be obtained from the London House at a few hours' notice.

TERMS.—All goods are marked at **nett prices** for **cash**. No discount whatever is allowed.

ARRANGEMENTS will be made for **purchase by progressive payments** as per terms on page 2 of our full Catalogue of Microscopes, if desired.

Microscopes are packed and delivered free on rail, Birmingham, unless otherwise stated. Packing and postage is charged on accessories.

W. WATSON & SONS,
2, EASY ROW, BIRMINGHAM.

W. WATSON & SONS' EDINBURGH STUDENT'S MICROSCOPE

Models "D" and "H." As figured pages 4 and 5.

Special Features.

Every mechanical convenience that is required for research work with high powers is combined in these instruments.

They provide the maximum convenience for comfortable working.

No other Microscopes at so moderate a cost offer the same provision for precise manipulation.

These two Microscopes are identical, with the exception of the foot, the "D" Model having the horse-shoe form and the "H" the tripod. In both cases, the support is solid and rigid, at whatever angle the Microscope may be inclined.

They combine the best features of the most costly English models without sacrificing in any way those points which have rendered the Continental models so popular.

The Mechanical Stage is one of the most important features in these Stands. We have yet to find a worker making high power examinations with Oil Immersion Objectives who is satisfied with an Attachable Mechanical Stage. Not only is that beautiful rigidity of the fixed Mechanical Stage absent, but the Immersion Oil leaks from the surface of the objects on to the stage, and impedes the free movement of the Attached Mechanical Stage plates.

The Mechanical Stage of these instruments is built as an integral part of the microscopes; the fullest advantage is, therefore, derivable from them, and as the top plate is of large size—namely, 3 $\frac{3}{8}$ " square, a free surface for the use of large dishes, &c., is available, equal to that of a microscope with an ordinary plain stage. The mechanical arrangements of the stage are so devised that when an Abbe Illuminator is in focus, the plates do not touch the mounting in any way whatever.

A reference to our full catalogue of Microscopes, page 29, shows the manner in which this Mechanical Stage is built, and it will be there seen how the exquisitely smooth and sensitive action is produced.

The Compound Substage has rackwork to focus and screws to centre,—movements which are becoming more and more recognised among laboratory workers as absolutely essential in the proper working of the Condenser. It is only in proportion as the Condenser is properly selected for the Objective with which it is to be used, and that means are given for accurately adjusting the Condenser, that reliable work can be done.

These microscopes are in use all over the world, and many London laboratories are fitted with them, including the London School of Tropical Medicine; Guy's, St. Thomas's, St. George's, and St. Mary's Hospitals; the Imperial Cancer Research Institution, &c., &c.

The "H" Stand is the most popular microscope we manufacture. Both it and the "D" are especially suitable for Photo-Micrography. The workmanship and quality throughout are of the very highest class.

Extract from "The Microscope and its Revelations" (Carpenter.) Edited by the Rev. W. H. Dallinger, L.L.D., F.R.S., etc Eighth Edition. Page 218.—

"One of the finest examples of this class of Microscope at present brought within the reach of the average Student's means is that known as the Edinburgh Student's Microscope "H," by the firm of Watson & Sons. . . . It will be seen that it has the prime requisite, a rigid foundation combined with lightness, and it is also possessed of a well-constructed mechanical Stage which is built with the instrument, an advantage over the best 'attachable' stage."

"It is essentially a Student's Microscope, and, although of so low a price, is not only a specimen of the best workmanship, but is also extremely complete, and represents an advanced type of construction capable of doing all ordinary and much experimental work."

We have supplied one of these instruments to Mr. Andrew Pringle for his Photo-Micrographic Work, and in his book entitled "Practical Photo-Micrography," he refers to it as "one of the two Microscopes with which we can work comfortably, using an $\frac{1}{4}$ in. objective and the coarse movement only."

4 W. WATSON & SONS, 2, EASY ROW, BIRMINGHAM,
313, HIGH HOLBORN, W.C.

**W. WATSON & SONS'
EDINBURGH
STUDENT'S
MICROSCOPE.**

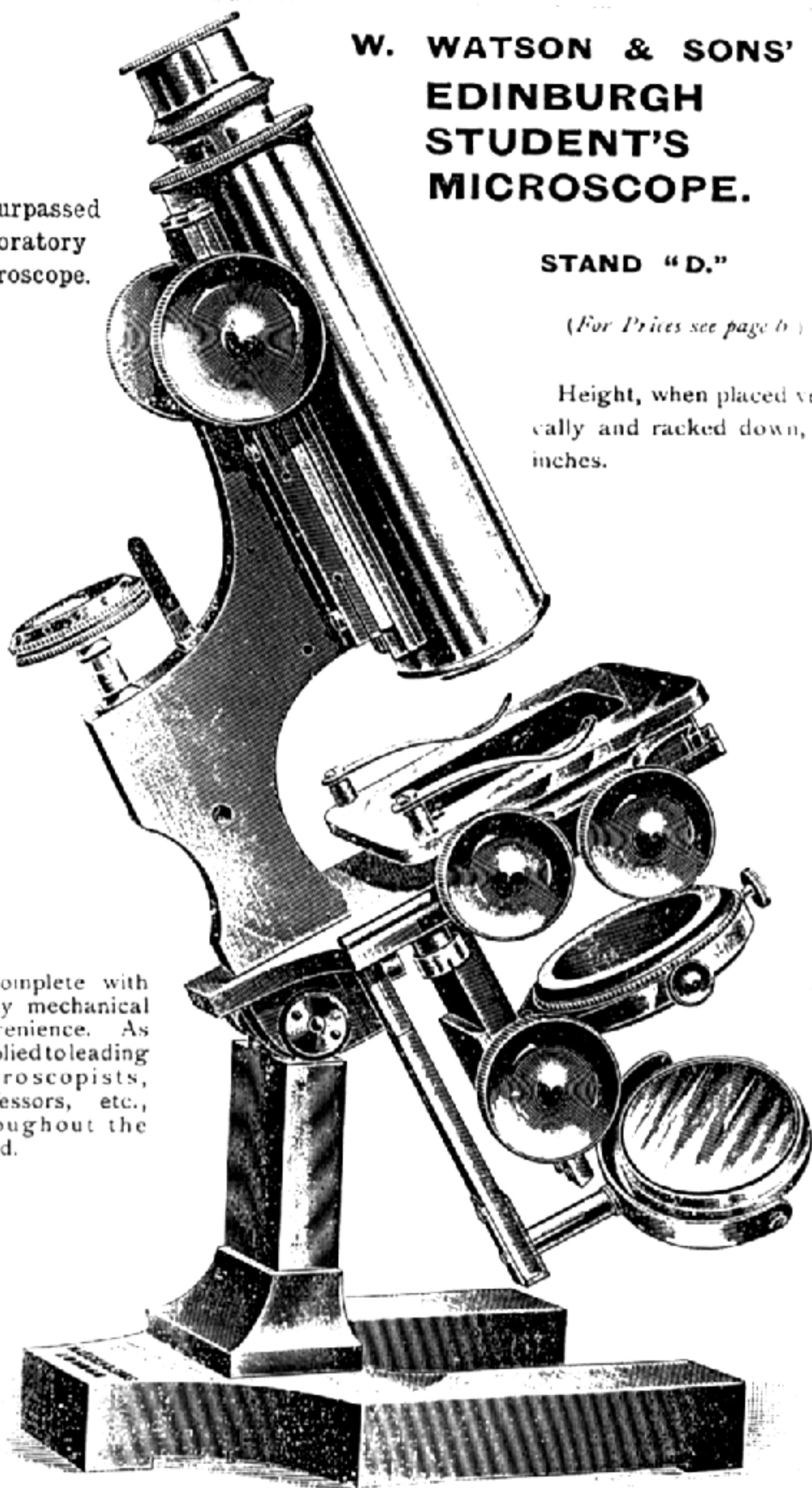
An
Unsurpassed
Laboratory
Microscope.

STAND "D."

(For Prices see page 6)

Height, when placed verti-
cally and racked down, 11½
inches.

Complete with
every mechanical
convenience. As
supplied to leading
Microscopists,
Professors, etc.,
throughout the
world.



Diameter of outside Body Tube, 1½ in.

**W. WATSON & SONS'
TRIPOD
EDINBURGH STUDENT'S
MICROSCOPE.**

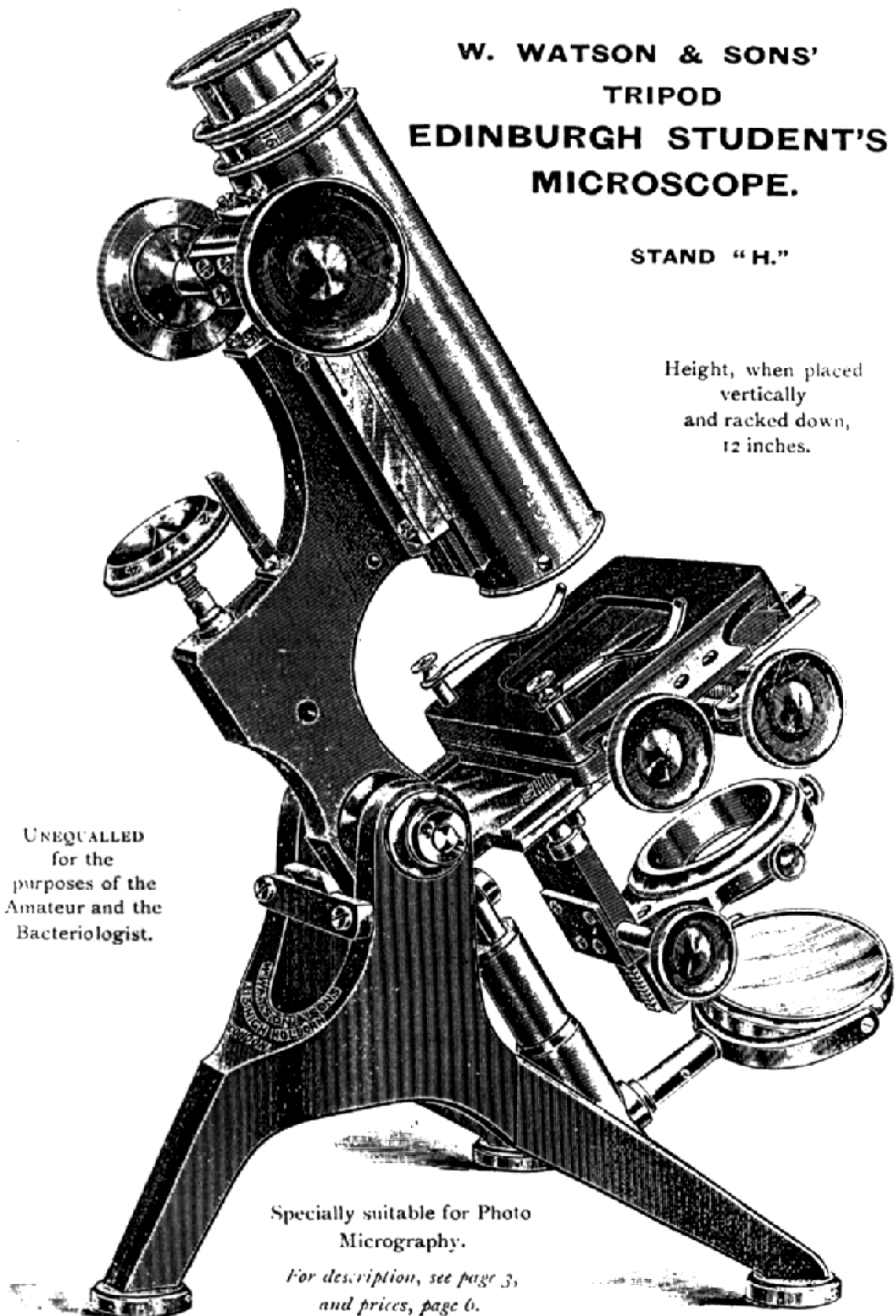
STAND "H."

Height, when placed
vertically
and racked down,
12 inches.

UNEQUALLED
for the
purposes of the
Amateur and the
Bacteriologist.

Specially suitable for Photo
Micrography.

*For description, see page 3,
and prices, page 6.*



PRICE LIST OF THE Edinburgh Student's Microscopes

Figured and described on pages 3-5.

STAND "D" on Horse-Shoe form of foot.

NOTE.—Stand "H" is priced below.

STAND "D" as figured page 4, Without Eyepieces or Objectives £9 10 0
Mahogany Case for ditto 0 17 6

SET E124. STAND "D."—As figured, fitted with
2 Objectives (Watsons' Parachromatic Series), $\frac{1}{8}$ in., and
choice of 1 in., $\frac{1}{2}$ in., or $\frac{3}{8}$ in. ;
1 Eyepiece, No. 2, No. 3, or No. 4 ;
Mahogany Case, complete 12 10 0

SET E125. STAND "D."—As figured, fitted with
2 Objectives (Watsons' Parachromatic series), $\frac{1}{8}$ in. or $\frac{1}{4}$ in.,
and choice of 1 in., $\frac{1}{2}$ in., or $\frac{3}{8}$ in. ;
2 Eyepieces, Nos. 2, and 3, or 4 ;
Abbe Illuminator, with iris diaphragm, No. 521 ;
Mahogany Case, complete 14 15 0

SET E126. FOR BACTERIOLOGICAL WORK.

STAND "D"—As figured, fitted with the same apparatus as in
Set E125, together with
 $\frac{1}{2}$ in. Oil Immersion Objective, 1.30 N.A. ;
Nosepiece, Watson's dust-proof pattern for 3 objectives, No. 636 ;
Mahogany Case, complete 20 15 0
The $\frac{1}{2}$ in., 1.10 N.A., can be had instead of that quoted in Set E126 at 20/0 less.

STAND "H" as Figured page 5.

STAND "H," without Eyepieces or Objectives £9 12 6
Mahogany Case for ditto 1 0 0

SET E130. STAND "H." as figured, fitted with 2 Objectives
(Watson's Parachromatic Series), $\frac{1}{8}$ in. or $\frac{1}{4}$ in., and choice of
1 in., $\frac{1}{2}$ in., or $\frac{3}{8}$ in. ; 1 Eyepiece, No. 2, 3 or 4 ;
Mahogany Case, complete 12 15 0

SET E131. STAND "H," as figured, fitted with 2 Objectives
(Parachromatic Series), $\frac{1}{8}$ in. or $\frac{1}{4}$ in., and a choice of 1 in.,
 $\frac{1}{2}$ in., or $\frac{3}{8}$ in.
2 Eyepieces, Nos. 2, and 3, or 4 ;
Abbe Illuminator, best pattern, with Iris Diaphragm, No. 521 ;
Mahogany Case, complete 15 0 0

SET E132. FOR BACTERIOLOGICAL WORK.

STAND "H," as figured, fitted with the same apparatus as in Set
E131, together with
 $\frac{1}{2}$ in. Oil Immersion Objective 1.30 N.A. ;
Nosepiece, Watson's Dust-proof Pattern for 3 Objectives
No. 636 ;
Mahogany Case, complete 21 0 0
The $\frac{1}{2}$ in., 1.10 N.A. can be had instead of that quoted in Set E132, at 20/0 less.

EXTRAS.

Divisions to movements of stage reading by Verniers to $\frac{1}{100}$ th
millimetre £0 17 6
Glass Circle to drop into Eyepice with line ruled across
centre to set object against for measurement 0 2 0
Sliding bar to stage 0 12 6
Watson's **Patent "Scop" Stage** giving $2\frac{1}{2}$ ins. or more
of horizontal traverse can be fitted to either of the above
Microscopes at an extra cost of 1 15 0

W. WATSON & SONS' TRIPOD EDINBURGH STUDENT'S MICROSCOPES

SPECIAL FEATURES.

—
Stage covered
with ebonite.
—

New Model Tripod
Foot, as shown
with "H" Instru-
ment on page 5.

STAND "F."

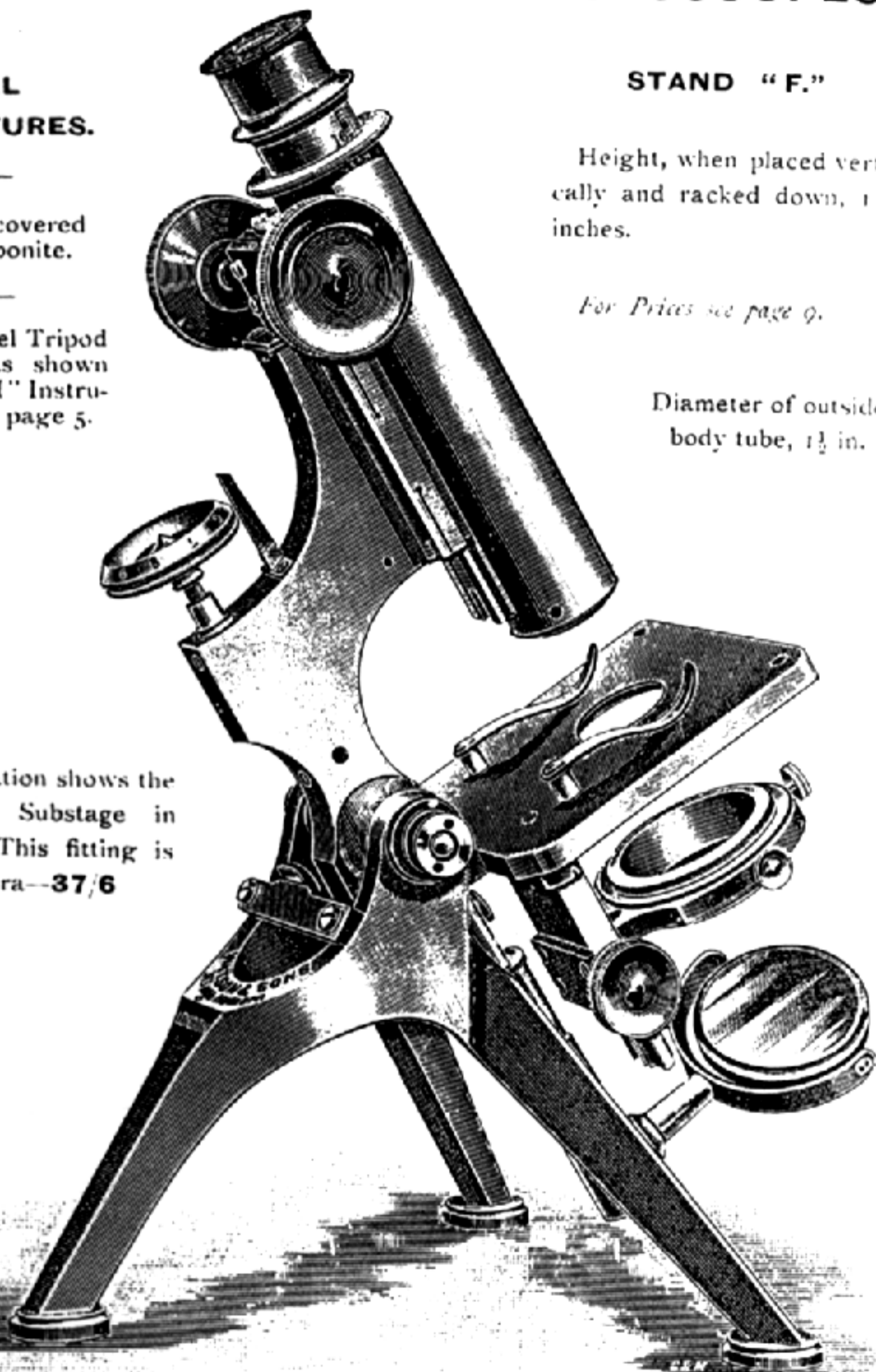
Height, when placed verti-
cally and racked down, $11\frac{1}{2}$
inches.

For Prices see page 9.

Diameter of outside
body tube, $1\frac{1}{2}$ in.

The illustration shows the
Compound Substage in
position. This fitting is
an extra—**37/6**

This Instrument corresponds with Stand "B" of the Edinburgh Student's
Microscope, page 8.



W. WATSON &
SONS'
EDINBURGH
STUDENT'S
MICROSCOPE.

STAND "B."

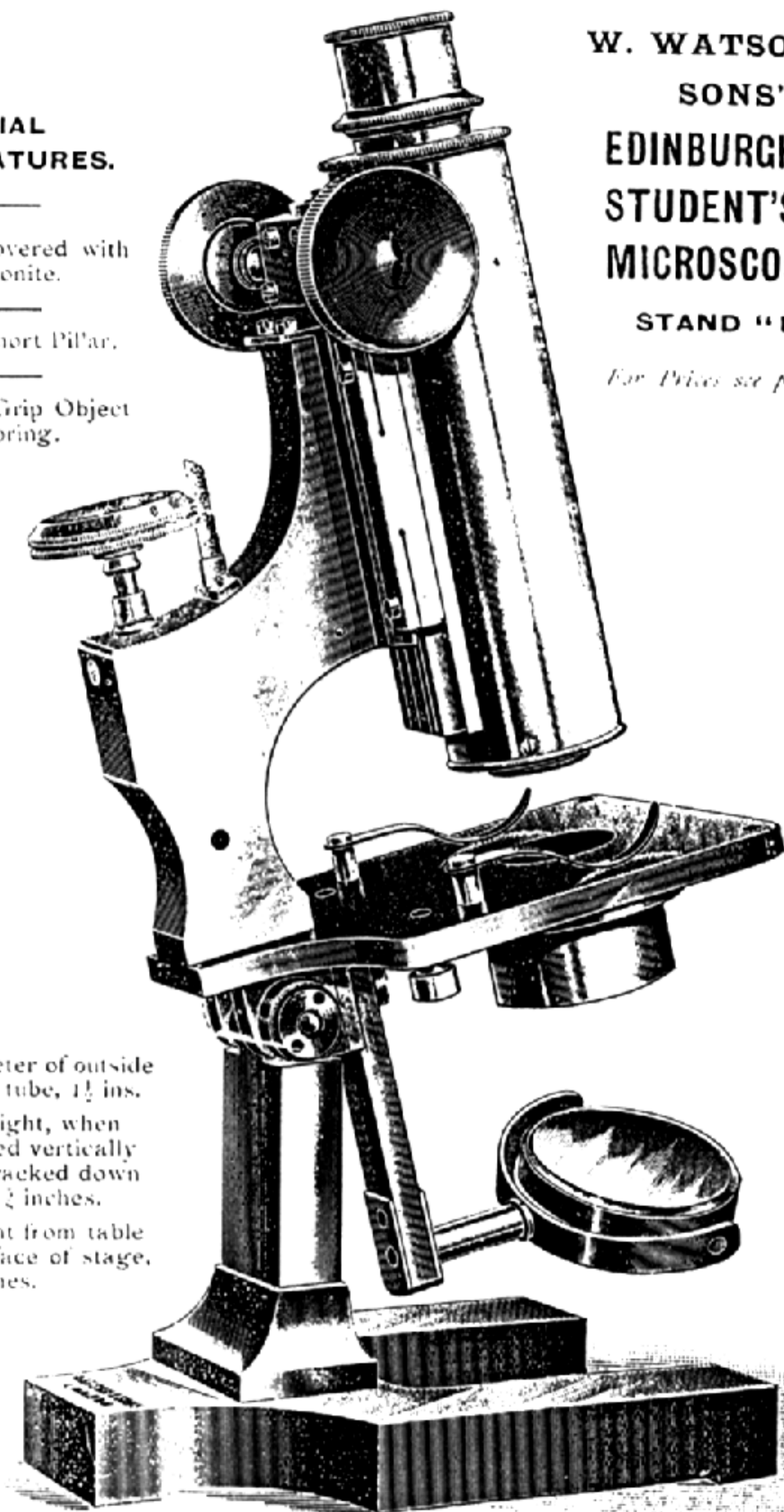
For Prices see page 9.

SPECIAL
FEATURES.

—
Stage covered with
ebonite.

—
New Short Pillar.

—
Patent Grip Object
Spring.



Diameter of outside
body tube, $1\frac{1}{2}$ ins.

Height, when
placed vertically
and racked down
 $11\frac{1}{2}$ inches.

Height from table
to surface of stage,
 $4\frac{1}{2}$ inches.

A compound substage can be supplied to this Instrument as shown on the
Microscope, page 7, at an extra cost of 37/6.

PRICE LIST OF THE Edinburgh Students Microscopes,

Figured on page 7 and 8. **STAND "F"**

This Microscope is precisely similar to the "H" Stand in its build and the same care and fine quality of workmanship are embodied. It has no mechanical movements to the stage, but an Ebonite surface is provided to the large plain surface. There is also no Compound Substage, its place being taken by a tube which carries the Abbe Illuminator and which can be turned aside out of the Optical Axis when desired. The Compound Substage can be added at any subsequent time at a cost of 37/6.

Stand "F" as figured page 7, without Eyepiece or Objectives £5 7 6
 Mahogany Case for ditto 1 0 0

SET E114.

STAND "F," as figured, fitted with
 2 Objectives—"Argus" 1 inch and $\frac{1}{2}$ inch (Parachromatic series)
 1 Eyepiece;
 Mahogany Case 7 12 6
 A $\frac{1}{2}$ in. (Parachromatic series) may be supplied in place of the
 $\frac{1}{2}$ inch in Set E114 at an extra cost of 5/0.

SET E115.

STAND "F," as figured, fitted with
 2 Objectives (Watson's Parachromatic series) $\frac{1}{2}$ in., and choice of
 1 in., $\frac{1}{2}$ in., or $\frac{3}{8}$ in.;
 1 Eyepiece, No. 2, No. 3, or No. 4;
 Mahogany Case, complete 8 7 6
 The Scop Abbe Illuminator No. 529 can be added to the above
 sets at an extra cost of 17/6.

SET E116.

STAND "F," as figured, fitted with
 2 Objectives (Watson's Parachromatic series) $\frac{1}{2}$ in. or $\frac{3}{8}$ in., and choice
 of 1 in., $\frac{1}{2}$ in., or $\frac{3}{8}$ in.;
 2 Eyepieces, Nos. 2 and 3, or 4;
 Abbe Illuminator, with Iris Diaphragm, No. 523;
 Mahogany Case, complete 9 17 6

SET E117. FOR BACTERIOLOGICAL WORK.

STAND "F" as figured, fitted with the same apparatus as Set E116 together
 with
 $\frac{1}{2}$ in. Oil Immersion Objective, 1'10 N.A.;
 Nosepiece, Watson's Dust-proof Pattern for 3 Objectives, No. 636;
 Mahogany Case, complete 14 17 6
 The $\frac{1}{2}$ in., 1'30 N.A. can be taken instead of the one quoted in
 Set E117 at an extra cost of 20/0.

STAND "B"

This is exactly as figured on page 8 and is identical with the "F" Stand described above, excepting that the Foot is of horseshoe pattern instead of a Tripod.

STAND "B" without Eyepieces or Objectives... .. 5 5 0
 Mahogany Case 0 10 6

SET E104.

STAND "B" as figured, fitted with
 Objectives and Eyepieces, &c., as in Set E114 above 7 0 0

SET E105.

STAND "B" as figured, fitted with
 Objectives Eyepieces, &c., as in Set E115 above 7 15 0

SET E106.

STAND "B" as figured, fitted with
 Objectives, Eyepieces, Illr., &c., as in Set E116 above... .. 9 5 0

SET E107. FOR BACTERIOLOGICAL WORK.

STAND "B" as figured, fitted with
 Objectives, Eyepieces, Illr., &c., as in Set E117 above 14 5 0

EXTRA FOR ABOVE INSTRUMENTS.

Sliding bar to Stage 0 10 6
 Double Nosepiece 0 10 6
 Attachable Mechanical Stage 3 0 0

DIAMETER
OF
OUTSIDE
BODY TUBE,
 $1\frac{1}{2}$ ins.

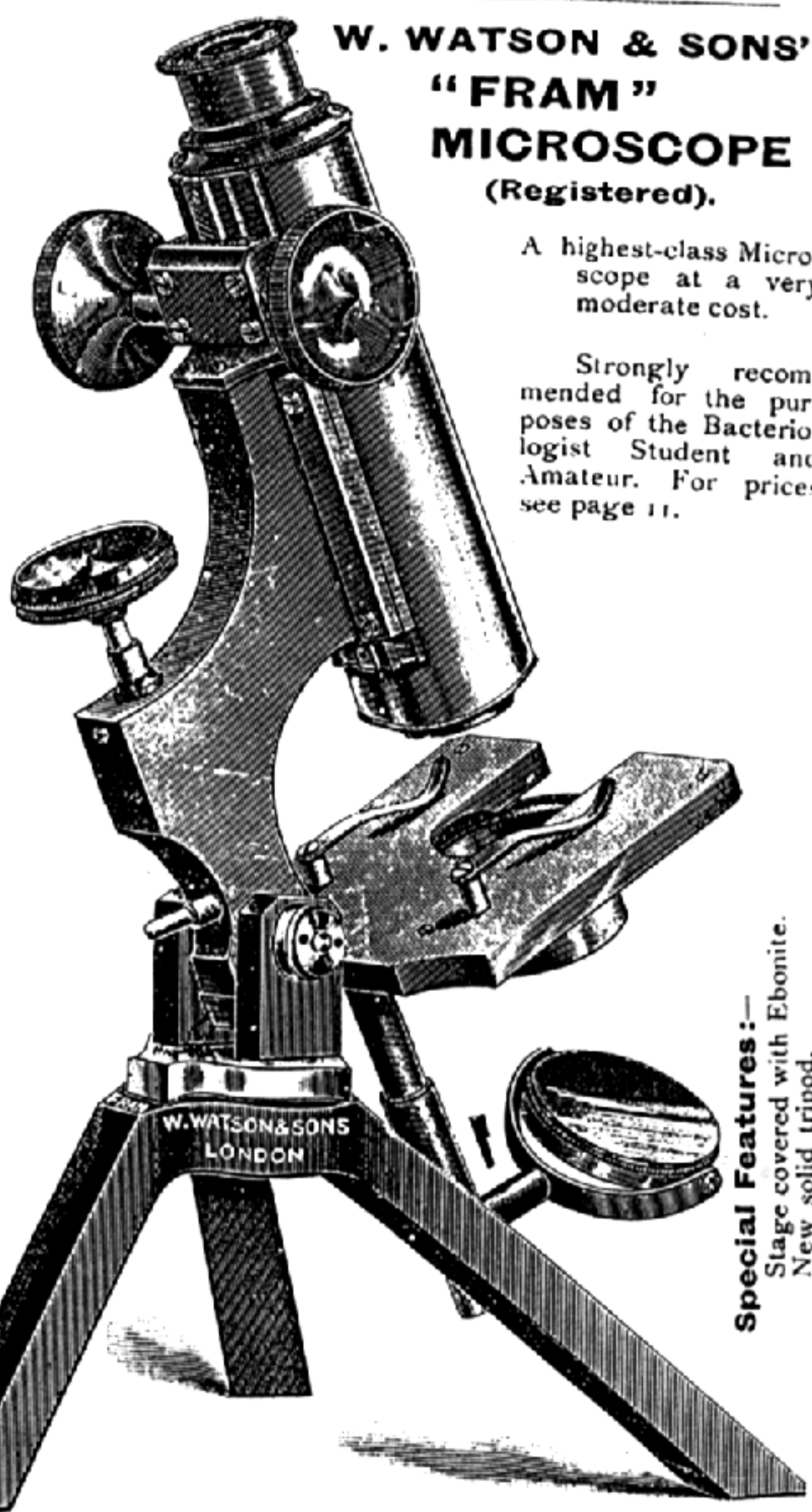
W. WATSON & SONS'
"FRAM"
MICROSCOPE
(Registered).

A highest-class Micro-
scope at a very
moderate cost.

Strongly recom-
mended for the pur-
poses of the Bacterio-
logist Student and
Amateur. For prices
see page 11.

Mr. E. M. NELSON,
President of the
Royal Microscopi-
cal Society, in his
Annual Address, de-
livered on January
18th, 1899, in review-
ing the progress
that had taken place
in Instruments and
Appliances during
the past year, con-
cluded with the
following remarks
concerning WATSON
AND SONS' New
"FRAM" MICRO-
SCOPE.

Watson & Sons have
fitted to their student's
Microscope a Lever
form of Fine Adjust-
ment on a thoroughly
sound principle, thereby
raising it to the posi-
tion of a Microscope
that can for the first
time with truth be
called 'good enough' for
Histological purposes."



Special Features:—
Stage covered with Ebonite.
New solid tripod.

The "FRAM" is not only a Student's Microscope at a Student's price,
BUT IT IS MORE,
It is an Instrument suitable for high-power work, Bacteriology,
and Photo-Micrography.
IT IS IN FACT,
A highest-class Microscope at a very moderate cost.

Extract from "The Microscope and its Revelations" (Carpenter), page 234, edited by the Rev. W. H. Dallinger, LL.D., F.R.S., etc., respecting the "Fram" Microscope: "We cannot speak too highly of the enterprise and skill shown in the design and manufacture of this Instrument; and yet the student will find that, good as it is, it is one of the least costly Instruments of its class."

PRICE LIST OF

W. Watson & Sons' "Fram" Microscope.

Figured page 10.

A Highest-class Microscope at a very moderate cost.

This Microscope is one of the best for the general purposes of the Student that has been designed. The Coarse and Fine Adjustments are of our best description. The Stage is covered with Ebonite; the Mirror is a double one, and the tube in which the Condenser fits can be turned aside from the optical axis when desired.

The entire Microscope is designed to yield the advantages that are usually associated with the most expensive instruments; the utmost care being bestowed on its construction.

Watson & Sons very strongly recommend it as a highest-class Microscope at a very moderate cost.

FRAME MICROSCOPE STAND only, as figured, without eyepieces or objective £4 0 0
Mahogany Case 0 15 0

SET F147.

Microscope Stand, as figured, fitted with
2 Objectives, 1 in. or $\frac{3}{4}$ in. Objective ("Argus" series)
and $\frac{1}{2}$ in. " ("Parachromatic" series)
1 Eyepiece, No. 1, 2, 3 or 4,
Mahogany Case, complete 6 0 0
A $\frac{1}{2}$ in. (Parachromatic Series) may be taken instead of the $\frac{1}{2}$ in. in
Set F147 at an extra cost of 5/0.

SET F148.

Microscope Stand, as figured, fitted with
2 Objectives (Watson's Parachromatic Series) $\frac{1}{2}$ in., and choice
of 1 in., $\frac{3}{4}$ in., or $\frac{2}{3}$ in.;
1 Eyepiece, No. 2 or No. 3, or No. 4;
Mahogany Case, complete 6 15 0
A Scöp Abbe Illuminator and Iris diaphragm, as listed and described
page 101, may be added to the above sets at an extra cost of... 0 17 6

SET F149.

Microscope Stand, as figured, fitted with
2 Objectives (Watson's Parachromatic Series), $\frac{1}{2}$ in., and choice of
1 in., $\frac{3}{4}$ in., or $\frac{2}{3}$ in.;
2 Eyepieces, Nos. 2 and 3, or 4;
Abbe Illuminator, with iris diaphragm (No. 573);
Mahogany Case complete 8 5 0

SET F150. FOR BACTERIOLOGICAL WORK.

Microscope Stand, as figured, fitted with the same apparatus as in set F149
together with
 $\frac{1}{2}$ in. Oil Immersion Objective, 1.10 N.A.;
Nosepiece, Watson's dust-proof pattern for 3 objectives (No. 636);
Mahogany Case, complete 13 5 0
If best capped Eyepieces 1.27 in. diameter are required instead of the
Student's pattern quoted with the above sets, 5/0 per Eyepiece must
be added to the above prices.
"Fram" Double Nosepiece No. 631, supplied with either of the above
sets, if taken at the time of ordering, at an extra cost of ... 0 9 0

EXTRAS.

Sliding bar to stage 0 10 6
Compound Sub-stage 1 17 6
Attachable Mechanical Stage 3 0 0

OBJECTIVES.— $\frac{1}{2}$ in. Oil Immersion, 1.30 N.A., specially
suitable for bacteriological and biological work. It gives a
flat field and exquisite definition. With supply of Oil,
£5 0s. 0d. If of 1.10 N.A. 4 0 0
2 in., £1 2s.; $\frac{1}{2}$ in., £1 2s. 6d.; $\frac{3}{4}$ in., £1 5s.; $\frac{1}{4}$ in., £2 5s.

These Lenses are all of exceptionally brilliant performance.

Objectives by all the leading makers are kept in stock by Watson & Sons, and
may be had with the "Fram" Microscope, if desired, at the price quoted in full
Catalogue added to the cost of the "Fram" Microscope and case.

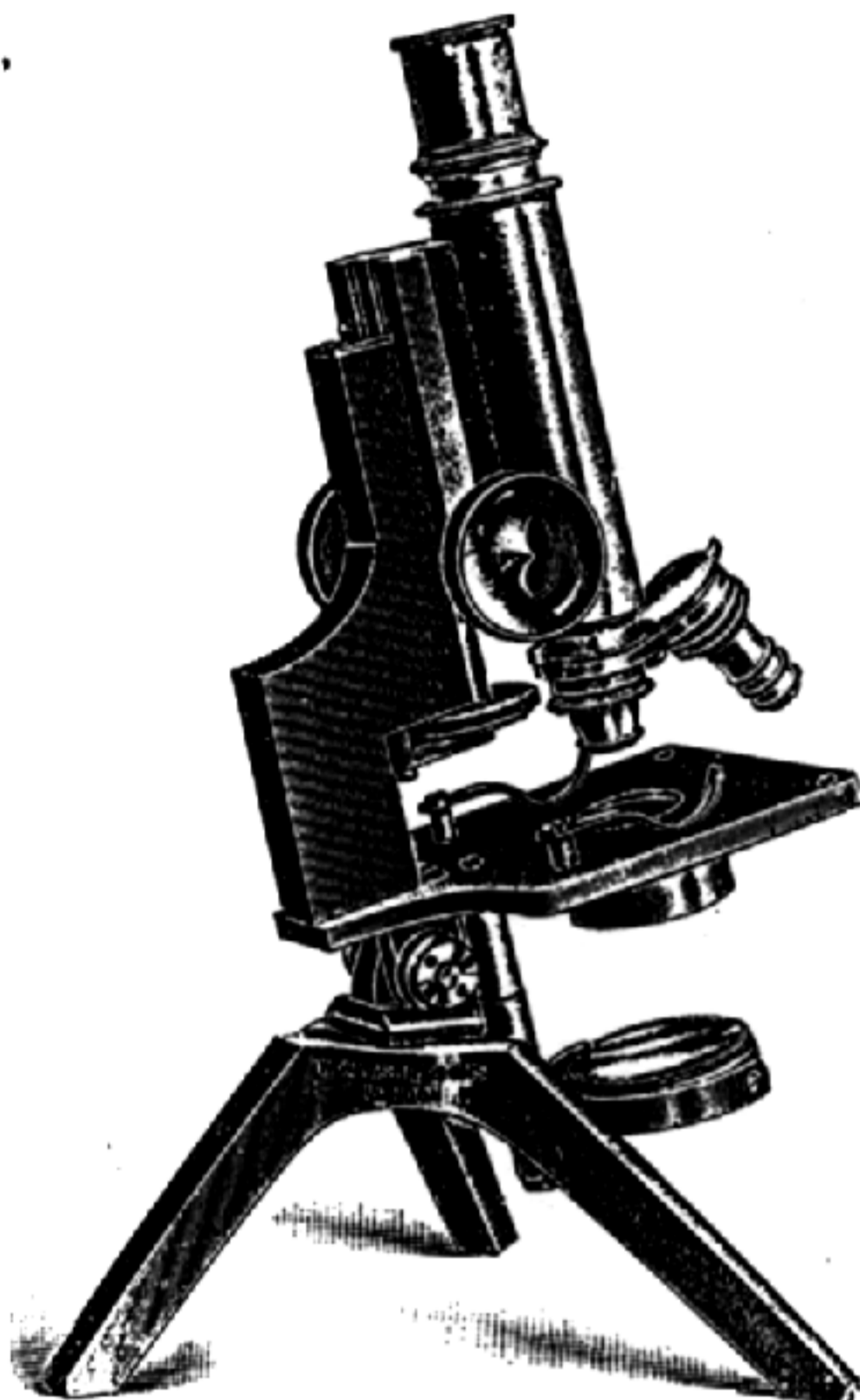
W. WATSON & SONS'
"ARGUS"
MICROSCOPE.

Sound Construction.

Fine Finish.

A Microscope for the
Student or Amateur at
a popular price.

Price with 1 in. and $\frac{1}{2}$ in.
Objectives in Mahogany
Case, £5 0 0



This Microscope is fitted with Coarse and Fine Adjustments of entirely new design, which we have patented.

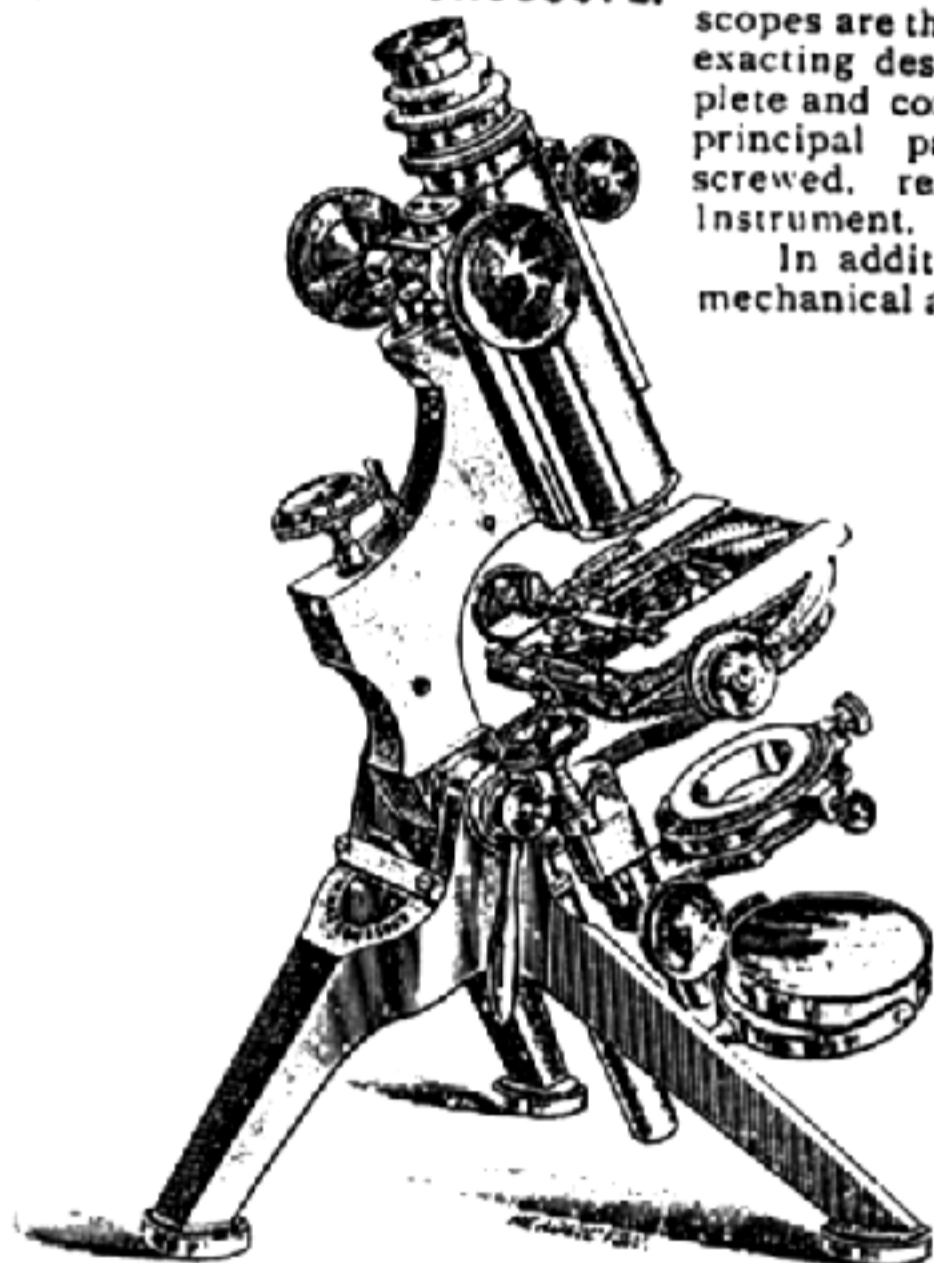
PRICE LIST OF "ARGUS" MICROSCOPE.

Microscope Stand only, as figured and Described without eyepieces or objectives ...	£2 15 0
Mahogany Case, with lock and key, and handle ...	0 12 6
SET A171.	
Microscope Stand, as figured, fitted with 2 Objectives Watson & Sons' Parachromatic Series, $\frac{1}{6}$ in., and choice of "Argus" 1 in. or $\frac{1}{2}$ in.; 1 eyepiece, No. 2 or No. 3 or No. 4; Mahogany Case, complete ...	5 0 0
SET A173. With Parachromatic Objectives.	
Microscope Stand, as figured, fitted with 2 Objectives (Watson's Parachromatic Series), $\frac{1}{6}$ in., and choice of 1 in., $\frac{1}{2}$ in., or $\frac{1}{4}$ in.; 1 eyepiece, No. 2 or No. 3 or No. 4; Mahogany Case, Complete...	5 12 6
SET A174.	
Microscope Stand, as figured, fitted with 2 Objectives (Watson's Parachromatic Series), $\frac{1}{6}$ in., and choice of 1 in., $\frac{1}{2}$ in., or $\frac{1}{4}$ in.; 2 Eyepieces, Nos. 2 and 3 or 4; Abbe Illuminator, Scop pattern, as described page 101 of full catalogue with Iris diaphragm; Mahogany Case, complete ...	6 12 6
EXTRAS.	
Stage covered with Ebonite ...	0 3 6
Sliding Bar to Stage ...	0 10 6
Double Nosepiece, if supplied with Instrument ...	0 9 0

WATSON'S HIGHEST GRADE LARGE SIZED MICROSCOPES.

Watson's Van Heurck Models.

GRAND MODEL MICROSCOPE.



GRAND MODEL Van Heurck Microscope.

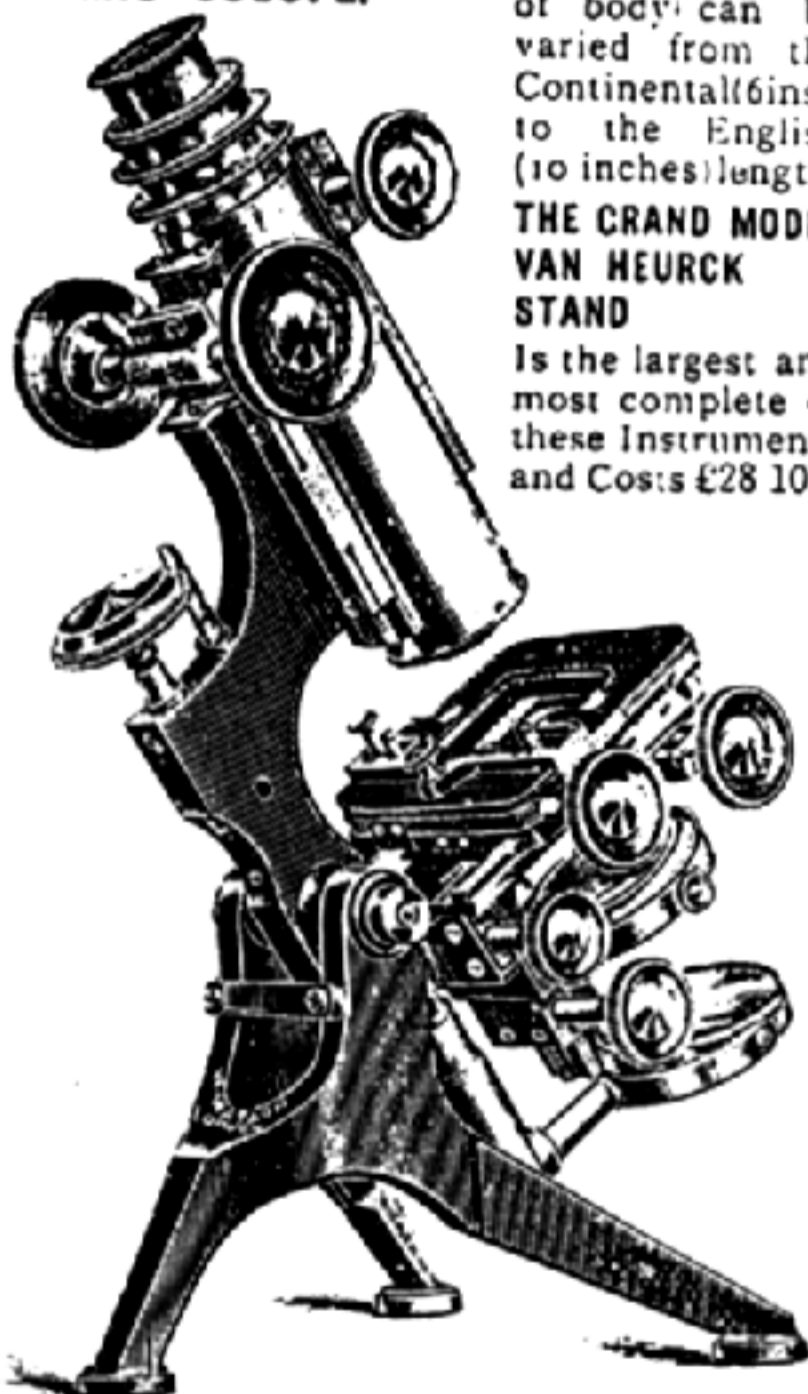
The distinguishing features of the Van Heurck Microscopes are the facilities which they offer for work of the most exacting description. The mechanical movements are complete and comprehensive. The construction is unique—the principal parts being dovetailed together—not merely screwed, resulting in an equalled rigidity of the whole instrument.

In addition to the usual coarse and fine adjustments, mechanical and rotary movements to stage, compound sub-stage with rackwork to focus, and screws to centre, a rackwork adjustment is provided for the draw tubes which enables an exact adjustment of tube length to be secured. A modern large aperture objective is sensitive for its best

performance to 5 millimetres of tube length. The length of body can be varied from the Continental (6 ins.) to the English (10 inches) length. **THE GRAND MODEL VAN HEURCK STAND**

Is the largest and most complete of these Instruments and Costs £28 10s.

WATSON'S "ROYAL" MICROSCOPE.



The "ROYAL" Microscope.

This Microscope combines all the mechanical improvements that are incorporated in the Van Heurck Model, but the entire build is lighter and somewhat smaller. It is a very much appreciated Model and offers to the serious worker, much needed facilities without great expense. Price £14 10s. 0d.

THE VAN HEURCK MICROSCOPE, NO. 1,



Is the Popular Instrument. It is not so massive as the Grand Model and is often preferred for this reason, it being more compact and easier to move about. The workmanship and accuracy of working parts are the same in all the Van Heurck Microscopes.

No. 1 Van Heurck Stand

Price £18 10s. 0d.

No. 1 VAN HEURCK MICROSCOPE.

Full description of all the above will be found in WATSON'S 158 page Illustrated Catalogue of Microscopes. Post free on application.

Watson & Sons are the wholesale Depot
Agents for Great Britain, for the Microscopes
by E. Leitz.

LEITZ STAND 11a. MEDIUM-SIZED MICROSCOPE

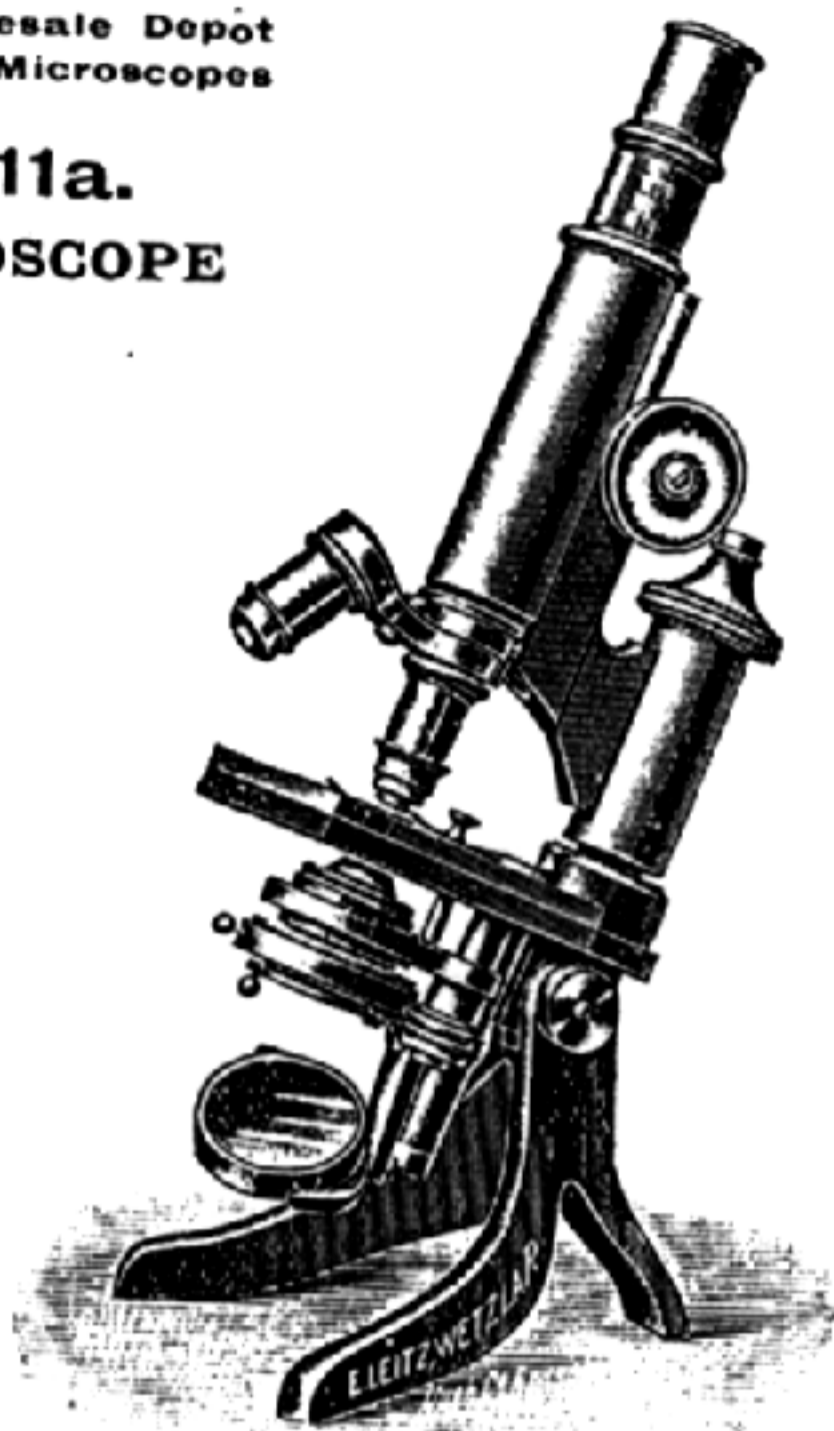
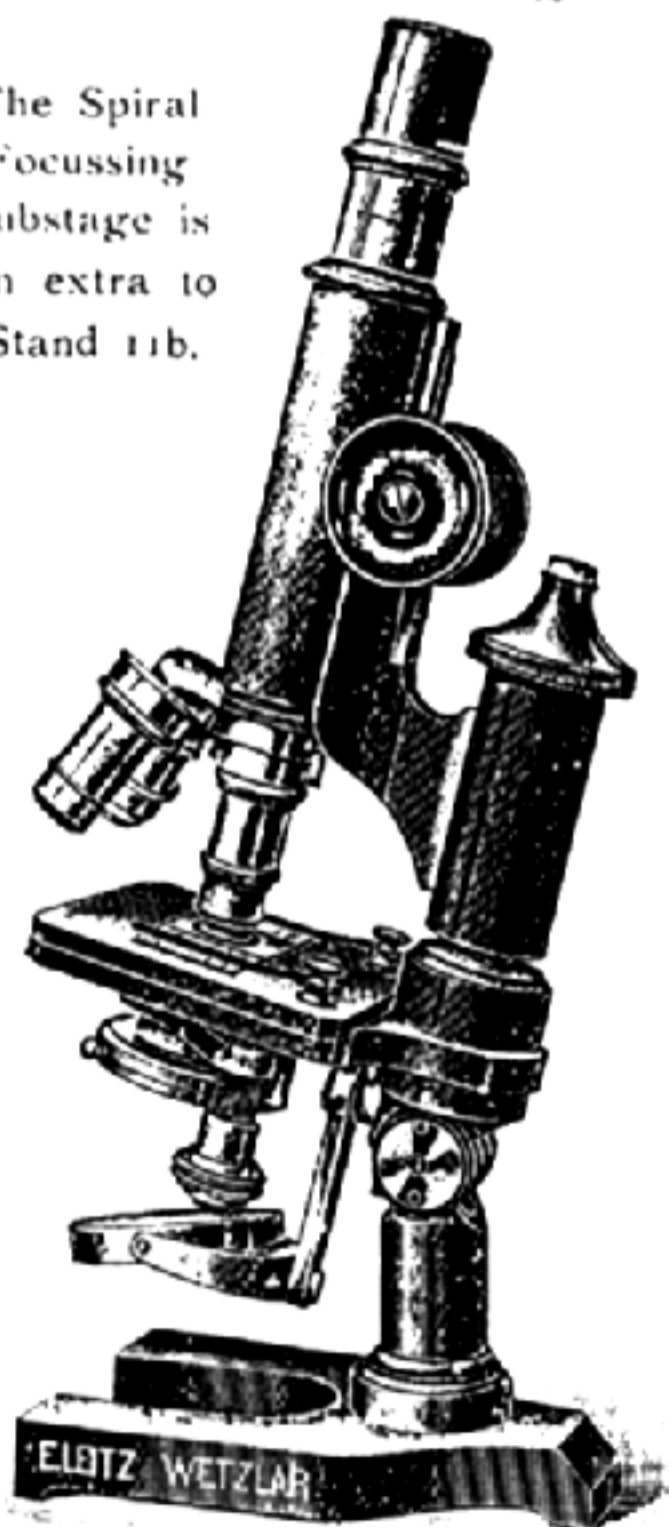
Inclinable, as figured.

With Abbe Illuminating Apparatus
having lateral screw for raising and
lowering.

PRICES.

- Stand only, without illuminating
apparatus or other accessories,
in case... .. £4 10 0
- Stand only with illuminating appar-
atus no eyepieces or objectives,
etc., in case £6 0 0
- Set 9. Stand with illuminating appar-
atus, triple nosepiece, objectives
3, 6 and $\frac{1}{2}$ in. (oil immersion),
eyepieces 1, 3 and 4, complete
in case... .. £15 0 0
- Set 12. Stand, double nosepiece,
objectives 3 and 7, eyepieces 1
and 3, complete in case, without
illuminating apparatus
£8 0 0

The Spiral
Focussing
Substage is
an extra to
Stand 11b.



LEITZ MICROSCOPE STAND 11b.

As figured.

- Stand only, as figured, without illu-
minating apparatus, in case £2 15 0
- Ditto, with illuminating apparatus and
iris diaphragm, in case ... £4 0 0
- SET 14.
Stand, with illuminating apparatus, ob-
jectives 3 and 7; eyepieces 2 and 4,
double nosepiece, in case £7 10 0
- SET 15A.
Stand, with double nosepiece, objectives
3 and 7; eyepieces 1 and 3, in case
£6 5 0
- The spiral focussing Substage as figured
is an extra and costs 5/0
- Without nosepiece—Triple ... £1 0 0
Double, 15/0 less.

Full catalogue of Leitz's Microscopes
sent post-free on application.

**Leitz's Microscopes are not
sold without Objectives.**

OBJECTIVES AND EYEPIECES. Watson's Parachromatic Objectives.

These are designed to meet the special needs of the Amateur, the Student and Laboratory worker. They combine a very brilliant image with exquisitely sharp definition and good working distance. No Students Objectives of Continental or British origin will be found to excel them.

The prices are most moderate

Every facility will be afforded for selecting and testing.

Approximate Focus.	Numerical aperture.	PRICE.	Approximate Focus.	Numerical aperture.	PRICE.
Inches.		£ s. d.	Inches.		£ s. d.
4	0.08	1 2 0	$\frac{1}{4}$	0.68	1 5 0
3	0.09	1 2 0	$\frac{1}{3}$	0.70	1 10 0
2	0.15	1 2 0	$\frac{1}{2}$	0.87	1 10 0
$1\frac{1}{2}$	0.17	1 2 0	$\frac{2}{3}$	0.88	1 15 0
1	0.21	1 2 0	$\frac{3}{4}$	0.90	2 5 0
$\frac{3}{4}$	0.28	1 5 0	$\frac{1}{2}$	0.87	2 10 0
$\frac{1}{2}$	0.34	1 2 0			

* This Objective is essentially a Student's Lens and has been designed to meet his special needs. It gives exquisitely crisp definition, combined with a flat field and working distance. It is therefore recommended instead of the $\frac{1}{2}$ in., 0.87 N.A. for laboratory and general Histological work, and unless otherwise specified is supplied with our Edinburgh Student's "Fram" and "Argus" sets.

OIL IMMERSION OBJECTIVES.

The prices include a supply of Immersion Oil.

These Lenses are of most brilliant performance. The $\frac{1}{2}$ inch 1.30 N.A. has special merit. It has frequently been compared with similar Lenses by other makers, and is invariably selected. It is in use in Bacteriological Laboratories throughout the world. The $\frac{1}{3}$ inch Lens 1.0 N.A. is a new one, and is specially intended for the work of the Bacteriologist and Student. It possesses those intrinsic qualities which render such a lens acceptable to laboratory workers, flat field, good working distance, and exquisite definition.

Approximate Focus.	Numerical aperture.	PRICE.	Approximate Focus.	Numerical aperture.	PRICE.
Inches.		£ s. d.	Inches.		£ s. d.
$\frac{1}{10}$	1.30	3 15 0	$\frac{1}{3}$	1.10	4 0 0
$\frac{1}{8}$	1.30	5 0 0	$\frac{1}{2}$	1.30	6 0 0

EYEPIECES.

Best quality Huyghenian Eyepieces to fit the Continental diameter of tube the size of Eyepiece fitting used in all our Student's Microscopes and those of Leitz, Reichert, Zeiss and other makers.

No. 1, 2, 3, and 4, Each 5/- each.

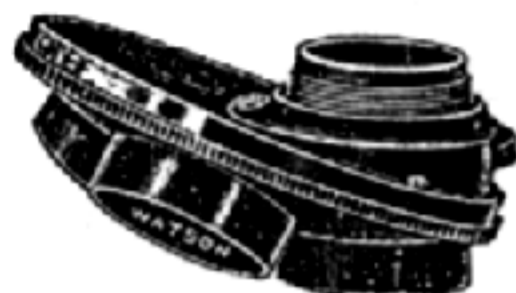
For particulars of Watson's Beautiful

HOLOSCOPIC OBJECTIVES AND EYEPIECES.

also of Objectives and Eyepieces by Leitz, Zeiss, and Reichert see Watson's Complete Catalogue of Microscopes.

REVOLVING NOSEPIECES.

For Changing Objectives.



631. "Fram" Nosepiece for
2 Objectives 10/6.

636. Watson's Dustproof Nosepiece
for 3 Objectives 20/0.

Additional Nosepieces are stocked as follows:—

Double. Oxydised Nosepieces for use on Instruments with Sliding bodies for focussing	...	...	...	...	0	9	0
Best Double Nosepiece—Continental pattern—Nickel-plated	...	...	...	...	0	15	0
Ditto in Aluminium	...	...	...	...	0	17	6
Ditto in Bright Brass	...	...	...	...	0	17	6
Triple. Continental pattern, Nickel-plated	...	...	...	...	1	0	0

Dr. GOWER'S INSTRUMENTS FOR BLOOD TESTING—

Hæmacytometer	...	£3	3	0	The two instruments			
Hæmaglobinometer	...	1	1	0	in one case	£4	4	0
Hæmometer, complete with supply of solutions, pipettes, etc.	...					4	4	0
Ditto without solutions	...					3	3	0
Pipettes in box, 2 doz., 2s. 6d.; 6 doz., 7s. 6d.; 12 doz., 12s. 6d.								
Dr. Haldane's Hæmaglobinometer	...					1	11	6
Dare's Hæmaglobinometer	...					4	14	6
Durham's Hæmacytometer	...					2	10	0
Wright's Coagulometer	...					1	15	0

THE THOMA HÆMACYTOMETER by Zeiss and Leitz.

This apparatus consists of a counting chamber in combination with an accurately calibrated mixing pipette for diluting the blood in a certain ratio (1:100 for red, 1:10 for white corpuscles), with directions, in case.

		By Zeiss.	By Leitz.
(a) With mixing pipette for red corpuscles	...	£1 6 0	£1 4 0
(b) " " " white "	...	1 6 0	1 4 0
(c) The same apparatus with both pipettes	...	1 16 0	1 10 0

Pipettes Separately—

For red corpuscles, diluting (1:100); for white (1:10) each	0	9	0	0	6	0	
Separate Counting Chamber only, Zappert's modification, in case	0	14	0

For further list of Blood Testing Instruments see full catalogue of Microscopes.

MICROTOMES.

Microtomes of latest patterns by all the noted makers, including:—

The Schanze, The Minot, The Jung, The Cambridge Rocker.

Also the Cathcart and many forms for hand work. Full particulars will be found in Watson's complete catalogue of Microscopes.

SURGICAL INSTRUMENTS.

A separate list of Surgical Instruments is issued and can be obtained on application. Watson's prices will be found very much lower than those of other houses; the quality of the Instruments is of the very best. A large stock of these will not be kept at Birmingham at present, but anything will be at once sent from London, on approval.

Materials for Mounting Objects.

Special Student's Prices.

SLIPS.

Flatted Crown Glass Slips (3 in. x 1 in.), rough edges,	per doz. 3d.	per gross	£0	2
"The Student's" (3 in. x 1 in.), ground edge slips of excellent quality	per doz. 4d. $\frac{1}{2}$	gross 1/9	per gross	0 3 0
Ditto, ditto, ground edges	per doz. 5d., 6 doz. 2/3	"		0 4 0
WATSON & SONS' Special Continental (3 in. x 1 in.) Slips ground edges...	per doz. 6d.	"		0 5 0
These are of white glass, very thin, and of fine quality.				
Glass Slips (3 in. x 1 in.) with surface of one end ground for lead pencil writing	...	...	...	0 0 9

COVER GLASSES.

These are made in three thicknesses—No. 1, thinnest; No. 2, extra thin; and No. 3, ordinary thickness used.

Circles—No. 1.....	5/0 per oz.	Squares—No. 1.....	5/0 per oz.
No. 2.....	4/0 "	No. 2.....	4/0 "
No. 3.....	3/0 "	No. 3.....	2/9 "

The above prices are for any size from $\frac{1}{8}$ in. upwards. Smaller sizes than $\frac{1}{8}$ in. are charged at 1/0 per oz. extra.

The above are supplied in $\frac{1}{4}$ oz. and $\frac{1}{2}$ oz. boxes *pro rata*.

DISSECTING INSTRUMENTS.

Special Student's Prices.

Cases made up to contain any desired Instruments. Samples submitted. Quotations given.

Case of Dissecting Instruments, consisting of 3 Scalpels, Scissors, Forceps, and Blow Pipe in Mahogany Box	...	£0	8	6
Medium sized Case containing 3 Scalpels, Scissors, Forceps, Needles, Seeker, Blow-pipe, Mahogany box with extra fittings	...	0	10	0
Large Sized Case containing 4 Scalpels, Large and Small Scissors, Coarse and fine Forceps, 2 Needles, Seeker, Blow-pipe, Mahogany box with lock and key	...	0	15	6
Bone Forceps	...	0	4	6
Dissecting Knives—Scalpels—with ebony handles	each	0	1	0
Fine Ditto, ditto, with ivory handles	..	0	1	9
Ditto, ditto, In aseptic metal handles	..	0	2	0
Best Dissecting Scissors, straight, $4\frac{1}{2}$ in. and $4\frac{3}{4}$ in. long	..	0	1	3
Ditto ditto 6 in. long	..	0	3	0
Ditto ditto curved blades	..	0	1	9
Steel Forceps, $4\frac{1}{2}$ in. long, 1/-; 6 in. long	..	0	1	9
Very Fine Steel Forceps, straight or curved points, best make	..	0	1	6
Cornet Forceps, for bacteriological work	..	0	1	6
Dissecting Needles, in plain cedar handles	..	0	0	2
Ditto ditto in cedar handles, with fixing ferrule	..	0	0	3
Ditto ditto ditto with triangular edged needle	..	0	0	4
Cutting Needles in ebony handle.....one edge, 1/3; double edged	..	0	1	6
Ditto ditto aseptic metal handle 1/6	..	0	2	0
Set of Hooks for dissecting	each	0	1	0
Blow Pipe	..	0	1	0

MICRO-CHEMICAL PREPARATIONS.

GRÜBLER'S STAINS IN CRYSTAL.

Put up in Glass Tubes with Screw Capsules.

	Grammes	s.	d.		Grammes	s.	d.
Alum Carmine	2	0	9	Haematoxylin, Eosin	5	1	9
Alkannin	5	1	0	Jenner's Blood Stain	1	1	0
Aniline Oil, pure	50	1	0	Indigo Carmine	2½	1	0
Alizarin	5	0	9	Iodine Green	5	1	0
Alkali Blue	5	0	9	Leishman's Blood Stain	1	1	3
" Black	5	0	9	" "	1	2	0
" Yellow	5	0	9	Magenta	5	0	9
Aurantia	5	0	9	Malachite Green	5	0	9
Benzopurpurin	5	0	9	Methyl Blue	5	0	9
Biondi-Ehrlich-Heidenhain's triple stain	1	1	6	" Eosin	5	0	9
Bismarck Brown	5	0	6	" Green	5	0	9
Borax Carmine	1	0	9	" Violet	5	0	9
Blue Brilliant	5	0	9	Methylene Blue	5	1	0
Carmalum	2	1	0	" " Medic. pure	5	1	0
Carmine	5	0	9	" Green	5	0	9
Carminic Acid	1	0	9	Nigrosin	5	0	9
Chrysoidin	5	0	9	Orange "G"	5	0	6
Congo Red	5	0	9	Orcein	1	0	9
Coralline, Strasburger's	5	0	9	Picric Acid	5	0	9
Eosin, Blue Shade	5	0	9	Picro Carmine	1	1	0
" Yellow	5	0	9	Rosanilin	5	1	0
" Methylene Blue	1	1	0	Rose, Bengal	5	0	9
Erythrosin	5	1	0	Rubin	5	0	9
Fuchsin Acid	5	0	9	Safranin	5	0	9
Gentian Violet	5	0	9	Spiller's Purple	1	2	0
Green Acid	5	0	9	Sudan	5	0	9
Haemalum	5	1	6	Thionin	1	1	0
Haematein, Mayer's	1	1	3	Toluidin Blue	5	0	9
Haematoxylin	5	1	6	Tropaeolin	5	0	9
				Vesuvium Brown	5	0	6

Box and Postage for Bottles, **3d.** extra.

STAINS IN SOLUTION

To Standard Formulæ.

Prepared with great care and absolutely reliable, price **6d.**, **9d.**, and **1/-** per bottle.

CHEMICALS & RE-AGENTS,

MOUNTING MEDIA,

CLEARING SOLUTIONS,

VARNISHES & CEMENTS,

6d. & 1/-

per Bottle.

SOLOID STAINS.

Prepared by Burroughs, Wellcome & Co., in Tabloid form. Directions accompanying each packet, per bottle containing 6 Tabloids, **6d.**

Speciality:—LEISHMAN'S BLOOD STAIN.

JENNER'S DITTO.

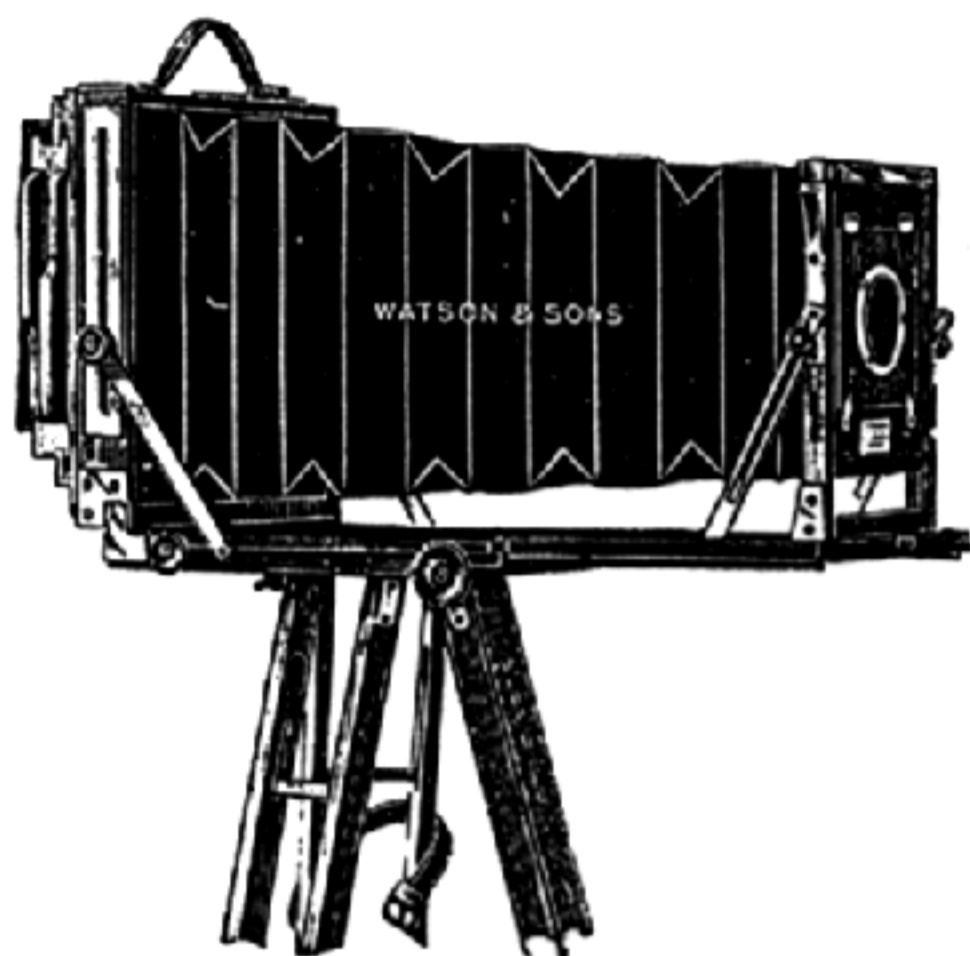
Made by a special method which imparts reliability and a high degree of permanence to the Staining Fluid, per bottle, **1s. 6d.**

For full list of all the above, see Watson's full Catalogue (158 pages) of Microscopes, post free on application.

WATSON'S HIGH-CLASS PHOTOGRAPHIC SPECIALTIES.

Watson's Celebrated "Acme" Camera.

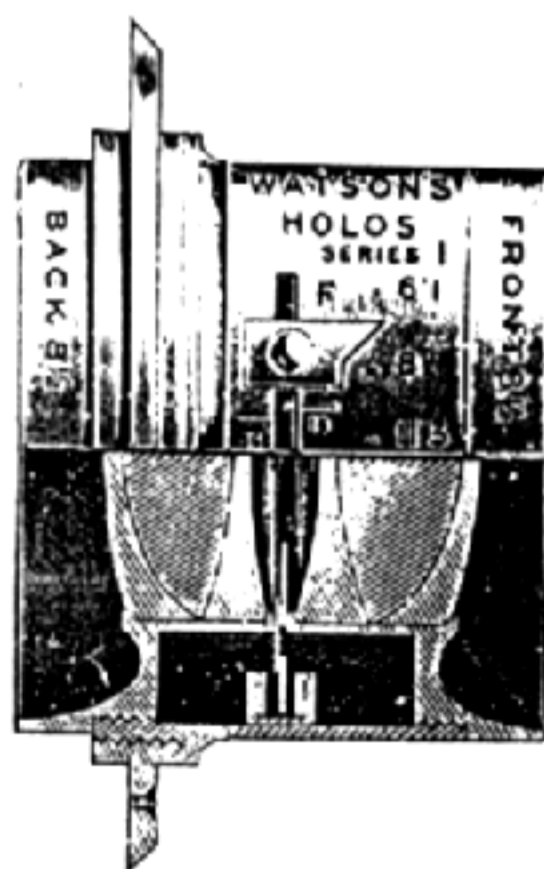
Awarded
Numerous
GOLD
and other
MEDALS
at



Leading
Photographic
Exhibitions
all over
the
World.

Made of only the Choicest Material and the Finest Workmanship.
Unique Design. Exceedingly Light, while very Strong.
A full Stock of these Cameras is held in all sizes.

Watson's "Holostigmat" Convertible Lens,



Offers the choice of three foci, and covers at large aperture $f/6.1$ or $f/6.5$.

The Single Components form Landscape Lenses of the highest excellence and being **Cemented** give that remarkable **Brilliance** of the image which marks true Landscape Lenses. They cover the plate at $f/11$.

SIR W. DE W. ABNEY writes:—

"It is a splendid Lens, and gives definition with the Single Lenses such as I did not expect. Of course the Double Combination is very perfect."

A Stock of these Lenses and Specimens of Work done with them can be seen at 2, Easy Row, Birmingham.

Watson's Focal Plane Cameras.

THE important feature in these Cameras is that all the Slit Adjustments for regulating the Speed of the Shutter are made from the outside; there is no need therefore to remove the Dark Slide or Changing Box every time a different exposure is required.



THE ARGUS REFLEX.

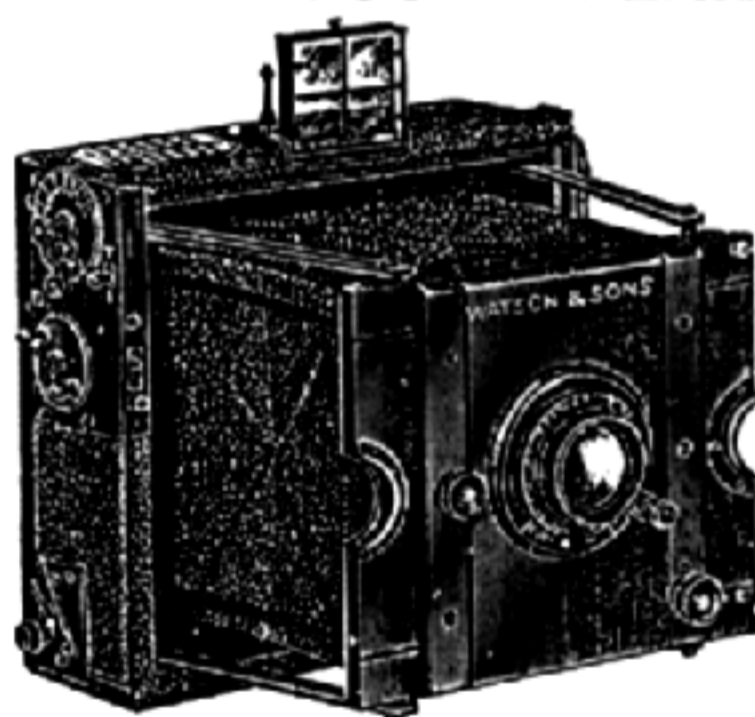
A Highest Quality Camera, at a reasonable price. Has full sized Finder on which the whole picture can be seen and focussed up to the moment of exposure.

EXCEEDINGLY COMPACT AND PORTABLE.

Immense range of Speeds from Time exposures of any duration up to instantaneous $\frac{1}{1000}$ th of a second.

WATSON'S "VRIL" FOCAL PLANE CAMERA.

Newest Pattern and the best for High Speed work, Racing, Yachting, Street Scenes, Landscape and General Photography.



EXPOSURES :
Time and Instantaneous up to $\frac{1}{250}$ th of a second.

READY IN AN INSTANT and as quickly closed.

Invaluable to every Photographer. Does away with the always leaking Ball and Tube.

Watson's Patent "Antinous" Shutter Release.

All Wire.

Cannot

Perish.



To fit all

Shutters.

The favour of an Inspection of the above is solicited at 2, Easy Row Birmingham.