WHOLESALE CATALOGUE

OF

SIMPLE AND COMPOUND MICROSCOPES,

and Microscopic Apparatus,

MANUFACTURED BY

JAMES PARKES & SON,

(PATENTEES),

No. 5, ST. MARY'S ROW, BIRMINGHAM.

JURY AWARD,

Class 13, at

INTERNATIONAL EXHIBITION, 1862:

"For economy (*combined with quality*) in the Manufacture of Microscopes and Mathematical Instruments."

LONDON:

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1862.

WHOLESALE CATALOGUE

OF

IMPROVED SIMPLE AND COMPOUND MICROSCOPES,

MANUFACTURED BY

JAMES PARKES AND SON.

J. P. and S. beg to remark that, by taking advantage of the latest improvements and discoveries in optical science, they have endeavoured to secure, in the manufacture of their Microscopes and Telescopes, the following important results :—

First-rate quality in the object-glasses, and other optical parts.

Steadiness, symmetry, and simplicity in the mechanical arrangements.

Completeness in the fittings, &c., so as to render the instrument convenient for use. And,

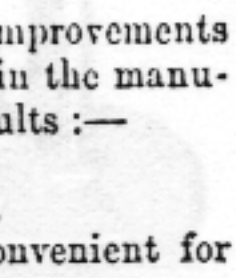
By employing machinery and other facilities in the manufacture of the stands, to produce an entire instrument of superior quality at a considerably reduced price.

They are happy to say, also, that they have succeeded in reducing very considerably the cost of Microscopic Preparations, by adopting new arrangements in the process of mounting. Attention has also been paid to the educational character of all objects intended for microscopic examination.

In order to facilitate the young beginner in commencing this interesting and important branch of study, distinct series of objects have been selected and arranged, each illustrating some particular portion of Natural History, every object composing the same being numbered and described. (See Catalogue, Classes A, B, C.)

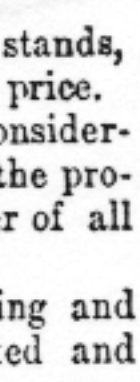
N.B. Every object is examined before being sent out, and the object-glasses of each instrument are carefully tested, so as to be warranted perfect, according to their professed quality.

Simple Microscopes.

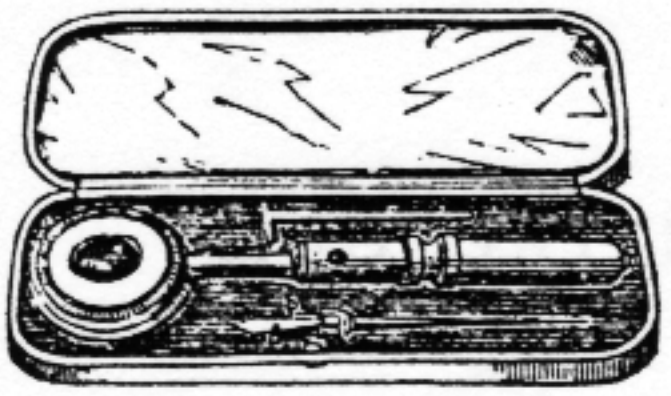


Number.

100 Simple Brass Tripod Microscope for viewing insects, flowers, &c., having two lenses with screw adjustments. Price 2*s.*

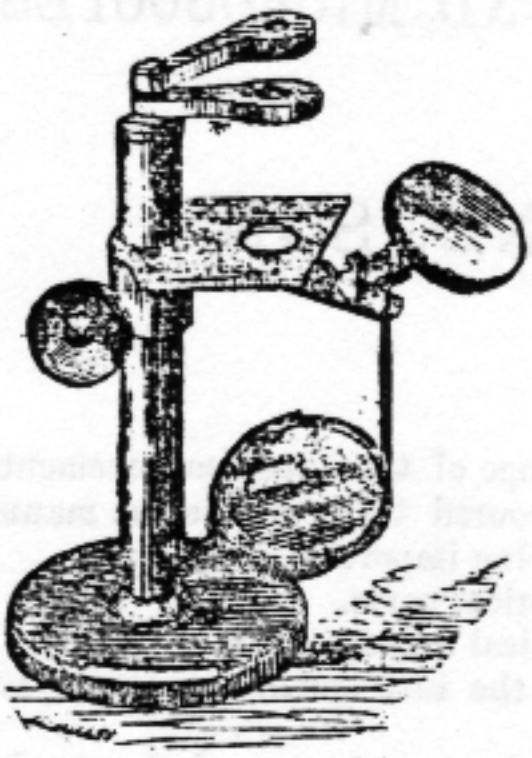


101 Portable Microscope for examining seeds, &c., in brass box, for the pocket. Small size, 1*s.* 6*d.* ; large size, 3*s.*



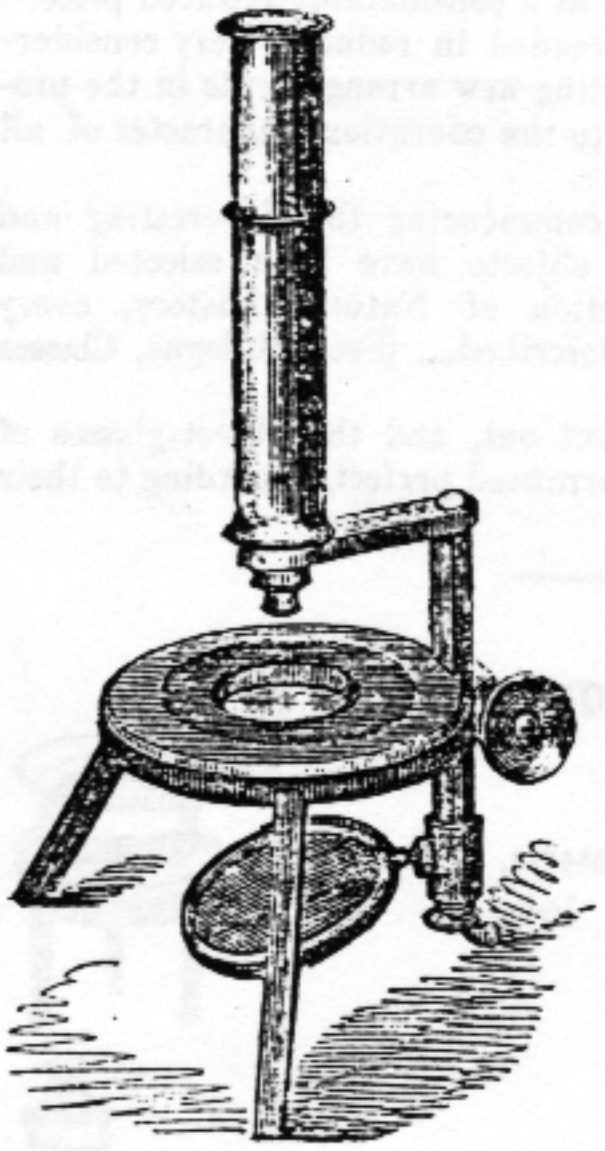
Number.

102 Botanical Microscope, in neat leather case for the pocket; consisting of Ivory-handled Microscope with two best lenses; having a sliding arm and tweezers, for holding and adjusting the object to the proper focus. Price 4*s.* 9*d.*



103 Simple Microscope for general use, and for dissecting; mounted on neat brass foot, with rack adjustment to the lenses. It is furnished with stage condensor, mirror in moveable arm, and three magnifying powers, viz., a 1½ inch, and ½ inch, which, when combined form a ¼ inch. The lenses are set permanently in two moveable brass arms, which prevents the inconvenience of screwing and unscrewing, and the danger of their being lost. It is also supplied with brass forceps, brass box for viewing live insects, animalculæ, &c., and two glass slips: the whole packed in neat leather case. Price 10*s.* 6*d.*

N.B. This instrument is recommended by the Society of Arts.



104 Improved Dissecting Microscope, designed especially as a working instrument for medical, botanical, and other dissections.

The stage consists of a circular disc of thick plate glass, 4 inches diameter, set in a brass rim, and firmly mounted on three brass legs. A large mirror, swung in a moveable arm, is placed underneath. It is furnished with a stage condensor, and with three simple powers—2 inch, 1 inch, and ½ inch; the brass arm which carries these having a rack adjustment.

Packed in a mahogany cabinet, with brass forceps and two dissecting needles. Price £1 16*s.*

104A A compound body may be added to the above (as represented in woodcut) with 1½ inch and ¼ inch achromatic objectives; rendering it a very complete, simple and compound microscope; portable and well-adapted for travelling, and for sea-side use. The whole complete in mahogany cabinet, with drawer. Price £3 10*s.*

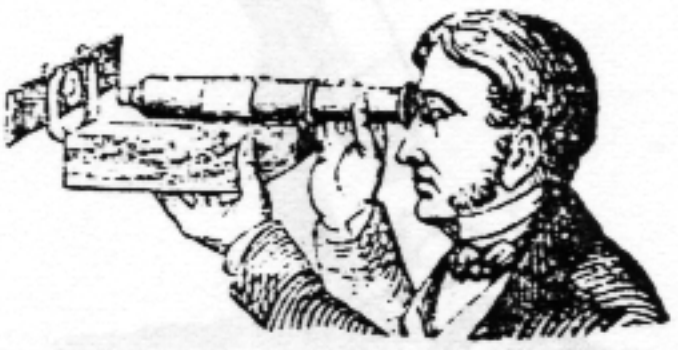
An erector may be fitted to the compound body for dissecting with high powers. Extra, 10*s.*

Number.

105 Case of dissecting instruments (suitable for the above), containing 3 best scalpels, two triangular needles for minute dissection, fine-pointed scissors, long steel forceps, glass tube, and camel-hair pencil. Price 16*s.*

Compound Microscopes.

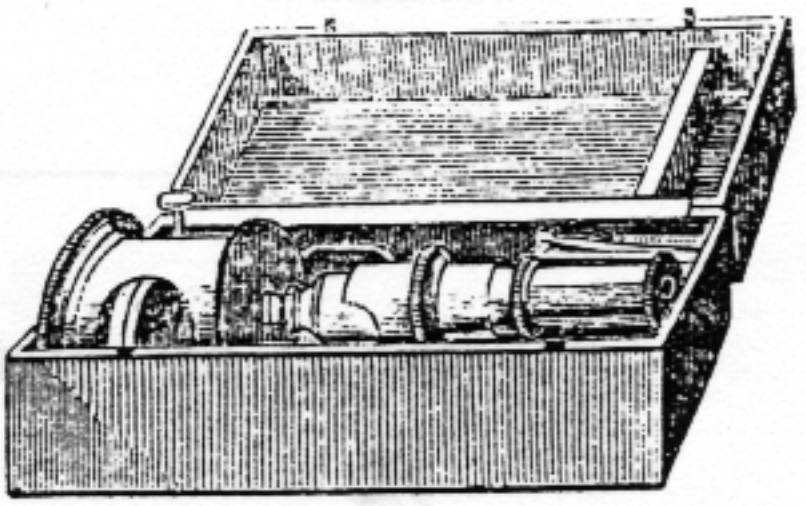
106 The Child's Portable Compound Microscope, for the parlour, garden, or sea-side. Price 4*s.* 9*d.*



This Microscope is furnished with six prepared objects, and two glass slips, with hinge for temporary mounting.

The hinged slips will be found very convenient and useful: as parts of flowers, small portions of sea-weed, the legs, wings, &c., of insects, can at any time be placed between them, and viewed with the greatest ease, without the trouble and expense of keeping a large assortment of mounted preparations.

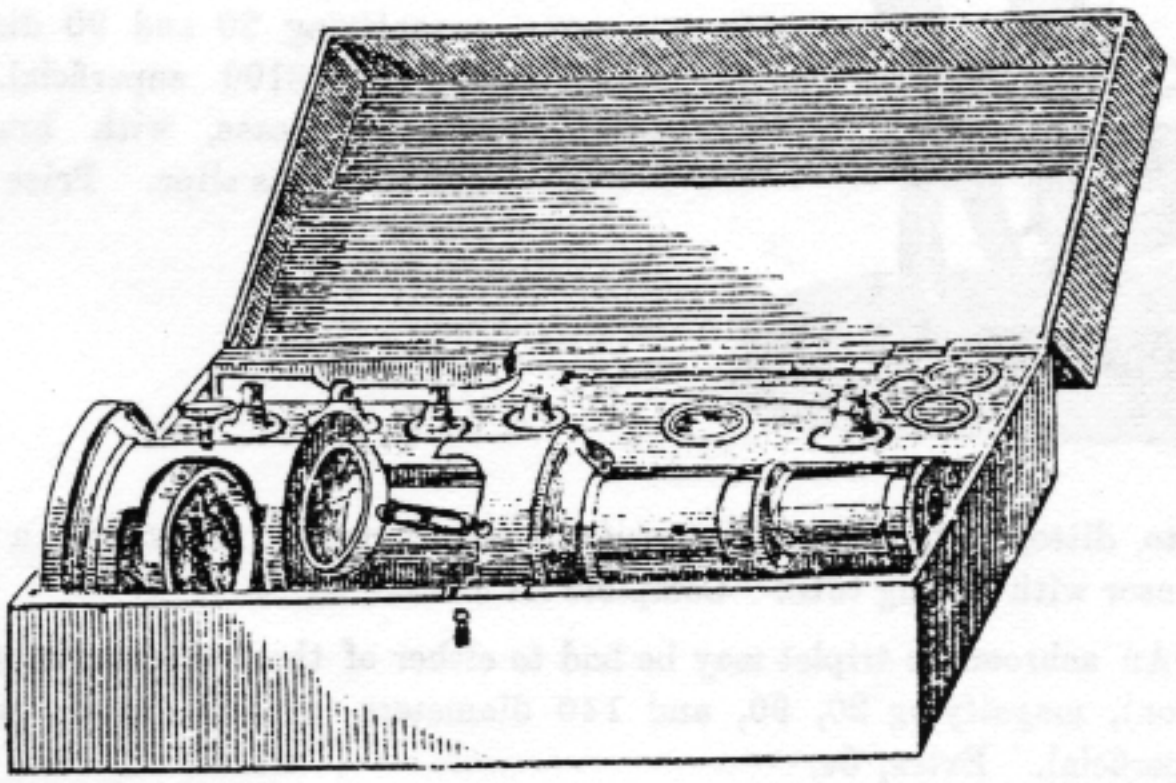
107 Brass Compound Microscope, with sliding tube, magnifying 800 times; glass slide, brass forceps, and four prepared objects, in neat leather case. Price 5*s.* 6*d.*



108 Ditto, ditto, with 3 powers, magnifying 800, 2000, and 6000 times, and brass box for viewing live insects, animalculæ, &c., in polished mahogany case. Price 9*s.* 6*d.*

109 Ditto, ditto, size larger, with stage condensor, extra. Price 14*s.* 6*d.*

110. Martin's Compound Microscope, very portable and complete (suitable for exportation), with four powers, magnifying 900, 2000, 6000, and 20,000 times.



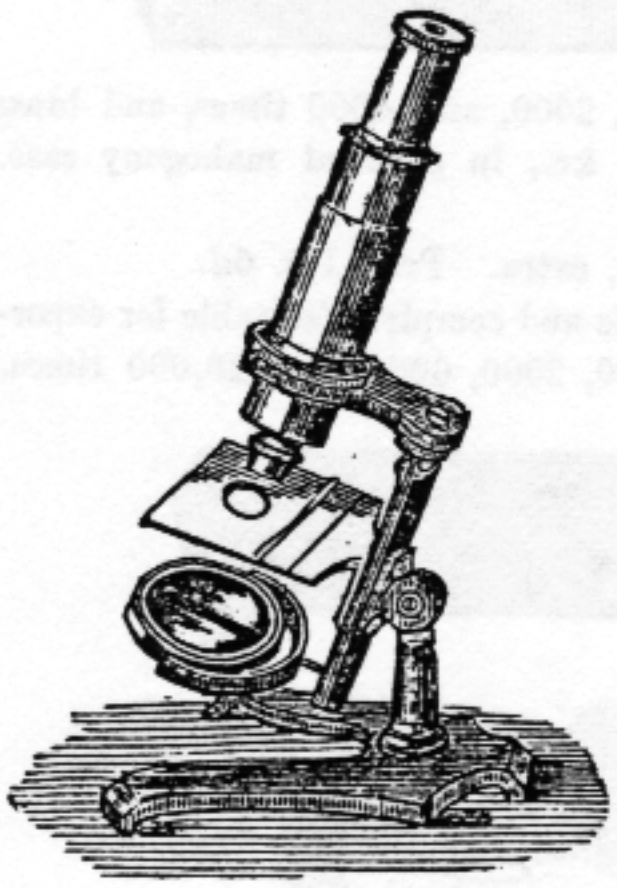
It has stage condensor, dissecting knife, needle, fine-pointed scissors, forceps, animalculæ box, two glass slides, and four prepared objects, packed in polished mahogany case, with lock. Price £1 8*s*.



Number.

111 Compound School Microscope, on firm bronzed tripod stand; concave mirror, two object-glasses, magnifying 900 and 3000 times: brass forceps, and six prepared objects: in upright polished cabinet with drawer. Price 11*s*. 6*d*.

Compound Achromatic Microscopes.



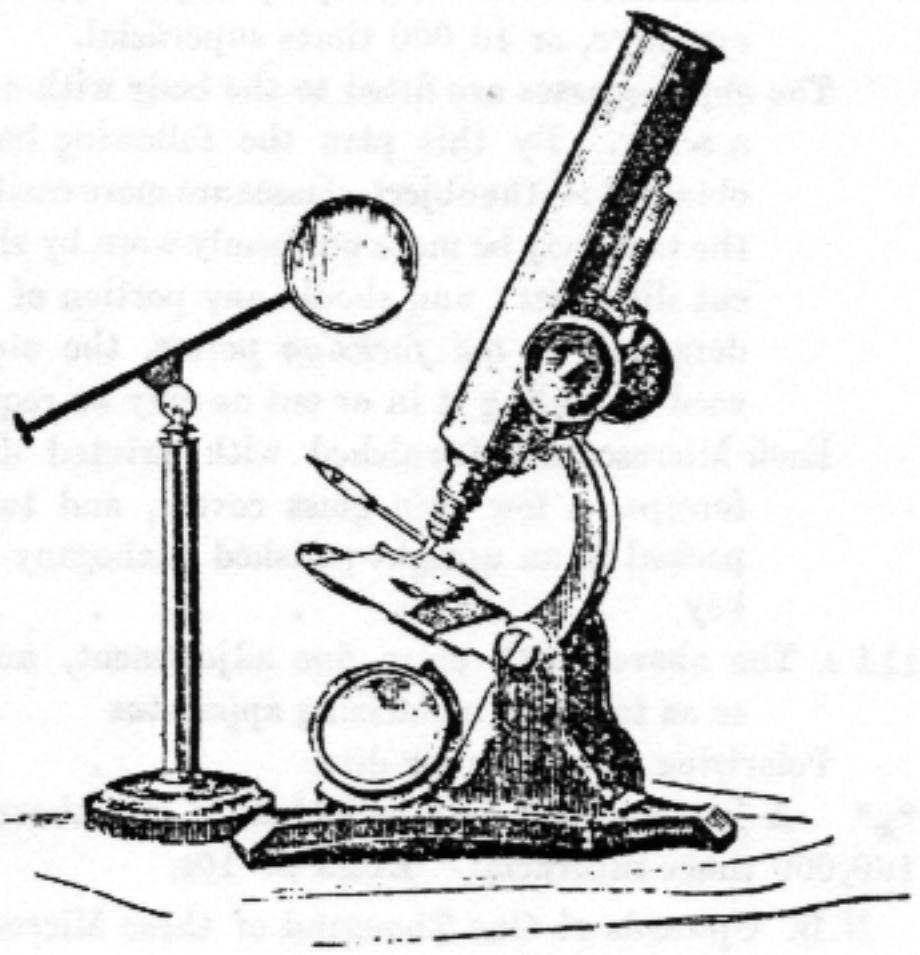
112 Improved School Microscope, having joint to incline the body to any angle; with superior achromatic combination which separates to form two powers, magnifying 20 and 90 diameters, or 400 and 8100 superficial. In neat mahogany case, with brass forceps and two glass slips. Price £1 1*s*.

112A Ditto, ditto, with rack adjustment to the compound body, and a stand condensor with sliding tube. Complete £1 10*s*.

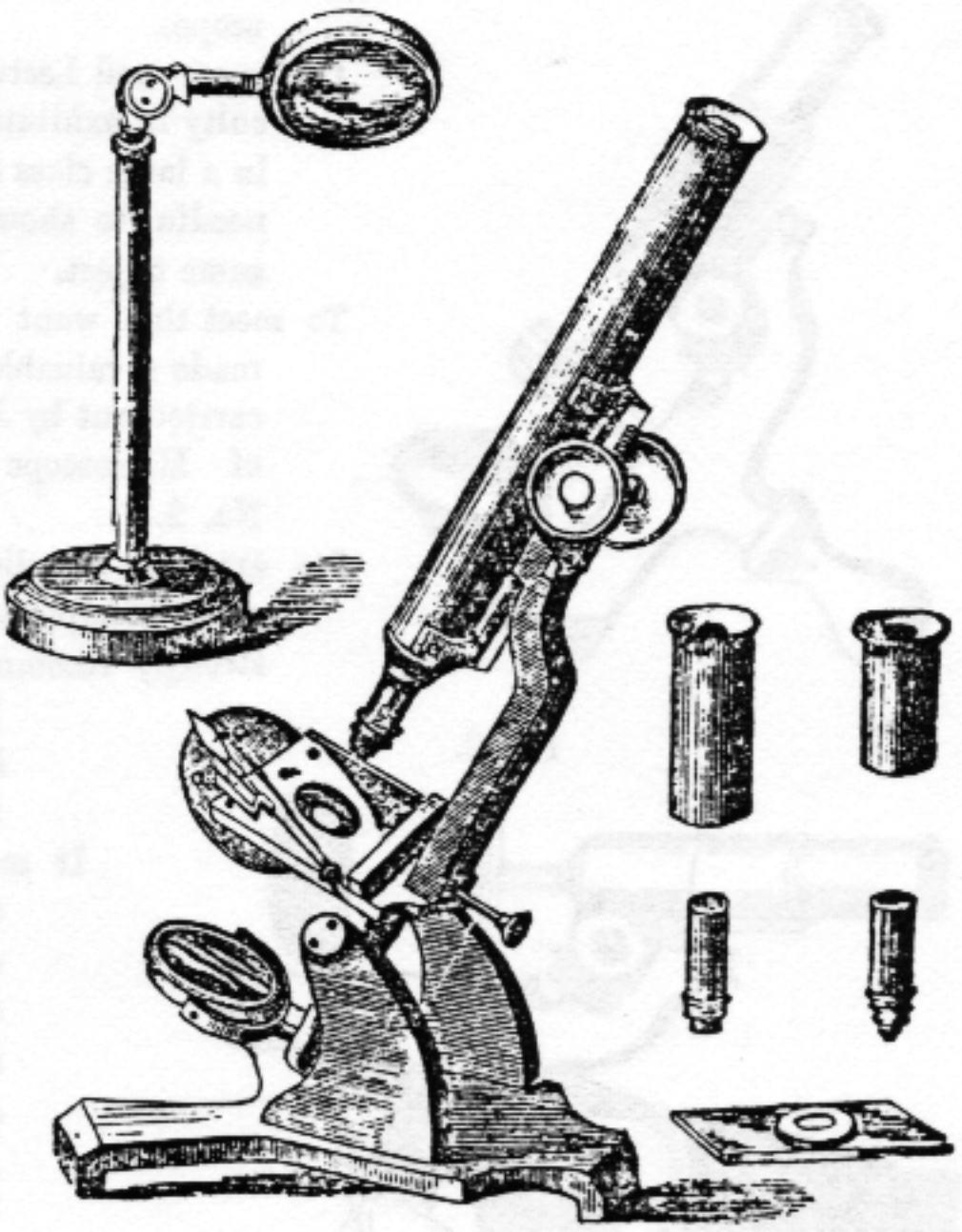
N.B.—An achromatic triplet may be had to either of these (instead of the double combination), magnifying 20, 90, and 140 diameters, or 400, 8100, and 18,000 times, superficial. Extra, 5*s*.

Number.

113 Student's first size Microscope, on steady bronzed tripod; having joint to incline the body to any angle; rack adjustment; revolving diaphragm beneath stage; corrected Huyghenian eye-piece, and achromatic combination forming 3 powers, and magnifying 25, 50, and 150 diameters, or 625, 2500, 22,500 times superficial. Stand condensor with sliding tube, brass forceps, four prepared objects, and 2 glass sides. In upright mahogany cabinet with lock. Price £2 2*s*.



114 The Student's Model Microscope,— recommended by the Society of Arts, and approved by eminent Professors in the London, Glasgow, and Edinburgh Colleges,—consists of a compound body, with rack adjustment, on firm tripod stand, with joint for inclining the body to any angle; a large stage fitted with revolving diaphragm, having various sized openin gs plane and concave mirrors; condensing lens on slidingupright stand; two Huyghenian eye-pieces, A and B, and two superior achromatic object-glasses.



No. 1 Object-glass is of large aperture, 1½ inch focus, magnifying 30 diameters with the A eye-piece, or 900 times superficial; and 40 diameters with the B eye-piece, or 1600 superficial.

No. 2 Object-glass is a triplet of ¼ inch focus, magnifying 150

Number. *Each.*

diameters with the A eye-piece, and 200 diameters with the B eye-piece, or 40,000 times superficial. £ s. d.

The object-glasses are fitted to the body with a sliding tube, instead of a screw. By this plan the following important advantages are obtained:—the object-glasses are more easily and quickly changed; the rack may be more uniformly worn by sliding them in at different distances; and should any portion of the rack be broken or deranged *at the focusing points*, the object-glass may still be used by sliding it in or out as may be required.

Each Microscope is furnished with printed directions for use, brass forceps, a few thin glass covers, and two glass slides; and is packed in an upright polished mahogany cabinet with lock and key 3 3 0

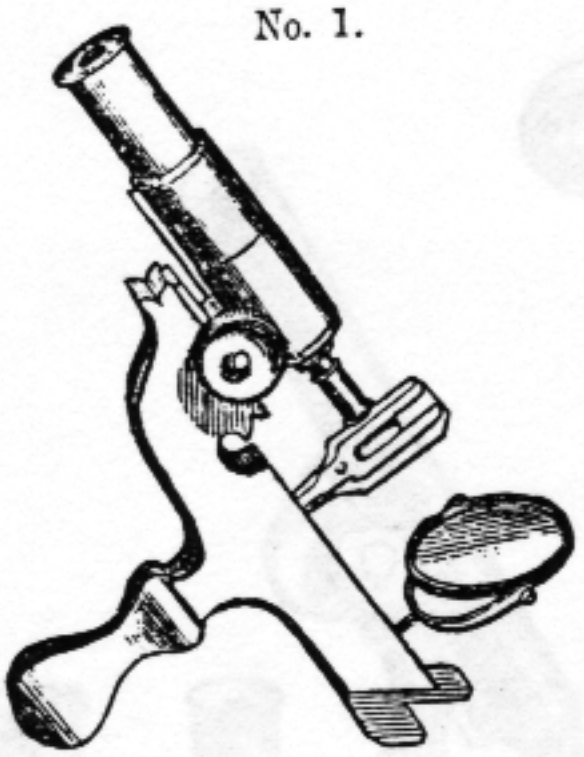
114 A The above, with extra fine adjustment, and tube in diaphragm, so as to take a polarizing apparatus 3 10 0

Polarizing apparatus for ditto 1 4 0

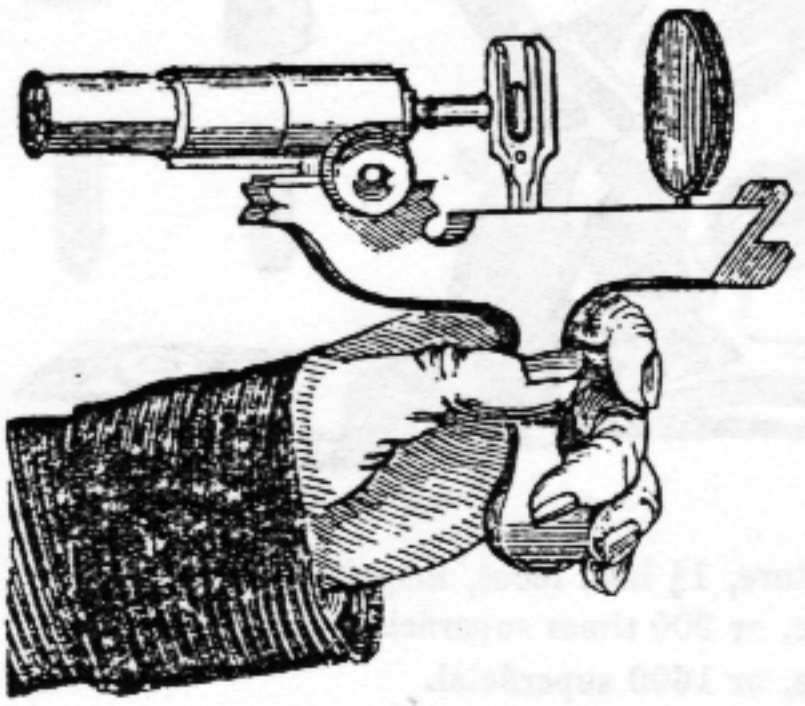
*** A $\frac{1}{6}$th objective may be added to the above; magnifying 400 diameters, or 160,000 times superficial. Extra £1 10s.

N.B. Upwards of One Thousand of these Microscopes have been sold since their introduction.

No. 1.



No. 2.



115 Improved Lecture-room and Parlour Microscope.

Professors and Lecturers have long felt a difficulty in exhibiting Microscopic preparations in a large class or lecture room, where it is needful to show a number of persons the same object.

To meet this want Professor T. C. Archer has made a valuable suggestion, which has been carried out by J. Parkes & Son, in the form of Microscope represented in Drawing No. 2.

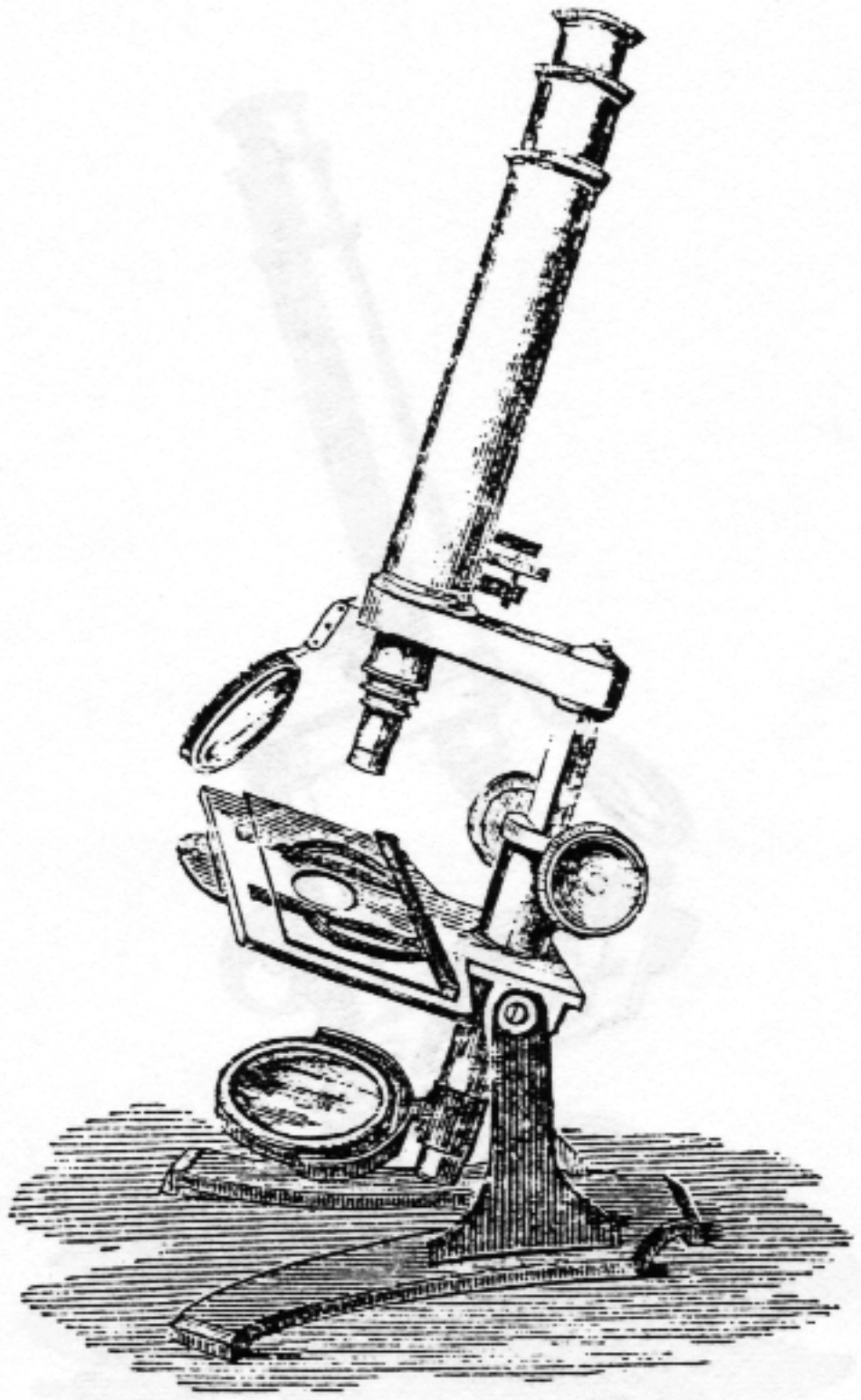
Its extreme simplicity in use, combined with great completeness and portability, will strongly recommend it, not only to the Lecturer, but to the Sea-side Student, and for amusement in large evening parties.

It may be used as an ordinary table Microscope—No. 1—or (by sliding in the condensor in place of the mirror, and *holding up the Microscope to the light*) may be passed about from hand to hand, without the necessity of parties rising from their seat.

The compound body has a rack adjustment, and is furnished with a Superior Achromatic

Number.		*Each.* £ s. d.
	Combination, which will separate, so as to form two powers; magnifying 20 and 90 diameters of 400 and 8100 superficial. The whole is packed in a neat leather case, with six best microscopic preparations, and a pair of hinged glass slides for sea-side or garden use	2 5 0
	A triple object-glass can be had instead of the double one. Extra	0 5 0

116 Improved Educational Microscope, on firm tripod stand (bronzed), with large brass stage, 4 inches diameter; *having a magnetic bar adjustment, which gives a very smooth and easy motion.*



It is furnished with elongating body tube, full size; worked by coarse rack and fine screw adjustments; two corrected Huyghenian eye-pieces; jointed arm condensor; plane and concave mirrors; and three superior achromatic objectives—2 inch, 1 inch, and ¼ inch. The first is an achromatic *combination* forming two powers—2 inch, when the outside lens is unscrewed, and 1 inch when both are combined. The 2 inch gives a magnifying power of 20 and 30 diameters respectively, with the A or B eye-piece: the 1 inch gives 60 and 80 with ditto. The ¼ inch magnifies 220 and 350 diameters. Beneath the stage is a rotating diaphragm, having various sized apertures. The opening in the stage (which is central with the axis of the body) is screwed to the new microscopic standard: so that a polarizing apparatus, spotted lens, or achromatic condensor, may at any time be added, without sending back the instrument for fitting.

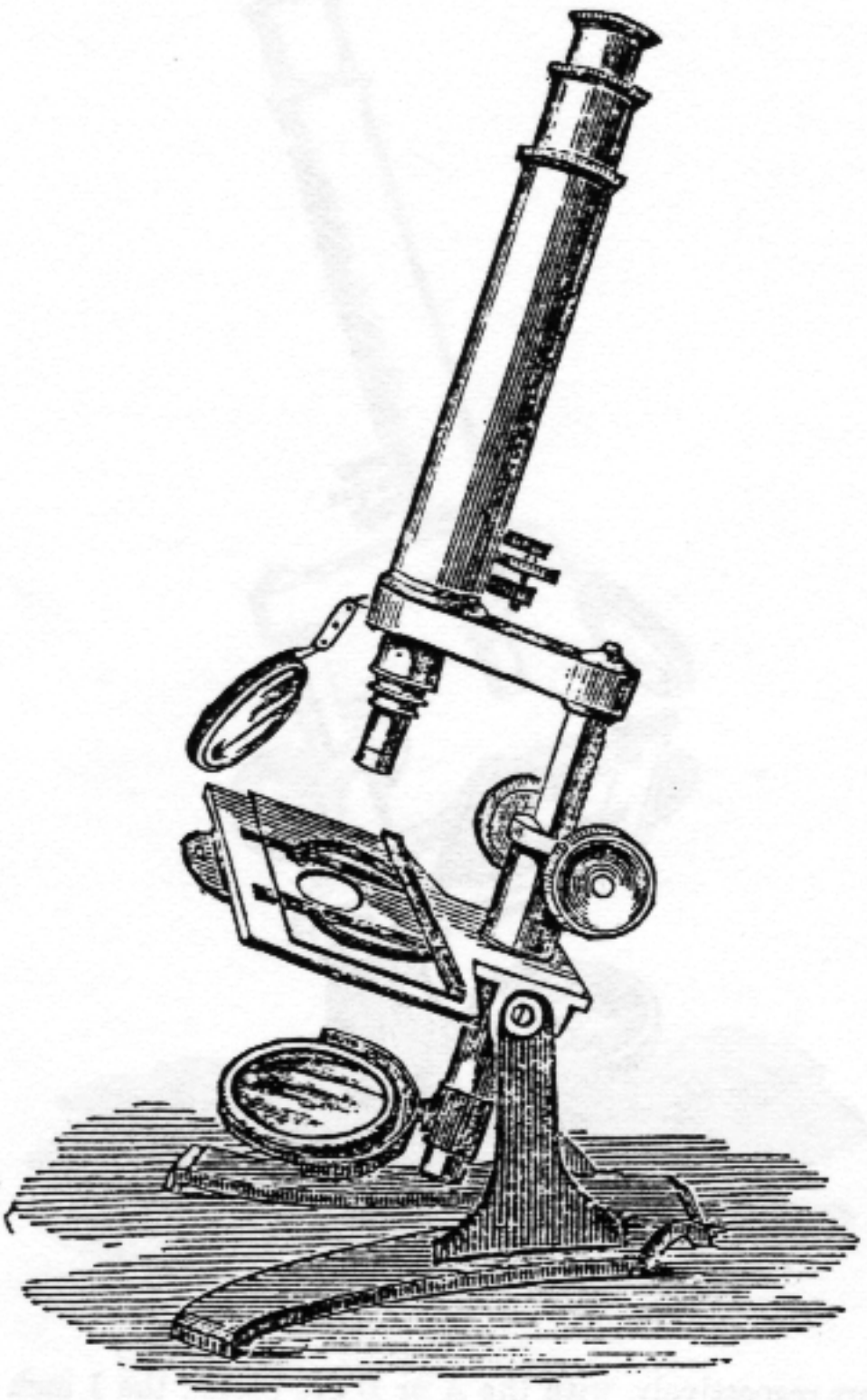
The whole packed in a portable mahogany lock-up cabinet, with brass forceps, box of thin glass covers, and six glass slides. Price £5 5s.

N.B.—The brass work and mechanical parts of this instrument are finished in a superior style; and the whole has been arranged, so as to form a really effective and convenient working instrument.

*** This microscope has just attracted the special attention, and received the special commendation, of the Jury, Class 13, at the International Exhibition.

Number.		£	*s.*	*d.*
117	The same Microscope, but fitted with mechanical stage, worked by rack and screw adjustments, instead of the magnetic stage . .	7	10	0
	Polarizing apparatus for Nos. 116 or 117.	1	7	0
	Achromatic condensor ,, ,, ...	1	0	0
	Spotted lens ,, ,, ...	0	7	0

*** A *First-class* ¼ inch objective, of 85° aperture, with adjustment, may be fitted to the above, instead of the usual ¼ inch, at 30*s.* extra.

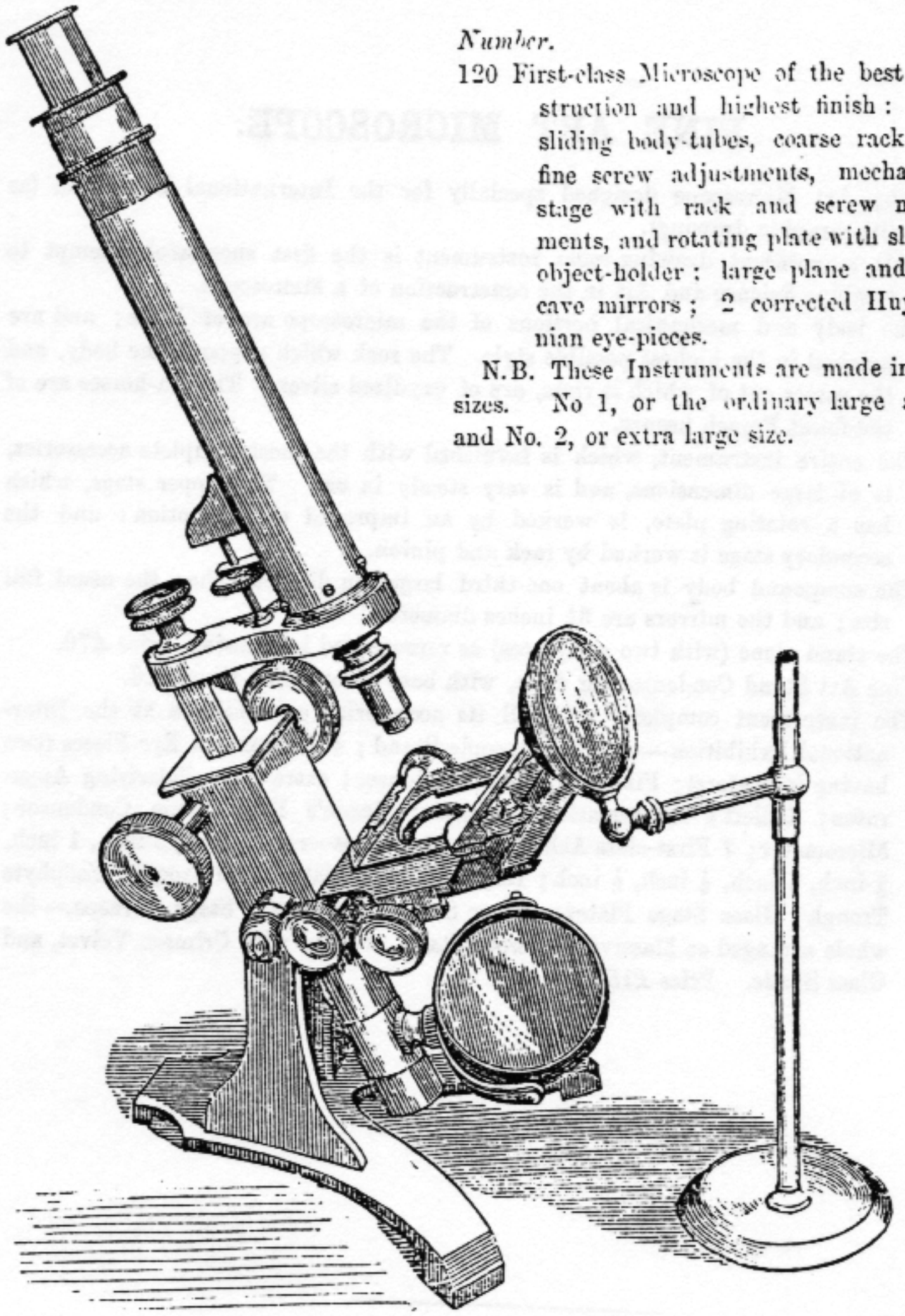


118 Elegant drawing-room Microscope (the foot and body entirely of brass, highly finished) with magnetic stage; 2 corrected Huyghenian eyepieces; 2 inch, 1 inch (combination), and ½ inch of 70° aperture objectives; stand condensor on brass foot, with sliding arm: packed in a superior mahogany cabinet, with drawer: fitted with brass forceps, dissecting needles, animalculæ box, and glass slides. Price £7_10*s.*

119 Ditto, ditto, with mechanical stage, having ¾ inch motion in all directions; rotating plate on stage, with sliding object-holder in superior cabinet with rack drawer. Price £10 10s.

Binocular Microscopes.

A Binocular Compound Body with sliding tubes, and 2 Huyghenian eye-pieces can be added to either Nos. 116, 117, 118, and 119, at £5 10*s.* extra.
Ditto, ditto, to Nos. 120, 121, 122, 123, at £8 10*s.* extra.



Number.

120 First-class Microscope of the best construction and highest finish: with sliding body-tubes, coarse rack and fine screw adjustments, mechanical stage with rack and screw movements, and rotating plate with sliding object-holder: large plane and concave mirrors; 2 corrected Huyghenian eye-pieces.

N.B. These Instruments are made in two sizes. No 1, or the ordinary large size; and No. 2, or extra large size.

Price of No. 1 stand only, with two eye-pieces, but without objectives, or cabinet, £12.*

121 Ditto, ditto, ditto, with an improved *secondary* stage, with vertical and rotating rack motions for receiving an achromatic condensor, polarizing apparatus, Reid's Kettledrum Condensor, &c., &c. Price for the stand complete £14 10*s.*

122 No. 2 stand (or extra large size) as described, 120. Price £16.

123 No. 2 stand with improved *secondary* stage. Price £19.

* The prices for objectives or cabinet, and any accessary apparatus that may be desired, will be found at pages 13 to 16.

FINE ART MICROSCOPE.

124 Fine Art Microscope designed specially for the International Exhibition (as lithographic drawing).

This magnificent drawing-room instrument is the first successful attempt to combine Science and Art in the construction of a Microscope.

The body and mechanical portions of the microscope are of brass; and are finished in the highest possible style. The rock which supports the body, and the waves out of which it rises, are of oxydized silver. The sea-horses are of the finest French bronze.

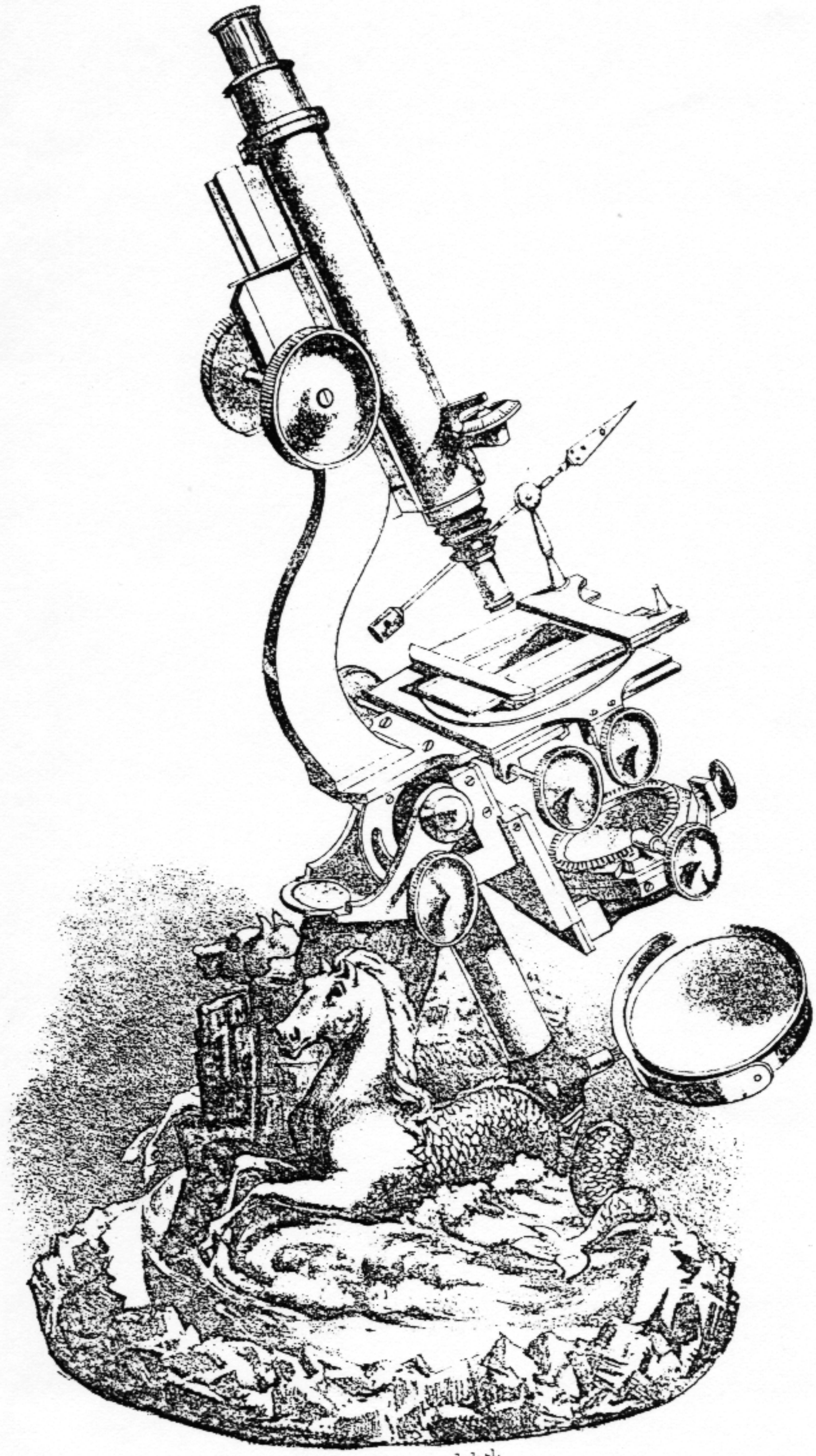
The entire instrument, which is furnished with the most complete accessories, is of large dimensions, and is very steady in use. The upper stage, which has a rotating plate, is worked by an improved chain motion: and the secondary stage is worked by rack and pinion.

The compound body is about one-third larger in diameter than the usual full size; and the mirrors are 3¼ inches diameter.

The stand alone (with two eye-pieces) as represented in drawing, price £70.

Fine Art Stand Condensor for ditto, with base of oxydized silver, £8.

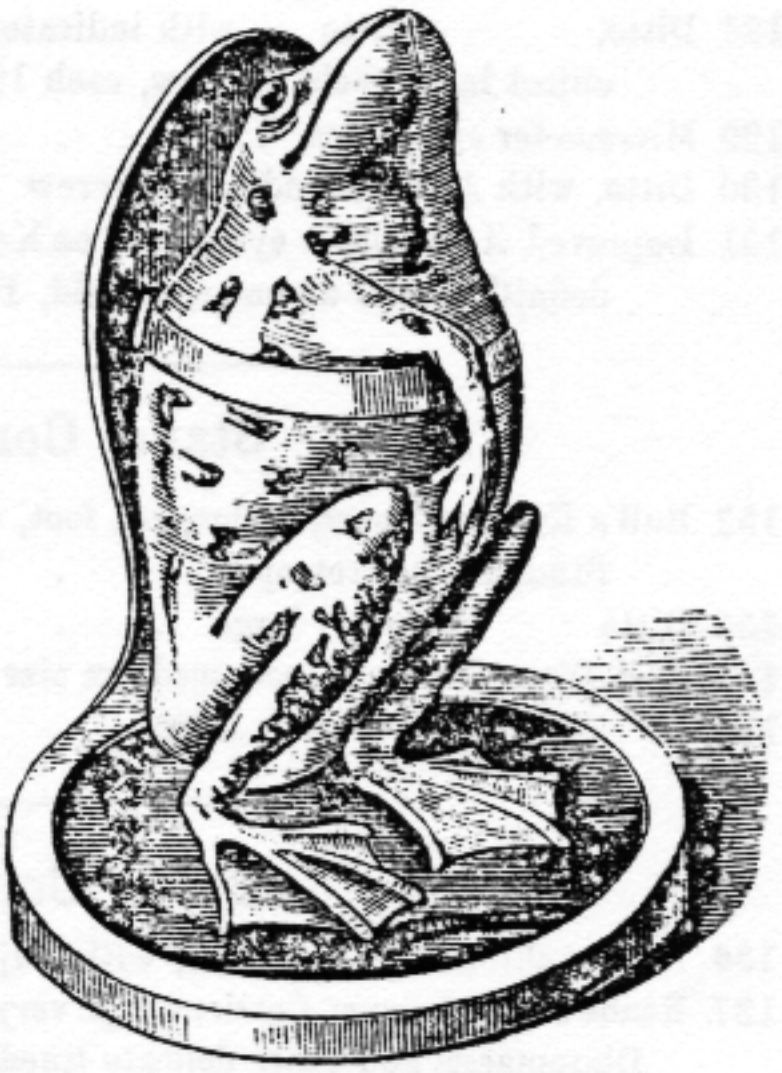
The instrument complete, with all its accessories as exhibited at the International Exhibition—viz., Microscopic Stand; 4 Achromatic Eye-Pieces (two having indicators); Fine Art Stand Condensor; extra large Polarizing Apparatus; Gillett's Achromatic Condensor; Reade's Kettle-drum Condensor; Micrometer; 7 First-class Achromatic Objectives—viz., 3 inch, 2 inch, 1 inch, ⅔ inch, ½ inch, ¼ inch, ⅛ inch; Improved Frog Plate; Fish Trough; Zoöphyte Trough; Glass Stage Plates; Silver Side Illuminator; Stage Forceps:—the whole arranged on Massive Rosewood Stand, covered with Crimson Velvet, and Glass Shade. Price £150.



T Underwood lith

FINE + ART + EXHIBITION + MICROSCOPE

Apparatus for the Microscope.



INSTEAD of the ordinary method of examining the circulation of the blood in the frog's foot, which is attended with considerable inconvenience and with some degree of cruelty to the animal, the following plan is recommended, as being free from these objections:—

Put the frog into an empty wide-mouthed bottle (say a pickle jar), cover the cork with a piece of linen rag, on which pour a little sulphuric ether, and then insert the cork immediately, and lay the bottle on its side. In a few minutes* the animal will be sufficiently etherized (without affecting the circulation), and may then be placed on the Improved Frog Plate, in the erect position, with its feet on the circular glass (as represented in the drawing), a little soft tape being placed — *not too tightly* — around the body, to keep it erect. The web of the foot may now be moistened with a little cold water, which should be renewed occasionally, and the plate may be laid on the stage of microscope for examination.

A good 1 inch or ⅔ inch objective is quite sufficient to exhibit this marvellously beautiful and instructive process. When higher magnifying powers are used, it is necessary to lay a slip of thin glass over the web, so as to prevent the moisture arising therefrom condensing upon the object-glass.

If sufficiently etherized, the creature will remain perfectly quiet for half an hour, and both feet may be examined alternately by this arrangement. The toes should be spread out so as to stretch the web.

No pain is inflicted on the animal by this method, which may be repeated many times on the same frog if carefully managed. After each examination, the creature should be put into a vessel with a little cold water, when it soon recovers consciousness.

Number.	PRICES OF IMPROVED FROG-PLATE.			
125	Small size for Student's Microscope	each	0	7 6
126	Large ditto ditto ditto	each	0	10 0

* We may always know when a frog is fully under the influence of the ether, by turning him on his back, before taking him out of the bottle—he will never remain quietly in this position unless when etherized.

Eye Pieces.

Number.		£	*s.*	*d.*
127	Extra Huyghenian eye-pieces of superior make, A, B, C, D, price 10*s.* and 14*s.* each.			
128	Ditto, ditto with indicator, for pointing to any special object in the field of view, each 12*s.* and 16*s.*			
129	Micrometer eye-pieces . . . . . each	0	15	0
130	Ditto, with Jackson's adjusting screw	0	18	0
131	Improved *Achromatic* eye-pieces, on Kelner's principle, giving splendid definition, and an enlarged field, B, C, D, 20*s.* and 25*s.* each.			

Stand Condensors.

132	Bull's Eye Condensor, on bronzed foot, with joint and sliding tubes, for Student's Microscopes . . . . . each	0	5	0
133	Ditto ditto large	0	9	0
134	Best Ditto, on brass foot, medium size	0	12	0
135	ditto ditto large . . . . . each	1	0	0

Stage Condensors.

136	Plain Achromatic Condensor, with adjusting tube, each 18*s.* and 25*s.*			
137	Reade's Kettledrum Condensor (a very effective mode of illuminating Diatomaceæ and other delicate lined objects . . . each	1	15	0

*** To apply this, it is necessary that the opening in the stage of Microscope should be large—say 2 inches diameter.

138	Gillett's Achromatic Condensor, complete with diaphragm stops, each	5	0	0
139	Spotted Lens, with adjusting tube, for dark ground illumination, small size, 7*s.* each. Large size, 10*s.* each.			
140	Wenham's Parabolic Reflector . . . . . each	1	10	0

Polarizing Apparatus.

141	Polarizing Apparatus, suitable for Microscope, No. 114A . . .	1	4	0
142	Ditto ditto for Nos. 116 to 119	1	7	0
143	Ditto ditto largest size	1	15	0
144	Darker's series of three Rotating Selenites	2	15	0
145	Selenite slides, various colours, mounted on glass slips, 1 by 3 inches, ea	0	1	6
146	Hand Polariscope with Magnifier attached, and twelve prepared slides in neat leather case ; to illustrate the polarization of light .	2	5	0
147	Large Polarizing apparatus, with six prepared crystals, in case, price	2	15	0

Achromatic Object-Glasses, for Microscopes.

Superior French or German Achromatic Object-Glasses, with adapter and brass box engraved.

Number.		£	*s.*	*d.*
148	2 inch	0	10	0
149	1 inch	0	15	0
150	½ inch	0	17	0
151	¼ inch, triple combination	1	0	0
152	⅙ ditto	1	10	0
153	⅛ inch . . .	2	0	0

Superior English-made Achromatic Objectives.

Number.		*Angular Aperture.*	£.	*s.*	*d.*
154	2 inch	13°	1	4	0
55	1 inch	17°	1	7	0
156	½ inch	40°	1	10	0
157	¼ inch	65°	1	15	0
158	¼ inch, with adjustment, very superior	75°	2	10	0

First-class English-made Achromatic Objectives.

Number.		*Angular Aperture.*	£	*s.*	*d.*
159	*First class, 3 inch	12°	2	0	0
160	* ,, 2 inch	18°	2	0	0
161	* ,, 1 inch	25°	2	0	0
162	* ,, ⅔ inch	30° to 35°	2	10	0
163	* ,, ½ inch, with adjustment	70°	3	10	0
164	* ,, ¼ inch, ditto	85° to 90°	3	3	0
165	* ,, ⅛ inch, ditto	120° to 130°	6	0	0

* These are all made with the New Standard Screw of the London Microscopic Society.

N.B.—J. P. and S. have lately made great improvements in the quality of their Object Glasses, especially those of large angular aperture, marked *, which, for defining and penetrating power, cannot be surpassed. These objectives have been repeatedly tested at various Microscopic Societies against those produced by other makers; and decision has been given in their favour.

MAGNIFYING POWERS OF THE ABOVE.

Object-Glasses.	Magnifying Powers with various Eye pieces.					
	A.		B.		C.	
	Diameters.	Superficial.	Diameters.	Superficial.	Diameters.	Superficial.
2 inch	20 or	400	30 or	900	40 or	1,600
1 inch	60 or	3,600	80 or	6,400	100 or	10,000
½ inch	110 or	12,100	160 or	25,600	250 or	62,500
¼ inch	220 or	48,000	350 or	122,500	500 or	250,000
⅛ inch	420 or	176,400	670 or	448,900	900 or	810,000

Improved Amplifier for the Microscope and Telescope.

THE use of *deep eye-pieces* with the Microscope and Telescope, in order to obtain increased magnifying power, has been long felt a serious objection, as great distortion is produced in the image of the magnified object by *spherical aberration*, arising from the deep curves of the eye-piece lenses.

In order to obviate this objection, J. P. and Son have arranged an achromatic lens of peculiar combination, by the insertion of which between the eye-piece and the object-glass of either a Microscope or Telescope, *an increase of magnifying power* is obtained *with the low eye-piece*, without any distortion of the image. This "*amplification*" may be increased or diminished to almost any extent, in proportion as the "Amplifier" is drawn *away from*, or brought *near to*, the eye-piece. It may be adapted to any Microscope by having a sliding eye-tube fitted to the compound body —should it not already have one—and to any Astronomical Telescope, by slightly increasing the length of the ordinary eye-tube.

When used for a Microscope—the Amplifier is made to fit into the lower end of the sliding tube which carries the eye-piece. This eye-piece tube is then drawn out or pushed in, according to the power required—the former giving the maximum, and the latter the minimum power.

Number.				£	*s.*	*d.*
166	Amplifier for Microscope, large size.			0	12	0
167	Ditto ditto small size			0	8	0

N.B.—If any extra tube be required for any Microscope that is not already furnished with a draw tube, there will be an additional charge, according to size.

Microscopic Apparatus.

Number.			£	*s.*	*d.*
168	Camera Lucida, at 12*s.* and 18*s.* each				
169	Stage Micrometer, at 2*s.* and 4*s.* each.				
170	Animalculæ Cage, small	each	0	2	0
171	ditto medium	,,	0	4	0
172	ditto large	,,	0	6	0
173	Set of Animalculæ tubes, in leather case		0	4	0
174	Brass Forceps, at 6*d.*, 1*s.*, 2*s.* each.				
175	Steel ditto, 2*s.* and 3*s.* each.				
176	Glass Zoöphyte Troughs, at 5*s.* 6*d.* and 7*s.* each				
177	Improved Fish Troughs	each	0	7	0
178	Glass Stage Plates, at 10*d.* and 1*s.* 3*d.* each				
179	Dissecting Scissors, with fine points, at 2*s.* and 3*s.* each.				
180	ditto with curved points		0	3	6
181	Dissecting Knives, 1*s.* 6*d.* and 2*s.* 6*d.* each.				
182	Dissecting Needles in ivory handles	each	0	0	6
183	Improved triangular ditto, for minute dissection		0	1	3
184	Set of Dissecting Instruments for the Microscope, in neat leather case at 10*s.* and 15*s.* each				
185	Set of Re-agents for Microscopic Examination, in neat leather case,	each	0	18	0
186	Larger set of ditto		1	10	0
187	Revolving disc on mahogany stand for mounting objects . . .		0	6	0
188	Improved Machine for cutting wood sections, &c.		0	18	0
189	Glass Slides 3 by 1 (best flatted crown) with unground edges,	per gross	0	2	0
190	Ditto ditto with ground edges .	,,	0	6	6
191	Best Patent Plate ditto, ground edges	,,	0	12	0
192	Glass Slides, with concave cell	per dozen	0	1	6
193	Ditto with glass cell	,,	0	2	6
194	Ditto, with black solid cell for mounting opaque objects	,,	0	2	6
195	Thin Glass Covers (squares)	per oz.	0	3	6
196	Ditto (circles)	,,	0	5	0
197	Pure Glycerine, in bottles	per bottle	0	1	0
198	Canada Balsam, ditto	,,	0	1	0
199	Prepared Gold Size, or Asphalte		0	0	9

200	Superior Microscopic Lamp, with shade on sliding upright .	each	0	14	0

Number.		£	*s.*	*d.*
201	Best Mahogany Cabinet, with drawer and fittings, suitable for No. 120 or 121 microscopes . . . . . each	1	10	0
202	Ditto ditto for 122 and 123 . . . . each	2	15	0

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203 Optical Prisms, for amusement or scientific research, 10*s.* to 30*s.* per dozen.

Cases and Cabinets for Microscopic Preparations.

		£	*s.*	*d.*
204	Strong Pasteboard Boxes (neatly covered), with wood racks, to hold 1 dozen slides . . . . . per dozen	0	4	0
205	Ditto ditto to hold 2 dozen . . . ,,	0	6	0
206	Neat Stained Wood Case, with racks for holding 2 dozen slides, per dozen	0	10	0
207	Polished Mahogany ditto, to hold 2 dozen . . . . each	0	1	6
208	Ditto ditto ,, 4 dozen . . . . ,,	0	2	0
209	Ditto lock ,, 6 dozen . . . . ,,	0	6	0
210	Upright Polished Mahogany Cabinet, with lock and 9 drawers, to hold 100 slides flat . . . . . each	1	1	0
211	Ditto ditto 13 drawers, to hold 200 . . ,,	1	10	0
212	Ditto ditto 20 ,, ,, 300 . . ,,	2	5	0
213	Very superior ditto, in best Spanish Mahogany, with glass door, and porcelain labels on drawers, to hold 300 slides . . . each	4	5	0
214	Ditto ditto ,, 500 slides . . . ,,	5	10	0

Larger Cabinets to order.

Microscopic Preparations.

		£	*s.*	*d.*
215	Neatly mounted objects, for beginners, on slides $\frac{5}{8}$ by 2 inches, assorted insect, vegetable, and other preparations . . per dozen	0	1	0
216	Superior ditto, same size, mounted in Canada Balsam . ,,	0	3	0
217	Superior Preparations on slides, 3 by 1 inch, in great variety ,,	0	3	6
218	Best Preparations, mounted in balsam or fluid, including recent and fossil infusoria; spicules of sponges, and gorgonias; blood discs; insect dissections; parasites; vegetable preparations, viz.,—mosses, algæ, fungi, wood sections, spiral and other vessels, cuticles, petals, &c. . . . . per dozen	0	8	0
218A	Selected Diatomaceæ; new or interesting forms . . ,,	0	14	0
219	Crystalline, and other preparations, for the Polariscope, mounted in balsam . . . . . per dozen	0	8	0
220	Hard Sections of Rock, Coal, Bone, Teeth, &c., &c. . ,,	0	18	0
221	Insect, Vegetable, and other preparations for exhibition with the Oxyhydrogen Lantern in large circles, mounted in mahogany slides, per dozen	1	4	0

Number.		£	*s.*	*d.*
222	Anatomical Injected and Tinted Preparations, Human and Comparative, done in a superior style; in great variety; including gill of fish; lung, skin, and intestines of reptiles; lung, gizzard, and intestine of birds; lung, stomach, large and small intestines, liver, kidney, skin, tongue, &c., &c., of mammals . per dozen	0	18	0
223	Section of Human Kidney, injected, 2 colours . . ,,	1	1	0
223A	Ditto ditto Liver, ditto 3 colours . . ,,	1	1	0
224	Microscopic Photographs, in great variety . . . ,,	0	12	0
225	Ditto ditto very superior (selected) . . ,,	0	16	0

Educational Series.

The following preparations have been selected and arranged with special reference to their *Educational* character. Some of them have received the approval and recommendation of the Council of the Society of Arts.

Number.		£	*s.*	*d.*
226	Set of 50 Preparations (as No. 215) for beginners, in a box, per set	0	4	3
227	Set of 24 superior ditto in a mahogany rack-case, as No. 216, 1st series	0	6	0
228	Ditto ditto ditto 2nd series .	0	6	0
229	"Class A" is an introductory set, consisting of 24 Preparations of various kinds, neatly fitted in a leather case, accompanied by a descriptive Essay, entitled "Microscopic Revelations" . . .	0	10	0
230	"Class B" consists of 24 Insect Preparations, in a leather case, accompanied by a popular description of the structure of insects; forming a practical introduction to the study of Entomology . .	0	15	0
231	"Class C" contains an interesting and valuable series of 35 Vegetable Preparations, in a leather case; illustrating the microscopic structure of plants: each object being numbered and described, so as to form a practical introduction to the study of Botany . .	1	0	0
232	Set of Wood Sections:—12 slides in a case, each slide containing 2 or 3 sections, cut horizontally, tangentally and vertically, illustrative of the structure of Endogenous and Exogenous Woods. per set	0	12	0
233	Set of 12 Physiological Preparations in a neat case, for medical students: consisting of V section of human skin (injected); section of human skin, showing spiral ducts; air cells of human lung (transparent); section of human lung (injected); small intestine (injected); large intestine (injected); kidney (injected, 2 colours); liver (3 colours); H section of spinal cord (tinted); V section of spinal cord (tinted); striated muscular fibre; blood discs. Per set	1	0	0
234	Set of 24 ditto, including the above, with the following additional:—section of human bone; section of tooth; human spermatozoa; human lung tubercular (injected); section of pons varolii (tinted); section of stomach (injected); tongue of monkey, showing papillæ and muscular fibre (tinted); section of monkey's hand, showing sudoriparous glands, &c. (injected, transparent); gill of eel (injected); lung of frog (injected); lung of bird (injected); itch insect (Sarcoptes Scabiei) . . . . . per set	1	18	0
235	Set of 12 tinted Nerve Preparations, Human and Comparative; consisting of H and V sections of spinal cord; medulla oblongata; and pons varolii; in a neat case . . . . per set	1	0	0

Norman's Microscopic Preparations.

J. Parkes and Son have consented to act as agents for the wholesale supply of Mr. Norman's Microscopic Preparations at his own prices, as follow :—

Number.		£	*s.*	*d.*
236	Recent and Fossil Diatomaceæ, from various parts of the world, in great variety . . . . . per dozen	0	12	0
237	Vegetable Preparations:—desmidiæ, algæ, roots, stems, leaves, petals, cells, cuticles, ducts, fibres, membranes, hairs, spores, and other portions of plants . . . . . per dozen	0	12	0
238	Insect Preparations :—antennæ, eyes, tongues, tracheæ, feet, skins, hairs, scales, spiracles, stings, stomachs, wings, &c. . per dozen	0	12	0
239	Perfect insects, mounted entire . . . . . ,,	0	18	0
240	Spicules of Sponge, Gorgoniæ, &c. . . . . ,,	0	12	0
241	Sections of Shells, Fossils, Agate, Flints, Granite, &c., &c. . .	0	18	0
242	Anatomical and Pathological Preparations :—urinary deposits, &c. per dozen	0	18	0
243	Set of 24 Fossil Diatomaceæ . . . . . per set	0	15	0
244	,, 12 ditto . . . . . ,,	0	9	0
245	,, 12 Spicules of Gorgonia . . . . . ,,	0	9	0
246	,, 12 Spicules and Gemmules of Sponge . . . ,,	0	9	0

Hand and Pocket Magnifiers, in Horn and Shell.

Pocket Magnifier, 1 lens per dozen 8*s.* 10*s.* 13*s.*
horn mounting. 1st size 2nd size 3rd size
247 248 249



Ditto ditto per dozen 16*s.*
250



per dozen 14*s.* 16*s.*
Pocket Magnifier (pattern of No. 247), 2 glasses. 1st size 2nd size
251. 252.



20*s.* 25*s.*
Pocket Magnifier, 2 glasses. 1st size 2nd size
253. 254.



per dozen 25*s.* 27*s.* 32*s.*
Pocket Magnifier, 3 glasses 1st size 2nd size 3rd size
255. 256. 257.

Small Magnifier, (pattern of No. 253) in tortoiseshell mounting, two lenses, No. 258, 48*s.* per dozen.



Small Pocket Magnifier, in tortoiseshell mounting, with four lenses, forming 1, $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$ inch powers, No. 259, 7*s.* 6*d.* each.

Large Hand Magnifiers in Horn Mounts, for viewing Photographs or Pictures.

Per dozen	14*s.*	16*s.* 6*d.*	20*s.*	23*s.*	33*s.*	50*s.*	60*s.*	93*s.*
	1¼.	1½.	1¾.	2.	2½.	3.	3½.	4. in. diameter
No.	260.	261.	262.	263.	264.	265.	266.	267.

Number.		£	*s.*	*d.*
268	Horn Watchmakers' Eye Glasses . . . . . per dozen	0	8	0

269	Stanhope Lens, ivory or electrum mounts, in neat leather case. per dozen	1	14	0
70	Ditto in gilt folding mount . . . . . ,,	1	16	0
271	Ditto in silver folding mount . . . . . ,,	3	12	0
272	Coddington Lens, in folding tortoiseshell mount . . . each	0	6	6

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