

WHOLESALE CATALOGUE

OF

OPTICAL, MATHEMATICAL,

AND

PHILOSOPHICAL INSTRUMENTS,

MANUFACTURED BY

JAMES PARKES & SON,

(PATENTEES,)

**INSTRUMENT MAKERS TO THE BOARD OF TRADE, AND GOVERNMENT
SCHOOLS OF DESIGN,**

5, ST. MARY'S ROW,

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IMPROVED SIMPLE AND COMPOUND MICROSCOPES, ACHROMATIC TELESCOPES, &c.

JAMES PARKES and SON 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, 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.

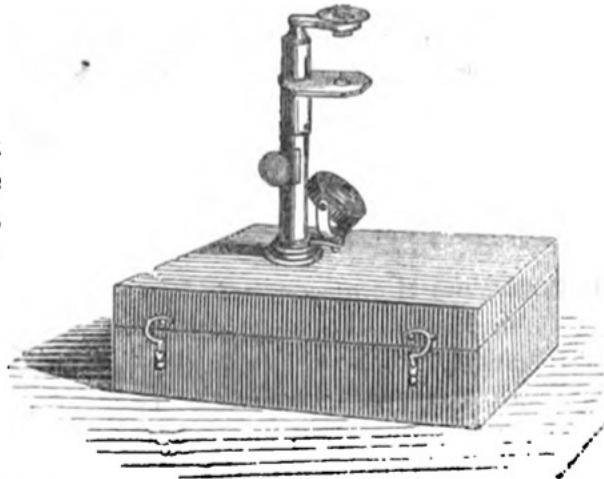
In order to facilitate the young beginner in commencing this interesting and important branch of study, distinct series of objects have been selected and arranged, each illustrating some particular portion of Natural History, and every object composing the same being numbered and described. (See Catalogue,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

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

List of Improved Simple and Compound Microscopes.

<i>Number.</i>	<i>£. s. d.</i>
10 Simple Microscope, in mahogany case, with sliding stage, mirror, two powers, bone disc, glass, and tweezers	0 8 0

- 11 Simple Microscope, with rack movement, mirror, three powers, tweezers, glass slides, and two objects, in mahogany case. Price 14s.



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

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.



Number.

47 Neat Compound Microscope (Martin's), in leather case, with sliding tube, mirror, three powers, live box, tweezers, and six prepared objects. Price 9s. 6d.

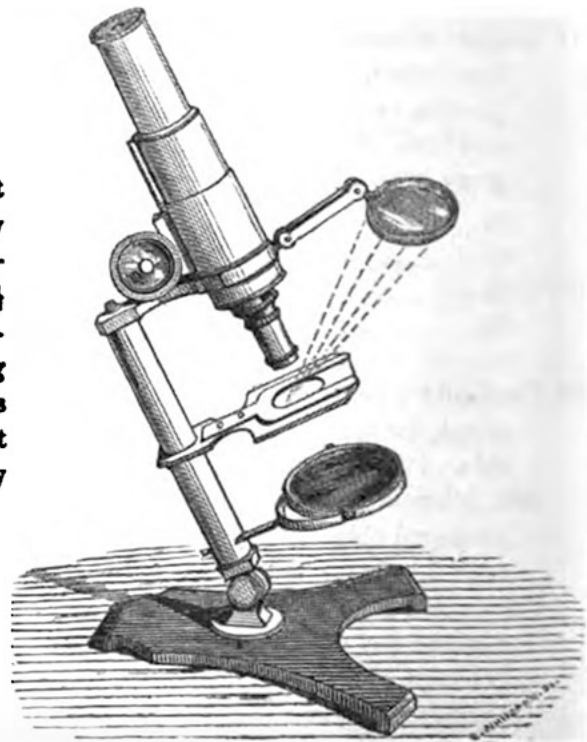


21 Compound School Microscope, on firm tripod stand; with mirror, two object glasses, tweezers, and six objects, in upright polished cabinet with drawer. Price 11s. 6d.



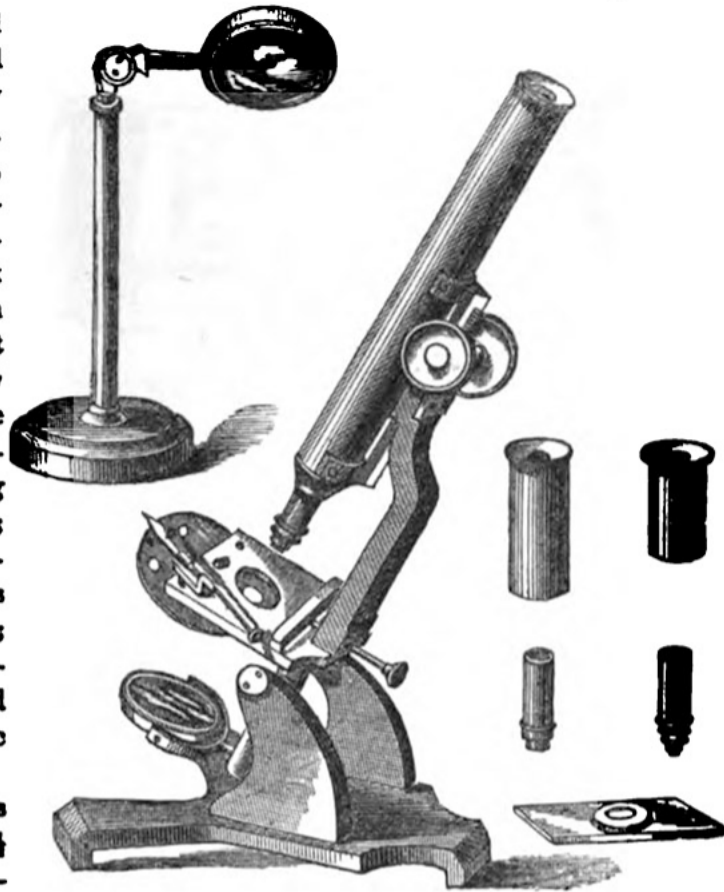
23 Ditto, ditto, with rack movement, condenser, achromatic combination, forming two powers, and six best preparations, in upright polished cabinet. Price £1. 7s.

31 Compound Microscope, with joint to incline the body to any angle; rack movement, concave mirror, condenser, 1½ inch object glass, and achromatic combination forming two powers, tweezers, glass slides, and half a dozen best objects, in portable mahogany lock-up case. Price 40s.



Number.

25 The Student's Model Microscope, approved and recommended 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 openings; plane and concave mirrors; condensing lens on sliding upright stand; two Huyghenian eye-pieces, A and B, and two best achromatic object glasses.



No. 1 Object glass is of large aperture, $1\frac{1}{2}$ inch focus, magnifying 30 diameters with the A eye-piece, or 900 times superficial.

No. 2 Object glass is a triplet of $\frac{1}{4}$ inch focus, magnifying 150 diameters, with the A eye-piece, and 200 diameters with the B eye-piece, or 40,000 times superficial.

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, a few thin glass covers, and two glass slides; and is neatly packed in an upright polished mahogany cabinet with lock and key 3 3 0

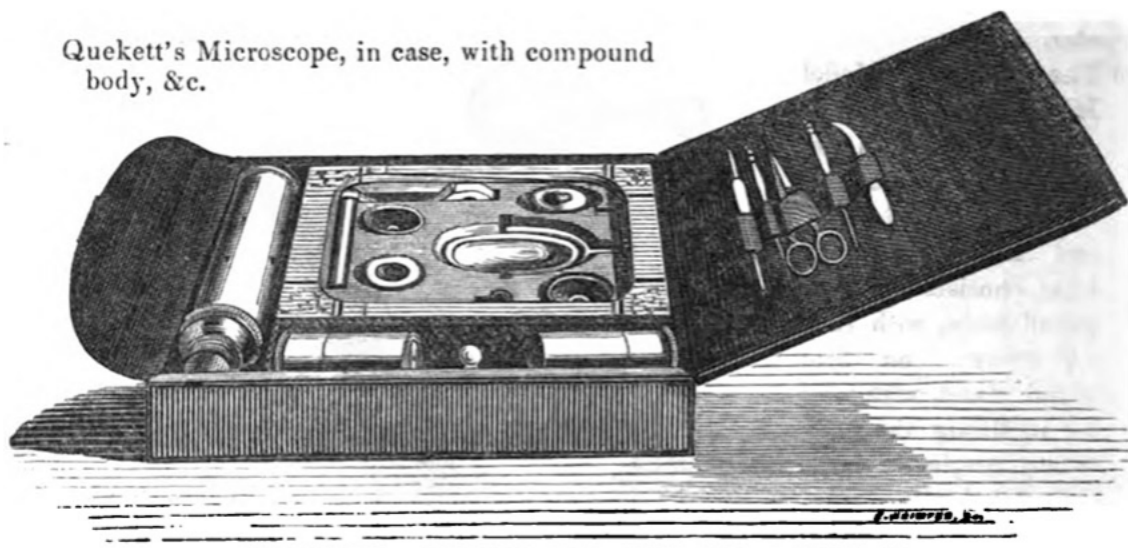
26 The above, with extra fine adjustment, and tube in diaphragm, so as to take a polarizing apparatus 3 10 0

Polariscope for ditto 1 4 0

27 Microscope as 26, with fine adjustment, and three achromatic powers; viz.,— $1\frac{1}{2}$ inch, $\frac{1}{2}$ inch, and $\frac{1}{8}$ inch, (magnifying 400 diameters, or 160,000 times,) in superior cabinet with brass handle 5 10 0

48 Elegant Student's Microscope, similar in size and pattern to No. 25, but with highly finished brass tripod foot and body; having coarse rack movement, extra fine adjustment, moveable stage, worked by diagonal screws with brass milled heads, having $\frac{1}{4}$ inch motion in all directions; condenser on brass stand, two eye-pieces, $\frac{1}{2}$ inch achromatic object glass, and an achromatic combination, separable, forming $1\frac{1}{2}$ and $\frac{1}{2}$ inch, in best upright mahogany cabinet, fitted with tweezers, needles, dissecting knife, &c. 8 0 0

Quekett's Microscope, in case, with compound body, &c.

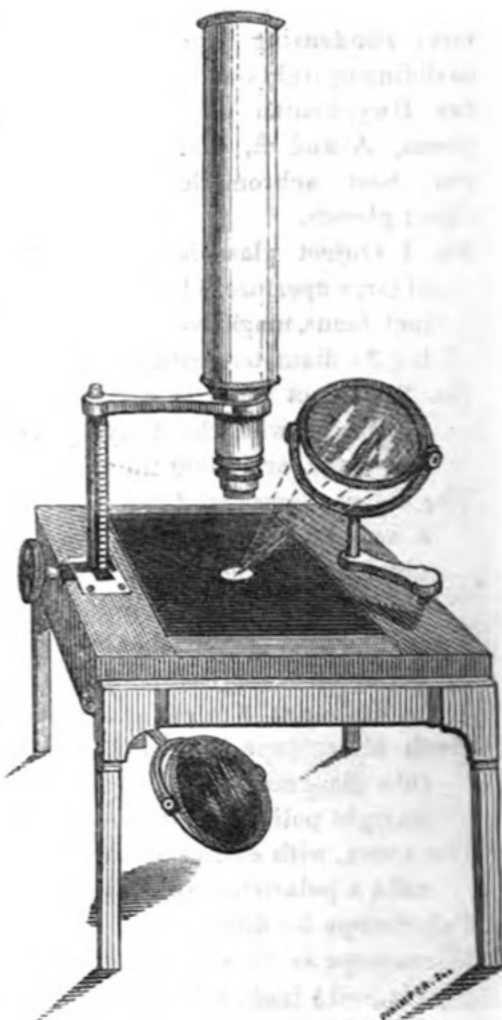


Number.

- 44 Professor Quekett's portable Dissecting Microscope, simple and compound, with improved brass legs.

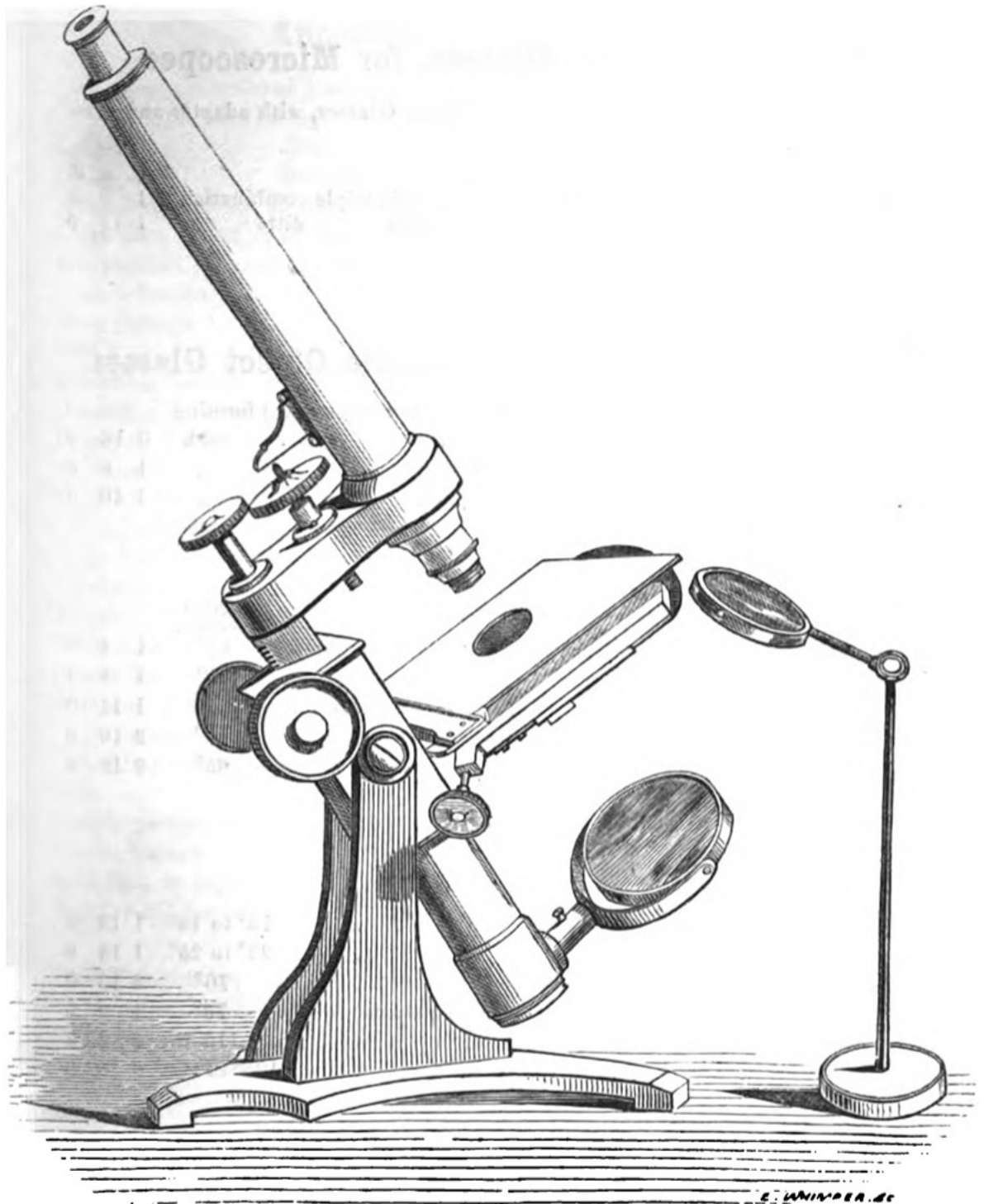
The Simple Microscope consists of polished mahogany stage, 5 inches square, (with glass plate let in so as not to corrode with the use of reagents,) on brass folding legs, rack movement, concave mirror, condenser with moveable arm, and three object glasses; viz.,— $1\frac{1}{2}$ inch, $\frac{1}{2}$ inch, and Coddington lens $\frac{1}{4}$ inch; the powers, mirror, condenser, &c., all packing in the under surface of the stage for portability in travelling. Price £2.

- 46 The above fitted with compound body, two achromatic object glasses; viz.,— $1\frac{1}{2}$ inch, and $\frac{1}{2}$ inch, in neat morocco case, (as drawing,) with dissecting scissors, knife, needle, tweezers, half a dozen glass slips, and box of thin glass covers. Complete, Price £4. 5s.



Quekett's Microscope set up ready for use, with compound body.

For neatness of appearance, and real utility, this Microscope is the most effective instrument that has been introduced, being very steady and convenient when set up for use, and extremely portable for travelling.



<i>Number.</i>	<i>Each.</i>
	<i>£. s. d.</i>
43 Large Compound Microscope, on bronzed tripod stand, with double support; coarse rack movement, and fine screw adjustment; moveable stage, worked by diagonal screws with brass milled heads, having one-inch motion in all directions; plane and concave mirrors 2½ inches diameter; with two Huyghenian eye-pieces, A and B	7 5 0
N.B. The screw for object glasses, and the eye-pieces of this instrument, are made to Ross's sizes.	
49 Ditto, ditto, with brass tripod stand, (more highly finished,) having two eye-pieces, A and B	9 10 0
Best Upright Mahogany Cabinet, for No. 43 or 49, with drawer, fittings, &c., and brass handles	1 7 0

Achromatic Object Glasses, for Microscopes.

Superior French or German Achromatic Object Glasses, with adapter and brass box engraved, for No. 43 Microscope.

No.	£.	s.	d.	No.	£.	s.	d.
85 1½ inch, large aperture	0	12	0	87 ½ inch, triple combination	1	0	0
86 ¾ inch, large aperture	0	17	0	88 ⅓ inch ditto	1	15	0

Superior English-made Achromatic Object Glasses.

70 Superior Achromatic Combination, (in brass box engraved,) forming two powers 1½ and ¾ inch	.	.	.	each	0	18	0
71 Ditto, ditto, 1 inch and ¾ inch	.	.	.	„	1	0	0
72 Ditto, ditto, 1 inch and ½ inch	.	.	.	„	1	10	0

			Angular Aperture.			
72½ Superior 2 inch Achromatic Combination (not separable)	.	.	12°	1	4	0
73 Superior 1 inch ditto, ditto,	.	.	16°	1	4	0
74 ¾ inch ditto, ditto,	.	.	20°	1	11	0
74½ ⅞ inch ditto, ditto,	.	.	50°	2	10	0
75 ½ inch ditto, ditto,	.	.	65°	2	10	0

76 *First class, 2 inch, (Ross's pattern)	.	.	13° to 15°	1	18	0
77 * Ditto, 1 inch, ditto	.	.	22° to 25°	1	18	0
78 * Ditto, ⅞ inch, ditto	.	.	70°	3	13	0
79 * Ditto, ¾ inch, with adjustment, (Ross's pattern)	.	.	75°	4	2	0
80 * Ditto, ½ inch, with adjustment, ditto	.	.	110°	5	2	0
81 * Ditto, ¼ inch, with adjustment, ditto	.	.	125° to 130°	6	10	0

MAGNIFYING POWERS OF THE ABOVE.

Object Glasses.	Angular Aperture.	Magnifying powers with various Eye-glasses.					
		A		B		C	
		Diameters.	Superficial.	Diameters.	Superficial.	Diameters.	Superficial.
2 inch..	13° to 15°	20	or 400	30	or 900	40	or 1,600
1 inch..	16°	60	or 3,600	80	or 6,400	100	or 10,000
1 inch..	22° to 25°	"	"	"	"	"	"
⅞ inch	70°	110	or 12,100	160	or 25,600	250	or 62,500
¾ inch..	75°	220	or 48,000	350	or 122,500	500	or 250,000
½ inch..	110°	"	"	"	"	"	"
¼ inch..	125° to 130°	420	or 176,400	670	or 448,900	900	or 810,000

N.B. The above Object Glasses, for defining and penetrating power, are of first-rate quality. Those of large angular aperture, marked *, being the finest that can be made.

Apparatus for Microscopes.

	<i>£.</i>	<i>s.</i>	<i>d.</i>
Condenser, on bronzed foot, with brass sliding tubes, as sent with the No. 25 Microscope	each	0	5 0
Large Ditto, ditto, ditto, for No. 43	"	0	8 6
Ditto, ditto, on brass foot, for 49	"	0	16 0
Polariscope, for No. 25 Microscope	each	1	4 0
Large ditto, for 43 or 49 Microscope	"	1	10 0
Achromatic Condenser, for 43 or 49 Microscope	"	1	5 0
Camera Lucida	"	1	0 0
Brass Forceps	per pair	0	0 6
Steel ditto	"	0	1 6
Dissecting Scissors, with fine points	each	0	2 0
Dissecting Needles, bone handles	"	0	0 6
Dissecting Knife, ivory handle	"	0	1 3
Animalcule Cage	"	0	4 0
Set of Dissecting Instruments, in neat pocket-book, containing scissors, knife, two needles in handles, forceps, and tortoiseshell hand magnifier, with two powers, complete	each	0	10 6
Revolving Disc, on mahogany stand, for mounting objects	"	0	5 0
Machine, for cutting wood sections	"	0	16 0
Set of Glass Animalcule Tubes, in leather case	per set	0	4 0
Glass Slides, with ground edges	per gross	0	8 0
Improved Porcelain Slides, with cells, for opaque objects, or in- jections	per dozen	0	0 0
Thin Glass Covers, squares	per oz.	0	4 0
Ditto, circles	"	0	5 6
Pure Glycerine, in bottles, for mounting	per bottle	0	1 0
Canada Balsam	"	0	1 0
Gold Size, or Asphalte	"	0	0 9
Superior Microscope Lamp, with shade, on sliding upright	each	0	16 0

Hand Polariscope, with six large prepared crystals; to illustrate the polarization of light. In neat leather case	each	2	15 0
Hand Polariscope and Magnifier: in neat leather case, with 12 crystalline preparations (quite new)	each	2	5 0

Hand Magnifiers, for Dissecting, &c.

	per dozen, 8 <i>s.</i>	9 <i>s.</i> 6 <i>d.</i>	16 <i>s.</i>	
Pocket Magnifier, horn mounting, one lens. No. 133.		135.	139.	
	per dozen, 14 <i>s.</i>	16 <i>s.</i>	20 <i>s.</i>	25 <i>s.</i>
Ditto, ditto, two lenses. No. 134.		136.	140.	142.
	per dozen, 25 <i>s.</i>	27 <i>s.</i>	32 <i>s.</i>	
Ditto, ditto, three lenses. No. 138.		141.	143.	
Small ditto, in tortoiseshell mounting, two lenses	each	0	4 0	
Ditto, ditto, with four lenses: forming 1, $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ inch powers	"	0	7 3	
Coddington Lens, in ivory or black mount. No. 127	"	0	6 0	
Stanhope Lens, Electrum mount, in neat leather case. No. 128	"	0	3 4	
Portable Folding Stanhope Lens, gilt mounting	"	0	3 4	
Ditto, ditto, silver mounting	"	0	6 0	
Horn Watchmakers' Eye Glasses. No. 125	per dozen	0	8 0	
Small Brass Tripod Microscope, double lens	"	1	4 0	

Cases and Cabinets for Microscopic Objects.

	£.	s.	d.
Neat Leather Case, velvet lined, for holding one dozen objects flat, each	0	2	0
Ditto, ditto, with trays for two dozen objects „	0	2	6
Ditto, ditto, with trays for three dozen objects „	0	3	0
French-polished Mahogany Cabinet, with drawers, from £2 10s. each.			

Microscopic Preparations.

Number.

93 Neatly mounted Objects, for beginners, on Slides $\frac{1}{4}$ by 2 inches. Assorted insect, vegetable, and other preparations. per dozen	0	1	0
94 Ditto, ditto, ditto, $\frac{1}{4}$ by 2 $\frac{1}{4}$ „ „	0	1	8
95 Superior Preparations, on Slides 3 inches by 1 inch, in great variety, mounted dry per dozen	0	3	0
96 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
97 Set of 12 starches, (from Dr. Pereira's collection,) for testing adulteration in articles of diet, in neat leather case the set	0	9	0
98 Set of 12 Polariscope objects, (crystals, &c.,) in neat leather case „	0	9	0
99 Anatomical injected preparations, human and comparative, muscular fibre, &c. per dozen	0	16	0

Educational Series.

The following interesting series of Microscopic preparations has just been completed:—every object is numbered and named, and a descriptive essay accompanies each set.

- “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
- “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
- “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

P.S.—A popular work, entitled “The Plant and the Microscope,” will shortly be published, describing fully the preparations in this set. Price 2s. 6d.

Other series will probably be issued, comprising fossil infusoria and sponges, anatomical preparations, illustrations of adulterations in articles of food and commerce, &c., &c.

N.B. The above Microscopic preparations have just received the approval and commendation of the Council of the Society of Arts.