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A CATALOGUE

OF

OF

ACHROMATIC TELESCOPES,

ACHROMATIC MICROSCOPES,

PHOTOGRAPHIC LENSES, APPARATUS,

&c.;

MADE AND SOLD BY

J. H. DALLMEYER,

Son-in-Law and Pupil of

THE LATE ANDREW ROSS;

19, BLOOMSBURY STREET, NEW OXFORD STREET,

LONDON, W.C.

INTERNATIONAL EXHIBITION, 1862.

TWO MEDALS have been awarded J. H. DALLMEYER. One in Class 13, "For his excellent OBJECT GLASSES and EQUATORIAL MOUNTINGS," The other in Class 14, "For excellence of LENSES, and Introduction of a NEW TRIPLET LENS, FREE FROM DISTORTION, with chemical and visual foci coincident."

JURORS' REPORT, p. 8.

"The Medal has been awarded for the introduction of NOVELTIES, as well as for UNSURPASSED EXCELLENCE of Manufacture."

19, BLOOMSBURY STREET, LONDON, W.C.

1863.

A CATALOGUE CASH PRICES.

TERMS.—Cash on delivery of Goods at the Manufactory. All Country Orders are to be paid for on receipt of Invoice, either by Post Office Order payable to J. H. Dallmeyer, or, by Cheque or other Order, payable in London. Foreign Orders must be accompanied by a remittance. Cheques to be crossed "London and Westminster Bank," and Post Office Orders made payable at the Office, High Holborn.

ASTRONOMICAL TELESCOPES.

J. H. DALLMEYER begs to state, that he was the *sole* person initiated by the late ANDREW ROSS in all his processes for the production of the Astronomical Telescope (the whole of which faculty he has also bequeathed to him), and having been the exclusive maker of them for years past; (during which time many improvements have been effected,) he has arrived at a practice which INSURES the PERFECTION of this important instrument.

.....

The Telescopes, &c., exhibited, and for the excellence of which the Jury of the International Exhibition awarded one of their Medals, consisted of:—

A 6 ft. 4 in. Telescope, mounted on a new form of fixed equatorial stand, with clock-work, &c., complete.

A 4 ft. ditto, mounted on a new universal portable equatorial stand; also, Several smaller "Terrestrial" Telescopes of "large Aperture" in relation to their focal lengths.

Telescopes 4 feet focal length and 3 $\frac{3}{8}$ inches aperture.

	£.	s.	d.
Tube and object-glass complete, with rack-tube and finder, and four eye-glasses, magnifying powers 65, 110, 155, 200*	10	0	0
An Equatorial Stand, with hour-circle reading to two seconds of time, and declination-circle half-a-minute of a degree, both of 9 in. diameter, with endless screw movements	15	0	0
Clockwork for ditto	14	0	0
A Universal Portable Equatorial Stand, with hour-circle reading to five seconds of time, and declination-circle to one minute of a degree, with endless screw movements	42	0	0
A new form of steady Table Stand of Brass, with horizontal and vertical fine screw movements, allowing the Telescope to be directed to the zenith	25	0	0

* The Magnifying Powers stated are found to be the most useful for the different size Telescopes (the highest power, in each case, reduces the emergent pencil to the 1-60th of an inch), but under favourable conditions of atmosphere, &c., a much higher power can often be used with advantage. The object-glasses being perfect, there is really no limit to amplification on that account.

Telescopes 5 feet 6 inches focal length, and 1½ inches aperture.

Telescope tube and object-glass complete, with rack tube and finder, and four eye glasses, magnifying powers 85, 130, 190, 260	80	0	0
Equatorial Stand, with hour-circle reading to one second of time, and declination-circle fifteen seconds of a degree, both of 10 inches diameter	60	0	0
Illuminating Apparatus	8	0	0
Position Micrometer	15	15	0
Clockwork	16	0	0
A steady Table Stand of Brass, with horizontal and vertical screw movements, allowing the Telescope to be directed to the zenith, in deal case	40	0	0

Telescopes 6 feet 4 inches focal length, and 5 inches aperture.

Telescope, tube, &c., &c., ditto, magnifying powers 100, 160, 230, 300	140	0	0
Fixed Equatorial Stand, with hour-circle reading to one second of time, and declination-circle fifteen seconds of a degree, both of 12 inches diameter	140	0	0
Clockwork	20	0	0

Telescopes 8 feet focal length and 6 inches aperture.

Telescope, tube, &c. &c., ditto, magnifying powers, 130, 210, 290, 380	220	0	0
Fixed Equatorial Stand, with hour-circle reading to one second of time, and declination-circle, ten seconds of a degree, both of 16 inches diameter	} to order.		
Clockwork			

Telescopes of larger dimensions, up to 12 inches aperture, made to order.

*A 3 feet Telescope mounted on an improved brass Tripod Table Stand, clear aperture 2½ inches, with <i>Pancretic</i> Day Eye-piece, magnifying 30, 40, 50 times, and two Astronomical Eye-pieces, powers 40 and 70: the whole neatly packed in case	20	0	0
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KELNER'S ORTHOSCOPIC EYE-PIECES, giving a large field of view, may be had in place of the ordinary Huyghenian, to order ... from £1 10 0 to 2 10 0

Ordinary Huyghenian Eye-pieces, each ... 1 1 0
Ditto ditto, extra high power ... 2 2 0

Comet Eye-pieces ... 1 10 0

Terrestrial ditto ... £1. 4s., ditto *Pancretic* 1 10 0

Diagonal Eye-piece ... 4 10 0

Illuminating Apparatus ... from 5 0 0

Position Micrometer ... 15 15 0

* The Object-glass of this Telescope is produced after the manner of the smaller Terrestrial Telescopes, and has been made to meet a demand often expressed, more especially for educational purposes.

TERRESTRIAL TELESCOPES.

The Object-Glasses of these Telescopes, have their contact surfaces united by a permanently transparent cement, which, not only obviates the loss of light by reflection; but also, prevents decomposition of the glasses; otherwise often experienced when used in damp climates or at sea.

Each object-glass is composed of three different kinds of glass, by the employment of which, J. H. D. has been enabled still further to increase their apertures in relation to their foci; thus obtaining much greater "illuminating power." The aberrations, both spherical and chromatic, are also most carefully corrected; giving a clear and well defined image, free from all outstanding colour.

Attention has also been devoted to the perfecting of "Eye-Pieces." As will be seen by inspection of List, they are mostly "pancratic," enabling the observer at once to alter the magnifying power of his telescope, (within certain limits,) simply, by drawing out or pushing in the first tube, which fits rather tightly into the first or smallest draw-tube.

The great desideratum, therefore, of possessing a sufficiently "low" power (combined with a large and flat field of view) for use in dull weather, or near the sea side, is obtained in one and the same instrument.

PORTABLE TOURISTS' AND MILITARY TELESCOPES.

	£.	s.	d.		£.	s.	d.
A Portable Telescope , with six drawers, length when drawn out 20 in., when shut up 5 in., clear aperture $1\frac{1}{2}$ in., magnifying power 17 times:				A Portable Telescope , "extra large aperture," with <i>pancratic</i> Eye-piece, three drawers, drawn out 2 ft. 4 in., shut up 10 in., clear aperture 2 in., magnifying powers 20, 25, 30 times:			
<i>In Brass Mountings</i> - - - - -	2	2	0	<i>In Brass (bright or bronzed)</i> - - - - -	7	10	0
<i>" German Silver Mountings</i> - - - - -	2	15	0	<i>" German Silver</i> - - - - -	8	10	0
<i>Leather sling case for ditto</i> - - - - -	0	8	6	<i>Leather sling case</i> - - - - -	0	16	6
*A Portable Telescope (Military Reconnoitering), with <i>pancratic</i> Eye-piece, three drawers, drawn out 21 $\frac{1}{2}$ in., shut up 8 $\frac{1}{2}$ in., clear aperture $1\frac{1}{2}$ in., magnifying powers 20, 25, 30:				*A Portable Telescope , <i>pancratic</i> Eye-piece, four drawers, drawn out 3 ft. 6 in., shut up 12 $\frac{1}{2}$ in., clear aperture 2 $\frac{1}{2}$ in., magnifying powers 20, 40, 50 times:			
<i>In Brass (bronzed)</i> - - - - -	4	0	0	<i>In Brass</i> - - - - -	8	0	0
<i>" German Silver</i> - - - - -	4	10	0	<i>" German Silver</i> - - - - -	10	0	0
<i>" Ditto, with caps and sling straps</i> - - - - -	4	10	0	<i>Leather sling case</i> - - - - -	0	18	6
<i>Leather sling case</i> - - - - -	0	10	6	Binocular Field, Race, and Opera Glasses , in which the strongly coloured margins of objects are wholly neutralised, from £3 to 10, 0, 0			
*A Portable Telescope , with <i>pancratic</i> Eye-piece, three drawers, drawn out 2 ft. 4 in., shut up 9 $\frac{1}{2}$ in.; clear aperture $1\frac{3}{4}$ in., magnifying powers 20, 25, 30:				<i>Telescope Holders, to be applied to the window frame,</i> £1 10s. to 3 10, 0			
<i>In Brass (bright or bronzed)</i> - - - - -	5	10	0	<i>Tripod Pillar Stands</i> - - - - -	£2	to 4	0 0
<i>" German Silver</i> - - - - -	6	6	0	<i>Ash Tripod Stands, for the garden</i> - - - - -	from £1 5s.	to 2 15	0
<i>Leather sling case</i> - - - - -	0	14	6				

* Both are excellent "marking" Telescopes for rifle practice, and used by Capts. Heaton, Lautour, and other volunteer officers.

* Supplied to the Ordnance Select Committee, Sir William Armstrong, &c., &c., and used during Gunnery practice.

NAVAL TELESCOPES.

	£.	s.	d.		£.	s.	d.
A One-Foot, German Silver Naval Telescope, with one drawer, length when drawn out 22 in., when shut up 17 in., clear aperture 1½ in., magnifying power 14 times	2	10	0				
<i>Sling and strap</i>	0	4	6				
<i>Caps and sling straps</i>	0	10	0				
A new 18 in. ditto, ditto, with <i>pancratic</i> Eye-piece, drawn out 24 in., shut up 18½ in., clear aperture 1½ in., magnifying powers 15, 20,	4	0	0				
(25 times)	-	-	-		8	0	0
<i>Sling and strap</i>	0	5	0				
<i>Caps and sling straps</i>	0	12	6				
A 2 ft. ditto, ditto, drawn out 2 ft. 7 in., shut up 2 ft. 1 in., clear aperture 1½ in., magnifying power 20 times	4	0	0				
A 2 ft. German Silver Naval Telescope, extra large aperture, with <i>pancratic</i> Eye-piece, drawn out 2 ft. 7 in., shut up 2 ft. 1 in., clear aperture 2 in., magnifying powers 20, 25, 30 times	8	0	0				
A 3 ft. ditto, ditto, Signal Telescope, with <i>pancratic</i> Eye-piece, drawn out 3 ft. 7 in., shut up 3 ft. 1 in., clear aperture 2½ in., magnifying powers 30, 40, 50 times	8	0	0				
A 4 ft. ditto, ditto, for Look-out Stations, clear aperture 3 in., magnifying powers 50, 60, 70 times	15	15	0				
<i>Signal Cards</i>	-	-	-		0	10	0
Binocular Day and Night Glasses, in <i>sling cases</i> , from	5	0	0				

DEER-STALKING TELESCOPES.

A new Deer-stalking Telescope, with <i>pancratic</i> Eye-piece, three drawers, length when drawn out 21 in., when shut up 8 in., clear aperture 1½ in., magnifying powers 20, 25, 30 times	4	0	0				
<i>Leather sling case</i>	0	10	0				
A ditto, ditto, with caps and sling straps attached	4	10	0				
A 2 ft. ditto, ditto, with <i>pancratic</i> Eye-piece, three drawers, drawn out 30 in., shut up 10 in., clear aperture 1½ in., magnifying powers 20, 25, 30 times	5	10	0				
<i>Leather sling case</i>	0	14	6				
A 2 ft. Deer-stalking Telescope, "extra large aperture," with <i>pancratic</i> Eye-piece, three drawers, drawn out 30 in., shut up 10 in., clear aperture 2 in., magnifying powers 20, 25, 30 times	7	10	0				
<i>Leather sling case</i>	0	16	6				
Field, Race, & Opera Glasses, from	3	0	0				

All the above Telescopes may be had in Aluminium, to order; the weight being less than one half that of Brass.

COMPOUND MICROSCOPES.

No. 1 A. A large compound Microscope Stand, with a concentric rotating stage, having one inch of motion in rectangular directions,—rack and fine screw movements to the optical part,—clamping arc for fixing the instrument at any inclination,—secondary stage for holding and adjusting, by universal motions, all the illuminating and polarising apparatus placed beneath the object (the prices of which apparatus are extra), A and B eye-pieces, flat and concave mirrors, diaphragm, plate, stage forceps, and two glass plates, with ledges	30	0	0
No. 1 B. A ditto, with ordinary rotating object-plate to the stage, and apparatus complete, as above	24	0	0
No. 2 A smaller Microscope Stand, having three-quarters of an inch of motion, and ordinary rotating object-plate to the stage, complete, and similar in all its parts to the above	21	10	0

No. 2.	A smaller Microscope Stand, without secondary stage...	17	0	0
No. 2.	A ditto, without secondary stage, fine screw-adjustment, or stage movements, with two eye-pieces. This is the basis of a complete instrument	11	0	0
No. 2.	Mechanical Stage for ditto	4	10	0
No. 2.	Fine Adjustment for ditto	2	14	0
No. 2.	Secondary Stage and vertical rack motion for ditto	4	10	0
No. 3.	A complete smaller Microscope Stand, with Mechanical stage, and fine screw adjustment to the optical part, with two eye-pieces... ..	13	10	0
No. 3.	A ditto, without stage movements and screw adjustments, with two eye-pieces, and one inch-and-a-half (23 degrees), and two-thirds (35 degrees), object-glasses. This is the basis of a complete instrument	12	15	0
No. 3.	Mechanical Stage for ditto	4	0	0
No. 3.	Fine Adjustment for ditto	2	0	0
No. 3.	A Microscope Stand, without stage movements or screw adjustments, with one eye-piece, and no object-glasses. This is the basis of a complete instrument	5	10	0
No. 4.	A complete, portable, compound and single Microscope Stand, for travelling, as No. 3	12	12	0
No. 1.	Spanish Mahogany Case, with drawers for the apparatus and objects	5	5	0
No. 1.	Portable Mahogany Case	3	0	0
No. 2.	Spanish Mahogany Case, with packings for complete apparatus	2	10	0
No. 3.	Flat Portable Cases from £1. 10s. and	1	16	0
No. 4.	Cupboard Case	1	8	0

No articles are included in the above items except those which are mentioned.

Microscopes may be had more or less complete, according to choice of Stand, Apparatus, and Powers, from £10. to £100.

ACHROMATIC OBJECT GLASSES FOR MICROSCOPES.

The late A. R. having bequeathed to J. H. D. one-half of the implements, &c., used for the production of the Object-Glasses, together with his entire practical experience; J. H. D. begs to announce, that the Objectives herein named, are the results of protracted, analytic, dioptric calculations; in which, all the improvements pointed out by more recent investigations, have been introduced.

The Apertures of the various Powers have been carried to a maximum, for general utility and effect.

Thus, for instance, the new and improved quarter-inch Object-Glass, angular aperture 120 degrees, (exhibited at the Soirée of the Microscopical Society in March, 1860) possesses the following advantages:—

The definition is equally perfect at the centre and margin of the field; the oblique as well as the central pencils having been corrected.

The distance between the Object and Objective, has been made the greatest possible; consistent with other qualities of excellence.

The Objective works through thicker covering glass, and its aberrations can also be balanced for an *uncovered* object. Important for many purposes of research.

By the form of construction adopted, the number of *reflecting* surfaces has been diminished by two, and, consequently, much greater illuminating power is obtained; also,

The front or anterior surface has been made concave, to prevent the loss of light by *reflection* at the *first* incidence, attending all *large* angles of aperture.

Four different kinds of glass are used in its construction, by the employment of which, the *secondary* spectrum is almost completely corrected.

The perfection of definition, resulting, is such that the highest power eye-pieces can be used with "advantage."

The other powers are constructed upon the same principles, and possess the same advantages.

Object Glasses. Equivalent focus of a single lens.	Angular Aperture.	Magnifying Powers with the various Eye-Pieces.				Price.	Lieberkuhn's.
		A	B	C	D		
inches. ...	degrees. ...	...	...	...	...	£. s. d.	£. s. d.
2	15	20	30	55	90	3 0 0	1 0 0
1½	23	25	40	70	110	3 0 0	0 17 6
1	15	40	60	105	170	3 0 0	0 15 0
1	25	40	60	105	170	3 0 0	0 15 0
¾	35	60	100	145	270	3 10 0	0 10 6
½	95	95	150	265	420	5 5 0	0 10 6
¼	100	195	310	500	620	5 5 0	.....
1/12	120	210	340	540	640	6 6 0	.....
1/18	150	420	670	900	1200	8 8 0	.....
1/24	170	600	870	1200	2000	12 12 0	.....

APPARATUS FOR COMPOUND MICROSCOPES.

Side Reflectors, for illuminating opaque objects... 1 5 0

Lieberkuhn's, for ditto ditto... from 7s. 6d. to 1 0 0

Brooke's double Nose-piece, for rapidly changing the object-glasses... 1 10 0

Micrometer Eye-piece... 1 4 0

Screw Micrometer... 5 5 0

Camera Lucida (Wollaston's)... 1 14 0

Plate for fixing Fish, Frogs, &c., for exhibiting the circulation of the blood... 0 14 0

Animalculæ Cages... each 7s. 6d., 10s. 6d., and... 0 13 6

Set of Animalculæ Tubes, in case... 0 5 6

Erecting Eye-piece, for dissecting with compound Microscope... 1 0 0

Stage Micrometers, on slips of glass... 7s. 6d. and... 0 10 0

Slips of Glass for mounting objects... per doz. 0 1 0

Thin Glass, cut to sizes... per oz., Circle 7s., Squares 0 4 0

Glass Cells... per dozen, from 0 3 0

Condensing Lens, on stands... £1. and 1 10 0

Polarising Apparatus, Selenite Stage, and one Selenite... 2 10 0

Ditto, with Darker's Revolving Selenite Stage, and set of three Selenites, in box... 4 4 6

Darker's Revolving Selenite Stage, and set of three Selenites, in box	2	3	6
Stage Forceps	0	10	0
Extra Eye-pieces	0	17	6
Glass Troughs, for holding Polyps, &c.	0	4	6
Gillett's Achromatic Condenser, on a new combination of principles, for the illumination of transparent objects, from £7. and	7	10	0
Rev. Mr. Kingsley's Illuminator, in setting with diaphragms ...	2	18	0
Paraboloid, in setting for dark ground illumination	1	13	6
Bergin's Prism, applicable to the Paraboloid, for condensing an oblique pencil of light on transparent objects	2	2	0
Amici's Prism, mounted on jointed arms, for condensing an oblique pencil of light on transparent objects	1	13	0
Rainey's Light Modifier	0	7	6
Rectangular Prisms, mounted	1	10	0
Side Condensing Lens, mounted	0	14	0
Lister's Dark Wells	0	13	0
Compressorium	1	16	0
Animalculæ Cage, for high powers	1	0	0
Centring Glass, for centring the optical part of Microscopes ...	0	14	0
A black ground Condenser for the 2-in. and 1-in. object-glasses	0	12	0
All the above apparatus may be adapted to the No. 1 and 2 Microscopes; but the No. 3 does not admit of the adaptation of Gillett's achromatic condenser; but a condenser, of different construction, may be had in place of Mr. Gillett's.			
Goniometer	2	10	0
Cabinet to hold objects	2	10	0
Argand Lamp and Shade	1	7	6
Machine for cutting discs of thin glass	3	0	0
Ditto, and Knife for cutting sections of Wood, &c.	4	0	0
Pocket Magnifiers, mounted in horn	0	2	0
Ditto, mounted in tortoiseshell	1	4	0
Coddington Lenses	0	18	6
Curved Phial Forceps	4s. 6d. and	0	6
Page's Wooden Forceps	0	4	6
Double Image Prism, mounted	0	15	0
Instrument for measuring thin glass	1	15	0
Writing Diamonds	0	8	6
Cutting ditto	from 18s. to	2	0

SIMPLE MICROSCOPES.

- A simple Microscope**, with single lenses of 1, $\frac{1}{2}$, and $\frac{1}{4}$ inch focal length, packed in mahogany case 4 4 0
- A ditto, ditto**, with single lens of 1, $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{10}$ inch focal length, and $\frac{1}{20}$ Wollaston's Doublet, Lieberkuhn's for $\frac{1}{2}$ and $\frac{1}{4}$ inch lenses, and stage forceps, packed in mahogany case 6 16 6
- A Magnifier Stand**, with universal motions, for dissecting with two lenses 1 14 0

SINGLE LENSES AND DOUBLETS TO ORDER.

An assortment of all kinds of Microscopic objects—Animal, Vegetable, Recent and Fossil, Infusorial, &c. &c.

POLARISCOPE OBJECTS.

PHOTOGRAPHIC LENSES.

INTERNATIONAL EXHIBITION.—“The Lenses for the great excellence in which the MEDAL was awarded, consisted chiefly of double and triple achromatic combinations possessing novel features of great importance.”—
JURORS’ REPORT.

PORTRAIT LENSES.

[POSSESSING THE ORDINARY INTENSITY.]

The Visual and Chemical foci are coincident, and the Lenses are free from aberration, both at the centre and margin of the picture.

See J. H. D.’s Paper read at the Meeting of the London Photographic Society in June, 1860, (*Photographic Journal*, June 15th.)

These Lenses, as described in the above paper, are constructed principally for *Portraiture*, and possess the following advantages:—greater rapidity of action over the whole extent of plate; nearly perfect flatness of field, and when used with a diaphragm, produce an image “free from distortion.”

Nos. 1, 2, and 3, can also be used for *Groups, Architecture, and Landscapes*, by employing sufficiently small stops. Thus, No. 3 Lens will produce, with full aperture, portraits $6\frac{1}{2}$ by $4\frac{3}{4}$; with a large stop, groups $8\frac{1}{2}$ by $6\frac{1}{2}$; with small stops, Architectural Views, &c., 10 by 8, (free from distortion); and with front lens only, Landscapes 12 by 10.

For the most perfect results in Architecture and Landscape, J. H. D.’s new “Triple Achromatic Lens” is recommended.

The Apertures of all the stops supplied with J. H. D.’s Lenses (*Portraits, Views, and Landscapes*) are so arranged that, counting from the LARGEST to the next size SMALLER, the time of exposure is DOUBLED. Stops marked X are an exception to this rule, and require an exposure only HALF AS LONG again as the PRECEDING LARGER stop.

No. 1. Portrait Lens, consisting of two achromatic combinations, mounted in tubes, with rack and pinion movement, front and back combinations, $1\frac{3}{4}$ and $1\frac{7}{8}$ in. diameter respectively, and 5 in. focal length from the back glass; producing pictures on plates $4\frac{1}{4}$ by $3\frac{3}{4}$ in. and under; Architectural views, &c., 5 by 4 in.; Landscapes 6 by 5 in. ...	5	0	0
A Set of Waterhouse’s Diaphragms, in morocco case, for ditto ...	0	15	0
No. 2. Ditto, ditto, the front and back combinations $2\frac{1}{2}$ and $2\frac{5}{8}$ in. diameter respectively, and 8 in. focal length from the back glass; for pictures on plates 5 by 4 in. and under; Architectural Views, &c., 7 by 6 in.; landscapes, 9 by 7 in. ...	10	10	0
A Set of Waterhouse’s Diaphragms, in morocco case ...	1	5	0
No. 3. Ditto, ditto, the front and back combinations $3\frac{1}{4}$ and $3\frac{1}{2}$ in. diameter respectively, and 10 in. focal length from the back glass; for pictures on plates $6\frac{1}{2}$ by $4\frac{3}{4}$ in.; Architectural Views, &c., 10 by 8 in.; Landscapes 12 by 10 in. ...	16	0	0
A Set of Waterhouse’s Diaphragms, in morocco case ...	1	10	0

No. 3 A. Portrait Lenses , the front and back combinations $3\frac{1}{4}$ and 4 in. diameter respectively, and 12 in. focal length from the back glass, for pictures on plates, $8\frac{1}{2}$ by $6\frac{1}{2}$ in. and under	25	0	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	1	15	0
No. 4. Ditto, ditto , the lenses $4\frac{1}{2}$ in. diameter, 14 in. focal length from the back glass, for pictures on plates 10 by 8 in. and under	36	0	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	2	0	0
No. 5. Ditto, ditto , the Lenses $5\frac{1}{2}$ in. diameter, 17 in. focal length from the back glass, for pictures on plates 15 by 15, and under, with a set of Waterhouse's Diaphragms, in morocco case	50	0	0
No. 6. Ditto, ditto , the Lenses $6\frac{1}{2}$ diameter, 22 in. focal length from the back glass, for pictures on plates 20 by 18 and under, with a set of Waterhouse's Diaphragms, in morocco case	60	0	0

Larger combinations made to order.

DALLMEYER'S

QUICK-ACTING PORTRAIT LENSES.

Nos. 1 B and 2 B, (introduced November, 1860,) are especially constructed for **Carte de Visite** Portraits.

"Several quick-acting Lenses, with flat field and fine definition, especially adapted for **CARD-PORTRAITS** and other larger Pictures, have been invented by Mr. Dallmeyer."—*Vide Report of Jurors, International Exhibition.*

"We have seen these pictures taken almost instantaneously, by a small Lens made by Mr. Dallmeyer, we believe especially for this kind of work."—*Photographic Journal*, Aug. 15, 1861.

"Examples of **QUICK-ACTING Portrait Lenses** for Pictures, from card size upwards, are shown, and have their powers illustrated from the studios of Williams, Lacy, Robinson, Mayland, Hawke, Abbott, and others. We are almost disposed to think that as charming a display of photography is to be found amongst these specimens as there is in any part of the building."—*Photographic News*, Aug. 29, 1862.

The Prize Pictures by Mr. P. R. Williams; as also the only prize CARTES DE VISITE at the International Exhibition, by Mr. Robinson, were taken with these Lenses, the former with No. 4 B, the latter with No. 2 B; also those by Mr. Mullins with No. 1 B.

The Card Pictures by Mr. Joubert, so highly commended by the Jurors of the recent Photographic Exhibition, were taken with No. 1 B. Lenses; also, the Card Portraits of the **PRINCESS ALEXANDRA, PRINCE OF WALES**, and other Members of the Royal Family, &c., recently published by Mr. Mayall, and so highly eulogized by *The Times* and other Papers, were taken with No. 2 B Lenses.

All the Stereoscopic Views of the International Exhibition, by Mr. England and others, were taken with 1 B Lenses.

No. 1 B.* Portrait Lens , consisting of two achromatic combinations, mounted in tube, with rack and pinion movement, the lenses 2 in. diameter, and $4\frac{1}{4}$ in. focal length from the back glass, producing pictures on plates $4\frac{1}{4}$ by $3\frac{1}{4}$ in. and under	5	10	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	0	15	0
<i>Distance between the subject (5 ft. 8 in. high) and the Lens, for a figure $2\frac{1}{2}$ in., from 12 to 13 feet. The Lenses, can be had in pairs, or four, of exactly equal foci.</i>			
No. 2 B. Ditto, ditto , the Lenses $2\frac{3}{8}$ in. diameter, and 6 in. focal length from the back glass, for pictures on plates 5 by 4 in. and under	11	11	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	1	5	0
<i>Distance between the subject (5 ft. 8 in. high) and the Lens, for a figure $2\frac{3}{8}$ in., from 18 to 19 feet.</i>			
No. 3 B. Ditto, ditto , the lenses $3\frac{1}{2}$ in. diameter, and 8 in. focal length from the back glass, for pictures on plates $6\frac{1}{2}$ by $4\frac{3}{4}$ in. and under	18	0	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	1	10	0
No. 4 B. Ditto, ditto , the lenses $4\frac{1}{2}$ in. diameter, and 12 in. focal length from the back glass, for pictures on plates $8\frac{1}{2}$ by $6\frac{1}{2}$ in. and under	38	0	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	2	0	0
No. 1 B.* [Long]-Diameter of Lenses $2\frac{1}{8}$ in., back focus $4\frac{3}{8}$ in., distance from 14 to 15 ft. for above standard	6	0	0
<i>A Set of Waterhouse's Diaphragms, in morocco case</i>	0	15	0
<i>This Lens is constructed to meet the requirements of those photographers who desire to use a longer focus Lens than No. 1 B, but who have not sufficient length of gallery for No. 2 B.</i>			
A Focussing Glass , for ascertaining that the image produced by the Camera Lens is formed accurately on the greyed surface of the focusing-screen, and, consequently, on the sensitive surface of the plates or paper	0	16	0

DALLMEYER'S

NEW "EXTRA" QUICK-ACTING MINIATURE LENS,

(Possessing the greatest possible intensity consistent with perfect definition.)

Epecially constructed for small Portraits of Children, but generally useful also, for Vignettes, Cartes de Visite, Lockets, and the so-called, "Medallion" Portraits, &c.

Consists of two achromatic combinations of $1\frac{1}{4}$ in. and $1\frac{3}{8}$ in. diameter respectively, mounted in tubes with rack-and-pinion movement, back focus 2 in., intended to cover 2 in. by 2 in. plates, and with stops $3\frac{1}{4}$ in. by $2\frac{3}{4}$ in.

A Set of Waterhouse's inner Diaphragms, in case

A smaller combination "for Medallion Portraits only;" diameter of combinations $\frac{3}{4}$ in., back focus 1 in., in Rigid mountings

SUITABLE CAMERAS MADE TO ORDER.

N.B.—Skaife's Pistolgraph Lens constructed and manufactured by J. H. D.

DALLMEYER'S NEW TRIPLE ACHROMATIC LENS

(free from distortion.)

FOR ARCHITECTURAL VIEWS, COPYING, &C., ALSO FOR LANDSCAPES AND GROUPS. (INTRODUCED AUGUST, 1860.*)

"The Triple Achromatic Lens invented by Mr. DALLMEYER... is free from chromatic and spherical aberrations. The images produced by this lens are quite free from distortion, a wide angle of view, with good definition, is included by it. In the hands of the Jurors, these qualities have been satisfactorily proved, and in the beautiful landscapes (by Mr. Wilson and others), produced by this Lens, and exhibited in the building, additional confirmation is obtained."—See Report of Jurors, page 8.

"Amongst the most interesting novelties in the optics of photography, both from its novelty of construction, perfection of delineation, and the varied utility of its applications, is a triple achromatic combination by DALLMEYER. From the extent of angle it embraces and defines well with a large aperture, it is especially valuable for pictorial landscape purposes, in which it often happens with other lenses, that pictorial effect is lost from the small angle of view embraced. Another peculiarity of this lens, as evidenced in its productions exhibited, is the power of delineating, with sufficient definition, objects spread over many planes at different distances, such, for instance, as the entire nave of the Exhibition from one end to the other. This lens, the invention of which was very properly rewarded by a Medal, may be regarded as typical of the progress which has been made in the optical appliances of photography."—Vide "Practical Mechanics' Journal," page 566.

The "Triple Achromatic Lens," although principally constructed for views and copying, is also well adapted for Portraiture in the open air. Thus, the Prize Pictures, "Life Studies," by Viscountess Hawarden, pronounced as the gems of the Exhibition, were taken with No. 1, Triple Lens, full aperture. For use in the studio it is, however, considerably slower in action than a properly constructed Portrait Lens.

By removing (unscrewing) the central, small, or negative lens, and using the front and back positive combinations only, the back focus is shortened by about one-half; the time of exposure is now nearly the same as with the ordinary Portrait Lens, but the curvature of field is greater, and therefore, it should only be used for Vignette heads or the like.

DIMENSIONS AND PRICES.

Including a complete set of Waterhouse's inner Diaphragms.

No.	Size of View, or Landscape.	Size of Group or Portrait.	Diameter of back combinations	Back Focus.	PRICE.		
					Rigid Setting.	Sliding tube adjustment.	With rack and pinion.
	Inches.	Inches.	In.	In.	£. s. d.	£. s. d.	£. s. d.
1	6 × 5	5 × 4	1½	7	4 4 0	4 10 0	5 0 0
2	8½ × 6½	7 × 6	2	10	5 10 0	6 0 0	6 10 0
3	10 × 8	8½ × 6½	2½	12	6 10 0	7 5 0	8 0 0
4	12 × 10	10 × 8	2¾	15	8 10 0	9 5 0	10 5 0
5	15 × 12	12 × 10	3¼	18	11 0 0	12 0 0	13 0 0
6	18 × 16	15 × 12	4	23	14 0 0		
7	22 × 20	18 × 16	5	29	19 0 0		
8	25 × 21	22 × 20	5½	31	24 0 0		

Hook's Universal Joint Handle, for 12 by 10 and 15 by 12 View Lenses, price £1.

For further particulars, respecting the New Lens as applied to Copying, see pamphlet by Col. Sir Henry James and paper by Mr. Osborne. As regards its capabilities for Architectural Views, Landscapes, &c., "instantaneous" and otherwise, reference need only be made to the various favourable notices of the pictures by Col. Stuart Wortley, Mr. Wilson, Mr. England, and many others.

* Imitations having been advertised for sale, the date of introduction has been affixed by J. H. D. to each of his new productions.

DALLMEYER'S NEW STEREOSCOPIC LENS,*

(free from distortion.)

INTRODUCED MAY 1860.

ESPECIALLY CONSTRUCTED FOR "INSTANTANEOUS VIEWS,"
PORTRAITS, GROUPS, INTERIORS, ETC.

Consists of two achromatic combinations of $1\frac{1}{2}$ and $1\frac{1}{2}$ in. diameter respectively, and $3\frac{1}{2}$ in. focal length from the back glass; includes a large angle, with a flat field and perfect definition. The short focal length, besides greater *rapidity* of action, also affords more of the so called "Depth of focus."

The above, with complete Set of Waterhouse's inner Diaphragms, in case, each ... 3 10 0

Ditto, ditto, with rack and pinion movement ... 4 0 0

These Lenses can be had in pairs, or four, of exactly equal foci.

N.B.—The front combination can be used *alone* as an ordinary 6 in. Stereoscopic View Lens, in the same mounting, simply by *unscrewing* and dispensing with the back, and then replacing it by the front combination.

The Hood should be taken off and screwed into the tube, in the place previously occupied by the front combination.

Dallmeyer's Instantaneous Flap Shutter, contrived expressly for the above, new Stereo' Lenses, as described in *Photographic Journal*, January 15th, price in wood ... 0 17 6

Also another new Roller Shutter, described in the same Journal, November 15, 1861 ... from 1 0 0

Mann's Patent Shutter, described in the Photo. Journals, from 1 1 0

Mr. England's Ditto, ditto ditto from 1 10 0

Dallmeyer's new large aperture "single" combination Stereoscopic Landscape Lenses (especially constructed for Mr. Wilson), mounted in sliding tubes, with moveable stops, focal length 5 or 6 in. ... each 1 15 0

Ditto, ditto, with rack-and-pinion movement ... each 2 8 0

A single combination Stereoscopic View Lens, of 1 in. diameter and $4\frac{1}{2}$ in. focus ... each 1 8 0

Ditto, ditto, with Rack and Pinion ... " 2 0 0

A single combination Stereoscopic View Lens, of $1\frac{1}{2}$ in. diameter, and 6 in. focus ... each 1 8 0

Ditto, ditto, with Rack and Pinion ... " 2 0 0

A Pair of Stereoscopic Lenses, of either $4\frac{1}{2}$ or 6 in. focus, with combined rack motions and connecting bar to caps, each 4 5 0

* The *Instantaneous Views* by MM. Ferrier and Soulier, Mr. England, and others; also the *Instantaneous* and other slides by Mr. C. S. Breese, exhibited at the International Exhibition, were taken with the above Lenses.

"I ordered some objectives of Mr. Dallmeyer, and have lately received them. They are the best I have ever seen."—DR. VAN MONCKHOVEN, *British Journal*, June 2, 1862.

"These Lenses give a more luminous image, than any instrument made up to the present time; without a diaphragm they give a large field rigorously clear and well defined.*** With a diaphragm, the image is quite perfect."—*Moniteur de la Photographie*, May, 1861.

PHOTOGRAPHIC LANDSCAPE LENSES.

- No. 1. **A Landscape Lens**, consisting of one achromatic combination, mounted in tubes, with rack and pinion movement, the lens 2 in. in diameter and 9 in. focal length, for producing pictures 6 in. by 5 in. ... 4 0 0
- No. 1. **Ditto, ditto**, without rack and pinion movement ... 3 0 0
- No. 2. **Ditto, ditto**, 2½ in. diameter, 12 in. focal length, for pictures 8½ by 6½ in. ... 5 10 0
- No. 2. **Ditto, ditto**, without rack and pinion movement ... 4 10 0
- No. 3. **Ditto, ditto**, 3 in. diameter, 15 in. focal length, for pictures 10 in. by 8 in. ... 6 10 0
- No. 3. **Ditto, ditto**, without rack and pinion movement ... 5 10 0
- No. 3. **A. Ditto, ditto**, 3½ in. diameter and 18 in. focal length for pictures 12 in. by 10 in. ... 8 0 0
- No. 3. **A. Ditto, ditto**, without rack and pinion movement ... 7 0 0
- No. 4. **Ditto, ditto**, 4 in. diameter, 20 in. focal length, for pictures 15 in. by 12 in. ... 12 0 0
- In consequence of the length of the Camera, this requires a universal joint handle to rack and pinion movement.*
- No. 4. **Ditto, ditto**, without rack and pinion movement ... 10 0 0
- No. 5. **Ditto, ditto**, 5 in. diameter, 25 in. focal length, for pictures 18 in. by 16 in., in setting without rack and pinion movement ... 14 0 0

ORTHOGRAPHIC LENSES

MADE TO ORDER ONLY.

Superseded by J. H. D.'s "New Triple Achromatic Lens," which is free from distortion.

The Orthographic, and other such Compound Lenses, reproduce straight marginal lines, "pincushion," and all single combinations, "barrel-shaped"

APPARATUS.

"Some excellent samples of apparatus, consisting of *Cameras, Instantaneous Shutters, &c.* are also exhibited. A Camera for carrying two Stereoscopic Lenses, possesses a moveable front and diaphragm, which permits it also to be used with one Lens (No. 1, Triple) for producing Landscapes 7¼ by 4¼. The use of the double rack and pinions for adjusting the focus, by sliding the front body of the Camera, is worthy of notice"—*Vide Report of Jurors, International Exhibition.*

"As regards apparatus generally, the principal features of Mr. Dallmeyer's contributions are *most excellent workmanship, simplicity of design, and great adaptation to a given purpose.*"—*Photographic News, Aug. 29, 1862.*

DALLMEYER'S NEW BINOCULAR CAMERA,*

(SUGGESTED AND USED BY MR. WILSON, OF ABERDEEN.)

With a (moveable) central partition, expanding from $3\frac{1}{2}$ to 7 in., suitable for Stereoscopic Views, Cartes de Visite, (or when furnished with the No. 1 Triple Achromatic Lens of 7 in. back focus,) for pictures on the full size plate, viz., $7\frac{1}{4}$ by $4\frac{1}{2}$ in., with rack and pinion movement	...	...	...	...	4 10 0
Ditto, ditto, with swing back	...	...	...	...	5 15 0
Brass Binding, extra,	...	...	...	...	1 0 0
Binocular Camera, made with a "bellows" body (somewhat lighter and more portable than the above, but not so durable), expanding from $3\frac{1}{2}$ to 10 in., for Stereoscopic Views and single Pictures up to $7\frac{1}{4}$ in. by $4\frac{1}{2}$ in. (for No. 1, Triple Lens) with rack and pinion movement	...	...	...	...	4 15 0
Ditto, ditto, expanding from $3\frac{1}{2}$ in. to 12 in. or more, for Stereoscopic Views and single Pictures up to $8\frac{1}{2}$ by $6\frac{1}{2}$ (for No. 2, Triple Lens), with rack and pinion movement	...	...	...	...	5 15 0
Swinging Back to either of the above	...	...	...	...	1 5 0
Brass Binding ditto ditto	...	...	...	...	0 15 0
Binocular Stereoscopic Camera, for plates $6\frac{3}{4}$ by $3\frac{3}{4}$, with rising front	...	...	...	...	2 15 0
Ditto, ditto, without	...	...	...	...	2 10 0
Rack and pinion movement for ditto	...	...	...	...	0 17 6
Double Slides for holding two-dry plates, $7\frac{1}{4}$ by $4\frac{1}{2}$, ... each	...	...	...	...	1 2 6
Ditto, ditto, brass bound	...	...	...	...	1 6 6
Fine Cases, with packings for complete sets of apparatus... from	...	...	...	...	1 5 0

* "A Camera exhibited by Dallmeyer is an admirable illustration of how many uses may be combined without interfering with the proper exercise of any; it is a type of a class which has many imitators. * * * It is intended for use either by the tourist in the field, or the artist in his studio. * * *"—*Practical Mechanics Journal*, p. 368.

DALLMEYER'S

CARTE DE VISITE CAMERAS.

For One Lens, with repeating back for two pictures, on plates $7\frac{1}{4}$ by $4\frac{1}{2}$ or $6\frac{1}{2}$ by $4\frac{1}{2}$	...	...	...	...	3 10 0
Ditto, ditto, with single collodion slide, and focussing screen, for plates 5 by 4	...	...	...	...	4 5 0
Ditto, ditto, with single collodion slide, and focussing screen, for plates $6\frac{1}{2}$ by $4\frac{1}{2}$	...	...	...	...	5 0 0
Rack and pinion movement, applied to either of the above	...	...	...	...	0 17 6
Box Hood Shutters, for opening and closing the Lens. (These Shutters also act as shades to the Lenses)	...	...	...	...	1 1 0
Carte de Visite Camera, for two Lenses, with repeating back for four pictures, on plates $8\frac{1}{2}$ by $6\frac{1}{2}$, with rack and pinion movement (suggested by Mr. Mayall)	...	...	...	...	7 0 0
Box Hood Shutter, for ditto	...	...	...	...	1 5 0
Swinging Back, applied to the above Cameras	...	...	...	...	from 1 1 0

DALLMEYER'S LANTHORN CAMERAS.

Square Mahogany Cameras, with ground glass focusing screen, one plate-holder, and two inner frames for plates as under:—

	Plain Sliding Trunk.	Best Sliding Trunk.	Swinging Back.			Brass binding extra.		
			£.	s.	d.	£.	s.	d.
1, for plates $4\frac{1}{4} \times 3\frac{1}{4}$ and under	1 8 0	1 14 0	5 14 0	0	0	0	16 0	
2, " 5×4	2 0 0	2 12 0	6 12 0	0	0	0	1 0 0	
3, " $6\frac{1}{2} \times 4\frac{3}{4}$	2 10 0	3 15 0	11 0 0	0	0	0	1 6 0	
3 A, " $8\frac{1}{2} \times 6\frac{1}{2}$	4 10 0	6 6 0	13 10 0	0	0	0	2 10 0	
4, " 10×8	5 10 0	7 7 0	17 10 0	0	0	0	3 0 0	
5, " 12×10	7 10 0	9 15 0	20 10 0	0	0	0		
6, " 15×12	10 0 0	13 10 0						
7, " 18×16	15 0 0	18 10 0						
8, " 22×20	18 10 0	24 0 0						

IMPROVED BELLOWS CAMERA.

Capable of adjustment for both Portrait and Landscape Lenses.

Portability its great advantage; thus, the 10 by 8 Camera packs into a space $12\frac{1}{2}$ by $10\frac{1}{2}$ by 3, and weighs about 7lbs. Price with one single back, focussing screen, and screw adjustment, as follows:—

				Brass Binding.		
				£.	s.	d.
For plates 7 by 6	...	...	...	4	15	0
" 8½ " 6½	...	...	...	5	10	0
" 10 " 8	...	...	...	6	6	0
" 12 " 10	...	...	...	7	10	0
" 15 " 12	...	...	...	10	0	0
" 18 " 16	...	...	...	16	0	0

A swing-back can also be applied to the above Cameras. Prices on application.

LARGER CAMERAS OF EVERY DESCRIPTION MADE TO ORDER.

Double and Single Backs, Inner Frames, Glass Baths, Printing Frames, Plate Boxes, Plate Holders, Ash Tripod Stands (*Rigid and Folding*); also, a New Form of Operating Room Stand, Glass Plates, Albumenized Paper, &c.

All Materials and Chemicals required for the various Photographic purposes, kept in stock.

Estimates given for complete Sets of Apparatus, Chemicals, &c.

Reading Glasses arranged from the discoveries of the peculiar effects of Binocular vision, by Dr. Young, Dr. Arnot, and Professor Wheatstone

Gold Spectacles ... from 2 10 0

Steel Spectacles, Silver or Tortoiseshell ... 0 12 0

Hand Spectacles and Eye Glasses according to their mounting.

