

ROSS' Photographic LENSES & CAMERAS



TAKEN WITH

[Copyright.]

ROSS' "HOMOCENTRIC" LENS.

5 in., Series III., f. 6'3. Negative by J. C. CARTER.

ROSS LIMITED,



**Manufacturing
Opticians.**

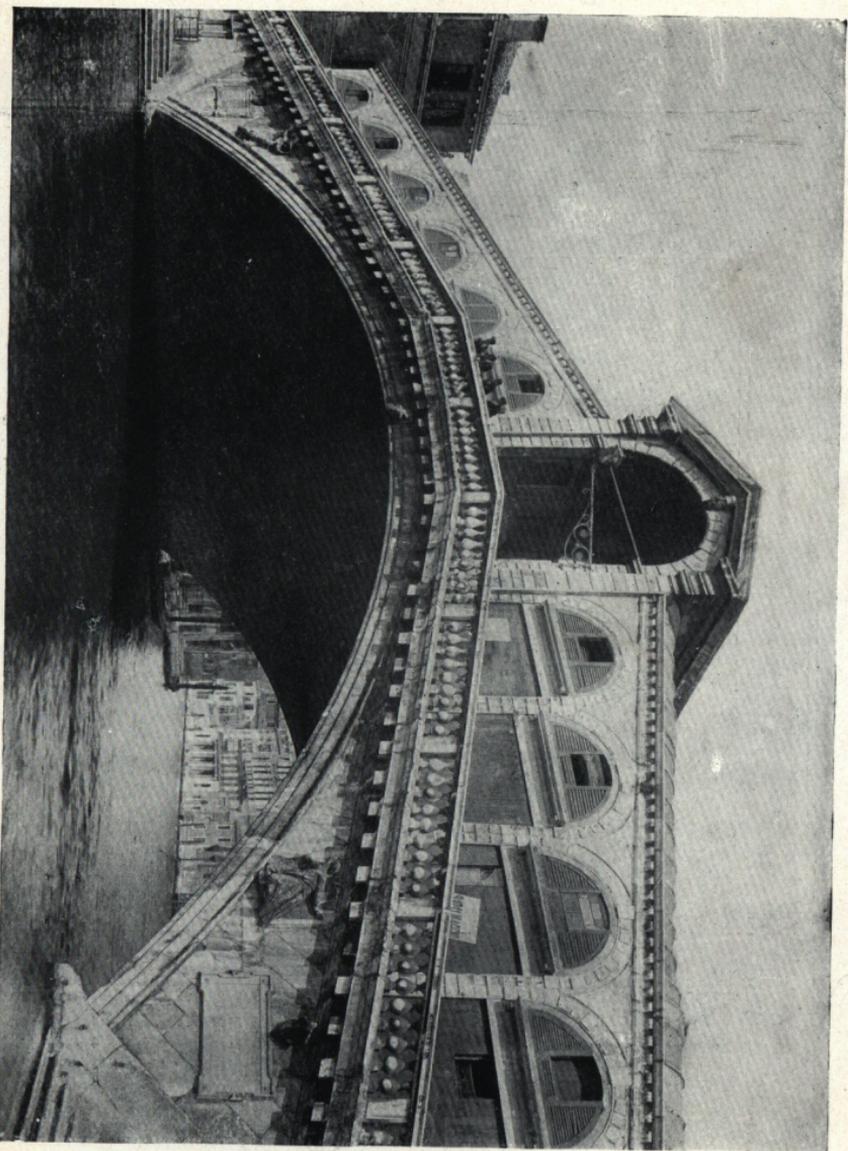
Contractors to His Majesty's Governments, British and Colonial; also to the principal Foreign Governments.

ESTABLISHED 1830.

III, NEW BOND ST., LONDON, W.
31, COCKSPUR ST., CHARING CROSS, S.W.

Wholesale Department and
Optical Works:

CLAPHAM COMMON, LONDON, S.W.



TAKEN WITH

6-in. ROSS' "HOMOCENTRIC" LENS, f. 6.3.

Negative by FRANCIS BACON.

* * **ROSS' Patent** * *

HOMOCENTRIC LENS,



EXQUISITE DEFINITION,

PERFECT COVERING

AND ILLUMINATION,

Has called forth large numbers of appreciative letters, which space precludes; but the following extracts from voluminous laudatory testimonials give some idea of the value at which its merits are estimated:—

“The finest lens brought out of recent years.”

“Has no equal for Critical Defining Power.”

“It is ‘Unbeatable.’ The Definition is superb.”

“By far the clearest and sharpest Photos are taken with the ‘Homocentric’ Lens.”

“Defining Power far finer than that of any other lens I have ever had through my hands.”

“Definition over the whole plate is perfect.”

“Perfect Definition at $f5.6$ with surprising Depth.”

“Better than any lens for snap-shots of anything.”

“The Definition, Rapidity and Covering Power are remarkable.”

“Am much pleased with most satisfactory results.”

“Brilliant Negatives with Details finely marked.”

“Definite Advantages, exceeding even our Critical Expectations.”

“A splendid Lens, especially for Colour Work.”

“A powerful Lens. Tried it for various purposes.”

“For Process Work there is nothing equal to it.”

“A Happy Combination of attributes—Perfection of Optical Qualities and Moderate Cost.”

[See following pages.]

ROSS' HOMOCENTRIC LENSES.

SERIES II. f/5.6 Stops:—f/8
f/11.3 f/16 f/22.6

SPECIALLY CONSTRUCTED FOR
**PORTRAITS, GROUPS,
INSTANTANEOUS PICTURES, AND
SNAP SHOT HAND CAMERA WORK.**



No.	Equiv. Focus.	PLATE COVERED.		PRICE. In Iris Setting. £ s. d.	Code Word.	IN FOCUSING MOUNTS.	
		Full Aperture.	Medium Stops.			PRICE. £ s. d.	Code Word
*00	3 inch	2 $\frac{1}{2}$ × 1 $\frac{1}{8}$	2 $\frac{1}{2}$ × 2	4 15 0	Hahay		
*0	5 "	3 $\frac{1}{2}$ × 2 $\frac{1}{2}$	3 $\frac{1}{2}$ × 3 $\frac{1}{2}$	5 5 0	Hahaka		
1	5 "	4 $\frac{1}{4}$ × 3 $\frac{1}{4}$	4 $\frac{1}{4}$ × 3 $\frac{1}{4}$	5 0 0	Haarlem	5 15 0	Hama
2	5 $\frac{1}{2}$ "	4 $\frac{1}{4}$ × 3 $\frac{1}{4}$	5 × 4	5 10 0	Habesh	6 5 0	Handa
3	6 "	5 × 4	6 $\frac{1}{2}$ × 4 $\frac{1}{2}$	6 0 0	Hachen	7 0 0	Haaz
4	7 "	6 $\frac{1}{2}$ × 4 $\frac{1}{2}$	7 $\frac{1}{2}$ × 5	7 0 0	Hadda	8 0 0	Hapura
5	8 $\frac{1}{2}$ "	7 $\frac{1}{2}$ × 5	8 $\frac{1}{2}$ × 6 $\frac{1}{2}$	8 10 0	Haelen		
6	10 "	8 $\frac{1}{2}$ × 6 $\frac{1}{2}$	10 × 8	12 0 0	Haffen		
7	12 "	10 × 8	12 × 10	17 0 0	Hague		
8	15 "	12 × 10	15 × 12	23 0 0	Hahma		
9	18 "	13 × 11	18 × 16	30 0 0	Haida		
10	21 "	15 × 12	22 × 18	38 0 0	Hakata		
11	24 "	18 × 16	25 × 22	47 10 0	Haleb		

* These lenses work at f/4.8.

Cost of Pairing two Lenses for Stereoscopic Work, 8/-

MOUNTED IN BETWEEN-LENS SHUTTERS.

No.	Equiv. Focus.	IN CENTEX.		IN COMPOUND.	
		Price. £ s. d.	Code Word.	Price. £ s. d.	Code Word.
1	5 inch	6 1 0	Haartex	7 0 0	Haarcom.
IN AUTOMAT.					
2	5 $\frac{1}{2}$ "	7 15 0	Habaur	7 10 0	Habcom.
3	6 "	8 5 0	Hackaur	8 8 0	Hackcom.
4	7 "	9 5 0	Haddaux	9 14 0	Haddcom.
5	8 $\frac{1}{2}$ "	11 7 0	Hoelaux	11 10 0	Hoelucum.
		IN VOLUTE.		IN KOILOS.	
No.	Equiv. Focus.	Price. £ s. d.	Code Word.	Price. £ s. d.	Code Word.
1	5 inch	8 12 0	Haarval	7 0 0	Haarkos.
2	5 $\frac{1}{2}$ "	9 7 6	Habvaf	7 18 0	Habkos.
3	6 "	9 17 6	Hackvaf	8 8 0	Hadkos.
4	7 "	10 17 6	Haddvaf	9 8 0	Hoelkos.
5	8 $\frac{1}{2}$ "	12 14 0	Hoebvot		
6	10 "	16 4 0	Haffvot		

The Lenses of this Series are specially recommended for all kinds of extremely rapid work for Portraits and Groups, also for Cinematograph work and Lantern projection.

ROSS' HOMOCENTRIC LENSES.

SERIES III. *f*/6.3 Stops:—*f*/8 *f*/11.3 *f*/16 *f*/22.6.
SPECIALLY CONSTRUCTED FOR

Instantaneous Views and Groups and Snap Shot Hand Camera Work.

No.	Equiv. Focus.	PLATE COVERED.		PRICE. In Iris Setting. £ s. d.	Code Word.	IN FOCUSING MOUNTS.	
		Full Aperture.	Medium Stops.			PRICE. £ s. d.	Code Word.
000	2 3/4 inch	.. 1 1/2 x 1 3/4	.. 3 x 2	.. 3 15 0	.. Heady		
00	3 1/2 "	.. 2 x 2	.. 3 1/2 x 2 1/2	.. 3 15 0	.. Heard		
0	4 "	.. 3 1/2 x 2 1/2	.. 3 1/2 x 3 1/2	.. 3 15 0	.. Heal		
1	5 "	.. 4 1/2 x 3 1/2	.. 5 x 4	.. 4 0 0	.. Heath	.. 4 15 0	.. Hefta
2	5 1/2 "	.. 4 1/2 x 3 1/2	.. 6 x 5	.. 4 5 0	.. Hebra	.. 5 0 0	.. Hegar
3	6 "	.. 5 x 4	.. 6 1/2 x 4 3/4	.. 4 10 0	.. Hector	.. 5 5 0	.. Hehnan
4	7 "	.. 6 1/2 x 4 3/4	.. 7 x 5	.. 5 10 0	.. Hedon	.. 6 5 0	.. Heida
5	8 1/2 "	.. 7 1/2 x 5	.. 8 1/2 x 6 1/2	.. 7 0 0	.. Heeg	.. 8 0 0	.. Hekar
6	10 "	.. 8 1/2 x 6 1/2	.. 10 x 8	.. 9 10 0	.. Hefra		
7	12 "	.. 10 x 8	.. 12 x 10	.. 12 10 0	.. Hegron		

The Special Focussing Mounts provided with Iris Diaphragm are for Hand Cameras of Fixed Extension. Focussing Mounts do not admit of Between-lens Shutters.

Cost of Pairing Two Lenses for Stereoscopic Work, 8s.

MOUNTED IN BETWEEN-LENS SHUTTERS.

No.	Equiv. Focus.	In CENTEX.		In COMPOUND.	
		PRICE.	Code Word.	PRICE.	Code Word.
1	5 inch	.. 5 1 0	.. Heathtex	.. 5 15 0	.. Heathcom
2	5 1/2 "	.. 5 6 0	.. Hebratex	.. 6 5 0	.. Hebracom
3	6 "	.. 5 11 0	.. Hectotex	.. 6 10 0	.. Hectocom
In AUTOMAT.					
4	7 "	.. 7 15 0	.. Hednaux	.. 7 18 0	.. Hedcom
5	8 1/2 "	.. 9 17 6	.. Heegaux	.. 9 14 0	.. Heegcom
6	10 "	.. 12 7 6	.. Hefraux	.. 12 10 0	.. Hefracom
No.	Equiv. Focus.	In VOLUTE.		In KOILOS.	
		PRICE.	Code Word.	PRICE.	Code Word.
1	5 inch	.. 7 12 0	.. Heathval	.. 5 15 0	.. Heathkos
2	5 1/2 "	.. 7 17 0	.. Hebraval	.. 6 5 0	.. Hebrakos
3	6 "	.. 8 2 0	.. Hectoval	.. 6 10 0	.. Hectorkos
4	7 "	.. 9 7 6	.. Hedvaf	.. 7 18 0	.. Hedonkos
5	8 1/2 "	.. 10 17 6	.. Heegvaf	.. 9 8 0	.. Heegkos
6	10 "	.. 13 17 6	.. Hefvaf		
7	12 "	.. 16 14 0	.. Hegroot		

The Lenses of this Series are admirably adapted for Hand Cameras. Their single combinations may be used for work requiring lenses of long focus, giving excellent results when used with medium stop on the same sizes of plates as the Doublets.

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and 31, Cockspur Street, Charing Cross, S.W.
Wholesale Department and Optical Works—CLAPHAM COMMON, S.W.

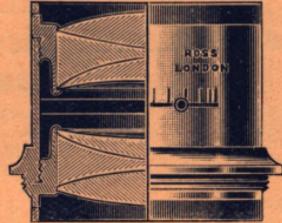
ROSS'

COMPOUND HOMOCENTRICS REVISED PRICES.

SERIES IV. f/6.8.

FOR

**Out-door Work generally;
for Views, Groups, and
Architecture.**



RATIO OF STOPS .. f/6.8 f/8 f/11.3 f/16 f/22.6 f/32 f/64

No.	Equiv. Focus.	PLATE COVERED.		PRICE.			
		From	To	In Iris Setting.	Code Word.	In Focussing Setting.	Code Word.
000 ..	2 3/4 in.	1 3/4 x 1 3/4	3 x 2	£3 15 0	Hylas	..	..
00 ..	3 1/4 "	2 x 2	3 1/2 x 2 1/2	3 15 0	Hylbo	..	..
0 ..	4 1/4 "	3 1/4 x 2 1/4	3 3/4 x 3 1/4	3 15 0	Hylcar	..	..
1 ..	5 "	4 1/4 x 3 1/4	6 1/4 x 4 3/4	4 0 0	Hylem	£4 15 0	Hylot
2 ..	5 1/2 "	4 3/4 x 3 3/4	7 x 5	4 5 0	Hymn	5 0 0	Hymot
3 ..	6 "	5 x 4	7 1/2 x 5	4 10 0	Hypbo	5 5 0	Hypot
4 ..	7 "	6 1/4 x 4 3/4	8 1/2 x 6 1/2	5 10 0	Hypet	6 5 0	Hypot
5 ..	8 1/2 "	7 1/4 x 5	10 x 8	7 0 0	Hykon	8 0 0	Hykot
6 ..	10 "	8 3/4 x 6 1/2	12 x 10	9 10 0	Hybed	..	..
7 ..	12 "	10 x 8	15 x 12	12 10 0	Hysus	..	..
8 ..	14 "	12 x 10	18 x 16	16 0 0	Hytipe	..	..

LARGER SIZES TO ORDER.

Cost of Pairing two Lenses for Stereoscopic Work, 8s.

MOUNTED IN BETWEEN-LENS SHUTTERS.

No.	Equiv. Focus.	IN CENTEX.		IN COMPOUND.	
		Price.	Code Word.	Price.	Code Word.
1 ..	5 in.	£5 1 0	Hylemtex	£5 15 0	Hylemcom
2 ..	5 1/2 "	5 6 0	Hymntex	6 5 0	Hymncom
3 ..	6 "	5 11 0	Hyphtex	6 10 0	Hypocom
IN AUTOMAT.					
4 ..	7 "	7 15 0	Hypetaur	7 18 0	Hypetcom
5 ..	8 1/2 "	9 17 6	Hykau	9 14 0	Hykcom
6 ..	10 "	12 7 6	Hybaum	12 10 0	Hybucom
IN VOLUTE.					
IN KOILOS.					
No.	Equiv. Focus.	Price.	Code Word.	Price.	Code Word.
1 ..	5 in.	£7 12 0	Hylemval	£5 15 0	Hylemkos
2 ..	5 1/2 "	7 17 0	Hymnval	6 5 0	Hymnkos
3 ..	6 "	8 2 0	Hypoval	6 10 0	Hypbkos
4 ..	7 "	9 7 6	Hypetval	7 18 0	Hypetkos
5 ..	8 1/2 "	10 17 6	Hykval	9 8 0	Hykkos

These excellent Rapid and Wide angle lenses are made to the same formulæ and replace our Series III. Double Anastigmats. They are specially recommended for wide Angle Work and for Copying, as they give uniform sharpness of the image from centre to margin of the plate, even with the largest stop.

ROSS' HOMOCENTRIC LENSES.

SERIES V. f/8

FOR

Stops : f/11.3 f/16 f/22.6

Views, Groups, Interiors, Copying, and Hand Camera Work, with large Aperture.

No.	Equiv. Focus.	PLATE COVERED.		PRICE In Iris. Setting. £ s. d.	Code Word.	IN FOCUSING SETTINGS.	
		From	To			Price £ s. d.	Code Word.
1	5 inch	4 $\frac{1}{2}$ × 3 $\frac{1}{2}$	6 $\frac{1}{2}$ × 4 $\frac{3}{4}$	3 10 0	Hiata	4 5 0	Hinka
2	5 $\frac{1}{2}$ "	4 $\frac{3}{4}$ × 3 $\frac{1}{2}$	7 × 5	3 15 0	Hibba	4 10 0	Hioto
3	6 "	5 × 4	7 $\frac{1}{2}$ × 5	4 0 0	Hicory	4 15 0	Hippos
4	7 "	6 $\frac{1}{2}$ × 4 $\frac{3}{4}$	8 $\frac{1}{2}$ × 6 $\frac{1}{2}$	5 0 0	Hida	5 15 0	Hirado
5	8 $\frac{1}{2}$ "	7 $\frac{1}{2}$ × 5	10 × 8	6 0 0	Hiendel	The Special Focussing Mounts Provided with Iris Diaphragm are for Hand Cameras of Fixed Extension.	
6	10 "	8 $\frac{1}{2}$ × 6 $\frac{1}{2}$	12 × 10	8 0 0	Hiffar	Focussing Mounts do not admit of Between-Lens Shutters.	
7	12 "	10 × 8	15 × 12	10 10 0	Higor		
8	15 "	12 × 10	18 × 16	13 10 0	Hihone		
9	18 "	13 × 11	22 × 18	18 10 0	Hikur		
10	21 "	15 × 12	25 × 22	24 10 0	Hihle		
11	24 "	18 × 16	30 × 24	31 10 0	Himal		

Cost of Pairing two Lenses for Stereoscopic Work, 8s.

MOUNTED IN BETWEEN-LENS SHUTTERS.

No.	Equiv. Focus.	IN CENTEX.		IN COMPOUND.	
		Price. £ s. d.	Code Word.	Price. £ s. d.	Code Word.
1	5 inch	4 11 0	Hiatter	5 5 0	Hiatcom
2	5 $\frac{1}{2}$ "	4 16 0	Hibtex	5 10 0	Hibbcom
3	6 "	5 1 0	Hicatex	5 15 0	Hiccom
4	7 "	6 1 0	Hidatex	7 0 0	Hidacom
IN AUTOMAT.					
5	8 $\frac{1}{2}$ "	8 5 0	Hindlaur	8 8 0	Hiencom
6	10 "	10 17 6	Hiffaux	12 14 0	Hiffscom
7	12 "	13 7 6	Higraux	13 10 0	Higocom
IN VOLUTE.					
No.	Equiv. Focus.	IN VOLUTE.		IN KOILOS.	
		Price. £ s. d.	Code Word.	Price. £ s. d.	Code Word.
1	5 inch	7 2 0	Hiatval	5 5 0	Hiatkos
2	5 $\frac{1}{2}$ "	7 7 0	Hibbaval	5 10 0	Hibbakos
3	6 "	7 12 0	Hieval	5 15 0	Hickos
4	7 "	8 12 0	Hidaval	7 0 0	Hidakos
5	8 $\frac{1}{2}$ "	9 17 6	Hindvaf	—	—
6	10 "	11 17 6	Hiffvaf	—	—
7	12 "	14 7 0	Higorvaf	—	—

The Single Combinations of the Homocentric Lenses may be used for work requiring lenses of long focus. They give excellent results when used with medium stop on the same size of plate as the complete combination for distant Landscapes.

ROSS, Limited, 111, New Bond Street, London, W.,
and 31, Cockspur Street, Charing Cross, S.W.
 Wholesale Department and Optical Works—CLAPHAM COMMON, S.W.

ROSS' HOMOCENTRIC LENSES.

SERIES VI. f/8 Stops : f/11.3 f/16 f/22.6 f/32 f/45 f/64

The Lenses of this series are mounted when required in special settings with Iris Diaphragm as well as slot for Waterhouse stops. Diaphragms with square or special form openings can be supplied as an extra.

For Process, Line, Half-Tone, and Three-Colour Work.

No.	Equiv. Focus.	Large Aperture.	Smaller Stops. Up to	In setting with Iris or Waterhouse stops.			Code Word.
				£	s.	d.	
7 ..	12 inch ..	10 × 8 ..	15 × 12 ..	10	10	0 ..	Hoang
8 ..	15 ,, ..	12 × 10 ..	18 × 16 ..	13	10	0 ..	Hobart
9 ..	18 ,, ..	13 × 11 ..	22 × 18 ..	18	10	0 ..	Hoher
10 ..	21 ,, ..	15 × 12 ..	25 × 22 ..	24	10	0 ..	Hodder
11 ..	24 ,, ..	18 × 16 ..	30 × 24 ..	31	10	0 ..	Hoei

THE HOMOCENTRIC LENS, from its complete zoneless spherical correction, freedom from astigmatism and curvature, is specially adapted for all Process work, including that in Three Colours. The most delicate work is copied, reduced or enlarged by it with absolute accuracy and sharpness.

ROSS' WIDE-ANGLE LENSES. f/16.

For Landscapes, Architecture, and use in Confined Situations.

No.	Size of Plate with medium Stop.	Size of Plate with full Aperture.	Equ. Focus.	PRICE.			Code Word.
				Brass Settings.			
				£	s.	d.	
*1	5 × 4	4½ × 3½	3 ins.	3	0	0	Ladas
*2	7½ × 4½	5 × 4	4 ,,	3	5	0	Lebanon
*3	8½ × 6½	6½ × 4¾	5 ,,	3	15	0	Levant
4	10 × 8	8½ × 6½	6 ,,	4	10	0	Lexicon

These Lenses are remarkable for the sharp definition given over the whole of the plate covered with equal illumination and their freedom from distortion.

They are constructed for 90° and upwards, a wider angle, perhaps, than given by any wide-angle lenses hitherto issued.

They are confidently recommended for architectural subjects and for use in confined situations.

Rotary Diaphragms only are supplied, as there is not sufficient space between the front and back combinations to introduce the Iris Diaphragm.

ROSS'

RAPID "Cabinet" and Portrait Lenses.



NO. 3 CABINET LENS.

FOR THE STUDIO.

ROSS' "Cabinet" Lenses differ from ordinary Portrait Lenses in being constructed to give as flat a field as is consistent with good marginal definition. They are invaluable for the production with full aperture, of either standing or sitting figures, Heads, Busts, and Groups, and give very rapid results with brilliancy and exquisite defining power.

The prices quoted are for the lenses mounted in Rigid Setting, with Iris Diaphragm.

No. 1 Cabinet Lens, $2\frac{3}{4}$ inches clear aperture, $8\frac{1}{2}$ inches equivalent focus; for Cabinet Pictures in short studios; should be placed 14 feet from the sitter, 18 feet for full length Carte-de-Visite Portraits ..

CODE WORDS.
Iris Diaphs.
& Rigid Setting.
Quagris
£12 0 0

No. 2 Ditto ditto, $3\frac{1}{4}$ inches clear aperture, 10 inches equivalent focus; recommended where there is not sufficient space for the use of a lens of longer focus; should be placed at 18 feet from the sitter ..

Queris
£16 10 0

No. 3 Ditto ditto, $3\frac{1}{2}$ inches clear aperture, 12 inches equivalent focus; for use when the studio exceeds 20 feet; should be placed at 20 feet from the sitter for Cabinet Portraits

Quivris
£18 10 0

Many of the finest Cabinet portraits from leading Studios in Paris, London and New York are taken with this No. 3 Lens.

No. 3A Portrait Lens, 4 inches diameter of lenses, 16 inches equivalent focus, for pictures on $8\frac{1}{2} \times 6\frac{1}{2}$ plates and under, for Promenade Portraits and Cabinets in long Studios

Quiltris
£26 0 0

LARGER SIZES TO ORDER.

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ROSS-ZEISS "TESSAR,"

SERIES 1c. f 3.5.

These Lenses are perfectly corrected for Astigmatism.

No. 1 and No. 1a are specially for Cinematograph work, and we therefore only stock them with Focussing Adjustment.

The longer foci are for Portraiture, possessing about the same rapidity as Lenses of the Petzval Type and a flat field of 35°.

No.	Equivalent Focus.		Plate Covered.	PRICE.			
				Brass Mount.			
	m/m	inches.		With Iris Diaphragm.	CODE WORD.	With Focussing Adjustment.	CODE WORD.
				£ s. d.		£ s. d.	
1	50	2	1 by $\frac{3}{8}$	4 0 0	Adecenar	4 15 0	Adecto
1a	75	3	$1\frac{1}{4}$ " $1\frac{1}{4}$	5 0 0	Adecuno	5 15 0	Adnoto
6	210	$8\frac{1}{4}$	$3\frac{1}{2}$ " $2\frac{3}{4}$	15 0 0	Adebant	....	....
7	250	10	$4\frac{1}{4}$ " $3\frac{1}{4}$	20 0 0	Adendrus	....	....
8	300	12	$6\frac{1}{2}$ " $4\frac{1}{2}$	25 0 0	Aderant	....	....

ROSS-ZEISS "TESSAR,"

SERIES 1c. f 4.5.

The f 4.5 "Tessars" are preferable for Group and General Portrait work, the smaller sizes affording increased possibilities to users of hand cameras with focal plane shutters.

No.	Equivalent Focus.		Plate Covered.	PRICE.			
				Brass Mount.			
	m/m	inches.		With Iris Diaphragm.	CODE WORD.	With Focussing Adjustment.	CODE WORD.
				£ s. d.		£ s. d.	
13	112	$4\frac{1}{2}$	$3\frac{1}{2}$ by $2\frac{3}{8}$	5 0 0	Adisti	5 10 0	Asaron
15	150	6	$4\frac{1}{2}$ " $3\frac{1}{4}$	6 10 0	Afaglid	7 2 0	Adheso
15a	180	$7\frac{1}{16}$	$6\frac{1}{2}$ " $4\frac{3}{8}$	8 0 0	Afagia	9 0 0	Alaar
16	210	$8\frac{1}{4}$	7 " 5	10 0 0	Afesios	11 0 0	Alanto
17	250	10	8 " 5	16 0 0	Agerant	....	....
18	300	12	$8\frac{3}{4}$ " $6\frac{1}{2}$	22 0 0	Agistis	....	....
18a	370	$14\frac{3}{4}$	9 " 7	30 0 0	Asdut	....	....
19	400	16	10 " 8	35 0 0	Asadas	....	....
19a	450	18	10 " 8	42 10 0	Asocon	....	....
20	500	20	12 " 10	50 0 0	Asais	....	....

The cost of pairing two Lenses for Stereoscopic Work is 8s.

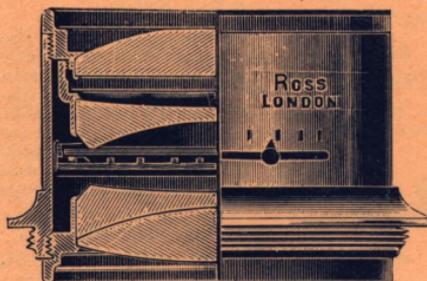
THE ABOVE PRICES ARE NET.

ROSS, Limited, 111, New Bond Street, London, W.,
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 Wholesale Department and Optical Works—CLAPHAM COMMON, S.W.

ZEISS' "TESSAR" LENSES,

MANUFACTURED BY **ROSS, Limited.**

SOLE LICENSEES FOR THE BRITISH EMPIRE.



Exquisite Definition and large flat Field are the specially marked characteristics of the three Series of "Tessars."

Series IIb., f6.3.

A HIGH-CLASS ANASTIGMAT FOR ALL PURPOSES.

These Lenses are perfectly corrected for Astigmatism and embrace a large angle. The Smaller Sizes are specially suitable for Hand Cameras.

No.	Equivalent Focus.		Plate Covered.		PRICE. With Iris Diaphragm.	Code Word.
	m. m.	Inches.	From	To		
1a	75	3	1 $\frac{3}{4}$ × 1 $\frac{3}{4}$	3 $\frac{3}{4}$ × 2 $\frac{1}{2}$	£ 4 0 0	Adescando.
2	84	3 $\frac{5}{16}$	2 × 2	3 $\frac{3}{4}$ × 2 $\frac{1}{2}$	4 0 0	Adescantis.
3	112	4 $\frac{3}{8}$	2 $\frac{1}{2}$ × 2 $\frac{1}{2}$	4 × 3 $\frac{3}{8}$	4 10 0	Adescarent.
4	136	5 $\frac{1}{4}$	4 $\frac{3}{4}$ × 3 $\frac{1}{2}$	5 × 4	4 15 0	Adescassi.
5	155	6	5 × 4	6 × 4 $\frac{3}{8}$	5 0 0	Adescavamo.
5a	180	7 $\frac{1}{10}$	6 $\frac{1}{2}$ × 4 $\frac{3}{4}$	7 × 5	7 0 0	Adeschero.
6	210	8 $\frac{1}{4}$	7 × 5	8 $\frac{1}{2}$ × 5	8 10 0	Adesco.
7	255	10	8 $\frac{1}{2}$ × 5	8 $\frac{1}{2}$ × 6 $\frac{1}{4}$	11 10 0	Adesivo.
8	305	12	8 $\frac{1}{2}$ × 6 $\frac{1}{4}$	9 $\frac{1}{2}$ × 7 $\frac{1}{4}$	17 0 0	Adesmie.

Larger Sizes to Order.

Series IIb.

In Focussing Mounts for Hand Cameras with Fixed Extension.
In Between-lens Shutters.

No.	Equivalent Focus. Inches.	PRICE.				
		In Focussing Mount.	In Between-lens Shutters.			
			In Compound.	In Automat.	In Volute.	In Koilos.
4	5 $\frac{1}{4}$	£ 5 5 0	£ 6 10 0	*£ 5 16 0	£ 8 7 0	£ 6 11 0
5	6	5 10 0	6 15 0	*6 1 0	8 12 0	7 0 0
5a	7 $\frac{1}{10}$	7 12 0	9 3 0	9 5 0	10 17 6	—
6	8 $\frac{1}{4}$	—	11 4 0	11 7 6	12 7 6	—
7	10	—	14 10 0	14 7 6	15 7 6	—

*These two sizes are in the new B. & L. Automat Shutter—The "Centex."

The cost of pairing two Lenses for Stereoscopic work is 8s.

Objectives with focussing mounts cannot be used in conjunction with Hand Cameras where the shutter works between the lenses of the objective.

THE ABOVE PRICES ARE NET.

SERIES VII., f. 12·5,

(ZEISS' PATENT.)

CONVERTIBLE SINGLE 'PROTAR' LENSES

Manufactured by **ROSS, Ltd.**

(Sole Manufacturing Licensees for the British Empire.)



The anastigmatic flatness of the image is unapproachable in any Single Landscape Lens hitherto produced, while the marginal distortion is practically inappreciable. The Lens is therefore suitable for instantaneous outdoor pictures such as landscapes and seascapes, and also for large portraits and groups in a good light.

The field embraced is about 85°.

Stops—f12·5, f16, f22·6, f32, f45, f64.

No.	Equivalent focus.		Plate covered, f12·5.		Price with Iris Diaphragm.	Code Word.
	mm.	Ins.	c.m.	Ins.	£ s. d.	
0	100	4	6 × 9	3½ × 2½	4 10 0	Abdera
00	135	5½	7 × 10	4 × 2¾	4 10 0	Absynth
000	170	6¾	9 × 12	4½ × 3	4 10 0	Abydos
1	183	7½	12 × 15	6½ × 4¾	3 15 0	Acacia
2	224	9	13 × 18	7½ × 5	4 5 0	Acarina
3	285	11½	16 × 21	8½ × 6½	5 0 0	Aceton
4	350	14	21 × 27	10 × 8	6 0 0	Achilles
5	412	16½	24 × 30	12 × 10	7 15 0	Acidalia
6	480	19½	29 × 34	13 × 11	10 15 0	Aconitum
7	590	23½	30 × 40	15 × 12	13 15 0	Adinol

SERIES V., f. 16,

WIDE ANGLE AND COPYING LENS.

MANUFACTURED BY

ROSS, Ltd.,

Zeiss' "Protar,"

Sole Licensees for the British Empire.

STOPS—F/16, F/22, F/32, F/45, F/64. The first seven sizes are specially useful for interiors, or work in confined situations. The three larger sizes are specially intended for the reproduction of maps, plans, and drawings; they yield a perfectly flat and anastigmatic image, and are entirely free from distortion. The field measures in the smaller numbers over 100°, in the larger ones about 90°.

No.	Equivalent focus.		Size of Plate covered with stop.		Price.	Code Word.
	mm.	in.	F/16.	F/32.		
1	86	3½	4½ × 3½	5 × 4	£ s. d. 3 4 0	Labrador
2	112	4¼	5 × 4	6½ × 4¾	3 4 0	Lagune.
3	141	5½	6½ × 4¾	8½ × 6½	4 0 0	Lama.
4	182	7½	8½ × 6½	10 × 8	5 0 0	Lapsus.
5	212	8½	10 × 8	12 × 10	6 5 0	Lateran.
6	265	10½	12 × 10	13 × 11	7 15 0	Lava.
7	315	12½	13 × 11	15 × 12	9 5 0	Lawine.

Longer foci for Reproductions of Charts. Particulars on application.

SERIES VIIA.

(Zeiss' Patent.)

CONVERTIBLE 'PROTAR' LENSES,

F: 6'3 to F: 8.

Universal Series of Lenses specially suitable for Portraits and Groups in the Studio, and for all Classes of outdoor Photography, also for Interiors, Copying, &c.

Made by ROSS, Limited, Sole Manufacturing Licensees for the British Empire.

These Lenses are formed by combining suitable single Lenses of Series VII. (f/12'5), as described on the preceding page.

No.	Combination of Two Lenses. (f/12'5)			Largest Aperture.	Size of Plates. At Full Aperture. Inches	Prices in London. In Brass Settings, with Iris. £ s. d.	Cable Code Word
	Resulting Combined Focus.						
	Front	Back	ins.				
0	4	4	2 $\frac{3}{4}$	6'3	1 $\frac{1}{2}$ × 1 $\frac{1}{2}$	8 5 0	Accord
00	5 $\frac{3}{4}$	5 $\frac{3}{4}$	3 $\frac{1}{4}$	6'3	2 × 2	8 5 0	Agathe
000	6 $\frac{3}{4}$	6 $\frac{3}{4}$	4	6'3	2 $\frac{3}{4}$ × 2 $\frac{3}{4}$	8 5 0	Agnes
1	7 $\frac{1}{4}$	7 $\frac{1}{4}$	4 $\frac{1}{4}$	6'3	3 $\frac{1}{4}$ × 3 $\frac{1}{4}$	6 15 0	Agonie
2	9	7 $\frac{1}{4}$	4 $\frac{1}{2}$	7	4 $\frac{1}{4}$ × 3 $\frac{1}{4}$	7 5 0	Alabaster
3	11 $\frac{1}{2}$	7 $\frac{1}{4}$	5	8	5 × 4	8 0 0	Alauda
4	9	9	5	6'3	5 × 4	7 15 0	Albatros
5	11 $\frac{1}{2}$	9	5 $\frac{3}{4}$	7	6 × 5	8 10 0	Alizarin
6	14	9	6 $\frac{1}{4}$	8	6 × 5	9 10 0	Alkaloid
7	11 $\frac{1}{2}$	11 $\frac{1}{2}$	6 $\frac{3}{4}$	6'3	6 $\frac{1}{2}$ × 4 $\frac{3}{4}$	9 4 0	Alkohol
8	14	11 $\frac{1}{2}$	7	7	7 $\frac{1}{2}$ × 5	10 4 0	Amiaon
9	16 $\frac{1}{2}$	11 $\frac{1}{2}$	7 $\frac{3}{4}$	8	8 × 5	11 19 0	Ananas
10	14	14	8	6'3	8 × 5	11 3 0	Anchovis
11	16 $\frac{1}{2}$	14	8 $\frac{1}{2}$	7	8 $\frac{1}{2}$ × 6 $\frac{1}{2}$	12 18 0	Anilin
12	19 $\frac{1}{4}$	14	9	8	8 $\frac{1}{2}$ × 6 $\frac{1}{2}$	15 18 0	Anthracit
13	16 $\frac{1}{2}$	16 $\frac{1}{2}$	9 $\frac{1}{4}$	6'3	8 $\frac{3}{4}$ × 6 $\frac{3}{4}$	14 12 0	Antimon
14	19 $\frac{1}{4}$	16 $\frac{1}{2}$	10	7	9 × 7	17 12 0	Antipyrin
15	23 $\frac{1}{2}$	16 $\frac{1}{2}$	11	8	9 × 7	20 12 0	Apostat
16	19 $\frac{1}{4}$	19 $\frac{1}{4}$	11	6'3	9 × 7	20 9 0	Aristos
17	23 $\frac{1}{2}$	19 $\frac{1}{4}$	12	7	10 × 8	23 9 0	Asbest
18	27 $\frac{1}{2}$	19 $\frac{1}{4}$	12 $\frac{3}{4}$	8	10 × 8	27 14 0	Athene
19	23 $\frac{1}{2}$	23 $\frac{1}{2}$	13 $\frac{1}{4}$	6'3	10 × 8	25 17 0	Atlas
20	27 $\frac{1}{2}$	23 $\frac{1}{2}$	14 $\frac{3}{4}$	7	12 × 10	30 2 0	Atropin
22	27 $\frac{1}{2}$	27 $\frac{1}{2}$	15 $\frac{1}{2}$	6'3	12 × 10	33 15 0	Aurora
25	30 $\frac{1}{2}$	30 $\frac{1}{2}$	18 $\frac{1}{4}$	6'3	13 × 11	47 5 0	Aurum
28	34	34	20 $\frac{1}{4}$	6'3	13 × 11	61 14 0	Ave
30	39	39	23 $\frac{1}{2}$	6'3	15 × 12	81 5 0	Azalie

More than two single lenses may be used in the same setting, the size of which is determined by the longest focus single lens. A Movable Ring must be adapted, so constructed that the engraving indicates 3 to 6 Scales of apertures as the case requires. Price of Ring with 3 scales, 7s. 6d.; with 6 scales, 10s. For engraving additional scales on customer's own lens Rings 2s. 6d. will be charged for each scale.

For SETS OF CONVERTIBLE "PROTARS" see Ross' Complete Catalogue.

**ROSS, Limited, 111, New Bond Street, London, W.,
and 31, Cockspur Street, Charing Cross, S.W.**

Wholesale Department and Optical Works—CLAPHAM COMMON, S.W.

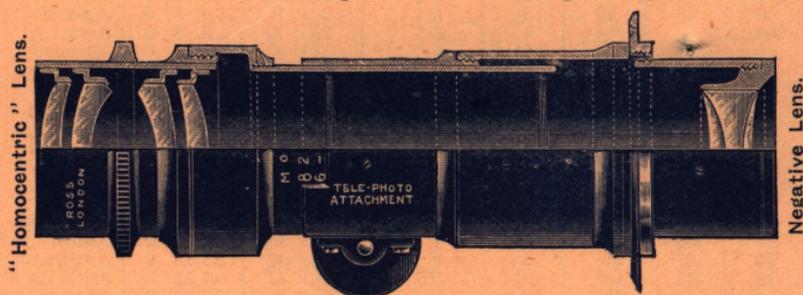
ROSS' Tele-Photographic Lenses.

A TELE-PHOTOGRAPHIC Combination consists essentially of a Positive lens and a Negative lens, the focus and consequent magnification of the image being regulated by their relative positions.

Were the Separation equal to the difference of their focal lengths a telescopic combination would be formed, or if the separation were equal to the focus of the positive lens no magnification would take place, but all approximation from this point lengthens the focus enlarging the image. To obtain the necessary adjustments a setting with rack and pinion is provided in several sizes to suit various positive and negative lenses.

Any good photographic objective may be used in conjunction with tele-negative lenses, but the "Homocentric" is specially recommended, and it is to utilize to the full the excellent qualities of this lens that the Ross' Tele-negatives have been specially constructed.

The tables given show the various magnifications, the extensions of camera bellows, and the prices of the settings & negative lenses.



Setting No.	Positive Lenses, flange not exceeding	Price.
No. 1	1½ in. diameter	£2 10 0
No. 2	1¾ in. "	2 17 6
No. 3a	2 in. "	3 2 6
No. 4	2½ in. "	3 12 6
No. 4a	2¾ in. "	4 0 0
No. 5	3 in. "	4 10 0
No. 6	3¼ in. "	5 5 0
Tele-negative Lens,	1½ in. focus, suitable for Setting No. 1 and larger	1 10 0
"	1¾ in. " " " " No. 1	1 15 0
"	2¼ in. " " " " No. 1	2 5 0
"	3 in. " " " " No. 3	3 5 0
"	4 in. " " " " No. 4	5 5 0
"	5 in. " " " " No. 5	7 15 6

Approximate Extensions from Negative Lens to Focussing Screen.

Magnifications.	5	6	7	8	Suitable for
Negative 1½ in. focus..	9	8¾	10½	12¼	3½ × 2½ to 5 × 4.
" 2¼ in. " ..	12	11¼	13½	15¾	¼-plate to ½-plate.
" 3 in. " ..	16	15	18	21	5 × 4 to whole plate.
" 4 in. " ..	20	20	24	28	½-plate to 10 × 8.
" 5 in. " ..	25	25	30	35	whole-plate to 12 × 10.

Extensions for lower or higher magnifications are proportionate to the above.

LARGER SIZE SETTINGS AND NEGATIVE LENSES OF LONGER FOCUS SPECIALLY CONSTRUCTED TO ORDER.

THE LATEST SELF-CLOSING FOCAL-PLANE CAMERA.

Made throughout at Ross' Optical Works, Clapham Common.

ROSS' "PANROS"

(PATENT)

Is the most perfect form of Hand Camera and has been constructed to meet the demand for a folding camera of the highest class suitable for all requirements of up-to-date photography.

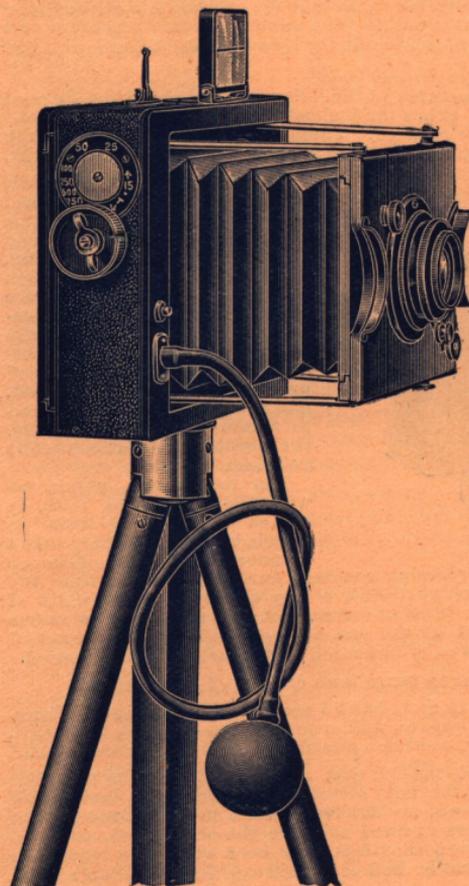
It will be found reliable under all circumstances, and efficient in every emergency that is likely to arise.

The "PANROS" is compact and of convenient size, light in weight, and easy of manipulation. Its freedom from mechanical complication, combined with most careful construction, is such that it cannot be easily deranged or damaged without unduly rough usage.

The Framework is of thoroughly seasoned, ebonized hard wood, all external parts, front and back, being finished with a dull black polish, while the body, which contains the shutter, is covered with best quality morocco leather.

The appearance is therefore extremely trim, compact and unobtrusive; and the lens being sunk almost level with the front, the Camera is very portable in a light case of leather or canvas of small size.

The Bellows is of the form ordinarily used in portable cameras, and not flat, as in many of the collapsing cameras of recent introduction. In consequence internal reflections are cut off by the block and folds of the bellows.



The Front is held extended, perfectly rigid and parallel to back, by means of very strong struts or stays, which automatically lock themselves into position by the simple action of drawing out the Front.

ROSS' "PANROS"

PATENT

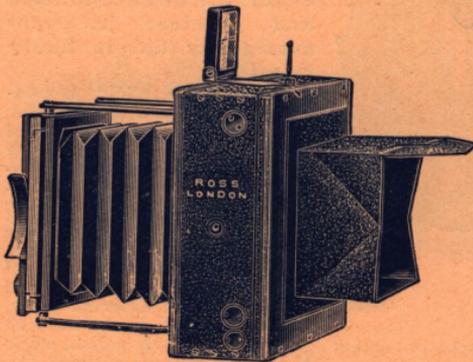
FOCAL-PLANE CAMERA (continued).

The **Lens Board** has extensive rise and fall, so that the foreground may be limited, and high buildings or monuments included in the picture.

A **Cross Movement** is also provided for horizontal pictures.

One **Winding Head** sets the shutter, and regulates for time and instantaneous exposures of varying duration, so that the camera is **without any other external projection**. It is unlike other cameras in this respect as also in the advantage of re-adjustment of the blinds for speed **either before or after** setting the shutter.

One of the most important features of the "Panros" Camera is the **Patent Focal-Plane Blind Shutter**. It has the highest efficiency, and is more easily adjusted than any other hitherto introduced. There are two short blinds, winding from one roller on to another, without any strain beyond the tension of the Springs.



In many shutters the blinds are connected by silk tapes, and the variation of aperture is accomplished by winding one blind away from the other, producing considerable friction and strain, which wear the tapes. Moreover, this arrangement does not admit of the aperture being adjusted in one position. In the Ross' "Panros" one blind begins to travel first, and after an interval, sufficient to attain the desired aperture, the second blind automatically released, follows.

The mechanism connected with the two blinds then, by means of a novel form of clutch, becomes locked in such a manner that the distance between the edges of the blinds remains constant during the whole time the blinds are in motion, and there is no possibility of any alteration in the width of aperture during exposure. The increase or decrease of exposure value is shown by the indicator, and is controlled by the one and only milled head, the actual speed of blind travel being automatically increased as the aperture is decreased.

The **Instantaneous exposures** range from of $\frac{1}{10}$ to $\frac{1}{1000}$ of a second.

Automatic exposures of $\frac{1}{3}$, $\frac{1}{2}$, $\frac{1}{4}$, 1, 2 and 3 seconds or **prolonged Time**, may be given by pneumatic ball release, and, a certain speed having been used, there is no need to re-adjust before making a second exposure at the same speed.

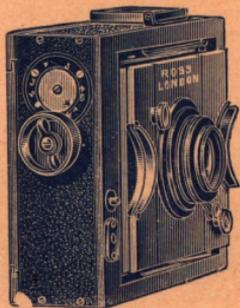
The **Shutter Blinds** are self-closing, that is one blind overlaps the other and remains in this position during the next setting of the shutter, so that should the slide of plate-holder be withdrawn, no light will reach the sensitized plate or film. In other focal-plane shutters of fixed aperture the slide must, to avoid fogging, be re-inserted in the carrier, should it have been withdrawn before the shutter is set, or else recourse must be had to a lens-cap which is liable to be forgotten.

For Prices, etc., see page 50.

ROSS' "PANROS"

PATENT

FOCAL - PLANE CAMERA *(continued)*.



OPENING THE BLINDS FOR FOCUSING.

SETTING THE SHUTTER FOR SPEED.

WINDING FOR EXPOSURE.

The Winding Head, the only one projection on the "Panros" Camera, accomplishes all operations usually allotted to divers milled heads and other arrangements, extending beyond the framework of hand cameras. The head when drawn out slightly and turned while in that position brings the arrow-head opposite the speed figure on the dial. The head automatically returns to its normal position. This setting of speed may be effected before or after the winding of the shutter. Working within the head is a Butterfly nut, a half-turn of which opens the blinds for focussing purposes. To release and return blind to normal position before setting, give the outer head a slight turn first forward as if to wind and then backwards. The blind will return to its position ready for setting. Half a turn of the head is all that is necessary to wind and set the shutter for exposure. This winding brings the blinds into position for working.

The Mechanical Working Parts of the Shutter are entirely concealed in a small internal space, and from their design and the great care taken and exactitude in putting together they are not at all liable to get out of order.

The Finder attached to the Camera is a folding concave glass, reproducing in miniature the picture to be taken with the lens. Being ruled with cross lines and supplied with a centering sight, it is easy to see if the camera is being held straight.

The camera is furnished with a Hood for focussing, which also acts as a protector for the glass screen.

The Changing Box made for the "Panros" Camera is of similar high finish to the Camera, and is morocco covered. It is for 12 plates or 24 films, carried in sheaths. It is extremely simple and efficient, and slides into the back grooves of camera without the least difficulty. The exposure is made by the withdrawal of the roller shutter, and the return of the shutter pushes the exposed photo or film in sheath into the leather bag, whence it is transferred to the back of the pack. The non-actinic window in the box lid permits of the bold legible numbers on the back of the sheaths being read with ease.

**ROSS, Limited, 111, New Bond Street, London, W.,
and 31, Cockspur Street, Charing Cross, S.W.**

Wholesale Department and Optical Works—Clapham Common, S.W.



TAKEN WITH

Negative by FRANCIS BACON

ROSS' "HOMOCENTRIC" LENS."

6 in., Series III., f. 6'3

ROSS' PHOTOGRAPHIC LENSES & CAMERAS.

See preceding and following Pages, 35 to 66.



TAKEN WITH

[Copyright.]

ROSS' "HOMOCENTRIC" LENS.

5 in., Series III., f. 6'3.

Negative by J. C. CARTER.

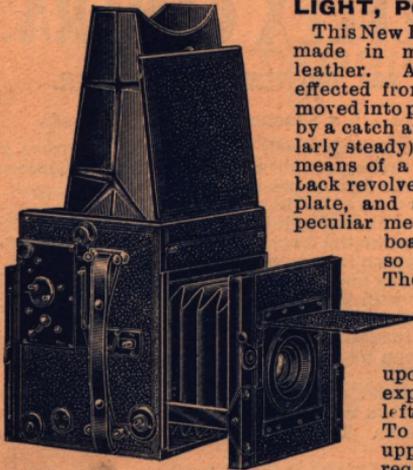
Ross Limited, MANUFACTURING
OPTICIANS,

111, NEW BOND STREET, LONDON, W.

31, COCKSPUR STREET, CHARING CROSS, S.W.

Optical Works: CLAPHAM COMMON, S.W.

Focal Plane REFLEX CAMERA.



LIGHT, PORTABLE AND EFFICIENT.

This New Reflex Camera is compactly and strongly made in mahogany, and covered in morocco leather. All movements and adjustments are effected from the outside. The focussing-hood is moved into position by simply raising the lid secured by a catch at top; and the front (which is particularly steady) is moved forward, carrying the lens, by means of a milled-head on right hand side. The back revolves for taking pictures either way of the plate, and a rising front is provided. From its peculiar mechanism, the mirror allows of the lens-board being racked further back than usual, so that short focus lenses may be used.

The mirror itself is surface-silvered, to afford best definition. Another special feature is that the tension spring of the shutter has been done away with, the alteration of speed depending entirely upon the width of slit, and the duration of exposure is directly indicated on the dial on left hand, thus obviating all calculation. To increase or decrease the slit, pull the upper knob slightly, and turn either way as required. See that the notch on setting

head (lower down) is brought opposite the white line while regulating the slit, and that the upper knob is quite home while setting the shutter. To effect this, turn the milled head until the blinds are fully wound, and then set the mirror by drawing the pin under the carrying handle down to the end of the slot. The release of both mirror and shutter requires but the sliding of the pin nearer the front towards the thumb rest behind it. A swing Front of special construction can be supplied with this Camera. The vertical swing is obtained by slipping off the rack at one side, allowing the front to advance, while the horizontal is effected by simply releasing clamp screws. A very useful addition is the Stereo Magnifier, which attaches to the Hood and is of great assistance in focussing. It also helps to keep the Hood well open.

	1/4-plate 5 1/4 in. Lens.	Post Card Size, non- reversing, 6 in. Lens.	5 1/4 x 3 1/4 with Stereo attachment and 2 Lenses.	5 x 4 6 in. Lens.	1/2-plate 8 1/2 in. Lens.
Price, with 3 Double Slides and Ross "Homocentric" Lens, f/6.3 .. .	£ s. d. 16 5 0	£ s. d. 17 0 0	£ s. d. 22 18 0	£ s. d. 22 10 0	£ s. d. 31 10 0
Code Words .. .	Reflap	Reflate	Reflster	Reffloor	Reffloat
Ditto, with "Homocentric" Lens, f/5.6 .. .	17 10 0	18 10 0	25 8 0	24 0 0	35 0 0
Code Words .. .	Reflin	Reffliss	Reffters	Refflitor	Refflorite
Do. with Ross - Zeiss "Tessar" f/6.3 .. .	5 1/4 in. Lens. 16 15 0	17 10 0	4 1/2 in. Lens. 25 18 0	25 0 0	8 1/2 in. Lens. 35 0 0
Code Words .. .	Reflaz	Refflexzor	Reffset	Refflzote	Refflotiz
Solid Double Backs, each Code Word .. .	0 7 0	0 10 0	0 10 0	0 10 0	0 15 0
Book Form Backs, each Code Word .. .	0 15 0	0 18 0	0 18 0	0 18 0	1 2 0
Extra for Swing Front, as above described	1 10 0	2 0 0	2 0 0	2 5 0	3 0 0
Changing Box with 12 Sheaths .. .	1 15 0	2 0 0	2 0 0	2 0 0	2 10 0
Film Pack Holder .. .	0 15 0	0 18 0	0 18 0	0 18 0	1 5 0
Antinous Release, specially fitted .. .	0 7 6	—	—	—	—

Stereo Focuser for attachment to Hood, as above described, 10/-

. . THE 3½ × 2½ NEW . .

Focal Plane REFLEX CAMERA.

FOR DARK SLIDES, CHANGING BOX, OR FILM PACK ADAPTER.



Size, 5 × 5 × 5 inches. Weight, 2½ pounds.

This extremely small new size Reflex Camera is made of mahogany, ebonised, covered with morocco leather, the fittings being in black enamel.

Bellows are of leather, extending 8 inches.

Movements and adjustments are effected from the outside, as in the larger size model, all the advantages of which it possesses.

Focussing hood on top has a magnifier fitted, and together with the mirror screen, slides off to permit of cleaning.

Back focussing screen is also hooded, and the camera can be used without the mirror movement if desired.

This small Camera is readily turned for oblong or upright pictures, a reversing back being unnecessary in this size. The mechanism works equally well either way.

There are bushes for attachment to tripod-stand in either position.

It has rising and cross-front movements.

Provided with Ross' "Homocentric" or Ross-Zeiss' "Tessar" Lens, the pictures obtained are of such excellent quality that they are suitable for considerable enlargement.

For every circumstance where portability is desirable this Camera is therefore the most useful form. A carrying handle is attached.

To set up the Camera, pull tab on left, raising one side of the hood, and then the inner tab on right, which will bring both hood and magnifier into position.

The front milled head sets the mirror, and the back one the shutter.

The trigger releases both shutter and mirror simultaneously.

To increase or decrease the shutter slit, after bringing the pointer vertical, draw out the milled knob slightly, and turn either way as required. The disc marked 0 to 5 indicates the opening, and the plate below gives value of each in fractions of a second.

Best materials and workmanship ensure the Camera standing well in any climate.



PRICES OF 3½ × 2½ REFLEX CAMERAS.

	£	s.	d.
Camera as described with 3 solid form double backs and Ross "Homocentric" lens, f/6.3 fo. 5 in.	Code word—	Miniflap	14 0 0
Ditto, with Ross' "Homocentric" Lens, f/5.6, fo. 5 in.	"	Miniflin	15 0 0
Ditto, with Ross-Zeiss "Tessar" Lens, f/6.3, fo. 4½ in.	"	Miniflaz	14 10 0
Ditto,	"	Minicoz	15 0 0
Solid form Double Backs	each		0 7 0
Book form			0 12 6
Changing Box for 12 plates or 24 cut films			1 15 0
Film Pack Adapter			0 12 6
Solid Leather Sling Case or Camera and 3 backs, or for Camera and changing box			0 15 0
Light Wooden Tripod Stand			0 18 6
Aluminium Folding Stand, extra light			1 5 0
Antinuous Release Fitted			0 7 6

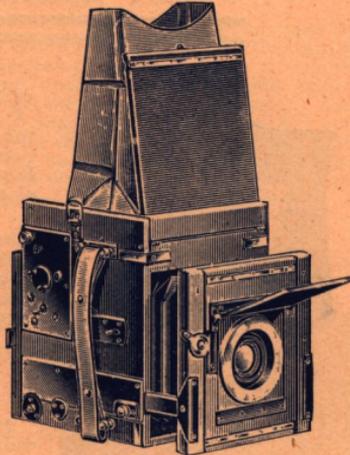
Focal Plane REFLEX CAMERA.

NEW TROPICAL MODEL. FC

Made of Polished Teak specially selected, with fittings of lacquered brass, and the body brass bound. The bellows are of Russia leather to withstand the attack of insects. Supplied with Skyshade, Shoulder Strap and special rack rising front and hinged hood.

In general construction the Tropical Model is similar to Regular Model, of which it has all the movements and advantages.

The dark slides, changing boxes and film pack adapters for use with the Tropical Model are all specially made of Teak.



The prices given below are for Tropical Models for the same size plates as the Regular Model, each being furnished with three double dark slides and Ross' lenses.

	$\frac{1}{2}$ -plate 5 $\frac{1}{2}$ in. Lens	Post Card Size, non- reversing 6 in. Lens	5 x 4 6 in. Lens	$\frac{1}{4}$ -plate 2 $\frac{1}{2}$ in. Lens
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Price with 3 Double Slides and Ross "Homocentric" Lens				
f6.3	22 2 0	23 0 0	31 0 0	45 0 0
Code Words	Troflap	Troflate	Troffloor	Troffloat
Ditto, with "Homocentric" Lens f5.6	25 7 0	24 10 0	33 10 0	44 10 0
Code Words	Troflin	Trofliss	Troflitor	Troffiorite
Ditto, with Ross-Zeiss "Tessar" f6.3	22 1 0	23 10 0	32 10 0	44 10 0
Code Words	Troflaz	Troffleztor	Trofflizote	Trofflotiz
Solid Double Backs, each Code Word— Troboc	0 9 6	0 14 0	0 14 0	1 1 0
Book Form Backs, each Code Word— Troboom	0 18 0	1 2 0	1 2 0	1 10 0
Film Pack Adapters	1 1 0	1 5 0	1 5 0	2 0 0
Changing Boxes	2 12 6	3 0 0	3 0 0	3 15 0

Stereo Focuser for Attachment to Hood 10/.

ROSS' NEW MODEL TWIN-LENS REFLEX CAMERAS.



THE absolute accuracy of the system of using a second lens for focussing and watching the object photographed, of the same construction and focus as the working lens, has induced Ross, Ltd., to design a Camera on this principle of quite novel arrangement.

The great advantage of the twin-lens over other Reflex Cameras is that the second lens not only serves for focussing and directing the Camera towards any object or particular part of the object, but there is no obliteration of the image after focussing.

It remains visible on the Screen during the exposure.

Ross' Twin-Lens Camera was originally made with a door closing over the front; afterwards with two folding doors and with considerable reduction in size.

The New Model retains the two doors, and is still smaller and less in weight, with many serviceable additions, the idea being to introduce a camera embodying every possible convenience for easy manipulation, to be absolutely reliable in use, and compact and portable when closed up.

The working lens is furnished with the new "Koilos" diaphragmatic shutter working at from 1 to $\frac{1}{300}$ th second, more generally useful than the focal-plane, which is principally for high-speed work. Nevertheless the New Camera may be furnished with a focal-plane shutter if desired; the "Automat," "Centex" or other suitable between-lens shutter substituted at the difference in Catalogue prices.

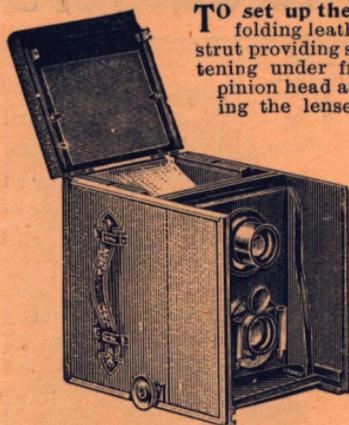
A conveniently shaped Automatic Hood is provided, enabling the operator to work in the strongest light.

Want of rigidity in the lens-carrying part of cameras is often a source of trouble, but in the New Model the arrangement of front is such that it is absolutely rigid in any position. Dim lighting of the visual picture in reflecting cameras is exceedingly irritating and misleading. It is frequently caused by the accumulation of dust on the mirror and inside of grey glass, and no adequate means has hitherto been provided for its removal. A prominent feature of the New Camera is the hinging of the top part so that it can be thrown open and the interior become accessible for cleaning. A rising front is fitted, worked by rack and pinion.

The reflector is surface-silvered to give the full sharpness to the image projected by the lens.



ROSS' NEW MODEL TWIN-LENS REFLEX CAMERA.



To set up the Camera for work open the lid at top, and the folding leather hood will be drawn up to its full extent, a strut providing support for the lid. Apply pressure to the fastening under front edge of the folding doors and turn the pinion head at right hand towards left, when the front carrying the lenses will move forward and the picture may be focussed on the screen.

When closing the hood, press down the spring before lowering the lid. The camera is suspended from the neck by a sling or mounted upon a stand, suitable bushes being provided for the purpose. This Camera may not only be made with focal plane shutter if desired, but also with revolving back and square finder portion, so that objects may be viewed and pictures taken either way of the plate.

DIMENSIONS of $\frac{1}{4}$ -plate Camera $7\frac{1}{2}$ inches long, $5\frac{3}{4}$ inches deep by $4\frac{1}{2}$ inches wide—closed.

WEIGHT, fitted with pair 5-inch "Homocentric" Lenses f6.3 and new "Koilos" Shutter, $3\frac{1}{2}$ lbs. approximately.

Prices—Including 3 Double Dark Slides with "Homocentric" Lens f6.3 and "Koilos" Shutter	$\frac{1}{4}$ -plate 5in. lenses	5 x 4 6in. lenses	$\frac{1}{2}$ -plate 7in. lenses
Shutter	£15 17 6	£18 12 6	£22 10 0
Code Words	Twapok	Twerok	Twigok
Ditto ditto and "Automat" Shutter	15 10 0	18 0 0	22 7 6
Code Words	Twapant	Twerant	Twigan
With "Homocentric" Lens f5.6 & "Koilos" Shutter	18 2 6	22 0 0	26 2 6
Code Words	Twinok	Twenok	Twutok
Ditto ditto and "Automat" Shutter	17 10 0	21 17 6	26 0 0
Code Words	Twinant	Twomant	Twutant
Either of the above with Square Finder and Revolving Back—add "ir" to Code Word & Time & Instantaneous Focal Plane Shutter & Constructing Camera to take same—add "os" to Code Word and	1 10 0	1 15 0	2 0 0
Focal Plane Shutter and Revolving Back combined—add "ut" to Code Word and	4 0 0	4 5 0	5 0 0
NOTE.—If Diaphragmatic Front Shutter is not required add "zo" to altered Code Word, and List Price of the Shutter will be deducted.	5 10 0	6 0 0	7 0 0

Twin-lens Cameras sold without lenses will be charged £2 extra.

EXTRA DOUBLE DARK SLIDES.— $4\frac{1}{4} \times 3\frac{1}{4}$, 15/-; 5×4 , 18/-; $6\frac{1}{2} \times 4\frac{3}{4}$, £1 2/-; $8\frac{1}{2} \times 6\frac{1}{2}$, £1 5/-.

BAG CHANGING BOXES with ROLLER SHUTTER (12 plate Sheaths).— $4\frac{1}{4} \times 3\frac{1}{4}$, £2; 5×4 , £2 5/-; $6\frac{1}{2} \times 4\frac{3}{4}$, £2 15/-.

EXTRAS.

Extra for Camera in Polished Mahogany with 3 Dark Slides, fully brass bound, $4\frac{1}{4} \times 3\frac{1}{4}$, 50/-; 5×4 , 55/-; $6\frac{1}{2}$ by $4\frac{3}{4}$, 60/-.

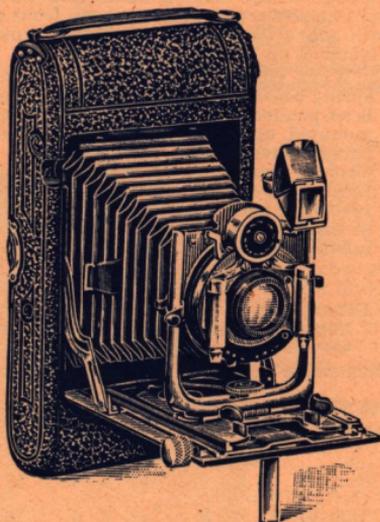
Double Swing Back Attachment, polished black, $4\frac{1}{4} \times 3\frac{1}{4}$, 25/-; 5×4 , 30/-; $6\frac{1}{2} \times 4\frac{3}{4}$, 35/-; $7\frac{1}{2} \times 5$, 40/-.

Steel Plate or Film Sheaths, for Changing Box, per doz., $4\frac{1}{4} \times 3\frac{1}{4}$, 5/-; 5×4 , 6/6; $6\frac{1}{2} \times 4\frac{3}{4}$, 7/6.



Roll Film and Plate Camera

COMBINED.



THIS Camera is made for $4\frac{1}{4}$ by $3\frac{1}{4}$ or for Postcard size, $5\frac{1}{2}$ by $3\frac{1}{2}$, and by special arrangement of Sliding Door at back admits of Plates being used as well as Roll Films.

It takes the ordinary Commercial Spools of Films or Plates as desired, the Carriers requiring no special adaptation.

It is of Metal, leather covered, of the finest workmanship and finish, and has every desirable movement.

Efficiency, Convenience, Lightness, Portability.

Prices—

For pictures $4\frac{1}{4}$ by $3\frac{1}{4}$ on Roll Films or Plates, with Pull-out ordinary Extension, Rising Front, 3 Metal Slides, new B. & L. "Automat" Shutter, the "Centex," and Ross' "Homocentric" Lens Series III. *f*6'3.

Complete as described **£8 8 6**

Or with "Koilos" Shutter, **14s.** extra.

For pictures $4\frac{1}{4}$ by $3\frac{1}{4}$ on Roll Films or Plates, with Rack and Pinion Double Extension, Racked Rising Front, Screw Cross Motion, 3 metal slides, new B. & L. "Automat" Shutter, the "Centex," and Ross' "Homocentric" Lens Series III. *f*6'3.

Complete as described **£10 0 0**

Or with "Koilos" Shutter, **14s.** extra.

Extra Plate Holders, metal, each, **1s. 6d.**

For pictures $5\frac{1}{2}$ by $3\frac{1}{2}$ (Post Card size) on Roll Films or Plates, with Double Extension, Quick and Fine Adjustments for Focussing, Rising and Falling Front actuated by Rotating Rack, Screw Cross Motion, new B. & L. "Automat" Shutter, the "Centex," and Ross' "Homocentric" Lens Series III. *f*6'3.

Complete as described, with 6 Metal Plate Holders.. **£11 5 0**

Or with "Koilos" Shutter, **14s.** extra.

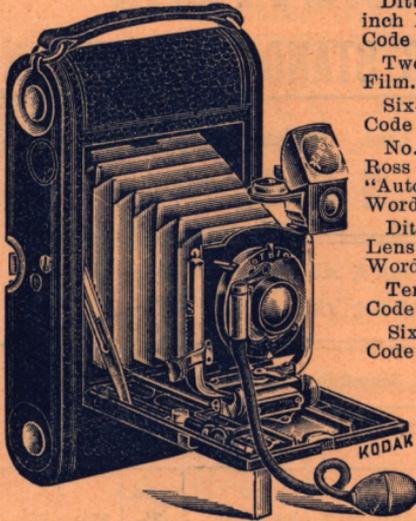
Extra Single Metal Plate Holders, each, **1/9.**

Each Camera is provided with Circular Level, Brilliant Pattern Finder, B. & L. new "Automat" Shutter, the "Centex," and the Ross' "Homocentric" Series III. *f*6'3.

KODAK CAMERAS

Supplied fitted with
Ross or Ross-Zeiss
LENSES. - - -

No. 3 FOLDING POCKET KODAK, with Ross 5-inch "Homocentric" Lens $f/6.3$ and "Automat" Shutter for pictures $4\frac{1}{2} \times 3\frac{1}{2}$. Code Word, Kapaut .. £8 5 0



Ditto ditto with Ross-Zeiss "Tessar" 5 $\frac{1}{2}$ -inch Lens, $f/6.3$, instead of "Homocentric." Code Word, Kapaz £9 0 0

Twelve-Exposure Spool of Kodak N.C. Film. Code Word, Filca 5/0

Six-Exposure Spool of Kodak N.C. Film. Code Word, Filcars 1 6

No. 3a FOLDING POCKET KODAK, with Ross 6 $\frac{1}{2}$ -inch "Homocentric" Lens $f/6.3$ and "Automat" Shutter, for pictures $5\frac{1}{2} \times 3\frac{1}{2}$. Code Word, Keraut £9 12 6

Ditto ditto with Ross-Zeiss "Tessar" 6-inch Lens $f/6.3$ instead of "Homocentric." Code Word, Kerez £10 2 6

Ten-Exposure Spool of Kodak N.C. Film. Code Word, Filbe 3/0

Six-Exposure Spool of Transparent Film. Code Word, Filbers 1/9

No. 4a FOLDING KODAK embodies all the features of the popular No. 3a Folding Pocket Kodak; gives large direct Picture $6\frac{1}{2} \times 4\frac{1}{2}$ on roll-films or plates; with Ross "Homocentric" Lens $f/8$. Code Word, Kifaut.

£13 7 0

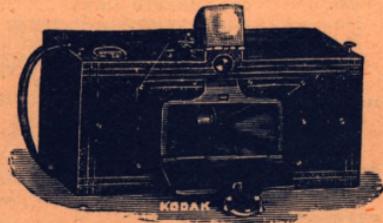
The PANORAM KODAK, fitted with "Homocentric" Lens, Series IV., $f/6.8$, in special setting and four diaphragms, in pull-off case.

No. 4.—For Pictures $12 \times 3\frac{1}{2}$ inch, capacity four exposures without re-loading. Size of Camera, $10 \times 5\frac{1}{2} \times 4\frac{1}{2}$, weight 2lbs. 10 ozs. Code Word, Pako. Price with Lens, £9 5 0

Leather Case, Code Word, Pakocas £0 10 6

Four-Exposure Spool of Kodak N.C. Film. Code, Fildo £0 3 2

Two-Exposure Spool of Kodak N.C. Film. Code, Fildoes.. .. £0 1 11



The "Homocentric" Lenses can be adapted to customers' own Kodaks, etc.

ROSS, LTD., offer to Amateur and Professional Photographers and Process Workers a greater choice and a finer selection of high-class lenses than any other manufacturer in the world.

THE ABOVE PRICES ARE NET.

ROSS, Limited, 111, New Bond Street, London, W.,
and 31, Cockspur Street, Charing Cross, S.W.
Wholesale Department and Optical Works—CLAPHAM COMMON, S W.

TIME & INSTANTANEOUS — PATENT SHUTTERS — THORNTON-PICKARD'S STANDARD PATTERN

To fit on either the Hood or Tube of Lens. Particulars of the smallest size.

Price **14/6**

Speed up to $\frac{1}{50}$ of a second. Dimensions, $3\frac{1}{2} \times 3 \times \frac{7}{8}$ inches. Weight, $3\frac{3}{4}$ ozs.

SPEED INDICATOR INCLUDED.

Cheaper Pattern made in Aluminium, Price from 12/6

SIZE, to fit on a Lens Hood or Tube up to ins. diam.—	1½	1⅞	2	2½	3	3½
TIME AND INSTANTANEOUS STANDARD PATTERN	14/6	15/-	16/-	18/-	21/-	25/-
Do. do. BEHIND LENS	15/6	16/-	17/6	19/6	22/6	26/6
Do. do. ALUMINIUM PATTERN	12/6	13/6	15/6	18/-	—	—
Do. do. ALUMINIUM BEHIND LENS	13/6	14/6	16/6	19/-	—	—
<i>If fitted with cord release instead of ball and tube for Hand Cameras, 1/- less</i>						
"ROYAL" PATTERN						
BEFORE LENS PATTERN, latest	19/-	19/6	20/-	23/6	26/6	—
BEHIND " " " "	20/-	20/6	21/6	25/-	28/-	—
EXTRA RAPID AND FOREGROUND						
TIME AND INSTANTANEOUS	—	23/6	25/6	28/6	32/6	37/6
STEREOSCOPIC						
TIME AND INSTANTANEOUS, at 3 in. or 3½ in. centres	20/-	21/-	23/-	27/-	—	—
Do. do. BEHIND LENS do.	22/6	23/6	25/6	29/6	—	—
<i>3½ in. centres, 2/- extra; 3¼ in. centres, 4/- extra</i>						
ADJUSTABLE PANEL FOR BEHIND LENS, extra 7/6						
SNAP SHOT, for Instantaneous only.						
STANDARD PATTERN	10/-	10/-	12/-	15/-	20/6	—
ALUMINIUM do.	9/-	9/-	10/6	13/6	—	—
SPECIAL, for more rapid Instantaneous ..	—	23/6	25/6	28/6	32/6	37/6
SILENT STUDIO	—	—	20/6	23/6	27/6	32/6
FOCAL PLANE, NEW MODEL, with speed Indicator and Calculator						
½-Plate 5×4	£2 5 0	£2 10 0	£2 15 0	£3 6 0	£3 10 0	£4 4 0
½-Plate 7½×5						
⅓-Plate 10×8						
12×10						
	£5 5 0					

Between - Lens Shutters.

The "KOILOS" Improved Diaphragmatic Sector Shutter with Air Brake.

Suitable for "HOMOCENTRIC" and Ross-Zeiss "TESSAR" Lenses.

5-in. and 6-in. f8; 5-in. f6.3	Price	35/0	Code Word	Koilos.
7-in. f8; 5½-in. and 6-in. f6.3; 5-in. f5.6	"	40/0	"	Koilata.
8½-in. f8; 7-in. and 8-in. f6.8; 5½-in., 6-in. and 7-in. f5.6	"	48/0	"	Koilion.
10-in. and 12-in. f8; 10-in. f6.3; 8½-in. f5.6	"	60/0	"	Koilina.

The "COMPOUND" Shutter with Iris Diaphragm and Distinct Automatic & Spring Actions.

Suitable for "HOMOCENTRIC" and Ross-Zeiss "TESSAR" Lenses.

*No. 0—5 and 6-in. f8; 5-in. f6.8; 5-in. f6.3	Price	35/0	Code Word	Companil
1—7-in. f8; 6-in. f6.8; 6-in. f6.3; 5 and 5½-in. f5.6	"	40/0	"	Compear
1A—7-in. f6.8	"	42/0	"	Complexil
2—8½-in. f8; 7-in. f6.3; 6-in. f5.6	"	48/0	"	Complot
2A—10-in. f8; 8½-in. f6.8; 8½-in. f6.3; 7-in. f5.6	"	54/0	"	Compos
3—12-in. f8; 10-in. f6.8; 10-in. f6.3; 8½-in. f5.6	"	60/0	"	Comptum
4—12-in. f6.8; 12-in. f6.3; 10-in. f5.6	"	65/0	"	Comptura

* No. 0 has the "Antinous" Release included in price.

Cost of fitting to Customers' own Lenses, 7/6 each.

B. & L. New Pattern Automatic Shutter, The "CENTEX."

Taking the place of the small size "AUTOMAT."

Compact, light tight and Dust-proof. All valves in Interior.
Fitted with Ball or with "Antinous" Release.
Everset and provided with Locking Lever.
From 1 to 1/100 Second, also Time and Bulb Exposures.

In Aluminium Case	£1 1 0
Ball and Tube or "Antinous" Release, extra.	Code Word Centex

The "AUTOMAT" Shutter.

For Lenses with opening of 30 mm.	£2 5 0	Code Word	Autura
" " " 40 mm.	2 17 6	"	Autexil
To Lenses of other Manufacture, 52/6, 67/6, according to size.			

THE

"VOLUTE" Iris Diaphragmatic Shutter (B.&L.)

For Lenses with opening of 24 mm.	£2 12 0	Code Word	Volu
" " " 36 mm.	3 17 6	"	Volaaf
" " " 52 mm.	4 4 0	"	Volutar

The Prices are for Shutters only.

I.R. Pneumatic Release, 1/- extra. "Antinous" Release, 2/6 extra.

ROSS, Ltd., Manufacturing Opticians, LONDON.

ROSS' "CENTURY" - CAMERA.

An instrument of the highest quality and finish, in which the advantages of the "Square" and "Tourist" Pattern Cameras are combined.

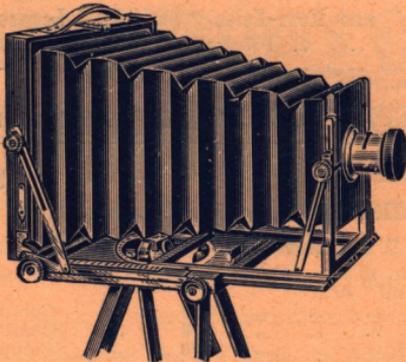


Fig. 1.

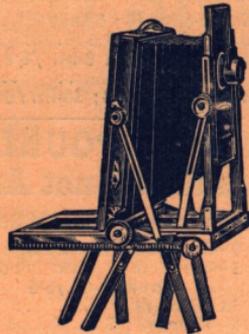


Fig. 2.

This Camera has been specially designed to meet the requirements of the modern Anastigmatic Lenses.

The chief advantages of the "Century" Camera are:—

- 1st.—Its Lightness and Portability.
- 2nd.—Its Extensive Rising Front.
- 3rd.—Its Double Rack Focussing.

DESCRIPTION.

Expert users of modern high-class Lenses have hitherto found that the old-fashioned square bellows cameras, notwithstanding their weight, possessed some points of advantage over the lighter and more popular tourist patterns. The defects of the usual conical bellows cameras are especially noticeable when photographing architectural subjects with wide-angle lenses, or copying. In the former case the bellows is forced backwards in front of the plate when the lens is raised, and unless great care is taken a portion of the picture is lost. When copying it is a great advantage to have the lens fixed and to focus from the back, but with most portable cameras the contrary is the case.

The "Century" Camera has been introduced because it is entirely free from the defects enumerated above, and combines, in a most perfect manner, the advantages of both systems.

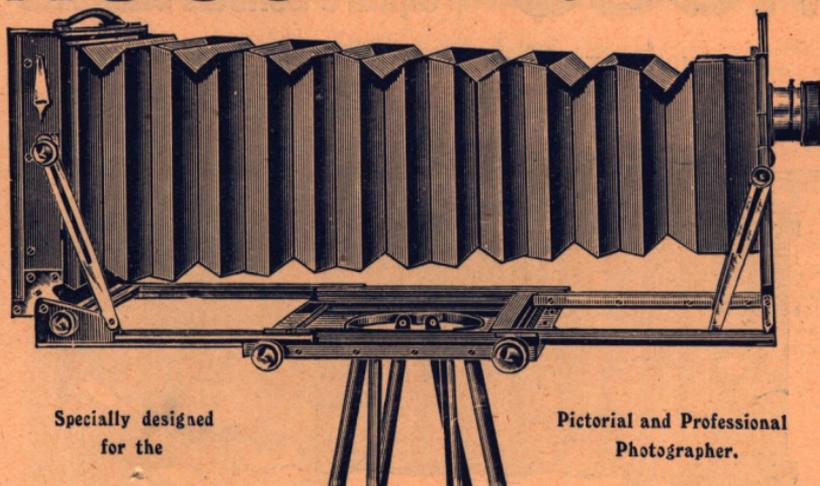
PRICES.

The following prices include camera, three double dark slides, best quality three-fold tripod and revolving turntable, complete.

Size in inches.	Prices.	Code Word.	Extra Double Dark Slides.	Brass Binding extra.	Size of Camera closed.
6½ × 4¾ ..	£11 10 0 ..	Centasa ..	£1 2 0 ..	£1 10 0 ..	8½ × 8½ × 2
7½ × 5 ..	12 10 0 ..	Centem ..	1 2 0 ..	1 10 0 ..	9½ × 9½ × 2
8½ × 6½ ..	14 0 0 ..	Centipo ..	1 5 0 ..	1 15 0 ..	11 × 10¾ × 2½
10 × 8 ..	16 0 0 ..	Centor ..	1 12 0 ..	2 0 0 ..	12¾ × 12¾ × 3
12 × 10 ..	19 0 0 ..	Centus ..	2 0 0 ..	2 10 0 ..	14¾ × 14¾ × 3
15 × 12 ..	24 0 0 ..	Centale ..	2 15 0 ..	3 0 0 ..	17½ × 17½ × 3½
18 × 16 ..	35 0 0 ..	Centup ..	3 10 0 ..	4 0 0 ..	21 × 21 × 3¾

For 12 × 10 and larger sizes we recommend a light supplementary leg for the front of camera. The price of this, including camera fittings, is 10/6.

ROSS' Triple Extension "Century" Camera.



Specially designed
for the

Pictorial and Professional
Photographer.

It has every movement requisite, and the extensions, back and front, render the adjustment for size of copy in reproduction particularly easy and convenient.

This Camera has all the advantages of the square bellows camera without its bulk, weight, and other drawbacks. Amongst its many good points are the following, viz. :—

- 1st.—Its Extreme Lightness and Portability.
- 2nd.—The Triple extension of bellows, enabling Lenses of long focus to be used, such as the single combinations of the Ross-Zeiss Convertible "Protar" and other Lenses. The Half-plate Camera has an extension of fully 22 inches.
- 3rd.—Its Extensive Rising and Swing Front.
- 4th.—Its adaptability for short focus or wide angle work.
- 5th.—Its Strength and Rigidity when in use.
- 6th.—Its Simplicity of working parts and its First-class Workmanship and High Finish.

PRICES.

The following prices include camera, three double dark slides, best quality three-fold tripod and revolving turntable, complete.

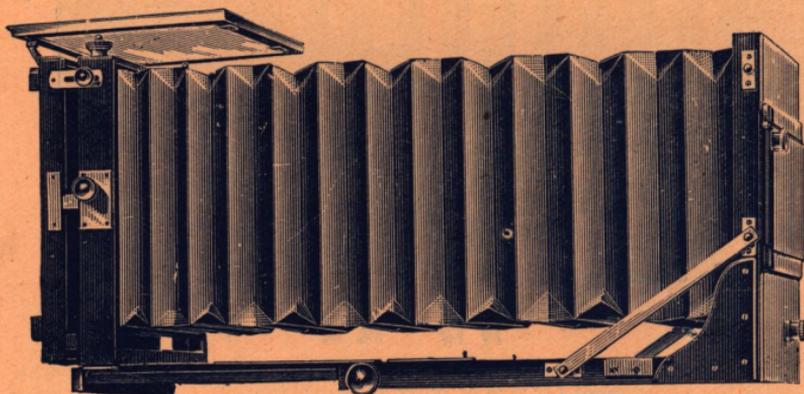
Size in Inches	Prices.	Code Word.	Extra Double Dark Slides	Brass Binding extra.	Size of Camera Closed, about
6½ × 4½	£14 0 0	Dastric	£1 2 0	£1 10 0	9½ × 9½ × 2½
8½ × 6½	17 10 0	Deutric	1 5 0	1 15 0	11½ × 11½ × 2½
10 × 8	22 0 0	Diotric	1 12 0	2 0 0	13 × 13 × 3½
12 × 10	26 0 0	Duptric	2 0 0	2 10 0	15½ × 15½ × 3½

With the exception of extra extension, the remarks referring to the advantages of this Camera are equally applicable to the Double Extension "Century" Camera.

ROSS' Improved Portable Square Bellows Cameras.

DOUBLE EXTENSION WITH REVERSIBLE HOLDERS.

For Lenses of Long Focus. The $7\frac{1}{2} \times 5$ size extends from 3 to $17\frac{1}{2}$ in.



THIS pattern is a favourite with Professional Photographers and Process Workers, and also for Railway, Shipyard, and Engineering Photographic Work.

The Front is rigid, and therefore well adapted for carrying long focus heavy lenses, and, as the bellows racks backwards, wide-angle lenses may be employed without having the foreground of the picture cut off by the baseboard, as frequently happens with Cameras of other patterns. The baseboard folds over the ground-glass screen when closed, thus protecting it from danger of breakage.

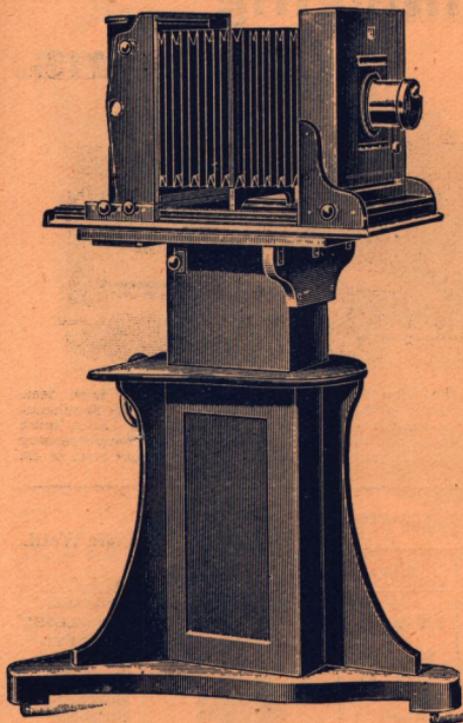
Size.	Price of Camera only.	Brass binding extra.	Double Dark Slides. Each.	Brass Binding Dark Slides. Each.	Rack and Pinion to double Swing Back	
5 × 4	.. £6 0 0	.. £0 15 0	.. £0 18 0	.. £0 5 0	.. £0 10 0	Squall
$6\frac{1}{2} \times 4\frac{3}{4}$	.. 7 5 0	.. 0 15 0	.. 1 2 0	.. 0 5 0	.. 0 10 0	Squamose
$7\frac{1}{2} \times 5$	.. 7 10 0	.. 0 15 0	.. 1 2 0	.. 0 5 0	.. 0 10 0	Squander
$8\frac{1}{2} \times 6\frac{1}{2}$	.. 9 10 0	.. 0 15 0	.. 1 5 0	.. 0 5 0	.. 0 10 0	Squash
10 × 8	.. 10 0 0	.. 1 0 0	.. 1 12 0	.. 0 6 0	.. 0 15 0	Squat
12 × 10	.. 11 10 0	.. 1 10 0	.. 2 0 0	.. 0 6 0	.. 0 15 0	Squib
15 × 12	.. 13 10 0	.. 1 15 0	.. 2 15 0	.. 0 7 6	.. 1 0 0	Squint
18 × 26	.. 22 0 0	.. 2 10 0	.. 3 10 0	.. 0 10 0	.. 1 0 0	Squire

The prices of Cameras include two fronts or lens boards.

Code word for sets consisting of Camera with rack and pinion adjustment to swing back and with three double dark slides.

ROSS, Ltd., Manufacturing Opticians, LONDON.

ROSS' New CAMERA and STAND for the STUDIO



ROSS, Limited, have constructed a greatly improved form of **Studio Camera** for 12 × 10 Plates and upwards.

This new construction is original in itself, and embraces all recent useful additions, affording the operator facilities that have been hitherto unattainable.

Ross' Improved Studio Camera provides a very long extension, and has newly designed Rack and Pinion work. The application of front and rear pinions is on a novel system, producing a particularly even and sweet motion. There is Rack and Pinion to the swing, and the Roller Slide takes the plate either way. A Repeating Back for two pictures on one plate is supplied.

The Special Stand is quite novel in design, and, being very elegant and substantial, forms, in combination with the Camera, a most attractive studio apparatus.

The top of the Stand, on unusually substantial column, is raised or lowered by the action of the handwheel at the back, and the tilting of the table is effected by Rack and Pinion.

Price of Improved Studio Camera with Stand as described.

Size							
12 × 12 for plates	12 × 10 and under	..	..	..	..	£29	5 0
15 × 15	15 × 12	..	..	..	..	32	10 0
20 × 20	20 × 18	..	..	..	..	43	0 0

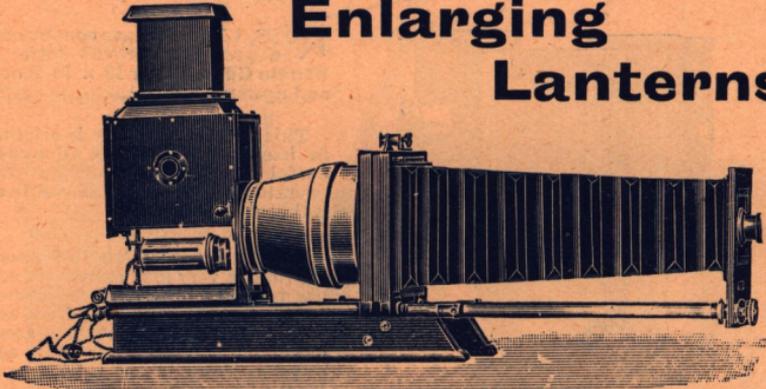
CAMERAS AND OUTFITS

for Line Reproduction, Photo Copying, Enlarging for Collotype, Photogravure, and Photo-Lithography; for Half-tone, Photo Engraving in Monochrome or Three Colours, and for all Process Work.

SPECIAL RULED SCREENS, PRISMS, MIRRORS, FILTER CELLS, &c.

ROSS' NEW SERIES

Enlarging Lanterns.



THE general features and advantages of the form hitherto so much appreciated have been maintained; but by a modification of the body of the Lantern it is now suitable for illuminants of all descriptions without special adaptation for the "Nernst" Lamp, Lime Light, Oil Lamp, Spirit Incandescent, and the "Nelson" Arc Lamp as at foot. The expense of the supplementary aluminium and brass body need only be incurred when it is desired to use a larger form of arc lamp than that indicated.

No.	Diameter of Condenser.		Negative fully covered.		PRICES without Objective, but including good Oil Lamp.	Code Word.
	Inches.	m/m	Inches.	c/m		
0	5½	140	4¼ × 3¼	—	£10 0 0	Enactor.
1	6½	163	5 × 4	9 × 12	12 0 0	Enchanter.
2	7	177	5½ × 4½	—	13 10 0	Endower.
3	8	203	6½ × 4¾	12 × 16	15 0 0	Engrosser.
4	9	228	7 × 5	13 × 18	20 10 0	Enfilade.
5	10	253	8 × 5	—	25 10 0	Enigma.
6	11	270	8½ × 6½	—	32 0 0	Enroller.

NOTE.—Arc Lamps or small illuminants require the size larger Condenser than those listed.

	Price.	Extra Burner.	Spare Resistance.
	£ s. d.	s. d.	s. d.
Fine focussing and Locking Device .. .. .	.. .. .	.. .. .	EXTRA. £1 10 0
Ditto with extra Bellows Extension .. .. .	.. .. .	.. .. .	1 15 0
Incandescent Fittings instead of Oil Lamp .. .. .	.. .. .	.. .. .	0 12 6
Brass and Aluminium Body in place of Russian Iron for Ross' Arc Lamp .. .. .	.. .. .	.. .. .	3 15 0
Special Tray to fit this body to take any Jet .. .. .	.. .. .	.. .. .	0 8 0
Ross' Jet with cut-off for Limelight Body .. .. .	.. .. .	.. .. .	2 12 6
Ordinary Jets, from .. .. .	.. .. .	.. .. .	£1 5 0 to 2 15 0
"Radiant" Jet .. .. .	.. .. .	.. .. .	4 4 0
The "Nelson" Arc Lamp, up to 100 volts .. .. .	.. .. .	.. .. .	1 10 0
Ditto, up to 200 volts .. .. .	.. .. .	.. .. .	2 2 0
"B" Arc Lamp, requiring special body .. .. .	.. .. .	.. .. .	5 5 0
The "Alcool" Spirit Incandescent Lamp, burns ordinary methylated spirit .. .. .	.. .. .	.. .. .	2 2 0
"NERNST" LAMPS.	Price.	Extra Burner.	Spare Resistance.
No. 1, 35 to 60 c.p. ..	0 18 0	2 0	1 3
No. 2, 300 to 500 c.p. ..	1 10 0	5 0	2 0
No. 3, 500 to 1000 c.p. ..	2 5 0	10 0	2 6

ROSS, Ltd., Manufacturing Opticians, LONDON.

THE **ROSS** "SERVICE" Binocular Glasses
SPECIALLY LIGHT MODEL.



12 Lenses,
Magnification 5 times.

The mounts are composite, Brass, German Silver and Aluminium, a construction possessing the double advantages of strength and light weight.

A special feature of this Glass is its newly computed Optical System whereby increased brilliancy and definition have been attained.

Prices in Solid Leather Sling Case.

With 1·8 inch Object Glasses, 21 Lignes	£3 7 6
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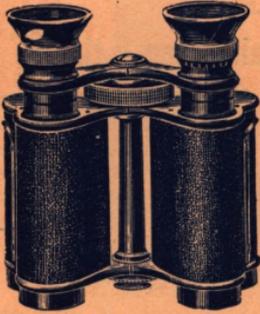


Prices in Solid Leather Sling Case.

Free Aperture of Object Glasses, 1·55 inch	£3 7 6
" " " 1·8 inch.....	3 10 0
" " " 2 inch	4 0 0

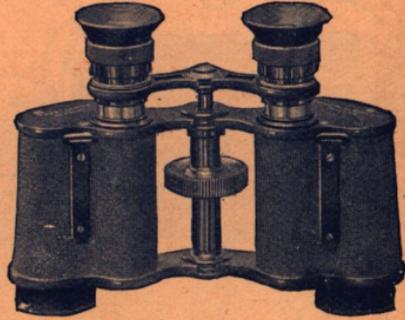
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12 ..	8 10 0	.. 7 10 0



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10 ..	8 10 0	.. 7 10 0
12 ..	—	.. *9 0 0

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