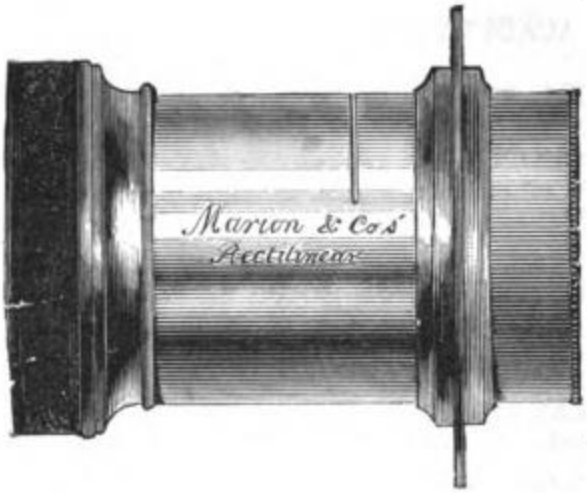

MARION'S

LENSES.

MARION & Co.'s Lenses have now been before the public for several years, and have won much approval.

WE GUARANTEE EACH LENS PERFECT.

QUICK-ACTING RECTILINEAR.

METAL MOUNTS NICKELED.

No.	Size of Plates.	Diam. of Lens.	Back Focus.	*s.*	*d.*
1.	$4\frac{1}{4} \times 3\frac{1}{4}$ and 5 × 4	$1\frac{1}{16}$ ...	6 ...	42	0
2.	$6\frac{1}{4} \times 4\frac{3}{4}$ and $7\frac{1}{2} \times 5$	$1\frac{3}{8}$ ...	8 ...	61	0
3.	$8\frac{1}{2} \times 6\frac{1}{2}$ and 8 × 5	$1\frac{11}{16}$ ...	$10\frac{1}{4}$ ...	71	0
4.	10 × 8 ...	2 ...	12 ...	95	0
5.	12 × 10 ...	$2\frac{3}{8}$ ...	$13\frac{3}{4}$ ...	142	0

J. ANDERSON, Chartered Bank of India, Calcutta.—"I have seen one of your 7½ Whole-Plate Rectilinear Lenses as good as any of Dallmeyer's."

WIDE-ANGLE RECTILINEAR LENSES.

No.	Size of Plates.	Diam. of Lens.	Back Focus.	*s.*	*d.*
6.	$4\frac{1}{4} \times 3\frac{1}{4}$ ...	$\frac{3}{4}$ ...	$1\frac{3}{4}$ ...	45	0
7.	$6\frac{1}{2} \times 4\frac{3}{4}$ ...	$1\frac{1}{16}$ ...	$2\frac{1}{8}$ ...	60	0
8.	$8\frac{1}{2} \times 6\frac{1}{2}$ ...	$1\frac{5}{16}$ ...	5 ...	80	0
9.	10 × 8 ...	$1\frac{11}{16}$ ...	8 ...	100	0
10.	12 × 10 ...	$2\frac{5}{16}$ ...	12 ...	140	0

MARION & CO., 22 & 23 Soho Square, London, W.

VOIGTLÄNDER'S NEW LENSES.

(See that Voigtländer's name is on the tube.)

MARION & CO., Sole Agents, 22 & 23 SOHO SQUARE, LONDON.

PORTRAIT EURYSCOPES.

			No. 3.	No. 4.	No. 5.	No. 6.	No. 7.
Aperture . . .	No smaller sizes will be made.		2 ins.	2½ ins.	3 ins.	3½ ins.	4 ins.
Equivalent Focus .			7⅜ ,,	9¾ ,,	11⅜ ,,	14⅛ ,,	17⅜ ,,
Size of Plate . .			*Carte de Visite size, according to length of studio.*		*Cabinet size, according to length of studio.*		*Cabinet and Panel Size.*
Prices . . .	...	...	£7:14s.	£11.	£16:10s.	£22.	£28.

No. 3, No. 4, No. 5 have Rack Movement, all others Rigid Settings.

PORTRAIT EURYSCOPES (A).

Rigid Settings.

	No. 1a.	No. 2a.	No. 3a.	No. 4a.	No. 5a.	No. 6a.	No. 7a.	No. 8a.
Aperture . .	1½ ins.	1⅝ ins.	2 ins.	2½ ins.	3 ins.	3½ ins.	4 ins.	5 ins.
Equivalent Focus	6½ ,,	7½ ,,	8⅜ ,,	10⅝ ,,	13 ,,	15⅛ ,,	19⅜ ,,	25 ,,
Size of Plate . .	Stereosc.	4×5 ,,	5×6 ,,	6×8 ,,	8×10 ,,	10×12 ,,	12×15 ,,	16×20 ,,
Prices . .	£5:10s.	£6:8s.	£7:14s.	£11.	£16:10s.	£22.	£28:12s.	£52:5s.

Mr. Voigtländer's Description of the New "Portrait Euryscopes."

These new lenses, unlike the portrait lenses of usual construction, composed of one cemented front objective, and the back objective, of two separated single lenses of entirely unsimilar shape, consist of two perfectly symmetrical and cemented objectives, resembling those of the Euryscopes, and offer important advantages over the said existing constructions.

By uniting the two separated lenses of the back objective into one compound lens, a considerable amount of light formerly lost by the great number of reflecting surfaces has been saved, and by thus avoiding all "diffusion of light," the new objective gives more intensive pictures and better definition.

Besides, by the perfect symmetry of both the composing objectives a superior marginal definition and a more perfect illumination spread all over the picture have been obtained; hence, with the same focal length as formerly, a larger extension of the surface can be used, *i.e.* the angle of view and the picture itself become larger.

VOIGTLÄNDER'S LENSES—*Continued.*

They work without any distortion.

These "Portrait Euryscopes" are manufactured of two systems as regards the intensity of action, the first system having the same proportion (*i.e.* ratio of aperture to focal length) as the portrait lenses of normal rapidity, but offer the advantages of a larger picture, greater depth of focus, and a generally improved picture.

The second system, and this will be found to be most useful, has a little longer focal length, *i.e.* a little less amount of light; however, it will prove to be still sufficiently rapid for all ordinary portrait work in the studio, except for taking children, etc., where the so-called extra rapid portrait lenses are indispensable, and, as we may mention here, in the construction of which no alteration takes place. Still a larger angle of view, still a greater depth of focus, are the properties in which this system excels the first, and consequently, besides for single portraits they will be most useful for taking groups in short studios, when the use of ordinary Euryscopes, on account of their too long focal length, is precluded.

They will be excellent for instantaneous work, inasmuch as a "flare" which can occur in portrait lenses when used in the open air does not exist.

In fact, this system of the "Portrait Euryscopes," on account of their ratio of aperture to focal length, will fill a gap in the series of the existing photographic lenses, and we may state that their weight and shape are by far not so heavy and clumsy as those of the ancient long-focussed portrait lenses.

We further wish to state herewith that the present construction of all existing systems of the Euryscopes will not be subject to any alteration.

Reprint from the "Photographischen Correspondenz," No. 310, July 1886.

Report of Committee of the Photographic Society of Vienna, appointed to test the new "PORTRAIT EURYSCOPES" *introduced by* FR. VON VOIGTLÄNDER.

The undersigned have examined the new Portrait Euryscopes constructed by Chevalier von Voigtländer, of Brunswick, as to their capacity for taking portraits and groups, and have compared them with the Patzval Portrait Objectives made with separate hand lenses as hitherto used.

The trials were carried out with a new Euryscope, one of 78 mm. = 3 in., and two of 104 mm. = 4 in. diameter of lens, and compared with ordinary portrait objectives of the same dimensions (with separate hand lenses) in taking single figures and groups. The Euryscope consists of symmetrical objectives in which the front and back lenses are cemented. The diameter of lens, width of focus, and illumination of the instruments tested will be seen in the following table:—

	Diameter of Lens.	Equivalent Focus.	Proportion of Aperture to Focus.
PORTRAIT EURYSCOPE, No. 5A	3 inches	13 inches	1 : $4\frac{1}{3}$
PORTRAIT EURYSCOPE, No. 7A	4 inches	$19\frac{1}{8}$ inches	1 : $4\frac{9}{4}$

VOIGTLÄNDER'S LENSES—*Continued.*

The angle of the perspective field in the Euryscope possesses rather above 50°, while in an old 4 in. portrait objective it does not possess more than about 40°.

The trials which have been made by the undersigned have shown that the results of the "Portrait Euryscopes," compared with those of the best portrait objectives, as made hitherto, and which we had at hand for comparison, are, as a rule, quite equal. The illuminating power of the "Portrait Euryscopes" No. 5A and No. 7A in practical photographic experiments in the studio has been found to be quite equal to that of Voigtländer's ordinary portrait objectives of normal focus (*i.e.* 105 mm. (4⅛ in.) aperture, 478 mm. (18$\frac{5}{16}$ in. focus, giving proportion of aperture to focus of 1 : 4.50), although the last named has a somewhat shorter focus than the first; the reason of this is that the light in traversing the cemented back lenses loses less light than by traversing back lenses when separated. The delineation of the image in a portrait by the Euryscope is more defined than with the ordinary portrait objective; the distribution of the lines on the surface of the image is more enlarged, the vista is more uniformly illumined, and the angle of the perspective is larger. The Euryscope gives a more exact representation of the straight lines.

The size of the image (plates) which the Euryscope gives in taking groups is shown by the following figures: The 4 in. Euryscope gives an image of 48 cm. (19 in.) diameter, whilst an ordinary 4 in. Voigtländer's objective, with separated back lenses, gives an image of only 36 cm. (14 in.) diameter.

The Euryscope answers to the requirements of all kinds of work in the photographic studio, and is specially suitable for taking groups in small studios, since it possesses a larger angle of perspective and a larger figure surface.

In conclusion we may add that the new Voigtländer "Portrait Euryscope" is the first characteristic improvement in strong portrait objectives since the introduction of the portrait construction with separate back lenses forty years ago, by reason of the above-mentioned advantages.

VICTOR ANGERER. CH. SCOLIK.
PROF. J. M. EDER. DR. JOS. SZEKELY.
J. LÖWY. VICTOR TOTH.
FRITZ LUCKHARDT. O. VOLKMER.
CARL WRABETZ.

Vienna, May 28, 1886.

VOIGTLÄNDER'S NEW LENS, THE "PORTRAIT EURYSCOPE."

From the "Photographic News" of September 10, 1886.

From Messrs. Marion and Co., who are acting as agents to Voigtländer, we receive a new portrait lens, which has just been put upon the market to replace the original Petzval form, a form which has held almost undisputed sway during the past forty years.

The new instrument is virtually a combination of the modern symmetrical type, but having the lenses so large as to give a light intensity equal to that of the old portrait combination—that sent to us having an aperture of a trifle under 3 in. (the lenses are exactly 3 in.), with an equivalent focus of 11¾ in., thus

VOIGTLÄNDER'S LENSES—*Continued.*

representing an intensity of about $\frac{1}{4}$, or No. 1 of the Photographic Society's Standard.

Although the intensity may, numerically considered, be equal to No. 1 as applied to the old portrait lens (the only instrument hitherto manufactured with an aperture as large as $\frac{1}{4}$), we should expect the *actual working rapidity* to be superior to the $\frac{1}{4}$ of the old portrait combination; as by the use of the cemented back combination two reflecting surfaces are avoided.

As regards rapidity, then, we may take the new instrument as equal to the usual portrait combination; while as regards equality of definition and flatness of field, it is enormously superior—unless, indeed, when flatness of field has been secured in the old portrait combination by a sacrifice of other qualities. With respect to absolute separating power, we must only make a statement as regards the particular instrument sent to us, for no two lenses can be identical in this respect. It is an instrument having an equivalent focus of 11¾ in.; and with the full aperture of 3 in., lines in the centre of field, at a distance from one another of a three-hundredth of an inch, are clearly separated—showing the instrument to be perfectly adapted for copying the finest work, a small stop being used, as a matter of course. We are informed that the instruments now manufactured range from 2 in. diameter, and 7⅝ equivalent focus, to 5 in. in diameter, and 25 in. equivalent focus; affording a selection suited for work ranging from carte-de-visite to the life-size head taken direct. This largest size, it will be noted, has an intensity of $\frac{1}{4}$.

The lens, being symmetrical, can be used either way about, whether for portraiture, copying, or enlarging—a matter of some convenience when an instrument is, like the present, adapted for various classes of work, and is to be used on several cameras.

The angle included is very considerably wider than that which was possible with the old form of portrait lens—a matter of convenience when, owing to the shortness of the studio, one is compelled to use a lens of short focus; although we may say that for portraiture it is seldom, if ever, desirable to include a wide angle.

We have no particulars as to the prices of the new "Portrait Euryscope;" but, if the difficulties of constructing the deep meniscus lenses of large diameter, in relation to the focus, have been so far overcome by Voigtländer and Co. as to enable them to supply the new instruments at about the same price as the old portrait combinations, there will probably be a large demand.

It should be mentioned that either combination of the lens now described may be used by itself on a larger plate, but in this case the marginal lines will not be quite straight. If the front lens is used, and with the stop at back, the distortion will be pincushion-like; while if the back lens is used with the stop in front, the distortion will be of the "barrel" order.

Of course, it is not quite fair to an optician to use a part of his lens, and to accredit him with the resulting faults in the image, but it is often useful to be able to extemporise an instrument of about double the normal focal length, and, in the case of a portrait, the distortion resulting from the use of half the lens would be so trifling as to be quite unnoticeable.

ROSS' LENSES.

Ten per cent allowed off this List of Ross' Lenses.

PORTABLE SYMMETRICAL LENSES.

For Landscapes, Architecture, and Copying.

Since the introduction of photography perhaps no Lens for landscapes and architectural purposes has had so great a share of popularity as the Symmetricals. They are now universally used by many of our most eminent photographers. This is doubtless attributable to their extraordinary definition and flatness of field, as well as the exceedingly portable form in which they are constructed, all fitting the same flange.

Nos.	Focus.	Large Stop.	Price.
1	3 inches.	3 × 3	£3 0 0
2	4 ,,	4 × 3	3 5 0
3	5 ,,	5 × 4	3 10 0
4	6 ,,	7¼ × 4½	4 0 0
5	7 ,,	8 × 5	5 0 0
6	8 ,,	8½ × 6½	6 0 0
7	9 ,,	9 × 7	7 0 0
8	10 ,,	10 × 8	8 0 0
9	12 ,,	12 × 10	9 0 0
10	15 ,,	13 × 11	10 0 0

Larger sizes to order.

RAPID SYMMETRICAL LENSES.

For Groups, Views, Interiors, Copying, and every kind of Outdoor Photography.

The Rapid Symmetricals, being aplanatic, work with full aperture, and are perhaps the best and most useful Lenses an Amateur or Professional Photographer can possess for general outdoor purposes. They are invaluable for all kinds of architectural subjects, dimly-lighted interiors, copying, enlarging, etc.

View Size.	Group Size.	Focus.	Price.
4 × 3	Stereo.	4½ inches.	£4 0 0
5 × 4	4 × 3	6 ,,	4 5 0
7¼ × 4½	5 × 4	7½ ,,	5 5 0
8 × 5	7¼ × 4½	8½ ,,	5 15 0
8½ × 6½	8 × 5	11 ,,	6 10 0
10 × 8	8½ × 6½	13 ,,	8 10 0
12 × 10	10 × 8	16 ,,	10 10 0
15 × 12	13 × 11	20 ,,	14 10 0
18 × 16	15 × 12	24 ,,	18 10 0
22 × 18	18 × 16	30 ,,	25 0 0

Larger sizes to order.

MARION & CO., 22 & 23 Soho Square, London, W.

DALLMEYER'S LENSES.

RAPID RECTILINEAR LENS (Patent).

(Introduced 1866.)

Each Lens is supplied with a Set of Waterhouse Diaphragms. (*Observe!* The apertures of stops are too large to admit of being made in the form of a *rotating* diaphragm, as supplied with the "wide-angle" Rectilinear.) Each Lens marked below, with smaller stops, can be used for the next size *larger* view.

Size of View or Landscape.	Size of Group or Portrait.	Diameter of Lenses.	Back Focus.	Equivalent Focus.	Price, Rigid Setting.	Price, Sliding Tube.	Price, Rack and Pinion.
Inches.	Inches.	Inches.	Inches.	Inches.	£ s. d.	£ s. d.	£ s. d.
4¼ × 3¼	3¼ × 3¼	⅜	3½	4	3 15 0	..	..
*5 × 4	4¼ × 3¼	⅜	5½	6	4 10 0	4 15 0	5 5 0
6×5 for 8×5	5 × 4	1¼	7½	8¼	5 10 0	6 0 0	6 10 0
8½ × 6½	6 × 5	1½	10¼	11	7 0 0	7 10 0	8 0 0
10 × 8	8½ × 6½	1¾	12¼	13	9 0 0	9 10 0	10 5 0
12 × 10	10 × 8	2	15	16	11 0 0	11 10 0	12 5 0
13 × 11	French Size.	2¼	16	17½	12 0 0	12 15 0	The 4¼ × 3¼ Lenses are constructed for lantern pictures.
15 × 12	12 × 10	2½	18	19½	15 0 0	15 15 0	
18 × 16	15 × 12	3	22½	24	20 0 0	21 0 0	
22 × 20	18 × 16	3¾	28	30	27 0 0	28 0 0	
25 × 21	22 × 20	4	31	33	32 0 0	33 10 0	

* These Lenses are also well adapted for Stereoscopic Views, and can be had in pairs.

To obtain the best results with the sizes larger than 10 × 8, always focus with *No. 3 stop*, whether the photograph is to be taken with a smaller or a larger one.

WIDE-ANGLE RECTILINEAR LENS (Patent).

The Lenses are mounted in *Rigid* Settings or Tubes, and each is furnished with a *Rotating* Diaphragm Plate. In the column below the largest size of plate covered by each Lens is recorded; and if *microscopic* definition up to the corners be required, the smallest, or smallest but one, stop should be used.

No.	Largest Dimension of Plate.	Diameter of front combination.	Back Focus.	Equivalent Focus.	Price.
	Inches.	Inches.	Inches.	Inches.	£ s. d.
*1AA	7½ × 4½	¾	3½	4	4 10 0
1A	8½ × 6½	1¼	4½	5¼	5 10 0
1	12 × 10	1½	6¼	7	7 10 0
2	15 × 12	2	7½	8½	10 10 0
3	18 × 16	2½	11	13	14 0 0
4	22 × 20	3	14	15½	20 0 0
5	25 × 21	3¾	17	19	30 0 0

* This Lens is also well adapted for Stereoscopic Views.

MARION & CO., 22 & 23 Soho Square, London, W.

SWIFT & SON'S LENSES.

The Rapid Paragon for Views, Portraits, and Groups.

Waterhouse diaphragms marked thus :—

U.S. Nos.	2	4	8	16	32	64	128	256
	f 5·657	*f* 8	*f* 11·314	*f* 16	*f* 22·627	*f* 32	*f* 45·255	*f* 64

Working Intensity.	Size of View.	Size of Group.	Diameter of Lenses.	Equivalent Focus.	Price in Rigid Setting.
U.S. No. 2 *F* 5·657	4 × 3	Stereo.	¾ in.	4½ in.	£3 12 0
,,	5 × 4	4¼ × 3¼	1 ,,	6 ,,	3 16 0
,,	6 × 5	5 × 4	1¼ ,,	7½ ,,	4 14 6
U.S. No. 306 *F* 7	8 × 5	7¼ × 4½	1½ ,,	9 ,,	5 3 6
U.S. No. 4 *F* 8	8½ × 6½	8 × 5	1¾ ,,	11 ,,	5 17 6
,,	9 × 7	8½ × 6½	1¾ ,,	12 ,,	6 15 0
,,	10 × 8	8½ × 6½	1¾ ,,	14 ,,	7 12 0
,,	12 × 10	10 × 8	2 ,,	16 ,,	9 9 0
,,	12 × 10	10 × 8	2 ,,	14 ,,	9 9 0
,,	*12 × 10	10 × 8	2 ,,	13 ,,	9 9 0
,,	13 × 11	11 × 9	2¼ ,,	18 ,,	10 7 0
,,	15 × 12	13 × 11	2½ ,,	20 ,,	13 0 0
,,	18 × 16	15 × 12	3 ,,	24 ,,	16 13 0
,,	22 × 18	18 × 16	3½ ,,	30 ,,	22 10 0
,,	25 × 22	22 × 18	4 ,,	34 ,,	27 0 0
,,	28 × 24	25 × 20	4½ ,,	38 ,,	36 0 0

* Extensively used by Professional Photographers where position will not allow the use of 16-inch focus.

Ten per cent is allowed off the price of the above Lenses for cash with order.

MARION & CO., 22 & 23 Soho Square, London, W