MEYER - LENSES

HUGO MEYER & CO.

245 West 55th Street

NEW YORK CITY

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A CATALOG OF LENSES

and

Other Accessories

for

Cinematographers

OPTICS

1930

INTRODUCTION

THE professional cinematographer realizes that it is necessary for him to carry a variety of lenses in order to successfully meet the varied demands of movie production. To obtain the best results in amateur work, this rule applies equally as well. In fact it is because of this realization on the part of amateur cinematographers, and because of the demand for specialized, highly precision lens equipment; that Hugo Meyer & Company are offering in this catalogue, what they believe to be a most complete line of cinematographic lenses.

The quality of Hugo Meyer Lenses needs no amplification. From the painstaking calculation of the lens formula, to the finished mount, their manufacture is a precision undertaking, accomplished by master workmen, and constantly checked and inspected at the different stages of manufacture.

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While it is true that in the first stages of the grinding of lenses, automatic machines are used, yet in the main, far more is left to the skill of the craftsman, who has been years in training; and it is very unlikely that he can be superceded by mechanical devices such as has prevailed in this era, in other arts and sciences.

Equal skill is used in the manufacture of Hugo Meyer Precision Focusing Mounts. It is imperative that the lens be properly mounted to retain its fullest optical corrections. They are made with painstaking care by master craftsmen, accustomed only to precision workmanship.

This micrometer movement travels on a spiral thread, which racks the lens barrel back and forth.

Our lenses are furnished mounted for any of the cameras listed below;

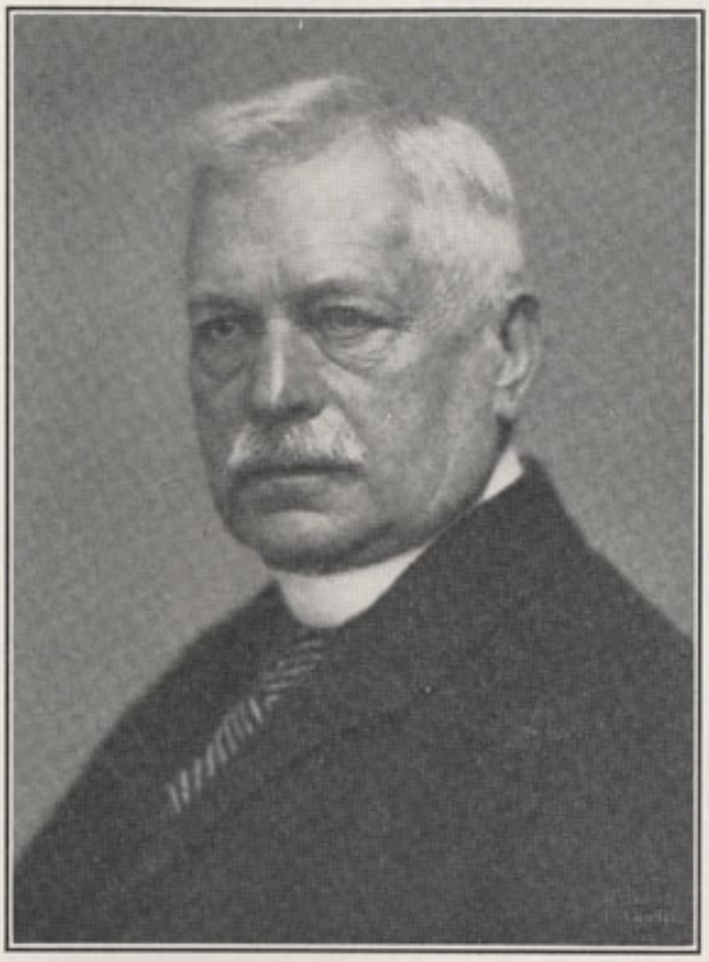
Victor-Filmo, Cine Ansco.....*All* focal lengths
Cine Kodak, Model B-F: 1.9....from 1 inch focus up
Cine Kodak, Model K.....from ¾ inch focus up
Eyemo..... 1⅜ inch focus and up
De Vry, 35 mm. camera..... 1⅜ inch focus and up
De Brie..... 1⅜ inch focus and up
B. & H. Professional Studio Camera—
from 1⅜ inch focus and up

For fitting lenses of other focal lengths, or to cameras not listed above, prices on application.

Finder and Eye Piece for Filmo-A for any lenses described herein $4.50

REPAIR DEPARTMENT

We maintain a fully equipped Repair Department in New York for the convenience of our customers, and are prepared to do special lens mountings and assist you in any optical problems which you may have.



Dr. Paul Rudolph

Every resumé of the development of photographic lenses gives due credit to Dr. Paul Rudolph for the part he has taken in the advancement of the science and gives him full credit for the development of the first Anastigmatic lens in 1890—the Protars. This was followed in 1897 by the Planars, and in 1902, the Tessar.

In 1918, Dr. Rudolph completed the calculation of the Plasmat F:4, a convertible lens of the highest speed, having the fullest correction for color. On account of its fuller color correction, Dr. Rudolph termed his new lens a "Sphero Achromat".

With the increasing popularity of motion pictures, he directed his attention to the development of a Plasmat lens of high speed, so that Plasmat results could be brought to the screen.

In 1924, he brought out the Kino-Plasmat F: 2—and in 1926, finished the calculation of the Kino-Plasmat F: 1.5, which was the fastest lens made, incorporating at the same time, the very high degree of correction necessary to make a fine lens.

Kino-Plasmat F: 1.5

Because of its fuller color correction, it puts feeling into your pictures—a true to life rendition of your subject, a roundness; a definite declaration that there *is* space existing between two objects that are removed from each other; a stereoscopic effect.

It is a truly Universal Lens—indoors or outdoors, for Black-and-White or natural color pictures.

Its great speed renders it indispensable for indoor pictures.

In the calculation of the Plasmat F: 1.5, the fullest correction of the primary colors of the Spectrum has been one of the objectives sought. This lens has won world-wide recognition for its greater depth of focus and absence of flare.

The Plasmat can be used with equal satisfaction at its smaller stops, making it, in fact, a Universal Lens.

The enormous speed of the F: 1.5 Kino-Plasmat—almost 6 times as fast as F: 3.5—enables you, with this lens on your camera, to get pictures when your slower lens would be useless.

Interiors—pictures indoors without artificial light or with just enough artificial light to balance the illumination on the subject—outdoors on dark days—rainy days—early dawn and early evening—night pictures of lighted areas—S-L-O-W M-O-T-I-O-N pictures—pictures in natural colors—all these require a fast lens.

The added advantages of the Plasmat are its suitability for work under all conditions—for outdoors, in brightest sunlight it can be used at the smaller stops with complete satisfaction assured—truly a "Universal Lens" for all sorts of work.

For taking Kodacolor or natural color movies, the Kino-Plasmat F: 1.5 is particularly suitable, because

of its fuller color correction. Kodacolor* movies are produced with unusual clarity and sharpness . . . infinity or closeups.

Cat. No.	Focus	Standard Mount	Micrometer Focusing Mount	Filters 2X or 5X
†78	5/8 in. (15 mm.)	$54.00	$60.00	$3.50
79	3/4 in.	54.00	60.00	4.50
80	1 in.	54.00	60.00	4.50
81	1 3/8 in.	59.00	69.00	5.50
82	1 5/8 in.	67.00	75.00	5.50
83	2 in.	75.00	85.00	7.50
85	3 in.	93.00	120.00	8.50
86	3 1/2 in.	132.00	142.00	9.50

* 1" focus only is furnished for Kodacolor. The price of the lens *only*, is $60.00—with Kodacolor Assembly, including lens, Kodacolor Filter, Neutral Density Filters, 50 foot Spool, Gauge, etc. . . . . $85.00 complete.

Kodacolor filters on lenses are sold for use on FILMO cameras only.

† On FILMO-D, this lens must be unscrewed when revolving turret.

Kino-Plasmat F:2

The Kino-Plasmat is also furnished in f:2. The formula is exactly the same as the f:1.5, the only difference being the maximum speed. Prices are as follows:

No.	Focus	Standard Mount	Micro. Focusing Mount	Filters 2x or 5x
139	7/8 in.	$36.00	$42.00	$4.50
140	1 3/8 in.	45.00	52.50	5.50
141	1 5/8 in.	54.00	61.50	5.50
142	2 in.	61.50	69.00	7.50
143	2 3/8 in.	64.50	72.00	7.50
144	3 in.	75.00	82.50	8.50
145	3 1/2 in.	99.00	106.50	9.50
146	4 in.	118.50	126.00	10.50
147	5 in.	162.00	172.50	11.50

Trioplan Series—F: 2.9 and F: 3

The Trioplan Cine Lenses are constructed so as to give a flat field of exceptional definition and sharpness. The image is brilliant, clean-cut and contrasting, and when projected on the screen gives the maximum results.

The general corrections for astigmatism, color, and spherical aberration have been fully carried out.

Motion picture work, in which the image is enlarged so many times upon the screen, requires the objective to produce negatives of sharpness and depth, which requirement is fully met in our Trioplan Lenses. They have a world-wide reputation in the motion picture field for both 16 mm. and 35 mm., and are being furnished by various manufacturers as standard equipment on their cameras.

Note: *We recommend the 2, 3 and 4 inch Trioplans for Telephoto work with 16 mm. cameras.*

Cat. No.	Focus	Standard Mount	Micrometer Focusing Mount	2x or 5x Filters
266	15 mm.	$26.00	$36.00	$3.50
267	¾ in.	26.00	36.00	3.50
268	1 in.	26.00	36.00	3.50
270	1⅜ in.	29.00	45.00	4.50
271	1⅝ in.	29.00	45.00	4.50
273	2 in.	29.00	45.00	4.50
278	3 in.	37.00	55.00	5.50
282	4 in.	37.00	63.00	7.50
285	5¼ in.	59.00	68.00	7.50
286	6 in.	69.00	75.00	8.50
287	7 in.	74.00	85.00	8.50
288	8¼ in.	106.00	117.00	9.50

In focal lengths from 15 mm. to 3 inch inclusive, this series is made in speed of F: 2.9; thereafter, the speed is F: 3.

Tele-Megor F: 4
Telephoto Lenses

In presenting this new line of telephoto lenses to the public, we feel that the Tele-Megor F: 4 is indeed an achievement and a further contribution to the art of the motion picture.

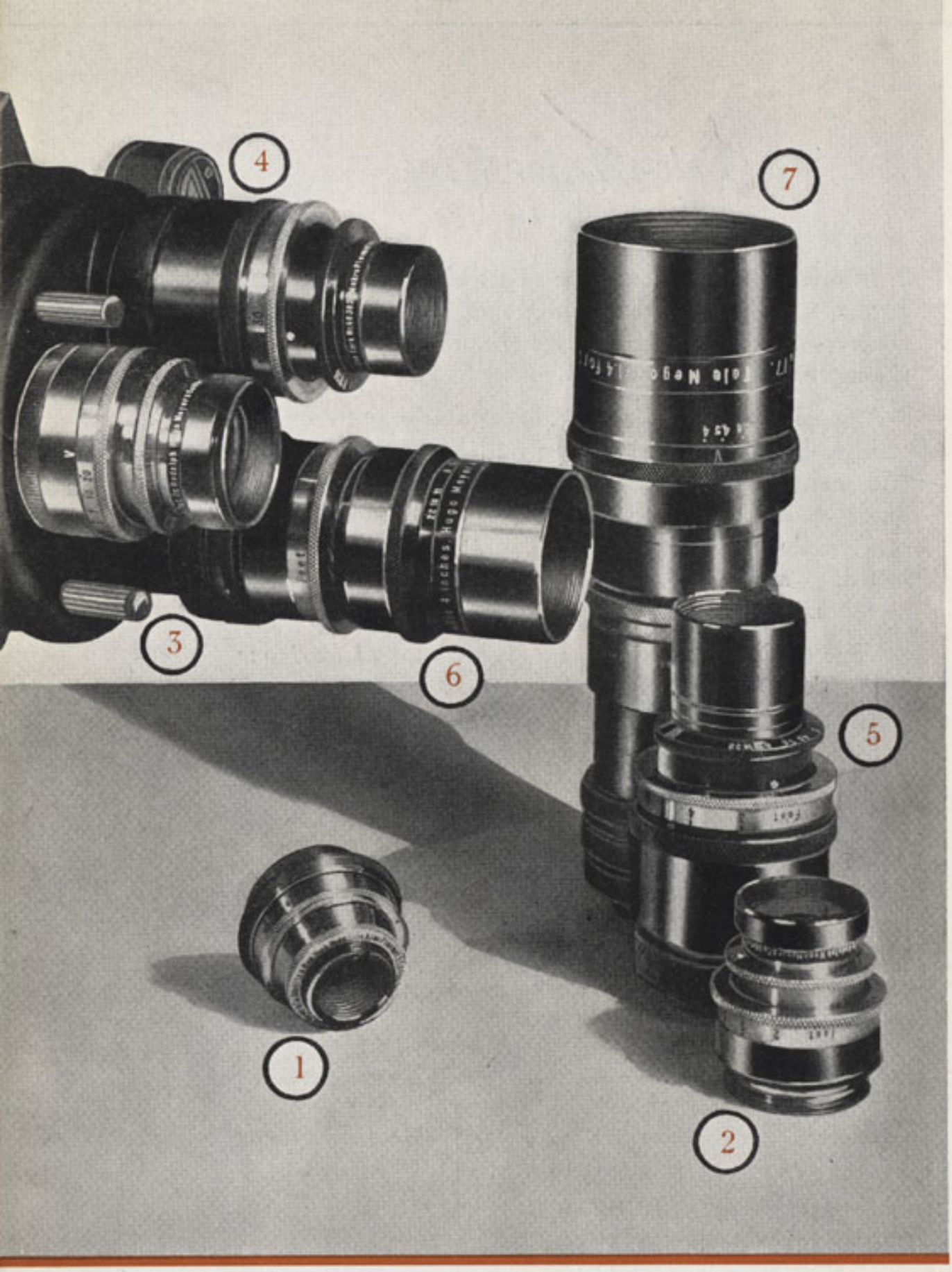
A considerable amount of diligent study and research at the Görlitz works, has been put into the calculation and manufacture of these new Tele-Megor lenses; the finest workmanship that skill and master craftsmen can produce. Tele-Megors . . . mounted in precision focusing mounts . . . make cleancut, sharply defined pictures.

Your equipment is not complete without *at least one* of the Tele-Megor F: 4 Series.

The formula and construction of our Tele-Megor Lenses represent the very latest advances in telephoto-optics, and have been specially designed for motion picture work.

Tele-Megor Telephoto Lenses are mounted in very compact focusing mounts. This compactness is further emphasized by the fact that on turret cameras, such as the Victor and Filmo . . . the 6 inch Tele-Megor, in spite of its great speed of F: 4, can be used with other lenses on the camera.

Focus	In Micrometer Focusing Mount	2x or 5x Filters
3 in.	$58.00	$4.50
4 in.	70.00	5.50
6 in.	95.00	7.50
9 in.	150.00	9.50



The following lenses are shown above:—

1.—15mm. f 1.5	Kino-Plasmat	4.—2″.....f 3	Trioplan
2.—¾″... f 1.5	Kino-Plasmat	5.—3″.....f 4.	Tele-Megor
3.—1″ ....f 1.5	Kino-Plasmat	6.—4″.....f 4.	Tele-Megor

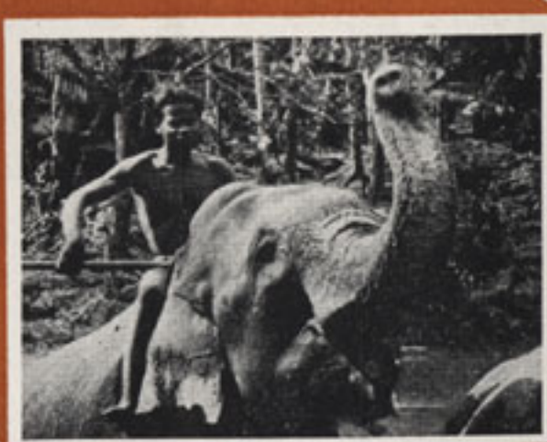
7.—6″.....f 4. Tele-Megor

1″

2″

3″

How a scene appears, photographed from the same position with lenses of different focal lengths.



4″

6″

LENSES
Hugo Meyer & Co.

Makro-Plasmat F: 2.7 and F: 2.9

This is Dr. Rudolph's latest addition to the Plasmat Series. It is remarkably free from zonal errors, and a wide angle objective of exceptional merit. The angle of view at full aperture is over 60 degrees; even illumination from the center to the edges; free from flare and distortion.

Because of its extreme wide angle, it will be particularly suitable for wide (65—70 mm.) film.

It is of non-symmetrical design, and comprises five air spaced lenses and one cemented. The iris diaphragm has been placed between a divergent and a convergent lens element. In front of the former is a convergent lens, and behind the latter, a divergent lens. Because of its formula, the curvatures are exceptionally deep, increasing considerably the manufacturing costs of this objective, and whilst its cost is higher than lenses of similar speed of different construction, yet, the increased price of the Makro-Plasmat is more than compensated for by the advantages offered with this lens, particularly to the professional field.

Focal Length	Covers at full Aperture Cm.	Covers Stopped Down Cm.	Standard Mount	Micro. Focusing Mount	2x or 5x Filter
1 in.	1.9 x 1.9	2.5 x 2.5	$55.00	$65.00	$3.50
1⅜ in.	2.5 x 2.5	3.5 x 3.5	57.50	67.50	4.50
2 in.	4 x 4	5 x 6	60.00	70.00	4.50
3 in.	4.5 x 6	6.5 x 9	70.00	80.00	5.50
4 in.	6.5 x 9	9 x 12	90.00	100.00	7.50
4¾ in.	9 x 9	10 x 15	115.00	125.00	7.50
5¼ in.	9 x 12	12 x 16	135.00	145.00	7.50
6 in.	10 x 12.5	13 x 18	165.00	180.00	8.50

In focal lengths up to 2 inches, the maximum aperture is F:2.7; thereafter F: 2.9.

Filters

Yellow filters are a most necessary complement to the cinematographer desiring truer tone values in his pictures; especially in sea and landscapes—forest and mountain scenery—portraiture; wherever there are strong contrasts of light and shade. The 2X requires the lens to be opened one stop wider; the 5X two stops wider. The latter should be used when contrasts are stronger.

For panchromatic film, because of its greater speed, about half the increased exposure is required.

As a result of many experiments carried out in the Jena Glass works, it has been found possible to produce a yellow glass which will completely meet the conditions which a yellow light filter is required to satisfy. The material is so composed that the action of the blue rays alone is cut down and the exposure is thus lengthened no more than is necessary. In the case of the yellow filter made of coloured plate glass, on the other hand, the colour of the glass leads to the absorption of a part of the green and yellow rays. The time of exposure is thus considerably increased, whilst at the same time, the effect produced is less than equivalent to that given by the yellow light filter of Jena Glass.

Since the yellow Jena Glass is produced by a method similar to that employed in the manufacture of the other special grades of optical glass, the raw glass alone is considerably more expensive than that from which the ordinary yellow filters are made. The filters themselves are manufactured in the same way as lens components; they are cut out of glass blocks, are ground down till their surfaces are perfectly smooth and parallel, and are then polished and centered.

Our filters give most satisfactory results on lenses of other makes as well as our own.

Projection Lenses

For 16 mm. Projectors

Hugo Meyer Projection Lenses for 16 mm. projectors, are made with the same care as those we furnish for professional and theater use, and possess the same highly corrected optical properties.

The lenses are highly corrected, spherically and chromatically, and give uniformly clear and sharp images over the field.

The series listed below, being of large aperture, furnish an unusual amount of illumination. The lenses are furnished in cylindrical mount, for use on various 16 mm. projectors, such as Victor, Filmo, etc.

Focus	Price
¾ in.	$15.00
1 in.	15.00
2 in.	15.00
3 in.	15.00
4 in.	15.00

Correctoscope

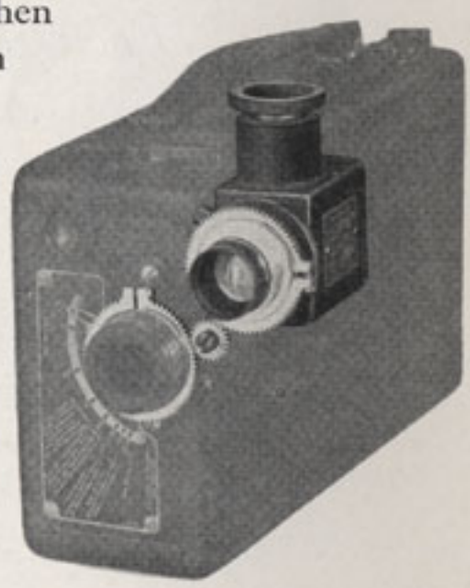
Focusing & Exposure Meter

The Correctoscope is a precision instrument for obtaining the distance and exposure for the motion picture camera and doing away with the difficulty in accurately judging the distance and correct stop to use for good pictures.

The Correctoscope is designed to fit on the Filmo A or D, Victor 3 and 5, Ansco, DeVry, and Cine-Kodak Cameras B and K, and can be instantly removed or replaced at will.

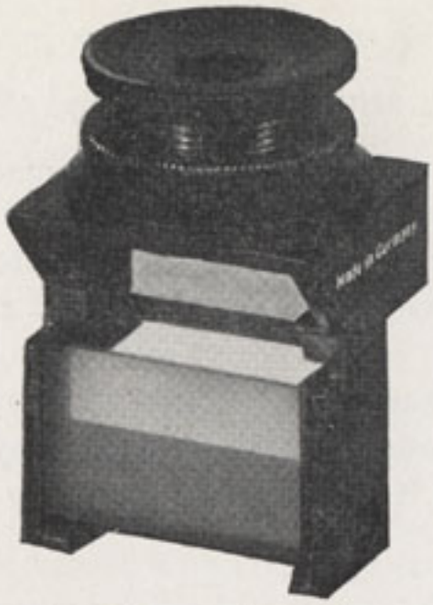
The Correctoscope is equipped *with its own lens,* giving a sharp upright image, which is viewed through a magnifying lens. The focusing is done by direct vision the same as you would on the ground glass of a still camera.

When used on motion picture cameras not having the turret, the lens of the Correctoscope can be geared* to the lens of the camera so that both work simultaneously. This is a very important point since it enables the operator to keep the object in focus when moving towards or away from the camera while he is making the picture. There is no other means at the present time of doing this. It is extremely easy to operate and requires no special attention.



Price: $45.00

* The gear assembly is $10.00. Made to be used with Hugo Meyer f:1.5 Plasmat 1 inch and on Cine-Kodaks—B and K, f:1.9 lenses.



Prismatic Focusing Instrument

The Prismatic Focusing Device consists of an accurately ground prism mounted so that it slips into the film channel, resting in the position which the film normally occupies. An achromatic magnifying lens, provided with means for focusing to the particular eye, magnifies the image so that the details can be very readily seen.

This precision instrument is indispensable in checking up the absolute focus of your lenses on the camera.

It is especially recommended to dealers to give better service to their customers.

Price.....$30.00

Focusing Magnifier

The Focusing Magnifier, an instrument into which you screw your camera lens, focus to find the distance, then remove and replace the lens onto your camera. This assures absolute focus for your pictures.

The eyepiece consists of three lenses cemented, aplanatic, giving a flat brilliant image over the entire field. The focusing of the eyepiece is done by a micrometer screw. The focusing magnifier, like all other Hugo Meyer products, is an instrument of precision.

Price.....$15.00

Folding Magnifiers

For inspecting film, these pocket folding Magnifiers come in most handy. There are countless other uses for these in industry as well.

Type A are Aplanatic—consisting of a 3 lens system, crown and flint glass cemented. They give a flat brilliant image free from color. Mount and case heavily nickel plated.

No.	Diameter of Lens	Magnification	Price
1	3/4 in.	6 x	$7.20
2	7/16 in.	10 x	6.75
3	1/4 in.	16 x	6.75

Type B with two Plano convex lenses. Vulcanite case—nickel cover.

No.	Diameter of Lens	Magnification	Price
4	1 in.	6 x	$3.00
6	5/8 in.	10 x	2.75
7	7/16 in.	15 x	2.50

Type C with one Bi-convex Lens.

No.	Diameter of Lens	Magnification	Price
11	11/16 in.	7 x	$2.00
12	1 3/16 in.	4 x	2.25

Magnifying Outfit

Contains an Aplanatic magnifier of three-lens construction (Fig. 1), giving a magnification to six diameters, together with three mounts for use for different purposes.

In this way the magnifier is made to serve:

(a) for focusing on the ground glass screen and for examining negatives, by the use of the holder shown in Fig. 2.

(b) for examination of objects in outdoor light, by means of a tripod support (Fig. 3).

(c) for reading purposes and the quick close inspection of objects, by use of the handle (Fig. 4).

The whole set is arranged in a case, price $9.60

Fig. II

Fig. I

Fig. III

Fig. IV

Other Products

In addition to the items listed in this catalogue, other products of Hugo Meyer & Company include:

PHOTOGRAPHIC LENSES of varied types for commercial photography, portraiture, landscape work, photo engraving, architectural work, aeroplane survey, etc.

PRISMS

PROJECTION LENSES

Projection lenses for all types of motion picture projectors, the latest addition to which is our Kinon-Superior Extra Rapid Series IV, with lens diameters of 94 mm. for increased illumination
(for standard projectors only).

EPISCOPIC OBJECTIVES

STEREOPTICON OBJECTIVES

CONDENSORS

UNIVERSAL SILAR CAMERAS

Special optical systems built to blueprint specifications, etc.

We will be pleased to send catalogues or descriptive literature on any of the above on request.

Manufacturers of apparatus, cameras or projectors are invited to get in touch with us on their optical problems. Our Engineering Department at the factory will cheerfully co-operate with you, and invites your inquiries.

HUGO MEYER & CO.

NEW YORK

Works: Optisch-Mechanische Industrie-Anstalt
Hugo Meyer & Co., Görlitz (Schlesien)
Germany.