

PHOTOGRAPHIC
LENSES
and
Korona Cameras



GUNDLACH - MANHATTAN
Optical Company
ROCHESTER NEW YORK

25023

PHOTOGRAPHIC
LENSES
KORONA CAMERAS

*Prism Binocu-
lars and other
Optical Products
Catalog No. 22*



GUNDLACH - MANHATTAN
OPTICAL COMPANY

ROCHESTER

NEW YORK

INTRODUCTORY

WE are giving lenses first place in this catalogue to emphasize the fact that we are opticians and that making high grade lenses is our principal business. No American concern has to its credit any greater achievements in improving existing types of photographic lenses or in originating new types than this firm and we will briefly describe what we have contributed towards optical progress.

THE RAPID RECTILINEAR, greatly improved upon by our Instantaneous Symmetrical Lenses, later changed to a convertible lens, and renamed Rapid Convertible.

THE RAPID RECTIGRAPHIC, a still higher development of the rapid rectilinear type, a lens with no prototype, and we believe to be the first convertible lens placed on the market.

THE ANASTIGMAT. We were one of the first to take advantage of the improvement in optical glass which made it possible to produce Anastigmat Lenses and the only American opticians to patent a lens of this type for many years. This patent was granted upon our Turner-Reich Anastigmat in 1895. The earlier anastigmats of foreign origin were constructed with one under corrected combination and one over corrected combination, consequently the single combinations could not be used separately. The Turner-Reich Anastigmat improved upon this form by having two perfectly corrected single combinations and these are dissimilar in focal lengths, producing a true convertible Anastigmat which very few optical concerns have succeeded in making.

THE PORTRAIT LENS. The only lenses used for this purpose until the advent of the Anastigmat were the Petzval type, made by nearly all the prominent optical concerns of the world, a lens with a cemented front combination and separated rear combination, used more because it could be made with a large aperture than for any claims it has to optical excellence, but speed has always been a prime consideration in a portrait lens to minimize exposures and portraits only require definition within the small central area of the negative so this lens is very satisfactory for the purpose and a modern Anastigmat is only better to the extent that it produces a flatter field not so important in portraiture except for full length figures and for groups. By taking advantage of the improved optical glass at our command we flattened the field and corrected this type of lens to a higher degree and at the same time we utilized our formula to obtain a remarkable improvement in projection lenses which are of the Petzval type, increasing the working aperture from $F:4$ to $F:2$, with a flatter field and better chromatic correction which made Gundlach Projection Lenses famous within a short time and resulted in their use in thousands of motion picture theatres and a perfect picture on the screen for the first time.

Our Achromatic Meniscus Portrait Lens $F:6$ was one of the earliest pictorial lenses placed on the market and we have eliminated the double image from this type of single lens.

Recognizing the important future of soft focus lenses we have been studying the optics of these lenses for a long time and only recently introduced our Hyperion Diffusion Portrait Lens F:4. The term "diffusion" is not quite suitable because the image is softly defined rather than diffused, and gives an impression of being neither sharp nor diffused,—just soft and pleasing to the eye and more like the mental impressions we receive from our vision. We have succeeded in removing the double image so characteristic of this kind of lenses, and avoided the other disadvantages peculiar to lenses of this class.

The Ultrastigmat F:1.9 for motion picture cameras is one of very few lenses of this aperture made in the world. It must be perfect to give the critical definition required in cinephotography on account of the high magnification of the image when subsequently projected on the screen. These lenses demand the highest grade of optical skill at every stage of their production and they must be mounted and collimated with the same precision as microscope objectives.

Optical concerns and anastigmat lenses do not always deserve the name. Sometimes the former are not opticians, but merely buy or import lenses and sell them as their own product. The term Anastigmat does not insure that a lens is first class in quality unless it is made by a reputable concern.

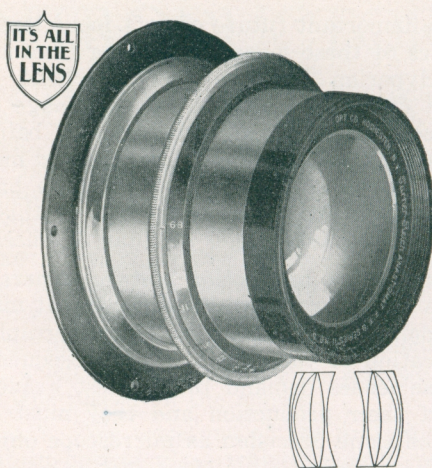
A glance at the advertising pages of the popular magazines way back in the 1890's will show that Korona Cameras were then bidding for favor among a lot of cameras which have since been forgotten, made by concerns now long out of business. Koronas have survived and are made now in the same factory, by the same people because they have always been made with quality as the first consideration, because they embody sound principals of construction and are built to give satisfaction.

These years of experience have brought improvements and refinements and it is a pleasure to feel that we have been successful in convincing American Photographers that Korona Cameras, in spite of all kinds of competition are the most convenient and most reliable for their requirements, to which they respond with a generous support by using them year after year.

The confidence of our customers in our products, is well expressed by some of the letters we receive, many of them from remote parts of the world, in which they tell us of the splendid satisfaction and service our cameras and other goods have given them over a long term of years, and it really takes a long time to prove the real worth and value of a good article.

In conclusion we may mention Prism Binoculars as instruments which require great precision in manufacture and assembling, as a product of our factory which indicate the quality of our optical work.

GUNDLACH-MANHATTAN OPTICAL COMPANY
ROCHESTER, NEW YORK



Turner-Reich

ANASTIGMAT LENSES F:6.8

TURNER-REICH Lenses in comparison with Anastigmat Lenses in general combine the good qualities of all and the disadvantages of none. The field of correction extends uniformly from the center to the edge of the light circle and the optical glass at our command in conjunction with the care with which each lens is corrected *individually*, permits us to bring all Turner-Reich Lenses up to a uniform standard of *perfection*.

The superiority of Turner-Reich Lenses is demonstrated most conclusively not by comparison with Rapid Rectilinear Lenses but with other lenses of the Anastigmat type.

Each Turner-Reich Anastigmat is a wide angle lens of the highest grade if it is used to cover a plate large enough to take advantage of its remarkable covering capacity. For interiors and flashlights, fine definition with a large aperture makes the Turner-Reich Anastigmat as valuable as when the same qualities recommended it for instantaneous exposures and outside work. Turner-Reich Lenses are sold by all dealers subject to ten days' trial so the burden of proof rests upon the actual results produced by each lens and not upon any statements of ours.

As the Turner-Reich is the most expensive lens to manufacture it is difficult to account for other lenses listing at higher prices, but putting all question of prices aside, we invite any one who is interested in solving the problem of selecting the best lens to consider the points at issue,—construction, working aperture, focal lengths, general utility and then take the Series II Turner-Reich Anastigmat as the standard for both quality and price.

Very few photographers have given consideration to the fact that the term "Anastigmat" as applied to the highest type of lenses made for photographic work is too comprehensively used and that many lenses corrected for astigmatism are in other respects far from being desirable objectives. In short, we may differentiate between anastigmat lenses and place them in classes fairly representing their individual characteristics and peculiarities.

Anastigmat Lenses may be subdivided into three classes.

1st. The *Convertible Anastigmat* formed of two perfectly corrected single combinations of unequal focal lengths. *The perfect lens.*

2d. The *Symmetrical Anastigmat* having single combinations of equal focal lengths which are well corrected for use as single lenses. Second choice.

3d. Anastigmat Lenses for which there is no term sufficiently comprehensive, to be applicable to their construction. This includes all lenses comprising several components separated by air spaces or some of them cemented together, but all dependent upon their relation to each other and each one an essential part of the complete lens.

The true Convertible Anastigmat is three perfect lenses in one but actually four if we give it credit for its covering power for wide angle work, for which it is much superior to ordinary wide angle lenses in speed and definition.

The Symmetrical Anastigmat ranks next and is only different from the Convertible Anastigmat in respect to the focal lengths of the single combinations which are equal and, therefore, will produce images of the same size. Even this is an advantage at times as either the rear or front combination makes the image twice as large as obtained with the lens complete.

The Anastigmats coming under our third general classification must be used as complete lenses and, therefore, are only suited to such work as comes within their one focal length and consequent limitations.

The third class, or what we may call ordinary Anastigmats, vary greatly in construction from three uncorrected lenses mounted independently of each other to as many as ten elementary lenses with some cemented in groups and others separated by air spaces.

Whatever arguments are made in defense of separated or air space lenses it remains a fact that in actual practice a lens of homogeneous construction with all the elementary lenses in each combination cemented together minimizes reflecting surfaces, produces the most brilliant negatives and causes the photographer the least trouble from the deposit which must gather on each surface of a lens unless that surface is cemented to another one to completely seal it from atmospheric effect.

The ideal lens would be a single combination with only two reflecting surfaces but as it is physically impossible to make a single lens with the large working aperture (or speed) that present day photography requires, it follows as a logical conclusion that a doublet composed of two such single combinations, different in focal lengths each

corrected to the highest degree, must come as near as possible to realizing the optician's ideal of the perfect lens and the nearest to fulfilling the photographer's desire for a universal lens.

These are points of construction worth considering by the purchaser of a lens of the Anastigmat type. In addition to a difference in optical qualities and the over or under correction of certain aberrations there is also a variation in the diameter of the light circle in proportion to the focal length, many cases where the correction is excellent within the normal covering power demanded of the lens but unequal to the full circle of illumination. Equally important is a variation in lenses due to the limitations imposed upon the optician by his formula and the narrow selection of optical glasses he may use in working it out.

The Turner-Reich Convertible Anastigmat F:6.8 has the fortunate distinction of being a perfect lens both from a theoretical and practical consideration.

Among the limited number of *true* Convertible Lenses it takes first place for its large working aperture and the rapidity of the single combinations, also for the nice balance between the focal lengths.

The Series III Turner-Reich occupies a pre-eminent position in the class of Symmetrical Anastigmats and possessed the same optical qualities as the Convertible series. The combinations of the Series II and Series III are made by the same formula and only differ in focal lengths.

Greeley, Colo.

"The testing of lenses has been conducted according to Sir W. De W. Abney's method and your lens is the only one of three which passed without fault. Its winning points are freedom from aberration of every kind, flatness of field and even illumination over the entire plate for which it is recommended. Its covering power over a larger plate exceeds any lens it has been my pleasure to examine. As to speed, the theory that a lens of fewer, and uncemented glasses has the greater speed has no value in practice. Under test of speed, with shutter set at $\frac{1}{1000}$ of a second, your lens gives better exposure at the corners of the plate on account of the even illumination than another lens of only three glasses. Will send you prints from test negatives."

M. G. MEELIN, D. C.



Made with 5 x 12 Korona Panoramic
View Camera and Series II Turner-Reich Lens

By The Linacover Studio
Findlay, Ohio

LENSES



Taken with Convertible
Turner-Reich Anastigmat F:6.8

*By Otto Stenzel
Phila., Pa.*

Turner-Reich CONVERTIBLE ANASTIGMAT F:6.8 SERIES II

No.	Size	Equiva- lent Focus	Focus Front Comb	Focus Rear Comb.	Diam. of Cells	Price in Cells	Price in Betax Shutter	Price in General Shutter	Price in Universal Shutter
0	3 1/4 x 4 1/4	5 in.	12 in.	8 in.	1 1/8 in.	\$40.00	\$48.00	\$50.00	\$54.50
1	4 x 5	6 1/4 "	14 "	11 "	1 1/4 "	44.50	53.50	56.50	59.50
2	5 x 7	7 1/2 "	18 "	12 "	1 1/2 "	53.50	65.50	66.50	69.50
3	5 x 8	8 1/2 "	20 "	14 "	1 3/4 "	59.50	71.50	74.50	77.50
4	6 1/2 x 8 1/2	10 1/2 "	24 "	18 "	1 15/16 "	84.50	96.50	99.50	102.50
5	8 x 10	12 "	28 "	21 "	2 1/4 "	97.00	112.00	115.00	117.00
*6	11 x 14	15 "	36 "	24 "	2 1/2 "	152.00	167.00	170.00	172.00

*The No. 6 size has a working aperture of F:7.5. Working aperture of single combinations: Front F:16, Rear F:12.5.

Prices of barrel mounts with iris diaphragm

No. 0	No. 2	No. 4	
No. 1	No. 3	No. 5	No. 6
\$7.50	\$9.00	\$12.00	\$15.00

The charge for special fitting of a lens in cells to a barrel or shutter depends upon the time required to do the work.

See page 12 for prices in high speed shutters.

Turner-Reich SYMMETRICAL ANASTIGMAT F:6.8 SERIES III

THESE larger sizes are made by the same formula as the convertible lenses with which they are identical in quality. The single combinations may be used separately, both front and rear having about equal focal lengths and about twice the focal length of the complete lens.

No.	Size.	Diameter of Lenses.	Equiva- lent Focus.	Price in Cells.	Price in Barrel.	Price in Betax Shutter.
6	10 x 12	2 in.	14 in.	\$120.00	\$135.00	\$138.00
7	11 x 14	2 1/2 "	17 "	154.00	174.00	
8	14 x 17	3 1/8 "	21 "	242.00	267.00	



Made with
Series II Convertible
Turner-Reich Anastigmat F:6.8

*By Paul W. Macfarlane
Los Angeles,
Cal.*

Turner-Reich

CONVERTIBLE ANASTIGMAT, F:6.8

IN SETS

THE great advantage possessed by the Convertible Anastigmat making it the most economical lens as well as the most useful lens, is its power to decrease or increase its range of focal lengths by the addition of extra single combinations of different foci from those forming the original lens which is the basis for the set. One extra combination (only half a lens) will form a doublet with either the front or back combination and really adds in this way three new lenses to the photographers' equipment and with three single combinations three doublets are obtained and six different focal lengths.

The addition of two extra single combinations to a complete lens making four in all, provides six doublets or complete lenses, making ten lenses of different foci for the photographer to work with, providing a lens of just the right focus to suit any subject or viewpoint, all fitting one mount or shutter interchangeably, at an average cost each of about the price of a good rapid rectilinear and a total cost about equal to the price of some 8 x 10 symmetrical anastigmats.

The Convertible Turner-Reich is a double Anastigmat in the sense that each of the single combinations is perfectly corrected independently of its relation to the other. They are practically rectilinear and give almost a flat field. The working aperture F:12.5 for the rear combinations and F:16 for the front combinations is large enough for short exposures, even instantaneous exposures under suitable conditions.

Nearly all the pictures made with *Cirkut Panoramic Cameras* are taken with the single combinations of Series II Turner-Reich Anastigmat Lenses which have proved to be the best lenses in the world for these cameras.

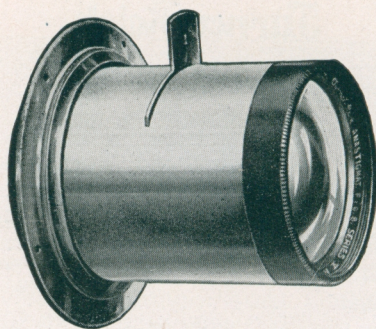
PRICES

Set for 6½ x 8½ or 8 x 10 Cameras.

Single Combinations.	Focal Lengths in Combinations.	Working Aperture.	Suitable Shutters.
14 in. No. 3	14 in. + 18 in. = 8 in.	F:6.4	
18 in. No. 4	14 in. + 24 in. = 9½ in.	F:7.6	No. 4 Betax . . . \$15.00
24 in. No. 4	14 in. + 28 in. = 10½ in.	F:8.4	No. 4 Optimo . . . 22.50
28 in. No. 5	18 in. + 24 in. = 10½ in.	F:6.8	No. 4 General . . . 18.00
	18 in. + 28 in. = 11½ in.	F:7.5	No. 4 Ilex Universal 20.00
	24 in. + 28 in. = 13 in.	F:8.3	No. 4 Ilex Acme . . . 25.00
			No. 5 Compound . . . 35.00

Price of set without Mount, \$195.30; Barrel Mount with Iris Diaphragm, \$12.00; Average cost of ten lenses \$19.53 each; Average cost of five doublets, \$39.06 each.

Note.—The combination with the longer focal length should be used in front when using two combinations to form a doublet. When using the combinations singly screw the lens into the rear adapter.



Turner-Reich

ANASTIGMAT SERIES V F:9

THESE lenses are intended for process work and all other purposes of reproduction which require absolute definition. They are also the best lenses for all kinds of commercial photography above 8 x 10 as they are smaller and much lighter than lenses of larger working aperture. There is also a considerable saving in cost as compared with more rapid lenses of equal focus lengths. As satisfactory depth of focus can never be secured in commercial work or when using lenses of these focal lengths without stopping down to at least F:9 it follows that a larger aperture offers no advantage. These lenses give a perfect image free from chromatic aberration, astigmatism or distortion. The definition is critically sharp over the whole field. The homogeneous formation and permanency of Turner-Reich lenses make them especially desirable for use in establishments where chemicals and acid fumes are present.

PRICES

No.	Diameter of Lenses	Size	Focus	Price In Cells	Barrel with Iris Diaphragm
1	1 $\frac{1}{2}$	10 x 12	14 in.	\$76.00	\$12.00
2	2	16 x 18	18 in.	120.00	15.00
3	2 $\frac{1}{2}$	18 x 22	24 in.	176.00	18.00
4	3 $\frac{1}{2}$	22 x 25	30 in.	218.00	25.00

PRISMS. Prices will be quoted upon request.

Gundlach-Manhattan Optical Co.,
Rochester, N. Y.
Gentlemen—

711 Walnut Street,
Philadelphia, Pa.

The Turner-Reich Convertible Anastigmat is truly the perfect American lens. Particularly in regards to architectural work, it lends itself admirably.

Cordially yours,
PHILIP B. WALLACE.



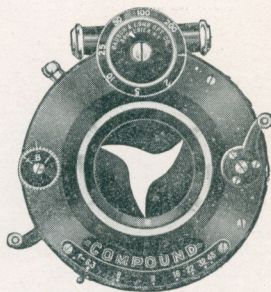
Turner-Reich

CONVERTIBLE ANASTIGMAT F:6.8 MOUNTED IN HIGH SPEED SHUTTERS

SHUTTER speed is the most important factor in photographing objects in motion and if the shutter does not work fast enough the image will be blurred. A high grade shutter giving a wide range of speeds is, therefore, essential for instantaneous pictures and a fine lens like the Turner-Reich Anastigmat can not be used to the best advantage without a shutter of equal quality.

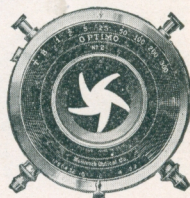
THE COMPOUND

This is an automatic and setting shutter combined, which provides both time and bulb exposures automatically while speeds of from one second to the maximum speed indicated may be given automatically when the shutter is set. The steel shutter blades form a star shaped opening giving even illumination with a high co-efficiency of light. The aluminum case is very handsomely finished in black.

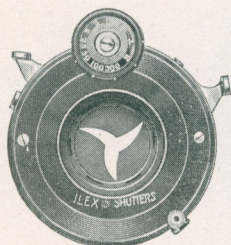


THE OPTIMO

This shutter has five shutter blades which revolve in making the exposure making a star shaped opening with the greatest possible illumination. In addition to "Bulb and Time" the Optimo gives a range of automatic exposures from one second to 1/300 second.



ILEX ACME



THIS shutter offers a full range of speeds from 1 second to 1/300 second and Time and Bulb movements. It requires setting for each exposure and the automatic time exposures are regulated by a set of gear wheels doing away entirely with the usual retarding pump. Accuracy and reliability are claimed for this arrangement under all conditions. The four blades make a star shaped opening giving maximum and uniform illumination.

Speed of Compound				Speed of Optimo
No. 0	No. 1	No. 2	No. 3	All sizes one second
1/250	1/200	1/150	1/100	to 1/300 second.

Turner-Reich

SERIES II CONVERTIBLE ANASTIGMAT F:6.8

	Equivalent Focus	Focus of Back Lens	Focus of Front Lens	Size	Price in Optimo Shutter	Price in Acme Shutter	Price in Compound Shutter
No. 0	5 in.	8 in.	12 in.	3 1/4 x 4 1/4	\$55.00	\$58.00	\$58.00
No. 1	6 1/4 in.	11 in.	14 in.	4 x 5	61.50	63.00	63.50
No. 2	7 1/2 in.	12 in.	18 in.	5 x 7	70.50	73.50	74.50
No. 3	8 1/2 in.	14 in.	20 in.	5 x 8	79.50	82.00	84.50
No. 4	10 1/2 in.	18 in.	24 in.	6 1/2 x 8 1/2	104.50	107.00	109.50
No. 5	12 in.	21 in.	28 in.	8 x 10	119.50	122.00	132.00
No. 6	15 in.	24 in.	36 in.	11 x 14	174.50	177.00	192.00

SHUTTER REPAIRS

A shutter in need of adjustment or repairs should always be sent direct to its maker and the manufacturers of the shutters we furnish assume entire responsibility for their performance. We have no facilities for repairing shutters.

Walpole, N. H.

Dear Sirs:

I purchased a Turner-Reich Lens Series II 5 x 7, No. 83239, from Pinkham, Smith & Co. of Boston. I have given the Lens a very careful trial on all kinds of work and I wish to say that I think it is the finest all round Lens that can be bought today at any price. I find the Lens is a first-class article for high speed photography as well as general commercial work. The convertible features are very valuable.

Am enclosing a post card from a negative made a few days ago with the Turner-Reich, at F:6.8, in Optimo Shutter, exposure 1/300 second, diffused light. Please note the definition in the wheels also detail in the shadows. Train was traveling about 30 miles an hour, down grade, Seed Gilt Edge "30" plate used, Pyro Three Solution Developer, in tank. Will send you more prints later, some speed pictures made with focal plane shutter and some view work. Wishing you success, I remain,

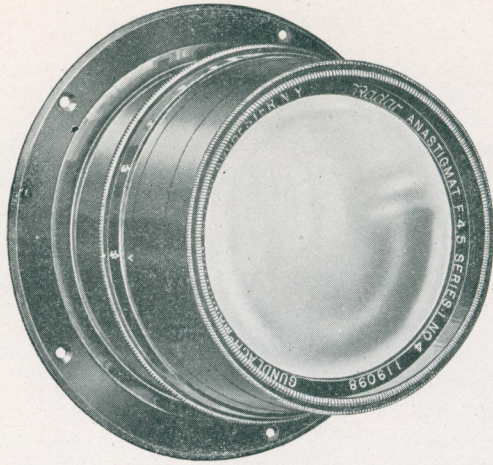
Yours truly,

(Signed) Herbert E. Watkins.



Made with
Radar Anastigmat F:4.5

*By John H. Dawson
Rochester, N. Y.*



Radar F:4.5 Anastigmat A HIGH SPEED LENS

MODERN photography is largely quick work. The exposure must be brief for many reasons, depending upon the class of subject. It may be a rapidly moving object, the fleeting expression of a child, or merely poor light conditions which press photographers frequently have to contend with, but in any case a lens of large aperture is a great aid and frequently indispensable because successful results cannot be obtained without it.

The essentials of a high speed lens are—critical definition and a flat field at full aperture with a brilliant image and these conditions are met in the highest degree by the Radar Anastigmat F:4.5, in design a simple lens comprising five components, two forming an uncemented front combination and the other three a cemented rear combination. This formation is favorable to the elimination of flare from internal reflections and the lenses are so thin that light absorption is a negligible quantity.

This lens has all the qualities a strictly high grade lens must possess, and it is suitable for every class of photography which demands a lens combining rapidity and optical efficiency. For portraiture in the studio or home, and groups as well as outdoor high speed shutter work, under all conditions it is an ideal lens.

LENSES

PRICE LIST.

No.	Size	Equi. Focus	Dia. of Lens	Price in Cells	Price of Barrel	Price in Betax Shutter	Price in Optimo Shutter	Price in Acme Shutter	Price in Compound Shutter
00	2½ x 3½	3½"	25 ⁵ / ₃₂ "	\$25.00	\$7.50	\$34.00	\$42.00	\$43.50	\$44.00
0	3½ x 4½	5"	1½"	32.00	9.00	44.00	52.00	52.00	53.00
1	4 x 5	6¼"	1¾"	38.00	9.00	50.00	58.00	60.50	63.00
2	5 x 7	7½"	1 ²¹ / ₃₂ "	45.00	12.00	60.00	67.50	70.00	70.00
3	5 x 8	8½"	1¾"	58.00	12.00	73.00	80.50	83.00	93.00
4	6½ x 8½	10½"	2¾"	97.00	15.00	115.00			137.00
5	8 x 10	12"	2 ¹¹ / ₁₆ "	125.00	15.00	143.00			165.00

Bor. of Manhattan, New York.

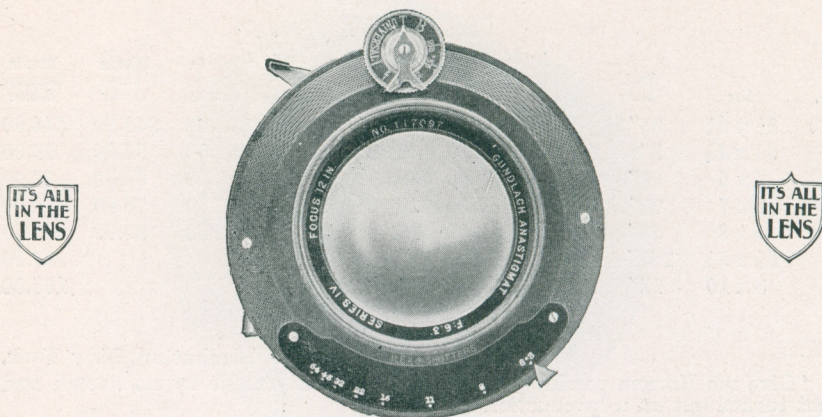
"Give me Korona products. They are evidently made by craftsmen and not turned out on a 'production basis.'"

John W. Tietz,
c/o Dept. of Education,
DeWitt Clinton High School.



By Jas. L. Boyd
Ottawa, Canada

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GUNDLACH ANASTIGMAT LENSES F:6.3

SERIES IV

A LENS to bear the Gundlach name must be a good lens. Anastigmat lenses selling at a moderate price are usually made by a formula comprising three components. This type of lens gives a fair optical result but not what our customers expect and to meet this competition and supply the demand for a good lens at a moderate price we offer the Gundlach Anastigmat F:6.3 which has four components, two in each combination, by which we obtain a higher correction and more satisfactory objectives.

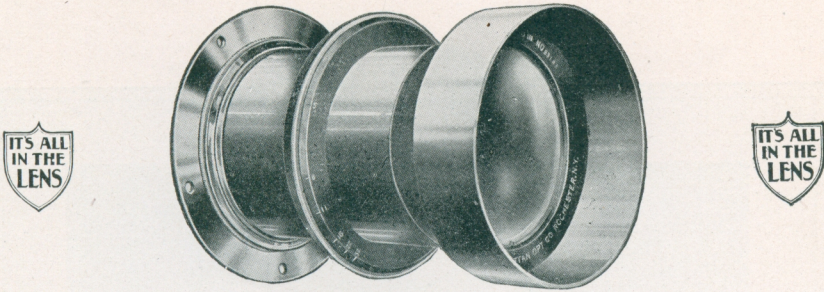
These lenses have a very flat field, yield excellent definition and evenly illuminate or cover well, plates two sizes larger than they are listed for. These lenses are splendid for commercial work and they produce beautiful results in the studio when used for portraits and groups. You will get good value in this type of lens.

No.	Size of Plate	Equi. focus	Dia. of Lenses	Dia. of Cells	Price in Cells	Price in Retax Shutter	Price in General Shutter	Price in Universal Shutter	Price in Optimo Shutter
0	3½ x 4½	5¼"	1⅜ ₁₆	1½ in.	\$16.00	\$24.00	\$26.00	\$30.50	\$31.00
1	4 x 5	6½"	1⅞ ₁₆	1⅝ ₁₆ in.	18.00	27.00	30.00	33.00	35.00
2	5 x 7	7½"	1⅞ ₁₆	1½ in.	24.00	36.00	37.00	40.00	41.00
3	5 x 8	8½"	1⅞ ₁₆	1½ in.	28.00	40.00	43.00	46.00	48.00
4	6½ x 8½	10½"	1⅞ ₁₆	2⅝ ₁₆ in.	32.00	47.00	50.00	52.00	54.50
5	8 x 10	12"	1⅞ ₁₆	2½ in.	38.00	53.00	56.00	58.00	60.50
6	11 x 14	16"	2⅞ ₁₆	3½ in.	63.00	81.00			

Prices of Barrel Mounts with Iris Diaphragm.

No. 1, \$7.50 No. 2, \$9.00 No. 3, \$9.00 No. 4, \$12.00 No. 5, \$12.00 No. 6, \$15.00

When ordered in cells, customers' shutter should be sent in for fitting to insure precision in mounting and adjustment, but aside from this we cannot be certain of identifying a shutter by description and shutters of the same kind vary to some extent. An extra charge is made for fitting.



GUNDLACH PORTRAIT LENSES, SERIES A F:5

THE Petzval type of portrait lens, originated away back in 1840, is still the most popular lens for studio work. While the form of this lens remains the same, it has been made under modified formulas by many opticians who have been more or less successful in making lenses of this kind. The good lenses are the result of a carefully calculated formula, the proper optical glass to carry it out, expert skill in grinding and polishing, accurate adjusting and mounting, in fact everything is right. The poor lenses are made from an incorrect formula, the glass may not have the right properties and poorly finished surfaces account for the rest, a lens which gives a poor result. Most cheap lenses have two common faults,—improper chromatic correction and poor surfaces.

Our Portrait Lenses are much better than those made years ago, because for one reason we have the advantage of being able to obtain improved optical glass by using which we can bring the original Petzval lens to a higher degree of perfection. We are producing lenses which we are sure reach the highest standard this type of lens can attain and those who are familiar with the quality of our optical work will need no further assurance that portrait lenses bearing our name can be depended upon to meet the most critical test. We think that a working aperture of F:5 makes the best lens for general use as it gives sufficient illumination without sacrificing depth of focus. These lenses are offered at moderate prices which put them within the means of photographers of all classes and judged by the price alone our portrait lenses should not be classed with any cheap portrait lenses on the market.

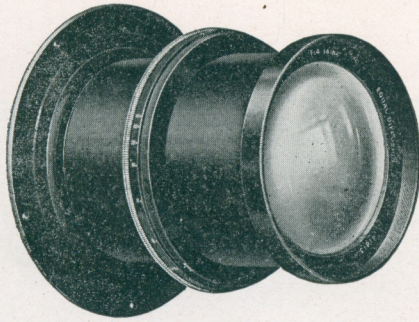
No.	Size	Diameter Lens	Equivalent Focus	Outside Diameter of Flange	Price with Iris diaph.	Price with Studio Shutter
3	5 x 7	2 "	9"	3 3/8"	\$28.50	\$36.50
4	6 1/2 x 8 1/2	2 1/2 "	12"	4 3/8"	40.00	50.00
5	8 x 10	3 "	15"	4 7/8"	52.00	60.00

Photographers are invited to order these lenses from their dealers subject to approval with the usual privilege of ten days' trial.



Made with Hyperion
Diffusion Portrait Lens F:4

*By Trinity Court Studios
Pittsburgh, Pa.*



HYPERION DIFFUSION PORTRAIT LENS F:4

PORTRAITURE has become an art, it now reproduces not only the lineaments of the subject, but also the character and individuality portrayed in an artistic way by lighting and composition and the skill of the photographer is quite as evident in the result as in the brush work of a painter with perhaps more credit to the photographer because he expresses himself by a mechanical process which is less flexible than brush and paint.

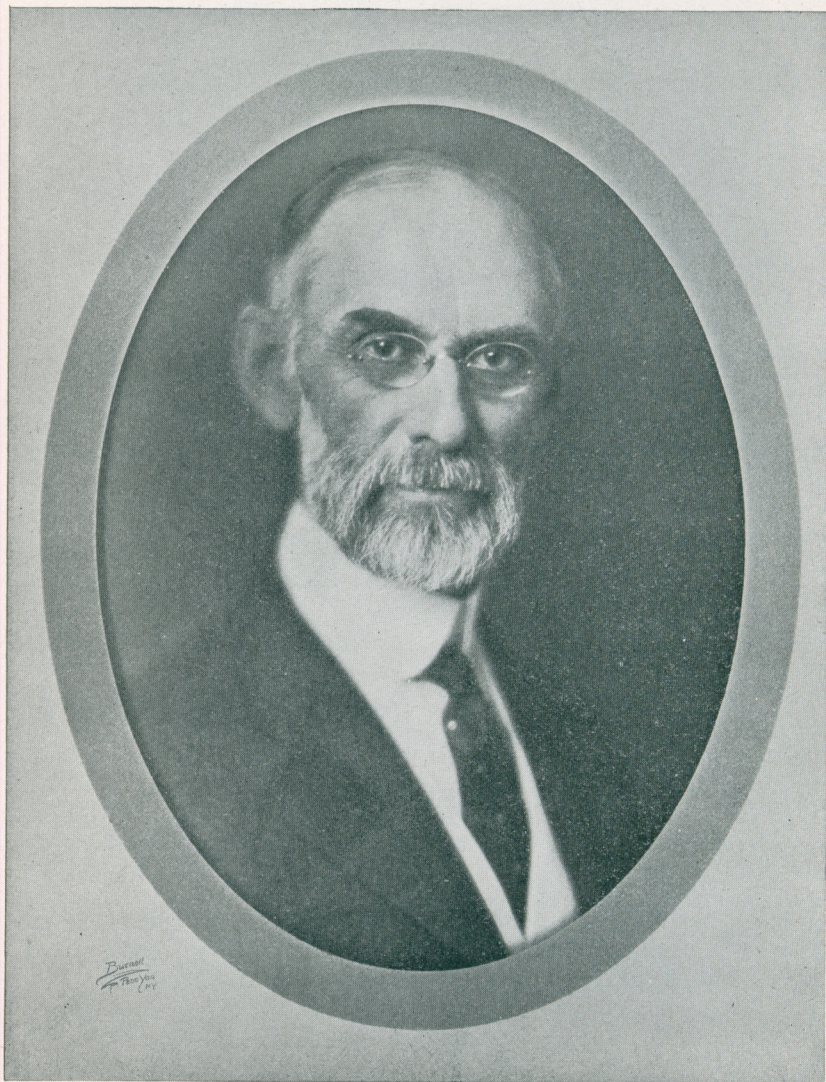
The Hyperion Diffusion Portrait Lens F:4. assists the photographer to create his ideal picture. It produces the soft definition the eye is accustomed to see and subdues the optical effect without loss of detail or fidelity of modeling. The shades of lighting and the extremes of high light and shadow are preserved with a soft but brilliant effect which is agreeable to the artistic sense.

Physically this lens is formed of two cemented combinations with two thin components in each. The single combinations are of unequal focal lengths, each corrected for use separately with working apertures of F:5.6. and F:11. respectively, making it a true convertible lens.

The field is flat at full aperture and sharp definition using the lens complete begins at F:8. Perfect chromatic correction insures freedom from double image and coincidence of the visual and chemical image which is brilliant and without flare, as there are no air spaces in the combinations to cause reflections. In designing this lens we kept these physical requirements of a perfect lens in view as well as the ideal optical result to be attained.

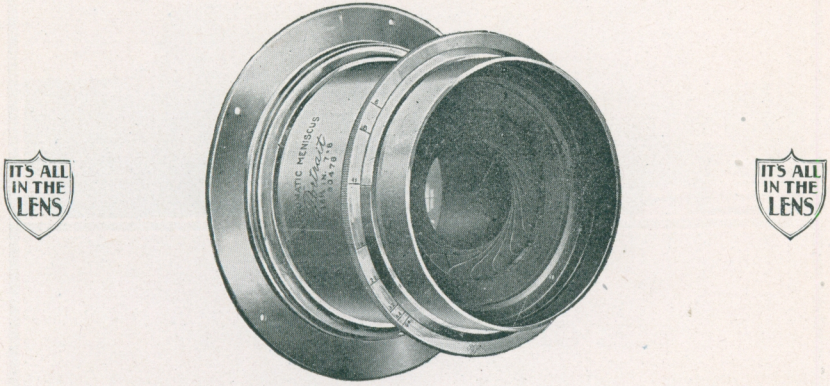
PRICE LIST

No.	Size	Focal Length	Focus, Rear Combination	Focus, Front Combination	I. D.	Flange O. D.	Price in Barrel	Price with Studio Shutter	Price of Flanges
1	4 x 5	7"	10"	18"	2 $\frac{3}{4}$	3 $\frac{3}{4}$ "	\$32.00	\$44.00	\$2.00
2	5 x 7	9"	15"	21"	3 $\frac{1}{4}$	4 "	40.00	52.00	2.50
4	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	12"	18"	30"	3 $\frac{15}{16}$	5 $\frac{1}{4}$ "	50.00	65.00	3.50
5	8 x 10	14"	20"	36"	4 $\frac{1}{8}$	6 "	70.00	85.00	4.50
7	11 x 14	18"	36"	36"	5 $\frac{1}{8}$	6 $\frac{1}{2}$ "	90.00	110.00	5.00



Made with
Achromatic Meniscus
Portrait Lens F:6

By "Burnell"
Penn Yan,
N. Y.



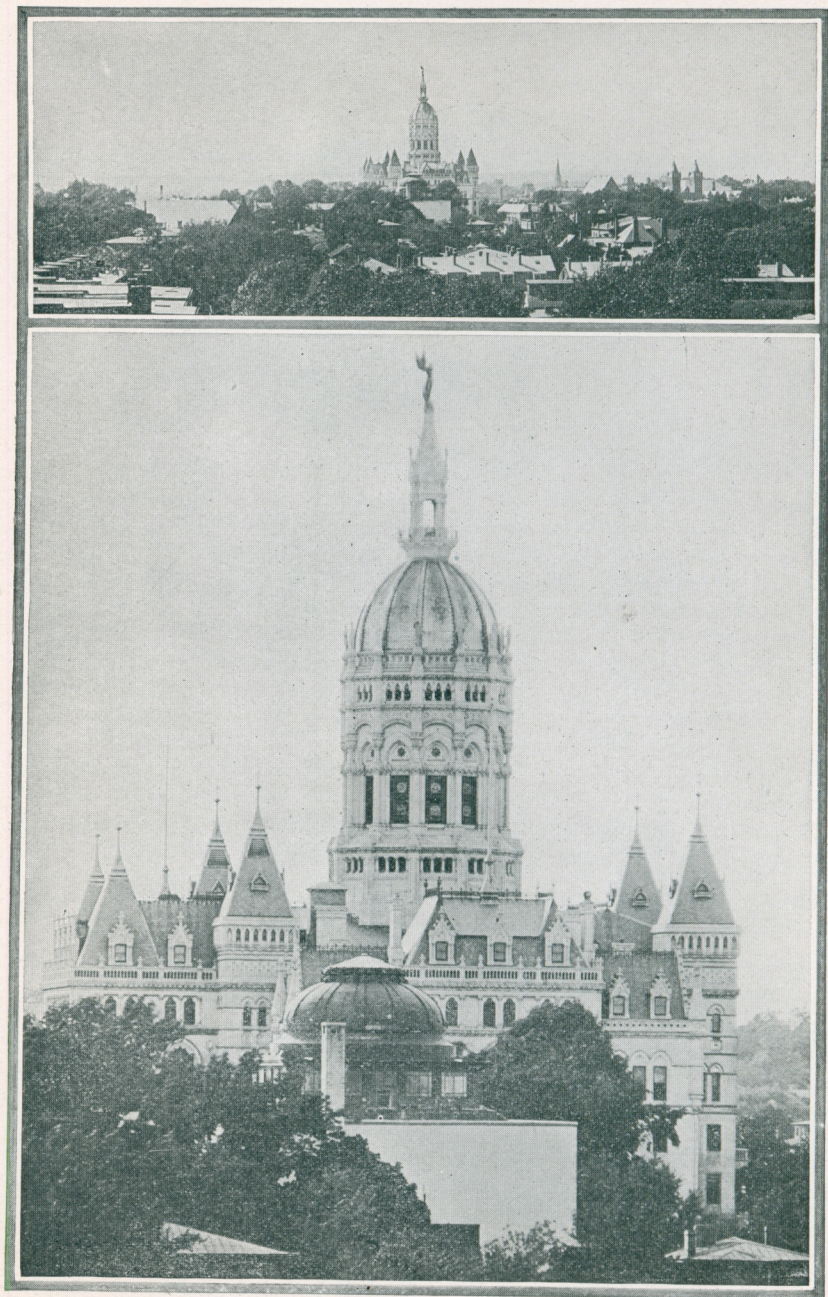
ACHROMATIC MENISCUS PORTRAIT LENSES

THESE lenses produce an optical image which has a different quality from that given by photographic lenses of any other type. When using the full aperture, the definition is not sharp at any point but the diffusion is very evenly distributed as these lenses have a very flat field. The result is a soft rendering of the subject, the details are apparent, but not obtrusive. The effect is entirely different from that obtained by using an ordinary lens out of focus.

These soft focus lenses have a field of their own for artistic portraiture, genre studies and pictorial work of all kinds. They are used extensively by many well known amateurs whose work is exhibited at the photographic salons and exhibitions of photographic art. These are the original lenses of this kind and we have had several years' experience in making them.

WORKING APERTURE F:6

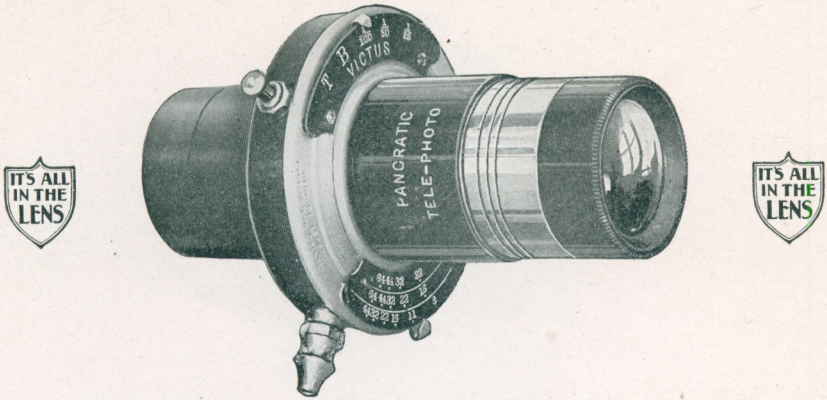
No.	Diameter of Lenses	Equivalent Focus	Flange Inside Diameter	Flange Outside Diameter	Iris Diaphragm
1	2 $\frac{1}{4}$ inches	13 $\frac{1}{2}$ inches	3 inches	4 inches	\$25.00
2	2 $\frac{1}{2}$ inches	15 inches	3 inches	4 inches	27.50
3	2 $\frac{3}{4}$ inches	16 $\frac{1}{2}$ inches	3 $\frac{1}{2}$ inches	4 $\frac{3}{8}$ inches	30.00
4	3 inches	18 inches	3 $\frac{1}{2}$ inches	4 $\frac{3}{8}$ inches	33.00



Taken with a lens of 6" focus
and a Pancratic Telephoto Lens
from same view point, magnification 7 dia.

Page Twenty-two

*The Capitol, Hartford, Conn.
By J. S. Nichols
Rochester, N. Y.*



PANCRACTIC TELEPHOTO LENS

THE Pancratic Telephoto Lens has simplified telephotography, broadened the interest in this fascinating branch of the art, and made it possible for any one having a plate camera with sufficient bellows extension to take distant or inaccessible subjects without having a clumsy telephoto attachment. The Pancratic is sold ready for use in any shutter having openings for the lens cells $1\frac{3}{16}$ in. diameter, and most 4 x 5 and 5 x 7 cameras have shutters of this size. Larger shutters must be sent to us for fitting for which we charge \$2.50.

The Pancratic is a complete lens and is not used as an attachment to another lens. It is formed with a front positive combination in an adjustable mount graduated with the magnifying powers, and a negative rear combination between which is placed the shutter.

The Pancratic gives fine definition and the results will compare favorably in every way with the performance of a telephoto attachment fitted to an anastigmat lens; in fact, the Pancratic is superior in covering power and much more convenient while very much smaller and lighter. The positive combination has a focal length of about 6 inches and working aperture of F:12. The focal length of the negative lens is about 3 inches and a range of magnifying power between 3 diameters and 8 diameters is obtainable, equivalent to using lenses of 18 in. to 48 in. focus. Plates from $3\frac{1}{4} \times 4\frac{1}{4}$ to 8 x 10 may be covered.

Magnifications in diameters	3	4	5	6	7	8
Diameter of light circle	5"	7"	9"	11"	13"	15"
Bellows length required	6"	9"	12"	15"	18"	21"

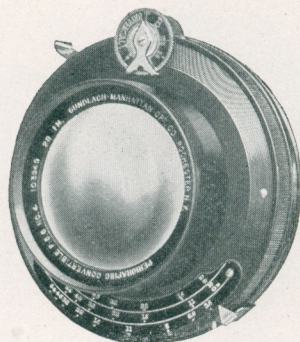
Add $1\frac{1}{2}$ inches to bellows length to allow for distance lens projects inside of the camera. Weight of lens and case, 6 ozs.

PRICES

No. 1 Pancratic Telephoto Lens with leather case	\$15.00
No. 2 Gammax Shutter	5.00

A Shutter of some kind is much preferable to a Barrel Mount for a Lens of this kind.

Sold by all dealers subject to 10 days' trial. Send for booklet Telephotography with a Pancratic Telephoto Lens.



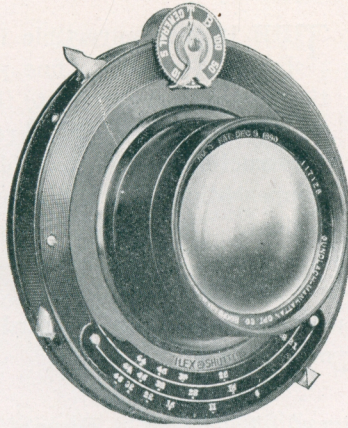
PERIGRAPHIC CONVERTIBLE LENSES F:5.6

RAPID PORTRAIT, VIEW AND GENERAL PURPOSE LENSES

THE Perigraphic has many valuable qualities to recommend it to those who require one lens for several different purposes at a moderate price. First, it gives a large working aperture which makes it very desirable for portraiture, especially indoor portraits which require better delineation of the surroundings than gallery work and at full aperture it will give finer definition and a much flatter field than a portrait lens proper of the Petzval type. For groups it is a much better lens. When stopped down to F:8 or smaller it will excel the ordinary rapid rectilinear and equal our Rapid Rectigraphic Lenses. At F:16 it will compare very favorably with an anastigmat by which it is only excelled in flatness of field. Being convertible it offers two single combinations of unequal focal lengths useful for obtaining a larger image from the same viewpoint or for covering larger plates without the wide angle which would result from using the lens complete. The covering power of this lens is remarkable and this can be taken advantage of by using it complete for a wide angle lens to cover a plate one or two sizes larger than the size listed. The Perigraphic may, therefore, take the place of several lenses and one lens will give images of three different sizes with three sizes of cameras and no matter how used under this condition will fully cover the plate. Taking into consideration its moderate cost the Perigraphic is splendid value from a practical and economic standpoint and when used to the best advantage it cannot fail to give unqualified satisfaction. This lens is very compact.

PRICES

No.	Size	Equivalent Focus	Focus Back Lens	Focus Front Lens	In Cells	In Barrel Iris Diaph.	In Betax Shutter	In Optimo Shutter
1	4 x 5	5 $\frac{7}{8}$ in.	10 in.	13 $\frac{1}{2}$ in.	\$30.00	\$39.00	\$39.00	\$47.00
2	5 x 7	8 in.	13 $\frac{1}{2}$ in.	18 in.	35.00	44.00	47.00	55.00
3	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	10 in.	17 in.	23 in.	42.00	54.00	57.00	62.00
4	8 x 10	12 in.	20 $\frac{1}{2}$ in.	28 in.	54.00	66.00	69.00	76.50
5	11 x 14	16 in.	25 $\frac{1}{2}$ in.	34 in.	72.00	87.00	90.00	



RAPID RECTIGRAPHIC CONVERTIBLE LENSES F:8

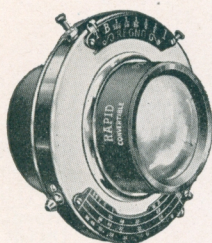
THE Rapid Rectigraphic is a superior type of rapid rectilinear lens which really stands in a class by itself between such lenses and the anastigmats.

The formula of the Rapid Rectigraphic requires three elementary lenses in each combination and by this construction the corrections have been carried to a higher degree than is possible in the usual two system formation. The Rapid Rectigraphic demonstrates a remarkably flat field and a very slight trace of astigmatism. Before the introduction of anastigmats this lens was very popular with process workers and many of them are still used for this purpose.

We believe the Rapid Rectigraphic has the distinction of being the first convertible lens ever made.

No.	Size of Plate	Diameter of Lenses	Equivalent Focus	Focus of Back Lens	Focus of Front Lens	Price in Cells	Price in Barrel	Price in Betax Shutter
1	4 x 5	$\frac{7}{8}$ in.	$6\frac{1}{4}$ in.	11 in.	14 in.	\$15.00	\$22.50	\$24.00
2	5 x 7	$1\frac{1}{8}$ in.	$7\frac{1}{2}$ in.	12 in.	18 in.	18.00	27.00	27.00
3	5 x 8	$1\frac{1}{4}$ in.	$8\frac{1}{2}$ in.	14 in.	20 in.	22.00	31.00	35.00
4	$6\frac{1}{2} \times 8\frac{1}{2}$	$1\frac{1}{2}$ in.	$10\frac{1}{2}$ in.	18 in.	24 in.	25.00	34.00	37.00
5	8 x 10	$1\frac{3}{4}$ in.	12 in.	21 in.	28 in.	32.00	44.00	47.00
6	10 x 12	2 in.	16 in.	$25\frac{1}{4}$ in.	34 in.	42.00	54.00	60.00
7	11 x 14	$2\frac{1}{4}$ in.	$18\frac{1}{2}$ in.	$29\frac{1}{4}$ in.	$39\frac{1}{2}$ in.	60.00	72.00	78.00
8	14 x 17	$2\frac{3}{4}$ in.	22 in.	$34\frac{3}{4}$ in.	47 in.	75.00	90.00	
9	17 x 20	$3\frac{1}{4}$ in.	26 in.	41 in.	56 in.	105.00	120.00	

Nos. 8 and 9 cannot be supplied in Shutters.



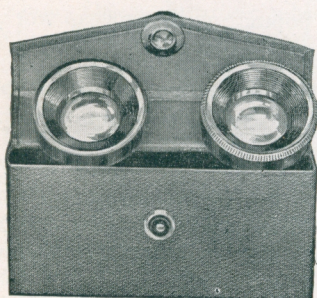
RAPID CONVERTIBLE LENSES F:8

THE Rapid Convertible is an aplanatic rectilinear of unusually fine quality and the corrections have been carried to the highest degree for this type of lens. A rapid rectilinear of four lens construction cannot possibly result in a better compensation for chromatic and spherical aberrations. The optical work on these lenses is the best and the surfaces are finished with the same care we bestow upon our lenses of all kinds. This is our Instantaneous Symmetrical Lens in convertible form which has been the standard of quality for rapid rectilinear lenses for many years.

No.	Size of Plate	Diameter of Lenses	Equivalent Focus	Focus of Back Lens	Focus of Front Lens	Price in Betax Shutter
1	4 x 5	$\frac{7}{8}$ in.	$6\frac{1}{4}$ in.	11 in.	14 in.	\$12.00
2	5 x 7	$1\frac{1}{8}$ in.	$7\frac{1}{2}$ in.	12 in.	18 in.	15.00
3	5 x 8	$1\frac{1}{4}$ in.	$8\frac{1}{2}$ in.	14 in.	20 in.	20.00
4	$6\frac{1}{2} \times 8\frac{1}{2}$	$1\frac{1}{2}$ in.	$10\frac{1}{2}$ in.	18 in.	24 in.	22.00
5	8 x 10	$1\frac{3}{4}$ in.	12 in.	21 in.	28 in.	28.00
6	10 x 12	2 in.	16 in.	$25\frac{1}{4}$ in.	34 in.	38.00
7	11 x 14	$2\frac{1}{4}$ in.	$18\frac{1}{2}$ in.	$29\frac{1}{4}$ in.	$39\frac{1}{2}$ in.	54.00
8	14 x 17	$2\frac{3}{4}$ in.	22 in.	$34\frac{3}{4}$ in.	47 in.	65.00
9	17 x 20	$3\frac{1}{4}$ in.	26 in.	41 in.	56 in.	82.00

No. 9 is supplied only in barrel with iris diaphragm.

EMIL WIDE ANGLE LENSES IN CELLS F:16



THIS lens is well known for its good qualities, and it has popularized the wide angle lenses in cells. It is well corrected for achromatism, and gives a perfectly rectilinear image with even illumination.

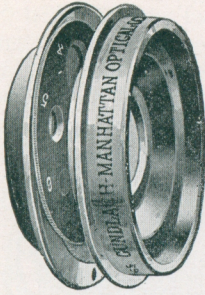
In ordering give the name of your shutter, the diameter of the cell openings and tube length. The shutter must be sent with order where special mounting is required for which there will be an extra charge.

Back Focus	Diameter	Size of Plate	Price in Cells with Case
$3\frac{3}{8}$ in.	$\frac{5}{8}$ in.	4 x 5	\$7.50
$4\frac{7}{8}$ in.	$\frac{3}{4}$ in.	5 x 7	10.00
$6\frac{1}{4}$ in.	1 in.	$6\frac{1}{2} \times 8\frac{1}{2}$	12.00
$7\frac{1}{4}$ in.	$1\frac{1}{8}$ in.	8 x 10	16.00

LENSES

WIDE ANGLE LENSES

SERIES X EXTREME WIDE ANGLE LENSES F:18

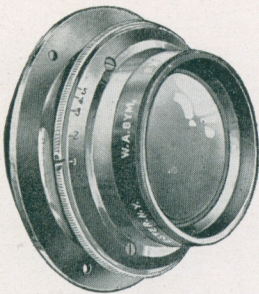


Furnished only in barrel mount with revolving stops.

No.	Size of Plate	Diameter of Lenses	Back Focus	Equivalent Focus	Price
1	5 x 7	$\frac{7}{8}$ in.	3 in.	$3\frac{3}{8}$ in.	\$18.00
2	$6\frac{1}{2} \times 8\frac{1}{2}$	1 in.	$4\frac{1}{2}$ in.	$4\frac{3}{4}$ in.	22.00
3	8 x 10	$1\frac{1}{8}$ in.	$4\frac{3}{4}$ in.	5 $\frac{3}{4}$ in.	26.00
4	10 x 12	$1\frac{1}{2}$ in.	6 in.	$6\frac{1}{2}$ in.	30.00
5	11 x 14	$1\frac{3}{8}$ in.	$6\frac{3}{4}$ in.	$7\frac{1}{2}$ in.	35.00
6	14 x 17	2 in.	$8\frac{1}{4}$ in.	9 in.	42.50
7	17 x 20	$2\frac{3}{8}$ in.	10 in.	11 in.	54.00

THE best wide angle lens for ordinary conditions is one which gives an angle of about 80 degrees on the base line of the plate. Our wide angle symmetrical is the lens we recommend for general use as its quality is unsurpassed.

For extreme wide angle work we offer our Series X wide angle lenses which include 90 degrees within the base line of the plate, which is a greater angle than any other lens of this type will cover. Don't be misled by statements that lenses will give an angle of over 100 degrees as they won't if the actual field included within the base line of the plate is considered which is the only proper way to determine the angle of view. No lens will include a wider angle than the Series X unless it is shorter in focal length for the same size of plate and few if any cameras will permit lenses of shorter focus to be used.



WIDE ANGLE SYMMETRICAL LENSES F:16

Mounted in barrel with iris diaphragm.

No.	Size of Plate	Equivalent Focus	Back Focus	Price in Barrel
1	4 x 5	4 in.	$3\frac{1}{2}$ in.	\$10.00
2	5 x 7	$5\frac{1}{2}$ in.	$4\frac{3}{4}$ in.	12.50
3	$6\frac{1}{2} \times 8\frac{1}{2}$	$6\frac{1}{2}$ in.	$5\frac{1}{2}$ in.	16.00
4	8 x 10	8 in.	$7\frac{1}{4}$ in.	20.00

Olympia, Wash.

You will receive under separate cover a sample of photos of Mt. Ranier, one made with an ordinary lens of seven inch focus, the other with one of your Pancratic Lenses. The trees in foreground are about 60 ft., the mountain 60 miles away, magnification of 5 times was used.

I use the Lens frequently and am highly pleased with it.

B. C. Collier,
P. O. Bldg.

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Turner-Reich

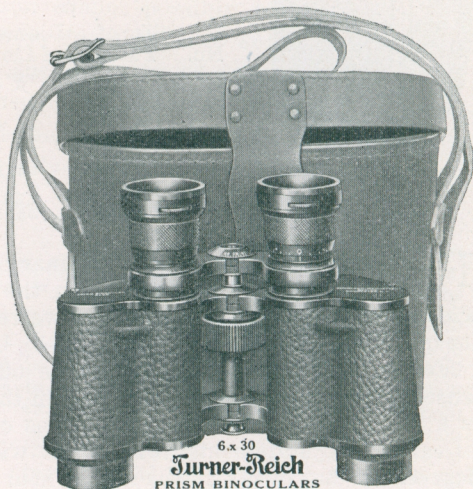
PRISM BINOCULARS

THE PERFECT TYPE OF FIELD GLASS

THE pleasure and satisfaction of possessing a prism binocular is something everyone should enjoy who is fond of outdoor life, hunting, sports, nature study and travel. The prism binocular is a delightful and useful companion, light in weight, convenient to carry and a powerful aid to vision which brings distant objects under close observation.

How fascinating it is to make an intimate study of birds and wild animals without attracting their attention, to have the satisfaction of a near view of games and players, to examine the beauties of architectural details and distant scenery when traveling, or the yachts in a race, and many other things beyond the range of human vision.

Try a Turner-Reich Prism Binocular and you will never be satisfied with an ordinary field glass of the old type.



Linear Magnification	. . .	6X	8X	6X	8X
Diameter of objectives	. . .	20 m/m	20 m/m	30 m/m	30 m/m
Field of view—					
angular	. . .	5½°	5°	8½°	6½°
linear in feet	. . .	113.5	104.7	149	114
Weight—					
binocular	. . .	18 oz.	18 oz.	29 oz.	29 oz.
case and straps	. . .	9 “	9 “	15 “	15 “

PRICE

Including sole leather case, shoulder and neck straps.

With central focusing screw and compensating eyepiece.

6X 20 m/m Turner-Reich Prism Binocular	. . . . .	\$35.00
8X 20 m/m Turner-Reich Prism Binocular	. . . . .	40.00
6X 30 m/m Turner-Reich Prism Binocular	50.00
8X 30 m/m Turner-Reich Prism Binocular	60.00

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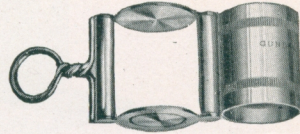
GLOBE MAGNIFIER

THIS pocket magnifier is an exceptionally fine instrument which is used largely by assayers, prospectors, physicians and others who desire the best results. It consists of a sphere of crown glass enclosed in two hemispheres of flint glass, a construction which results in a large, flat field.

No. 290—1 in. focus, nickel-plated brass mount, magnifying 11 diameters, dia. of lens 17.4 m/m \$6.00

No. 291— $\frac{3}{4}$ in. focus, nickel-plated brass mount, magnifying 14 diameters, dia. of lens 12.5 m/m 6.75

No. 292— $\frac{1}{2}$ in. focus, nickel-plated brass mount, magnifying 21 diameters, dia. of lens 10.4 m/m 7.50



KORONA FOCUSING GLASS

THIS is a very useful magnifier for examining the image on the ground glass, especially when the subject is poorly illuminated, as in the case of many interiors. The lens is mounted in an adjustable tube, and a set screw holds it at any desired point.

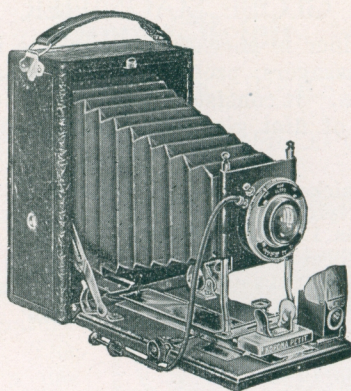
Price in nickel-plated mount . . \$3.00



Aeroplane picture taken with Turner-Reich Lens

By W. N. Jennings, Phila., Pa.

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KORONA PETIT

FOR PLATES AND FILM PACKS

IN THIS we present a very practicable and attractive camera equally convenient to use with or without a tripod. The body frame and bed are made of highly finished mahogany which is lighter than metal, quite as serviceable and certainly more beautiful. The metal parts with the exception of the front are nickel plated and polished. The back frame containing the focusing screen is spring actuated and detachable easily admitting the insertion of either plate holders or an adapter for film packs. The front is adjustable both ways and locks to the bed plate with a spring grip. A rack and pinion movement is provided for fine focusing also double acting side arm springs and piano hinge. Altogether it is a very compact, light weight and efficient camera of fine workmanship throughout.

SPECIFICATIONS

Mahogany, rubbed finished, metal parts nickel plated, leather covered, spring actuated ground glass frame, all metal front, rising and falling front with lateral adjustment and automatic spring grip, brilliant finder, leather bellows, two tripod sockets.

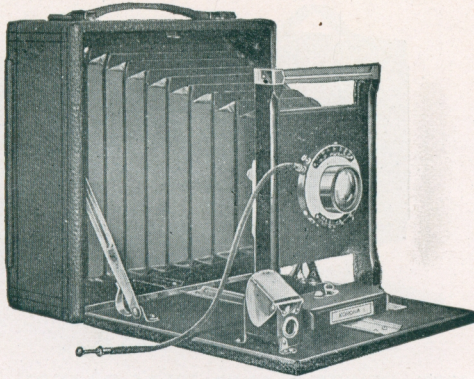
	$3\frac{1}{2} \times 4\frac{1}{2}$	$3\frac{1}{2} \times 5\frac{1}{2}$	4×5
Bellows length	7 inches	9 inches	9 inches
Dimensions	$2\frac{1}{2} \times 4\frac{1}{2} \times 5\frac{3}{8}$	$2\frac{3}{4} \times 4\frac{1}{2} \times 6\frac{3}{8}$	$2\frac{1}{2} \times 5\frac{1}{4} \times 6\frac{1}{4}$
Weight	19 oz.	24 oz.	28 oz.

PRICES

Including one plate holder

Korona Petit, Rap'd Rectilinear Lens, Deltax Shutter	$3\frac{1}{2} \times 5\frac{1}{2}$	4×5
Plate Holders	\$15.00	\$15.00
Korona Adapter, for film packs	1.25	1.25
	1.75	1.75

CAMERAS



SERIES I KORONA FOR PLATES AND FILM PACKS

THIS camera is admirably adapted to the beginners' requirements. It has a rising and falling front which is a very useful feature, a reversible back which is a great convenience and sufficient bellows length for every ordinary purpose. The bed may be dropped by detaching the side arms, permitting the use of a wide angle lens in connection with our simple wide angle bed plate. The construction and finish are in every way equal to our higher priced cameras and altogether this is a simple, compact and serviceable camera of excellent value for its moderate price.

SPECIFICATIONS

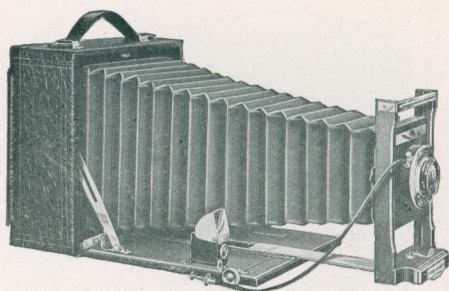
Mahogany, rubbed finished, metal parts nickel plated, leather covered, spring actuated, detachable ground glass frame, rising and falling front, reversible back, brilliant finder, piano hinge, tripod socket.

	4 x 5	5 x 7
Bellows length	7 inches	9 inches
Dimensions	3 x 6 $\frac{1}{4}$ x 6 $\frac{1}{4}$	3 $\frac{1}{2}$ x 8 x 8
Weight	2 lbs. 2 oz.	2 lbs. 14 oz.

PRICES

Including leatherette covered case and one plate holder

	4 x 5	5 x 7
Series I Korona, Rapid Rectilinear Lens, Deltax Shutter	\$18.00	\$23.00
Series I Korona, without lens or shutter	14.00	18.00
Plate Holders	1.25	1.50
Korona Adapters, for film packs	1.75	2.50



SERIES II KORONA

FOR PLATES AND FILM PACKS

IN comparison with the Series I Korona this model has the advantages of a rack and pinion for quick and accurate focusing, a longer bellows and a convertible lens, the rear combination of which may be used alone to increase the size of the image. This camera offers a better range of adjustments for copying and other work and may be used with a wide angle lens by dropping the bed if a wide angle bed plate is obtained. This is a standard design which will always be popular and it may be used very satisfactorily for every purpose including telephotography.

SPECIFICATIONS

Mahogany with rubbed finish, leather covered, metal parts, nickel plated, spring actuated detachable ground glass frame, detachable lens board, reversible back, rising and falling front, leather bellows.

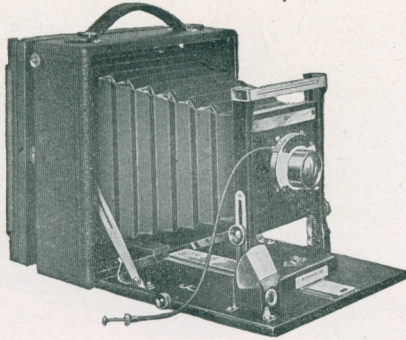
		4 x 5	5 x 7
Bellows length	11 inches	15 inches	
Dimensions	3 x 6 $\frac{1}{4}$ x 6 $\frac{1}{4}$	3 $\frac{1}{8}$ x 8 x 8	
Weight	2 lbs. 4 oz.	3 lbs. 2 oz.	
Lens board	2 x 2 inches	2 $\frac{3}{8}$ x 2 $\frac{3}{8}$	

Equipped with Gammax shutter

PRICES

Including leatherette covered case and one plate holder

	4 x 5	5 x 7
Series II Korona, Convertible Rapid Rectilinear Lens	\$21.00	\$26.00
Series II Korona, without lens or shutter	16.00	20.00
Plate Holders	1.25	1.50
Korona Adapter, for film packs	1.75	2.50
Lens Boards . . . . .	.50	.60



SERIES III KORONA

FOR PLATES AND FILM PACKS

THE Series III Korona is a complete camera having all the required adjustments and conveniences for indoor and outdoor photography but not the bellows length needed for copying and telephotography which only a long focus camera will provide. With this limitation the Series III Korona will do everything an expert amateur will require of it as a hand or tripod camera.

SPECIFICATIONS

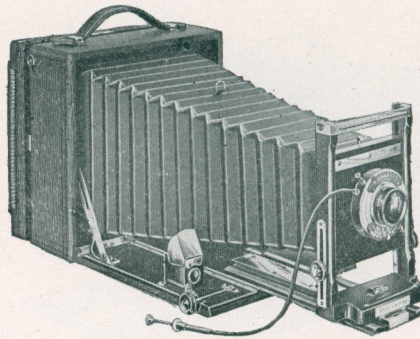
Mahogany with rubbed finish, leather covered, metal parts nickel plated, spring actuated ground glass frame, reversible central swing back, diagonal rack and pinion, rising and falling front operated by rack and pinion, adjustable front lock, brilliant finder, piano hinge, detachable lens board.

Size	Bellows length	Lens Board	Dimensions	Weight
4 x 5	8 in.	2 x 2 in.	3 x 6½ x 6½	2 lbs. 8 oz.
5 x 7	10 in.	2½ x 2½ in.	3½ x 8 x 8	3 lbs. 8 oz.

PRICES

Including sole leather case and one plate holder

	4 x 5	5 x 7
Series III Korona, Rapid Convertible Lens F:8, Betax Shutter	\$28.00	\$34.00
Series III Korona, without lens or shutter	20.00	26.00
Korona Plate Holders	1.25	1.50
Korona Adapter, for film packs	1.75	2.50
Lens Boards . . . . .	.50	.60



SERIES IV KORONA

FOR PLATES AND FILM PACKS

THIS model is similar to the Series III but has greater bellows capacity and is, therefore, adapted better for using long focus lenses or a Pancratic Telephoto Lens. The extra bellows length is useful for copying and working at close range in photographing flowers, birds or other subjects which must be taken about natural size.

The extension bed is made of mahogany with metal bearings and adds very much to the appearance of this camera besides being more substantial than the usual construction of a narrow metal bed plate.

SPECIFICATIONS

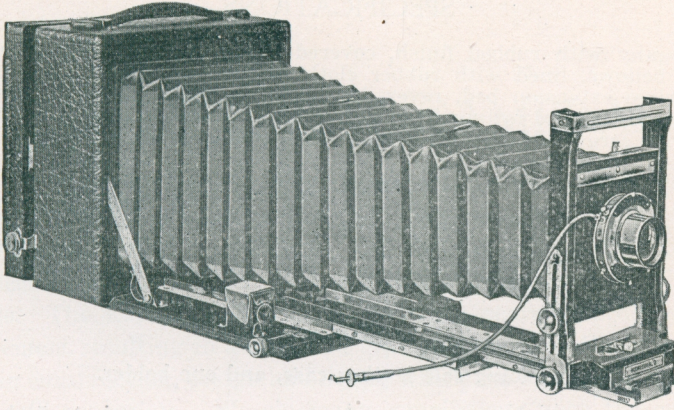
Mahogany with rubbed finish, metal parts nickel plated, leather covered, leather bellows, spring actuated detachable ground glass frame, automatic swing back, rising and falling front with rack and pinion, reversible back, diagonal rack and focusing pinion, detachable lens board, adjustable front lock, brilliant finder, piano bed hinge, tripod sockets.

	4 x 5	5 x 7
Bellows length	12 inches	16½ inches
Dimensions	3½ x 6½ x 6½	3½ x 8 x 8
Weight	2 lbs. 11 oz.	3 lbs. 11 oz.
Size of Lens Boards	2½ x 2¾ in.	3½ x 3½ in.

PRICES

Including sole leather case and one plate holder

	4 x 5	5 x 7
Series IV Korona, Rapid Convertible Lens F:8, Betax Shutter	\$32.00	\$40.00
Series IV Korona without lens or shutter	24.00	32.00
Korona Plate Holders	1.25	1.50
Korona Adapter, for film packs	1.75	2.50
Lens Boards . . . . .	.50	.60



SERIES V KORONA FOR PLATES AND FILM PACKS

THIS is a beautiful camera representing in every way the finest features of construction, the greatest capacity for the work of the expert amateur and the excellence of finish which is desired by those who appreciate good workmanship. The Series V Korona is a long focus camera, equally well adapted to wide angle work and it may be operated quickly and conveniently for any purpose, being especially suited for pictorial photography, copying and telephoto work. The triple bed extension is obtained by a center section which is unlocked and pulled out automatically by the front and returned in the same way. The second section is controlled by diagonal rack and pinion which can be locked at any point by pushing in the pinion rod. The bed sections are brass bound and carefully fitted to work in drawn brass mouldings. The front standard and base are in one piece and very substantial, underneath is a metal shoe with one loose side controlled by a cam and locking lever which draws it in to lock the front firmly to the bed plate, at the same time squaring the front standard with the bed plate without any possibility of side motion. The cam plate has adjusting screws which are an exclusive feature, and the front can be made to lock as tightly as desired. The lateral front adjustment is part of the metal shoe and is operated by a worm screw making the entire front unusually rigid and strong. The swing is centrally pivoted, the only correct method, and opens for action automatically by pressing a concealed button on each side. The lens board is detachable in the Korona way by merely raising it until it clears the frame at the bottom. The ground glass frame is detachable and swings out a sufficient distance to easily insert an adapter for film packs. Most cameras are faulty at this point and have a poor back construction. All Koronas have a thin metal back door for protecting the focusing screen.

SPECIFICATIONS

Mahogany with rubbed finish, covered with bear grain cowhide, black leather bellows, lined with rubber cloth, padded handle, automatic swing back, triple extension bed, reversible back, diagonal rack and pinion for focusing, rising and falling front with rack and pinion, lateral front movement with screw adjustment, detachable lens board, brilliant finder, piano hinge, two tripod sockets.

	4 x 5	5 x 7
Bellows extension	15½ inches	20 inches
Dimensions	3¾ x 6½ x 6½	4¼ x 8 x 8
Weight	3 lbs.	4 lbs. 6 oz.
Lens Board	2 x 2 inches	2½ x 2½

PRICES

Including sole leather case, and one holder.

	4 x 5	5 x 7
Series V Korona, Rapid Convertible Lens F:8, Betax		
Shutter	\$40.00	\$48.00
Series V Korona, without lens or shutter	32.00	40.00
Korona Plate Holders	1.25	1.50
Korona Adapters, for film packs	1.75	2.50
Lens Boards . . . . .	.50	.60
Auxiliary Wide Angle Bed	2.50	3.00



Made with Series II
Turner-Reich Anastigmat F:6.8

By A. P. Nelson
Moline, Ill.

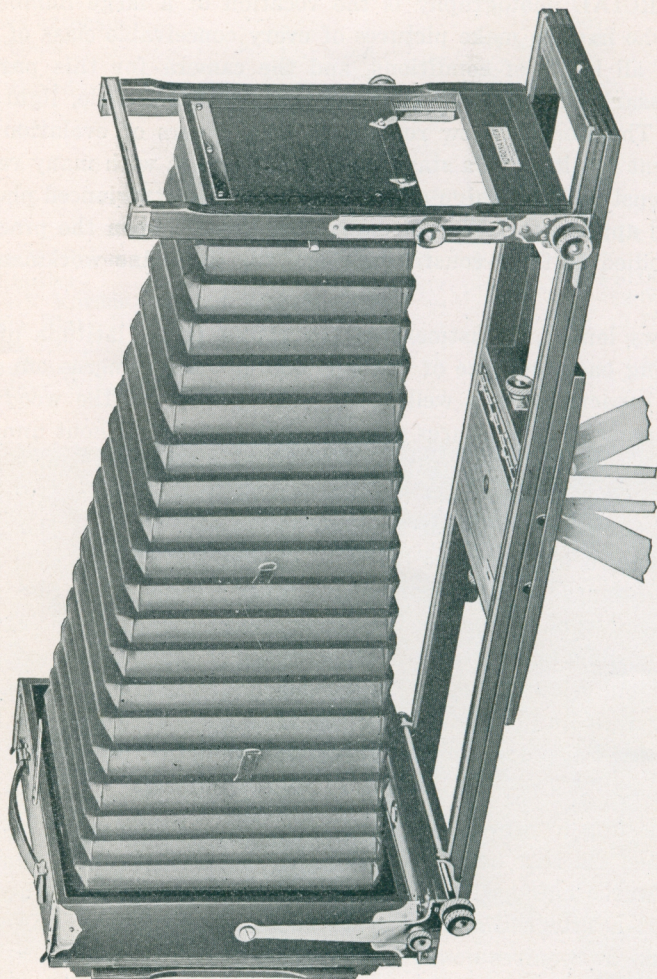
KORONA VIEW CAMERAS

COMMERCIAL photography is the vocation of a large number of men who have to make pictures of every conceivable class of subject under all kinds of conditions, and the camera for this purpose must necessarily be equal to any occasion and serviceable, light and portable. The Korona View represents many years of evolution and improvement resulting in a standard type of camera with many refinements in construction, design and finish, which the experienced photographer will appreciate. We get many compliments upon the practical ideas embodied in their construction and for their fine workmanship and finish.

In bellows length, adjustment of the rising front, latitude of the double swing back and size of the lens board, these cameras offer the maximum capacity with a well balanced proportion of the woodwork and metal parts, which secures strength and rigidity without unnecessary weight. The spring action of the ground glass frame is the most distinctive and valuable feature of this camera. The frame is pivoted in the centre and the springs have less than half the usual distance to move, although the frame recedes readily a great deal more than the ordinary spring arrangement allows, permitting the insertion and removal of the holder very easily without jarring the camera and with no danger of straining the springs. This is an exclusive feature of our view cameras. The back and the front frames are both under rack and pinion control for focusing and the rising front and swing back also operate with rack and pinion and have convenient lock nuts.

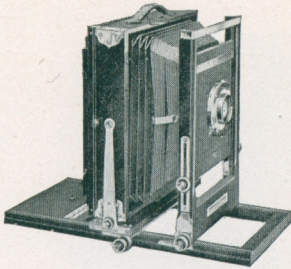
The back stop to prevent the back of the camera from running off the bed when the rear bed section is not attached is another improvement. It works automatically, one of the bed pins lower it when the rear section is attached and it springs up as soon as the rear section is detached. It requires none of the fussing that other stops do which are operated by an extra or third pin. Another convenience is the bed lock screws which fall into place and merely require a few turns to lock the bed sections together.

The 6½ x 8½ and larger sizes are furnished with detachable bed braces which support and give great rigidity to the bed when the

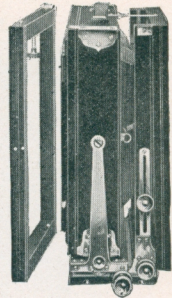


KORONA VIEW CAMERA

CAMERAS



camera is fully extended. For wide angle work we suggest folding the front bed section up against the front standard and focusing from the rear. This balances the weight on the tripod and avoids making the camera much heavier by the addition of a slid-



ing bed block which is really an unnecessary attachment.

Our canvas cases are strongly made and lined with canton flannel. The usual straps are replaced by more convenient catches and the handle is a comfortable shape which will not cramp the hand.

The regular long case will take the camera and six plate holders except in 11 x 14 size, with which we supply a short case for camera and three plate holders.

SPECIFICATIONS

Walnut finish, metal parts nickel plated, reversible back, spring acting pivoted ground glass frame, double swings, rising and falling front with rack and pinion, sliding panel in back, detachable lens boards, bed brace, automatic back stop, leatherette bellows lined with rubber cloth.

	4 x 5	5 x 7	6½ x 8½	8 x 10	7 x 11	11 x 14
Lens boards . . .	4 x 4	4½ x 4½	4½ x 4½	6 x 6	6 x 6	6½ x 6½
Bellows length	20 in.	24 in.	28 in.	32 in.	34 in.	42 in.
Weight . . .	4½ lbs.	5½ lbs.	7 lbs.	9 lbs.	10½ lbs.	15 lbs.

PRICES

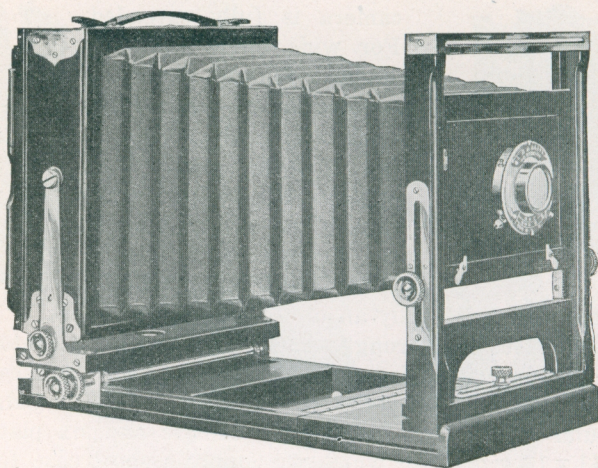
We will assume that carrying case and one plate holder are wanted with each Camera unless order specifies otherwise.

	4 x 5	5 x 7	6½ x 8½	8 x 10	7 x 11	11 x 14
Korona View Camera, only	\$27.25	\$28.50	\$30.25	\$32.00	\$40.00	\$48.00
Canvas Carrying Case . . .	3.50	4.00	5.50	6.00	6.00	7.00
Plate or Film Holder . . .	1.25	1.50	1.75	2.00	2.00	5.00
	\$32.00	\$34.00	\$37.50	\$40.00	\$48.00	\$60.00
Leather Bellows, extra . . .	2.00	2.50	3.50	4.00	4.00	5.00
Lens Board, specify size . .	.75	.75	.75	.90	.90	1.00

The 4 x 5 Korona View will be supplied at listed price with the choice of a reversible back for 4 x 5, 3¼ x 5½ or 3¼ x 4¼ holders.

4 x 5—3¼ x 4¼ Reducing Back . . .	. . .	. . .	. . .	. . .	. . .	\$5.00
3¼ x 5½ Back for 4 x 5 Korona View . . .	. . .	. . .	. . .	. . .	. . .	5.00

The 7 x 11 size has a lateral front adjustment which is not a feature of the other sizes.



CRITERION VIEW CAMERAS

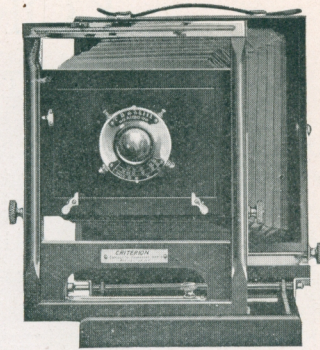
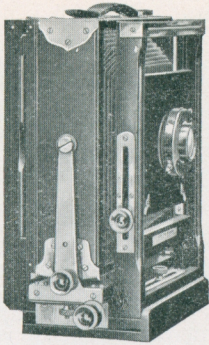
THE photographer who does not require a camera with extreme bellows capacity like the Korona View will find his ideal in the Criterion which has all its other features with the additional advantage of lateral front adjustment. The Criterion View is a very practical camera for commercial photography and a beautiful piece of apparatus so manifestly superior to other cameras of similar design that you are sure to give it the preference if a comparison is made by personal examination. We emphasize the importance of seeing this camera and deciding for yourself how other cameras compare with it, which can not be done by catalogue descriptions. This camera is unrivalled for home portraiture or studio work and it will completely meet the requirements of a general purpose camera for commercial work.

Details—Walnut finish, metal parts nickel plated, rising and falling front with rack and pinion, lateral front adjustment, double swing back, vertical swing with rack and pinion, horizontal swing and reversible back. Center pivoted spring acting ground glass frame, double sliding panels, large lens boards, short canvas case containing camera and three holders. (5 x 7 case takes six holders.) Long case for six holders \$1.50 extra in 6½ x 8½ and 8 x 10 sizes, with space on top for tripod \$2.50 extra.

	Bellows Length	Lens Board	Weight
5 x 7	13½ inches	3½ x 5½	5 lbs.
6½ x 8½	16½ inches	4½ x 4½	6 lbs.
8 x 10	18½ inches	5½ x 5½	8 lbs.

The 5 x 7 size will be supplied to order with a Lens Board 4½ x 4½ inches.

CAMERAS



PRICES

We will assume that carrying case and one plate holder are wanted unless order specifies otherwise.

	5 x 7	6½ x 8½	8 x 10
Criterion View Camera, only	\$25.50	\$27.25	\$29.00
Canvas Carrying Case, short	4.00	4.00	4.50
Plate or Film Holder	1.50	1.75	2.00
	\$31.00	\$33.00	\$35.50
Leather Bellows, extra	1.50	2.00	3.00
Lens Boards, specify size . . . . .	.75	.75	.90

PLATE HOLDERS

Important

KORONA and Criterion View cameras are now made to take what we call standard size holders which will also fit several other makers' cameras. When holders are ordered separately the width and length should be given and it should be stated whether the holders are wanted with grooves or ribs at the top end. We are not making cut film holders in the grooved model to fit Korona Hand Cameras.

Gundlach-Manhattan Optical Co.,
Rochester, N. Y.

Renova, Pa.

"I received my Camera and found it O. K. I have given it a fair test and it excels all others I have used. I cannot say too much for its good qualities."

Very truly yours,
C. S. GRENINGER.

Page Forty-one

KORONA

HOME PORTRAIT OUTFITS

HOME Portraiture is now a specialized branch of the photographic art. There is a charm about pictures taken amid home surroundings, and a very interesting field in such work for both amateur and professional photographers. Altogether photography in the home offers a splendid opportunity for making unconventional pictures either from a pictorial or commercial aspect. The apparatus required is somewhat special as the ordinary outdoor camera and tripod are not very convenient for the purpose. These outfits will be found ideal not only for home photography but also for small professional studios and post card galleries while the same outfit will answer admirably for outdoor view and commercial work, making the expense of two outfits unnecessary.

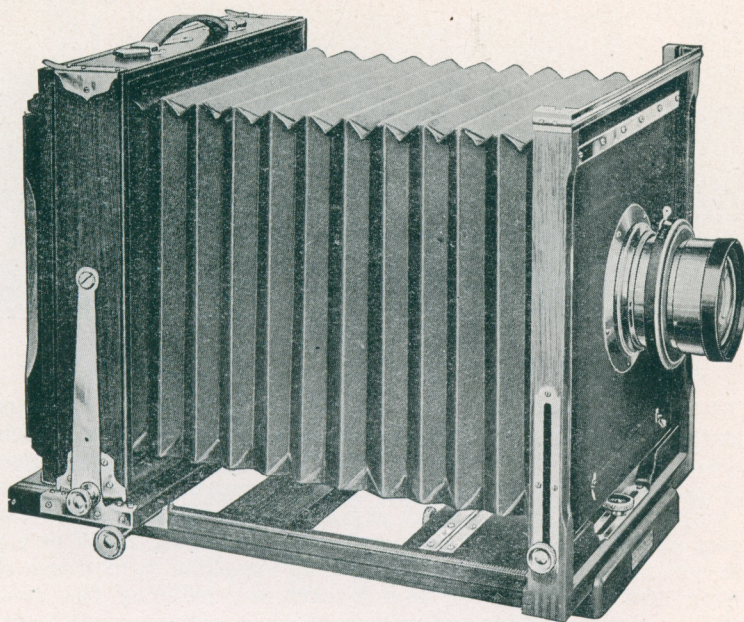


The camera is our Korona Home Portrait, the most complete and beautiful camera of its kind. It is made entirely of selected cherry, finished in walnut, and all the metal parts are made of brass, nickel plated. It has a rising and falling front operated by rack and pinion and a lateral front adjustment, double swing back with the vertical swing operated by rack and pinion. The back is reversible and contains two sliding panels for making two or four exposures on a plate. The ground glass frame is controlled by our center pivoted spring actuated device, an exclusive feature, making it extremely easy to insert and remove the plate holders.

With the camera is included a short canvas case, lined with canton flannel, which takes the camera and six holders in 5 x 7 size and three holders in 6½ x 8½ and 8 x 10 size.

Size	Bellows Length	Lens Board	Weight
5 x 7	13½ inches	6 x 6	5 lbs.
6½ x 8½	16½ inches	7 x 7	6 lbs.
8 x 10	18½ inches	9 x 9	8 lbs.

CAMERAS



KORONA HOME PORTRAIT CAMERA

PRICES

We will assume that carrying case and one plate holder are wanted with each camera unless order specifies otherwise.

	5 x 7	6½ x 8½	8 x 10
Home Portrait Camera, only	\$26.50	\$28.25	\$30.00
Canvas Carrying Case	4.00	4.00	4.50
Plate or Film Holder	1.50	1.75	2.00
	<hr/>	<hr/>	<hr/>
Leather Bellows, extra	\$32.00	\$34.00	\$36.50
Lens Boards, specify size	1.50	2.00	3.00
	.90	1.00	1.25

See description of Improved Korona Folding Studio stand on page 48.

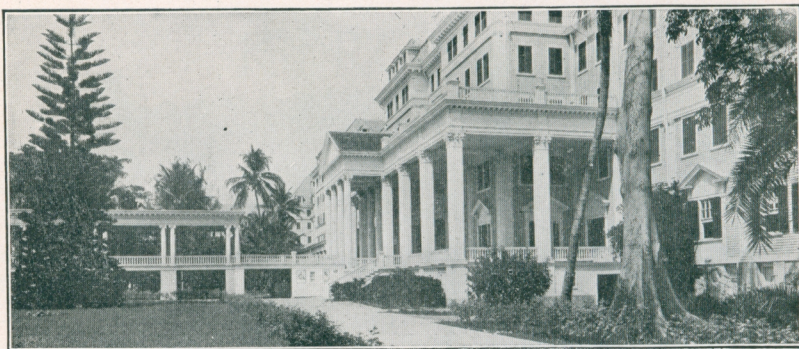
Philadelphia, Pa.

"The 5 x 7 Korona View arrived via post in excellent order.
It is very satisfactory and the customer is simply delighted with his camera.

How any one can buy any other view than a Korona is beyond me.
It is the best view camera on the market to-day."

Very truly,
Ph. B. Wallace,
711 Walnut St.

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KORONA PANORAMIC VIEW CAMERAS

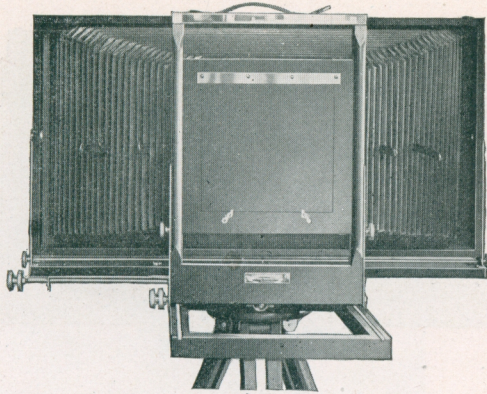
THIS type of camera has many advantages to commend it for commercial photography, as the proportions of the picture are especially suitable for groups, machinery, automobiles, railroad scenery, views of industrial plants and other subjects which require a wide angle of view without including too much sky and foreground. All the essential part of the subject may be included within 5 x 12, 7 x 17 or 8 x 20 inches which could be obtained by making negatives twice these sizes by using 10 x 12, 14 x 17 or 16 x 20 cameras, reducing the cost of materials and with lighter and more portable apparatus, and the panoramic picture is more artistic and pleasing. A Korona Panoramic View Camera is an investment yielding big returns. It creates business which ordinary view cameras are not adapted to and gives the photographer a reputation for enterprise by being equipped with modern apparatus.

These cameras are beautifully made of cherry with walnut finish and follow the general lines of construction of our well known Korona View Cameras which are made in the standard sizes from 4 x 5 to 11 x 14.

The Panoramic View Cameras have no reversible back, to obtain which the advantages of a reduction in size and weight would be lost.

The general design is a front and back focusing camera with detachable rear bed section, double swing back and rising and falling front operated by rack and pinion. The back springs holding the ground glass frame are one of the special features and strong points of these and other view cameras we make. The frame is pivoted in the center and a strong even pressure is obtained at all points, while the plate holder slides in easily and smoothly. In fact, our 8 x 20 holder can be inserted and removed as easily as the holder of a small camera.

With each camera we include a strong canvas case, lined with canton flannel, with metal clasps and the most comfortable handle made. The 5 x 12 case takes the camera and six holders with extra bed section and bed brace.



The larger size cases take the camera and three holders, rear bed section and bed brace.

Cameras have sliding panels for making two exposures on one plate. A bed brace is included, also one holder with each camera.

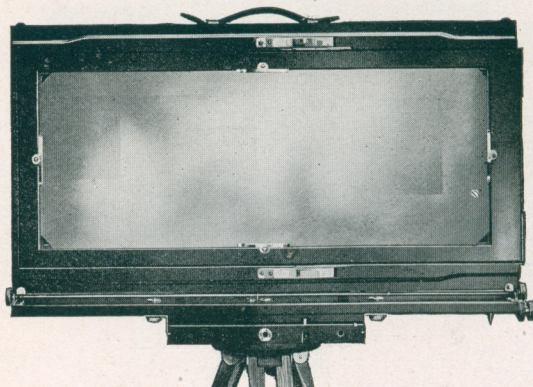
THE LENS EQUIPMENT

ANY lens may be used which will cover the plate, but the best lens is the Series II Turner-Reich Convertible Anastigmat F:6.8. By using a small size so the doublet will just cover the plate with a little to spare the single combinations may be used separately, but the front combination alone must be left in the front of the shutter instead of in the rear as is advisable if possible.

For the 5 x 12 Camera we suggest a $6\frac{1}{2}$ x $8\frac{1}{2}$ Series II Turner-Reich F:6.8, with focal lengths of $10\frac{1}{2}$ ", 18" and 24". For the 7 x 17 Camera an 8 x 10 Series II Turner-Reich Anastigmat F:6.8, with focal lengths of 12", 21" and 28", and for the 8 x 20 size a special lens we make for the No. 16 Cirkut Camera, a Series II Turner-Reich F:7.5 with focal lengths of 15", 24" and 36".

These lenses are suggested with the idea of obtaining as great an angle of view as possible within the base line of the plate by utilizing the full covering power of each lens and also with the object of keeping the focal lengths of the single combinations within the bellows capacity of the camera, but if more covering power is desired to permit using the rising front to the fullest extent it will be necessary to equip the camera with lens of longer focus, and if we consider that 8 x 20 is equal to twice 8 x 10 it would take a lens of 24" focus to give the same angle and covering power for an 8 x 20 plate that we obtain from a lens of 12" focus when used to cover an 8 x 10 plate.

It is, therefore, unreasonable to expect the lenses we suggest to do any more than cover the plate with a little margin to spare.



SPECIFICATIONS

	5 x 12	7 x 17	8 x 20
Lens Board . . .	3½ x 5½	5½ x 5½	6 x 6
Bellows length . . .	23½ inches	28½ inches	32½ inches
Camera folded . . .	5½ x 16 x 10½	5½ x 21½ x 13½	6 x 24½ x 14½
Weight of Camera . . .	8 lbs.	10 lbs.	13½ lbs.

PANORAMIC VIEW CAMERAS

PRICES

We will assume that carrying case and one plate holder are wanted with each Camera unless order specifies otherwise.

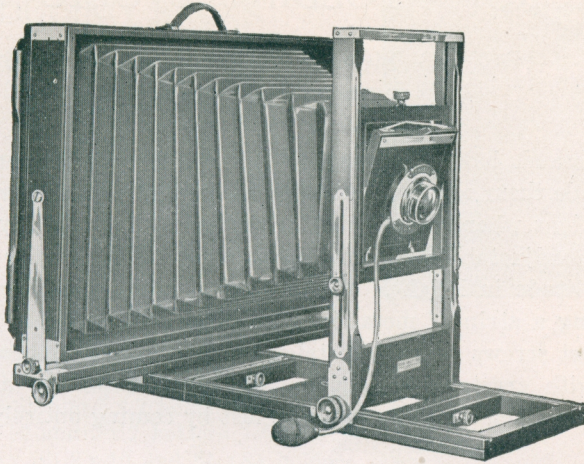
	5 x 12	7 x 17	8 x 20
Camera without case or holder	\$38.50	\$46.50	\$54.00
Canvas Carrying Case	7.50	8.50	10.00
Extra charge for leatherette bellows with leather corners	2.00	3.00	4.00
Plate Holders	4.00	5.00	6.00
Film Holders	5.00	7.00	8.00
Printing Frames	3.50	4.00	5.00
Lens Boards . . . . .	.75	.75	.90

Turner-Reich

CONVERTIBLE ANASTIGMAT LENSES F:6.8

For Korona Panoramic View Cameras.

No.	Size of Lens	Equivalent Focus	For Camera	Price in Betax Shutter	Price in Optimo Shutter
4	6½ x 8½	10½"	5 x 12	\$96.50	\$104.50
5	8 x 10	12"	7 x 17	112.00	119.50
6	11 x 14	15"	8 x 20	167.00	174.50



KORONA BANQUET CAMERAS WITH SWING FRONT

WE HAVE incorporated in the construction of this camera many ideas suggested by expert commercial photographers and primarily it is intended for taking flashlights of banquets and large groups but there is no reason why it cannot be used for many other purposes as it has all the usual adjustments of a view camera. It is a front focusing camera without a rear bed extension but may also be focused from the rear for convenience in final focusing. The front has a vertical swinging lens board and there is a double swing in connection with the rear frame. The rising and falling front operate with rack and pinion and allow ample adjustment. This camera is made of cherry throughout with walnut finish and has all metal parts nickel plated,—a very handsome combination. The holders have double flexible valves. Bellows length $22\frac{3}{4}$ inches. Lens Board $5\frac{1}{2} \times 5\frac{1}{2}$ inches. Weight 18 lbs. Dimensions closed, $7\frac{1}{4} \times 18\frac{1}{2} \times 23\frac{1}{4}$.

PRICES

We will assume that carrying case and one plate holder are wanted unless otherwise ordered.

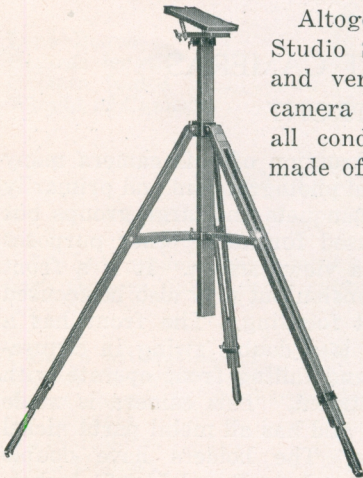
12 x 20 Korona Banquet Camera without case or holder . . .	\$58.50
Canvas Carrying Case	9.00
Extra charge for leatherette bellows with leather corners . . .	3.00
12 x 20 Plate Holder	7.50
12 x 20 Film Holder	9.00
12 x 20 Printing Frame	6.00
Lens Boards $5\frac{1}{2} \times 5\frac{1}{2}$ . . . . .	.75

We recommend the No. 6 Series II Turner-Reich Anastigmat F:7.5 for this camera.

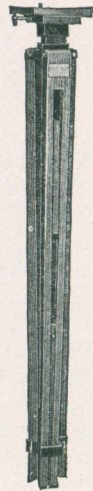
THE KORONA FOLDING STUDIO STAND

IMPROVED MODEL WITH ADJUSTABLE EXTENSION LEGS

THESE stands have been ideal for indoor photography and we have now made them equally suitable for outdoor work or for use under any conditions where the ground or surface is not level by providing them with adjustable leg extensions, which at the same time give greater latitude in height. We have also improved the construction by inserting a strip of metal in the center post to avoid injuring it with the set screws and the metal parts are now all unbreakable and finished with crystalized lacquer. The set screws are all of wing design and riveted so they cannot be lost by coming entirely out.



Altogether the Korona Folding Studio Stand is a compact, portable and very convenient support for a camera or a projection lantern under all conditons, and it is beautifully made of cherry finished in walnut to match Korona View Cameras in all the different models. It is an ideal stand for Home Portraiture or the small studio and safe and rigid. The three legs open up simultaneously and the stand may be moved about on smooth surfaces with perfect safety to the camera.



The center post is adjustable for height from 31 to 45 inches, and the top is detachable and adjustable for inclination

Maximum height 60 inches.

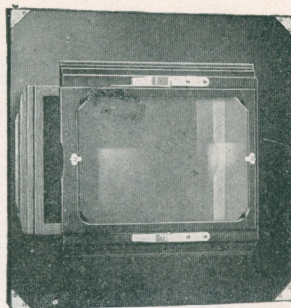
Weight: No. 1, 4 lbs. No. 2, 6 lbs.

PRICES

No. 1 for 5 x 7 and smaller cameras	\$12.00
No. 2 for 6½ x 8½ and larger cameras	14.00
Special top for Projection lantern 7½ x 24 which may be used with any stand	2.50

REDUCING BACKS

THESE convenient attachments for using holders of smaller sizes have become very popular no doubt because they have proved their worth as a practical addition to the commercial photographer's outfit.



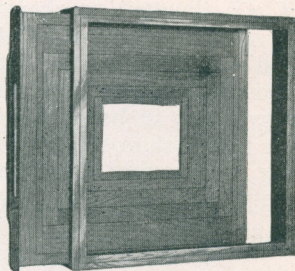
PRICES

Without Holder.

4 x 5 for 3½ x 4½ holders	\$5.00
5 x 7 for 3½ x 4½, 4 x 5 and 3½ x 5½ holders	5.50
6½ x 8½ for 5 x 7 holders	6.00
8 x 10 for 6½ x 8½ and 5 x 7 holders	6.50
7 x 11 for 8 x 10 and 5 x 7 holders	6.50
11 x 14 for 10 x 12, 8 x 10 and 6½ x 8½ holders	7.50
7 x 17 for 6½ x 8½ holders, reversible	10.00
8 x 20 for 8 x 10 holders, reversible	12.00
3½ x 5½ Reversible Back for 4 x 5 Korona View	5.00

KORONA ENLARGING ATTACHMENT

ALL a front focusing view camera needs to adapt it to enlarging is a back with negative carriers of different sizes to take the place of the regular reversible back. The camera can then be used for the purpose of photography or enlarging without a double investment for two separate outfits. These are made in stock sizes only to fit the Korona View and we cannot supply them for other view cameras unless the camera is sent to us for fitting which will be charged for extra, according to the work required.



PRICES

Korona Enlarging Attachment with a full set of Negative Carriers.

4 x 5	5 x 7	6½ x 8½	8 x 10	7 x 11	11 x 14
\$6.00	\$6.50	\$7.00	\$8.00	\$9.00	\$12.00

Have been studying several of the best Cameras and have come to the conclusion that your Cameras have more REAL features than any other make.

Clyde B. Elliott,
Ann Arbor, Mich.

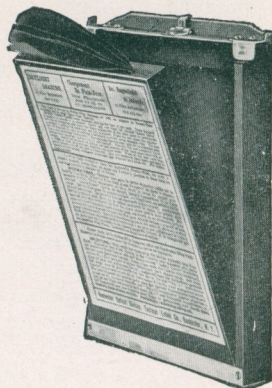
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KORONA FILM PACK ADAPTERS

IMPROVED WITH FLEXIBLE VALVE

THE Korona Adapter for film packs has no loose parts of any kind to break or get out of order. It is smooth and without projections on all sides and in every respect the neatest, most simple and best finished adapter on the market. The flexible valve offers no obstruction to the slide and it minimizes to the fullest extent the danger of fogging the film.

Korona Adapters are made in sizes to fit all cameras.



PRICES

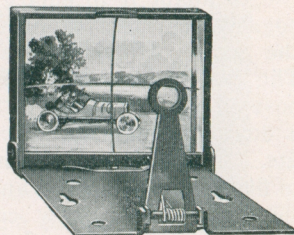
$3\frac{1}{4} \times 4\frac{1}{4}$	$3 \times 5\frac{1}{4}$	3A	4×5	5×7
\$1.60	\$1.75	\$1.75	\$1.75	\$2.50

The $3 \times 5\frac{1}{4}$ size fits all $3\frac{1}{4} \times 5\frac{1}{4}$ Korona Cameras.

KORONA DIRECT VIEW BRILLIANT FINDERS

THE illustration shows very clearly the style of this finder which is made to fold and occupy very little space when not in use. Finders of this type are frequently very convenient in hand camera work and they are better than ordinary finders for centering fast moving objects on the plate.

These finders may be used with a camera of any size.



Size of Lens $1\frac{3}{16} \times 1\frac{1}{16}$

Price \$2.00

Gundlach-Manhattan Optical Co.
Rochester, N. Y.
Gentlemen:

Ballston Spa, N. Y.

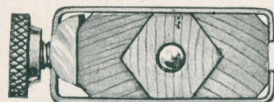
I am sending you by this mail two prints made with the new 8×20 Panoramic Camera recently purchased from you. It is a fine instrument and fills a long felt need.

For large groups I think it cannot be equalled.

Very truly yours,
J. S. WOOLEY.



Combination

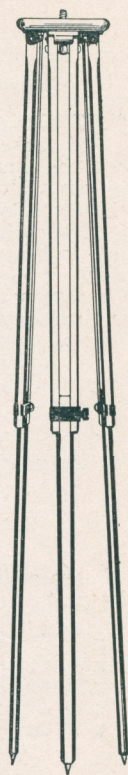


KORONA TRIPODS

KORONA tripods are made on the best principle ever applied to tripod construction. The sliding sections are grooved as illustrated, adding more stock and rigidity to the lower part, and when clamped together the result is equal to one solid piece. Further the adjustable part slides freely when released.

All but No. 0 have straps attached for binding the legs together. Korona tripods are made of straight grained spruce, the stiffest and lightest wood for the purpose.

No. 0 tripod has a metal head, brass plated. No. 3 tripod is rigid enough for $6\frac{1}{2} \times 8\frac{1}{2}$, 8×10 , or 11×14 cameras.



Sliding

SPECIFICATIONS

	Weight.	Length folded
No. 0 Sliding tripod	20 oz.	29 inches
No. 1 Combination tripod	2 lb.	23 inches
No. 2 Combination	2 lb., 9 oz.	23 inches
No. 3 Sliding tripod	3 lb.	31 inches

Full length extended 55 inches.

No. 0 Sliding tripod for 4×5 and 5×7 cameras	\$1.50
No. 3 Sliding tripod for 8×10 and larger cameras	5.00

The Korona combination folding and sliding tripod folds to one-third its length. The lower section is adjustable in length. The head is triangle shaped to permit dropping the camera bed when using a wide angle lens. The head cannot detach accidentally.

No. 1 Combination tripod for 4×5 and 5×7	\$5.00
No. 2 Combination tripod for $6\frac{1}{2} \times 8\frac{1}{2}$ and 8×10	6.00

KORONA PLATE HOLDERS WITH FLEXIBLE VALVES

THERE are two styles of holders,—those with grooves at the upper end and those with ridges, both designed to form a light proof connection with the camera frame. These are made in a number of different models of various widths and lengths and when ordering it is necessary to give the width wanted and specify with grooves or ridges, to get the proper holders to fit the camera. The flexible valves open only at the point where the slide is inserted. The plates rest upon a wooden bar held up by a spring which is merely pressed down when the plates are inserted or removed. We designate the holders with ridges as “Standard” because they fit a number of other cameras as well as our own View Cameras of the present models.

PRICES

3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	3 $\frac{1}{4}$ x 5 $\frac{1}{2}$	4 x 5	5 x 7	6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	7 x 11	8 x 10	11 x 14
\$1.25	\$1.25	\$1.25	\$1.50	\$1.75	\$2.00	\$2.00	\$5.00

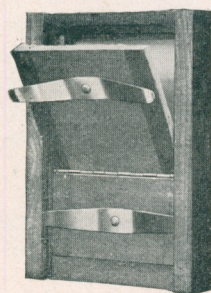
Cut Film Holders in 4 x 5 to 11 x 14 sizes may be obtained at the same price as plate holders.

KITS

These are adapter-frames, allowing the use of smaller than the regular size plates in holders.

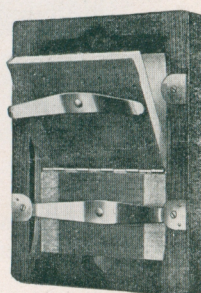
4 x 5 for plates 3 $\frac{1}{4}$ x 4 $\frac{1}{4}$, 3 $\frac{1}{4}$ x 4	. . . . .	.20
5 x 7 for plates 3 $\frac{1}{4}$ x 4 $\frac{1}{4}$, 4 x 5, 3 $\frac{1}{4}$ x 5 $\frac{1}{2}$	. . . . .	.25
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ for plates 4 x 5, 5 x 7	. . . . .	.30
8 x 10 for plates 6 $\frac{1}{2}$ x 8 $\frac{1}{2}$, 5 x 7	. . . . .	.35
11 x 14 for plates 8 x 10, 6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	. . . . .	.50

KORONA PRINTING FRAMES WITH PIANO HINGES



THESE are made of thoroughly seasoned cherry, the No. 1, which is the heavier, being the standard style. The No. 2 frame, while not so heavy as the No. 1, is quite as serviceable for the amateur.

No. 1 Heavy	No. 2 Light
4 x 5 .75	3 $\frac{1}{2}$ x 4 $\frac{1}{4}$.30
5 x 7 .90	4 x 5 .35
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$ 1.15	3 $\frac{1}{4}$ x 5 $\frac{1}{2}$.35
8 x 10 1.25	5 x 7 .45
7 x 11 1.50	
11 x 14 2.75	



SUNDRIES

Tubing, per foot . . . . .	.10	Shoulder straps—	
Ground glass, 4 x 5, acid ground .25		36 inches, 42 inches, 48 inches	\$.75
Ground glass, 5 x 7, acid ground .35		Bulb and tube . . . . .	.25
Ground glass, 6 $\frac{1}{2}$ x 8 $\frac{1}{2}$, acid ground .50		Tripod tops and screws	1.50
Ground glass, 8 x 10, acid ground .60		Tripod leg screws . . . . .	.15
Rubber focusing cloth	1.00	Tripod head screws . . . . .	.25