





. 130	4 .
	With 7 ft. Oil
C	olor Extension
	\$11.90
	17.25
	23.00
	27.00
	34.88

40.00 Oil extension 121/2 cents per square foot, other sizes 25 cents per square foot.



Si	lze	Price	With 7-foot oil-color extension
6x 8	feet	\$ 9.60	\$1 7 5
8x 8	feet	11.52	18.52
8x10	feet	14.40	23.15
9x12	feet	. 19.44	27.32
10x14	feet	. 25.20	33,95
10x16	feet	. 28.80	37.55

Other sizes, smaller than 8x8, per square foot ...... .20

MO. LEGG

# Catalogue No. 21

# Cameras, Kodaks

Lenses and Photographic Accessories

1923-1924

CENTRAL CAMERA COMPANY 124 So. WABASH AVENUE CHICAGO, LLINOIS

N COMPILING THIS CATALOGUE it has been our desire to set before you in a concise, intelligent and truthful manner, a description of the complete line of the best photographic materials of every description.

As we are not Manufacturers of any line of Cameras or supplies, we have selected the very best in the different line of Cameras, Kodaks, Lenses and Photo supplies, as our one and only aim is to serve our customers to the very best of our ability, and have kept prices at the very lowest, consistent with quality.

It has been the aim of this Company to always keep a trifle ahead of the times, anticipating the trend of Modern Photography; hence we have taken the initiative in making changes and additions to our line, so we solicit the pleasure of serving you, feeling confident that our line now constitutes the very best that will satisfactorily cover your particular field of endeavor. Foreign Goods or other goods which might have appeared on market, not listed in this catalog, will be quoted on application.

#### HOW TO ORDER GOODS

When ordering—write as plainly as possible and describe goods as definitely as you can, give name, number, size, color and quantity wanted.

Do not overlook the size, number and speed of plates or films and grade and surface of paper.

We will gladly supply you at any time with our order blanks on which to write your orders.

Always state how you desire to have your order shipped, whether by freight, express or mail. When no instructions are given, we use our best judgment.

Be sure to sign your name in full and mention town, county and state.

Our goods are thoroughly examined and carefully packed. If any shipment reaches destination damaged or broken, be SURE to indicate "package broken" on carrier's receipt, and immediately file claim with the transportation company. Our responsibility ceases when goods are delivered to the carrier.

#### TERMS

Cash with order or C.O.D. Prices in this catalogue are net. When ordering merchandise c.o.d., must remit one-quarter amount of purchase with order to guarantee carriage both ways. You will be credited on bill with full amount paid.

By sending remittance in full with order, time and money are saved, as charges for returning money on c.o.d. shipments are seldom less than 25c and very often more. Remittances should be made in standard exchange, Post office or Express Money Order, bank draft, cash or stamps. Personal sheeks should be certified and accompanied with a sufficient sum to cover exchange charge. Persons unknown to us disregarding this request will subject their order to delay, until amount of check is collected.

#### **DELAYS IN DELIVERY**

We would kindly request our customers to report any unusual delays in deliveries. Orders are filled same day received unless some special work is required such as fitting of Lenses, etc., then, just sufficient time is taken to complete the work. The efficiency of our shipping department and our system of filling orders permits no delays while order is in our hands.

Our stock of merchandise is complete, and a fair assortment is always on hand so that the necessity for substituting if greatly reduced

Established 1899.

CENTRAL CAMERA COMPANY, A. Flesch, Pres.

## Read This Guarantee

ALL KODAKS, CAMERAS, LENSES and accessories listed in this catalogue are thoroughly inspected and are sold to you under the following Iron-clad Guarantee:

We guarantee that every article listed in this catalogue is exactly as described; that it will satisfy you perfectly; that it will give you the service you have a right to expect; that it represents full value for the price you pay.

If for any reason whatever you are dissatisfied with any article purchased from us after a trial of ten days, we expect you to return it to us. We will then exchange it for exactly what you want or refund your money.

CENTRAL CAMERA CO. A. Flesch, Pres.

#### PRICES

All prices subject to fluctuations of the market and change without notice.

#### BUYING AND EXCHANGING

If you have a CAMERA, KODAK or LENS you desire to dispose of for Cash, or wish to exchange for some other outfit, CONSULT US. We can offer you a reasonable sum for any saleable apparatus. For your convenience, you will find enclosed a special query blank on which please describe fully the style, make, etc., of your outfit and what you expect in return, either in cash or merchandise.

If your goods prove satisfactory to us, we will forward our check or merchandise you might select by return mail or express. On the other hand, if our offer does not satisfy you, we will return your goods promptly.

We have been established in the photographic business for the past 20 years, and our appraisers are specialists exclusively trained in this particular line. They are experts in estimating values of all photographic apparatus; thus, you can be assured of a fair valuation of your outfit. Our fair and square method of trading will more than please you.

Established 1899.

CENTRAL CAMERA COMPANY, A. Flesch, Pres.

Descriptions and price lists heretofore issued are superseded by those contained herein.

	Albums	16	Š
	Apron	10	V.
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	Enamel Tray and Probus	14	7
	Embossing Tool	10	3
	Empossers	10	4
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#### Eastman No. 1 Pocket Kodak

Series II

For Pictures 21/4 x31/4

With Kodak Anastigmat Lens f. 7.7

(Focusing Model)

Indoors or out, this new model Kodak makes it easy to get the pictures as you want them.

Its self-erecting front springs the lens into position as the camera is opened and lets you catch the unusual outdoor incidents that come and go so quickly.

The Kodak anastigmat lens f. 7.7 by a simple turn with the fingers, can be focused at seven distances from 5 to 100 feet and the focus is

The camera is autographic, of course, with the new design, countersunk slot that makes writing on the film easier and gives added compactness to this little Kodak.



Vith Achromatic Lens	\$12.80
	19.00
ole Leather C. Case	2.95
Autographic Films 6 X	.20
ortrait Lens	

### Eastman No. 1A Pocket Kodak

Series II For Pictures 21/2 x 4 1/4

With Kodak Anastigmat Lens F. 7.7

(Focusing Model)

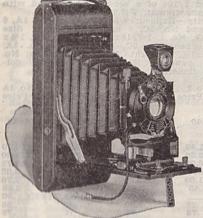
Indoors or out, this new model Kodak makes it easy to get the pictures as you want them. Its self-erecting front springs the lens into position as the camera is opened and lets you catch the unusual outdoor incidents that come and go so quickly.

The Kodak anasigmat lens f. 7.7. by a simple turn with the fingers, can be focused at seven distances from 5 to 100 feet and the focus is sharp.

The camera is autographic, of course, with the new design, countersunk slot that makes withing on the film course and gives and a counsation to this little. Modely

writing on the film easier and gives added compactness to this little Kodak.

r use, is in focus for objects at any	PRICE	\$14.25
With Achromatic Lens		00.00
		0.05
Portrait Lens		.72
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2.42.1. 20 Market and the control of	Announcing a New Ko	dal No 2C
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#### EASTMAN

#### AUTOGRAPHIC VEST POCKET AND . V.-P. SPECIAL KODAK

Though so small as to slip easily into the vest pocket or a lady's hand-bag, the Vest Pocket Kodaks are mechan-ically as perfect as expert workmanship can make them. For a photographic record of the day's outing, or at any time when a memorandum record is useful, the little Vest Pocket Kodak with its Autographic feature fits into the day and the place. Is a veritable vest pocket notebook. The specials are covered with the finest pin grain Mo-

rocco leather.

Details—For rectangular pictures, 1%x2½ inches. Capacity, 8 exposures without reloading. Size of Kodak, 12 3%x4% inches. Weight, 9 ounces. Brilliant reversible finder. All metal body, black enamel finish and black leather bellows.

#### PRICE

dak Ball Bearing shutter       \$ 6.15         Ditto, with Rapid Rectilinear lens, speed U. S. 8.       7.60         Vest Pocket Autographic Kodak, Special, Kodak Anastigmat lens, f.7.7, and Kodak Ball Bearing shutter       11.40         Ditto, with Kodak Anastigmat, f.6.9 lens.       16.15         Ditto (Focusing Model), Kodak Anastigmat Lens, F:6.9       17.10         Ditto, with Bausch & Lomb Kodak Anastigmat, f:6.9 lens.       33.25         Leather Case for Vest Pocket Kodak       95         Soft Leather Carrying Bag.       1.45         Grain Leather Case       1.45
Vest Pocket Autographic Kodak, Special, Kodak Anastigmat lens, f.7.7, and Kodak         1.40           Ball Bearing shutter         16.15           Ditto, with Kodak Anastigmat, f.6.9 lens         16.15           Ditto (Focusing Model), Kodak Anastigmat Lens, F:6.9         17.10           Ditto, with Bausch & Lomb Kodak Anastigmat, f:6.9 lens         33.25           Leather Case for Vest Pocket Kodak         95           Soft Leather Carrying Bag         1.45           Grain Leather Case         1.45
Ball Bearing shutter       11.40         Ditto, with Kodak Anastigmat, f.6.9 lens       16.15         Ditto (Focusing Model), Kodak Anastigmat Lens, F:6.9       17.10         Ditto, with Bausch & Lomb Kodak Anastigmat, f:6.9 lens       33.25         Leather Case for Vest Pocket Kodak       .95         Soft Leather Carrying Bag       1.45         Grain Leather Case       1.45
Ditto (Focusing Model), Kodak Anastigmat Lens, F:6.9         17.10           Ditto, with Bausch & Lomb Kodak Anastigmat, f:6.9 lens         33.25           Leather Case for Vest Pocket Kodak         95           Soft Leather Carrying Bag         1.45           Grain Leather Case         1.45
Ditto (Focusing Model), Kodak Anastigmat Lens, F:6.9         17.10           Ditto, with Bausch & Lomb Kodak Anastigmat, f:6.9 lens         33.25           Leather Case for Vest Pocket Kodak         95           Soft Leather Carrying Bag         1.45           Grain Leather Case         1.45
Ditto, with Bausch & Lomb Kodak Anastigmat, f:6.9 lens         33.25           Leather Case for Vest Pocket Kodak         .95           Soft Leather Carrying Bag         1.45           Grain Leather Case         1.45
Soft Leather Carrying Bag 1.45 Grain Leather Case 1.45
Grain Leather Case 1.45
Belt Carrying Case (russet leather)
Khaki Belt Carrying Case
Vest Pocket Kodak Tripod Adapter
Autographic Film Cartridge, 8 exposures, 1%x2½ (No. A 127)
Kodak Portrait Attachment

#### EASTMAN AUTOGRAPHIC KODAK JUNIORS No. 1A No. 2C

Takes Pictures .....2½x3½ 2%x4% 21/2×41/4 The results with the Autographic Kodak Juniors have been so satisfactory that it has enabled the beginner as well as the more experienced, to enjoy the pleasures of photography with assurance of success, and at a low cost. It has all the daylight features, the convenience and dependability that characterize the

Though simple in every detail as a focusing camers the No. 1 and No. 1A Junior will be supplied, if desired, as a fixed focus camera for the convenience of those who prefer this feature. As a fixed focus camera it is supplied, however, with meniscus achromatic lens only, and when opened for use, is in focus for objects at any

The camera is fitted with the No. 0 Kodak Ball Bearing shutter with cable release, speeds 1/25 and 1/50 of a second, with either Rapid Rectilinear or meniscus achromatic lens, or with No. 1 Kodak Ball Bearing shutter, having variable speeds of 1/25, 1/50 and 1/100 of a second when fitted with Kodak anastigmat, F:7.7 lens.

Capacity—Exposures for No. 1, 6; No. 1A, 6 or 12, and No. 2C, 6 or 10 exposures. Size of Kodak, No. 1, 1-7/16x3%x6%; No. 1A, 1%x3%x8 inches; No. 2C, 1%x4%x8%; No. 3A, 118x54x9%. Weight, No. 1, 23 ounces; No. 1A, 28 ounces. Brilliant, reversible, collapsible finders.

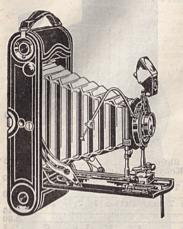
No. 1	No. 1A	No. 2C	No. 3A
Our Price	Our Price	Our Price	Our Price

.75

Autographic Kodak Junior (fixed focus), meniscus achromatic Lens and Kodak ball bearing shutter	11.40	\$12.35	Not Made	Not Made
Autographic Kodak Junior (focusing model, with scale), meniscus achromatic Lens, and Kodak				
ball bearing Shutter	11.40	12.35	15.20	16.70
Ditto, with R. R. Lens.	13.30	14.25	17.10	19.00
Ditto, with Kodak Anastigmat Lens F:7.7		19.00	21.85	23.75
Black Sole Leather Case, with strap		3.15	3.60	3.85
Soft Leather Carrying Case with Strap	1.80	2.00	2.25	2.70
Imitation Leather Carrying Case	2.45	2.45	2.65	2.65
Autographic Film Cartridge, 12 Exposures		.60	(10 Ex.) .75	(10 Ex.) .90
Ditto 6 Exposures	.25	.30	.45	.55

Kodak Portrait Attachment \_\_\_

## Eastman Autographic Kodaks



Since its introduction of the post-card size pic-ture, the 3A Kodak has been the leader in the hand camera field. Although the largest of the pocket Kocamera field. Although the largest of the pocket Aodak series, the camera itself may be pocketed without inconvenience, and the fact that the shape of the picture (3½x5½) is especially adapted to landscape or portraits, has made it one of our most popular models.

By omitting no detail that is essential to the

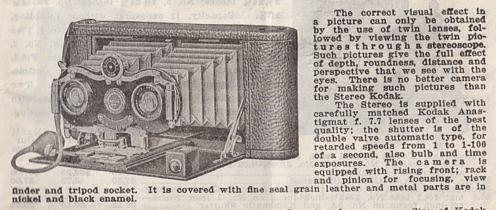
best results in general amateur photography, and adding none that is superfluous, the 3A Kodak, with its autographic feature, meets every need of the most advanced amateur.

vanced amateur.

In lens equipment, this camera is regularly supplied with the finest quality Rapid Rectilinear lens, with a speed of F.8, or, if desired, the Kodak Anastigmat, F:7.7 lens, offering the anastigmat advantages at a moderate price. It is also fitted with Kodak Ball Bearing shutter with cable release; has rising and sliding front, and will accommodate glass plates by the addition of a Combination Back, which is interchangeable with the regular back. The Autographic feature, however, can be used only with Autographic Film, not with glass plates. The No. 3 Kodak is practically identical with the 3A.

Takes PicturesNo.			
R. R. Lens, Kodak Ball Bearing Shutter	Our Price Our \$18.05		\$21.35
Ditto, Anastigmat Lens, F:7.7, Ball Bearing Shutter	22.80	22.80	26.15
Ditto Velostigmat Ser. 4, F:6.3 Anastigmat Lens, Auto Shutter	43.25	43.25	48.20
Ditto with Optimo Shutter	Mpuntango 50.00 11 100	50.00	54.20
Black Sole Leather Case, with strap	2.00	3.45 2.25	2.70
Imitation Leather Carrying Case	2.45	2.45	2.65
Combination Back, with ground glass  Double Glass Plate Holder		3.30 1.45	3.80
Autographic Film Cartridge 12 exposures	.60	.90 (10 ex.)	.90
Kodak Portrait Lens	.30 .72	.45	.72

### Stereo Kodak



The correct visual effect in

Our Price

nickel and black enamel.

DETAILS—For standard Stereo size pictures. Capacity, 6 exposures. Size of Kodak 24 x 1 \( \) x 1 \( \) inches. Weight, 47 ounces. Focal length of Lenses, 5 \( \) inches. Brilliant finder, tripod socket, rising front rack and pinion for focusing and black leather bellows. Btereo Kodak, Model No. 1, Kodak Anastigmat lenses, F:7.7, and Stereo.

N. C. Film Cartriage, 6 exposures, for Stereo (No. 191)	utomatic shutter	Jonnying Cogo		5
Ditto, 3 exposures for Stereo	THE SOLE LEATHER CONTRILATE	6 avnoguras for Stores i	No. 101)	
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### Eastman No. 1 Autographic Kodak Special, New Model

Here is quality. The No. 1 Special is a small camera for a comparatively small picture, but nothing has been sacrificed for mere littleness. The lenses have a sufficient length of focus to give the desirable per-spective, and the shutter is large enough to give the full benefit of the high speed of the

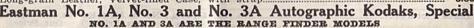
DETAILS: For rectangular pictures, 2½x 3½ inches. Capacity 6 exposures without reloading. Size of Kodak 1½x3½x6½ inches. Weight, 15 ounces. Lens, focal length, 4½ inches. Shutters, Ilex or Acme, with cable release. New brilliant, reversible, collapsible finder. Two tripod sockets and new lever focusing device. Covered with finest quality long grain calf.

long grain calf.

No. 1 Autographic Kodak, Special, with Kodak

Anastigmat, f:6.3 Lens, 4½-inch focus, and Kodamatic Shutter

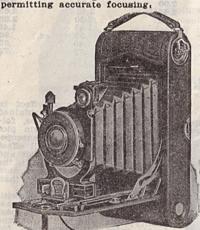
No. 1 Autographic Kodak, Special, with Bausch & Lomb Kodak Anastigmat f:6.3 Lens No. 1, 41/2-inch focus, and Kodamatic Shutter ... No. 1 Autographic Kodak, Special, with Bausch & Lomb Tessar Series 11b f:6.3 Lens



The Eastman Special, is typical of the best that is possible in efficiency, beauty in design and finish; in speed and accuracy in hand cameras. Equipped with the finest Anastigmat lenses, and a shutter speed capable of working harmoniously with the high-speed lenses, it meets every amateur requirement for quick, accurate results.

It is beautifully finished and covered with the finest long grain calf, and the best materials are covered throughout it is exercised.

terials are used throughout in its construction. One of the big features of this Kodak is the Kodak Range Finder in 1A and 3A sizes,



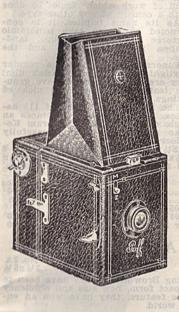
### Nos. 1A, 3 and 3A Autographic Kodaks, Special

DETAILS: For rectangular pictures, No. 1A, 21/2 x 4 1/4 inches; No. 3, 31/4 x 4 1/4 inches; No. 3A, 31/4 x51/2. Capacity, 12 exposures without reloading, Size of Kodaks, No. 1A, 1 % x3 % x8 inches; No. 3, 1 % x 41/2 x8 inches. Weight, No. 1A, 34 ounces; No. 3, 32 ounces; No. 3A, 42 ounces. Lens speed F:6.3, focal length, No. 1A, 5 inches. Shutter, Optimo. 3A has Range Finder and Optimo shutter. tripod sockets. Brilliant reversible finder with hood. Spirit level. Rack and pinion for focusing.

Total Control of the	21/2 x 4 1/4 Our	3 14 x 4 1/2 Our	31/4 x 5 1/2 Our
Autographic Kodak, Special with Kodak Anastigmat f:6.3 lens	Price	Price	Price
5-inch focus on No. 1A and No. 3, 6%-inch focus on No. 3A	Substantia Los		
and Kodamatic Shutter	\$57.00 47.50	\$52,25 42.75	\$67.00 57.00
Autographic Kodak, Special, with Bausch & Lomb Kodak Anastig	Tallone	boging he	18 75018
mat f:6.3 lens No. 2-54-inch focus on No. 3 lens, No. 4-64-inch focus on No. 3A, and Kodamatic Shutter	69.15	66.50	85.50
Ditto, with Hex or Optimo Shutter	59.85	57.00	76.00
Autographic Kodak, Special, with Bausch & Lomb Tessar Serie IIb Anastigmat f:6.3 lens, No. 4—51/4-inch focus on No. 3 lens	Chale . Tes	dont work	
No. 5K-7¼-inch focus on No. 3A, and Kodamatic Shutter Ditto, with Ilex or Optimo Shutter	. 78.95	76.00	95.00
Grain Leather, Velvet Lined Case, with strap	. 4.45	66.50 4.45	85.50 4.95
Soft Leather Carrying Bag	2.00	2.25	2.70
Double Plate Holder for above		1 45	\$4.75
Kodak Cut Film Sheaths for above	100	.10	.15
Kodak Portrait attachment		.72	.72
Kodak Ray Filter		1.15	1.50
Kodak Sky Filter	**************	1.15	1.50
Diffusion Portrait Lens No. 5		1.45 No.	6 1.45



#### The Paff Reflex Camera



The Simplest, Lightest and Most Compact Reflex Camera The Simplest, Lightest and Most Compact Reflex Camera
An imported camera capable of the finest results at
an exceptionally low price. Fitted with an Anastigmat
lens with a speed of F:6.8 manufactured by MeyerGoerlitz, it gives pictures of exceptional brilliancy and
sharpness and is so fast that good results may be
obtained under conditions where a cheap lens would
fail. Yet all the simplicity of operation of the most
ordinary lens is retained. No focusing is required,
nor is there any complicated shutter to wind. A
single pressure of a lever sets both mirror and shutter
and at a touch the photograph is taken.
The object may be viewed full size, right side up,
just as with the most expensive cameras, up to the
instant of exposure.

instant of exposure.

Supplied in two models, vest pocket size film pack, and 2\%x2\% roll film. Films or film packs of any make may be used, these sizes being standard. The original negatives may be enlarged many times with-

Dimensions: Roll Film Model No. 21....3¼"x4¼"x5" —Weight 16 oz. Film Pack Model No. 4...2¾"x4½"x4½"—Weight 11 oz. Prices:

Paff Reflex, complete with Hugo Meyer Goerlitz Trioplan Anastigmat F:6.8, for V.P. film pack.. \$13.50
Paff Reflex, complete with Hugo Meyer Goerlitz
Trioplan Anastigmat F:6.8, for Roll film

Shutter has only one snap-shot speed, but it can be set for time exposures. It has three diaphragm openings. The roll film model accommodates the standard American No. 1 Brownie roll film. The film pack model accommodates the Premo film pack No. 300, vest pocket

#### Eastman Box Brownies

No. 0 Takes Pictures ...

out loss of sharpness.



That the Brownie idea of simplicity and reliability combined in an inexpensive camera has stood the test of years is proven by the thousands of Brownie enthusiasts all over the world, who are making perfectly satisfactory pictures with them.

Anybody can make good pictures with them from the start. They have the Automatic shutter for snapshots and time exposures; the No. 0 with one stop and No. 2, 2A and No. 3 with three stops. Each has carefully tested meniscus lens and view finders for vertical and horizontal exposures.

#### OUR PRICE

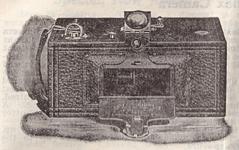
Brownie Camera	No. 0	No. 2 \$2.35	No. 2A 83.20	No. 2C 84.75	No. 3 84.25
Brownie Carrying Case with strap	.95	1.22	1.45	1.55	1.55
(No. 127) for No. 0	.25	.25	.25	.45	.45
Ditto, 12 exposures	.72	.72		0Ex)75	.90
Developing and Printing Outfit, No. A, \$2.35		B 2.70	8.55 ane	d ablety	nti W

Either of these Models is particularly suitable for those who do not wish to invest much and still obtain for their money an equipment capable of producing good results.

They are very easily manipulated.

### The Eastman Panoram Kodaks

Takes Pictures, No. 1-21/4x7; No. 4, 31/4x12



The Panoram Kodak does a special kind of work—a very desirable kind of work which cannot be done with a camera of any other type.
As its name implies, it is con-

structed so as to take panoramic pictures of outdoor groups, land-scapes, mountain views, and the

Panoram Kodaks use the regular daylight loading N. C. Kodak film; they are carefully made, have genuine leather coverings and nickeled

The No. 1 has a scope of 112 degrees, while the No. 4 embraces an angle of 142 degrees. Panoram Kodaks cannot be used successfully indoors.

DETAILS—For pictures, No. 1, 2½x7 inches; No. 4, 3½x12 inches. Capacity, No. 1, 6 exposures; No. 4, 4 exposures. Size of Kodak, No. 1, 3½x1½ inches; No. 4, 4¾x5½x 10½ inches. Lenses, specially selected as to quality and focal length. Shutter, Panoram. Two sockets. Brilliant finder with hood. Our Price Our Price

Panoram Kodak

Black Sole Leather Carrying Case, with shoulder strap.

N. C. Film Cartridge, No. 1, 6 exposures, 2½x7 (No. 105); No. 4, 4 exposures, 3½x12 (No. 103)

Ditto, 3 exposures, No. 4; or 2 exp., No. 1.... \$19.00 828.50 8.75 1.10



### Eastman Folding Autographic Brownies

No.2A 21/2 x 4 1/4 Takes Pictures ......21/4 x31/4 314x516

As popular as the folding Brownies always have been in the past, in their new compact form, new size and efficiency with the added Autographic feature, they have won an enviable place in the camera world.

These thoroughly reliable little instruments load in day-light with Autographic Film Cartridges; fitted with meniscus achromatic lenses, or if desired the Rapid Rectilinear lenses, Have the Kodak Ball Bearing shutters with time and bulb actions and speeds of 1/25 and 1/50 and 1/100 of a second.

The cameras are made of metal, covered with durable imitation leather; are well made and carefully finished in every detail. No. 2 No. 2A No. 2C

	Our Price	Our Price	Our Price	Our Price
Forums Autographic Brownie, Meniscus Achron	na-	041 11100	Our Frice	Our Price
tic Lens, and Kodak Ball Bearing Shutter	\$ 8.55	8 9.50	\$12.35	\$13.80
Ditto, with Rapid Rectilinear Lens	10.45	11.40	14.25	16.15
Carrying Case	1.45	1.55	1.65	7 75
Film, 12 exposures		.60 (	10 Ex.) .75	(10 Ex.) .90
Film, 6 exposures	.25	.30	.45	.55
Kodak Portrait Attachment	72	.72	.72	.72

### Ica Victrix

The Victrix is the most compact of all Ica cameras, measuring 1%x2%x3% in. and weighs but 13 ources. For its size it is a most remarkable camera, for it embodies most of the essential features for serious photography seldom found in cameras of a much larger size. The front, which is absolutely rigid, is provided with horizontal movement which serves as a rise and fall when pictures are made in a horizontal position. The elevation when pictures are made in a horizontal position. The elevation of the front is accurately indicated in the iconometer direct wire view finder with which the camera is equipped. A reversible reflecting finder is also provided. Focusing is accomplished by means of the lever focusing device for distances as close as six feet. The camera is fitted with a hooded ground glass focusing back by means of which the image may be observed on the ground glass the same as with large cameras. There are two standard size triped sockets size tripod sockets.

The Compur Shutter furnished has speeds ranging from 1 to 1/390 of a second, so that with the Victrix high speed pictures, such as of athletic events, races, etc., are possible.

With Hekla Lens, f6.8	
With Heria Lens, 10.6	842.50
With Dominar Anastigmat, 14.5	55.00
With Carl Zeiss Lens, Ser. IIb. 16.3	60 EO
With Carl Zeiss Lens, Ser. Ic. f4.5	OT EA
Extra plate holders, each	57.50
rum pack adapter	2.50
Plate magazine holding 12 plates	30.00
Five times yellow glass filter	5.00
Leather carrying case	
Determine the second se	4.50



No 3A



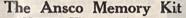
## The No. 0 Ansco

(Vest Pocket)

The new No. 0 Ansco represents the best in design and equipment among cameras of the vest-pocket type. It measures only 1 by 2½ by 5 inches in size and weights but 10½ ounces, thus truly fitting the vest-pocket, and operates with a positive action highly desirable in a camera designed to take pictures, if need be, in a hurry. It is, in fact, the only self-opening camera made. This is made possible by the single-arm extension system, with its knife-joint tension, which is released by pressure on metal push-buttons located where thumb and finger naturally grasp the camera. Great rigidity as well as eneed in operation is obtained by the rigidity as well as speed in operation is obtained by this

The No. 0 Ansco is a fixed-focus camera, equipped with a new highly-corrected anastigmat lens and special shutter which assure crisp brilliant pictures under widely varying conditions, as the lers has somewhat more than four times the speed of lenses supplied with box cameras and is also specially corrected for definition at large apertures. The shutter permits speeds of 1/25 1/50 and 1/100 second be-

sides Bulb and Time, and is a high-grade mechanism of great accuracy and precision. No. 0 Ansco, Ansco F 7.5 Anastigmat Lens, 3% inches focus, Ilex Ansco Shutter	-
Wire Release, extra	49
Tripod Adapter	95
Composition Leather Carrying Case	.95
Black or Tan Leather Holster 2	2.15
Eight-exposure Film	.24
Ansco Direct View Finder	2.50
Ansco Portrait Attachment	.72





The Ansco Memory Kit, comprises a camera and a supply of Ansco film in a richly-finished mahogany chest, embellished with a burnished metal plate for the owner's name or initials. As a gift at any season of the year—for birthday, graduation, wedding, or Christmas—it carries that intimate personal touch so elusive yet so generally sought. Moreover, it is a notably practical unit, so much so that the Ansco Memory Kit has been selected for the personal use of the purchaser about as often as for a rift. All three the purchaser about as often as for a gift. All three cameras offered are of undeniable merit and convenience, and the whole is so attractive that it is naturally

ience, and the whole is so attractive that it is naturally kept in the living room, thus acting as a suggestion to take pictures whenever the family is assembled. The provision of a receptable for both camera and film protects the former and is better assurance that the latter will be available when needed.

The three cameras from which a choice may be made are models that can be particularly recommended for presentation purposes, as they are handsome little cameras adapted to all users.

No. 1 Ansco Memory Kit, including (1) solid mahogany chest, (2) No. 1 Ansco Junior and (3) 4 rolls 4A Ansco Film, 2½x3½

No. 2 Ansco Memory Kit, including (1) solid mahogany chest, (2) No. 1 Folding Ansco, and (3) 4 rolls 4A Ansco Film, 2½x3½

No. 3 Ansco Memory Kit, including (1) solid mahogany chest, special finish, (2) No. 1 Ansco Speedex, and (3) rolls 4A Ansco Film, 2½x3½

Ansco Speedex, and (3) rolls 4A Ansco Film, 2½x3½

40.00



#### Vest Pocket Rexo FOR PICTURES 15%x21/4

The V. P. Rexo is a marvel or compactness and photographic efficiency. It weighs only 8 ounces and measures when closed 1x2 % x5 %. A true vest pocket camera, conveniently carried in any pocket, lady's muff or hand-bag.

#### DAYLIGHT LOADING BOLL FILMS-EIGHT EXPOSURES

Shutters-Ultra, Time, Bulb, 1/25 and 1/50 second; Ultex, Time, Bulb, 1/25, 1/50 and 1/100, second; Hex No. 00 Acme, Time, Bulb, 1, 1/2 . 1/5 1/25, 1/100, 1/200 and 1/300 second.

V. P. Rexo with Universal Focus, Achromatic Lens and Ultro Shutter	7.37
Same, with Rapid Rectilinear Lens	8.55
Same, with Rexo Anastigmat F:7.5 and Ultex Shutter	12.85
dame, with Rexo Anastigmat F:6.3 and Hex Acme Shutter	26.15
Same, with Goerz Dagor F.6.8 and Ilex Acme Shutter	
Same, with Goerz Dogmar F:4.5 and Ilex Acme Shutter	
Combination Leather Carrying Case and Holster	
Rexo Record Speed Film, 1%x2½, 8 exposures	

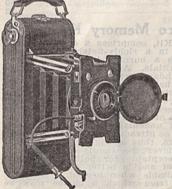
### The No. 1 Expert Ansco

is a focusing camera and is supplied either with Ansco Anastigmat lens, working at F:6.3, in Gammax shutter.

An Anastigmat lens is of little value unless it can be used at full opening, which cannot be done without focusing. The micrometer focusing device, with which this model is equipped, consists of a milled disk and flange located just back of the lens plate which may be operated instantly and easily while locating the object in the finder. A simple turn of the disk enables the operator to set the focus at any point desired.

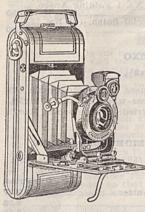
Can be used as a fixed focus camera by setting the distance at twenty-five feet and using the F 16 diaphragm opening.

The camera is fitted with a hinged watch-cover lid to protect the lens, has both vertical and horizontal brilliant view finders, stationary footrests for support in either upright or horizontal position, heavily nickeled metal parts and genuine fine grain black leather covering. The side arms are so supported within the body of the camera that when extended they afford, by means of their knife-joint tension, absolute rigidity in the lens plane. This is a feature found in no other folding camera that does not have a platform or bed support.



Dimensions1 1/4 x2 7/8 x6	Weight16 oz.
With Ansco Anastigmat lens, F:6.3,	Gammax shutter\$23.25
Sole leather holster with belt and straps	d shoulder 2.65
Leatherette carrying case with strap	shoulder 1.65
Ansco Portrait Attachment	.72
Six-exposure film	.24

### The No. 1 Ansco Speedex and Super Speedex



In pocket photography the maximum of speed, efficiency, size of picture, coupled with quick action, as well as minimum of bulk, weight and bother have been reached with the Ansco Speedex and Super Speedex. While they differ from the other models in that it is a platform camera, it preserves the same dimensions which have earned the distinction for the Ansco V-P camera of being the smallest and lightest camera made to take 2½x3½ pictures. It is really the vest-and-hip-pocket camera, or handbag edition of the full-sized Ansco Speedex series.

These models satisfy the demand for a camera so small, light and efficient that it can be carried at any time, anywhere, without the slightest inconvenience, with the certainty of making good pictures everywhere in any light wihout undue effort on the part of the user.

The speed advantage of these large aperture anastigmat lenses means that snapshots can be made on dull, cloudy or rainy days or late in the afternoon with exposures of 1/25 second, and that rapidly moving objects can be successfully photographed.

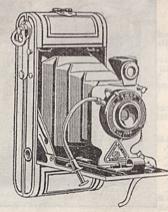
Weight, 16 oz. Focal length of lens, 31/2 in.

Mo	1	Angon	Chande	ar writh	Angaa	4.6 2	Annet	tomat	Long	Acme	Snee	dev Shut	ter	234 20
No.	1	Ansco	Super	Speedex	with	Ansco	f:4.5	Anast	igmat	Lens,	Acme	Speedex	Shutter	48.45
No.	1	Ansco	Super	Speedex	with	Bausc	h & I	omb !	ressar	f:4.5,	Acme	Speedex	Shutter	66.50
Sole	10	ather	holster	with be	elt and	shou	lder s	traps.	L. Wall.	han a	AUG VO	Action Charge		2.65
Cha	me	is-line	d leath	er carry	ing ca	se wi	th she	oulder-	strap,	lock	and k	ey		4.75

# The No. 1 Ansco Junior and Junior ette for 21/4 x 31/4 Pictures

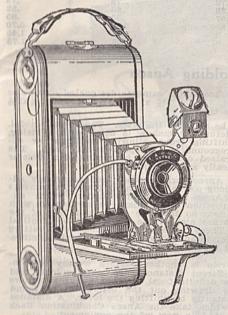
These cameras are covered with a high-grade material, beautifully finished. The shutters with which they are equipped are precisely timed for automatic exposures and the lenses with which they are fitted have been carfully selected so as to assure the highest possible results within their capabilities. Load in daylight for 6 exposures. View Finder for horizontal or vertical, size when closed 2%x6x1%.

No. 1 Ansco Junior, Rapid Rectilinear Lens, speed U. S. 4, Ilex Ansco Shutter	12.82
No. 1 Ansco Juniorette, single Achromatic Lens, speed U. S. 8, Deltax Shutter	11.40
No. 1 Folding Ansco, Ansco, f:7.5 Anastigmat Lens, Hex General Shutter	
Film, 6 exposure	.24
Carrying case with shoulder strap	1.45
Composition Leather carrying case	1.65



### Ansco Junior

Nos. 1A, 2C, 3 and 3A-21/2x41/4, 21/8x41/8, 31/4x41/4, 31/4x51/2



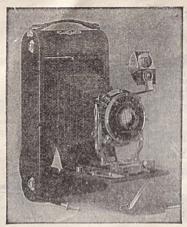
To amplify the price range of the Ansco series and provide cameras possessing maximum efficiency, at minimum cost to the purchaser, the Ansco Junior family has been created. Four models are offered, known as No. 1A, No. 2C, No. 3 and No. 3A, for pictures  $2\frac{1}{2}x4\frac{1}{4}$ ,  $2\frac{1}{8}x4\frac{1}{8}$ ,  $3\frac{1}{4}x4\frac{1}{4}$ , and  $3\frac{1}{4}x5\frac{1}{2}$  inches, respectively. These sizes are all of the same pleasing proportions and differ only in the area of the picture included within these limits.

These cameras are furnished with single achromatic, rapid rectilinear and have the Ansco self-leveling finder. It is desirable to know that the camera is being held level when an exposure is being made. The sensitive pendulum bob hung at the center of the finder hood enables the operator to know that the camera is exactly level and that there is no danger of spoiling the symmetry of the picture by having the lines askew. This finder can be opened for cleaning both lenses and mirror.

The cameras are covered with best seal grain composition leather, have genuine leather bellows, Ansco spool-holding arrangement, aluminum bed and back, two tripod sockets and vertical and horizontal footrests.

#### SPECIFICATIONS

Size of picture	No. 1A	No. 2C 2%x4%	No. 3 3 1/4 x 4 1/4	No. 3A 31/4 x 51/2
Size of film	_6A or 6B	26A or 26B	7A or 7B	18A or 18B
Dimensions	1%x4x81/2	1%x4%x8%	1% x4 1/2 x8 1/8	2x4 % x9 1/2
Weight	24-oz.	26 oz.	26 oz.	31 oz.
Focal Length, Achromatic lens	41/2 in.	5% in.	5% in.	6-in. 6 1/2 in.
Focal Length Rectilinear lens	4 % in.	5% in. \$15.20	Not Made	\$16.60
Price, Achromatic lens, Actus shutter Rectilinear lens, Deltax shutter	16.15	17.10	\$17.57	19.00
Hole leather carrying case	3.80	3.80	4.25	4.25
Ango Portrait Attachment		.72	.72 .72	109 BBBB .72
Six-exposure film		.43	.52	.52
Ten-exposure film		.71	.85	.85
Twelve-exposure film (6B)			30-45-10	Hanidm.



# Ansco Speedex

#### (Polding Ansco Series F:6.3 Anastigmat Class)

The Ansco Speedex family is the highly efficient and de luxe member of the Folding Ansco series. It is structurally the same as the Nos. 1A, 3 and 3A Ansco Speedex.

The Ansco Speedex, as the name implies, is intended for extra high-speed work, and is therefore equipped with Ansco Anastigmat lens, F:6.3, and Speedex or Hex Acme shutter, capable of a maximum speed of 1/300 second. To be in keeping with its high-grade lens and shutter equipment, all the trimmings and adjustments are carefully finished. The covering is of genuine Persian morocco, with rich black leather bellows.

	No. 1A	No. 3	No. 3A
Size of picture2	1/2 x 4 1/4	31/4 x 4 1/4	314 x51/2
	Our	Our	Our
total	Price	Price	Price
	\$42.75	\$45.60	\$52.25
Sole leather carrying case, suede lined		4.75	5.70
Portrait Attachment		.72	.72
Six-exposure film (6A)		.43	.52
Twelve-exposure film		.85	.85
Combination back	not made	5.70	5.70
Extra Plate Holder		1.45	1.45
Film Pack Adapter		1.25	1.75



### Folding Ansco

In this class are embraced three cameras designated as to size as No. 1A, No. 3 and No. 3A, for 2½ x 4½, 3½x4½ and 3½x5½ (postcard) pictures, respectively.

The differences may be noted in the sizes. The second model, because of the larger pictures it makes, is fitted with a rising, lowering and laterally-shifting front, allowing inclusion or exclusion of the sky or foreground as the operator may wish. The front of the camera is raised or lowered by means of a cimeter lever that locks automatically at the required height.

To make the folding Ansco series quickly and accurately adjustable for pictures the long way of the film or plate, the cameras are provided with the Ansco exact radius finder, which automatically reverses the position of its plane to correspond with the focal plane of the Ansco so that the shape and field of the picture shown of a minature size in the finder will be identical off a pretty girl's head or leaving out any object intended to be shown in the picture. The exact radius finder, consisting of twenty-sight sangrata parts

the exact radius finder, consisting of twenty-eight separate parts.

The Ansco automatic adjustable focusing device is another feature worthy of consideration, for with it changes necessary for different distances are made quickly and with remarkable precision. It may be set for a definite focal distance and the bellows locked at that point automatically, but if after drawing out the bellows it is found desirable to change the distance, it can be done instantly by shifting the lever. A distance scale is provided for films and in the cameras which take the Ansco Combination Back Attachment a scale for use with plates is also made a part of the equipment.

The No. 3 and No. 3A may be used with dry plates or film packs by means of combination back attachment and adapter.

The cameras of this class are made of aluminum, covered with best seal grain leather. The regular shutter equipment consists of either Bionic or Hex General, Capax or Hex Universal, the choice resting with the purchaser.

	21/2×41/4	31/4 x 4 1/4	3 1/4 x 5 1/4
	Our	Our	Our
	Price	Price	Price
Ansco Lens, F:7.5, Ilex Universal Shutter	\$26.15	\$28.50	\$28.50
Sole Leather Carrying Case		4.25	4.25
Ansco Portrait Attachment	.72	.72	.72
Six-exposure film	.28	.43	.52
Twelve-exposure film	.57	.85	
Combination Back	not made	4.75	4.75
Extra Plate Holder	11 11	1.45	1.45
Film Pack Adapter		1.75	1.75
		1.75	1.75



### Expo Watch Camera

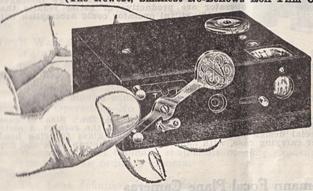
This Expo, which is a well made and finely finished little instrument, looks exactly like and is but slightly larger than a watch, and weighs but three ounces. It loads in daylight with a film for 25 pictures, % 1% (sharp negatives may be enlarged as large as 314 x5 ½) and has time and instantaneous shutter. It is simplicity itself to manipulate, and takes pictures through the stem, where the rapid-fire little lens is located.

Some of the leading newspapers of the country have scored important news "beats" with the aid of this little

Expo Watch Camera	3.50
Leather Case for same	.50
25 Exposure Roll Film	.30
Printing Frame, Holding 8 negatives	.20
Expo Model A Ground Glass Finder	.75
Expo Model B Brilliant Finder.	-85
Expo Daylight Developing Tank (Watch Film) Expo Enlarger for 24x34 pictures	3.00

Expo Police Camera

(The Newest, Smallest No-Bellows Roll Film Camera Yet Made.)



The Police Camera, the newest (patents 1911) and most unique small camera on the market, is, as its name implies, designed for instant use, without wasting the time or attracting the attention that is unavoidable in taking pictures, even with the smallest folding or bellows camera.

And besides this great advantage the Police Camera is so small-21/2 x3 % x1 inch thick -that it can be carried in the pocket and be unnoticed.

It is of fixed focus and the

most easily operated camera ever made. A self-contained brilliant finder is built into the

It has a focal-plane (curtain) shutter and is fitted with a first-class achromatic lens with adjustable stop, opening F. 16, F. 22.

It has a remarkably simple roll - film, daylight - loading holder of twelve exposures, and this holder is so arranged that it need only be put into the camera, as it comes from the package, and when the filmwinding key has been revolved as directed the camara is ready for action.



Some examples of work done with Expo Police Camera.

The size of the Police Camera negatives are 1x1% inches-larger than the negatives from which the standard moving pictures are made—and while this size makes a picture that is both attractive and interesting, with the Police Camera Enlarger, full postcard size pictures, without loss of detail, are obtainable. The Police Camera is made of metal throughout and is handsomely and durably finished.

	Price
Police Camera, without leather case	\$7.00
Expo Police Camera, complete with carrying case Police Camera Films, 12 Exposures	8.00
Police Enlarger	4.00

#### Ernemann Miniature Focal Plane Camera



This remarkable little instrument has incorporated in it, all of the distinctive features found in the larger models, and is equipped to actually do, as much or more than a Reflecting Type Camera, weighing as much as 9 pounds,—yet—such is the watchlike precision of its construction, that it is practically as light and small as an ordinary Vest Pocket Camera. It is equipped for the use of both plates and film packs, and is finished in Ebony black with polished nickel trimmings and is provided with two tripod sockets.

Sockets.

The leather used in covering the bodies of Miniature Focal Plane Cameras is selected hand buffed black leather of the highest quality, any desired size, giving pictures that rival contact prnts in many respects.

The Ernemann Focal Plane Camera is what might be termed, "the last word" in scientific camera construction, and is recommended to workers in all branches of photography.

Photographic instruments of accuracy and precision in the hands of the average intelligent operator are productive of better results than the most skillful operator could accomplish with an inferior equipment.

### Ernemann Miniature Focal Plane Camera

1%x21/2" (4.5x6cm)

For Plates and Film Packs

Size of camera when closed, 1%x3x4". Weight of camera 1½ lbs. Size of case, 3½x4½x5%". Weight of outfit complete 2½ lbs. Outfit consists of the camera, 3 metal plate holders in case, one special design film pack adapter, ground glass focusing hood, sliding front board, sole leather carrying case, with hand and shoulder strap, lock and key.

### **Ernemann Focal Plane Cameras**

21/4x31/4" (6.5x9cm)

For Plates and Film Packs

Weight of Camera, 2½ lbs. Size of Camera, 2x4x5%" Weight of outfit complete 4 lbs. Size of case, 4%x6%x6%".

### Ernemann Miniature Focal Plane Camera

For Pictures, 15/8x21/2" (4.5x6cm)

Camera and outfit as described in catalogue (pages 23 to 25) fitted with:

Ernotar Anas.	F/4.5	Lens. 3"	Focus, in	Focusing	Mount	\$100.00
Carl Zeiss I C,	F/4.5	Lens, 3"	Focus, in	Focusing	Mount	125.00
Carl Zeiss I C.	F/3.5	Lens, 3"	Focus, in	Focusing	Mount	140.00

### Ernemann Focal Plane Camera

For Pictures, 21/4 x31/4" (6.5x9cm)

Camera and outfit as described in catalogue (pages 20 to 22) fitted with:

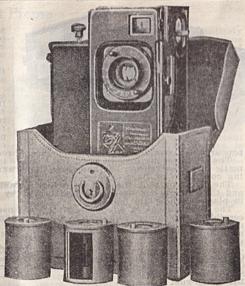
Ernotar Anas., F'/4.5 Lens, 44" Focus, in Focusing Mount	3125.00
Carl Zeiss I C. F/4.5 Lens, 4 %" Focus, in Focusing Mount	150.00
Voightlander Heliar, F/3.5 Lens, 4%" Focus, in Focusing Mount	175.00
Extra Plate Holder, 1%x2½	\$0.50
Extra Plate Holder, 2¼x3¼	65

## The New Wonder Camera

The new Sept Camera—a regular camera and a movie camera combined. An indispensable camera for the tourist. Takes 250 pictures at one loading at a cost of \$1.00.

Takes movies, time or instantaneous exposure—one picture at a time or 250 in regular movie style—15 feet of motion picture. Operates by clockwork that needs only the touch of a button to operate it. Requires no tripod or hand crank. The views are 34x1 inch and may be enlarged to desired size. Can be focused as close as 5 feet. Weighs only 314 lbs.

reel capacity.



You'll Want to Know All About the "Sept".

It's a worth-while importation from France. We'd like to show it to you personally, but that's impossible, so we'll tell you about it.

It's the Movie Camera You've Been Looking for.

Equipped with Anastigmat Lens. Speed F. 3.5. Weighs only 334 lbs., yet it produces movies equal in quality to the productions of a first class Cinema Studio. Simple in Operation—No Crank—No Tripod.

Focusing device makes it easy to properly center the picture. While your finger

is on the release camera will register continuous movies—250 of them.

It's a Regular Camera as Well.

When you want ordinary snap-shots or time exposure, just press the release, as you would an ordinary camera.

The Lens definition is excellent, enabling you to make enlargements if desired.

Hastman Standard Motion Picture Film.

The same quality that you are in the habit of using. Exactly as made for Motion Picture Producers.

Projection Machines.

The ACME PROJECTOR No. 11 will complete your outfit for making and showing movies of your family and friends or for advertising purposes. 1000 feet

Your Personal History in Pictures.
Imagine the pleasure you and your family will derive years from now, in reviewing on your own screen, events that are taking place today. The "SEPT"

makes it possible.

Photographers and Amateur Finishers

will welcome this addition to the photographic family. The uses to which you can adapt it are many. It can be used for business as well as personal affairs.

Community picnics—social gatherings—school activities—shown on your studio

Hales Possibilities.

Film News Service Bureau are always in the market for short strips showing important events that occur in your vicinity. The "SEPT" is equipped with six magazines each of which hold 18 feet of film, making it possible for you to be first on the ground. Additional magazines furnished at small additional cost.

Hend in the Post Card. We'll send descriptive matter by return mail.

#### PRICES

ARPT Cinema Camera, including carrying case and 6 magazines\$2	25.00
Wastman Standard Motion Picture Film for 250 pictures	1.00
Arms Portable Projector	00.00

#### THE GLYPHOSCOPE

Until now beginners in photography, or amateurs who wished to take up stereoscopic photography at a small cost, could only find cameras that were improperly made or based

cameras that were improperly made or based on wrong principles.

In offering this new stereoscopic camera, the Glyphoscope, we are offering a practical and carefully made instrument.

The Glyphoscope possesses the fundamental qualities of the Verascope and gives true relief and perspective. The lenses are 2½ inches focus, which shortness of focus makes focusing unnecessary, the pictures being in perfect focus from ten feet to infinity. When it is necessary to take a picture closer to the camera, a set of supplementary lenses can be camera, a set of supplementary lenses can be

procured for working at eighteen inches, three feet or six feet.

The Glyphoscope may be used for time or instantaneous exposures and has either pneumatic or finger release. It has three diaphragms so that it can be used under most varying conditions of light.

The front part of the camera, which contains the shutter mechanism, can be removed and the camera box used as a stereoscope by putting the special ground glass back back

in place of the plate holders. The Glyphoscope is equipped with two lenses of the single achromatic type, easily accessible for cleaning, and which give very fine detail; a one-piece sliding shutter which

may be used for both instantaneous and time exposures; a direct view finder; an attachment for using a bulb release; six single metal plate holders; a back for the camera to view positives. PRICES

Glyphoscope No. 2, for plates 45X107, in Ivorine	315.00
Case to hold camera and two metal holders	6.00
Single metal holder	.80
Ditto, non-rust	1.20
Ball and tube release	.60
Printing frame, wooden	2.40

### THE VERASCOPE NO. 6 AND 6A WITH ZEISS TESSAR LENSES F/4.5 AND NEW "Chronomous" Shutter

The No. 6b Model Verascope is distiguished from the former models, not only by the lenses working at a much larger aperture, viz., F/4.5, but also by the shutter, the working of which permits a maximum amount of light to enter to the plate.

enter to the plate.

The exterior appearance of the camera is similar to the No. 5a Model. The shutter, however, is of an entirely different design, which we have named the "Chronomos." By means of an extremely simple system, exposure from 1/4th to 1/150th of a second, and also time exposures may be given. We test the speeds of each shutter, and a list of the actual working speeds is given with each camera. The lenses are fitted with two additional stops, F/8 and E/1/16.

Supplementary lenses for photographing objects within 10 feet of the camera are made specially for the purpose and can be fitted on the front of the lenses. The glasses of these supplementary lenses are of the best quality, and their use does not affect in any way the definition given by the lenses. Their use for photographing near objects has a great advantage over the mechanical system of focusing, as it is not necessary to introduce into the of focussing, as it is not necessary to introduce into the manufacture of the camera any mechanism that, by constant use, is likely to affect the focus, which, with a camera with lenses of a short focus, must be extremely

The Verascope 7b has the same optical and mechanical advantages as model 6b with the difference that it com-

We have created this model in order to simplify and facilitate the orders of our customers, who desire the most complete camera without having to compile the details.

To resume: The Verascope No. 7b is the No. 6b with great aperature F/4.5 with Antinous

release to which we added:

1. An automatic catch to changing box which prevents changing more than 12 plates.

preventing re-exposure of previously exposed plates.

2. Frame fitted on magazine to hold sheets of paper for recording exposures. 3. Automatic indicator on magazine showing condition of box: empty, full, exposed (vide,

chargé, exposé).

6a Model fitted with Zeiss lenses working at F/6.3, and the new "Chronomos" shutter, with diaphragms F/8 and F/16

6b Model fitted with Zeiss lenses working at F/4.5, and the new "Chronomos" shutter, with diaphragms F/6.3 and F/8, or F/8 and F/16

Any of the above fitted with color screens and eight autochrom septums for the 250.00

7b Model fitted with Zeiss lenses working at F/4.5 with instantaneous "Cunctator," block system, memento, wicket, screens and set of 8 plateholders for auto-

285.00



Hadak Portrait Attachment ..

#### **Pocket Premo**

This attractive little camera is entirely new in construction and embodies extreme compactness and simplicity of loading and

No focusing or estimating of distances is required. The front standard, bearing the lens and shutter, automatically unfolds and is extended and locked rigidly in focusing position when the bed of the camera is drawn down.

The Pocket Premo may be brought into action very quickly, and for that reason unusual and interesting pictures may be secured that would be lost if adjustment of focus were necessary. The camera is closed by pressing the two side arms and raising the bed, which causes the bellows and entire front to compactly refold within the camera body.

This little camera makes 2 1/4 x 3 1/4 pictures upon Premo Film Packs, and when closed, it has about the same dimensions

as two 21/4x31/4 Film Packs.

Maximum compactness in the construction of this model is obtained by means of the Collapsible Back, which may be quickly extended to receive the Premo Film Pack, containing 12 exposures. After the pack has been placed in position in the camera, the safety cover, protecting the first exposure, is drawn.

The Meniscus Achromatic Lens fitted to the camera, is carefully tested and adjusted, and will produce negatives of excellent quality, from which enlargements many times the of the contact print may easily be made.

The smooth working Kodak Ball Bearing Shutter, supplied, provides for speeds of the contact print may easily be made.

The smooth working Kodak Ball Bearing Shutter, supplied, provides for speeds of the contact print may easily be made.

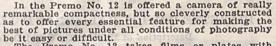
are finished in nickel.

#### SPECIFICATIONS

Capacity 18 exposures without reloading. Size of picture: 2½x3½. Dimensions: Weight 18 ozs. Shutter. Kodak Ball Bearing. Lens: Meniscus Achromatic.

#### PRICES Parrying Case to hold camera and Premo Film Pack

# Premo No. 12



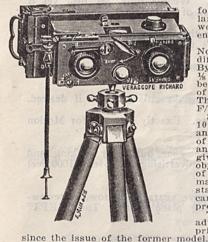
be it easy or difficult.

The Premo No. 12 takes films or plates with equal facility; it has a ground glass for accurate focusing and composition, or it may, of course, be used with focusing scale. It has two tripod sockets, reversible brilliant finder with revolving mask, and special focusing lever.

#### SPECIFICATIONS

Size of picture: 24x34. Capacity: 12 film or one plate exposure. Box: Aluminum. Bed: Aluminum, with special lever focusing device. Finder: Reversible, with revolving mask. Tripod Sockets: Two. Lens: Bausch & Lomb Kodak Anastigmat F: 6.3, or other lenses as per price list. Shutter Optimo or Kodak Ball Bearing as per price list.

redio yna PRICES by rediegor setternel edi-d	2½x3½ Our Price
Frame No. 18 with Optimo Shutter and Bausch & Lomb Kodak Anastigmat	
1 Including Film Pack Adapter and one Plate Holder	
Hittin with Kodak Anastigmat Lens, F:6.3.	
with Hausch & Lomb Tessar, Ser. Hb Lens F:6.3	
with Hausch & Lomb Tessar, Ser. Ic Lens, F:4.5.	
with Rodak Ball Bearing Shutter and R. R. Lens	18.00
with Kodak Anastigmat Lens, F:7.7	22.50
Carlying Case, grain leather, velvet lined.	4.35
lings Pate Holder, each	
Plant Plim Pack, 12 exposures	-50
Chitral Clans	.50
Branes Rell Helder, interchangeable with plate holder	





#### ICARETTE Model A and B

The Icarette A embodies many distinctive features entirely its own. Although a miniature camera making pictures  $2\frac{1}{4}x2\frac{1}{4}$  inches, using any make of roll film, the Icarette A measures over all  $1x2\frac{3}{4}x5$  inches and weighs 14 ounces. It is a suitable camera to carry constantly, readily fitting the pocket. The many opportunities to make pictures that present themselves during our daily routine, amply justifying having the Icarette A as one's constant companion.

Its field of picture making is almost unlimited when equipped with the faster lenses and Compur Shutter. Excellent results are obtainable even when the sky is overcast. The extreme shutter speed, ½00 of a second, will catch rapidly moving objects such as aeroplanes in flight, races,

and athletic events. It is equally capable of portraiture and interior work. The high quality of the lenses furnished insures exceptional results in enlarging from Icarette negatives. The picture it makes, size 2½x2½ inches, lends itself particularly well to enlarging, as, being square, it may easily be proportioned in enlarging to a vertical or horizontal print.

The Icarette A is fitted with rising front, the movement of which is indicated by the Iconometer finder with which the camera is equipped. The Iconometer is absolutely accurate and permits using the camera at the eye's level. A brilliant indirect finder is also fitted.

Focusing is done by a level focusing adjustment to as close as three feet.

The method of loading is extremely simple, as the entire back is readily removed, allowing easy access to the film chambers. With each camera is furnished a cable shutter release.

Outside dimensions when closed 1x2 1/4 x5 inches. Weight 14 ounces.

#### PRICES

Minte, Tripped Sockers: Two	Iodel A	В
Icarette A with Novar Anastigmat, f:6.8, 3 inch focus and Automatic Shutter.		\$29.00
		54.00
With Hekla Anastigmat, f:6.8, 3 inch focus and Compur Shutter		41.50
	57.50	61.50
	62.50	66.50
Leather carrying case	3.50	3.50
DO NOT THE PROPERTY OF THE PRO		-65

The Icarette B is the same as Icarette A except that it is furnished with a plate back so that plates  $4\frac{1}{2}$ x6 cm.  $(1\frac{3}{4}$ x2\forall\_2 in.) may be used.

### ICARETTE C-D, ICA HALLOH AND LLOYD, AND NIXE A AND B

Description of the Icarette C and D, Ica-Halloh and Ica-Lloyd

Ica roll film cameras are characterized by their strong durable compact construction. The sliding bed with the U-shape front is an exclusive Ica feature, insuring a very rigid front, or lens support free from any vibration or play. This is most important, particularly in a camera fitted with an anastigmat lens, as the advantage in a high quality objective is partly in its ability to render microscopic detail and it is obvious that the lens cannot work to its best advantage if the camera front has any lost motion. The variation of one sixteenth of an inch would be far more detrimental to the small negative than one eighth of an inch to a much larger one. This type of construction in the Icarettes, together with their many other superior features, has given them an enviable reputation as miniature roll film camera.

The Nixe A and B are similar to the Halloh and Lloyd, corresponding in size and general appearance. They are provided with a long bellows permitting the use of the single element of convertible lenses with which they are fitted.

The Icarette C makes pictures on roll films 2½x3½ inch in size. The camera measures over all 6½x2½x1¼ inches and weighs 23 ounces. Focusing of the Icarette is accomplished by moving the lever to the desired distance as shown



'TCARETTE C'

on the focusing scale. The vertical front movement is regulated by the thumb-screw at the top of the right hand upright post of the front standard. Both the Iconometer, previously described, and an indirect finder are fitted. There are horizontal and vertical tripod sockets.

The Compur Shutter, having a range of instantaneous speeds from 1 to ½50 of a second, in furnished. The construction of the Icarette C is of metal, and the finish is in black enamel with nickel, the body being covered with fine grain seal leather. The general



"ICARETTE D-S HALLOH"

specifications of the Icarette C also apply to the Icarette D, the newest of the Ica cameras. This camera uses six or twelve exposure roll films size  $2\frac{1}{2}x4\frac{1}{4}$  inch. The camera measures over all  $3\frac{3}{4}x1\frac{1}{2}x8$  inches and weighs  $29\frac{1}{2}$  ounces. Due to its larger size the sides of the Icarette D are of wood. It will be observed that this camera is unusually compact. An exceptional feature in a camera of this size and type is the Carl Zeiss Lens, Series Ic f:4.5, with which it is furnished. This size and type of camera equipment has been desired by many, but due to the large size of the f:4.5 lens the average camera of this type would not accommodate a lens of this aperture. The more rectangular proportions of the picture produced with the Icarette D will appeal to many, as it is conceded to be of more artistic proportions.

In general the Ica-Halloh and Ica-Lloyd are quite similar in design and construction to the Icarette D. The Ica-Halloh uses six or twelve exposure roll films size,  $3\frac{1}{4}x4\frac{1}{4}$  inches, the camera measuring over all  $8x1\frac{3}{4}x4\frac{3}{4}$  inches and weighing

The Ica-Lloyd uses six or ten exposure roll films  $3\frac{1}{4}x5\frac{1}{2}$  inches (postcard) measures  $9\frac{1}{2}x1\frac{3}{4}x4\frac{3}{4}$  inches over all and weighs 42 ounces. Both the Ica-Lloyd and to Halloh cameras have horizontal and vertical front movements, and rack and pinion adjustments. Each camera is supplied with cable shutter release.

the Meeting water a si-feely self that	Icarette C	Icarette D 2½x4¼	Ica-Halloh 31/4 x41/4	Ica-Lloyd 3½x5½
With Hekla Lens, f:6.8 and Compu	.f=31/2 in.	f=4¾ in.	f=51/4 in.	f=6 in.
Compur Shutter	. f=4¾ in.	f=4¾ in.	f=51/4 in.	f=6 in.
Compur Shutter		f=43/4 in.	M well to sur	olemension of

Limininar f:4.5 lens		Icarette D 2½x4¼ \$55.00 60.00		3½ x5½ \$67.50 Not Made	Nixe A 31/4x41/4 \$62.50 75.00	Nixe B 3½ x5½ \$ 72.50 Not Made
Tarl John 11b f:6.3 Tessar Julian Ic Tessar f:4.5 Junior carrying case	80.00 4.50	82.50 87.50 5.50 TOM CAI	. 5.00	95.00 Not Made 6.00	90.00 95.00 5.50	100.00 Not Made 6.00

The Ica Atom B. is a most compact little handful of a more measuring over all  $3\frac{1}{2}x1\frac{1}{2}x2\frac{3}{4}$  inches, takes picture  $1\frac{1}{4}x2\frac{1}{4}$  inches ( $4\frac{1}{2}x6$  cm.), and weighs  $12\frac{1}{4}$  ounces. Yet

Fitted with the Compur Shutter, exposures may be made in from 1 to  $\frac{1}{100}$  of a second, as well as time and bulb ex-

The load of the lo

The Ica Atom is furnished with reversible brilliant tripod sockets for horizontal or vertical pictures, also with flexible cable shutter. The front is of the self erecting type so that when the camera is opened the front submatically extended, and the lens securely locked in focus for infinity or distance. The construction is extremely rigid, quick acting and does not readily get out of order. The short focal length of the lens, the Ica Atom is a most practical high speed camera. The line is a second, the shutter of the Atom will arrest motion which with a line in line in size would require an exposure of 1,000 of a second.

From Atom negatives, satisfactory enlargements up to 8x10 inches and even larger

Atom with Carl Zeiss Lens, Series Ic 1:4.5, 2½ in. focus.

Fine including 2 Plate Holders

60.0

1 Adopter

2.7

1 Mark Adapter

2.7

1 Mark Adapter

3 Adapter

3 Adapter

4 Adapter

5 Adapter

6 Ad

4.5

#### ICA IDEAL Model A and B



Although a camera for general all around work is often asked for, such an instrument is quite an impossibility. For its size, it is safe to say that no more versatile camera is to be had than the Ideal A, using plates  $2\frac{1}{2}x3\frac{1}{2}$  inches ( $6\frac{1}{2}x9$  centimeters) or film packs  $2\frac{1}{4}x3\frac{1}{4}$  inches. Model B,  $3\frac{1}{2}x4\frac{3}{4}$  inches (9x12 centimeters). It is constructed of metal, finished in polished black enamel, and covered with pin grain seal leather.

The extreme bellows extension (8½ inches) of the Model A and (11½ inches) of the Model B permits focusing on objects as close as nine inches from the camera, a decided advantage in making copies or photographing small objects. With the Nostar Lens the Ideal does excellent telephoto work. The Nostar Lens can only be furnished for the Ideal when

fitted with the Carl Zeiss, Series Ic f:4.5 or Series IIb f:6.3, the resulting magnification being 1½ diameters. Compur Shutter speeds range from 1 to ½50 part of a second.

The other lenses furnished with the Ica Ideal A are convertible, permitting the use of the rear element of the lens for distance pictures, the resulting image being about double the diameter of that produced with the combined lens.

The lens panel of the Ideal has both vertical and horizontal movements of one inch, considerable for a camera of its size. These adjustments, together with the long extension are

most important in architectural photography.

For critical work focusing may be done while viewing the image on the hooded ground glass. The movable bed is operated by rack and pinion adjustment and can be locked at any desired point. The bellows is fitted with an automatic take-up, eliminating the possibility of its sagging and perhaps cutting off part of the picture.

Equipped with the Carl Zeiss Lens, Series Ic f:4.5 the Ideal is a very practical camera for home portrait photography. It has been used for portraits and pictorial work by several of the best known photographers in these fields. In fact many of the most admired exhibition prints have been produced with the Ica Ideal.

The Ica Ideal A is furnished with the Compur Shutter having speeds from 1 to 1/250 of

a second.

Dimensions of the Model A when closed,  $5\frac{1}{4}x2x3\frac{1}{2}$  inches. Dimensions of the Model B when closed,  $2x5x6\frac{1}{2}$  inches. Weight of Model A,  $26\frac{1}{2}$  ounces.

Weight of Model B, 45½ ounces.

#### PRICES

With each camera three single plate holders and a cable shutter release are in	cluded.
Ica Ideal A with Protar f:6.3	
Ica Ideal A with Hekla Lens, f:6.8, 31/2 in. combined focus, rear element 61/4 in. focus	52.50
Ica Ideal A, with Dominar f:4.5.	65.00
With Carl Zeiss Lens, Amatar f:6.8, 31/2 in, combined focus, rear element 6 in. focus	85.00
With Carl Zeiss Lens, Series IIb f:6.3, 4% in. focus	80.00
With Carl Zeiss Lens, Series Ic f:4.5, 4% in. focus	87.50
Nostar Lens to be used with Carl Zeiss Lenses, Series Ic f:4.5 or Series IIb f:6.3	4.00
Extra plate holders, each	.80
Film Pack Adapter	3.00
Leather case to hold camera, three plate holders, and F. P. Adapter	6.00
Ica Ideal B, with Protar f:6.3, 51/4 in. combined focus, rear element 91/2 in. focus	137.50
Ica Ideal B with Dominar f:4.5	85.00
With Hekla Lens, f:6.8, 51/4 in. combined focus, rear element 9 in	67.50
With Carl Zeiss Lens, Amatar f:6.8, 51/4 in. combined focus	97.50
With Carl Zeiss Lens, Ser. IIb f:6.3, 51/4 in. focus	95.00
With Carl Zeiss Lens, Ser. Ic f:4.5, 51/4 in. focus	105.00
Nostar Lens to be used with Carl Zeiss Lenses, Ser. Ic f:4.5 or Ser. IIb f:6.3	5.00
Extra holders, each	1.00
Film Pack Adapter	3.50
Leather case to hold camera, 3 plate holders and F. P. Adapter	9.50

#### ICA TRIX Model B

The Ica Trix B has already won a reputation for itself, having been adopted some years ago by many of the leading daily newspapers as the most satisfactory camera for this very difficult branch of photography. Its size over all when closed is 2%x5%x7% inches and weighs  $47\frac{1}{2}$  ounces. The size of the picture is 4x6 inches (10x15 centimeters), perfect proportions for artistic composition.



"ICA TRIX"

The plate holders are of sheet steel, strong, accurate, and with no projections. Three of the Trix B holders are of about the same bulk as one double wooden holder of corresponding size.

A camera of such vast capabilities as the Ica Trix will surely appeal to the Critical, as well as to the press photog-

rapher.

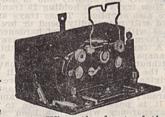
It can be supplied with lenses for practically any class of work. The shutter is the Compur having speeds from 1 to  $\frac{1}{150}$  of a second when fitted with the Carl Zeiss Lens, Series Ic f:4.5 and up to  $\frac{1}{200}$  of a second with the other lenses. With the camera are included three plate holders, and cable shutter release.

Ica Trix B with Hekla Lens, f:6.8, 61/2 in. focus, rear element 11 in. focus	70.00
With Carl Zeiss Lens, Series IX f:6.8, 61/2 in. focus, rear element 103/4 in. focus	113.00
With Carl Zeiss Lens, Series IIb f:6.3, 61/2 in. focus	124.00
With Carl Zeiss Lens, Series Ic f:4.5, 61/2 in. focus	134.00
Protar Lens, Carl Zeiss, f:6.3	
Plate holders, each	1.00
Film Pack Adapter	3.50
Leather case to hold camera with three plate holders and F. P. Adapter, or camera	
with six plate holders	10.00

#### ICA STEREOLETTE

The Ica Stereolette is a somewhat more ambitious camera than the Stereofix. It makes the same size picture using plates or film packs, and may also be used with a plate magazine accommodating twelve plates. The magazine is very convenient, easily operated, and interchangeable with the single plate holders or film pack adapter.

The Stereolette is a folding camera, when closed measuring over all 3x15/x53/4 inches and weighing 201/2 ounces. It has every possible adjustment requisite for stereo photography. From the illustration it will be observed that both Iconometer and reflecting finder are centered between the



lenses. Focusing is done by means of a radial lever adjustment. When the front of the camera is extended, it locks focussed for distance and is regulated for closer objects by moving the focusing lever forward. There is a vertical front movement provided with screw adjustment, this movement being of decided advantage in many pictures when it is desired to eliminate foreground or include more at the top of a picture. The hooded focusing back provides ample light protection so that a focusing cloth is unnecessary. The Stereoscopic Comp. Shutter is furnished, having instantaneous speeds from 1 to ½50 of a second, and also being suitable for time and bulb exposures. The construction of the Stereolette is entirely of metal; and is covered with black seal grain leather. With the Stereolette are included three plate holders and cable shutter release.

With Hekla Lenses, f:6.8, 2½ in. focus\$	86.00
With Carl Zeiss Lenses, Series IIb f:6.3, 21/2 in. focus	131.50
With Carl Zeiss Lenses, Series Ic f:4.5, 21/2 in. focus	141.50
Plate Magazine	27.50
Extra plate holders, each	.65
Film Pack Adapter	2.75
Leather case to hold camera and six plate holders or magazine	6.00
,我们就是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个	



#### ICA POLYSCOPE

The Ica Polyscope is without question the premier of all stereo cameras. It is constructed most accurately, of elegant appearance, and has every adjustment requisite to the best possible stereoscopic results. It also makes the popular 45x107 mm. picture. Over all it measures 5\(^3/4\xix21/2\) inches and weighs 32 ounces. The body of the Polyscope is of aluminum, the extension being fixed. Focusing is accom-

plished by moving the focusing lever, at the top of the camera, to the desired distance. An ample rising front is provided, the effect of its elevation being indicated in the direct view finder, the same as in the Iconometer. A brilliant indirect finder is mounted between the lenses. Its position is central between the two lenses and relatively at the same elevation which insures its accuracy in close work. The Compur Shutter, having speeds up to ½50 of a second, is fitted. The lenses furnished are the Carl Zeiss Series Ic f:4.5, of 2½ inch focus. The Ica Polyscope may be used with single metal plate holders, magazine for twelve plates,

## Ica Polyscope B

CAMERA PRODUCES A PICTURE

SEES IT.

A STEREO

In general, the 6x13 cm. (2-2/5x5-1/5 in.) Polyscope is about the same as the smaller one A except that its measurements are 6-2/5x2-4/5x5-1/5 inover all and its weight without plate magazine  $33\frac{1}{2}$  ounces. The plate magazine alone weighs 25 ounces. Focusing is done by means of a large Newton finder.

It is also fitted with the Carl Zeiss Lens, Series Ic, f:4.5, 4-1/5 in, focus,

in Compound shutter. EXACTLY

An important feature of the larger Polyscope is the possibility to make panorama pictures 6x13 cm. in size, by simply sliding the front horizontally until it locks into position, when one of its lenses will be accurately centered, and when used with the smaller diaphragm openings, will cover the full size of picture. AS THE EYE full size of picture.

	Prices A	D.
Polyscope with six plate holders	\$177.50	\$250.00
Polyscope with plate magazine	200.00	275.00
Single plate holders, each	.60	1.00
Film Pack Adapter	6.25	7.50
Polyscope plate magazine	35.00	45.00
Leather case for Polyscope with magazine	7.00	8.50
Extra septums for magazine, each	.25	.35
Five times yellow glass filter	5.00	6.00
Tito times Jones Breeze Mitol minimum	Mile Market State of the Control of	

Stereo Apparatus "Multiplast"

This newly constructed apparatus for viewing 45x107 mm. stereoscopic transparencies consists of a beautifully constructed polished mahogany cabinet and embodies many improvements. The mechanism works smoothly and silently and is absolutely reliable.

New trays each holding 25 transparencies 45x107 mm.

are also supplied. These trays are made of Aluminum and will not readily bend or break, as used to be the case with trays made of hardened caoutchouc. Twelve of them may be stored in the case under the mechanism.

A further improvement in this model is, that the transparencies may be viewed any number of times without interruption. After having viewed the last of the 25 pictures, the tray will be carried back to its original position by simply pressing down the lever on the right side of the Multiplast when the first trans-

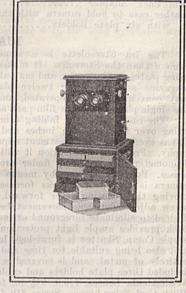
parency will be shown again and so on.

It is possible furthermore to again view a single transparency which has been seen already. A dial fixed on the left side of the Multiplast shows the number of the transparencies already viewed, as well as that of the one in front of the lenses. These lenses are mounted in large eye cups which fit comfortably around the eves.

around the eyes.

Focusing is effected by turning a large knob on the right side. A lateral adjustment of the eye cups is inter-pupiliary distance of the user's eyes. also provided in order to correctly adjust them to the All metal parts of the Multiplast are heavily nickeled. Stereo Apparatus Multiplast as described above with 1 tray holding 25 transparencies 45x107

Extra trays, made of aluminum ..... 2.00



### Stereo-Illuminator

### Ica Stereoscope

This stereoscope is especially made for viewing 45x107mm, stereoscopic transparencies. It is constructed of thoroughly seasoned mahogany, beautifully polished. The lenses are very large and are mounted in large eye cups which fit around the eyes comfortably. The picture slides in the opening at the side of the stereoscope and is locked in to prevent its falling out and possibly breaking. A fine quality ground glass is fitted at one end and evenly diffuses the light. Owners of stereoscopic cameras should have at least three of these stereoscopics are the transparency property and the stereoscopic cameras should have at least three of these stereoscopes so that several persons can view a collection of stereo views at the same time. Stereoscope B Stereoscope, 6x13 mm. .....

# Stereo Printing Frames

A	Only for Polyscope	negatives.	13/x4 % in.	insures its accuracy in close works The	3.50
B	For all other stereo	negatives,	. 1 % x4 fa in.	ond is the day of the day of the second	3.50
C	For all other stereo	negatives,	2-2/5x5-1/5	in.	3.50

#### Ica Universal Palmos

The Ica Universal Palmos is without question the most perfect camera of its type, its workmanship throughout being of the highest quality. It will appeal to the explorer, the naturalist and to those who require a compact yet substantial instrument, thoroughly capable in practically every branch of photography.

The size of the pictures it produces is  $3\frac{1}{2}x4\frac{1}{2}$  in. (9x12 cm). The dimensions over all when closed are 6-2/5x2-3/5x6-2/5 in. and the weight

The body of the Ica Universal Palmos is made of metal covered with the best morocco leather. It is fitted with reversible back, swing back, screw actuated vertical and horizontal front movements, bellows capacity of 16 in, iconometer and reversible reflecting finder. The shutter is the Compur having speeds from 1 to 1/150 of a second.

With each Universal Palmos are included three double ebonized wooden plate holders and cable shut-

ter release.

#### PRICES With Dominar Anastigmat, f4.5, 6 in. focus....\$170.00

With Dominar Anastigmat, 14.5, 6-3/5 in. 10cus	177.00
With Carl Zeiss Amatar, f6.8, 6 in. focus	187.50
With Carl Zeiss Amatar, f6.8, 7-1/5 in. focus	
With Carl Zeiss Lens, Ser. Ic, f4.5. 6 in. focus	195.00
With Call Jelss Bells, Set. 10, 17, 17, 18, 18 feets	205.00
With Carl Zeiss Lens, Ser. Ic, f4.5, 6-3/5 in. focus	
Nostar Lens for Carl Zeiss, Ser. Ic, f4.5 and Dominar Anastigmat, f4.5 lenses	6.00
Five times yellow glass filter for f6.8 lenses	6.00
Five times yellow glass litter for 10.5 lenses	7.00
Five times yellow glass filter for f4.5 lenses, 6 in. focus	
Five times yellow glass filter for f4.5 lenses, 6-3/5 in, focus	10.00
The times yellow glass plate heldons cook	7.00
Extra double wooden plate holders, each	
Film pack adapter	7.50
Leather carrying case	12.50
Leather carrying case	STATE OF THE PARTY OF

### Ica Juwel

The aristocrat of all cameras—the Juwel—makes its appeal to the whole-hearted, ambitious photographer. It may well be called a camera of limitless capabilities.

It is a Juwel in appearance as well as by name, microscopically accurate in its adjustments, structurally correct, and of perfect design; it is truly a super camera. The dimensions over all when closed are 8-3/5x3-1/5x8-3/5 in. and its weight 6 lbs. 6½ ounces. The size of the pictures is 5x7 in. (13x18 cm).

The construction of the Juwel is of ebonized hard wood, metal reinforced. It has extreme vertical and horizontal front movements, swing back and tilting front board, important features in architectural photography. The plate holder or film pack adapter is locked in position by the pressure of a button, an exclusive and valuable Ica feature. The large focusing hood eliminates the necessity of a focusing cloth. The hellows extension of 18 in is ample for every The bellows extension of 18 in. is ample for every possible requirement. It is furnished with the Compur Shutter having speeds from 1 to 1/150 of

Of utmost importance is the Carl Zeiss Series Ic lens, its large working aperture of f:4.5 being suitable for interior portraiture, autochromes, exposures in poor light; in fact where perfect optical correction combined with extreme speed is required, the Zeiss Series Ic is unequalled.

For wide angle photographs with an extreme wide angle lens, the front adjustments of the Juwel permit dropping the camera bed, also tilting the lens panel to any required angle. With the Juwel are included three double wooden plate holders and cable shutter release.

#### PRICES

With Dominar Anastigmat, f4.5	\$200.00
With Carl Zeiss Amatar, f6.8	195.00
With Carl Zeiss Lens, Ser. IIb, f6.3	210.00
With Carl Zeiss Lens, Ser. Ic, f4.5	230.00
Nostar Lens for Carl Zeiss, Ser. IIb, f6.3	6.00
Five times yellow glass filter for f6.3 and f6.8 lenses	7.00
Five times yellow glass filter for f4.5 lenses	12.50
Extra double wooden plate holders, each	Malanha Maria 8.50
Film pack adapter	8.00
Film pack adapter	15.00



#### ICA MINIMUM PALMOS Model A and B



The Ica Minimum Palmos A, size 21/2x31/2 inches (61/2x9 cm.), and B size 31/2x43/4 inches (9x12 cm.), are designed particularly as out-of-door cameras. The lens with which they are fitted is the Carl Zeiss, Series Ic f:4.5, capable of taking instantaneous pictures even in a poor light. The shutter is of the focal plane type having instantaneous speeds up to 1/700 of a second. They are therefore suitable for high speed pictures, such as of races, aeroplanes in flight, athletic events, etc. Can be made ready almost instantly, and handled much like a rifle, being held at the eye's level and sighted with the direct view finder with which they are equipped.

The Ica Minimum Palmos is also recommended for child

pictures. It has just the qualities so essential for children's pictures,—an extremely rapid lens, the most efficient type of shutter ever made, and ease of manipulation.

When extended, the camera front is absolutely rigid. A focusing lever is on the lens mount and when rotated, moves the lens forward or backward, the distance being indicated on an engraved scale surrounding the lens barrel.

Ica Minimum Palmos with Carl Zeiss Lens, Series Ic f:4.5, 4¾ in.	Price A	В
focus including three double ebonized wooden plate holders, and cable shutter release	\$127.50	\$147.50
Film Pack Adapter	7.00	7.50
Double wooden plate holders, each	6.50 9.50	7.00 11.00
Leather case to hold camera, three plate holders, and F. P. Adapter	N. 1770 701 80	A TRIBUN

#### ICA REFLEX

For many kinds of work the reflecting camera is most desirable. The decided advantage in the reflecting camera is that the image to be photographed may be viewed in the hood up to the very moment of exposure. This image is formed by the same lens that makes the picture and appears identical, except for colors, to the finished print. It is of the same size, and is shown right side up. For those who have trouble in estimating distances, the reflecting camera should appeal, as it is the most perfect of all photographic range finders. The image is

viewed in the hood which fits well around the eyes, and the focusing pinion on the left side of the camera is turned until the sub-

ject to be photographed appears sharp and well defined.

The image is reflected to the top of the camera by an optical mirror. Unlike the ordinary mirror it is silvered on the upper surface preventing the possibility of a double image. The front of the camera is provided with a sunshade which serves as a lens protector

when the camera is closed, also with a substantial vertical front movement. Ica Reflex Cameras are furnished with Orix Anastigmats f:4.5 or Carl Zeiss Lenses, Series Ic f:4.5.

The focal plane shutter with which the Ica Reflex is fitted is of the fixed slit variety, has instantaneous speeds from 1/15 to 1/1000 of a second, besides time exposure. The shutter is of very simple design, adjustable from the outside, can be quickly operated, and is reliable.

The back of the Ica Reflex is reversible, so that it is unnecessary to turn the camera when vertical pictures are to be made. Either plates or film packs may be used. The plate holders are of blackened metal, very durable and hold one plate each. The Ica Reflex weighs from 4 lbs. 2 oz. to 4 lbs. 14 oz., and is made in the following sizes:

#### MEASUREMENTS:

A 3¼x4¼ in. (8, 3x10, 8 cm) 6¾ B 3½x4¾ in. (9x12 cm) 6½ C 3¼x5¼ in. (9x14 cm) 6¾	%x5⅓x6 in. %x5⅓x7 in. %x6⅓x6⅓ in. %x6 4/5x7⅓ in. %x6 4/5x7⅓ in.		6½ in. 6½ in. 6½ in. 6½ in. 8½ in.	6 in. 6 in. 6 in. 71/5 in.	10% in. 10% in. 10% in. 10% in. 10% in.
00.0000	E*	A	В	C	D
With Orix Lens, f4.5		\$ 95.00	\$ 97.50	\$110.00	\$120.00
With Carl Zeiss Lens, Ser. Ic, f4.5			133.50	145.00	165.00
With Dominar Anastigmat, f4.5			97.50	110.00	120.00
With Carl Zeiss Tele Lens			170.00	182.50	210.00
Extra plate holders for Ica Reflex,				vellow glass	.80 times
Film Pack Adapter					duo5 3.00

\*Indicates future delivery.

#### ICA BÉBÉ, Models A and B

The Ica Bébé A, although making the same size picture, 1\% x2\% in. (4\% x6 centimeters) as the Ica Atom, is a distinctly different type of camera. It can be folded, and when closed measures 33/x23/x13/4 in, and weighs 14 ounces. It has focusing adjustment to three feet actuated by a lever. A direct vision finder is fitted which enables the user to operate the camera from the eye's level, sighting through the finder in much the same manner as one would sight a rifle. Holding the camera at the eye's level eliminates objectionable foreground, resulting in a much more pleasing picture than if taken at a lower level as is necessary when using a camera fitted only with reflecting finder. The back is equipped with



hooded ground glass which is readily removed by pressing a button. Plate holder, film pack adapter, or plate magazine. may then be easily clamped on. This method of attaching holders is a decided advantage over the slide-in method, as it is quicker, absolutely light tight, and the operation is less likely to jar the camera out of position when using a tripod. The Ica Bébé A is fitted with Compur Shutter having a maximum speed of 1/200 of a second, and Carl Zeiss Lens, Series Ic f:4.5, of 3 in. focus.

The Ica Bébé B is almost identical with the Ica Bébé A except in size, making 21/x31/2 in. (61/x9 cm.) pictures. In addition to the many features of the smaller camera, the Ica Bébé B has horizontal and vertical front movements, these movements being indicated correctly in the finder. The Bébé B measures when closed 54x3%x244 in, and weighs 29 ounces. The lens furnished is the Carl Zeiss, Series Ic f:4.5, of 43/4 in, focus,

With each Ica Bébé Camera are furnished six single metal plate holders, cable shutter

release, and leather carrying case.	PRICE	Model A	Model B
Ica Bébé as abôve described		\$90.00	\$115.00
Film Pack Adapter		2.75	3.00
Plate Magazine holding 12 plates		30.00	39.50
Extra plate holders, each			.80

#### GOERZ ROLL FILM CAMERAS

VEST POCKET-COAT POCKET For Pictures 15/8x21/2-21/4x31/4

Truly a little gem of a camera. Perfect workmanship and design have made possible a camera small enough for the vest pocket, yet one which produces negatives that can be enlarged up to 8x10 without loss of definition. Because of its small size and light weight you can carry this Tenax at all times, and so catch many a view that is now lost because you are not prepared. It has all the important specifications of larger cameras, with many novel features of its own. A choice of lenses is offered in the celebrated Goerz Dogmar f:4.5, the Goerz Dagor f:6.8, or the Goerz Tenastigmat f:6.3. The shutter is the well-known Compur, with wheel-geared time control, giving exposures from one second to \( \frac{1}{2} \)outline{1} of a second, time and

VEST POCKET ROLL FILM TENAX

COAT POCKET ROLL FILM TENAX

With Dagor f:6.8, 3 in.

f:4.5, 3 in. \$66.00

f:6.3, 3 in.

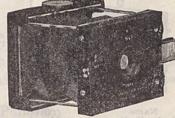
With Dogmar With Tenastigmat With Dagor f:6.8. 4 in. \$69,00

With Dogmar With Tenastigmat f:4.5. 4 in. f:6.3. 4 in. \$72,00 \$51,00

#### GOERZ VEST AND COAT POCKET TENAX CAMERAS

In refinement of construction and nicety of adjustments, the Goerz Vest Pocket Tenax resembles a high-grade watch-it is perfection in small compass. Equipped with either a Goerz Dagor or fection in small compass. Equipped with either a Goerz Dagor or Goerz Syntor Lens, Compound Shutter with maximum speed of ½250th of a second, direct view finder, ground glass back for focusing, tripod socket, front and back finished in highly enameled black metal, black leather bellows, all exposed parts of the mechanism heavily nickeled, other parts covered with fine grained leather, camera opened automatically upon pressing a small button, front held firmly in place by metal stays,—truly, this little instru-ment is a photographic marvel. Six single plate-holders are included with camera.

The Goerz Coat Pocket Tenax is a larger edition of the Vest Pocket Tenax and differs from it only in size. Three double plateholders included with camera.

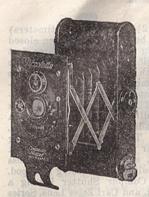


#### PRICES OF VEST POCKET TENAX CAMERAS

top	of a	the o	camer	a body	head on engraved from 3	Size	of Lens Inches	Dimensions Camera Closed	Dagor F:6.8	F:4.5	
yards	up	ward				13/4 x2 5/16	3	31/4x23/4x31/2	\$82.50	\$ 84.00	

Coat Pocket Size	Clong	gglyla	restling town	Theo-Ev	\$96.0	0 \$99.00
Film Pack Adapter . Extra Plate Holders,	each	. 220 . 5/.	. mort serui			\$1.85

#### Contessa-Nettel-Cameras



### Piccolette

Size 1 % "x2 1/2"

A new Vest-pocket Camera of the highest quality. Most rigid nickeled spring arms.

Has removable film holder—convenient for loading. Carrying case included in price. Uses standard roll film, any make.

		Fixed Foo	ous	
Lens	3 0	Focus	Shutter	Price
Achroma	t F 11	3 in.	Acro	\$10.00
Citonar	F 6.3	3 in.	Derval	22.50
Teronar	F 5.4	3 in.	Compur	32.50
Zeiss 1b	F 6.3	3 in.	Compur	62.50
Zeiss 1c	F 4.5	3 in.	Compur	67.50
og lo Juo	he comera	Focusing M	fodel	
Zeiss 1c	F 4.5	3 in.	Compur	\$72.50

### Compact Plate and Film-Pack Cameras

Suevia-No. 24 21/2"x31/2" Taxo-No. 41 3 1/4 "x4 1/4"

Onito-No. 66 9x12 cm. with rack and pinion. Donata-No. 68 9x12 cm, with double extension,

In this series of four cameras the amateur is afforded the choice of a compact, well constructed machine at a moderate price. Price includes three plate holders and film pack adapter.

				rel one which pe		Lanore .
Camera Suevia Suevia Taxo Taxo Onito Onito Donata Donata	Size 2½x3½ in. 2½x3½ in. 3¼x4¼ in. 3¼x4¼ in. 9x12 cm. 9x12 cm. 9x12 cm.	Len E. R. A. Citonar E. R. A. Citonar E. R. A. Citonar E. R. A. Citonar	F 7.7 F 6.3 F 7.7 F 6.3 F 7.7 F 6.3 F 7.7 F 6.3	Focus 4-1/5 in. 4-1/5 in. 5-2/5 in. 5-2/5 in. 5-2/5 in. 5-2/5 in. 5-2/5 in. 5-2/5 in.	Shutter Derval Derval Ibso Derval Ibso Derval Ibso	Price \$15.00 25.00 17.50 32.50 18.75 33.75 25.00 39.75



### The Deckrullo-Nettel-Press-Camera

3 1/2"x2 1/2"-9x12 cm-10x15 cm-13x18 cm

#### Wonderfully Efficient Focal Plane Cameras

On account of their portability and great range of speeds specially recommended for Press-Work, sporting events and

Also manufactured for the Colonies in Teak-wood per-

Focal Length of Lenses 12 cm—15 cm—18 cm—21 cm

Name	Size	Lens	Speed	Shutter	List
Deckrullo Reg.	61/4 x 9 cm.	Zeiss Tessar	F 4.5	Focal Plane	\$132.50
Deckrullo Reg.	9 x12 cm.	Zeiss Tessar	F 4.5	Focal Plane	150.00
Deckrullo Reg.	10 x15 cm.	Zeiss Tessar	F 4.5	Focal Plane	175.00
Deckrullo Reg.	13 x18 cm.	Zeiss Tessar	F.4.5	Focal Plane	205.00
Deckrullo Trop.	61/2 x 9 cm.	Zeiss Tessar	F 4.5	Focal Plane	165.00
Deckrullo Trop.	9 x12 cm.	Zeiss Tessar	F 4.5	Focal Plane	210.00
Deckrullo Trop.	10 x15 cm.	Zeiss Tessar	F 4.5	Focal Plane	235.00
Deckrullo Trop.	13 x18 cm.	Zeiss Tessar	F 4.5	Focal Plane	265.00

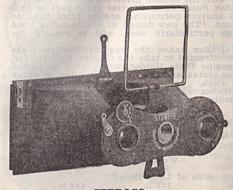
#### Shutter

Derval - Everset shutter giving Time, Bulb and Instantaneous exposures from 1/25 sec. to 1/100th.

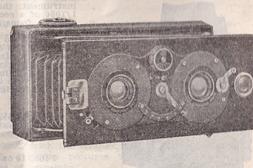
Ibso-Everset shutter giving Time, Bulb and Instantaneous exposures from 1/1 sec. to 1/100th.

Compur-Giving a range of automatic exposures from 1 sec. to 1/250th as well as Time and Bulb.

### Contessa-Nettel Stereo-Cameras



STEROCO Nr. 305 4,5x10,7 cm Rigid Stereo-Camera. Simple construction instantly ready for use.



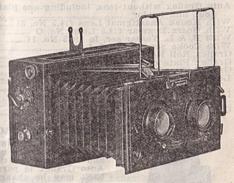
DUCHESSA-STEREO Nr. 310 4,5x10,7 cm Small dimensions. Exact Workmanship.



#### STEREAX 6x13 cm

Nr. 325 Black leather. Nr. 326 Model Tropical.

Exact Workmanship Adapted for stereo-scopic and Panoramic pictures.



#### STEREO-DECKRULLO-NETTEL PRESS-CAMERA

10x15 cm

Nr. 331 Black leather. Nr. 332 Model Tropical.

Adapted for Stereoscopic and Panoramic pictures.

### Stereo Cameras

Name	Size	Lens	Speed	Shutter	List
Steroco	45x107 mm.	Teronar	F 5.4	Pronto	\$ 35.00
Steroco	45x107 mm.	Zeiss Tessar	F 6.3	Pronto	65.00
Duchessa Stereo	45x107 mm.	Zeiss Tessar	F 4.5	Compur	125.00

### Combination Stereo and Panoram Focal Plane Cameras

(No. 13) 228.75		I OCUL I IUII	Commercia		
Name	Size	Lens	Speed	Shutter	List .
Stereax, Reg. Stereax, Reg. Stereax, Tropical Stereax, Tropical	6x13 cm. 6x13 cm. 6x13 cm. 6x13 cm.	Zeiss Tessar Zeiss Tessar Zeiss Tessar Zeiss Tessar	9 cm, F 4.5 12 cm, F 4.5 9 cm, F 4.5 12 cm, F 4.5	Focal Plane Focal Plane Focal Plane Focal Plane	\$155.00 170.00 167.50 182.50
Stereo Deckrullo, Regular	10x15 cm.	Zeiss Tessar	F 4.5	Focal Plane	200.00
Stereo Deckrullo, Tropical	10x15 cm.	Zeiss Tessar	F 4.5 holders and film	Focal Plane pack adjuster.	260.00

#### The Auto Graflex

The Auto Grafiex is offered in three sizes; 34x44, 4x5 and 5x7, each of the models embodying the exclusive Grafiex features and conforming with the details given here. The reflecting mirror and Grafiex Focal Plane Shutter are a part of this

instrument, the shutter permitting speeds from time to 1/1000 of a second. The new design of the focusing hood renders focusing particularly easy, and is readily de-

The Auto Graflex takes the regular Graflex plate holder, and is constructed to take the Graflex Roll Holder, the Graflex Magazine Plate Holder, which may be loaded with twelve glass plates, and the Film Pack Adapter which takes the Film Pack.

The Auto Graflex may be fitted with any of the well known Anastigmats.

	SPECIFICATIONS	
D	imensions when closed	
31/4×41/4	4x5	5x7
31/4×41/4 5% x5% x61/4	6%x6%x7%	914x814x834
	Focal capacity	
7 in.	8 1/2 in.	12 in.
	Weight	
3 lbs., 10 oz.	5 lbs.	8 1/2 lbs.
	Size of Lens Board	
2 1/4 x 2 1/4 in.	3x3 in.	4x4 in.
	Weight 5 lbs. Size of Lens Board	8 1/2 lbs.

Minimum Focus of Lenses accommodated 6 in. 716 in

Nr. 810 4.5x10.7 cm			· /a -		
Exact Workmansam Small dimensions.	3¼ x4¼ Our Price		4x5 Our Price	Ou	5x7 r Price
Auto Graflex without lens, including one plate of	our Illoo		Our Tires	Ou	1 11100
cut film holder	\$ 46.55		\$ 57.00		\$ 85.50
With Kodak Anastigmat Lens f:4.5 No. 31	71.25	No. 32		No. 34	137.75
With Goerz Dogmar f:4.5 Lens, No. O	92.55	No. 1a	117.00	No. 3	174.00
With B. & L. Tessar ser. Ic f:4.5 No. 14	76.00	No. 15	91.70	No. 16	143.45
With Cooke ser. IIa f:3.5 Lens	134.55		162.25		251.10
Graflex Roll Holder	9.75		10.60		13.30
Graflex Plate or Cut film Magazine	13.30		14.50		16.50
Graflex Film Pack Adapter	4.50		5.25		7.15
Leather Case for Camera and roll holder or cu	1.00		0.40		7.15
film Magazine	705		0.05		70.00
film Magazine	7.35		8.25		13.75
Leather Case for Camera and Magazine					
Plate Holder	7.85		9.75		14.50
Graflex Plate or cut film Holder	2.35		2.35		3.15

### Revolving Back Auto Graflex

In many lines of photographic work it is frequently necessary to make vertical negatives without turning the camera on its side and for those desiring a camera of this type the Revolving Back Auto Graflex is particularly valuable. The revolving or turniable back may be changed from horizontal to vertical, or any interpersion of the control of the cont mediate position, without danger of fogging the plate or film when the slide is drawn.

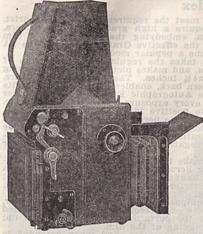
In using lenses of long focus or the single combinations of the convertible lenses, the front of the camera may be racked out

beyond the edge of the bed by using the forward pinion.

The Revolving Back Auto Graflex is fitted with a specially designed rising and falling front which permits full movement of the front regardless of the position of the bellows, as when the front is racked out the entire bellows will rise, the front and rear bellows frames sliding in grooves.

Specincation	IIB		
2 OSTRIC	31/4 x 4 1/4	4x5	
Dimensions when closed8	1/2 x5 1/2 x7	10x61/4x8	
Focal capacity	15 1/2 in.	181/2 in.	
Weight	5% lbs.	7 1/2 lbs.	
Size of lens board	3x3 in.	3 % x3 % in.	
Minimum focus of lenses			
accommodated	714 in	234 in	

\$2.7 P. C.	accommodated	1 /8 111	. 0 78 111.
Revolving Back Auto Graflex, without lens, include		3 1/4 x 4 Our Price	Our Price
plate holder Fitted with Kodak Anastigmat Lens F4-5, No. : Fitted with B. & L. Kodak Anastigmat Lens, F6	37	141.55 (N	\$117.80 180.50 No. 6) 170.50
Fitted with B. & L. Protar Lens, Series VIIa, N. Fitted with B. & L. Tessar Lens, Series Ic, No. 1 Fitted with Velostigmat, Series II, F:4.5, No. 3	5A	158.75 (I	No. 13) 225.15 No. 17) 228.95 No. 3A) 176.30
Graflex Roll Holder, No. 15a		9.75 13.30	10.69 14.50
Film Pack Adapter, leather covered	ck and key	4.50 9.50 10.25	5.25 11.60 13.05
Leather case for six plate holders	holders	5.20	6.40 3.65
Extra Graflex plate holders, each		2.35	2.35



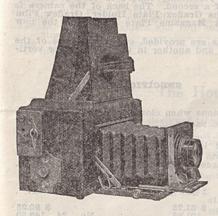
### The Auto Graflex Junior

This little camera effectively supplies the growing demand for a small, compact camera of the reflecting type. Although it is small in size as d light in weight, it embodies all of the exclusive Graflex features-the reflecting mirror, Graflex Focal Plane Shutter with safety device, and, above all, Graflex quality and workmanship.

The user of a Graflex soon finds that he can accomplish photographic results far beyond the limitations set by cameras of the usual construction, and, with the Graflex, can secure all of the usual, everyday pictures with a much greater degree of certainty.

Auto Graflex Junior, without lens including a plate or cut film holder	4 x 3 ¼
With Kodak f:4.5 Anastigmat Lens No. 30	
With Goerz Dogmar f:4.5 Anastigmat Lens No. 00	
With B. & L. Tessar Lens, series Ic, f:4.5 No. 13	63.20
With Cooke ser. IIa f:3.5, No. 161 Lens	108.90
Graflex Roll Holder	9.25
Graflex Plate or Cut Film Magazine	11.40
Graflex Film Pack Adapter	4.28
Graflex Plate or Cut Film Holder	1.65
Leather Case for Camera, and roll holder or Cut film Magazine	5.95
Leather Case for Camera and Magazine Plate Holder	6.65

### The 3A Graflex Autographic



All the advantages of a reflecting camera of the highest possible type, with film simplicity and convenience, combine to make the 3A the most popular of the Graflex models. The 3A Graflex makes pictures 3½x5½, on regular 3A Autographic Kodak film, which may be ob-tained wherever camera supplies are sold.

The 3A Graflex is fitted with the Autographic feature, which allows the operator to date and title the negatives permanently and almost instantly, at the time the picture is made.

Built into, and part of the 3A Grafiex, is the regular Grafiex Focal Plane Shutter, giving in-stantaneous exposures from 1/10 to 1/1000 of a second, as well as time exposures of any duration. This shutter is fitted with the safety device which prevents winding the shutter until the mirror is set. Fitted with two tripod sockets.

3A Graflex Camera without Lens	
With Kodak f:4.5 Anastigmat Lens No. 33	142.5
With Goerz Dogmar f:4.5 Anastigmat lens No. 2a	170.0
With B. & L. Tessar Lens, series Ic, f:4.5 No. 15a	147.5
With Cooke ser. Ha f:3.5, No. 164 Lens	200.3
Leather Case for 3A Graflex Camera	8.4
Extra Lens boards, each	office Case for
Autographic film, 10 Exposures No. A 122	
Autographic film, 6 Exposures No. A 122	

# The 1A Graflex

Designed to meet the requirements of the tourist, or those who require a high grade reflecting camera, in compact form, embodying the advantages of film convenience and the effective Graflex principle, the 1A Graflex has become a popular model.

This camera takes the regular 1A Kodak Film of

This camera takes the regular 12 for the pleasing or 12 exposures, and makes pictures of very pleasing proportions—2½x4¼ inches. The Autographic feature, fitted to the camera back, enables the operator to write directly upon the Autographic Film, the date or other memorandum of every exposure at the time it is made, providing for the positive identification of any negative, at any time. This permanent record of the exact date, or title, upon the negative, is frequently of value aside from the satisfaction of knowing the facts relative to every negative when an occasion arises for

In order to make the camera as compact as possible, the Focusing Screen of the 1A Graflex is made a trifle narrower than the full width of the negative; this does not interfere in the slightest degree with accurate focusing.

As in the other Graflex models, this camera is equipped with the Focal Plane Shutter, affording variations in exposures from "time" to 1/1000 of a second. The shutter is fitted with a safety device which prevents the winding of the curtain when the mirror is up; this insures the setting of the mirror, and prevents fogging of the film.

The focusing hood folds compactly in the top of the camera, and when extended is held rigidly in position. A tripod socket is fitted in the base of camera.

neid lightly in position. A tripod socket is need in the base of camera.	LOCAL A
IA Graflex Camera without lens	79.80
With Kodak Anastigmat Lens, f:4.5 No. 31	114.00
With Goerz Dogmar f:4.5 Anastigmat Lens No. 0	121.80
With B. & L. Tessar f:4.5 series Ic Lens No. 14	118.75
With Cooke ser. II f:4.5 Anastigmat Lens No. 171	143.60
Leather Carrying Case for 1A Graflex	5.70
Extra Lens Boards, each	.60

## The Compact Graflex

The Compact Graflex is the result of a well directed effort to supply a thoroughly efficient 3½x5½ and 5x7 reflecting camera in the smallest possible size consistent with the accuracy and rigidity of construction necessary in a reflecting

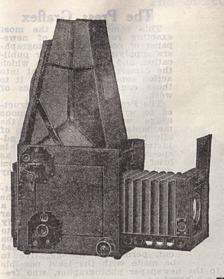
The Compact Graflex is fitted with the regular Graflex Focal Plane Shutter, permitting exposures of any duration from time to 1/1000 of a second. The back of the camera is constructed to take the Graflex Plate Holder, Graflex Film Pack Adapter, Graflex Magazine Plate Holder or the new Graflex Roll Holder.

Two tripod sockets are provided, one in the base of the camera for horizontal, and another in the left side for vertical negatives.

#### SPECIFICATIONS

ack lives as well as	314x51/2	5x7	
Dimensions when closed	7x4%x7	91/2 x7x91/3	
Focal capacity	10 in.	12½ in.	
Weight	5 1/2 lbs.	8 1/2 lbs.	
Size of lens board	31/4 x31/2 in.	4x4 in.	
Minimum focus of lens accommodated	6 in.	7¼ in.	

tonomilia murror is not tining with two tripod soc-	31/4 x 51/4			5x7
Compact Graflex without Lens, including one plate				
holder or one cut film holder	8 61.75			\$ 90.25
With Kodak f:4.5 Anastigmat Lens, No. 33		No.		142.50
With B. & L. Tessar Lens series Ic f:4.5 No. 15a		No.		148.70
With Goerz Dogmar f:4.5 Lens No. 2a	136.75	No.		178.75
With Cooke ser. IIa f:3.5 No. 164	166.95	No.		255.85
Graflex Roll Holder	10.69			13.30
Graflex Plate or Cut Film Magazine	14.50			16.50
Graflex Film Pack Adapter	4 25			715
Leather Case for Camera and roll holder or Cut film	D. IVO. LOVE .C			OF BUILDING
Magazine	7.85			12.85
Leather Case for Camera and Magazine Plate Holder				
Canal Case for Camera and Magazine Plate Holder	9.25			14.25
Graflex Plate or cut film holders, each	2.33			3.15
Extra Lens Boards, each				
Ground Glass Focusing Panel	4.05	rate a meter s	SHEET	5.48
Eastman Graffex roll film, 6 exposures. No. 52	.55	No.	54	.95
Kodak Cut film, per dozen	ACR. 77 POR	DESCRIPTION OF THE PARTY OF THE	VI STORY	1.23



### Telescopic Revolving Back Graflex and Revolving Back Graflex Jr.

These Cameras are fitted with a revolving back so that either vertical or horizontal pic-tures may be made without turning the camera on its side.

The Camera can be brought into position for action quickly and easily. Pressure on a release, located near the handle, opens the camera and brings the hood into position for focusing, while the lens cover opens automatically the instant the front is racked out. An exceptionally large front board permits the use of the most rapid Anastigmat Lenses, and sufficient bellows capacity is provided for lenses of long bellows capacity is provided for lenses of long enough focus to give the best pictorial effect. The Graflex Jr., has a depressed cup mount into which the lens fits without any special flange.

The large, roomy focusing hood is attached in such a manner that it may be readily detached from the camera, rendering the focusing screen

easily accessible for cleaning or replacing.

The side arms to which the front of the camera is attached on the 34x44 Telescopic Revolving Back Graflex, are not perforated as shown in the illustration.

## SPECIFICATIONS of each on to slift and timer

Dimensions when closed	6 % x 8 1/2	x4 1/4 5 1/2 x 6 7/4 4 in. 1 lbs.	4x5 8%x6%x' 12 in. 6% lbs.	7½ in.
	3 14 x 4 14	sible who	4x5	21/4 x 3 1/4
Telescopic R. B. Graflex without Lens, including one plate or cut film holder	\$ 65.55		\$ 71.25	\$ 50.35
With Kodak f:4.5 Anastigmat Lens No. 32	95.00	No. 33	110.20	No. 32 80.60
With Goerz Dogmar f:4.5 Lens, No. 1a	12555 98.80	No. 3 No. 16	159.75	No. 1a 110.35 No. 15 84.55
With Cooke ser. Ha f:3.5 Lens No. 163	153.55	No. 164	176.50	No. 163 138.35
Graflex Roll holder	9.75		10.69	9.25
Graflex Plate or Cut film Magazine	13.30	slaar Ene	14.50	11.40
Graflex film pack adapter		half-ane	2.35	1 3 8 11.65
Leather Case for Camera and roll holder or cut	otta. ist	Leng. 1	amalianu.	a With Rodan A
film Magazine	7.85	na srems	10.25	6.95
Leather Case for Camera and Magazine plate	9.00		10.95	7.85

### The Home Portrait Graflex

As its name implies, designed to meet the requirements for the Amateur or Professional making portraits in the home. It is equally efficient for all around work. A focal plane shutter is fitted making exposure as long as 1/2 a second up to 1/500. An important feature of the Home Portrait Graflex is the swinging front movement and the revolving back. Long Focus lenses may be used if desired. The minimum focal length accommodated is 9% inches though 91/2-inch lenses can be fitted in our own shop. The most successful Camera for portraiture. Size of picture 5x7. Plates, Roll Film and Film Packs may be used.

#### SPECIFICATIONS

Dimensions, 9%x9x10½ in.; focal capacity. 15 in.; weight, 11½ lbs.: size of lens board, 5x5 in.; minimum focus of lens accommodated, 9% in.

#### THE PRICE! year groups elitif guixloof lutitues

Home Portrait Graffex without lens, including one double plate holder	\$174.80
With B. & L. Tessar, Ic f:4.5, No. 17	285.95
With B. & L. Tessar, Ic f:4.5, No. 18	326.80
Fitted with a 9½-inch Velostigmat f:4.5 in bbl.	264.80
Fitted with a 12-inch Velostigmat, f:4.5 in bbl	296.30
	224.30
Fitted with a 1114-inch Verito f:4 in bbl	MARION



#### The Press Graflex

This camera meets the most exacting requirements of newspaper or commercial photographpaper or commercial photograph-ers supplying pictures for publi-cation, and the speed with which the camera can be brought into action especially commends it to those engaged in this class of

The Press Graflex is construct-The Press Graffex is constructed to withstand very strenuous usage without injury to the mechanism, or throwing out of alignment the most delicate adjustments, and the shutter is speeded up to give exposures as brief as 1/1500 of a second, as well as time exposures of any well as time exposures of any duration.

This camera is always instantly accessible for focusing, the top being opened by pressing a lever conveniently located near the handle; this automatically brings the focusing hood into position and the lens cover opens the instant the front is racked out, permitting the negative to be made with the least possible

loss of time. This is a feature of great value to the newspaper photographer, who frequently has little or no time to prepare for making a negative.

The telescopic side arms are of sufficient length to give a bellows extension of fourteen inches, while the special construction of this camera will permit the use of lenses having a focal length as short as eight inches. The shutter curtain is wound by one complete turn of a large milled head, and the number indicating the size of exposing aperture is reflected upward by a small wide angle prism. This, together with the fact that the tension apertures are plainly visible when the camera is in its normal position, makes it unnecessary to turn the camera on its side to see either its aperture or tension index.

#### SPECIFICATIONS

Dimensions, 11x8½x9¾ in.; focal capacity, 14 in.; weight, 11½ lbs.; size of lens board, 4x4 in.; minimum focus of lens accommodated, 8 in. 5x7

	PTICE
Press Graflex without lens, including one double plate holder	\$152.00
With B. & L. Kodak Anastigmat Lens, F:6.3, No. 5	
	220.85
With Kodak Anastigmat Lens F:4.5, No. 34	215.18
Leather Case to hold Camera and Plate Holder or Roll Holder	
Leather Case to hold Camera and Magazine Holder	18.05

#### THE V. P. SONNET

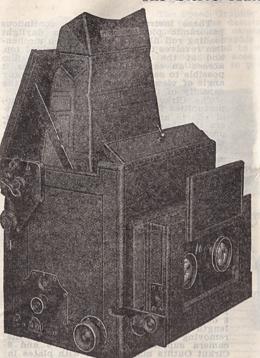


is one of the smallest and most rigid Vest pocket cameras in existence, measuring over all 31/2x1x24/5 inches, takes pictures 13/4 x21/2 inches (41/2 x6 centimeters), and weighs 101/2 ounces. Fitted with the Compur Shutter, exposures may be made in from 1 to 1/300 of a second, as well as time and bulb exposures. Focusing is done before or after opening the camera by nickle plated "Nettel" spring arms. The outside of the camera body, which is exceptionally well made of mahogany is polished and fitted with focusing scale besides a hooded ground glass back, with which the image may be observed. The V. P. Sonnet has tan leather bellows and is furnished with a metal frame permitting its use at the eye's level, a tripod socket for horizontal or vertical pictures and flexible cable shutter release. Its single extension allows focusing of

near objects to as close as three feet. The camera front is of black enamel. This most beautiful looking little camera may be used with single metal plate holders or film-pack adapter, both being interchangeable. Two bags of deerskin, one for the camera itself and another for six plate holders are included in the prices of the different outfits.

V. P. Sonnet with Carl Zeiss Lens, Series Ic f:4.5, 3 in. focus	05 00
1. 1. Sounds with carr Boiss Bons, Scritcs to 1.1.0, 5 In. 10cus	00.00
Extra metal plate holders, each	75
Processing Contraction of the Co	.10
Film Pack Adapter	2 00
	0.00
Carrying Case	5 50
	0.00

#### The Stereo Auto Graflex



There is probably no branch of photography that affords greater pleasure than the making of stereoscopic pictures, and the steadily increasing number of purchasers of the Stereo-Graflex indicates that stereo photography is growing in popularity.

The Stereo Auto Graflex Camera is a counterpart of the regular Graflex, in stereo form. This camera is constructed with a wide front to carry a matched pair of lenses for the production of stereoscopic pictures.

tion of stereoscopic pictures.

It differs entirely from any other form of stereo camera, not only in its unique design and perfect adjustment, but in the method of focusing. The hood at the top is practically a stereoscope, as it contains a pair of stereo prisms. These prisms are arranged to give the stereoscopic effect when focusing as the operators sees but operators. cusing, as the operator sees but one image on the ground glass screen—right side up—not inverted. The object is viewed just as one would see the finished stereogram through a stereoscope.

A rising front operated by a rack and pinion enables the operator to cut off the foreground when desired.

SPECIFICATIONS

Dimensions when closed, 84x9x834 in.; focal capacity, 8 in.; weight, 8 lbs.; size of lens board, 3x54 in.; minimum focus of lenses accommodated, 644 in.

THE PRICE 

dak Anastigmat Lenses, f:6.3, No. 3 ..... With matched pair of B. & L. Tessar Lenses, Series 2B F:6.3, No. 5..... Leather case for camera and roll holder, with lock and key.....

### The No. 0 Graphic Camera



Briefly described, the No. 0 Graphic is a high-grade fixed or universal focus film camera, fitted with a high speed Anastigmat lens and Graflex Focal Plane Shutter.

The extreme simplicity of operation and the fact that it is unnecessary to focus makes it possible for the merest novice in photography to secure a very large percentage of perfect results. With the lens working at its full aperture of F:6.3, everything up to within twelve feet of the camera is in. focus, and by using a small diaphragm this distance can be greatly decreased.

Probably the most valuable feature of the No. 0 Graphic is the fact that the negatives made with this camera show such microscopic definition and marvelous depth, that the negatives may be enlarged to many times their original size, and still retain all the brilliancy of a contact print. We provide a

camera, the No. 0 Graphic Enlarging Camera, by means of which No. 0 negatives may be enlarged to 6 1/2 x 8 1/2 or smaller. SPECIFICATIONS

Dimensions, 5x3 1/2 x3 1/4 in.; weight, 25 oz.

	Our Price	9
No. 0 Graphic Camera, 1%x21/2	\$45.60	)
Sole leather carrying case, 1%x21/2 -	3.80	0
No. 0 Graphic Film, 6 x-	.20	0
No. 0 Graphic Film, 12x	ald a Christic Camera complete finding Turner	ě.

#### Cirkut Cameras and Outfits



These instruments make a continuous panoramic picture on Eastman daylight loading roll film. A motor driven mechanism revolves the camera on the tripod top, and at the same time draws the film across an exposure slot. This makes it possible to secure a picture embracing any angle of view and of any length up to the capacity of the camera.

The Cirkut opens up innumerable op-portunities for unusually pleasing pictorial effects and there is probably no cam-era that has proved as great a source of profit to the photographer making outdoor

views and groups.
Cirkut Cameras are made in several sizes, Nos. 5, 10 and 16, etc., for film, 5, 6, 8, 10, 12 and 16-in. widths. Any length of negative up to about 12 feet with the No. 10 and 18 feet with the No. 16, may be made, the length of the negative being determined by the focal length of the lens used and the distance the camera revolves. on the tripod. A scale is provided by means of which the operator can determine the length of film required for any exposure.

Cirkut Outfits are supplied in two sizes, No. 6 and No. 8, the former being the 5x7 Cycle Graphic to which is fitted the 5x7 Cycle Graphic to which is fitted the Cirkut Attachment, while the No. 8 is an attachment fitted to a 6½x8½ Cycle Graphic. The No. 6 Cirkut Outfit takes the 6½-inch film and negatives up to 6 feet long may be made, and with the No. 8 outfit a negative 8 inches wide and any length up to 8 feet may be made. By removing the Cirkut Attachments, the camera supplied with the Nos. 6 and 8 Cirkut Outfits may be used with plates in the usual manner. Only Eastman Day-

the usual manner. Only Eastman Day-light loading Film is used. The image can be seen on the ground glass not alone full width but full length of the picture. The Cycle Graphic Cameras as supplied with Cirkut Outfits Nos. 6 and 8 are fully

described on another page of this catalog.

THE No. 5 CIRKUT CAMERA

Width of photograph, 5 in.; dimensions, 12x7x4 in.; length of bellows, 12 in.; weight of complete equipment, 19 lbs.; size of lens board, 2%x2% in.

one golderson to viloilan THE No. 6 CIRKUT OUTFIT

Specifications
Width of photographs, 6½ in.; length of bellows, 22½ in.; size of lens board, 3½x3½ in.; dimensions of camera with film attachment, 10x8x10% in.; weight of camera with film

dimensions of camera with min attachment, 10% in.

Prices

No. 6. Cirkut Outfit complete. Graphic Rectilinear Lens, Auto-shutter, one 6½
Inch Tripod Top, one No. 4 Crown Tripod, two Carrying Cases to hold complete equip-Our Price .....

THE No. 8 CIRKUT CAMERA Specifications

Width of photograph, 8 in.; dimensions, 11%x8½x10%; size of lens board, 4½x4½; weight of complete equipment, 14 lbs., length of bellows, 26 in. Prices

No. 8. Turner Reich Lens. Our Price..... THE No. 10 CIRKUT CAMERA
Specifications
Width of photograph, 10 in: dimensions Audit 2 Rectilinear. Our Price.....

of lens board, 4x4 inches.

THE NO. 16 CIRKUT CAMERA Specifications

Width of photograph, 16 inches.

Prices No. 16. Cirkut Camera complete, including Turner Reich Ser. 2 Lens, other equipment same as No. 10. Our Price......

The Speed Graphic

The Speed Graphic Camera is designed to meet the requirements of those desiring Focal Plane Shutter efficiency in a compact folding camera. The Speed Graphic is made of selected, kiln-dried mahogany, especially treated to withstand climatic changes. The front is large enough to accept the high speed Anasts mat lenses, and sufficiently firm to prevent vibration when the camera is used with the bellows extended to its full capacity. A piano hinge, extending the full width of the camera attaches

the camera body to the folding plat-form, which is framed and paneled to insure a maximum of rigidity without excessive weight. The extension track is made in the form of a frame, which is not only extremely rigid, but allows the lens to rest between the tracks when the camera is closed.

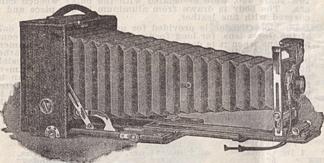
The Speed Graphic is covered with the best grade Morocco leather, and the bellows, which is of ample length to accommodate the single combina-tions of convertible lenses, is made of

black leather.

D.	PECIFICAT.	GMDI	Secret Brook To Library		
Dimensions 53 Focal capacity	3 ½ x4 ½ ½ x2 ¾ x6 ½ 10 in. 2 ½ lbs.	6½x4 12 314	1x6% 7x33 in. 1	x51/2 (x71/2) in. lbs.	5x7 8%x3%x9% 16 in. 5% lbs.
Size of lens board	21/2 x21/2 in.			x31/4 in.	3% x3% in.
Including	One Double	Plate	Holder 574	A0 76 III.	374 X374 III.
Speed Graphic without Lens With Kodak f:4.5 Lens With Goerz Dogmar f:4.5 Lens With B. & L. Ic Tessar f:4.5 With Cooke ser. IIa f:3.5 Leather Case Extra Lens boards Plate or cut film holder Eastman plate or film holder Film Pack Adapter	3	Price 14 x 4 14	Price 4x5 \$ 49.40 79.80 109.40 84.10 154.65 8.55 .75 1.90	Price 3½ x5½ \$ 49.40 88.35 118.90 93.60 154.65 .75 1.90	\$ 64.60 116.85 153.10 122.55 230.20 10.95 .95
Graflex Backs		12.85	12.85	1.65	
THE RESERVE THE PARTY OF THE PA		22.00	12.00	12.00	13.80

\*Carry Cases for Speed Graphic Cameras hold the camera and plate holders as follows: 34x44, 5 holders; 4x5, 6 holders; 34x54, 5 holders; 5x7, 6 holders.

## Premo Number 10



Designed to meet the requirements of the most advanced amateur and of the specialist, the Premo No. 10 is equipped with every known adjustment desirable in a hand camera. It has triple extension, long bellows from the property of th lows draw for telephoto work and copying, drop bed for wide angle use, rising and falling front, swing bed and reversible back.

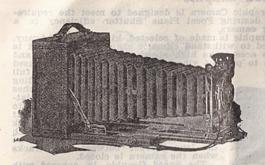
It takes films or plates with equal facility, is simple in all its parts and is finished in exceptionally handsome style.

SPECIFICATIONS

Box: mahogany, leather covered. Bed: mahogany, with highly polished black finish and with triple extension runway. Back: spring catch, reversible. Swing: vertical; rack and pinion actuated, with locking device. Front: rising and falling rack and pinion actuated with locking device. Lens Board: removable, size  $3\frac{1}{2}x3\frac{1}{2}$  in. Finder: Brilliant, reversible. Tripod Sockets: two. Carrying Case: sole leather, plush lined, with compartments for holders. Bellows: black leather; draw, 19 in. Dimensions:  $4x8\frac{1}{2}x8\frac{1}{2}$  in. Weight:  $5\frac{1}{2}$  lbs. Automatic Standard Clamp.

Goerz Tenastlerant Mull = 624" fours	U.A.I
	Our Tiles
Premo No. 10, with Planatograph Lens and Kodak Automatic Shutter, Car and Plate Holder	rying Case
Ditto, with Bausch & Lomb Kodak Anastigmat Lens, F:6.3, and Optimo Ditto, with Bausch & Lomb Protar VIIa Lens, F:7.	Shutter 130.50
Premo Film Pack Adapter Premo Plate Holders	235.00

#### Premo Number 9



Dimensions .....

This efficient camera is designed for the amateur who wishes an instrument of very wide scope. Taking films or plates with equal facility and with its complete

with equal facility and with its complete equipment and accurate, convenient, mechanical adjustments, it is a camera never before approached at the price.

The bellows is of black leather and has sufficient draw to permit the use of the single lens combination or a telephoto attachment of several magnifications. The extension plate is actuated by rack and pinion working with exceptional smooth-ness and provided with a simple locking

The standard is constructed of metal, is very rigid and incorporates a rising and falling front of great latitude. This in connection with the swing bed construction makes it an easy matter to take pictures of tall buildings, and the like, without tipping the camera with its attendant dis-

tortion of the picture. The Lens board is removable, and the finder is the new Premo collapsible brilliant.

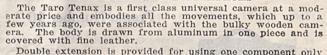
#### SPECIFICATIONS

Box: Kiln-dried wood, covered with fine grain leather. Bed: Finished in black, and supplied with rack and pinion for fine focusing, and swing arrangement. Back: Spring catch, reversible. Standard: Made of metal, with rising and falling front. Finder: Brilliant, reversible, collapsible. Tripod Socket: Carrying Case, with compartments for holders. Bellows: Black leather; draw 3½x5½, 13 in.; 4x5, 13 in.; 5x7, 15½ in. Dimensions: 3½x5½, 3x7x7 in.; 4x5 in.; 3x7x7 in., 5x7, 2½x8½x8½ in.

Prios	4x5 Our Price	34 x5 1/2 Our Price	5x7 Our Price
Premo No. 9, with Planagraph Lens, Kodak Automatic Shutter, Case and Holder  Ditto, with Kodak Anastigmat Lens F:7.7.  Ditto, with Kodak Anastigmat Lens F:6.3 and Optimo Shutter Ditto, with Bausch & Lomb Anastigmat Lens F:6.3 and Op-	\$36.00 40.50 58.50	\$36.00 40.50 58.50	\$45.00
timo Shutter Premo Film Pack Adapter Premo Film Pack 12 exposures Premo Plate Holders	67.50 1.65	72.00 1.65 1.10 1.40	94.50 2.35 1.90 1.65

#### Goerz Taro Tenax

#### FOR PLATES AND FILMPACKS



Double extension is provided for using one component only of the Goerz lens, for long focus work, or for using the complete lens when it is desired to copy in full size. The camera plete lens when it is desired to copy in full size. The camera is provided with a rising and cross front, and real leather bellows are fitted. The focussing screen has a collapsible hood. Focussing is performed by rack and pinion adjustment and a focussing scale is supplied so that distances can be focussed up to 3 ft. by scale. The Compur shutter is fitted which gives speeds up to 1/150, 1/200 or 1/250 of a second in accordance with the size fitted, in addition to time and bulb exposures. The Compound can also be supplied.

The metal holders are supplied with the camera.

and mother norders	are supplied with	the Camera.
31/4 x 4 1/4"	3 1/2 x 5 1/2 "	5x7"
¼ pl.	(Postcard)	(Half Plate)
1¾ x4x5½"	2x5x73/8"	21/8×6×83/4"
1 lb. 15 ozs.	2 lbs. 11 ozs.	4 lbs. 7 ozs.
5"	6 1/2 "	81/4" and 7"

The Taro Tenax cameras are supplied fitted with any of the following lenses and shutters:

	O74X174 (Qualter Flate)
	IN COMPUR OR COMPOUND SHUTTER
Goerz	Tenastigmat F:6.3 = 5" focus
Greerz	Double Anastigmat Dagor F:6.8 = 5" focus

Goerz Double Anastigmat Dagor F:6.8 = 5" focus
Goerz Dogmar F:4.5 = 5" focus
3½x5½" (Post-card)
IN COMPUR OR COMPOUND SHUTTER
Goerz Tenastigmat F:6.3 = 6½" focus
Goerz Double Anastigmat Dagor F:6.8 = 6½" focus
5x7" (Half Plate)
IN COMPUR OR COMPOUND SHUTTER
Goerz Dogmar F:45 5 8½" focus

Goerz Dogmar F:4.5 8¼" focus Goerz Double Anastigmat Dagor F:6.8=7" focus Goerz Double Anastigmat Dagor F:6.8=8¼" focus All cameras are fitted with double extensions.

### Taro Tenax-for Plates and Filmpacks

AND ASSESSED BORRERS	314 x414	3½x5½	No. 4	-5x7
With Dagor, F:6.8	\$87.00 81.00	\$96.00	7" S120.00	Dogmar
With Tenastigmat, F:6.8	60.00	72.00	8 1/4 " 128.00	\$141.00
Extra Plate Holders	1.75	1.35	4.50 4.50	
Leather Case	5.25 3.00	6.00 3.00	8.25 3.00	
Adetal Lilbon	0.00	3.00	0.00	**** /**

### Folding Cartridge Premos

Takes pictures ......24x34 24x44 2%x4% 34x542
These are very compact little roll film cameras with rounded ends, graceful in all their lines, and slipping readily into the pocket. Alike in general appearance and operation, they differ in the size of the pictures they make and slightly in lens and shutter equipment.

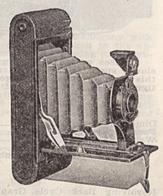
They are constructed on a new and very simple principle for loading and unloading in daylight. There is no complicated mechanism or adjustment, just a simple camera for every-day work, properly equipped for amateur picture-making under all ordinary conditions where the average amateur would care to use a camera. They are neatly and carefully finished and covered with a serviceable, attractive grade of imitation leather. grade of imitation leather.

These are excellent cameras for home portraiture when

fitted with Kodak Portrait Attachment.

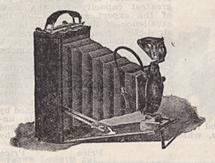
#### SPECIFICATIONS

Lens, Meniscus Achromatic. Shutter, Kodak Ball Bearing. Reversible finder, two tripod sockets, automatic focusing lock, black leather bellows. PRICES



No.: Our Pr	No. 2A ice Our Price	No. 2C Our Price	No.3A Our Price
Folding Cartridge Premo with single Lens and Kodak ball bearing Shutter \$7.2 Ditto, with R R Lens 9.0		\$10.80 12.60	\$12.15 14.40
Cartridge Premo Carrying Case	5 1.75	1.85	1.90
Films, 10 exposures Films, 12 exposures Kodak Portrait Attachment .7	2 .72	.71	.85

### Premoette Juniors



In the Premoette Juniors are offered the smallest possible practical cameras for two of the most popular sizes of amateur pictures. They are just a trifle larger than the pictures they make, and they are so easy to operate, so well manufactured, so carefully equipped and tested that the merest beginner in photography, by using a Premoette Jr., can get the best of pictures from the start.

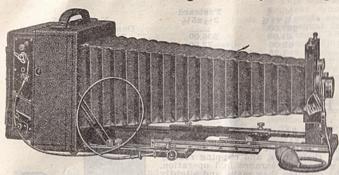
The No. 1 regular model has finger release shutter only, the No. 1A is fitted with cable release with all equipments. Illustration shows the No. 1A.

#### SPECIFICATIONS

Premoette Junior Regular. Capacity: 12 film exposures. Dimensions: No. 1, 1\(\frac{1}{2}\x3\x4\%\) in.; No. 1A, 1\(\frac{3}{4}\x3\frac{4}{4}\x5\%\) in.

								2½x3½ Our Pri
Premoette	Jr., with	Meniscus	Achromatic	Lens a	d Kodak	ball h	earing	Shutter e 7
Ditto, with	Kodak A	inastigmat	Lens F:7.	·			T T	13
litto, with	Planatog	raph Lens						9,
Ditto, Grai	n leather,	(for the s	pecial)				Land to be	2.
carrying C	ase sole l	eather (for	Reg. Jr.)					2.
Premo Bill	n Pack, 1	z exposure	9		Table of the State		THE RESERVE	
Kodek Por	troit Atts	chment		***********				

### Revolving Back Cycle Graphic



For many years the Graphic Camera has held the reputation of being the foremost camera of its type. For the technical worker the Revolving Back Graphic is particularly valuable, as its rigid construction and accurate adjustment make it indispensable for those engaged in scientific research, involving the application of photography.

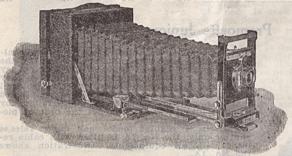
Lenses working at a larger aperture are necessarily much larger than those having a slower speed. Graphic Cameras are constructed with a view to accommodating lenses of this type, an especially large and rigid front being provided to accept the largest Anas-

#### SPECIFICATIONS

	5x7	61/2 x 81/2
Dimensions	1% x4 % x9 1/4	10%x4%x10%
Focal capacity	22½ in.	26 in.
Weight dated to be	6 1/4 lbs.	7½ lbs.
Size of lens board	3 1/8 x 3 1/8 in.	4 % x 4 % in.
Including double plate holder and cole leather	carrying cage	

5x7 Our Price Revolving Back Cycle Graphic with Graphic Rectilinear Lens and	6½x8½ Our Price
Automatic Shutter \$105.00 With B. & L. Kodak Anastigmat Lens, F:6.3, and Volute or Optimo No. 5	\$120.65 No. 6
Shutter	183.65
With B. & L. Protar Lens, Series VIIa, and Volute or Optimo Shutter 203.30 With Turner-Reich Series, II, F:6.8 and Optimo Shutter	238.45 210.00
Extra plate holders	2.60

#### Series V Korona For Plates and Film Packs

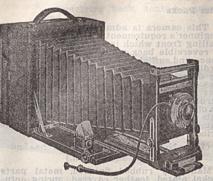


This is a beautiful camera representing in every way the finest features of construction, the greatest capacity for the work greatest capacity for the work of the expert amateur and the excellence of finish which is desired by those who appreciate good workmanship. The Series V Korona is a long focus camera, equally well adapted to wide angle work, and it may be operated quickly and conveniently for any quickly and conveniently for any purpose, being especially suited for pictorial photography, copy-ing and telephoto work. The triple bed extension is obtained by a center section which is un-

locked 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.

MENTERS OF THE PARTY OF THE STATE OF THE STA	Price	Price
	4x5	5x7
Series V Korona, Rapid Convertible Lens F:8, Betax Shutter	336.00	\$43.20
Series V Korona, Rapid Rectigraphic Lens F:8, Betax Shutter	47.00	57.20
Series V Korona, series 2 Turner-Reich Anastigmat F.6.8 Lens with		
Universal or Optimo Shutter	85.45	102.35
Series V Korona, without lens or shutter	28.80	36.00
Auxiliary Wide Angle Bed	2.85	3.30
Ilex Acme Shutter, extra	3.50	4.00
Plate or Film Holders	1.12	1.35
Korona Adapter for Film Packs	1.12	2.25
Series V Stereo Korona, 4x5 Rapid Rectilinear Lenses F:8 T. I. I	3. Automatic	Stereo
Shutter, carrying case and one holder. Our special price		_\$95.00

### Series IV Korona



The beginner soon learns that the more simple cameras previously described are unsuitable for advanced work and that a swing back is a useful adjustment at times which becomes essential in architectural work to correct the distortion of the image produced by pointing the camera up or down. The Series 4 Korona is a complete camera having all the required adjustments and conveniences for indoor and outdoor photography. graphy.

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 ap-pearance of this camera besides being more sub-

stantial than the usual construction of a narrow metal bed plate.

SPECIFICATIONS

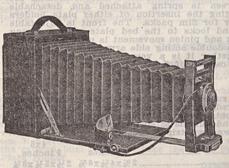
Mahogany with rubbed finish, metal parts nickel plated, leather covered, leather bellows, spring actuated detachable ground glass frame, automatic swing back, rising and falling front with rack and pinion, reversible back, diagonal rack and focusing pinion, detachable lens board, adjustable front lock, brilliant finder, horizontal level, piano bed hinge, tripod sockets. Bellows length ..... 12 inches 16 ¼ inches 3 ¼ x6 ¼ x6 ¼ 3 ½ x8 x8 ...... 2 lbs., 11 ozs. 3 lbs., 11 ozs. Dimensions .... Weight .....

Betax Shutter with Antinous release

#### OUR PRICES

Including sole leather case and one plate holder	THE BUILDING	
Series IV Korona, Rapid Convertible Lens	4x5 \$28.80 59.70	5x7 \$36.00 71.10 92.25
Series IV Korona, without lens or shutter	21.60	28.80 1.35
Shoulder strap Series IV Stero Korona 4x5 Rapid Rectilinear Lenses F;8, Regular Stereo rying case and one holder. Price \$72.50.	75	2.25 1.00 with car-

#### 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 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 cam-era 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.

SPECIPICATIONS

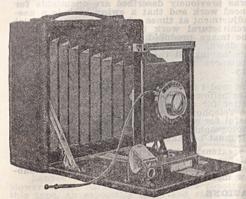
Mahogany with rubbed finish, leather covered, metal parts, nickel plated, spring actuated detachable ground glass frame, detachable lens board, reversible back, rising and falling front, leather bellows.

Bellows LengthBERNARD BROWN AND AND AND AND AND AND AND AND AND AN	4x5	5x7 11 in.
Dimensions 3	x64x64	
		8 lbs. 2 oz.
Lens Board	2x2 in.	2%x2%
Gammax Shutter, with Antinous release Including leatherette covered case and one plate holder	Our 4x5	Price 5x7
Series II Korona, Rapid Rectilinear Lens	. \$18.90	\$23.40
Series II Korona, without lens or shutter	14.40	18.00
Plate holders	1.12	1.35
Korona Adapter for film packs	1.58	2.25

Lens Boards

### Series I Korona

For Plates and Film Packs



This camera is admirably adapted to the beginner's requirements. It has a rising and beginner's 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 the property of 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

(Like No. 2 camera except it has no Rack and Pinion.)

Mahogany rubbed finished, metal parts nickel plated, leather covered, spring actu-ated, detachable ground glass frame, rising and falling front, reversible back, brilliant finder, plano hinge, tripod socket. Wollen-sak Ultro Shutter with antinous release.

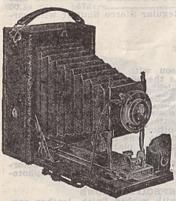
entitlet and white shad entwe allemojus shier seems bundle o	4xb	DXT
Bellows Length	7 inches	9 inches
Dimensions	3x61/x61/4	31/4×8×8
Weight	2 lb., 2oz.	2 lbs., 14 oz.

#### Including leatherette covered case and one plate holder

Betax Shutter with antinous released with the still ors	ur Price	Our Price 5x7
Series I Korona, Rapid Rectilinear Lens, Deltax Shutter	\$16.20	\$20.70
Series I Korona without lens or shutter.		16.20
Plate holders	1.12	1.35
Korona Adapter for film packs	1.58	2.25
Shoulder strap	75	1.00

### 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 matripod. The body frame and bed are made of ma-hogany highly finished which is lighter than metal, quite as serviceable and certainly more beautiful. The metal parts with one exception of the front are nickel plated and polished. The back frame containing the focusing screen is spring attached 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 plane 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.

Total Control of Contr	314 x5 1/4	4x5
Bellows length	9 inches	9 inches
Dimensions	%x4%x6%	21/x51/x61/
Weight	24 oz.	28 oz.

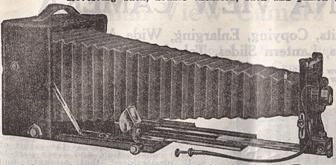
#### Deltax Shutter with antinous release

#### Including one plate holder

SO S RdI S RO A RdI S R	ur Price	Our Price
Korona Petit, Rapid Rectilinear Lens		\$13.50
Korona Petit with F:7.5 Anastigmat Lens Korona Petit, Series II Turner-Reich Anastigmat, Betax Shutter	. 58.50	26.75 58.50 3.50
Carrying case, for camera and four holders	1.12	1.12

124 So. Wabash Avenue, CHICAGO, ILL.

Seneca Camera No. 9 Revolving back, double exension, rack and pinion swing in rear



Seneca No. feature bodies every known to the camera art. It is a superb instrument from every point of view, and stands supreme as the acme of perfection in camera making. It is constructed in the best possible manner of selected mahogany, ebony finish, dove-tailed together and handsomely covered with walrus

work being of brass, handsomely nickeled and polished. For copying or other work required of long focus lenses, this instrument is especially adapted. The Double Extension Bed is made on the very latest principles, one pinion only being used to rack out both beds, the top bed or extension locking itself automatically to the bottom bed as the pinion is turned forward, and unlocking automatically as the camera front is racked back to position.

The camera is fitted with the Auto Automatic (dustproof) Shutter and Triple Convertible Rapid Symmetrical Lens, F.3. Its combinations may be used together or separately. The rear combination of the lens used alone doubles the size of the object. A still larger object may be obtained by removing the rear combination entirely and using the front lens in the rear of the shutter.

THIRD TO THE			DIMENSIONS		
so chance	Focal	Camera	Carrying	Capacity	Size
Size of	Capacity	Closed	vana Case of	Carrying	Lens
Camera	Inches	Inches	Inches	enovall and a Case How How ever	Board
4 x5	wel16: 521105	61/2x61/2x4	121/2 x4 1/4 x7 1/4	Camera and 7 Holders	24x214
314 x51/2	171/	7 x7 x41/4	1214 x5 x7 1/4	Camera and 7 Holders	214 x21/4
5 x7	221/2	8 34 x 8 34 x 4 34	15%x4%x9	Camera and 7 Holders	3 x31/4
Pr	ice includes	Camera, Lea	therette Carrying	Case, Seneca Simplex Plate	Holder,
Manual	of Photograp	hy and Instru	ction Book.	wide angle work we suggest to	20.4
beta shie	the Tiens bo	To Sule Gental S	OUR PRICE		Satagoo's
ETSY, STA		The converse		(3A Post C	ard)

n this carrier in all sizes. The carvas covered ossess are		(3A Post	Card)
Seneca Camera No. 9 with Rapid Symmetrical Convertible Lens.	4x5	3x51/2	5x7
speed F:8 and Betax (dustproof) Shutter		\$49.50	\$54.00
Seneca Camera No. 9 with Wollensak Anastigmat Lens, speed			
F:7.5, and Betax Shutter	54.00	54.00	67.50
Seneca Camera No. 9 with Velostigmat Series IV Anastigmat Lens,			
	72.00		85,50
Seneca Camera No. 9 complete but without Lens and Shutter	44.10	44.10	46.80
Supplementary Wide Angle Bed	.95	.95	.95
Extra Simplex Double Plate Holders, each	1.35	.90	1.50
Seneca Film Pack Adapter	1.65	1.65	2.35
Seneca Portrait Attachment	.75	.75	.75
May and May on a season a season as the seas			The same to be a second

### Seneca Camera No. 8

#### Revolving back, single extension and swing back

#### (REVOLVING BACK)

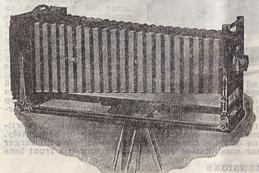
An outfit for the professional and advanced amateur at a moderate price. The exten-An outht for the professional and advanced amateur at a moderate price. The extension of the bed operated by rack and pinion, the supplementary wide angle bed, the rising, falling and laterally sliding front, the swing back and the revolving back provide a wide range of adjustments. With the long bellows, the rear combination of the lens may be used separately almost doubling the size of the image. Vertical or horizontal pictures without altering the position of the camera itself are made possible by the use of the Seneca Revolving Back; it is removable, but when in position remains securely attached to the camera box. Made to take the Film Pack Adapter. Price includes Case and Simplex Plate Holder Plate Holder. DIMENSIONS

Size of Camera 4x5 3½x5½ 5x7	Focal Capacity, Inches 11 % 12 ½ 16 %	Camera Closed, Inches 6½x6½x3½ 7x7x3¾ 8¾x8¾x3¾	Carrying Case, Inches 12x4x7½ 12¼x4½x7½ 15½x4¾x7½ ur Price	Capacity Care Case Came and S Holde	ra ix	Size Lens Board 2 ½ x2 ½ 2 ½ x2 ½ 3 x3 ½
		etrical Lens F:8	and Betax Shutt		3x5½ 31.50	5x7 40.50
Beta	x Shutter			36.00	36.00	54.00
Speca N	ed F:6.3 and Optin	no Shuttert without Lens a	nd Shutter	49.50	49.50 27.00	76.50 34.20

# KORONA VIEW CAMERA

For Views, Portraits, Copying, Enlarging, Wide Angle, Interiors, Groups, Lantern Slides, Telephoto Work

The 4x5 size is a new member of the Korona View family.



Also made in sizes 5x7—6½x8½—8x10—11x14.

The Korona View is comparably the best of its class and it will stand up under constant hard use as the result of careful construction, and every part is well proportioned that strength and rigidity are secured without any unnecessary weight. The appearance of these Cameras has been immensely improved by changing the finish to walnut. The rising front and vertical swing both operate with rack and pinion. The action of the ground glass frame is the most distinctive and valuable feature of this camera. The ground glass frame is pivoted in the centre and the springs have less than half the usual distance to move, so there is no chance

of straining or weakening them, while the holder may very easily be inserted or removed. We believe you would give the Korona View the preference for this feature alone. Another convenience is the bed screws which fall right into place and merely require a few turns to lock the bed sections together. The bed braces furnished with the 6½x8½, 8x10 and 11x14 sizes give great rigidity and strength to the bed when the camera is fully extended.

For wide angle work we suggest folding the front bed up against the front standard and focusing from the rear. We also direct attention to the large size of the Lens boards and exceptional bellows length of this camera in all sizes. The canvas covered cases are very strongly made and lined with canton flannel. A long case to take camera and six holders is supplied with the 5x7, 6½x8½, and 8x10 sizes. A short case for camera and three holders in 11x14 size. The short case is optional with the other sizes.

#### SPECIFICATIONS

Metal parts are 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.

	4x5	5x7	61/2×81/2	8x10	11x14	7x11
Lens boards	4x4	41/2×41/2	4 1/2 x 4 1/2	6x6	6 % x 6 %	6 % x 6 %
Weight	41/2 lbs.	5 1/2 lb.	7 lb.	9 lb.	15 lb.	10½ lb.
Bellows length	20 in.	24 in.	28 in.	32 in.	42 in.	34 in.

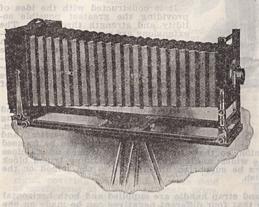
#### PRICES

#### Including Case and One Holder

ALTERNATION OF THE PROPERTY OF	stano mmm	-	MERSI			
while will be also without out but	4x5	5x7	61/2×81/2	8x10	11x14	7x11
Korona View Camera without Lens or Shutter	\$ 27.00	\$28.80	\$ 31.50	\$ 34.20	\$ 52.20	\$ 41.40
Ditto with Rapid Convertible Lens f:8 in Universal Shutter; 11x14 has Gen-		reintuso lei	tion of th			
eral Shutter	42.30	47.80	59.40	67.50	108.90	74.70
Ditto, with Rapid Rectigraphic Lens f:8 in Universal Shutter; 11x14 has						Piate E
General Shutter	53.70	60.60	72.90	84.00	129.20	91.50
Ditto, with ser. II f:6.8 Turner-Reich Anastigmat Lens in Universal Shut-					TI.	Camera
Ditto, with ser. II f:4.5 Velostigmat	86.00	95.75	130.00	151.70	232.30	158.90
Lens in Betax Shutter; 11x14 has	10	% 8x N		Her Ste	le Our	
Studio Shutter	69.60	79360	128.70	165.20	262.70	171.20
Lens in Studio Shutter	66.60	76.10		115.20	156.70	122.20
Plate or Film Holders	1.13		1.58	1.80	4.50	
Leather Bellows, extra	\$2.00	\$2.50	\$3.50	\$4.00	\$4.00	\$5.00
Lens Board, specify size	.72	.72	.72	.85	.85	.95
The 4x5 Korona View will be supplied	at listed	price w	ith the ch	oice of	a reversit	le back
for 4x5, 31/4 x51/2 or 31/4 x41/4 holders.	and Shut				No. 8 cor	
31/4x51/2 Back for 4x5 Korona View		0.14 10.00	tos asa s	aimaggas	in madia.	\$4.50

## Eastman View Camera No. 1

Improved Model of Empire State and Century View Camera



Anyone who is in the market for a substantial, reliable view camera at low cost, will find the Eastman View Camera No. 1 of very exceptional value for the money.

The camera has no complications, it is built for practical service, and its various adjustments are such as to work conveniently and easily.

It has double extension, giving the camera a very long draw of bellows. Both front and back are actuated by rack and pinion, so that the camera may be focused from either end, and the back can be racked up as close to the front as desired. This provides for the use of lenses of the widest angle, without the chance of the front

extension cutting off the rays to the lens.

The camera is provided with rising and falling front of great latitude, which is actuated by rack and pinion. The front board is removable and is large enough to accommodate any lens.

Both horizontal and vertical swings are provided, and the back is reversible and furnished with a vertical cut-off board, so that two negatives may be made on one

plate, if desired.

The bellows is kept up in place at all times, without sagging, by a spring arrangement attached to the inside bellows frame. This requires no attention by the operator as it works automatically and folds with the bellows when the camera is closed.

A strap handle and plumb level are supplied, and the camera folds up compactly when not in use. The carrying case is of canvas and is made to accommodate camera, six plate holders and a tripod.

Particular attention is called to the Eastman View No. 1 Complete Outfit.

Bellows Draw, 5x7, 22½ inches; 6½x8½, 26 inches; 8x10, 29 inches. Weight, 5x7, 6 pounds; 6½x8½, 8 pounds; 8x10, 9½ pounds. Size of Lens Board, 5x7, 4½x4¼ inches; 6½x8½, 4¾x4¾ inches; 8x10, 4¾x4¾ inches. Carrying Case, long style canvas, combination style, with compartments for camera, holders and tripod.

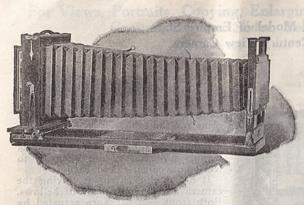
#### The Price

Eastman View Camera No. 1 (Improved Model of Empire	6½x8½	8x10
State and Century View) with case and Holder \$32.40	\$ 35.00	\$ 36.00
Same, with Velostigmat, Ser. IV, F:6.3, Betax Shutter 67.05	86.30	106.20
Same, with Rapid Rectilinear Lens, Betax Shutter 45.90	57.50	64.80
Same, with Velostigmat, Ser. II, F.4.5, Betax Shutter 83.70	134.00	168.30
Extra Lens Boards	.65	.70
Eastman View Plate Holders 1.65	1.75	1.85
Eastman Portrait Film Holders 1.65	1.75	1.85

#### 11 x 14 View Camera

NOTE—When an 11x14 View Camera is desired we will supply the well known Empire State View Camera. This instrument is of most substantial construction; bellows draw 37 inches. Front and back focus. Price, with carrying case and one plate holder, \$67.50

### Eastman View No. 2



All our experience in view camera making, all the information that we have been able to collect of the needs of the view camera worker, have been put into the proposition of providing in this model a view camera as near to perfection as human ingenuity can devise.

It is constructed with the idea of providing the greatest possible solidity and strength throughout. The extensions are extra thick, the standard is very large and will furnish an absolutely rigid support for the heaviest lens. Corners are dove-tailed and reinforced by brass angle pieces, and the metal parts are all made of the best quality of brass, fully lacquered.

The front board is removable and very large. The rising and falling front is actuated by rack and pinion. The camera has both vertical and horizontal swing and can be focused

from either front or rear by rack and pinion, so that the back can be racked up as close to the front as desired. Thus lenses of the widest angle can be used. A sliding tripod block is provided so that the camera can always be supported directly above the tripod or the weight distributed, as the operator may wish.

The back is reversible, a plumb level and strap handle are supplied and both horizontal and vertical cut-off boards are furnished so that four different negatives can be made on one plate if desired. The bellows of this camera are made of genuine leather and a spring arrangement working automatically prevents it from sagging at any time.

The method of locking extensions is very convenient, not by means of the old-fashioned, long threaded screw, but by a specially constructed device which locks firmly by merely being pushed in and given a quarter turn. The back extension, which is detachable, in addition to this device is further strengthened by two clamp catches which hold it absolutely

Especial attention is called to the 7x11 size—a proportion which will prove very attractive to many workers. This camera has an especially wide front board with sliding arrangement which permits the centering of the lens on either half of the 7x11 plate when it is desired to make two exposures on one plate. The swing of this model is of unusual latitude to obtain its fullest swing, for architectural work.

Anticipating that most photographers will prefer to use Eastman Portrait Film with this size camera, we will supply the Eastman Portrait Film Holder with it unless otherwise specified.

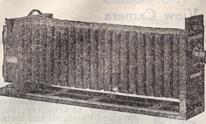
The camera is made of mahogany and hand polished, with the exception of the extensions, which are of cherry on account of its greater strength.

Specifications—Bellows: draw, 5x7, 23 in.; 6½x8½, 26½ in.; 8x10, 29½ in.; 7x11, 31 in. Weight: 5x7, 7 lbs.; 6½x8½, 10½ lbs.; 8x10, 11½ lbs.; 7x11, 15½ lbs. Size of Lens Board: 5x7, 4½x4½ in.; 6½x8½, 6x6 in.; 8x10, 6x6 in.; 7x11, 6½x3¼ in. Carrying Case, canvas, combination style, with compartments for camera, holders and tripod. All operating nuts on the right side, binding nuts on the left hand side.

#### OUR PRICES

Description of the same state of the same	5x7	01/201/	8x10	7-11
		61/2 x 81/2		7x11
Eastman View No. 2 with Case and Holder \$ Eastman View No. 2 with Symmetrical Lens,	41.40	\$ 43.20	\$ 45.00	\$ 49.50
Betax Shutter	56.10	67.45	75.90	80.25
Velostigmat Ser. IV Lens in Betax Shutter	76.05	94.50	115.20	119.20
Eastman View No. 2 Case and Holder but with	10,03	34.30	113.20	119.20
Velostigmat Series 1, F:6.3 Anastigmat Lens	88.65	115.20	135.90	140.40
Eastman View No. 2 Case and Holder, but with				
Velostigmat Series 2, F:4.5 Anastigmat Lens	92.70	142.20	177.30	181.80
Eastman View No. 2 Case and Holder, but with Turner-Reich Series 2, F:6.8 Anastigmat	Aliett			
	00.35	130.05	145.80	150.35
Extra For Ilex Acme or Optimo Shutter in	HARRY Car	T LIVET no	HENT WILLIAM	COM IN
place of Betax	7.00	7.00	7.00	7.00
Plate Holders	1.65	1.75	1.85	1.85
Portrait Film Holder	1.65	1.75	1.85	1.85
Extra Lens Board	.90	1.10	1.10	3.00
Extra Della Dould	.50	1.10	-th. 100	3.00

### F. & S. Commercial Camera



The F. & S. Commercial Camera is designed to meet every requirement of the commercial photographer, and is constructed so that lenses having extreme focal length, as well as those of short focus, may be utilized. Every adjustment is provided—extreme rising and lowering front actuated by rack and pinion, double swing back adjustment with excessive swing operated with quick thread screw, and extra long draw of bellows with unique bellows support. The front of the bellows being rectangular and the full height of the camera, permits the fitting of a from with extreme rising and lowering movement, without the possibility of the bellows.

The extension bed is divided into four sections are fitted with tripod plates, so that when the camera is made from selected mahogany and cherry, all wood finished in hard oil and metal parts in lacquered polished brass.

Focal capacity, \$x10, 42 inches. Dimensions when closed, \$17x8\frac{1}{2}x13\$. Size of Lens Board, \$x8.

Size of

Lens Board

4x6 4x6

of Lens Board, 8x8.

THE PRICE	8x10
Commercial Camera, including Carrying Case and one Sterling Plate Holder	103.50
Extra Sterling Cut Film Holders, each	3.25
Extra Lens Board, each	3.25
Don't Dourd, Cacil	.75

#### Seneca Competitor View Camera

For scientific purposes, as well as general photography, the Competitor camera has found great favor. It is light in weight, compact, strong and rigid, covering as it does a wide field of usefulness at a very moderate price. Among distinct advantages, it has a re-versible back and both horizontal and vertical swings in the rear. The back focus is operated by a rack and pinion and allows any width of angle lens to be used without the front obstructing the view. The camera also possesses two tripod plates for properly balancing the instrument; has a rising and falling, also sliding front; again, the front is made wide enough so that stereoscopic lenses may be used if desired. The Competitor equipment includes a neat canvas carrying case which accom-modates the camera and three double plate holders.

Camera Box and Bed, mahogany finish

polished. Metal Parts, brass polished and lacquered. Front, wide, rising and falling, also sliding. Lens Board, removable, Bellows, leatherette, lined with gossamer cloth.

With Double Sliding Front, Carrying Case and one Seneca Improved Double Plate Holder: Size of Focal When Folded Camera Capacity or Closed 5x7 61/2x81/2 5x10 x1114 5x1114x124 14 1/2

			Adrio
SE 338 CO PER OF SEE COMES ASSET TO PRICES			
	5x7 Price	6½x8½ Price	
Competitor Camera complete as above	\$25.50	\$ 27.20	
Competitor fitted with Rapid Symmetrical lens, speed F:8 and Betax	NAME OF	F-810(T) 0	100
shutter	39.95	50.15	57.80
Competitor fitted with Velostigmat Ser. IV Anastigmat lens, speed F:6.3		mat ser,	
and Betax shutter	58.90	77.40	97.90
Competitor fitted with Velostigmat Ser. II f:4.5 Anastigmat lens in		SAT THE SK	
Optimo shutter. 8x10 has Betax shutter	80.30	138.40	173.40
Competitor fitted with Turner-Reich Ser. II f:6.8 Anastigmat lens in	1		
_ Ilex Universal shutter			143.50
Extra improved double plate holders, each	1.50	1.65	1.80

Selecting a Camera—Kodak—or Lens

If you are in doubt about what Camera, Kodak or Lens you should select for your purpose, we will gladly help you. Just let us know for what purpose you wish to use the Camera, Kodak or Lens and about how much you wish to invest. We will then furnish you with a list of the best equipments the sum you mention will buy. You have the privilege of testing the outfit you purchase for ten days. If you are not satisfied at the end of ten days, you can return your selection for some other, or we will refund your money.

its position.

Size of

Camera

5 x 7

Length of

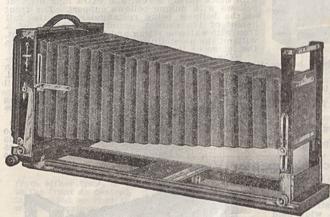
Draw or Focal

Capacity

23½ in.

### New Improved Seneca View Camera

The Outfit for Home Portraiture and General Viewing With Back and Pinion Back and Pront—Jarless Back



This camera is noted for its rigidity more than all else. It is made of selected mahogany and cherry, dull ebonized finish, all the metal parts being of extra heavy gauge brass, handsomely nickel plated. It is reinforced throughout, insuring maximum strength and rigidity. It is also equipped with both horizontal and vertical swings, operated by rack and pinion, and setscrew; both swings are cen-tered. It has a triple extension bed, double grooved, fitted with brass shoes, admitting of the most accurate adjustments, and insuring ease of manipulation. The camera is provided with camera is provided handle and plumb bob. The back is reversible and

Number of

With Camera

Holders Regular

Case Will Carry

Long Canvas

1.65 1.80

is equipped with the Sliding Division, which permits the operator to expose all or any part of the plate, as he chooses. The bellows is a new type, extra quality, gossamer lined. All sizes are supplied with a Jarless Back, which permits loading after the instrument is focused without the danger of the minutest deflection from

Exposure of a part of the negative at the will of the operator is possible by means of the Seneca Sliding Division; the Single exposing one-half at a time, the Double one-quarter. The Double may be easily converted into a Single Sliding Division. The sections of either may be readily removed to expose the entire plate at one time.

The price includes camera, canvas carrying case and one double plate holder.

Dimensions

of Camera

4 1/2 x 10 1/2 x 11 1/4

#### DIMENSIONS

Weight

6 1/2 lbs.

Dimensions of

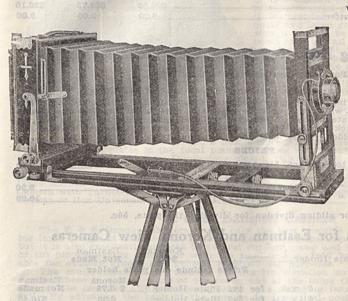
Lens Board

414×414

6½x 8½ 8 x10 11 x14	26 in. 30 in. 39 ½ in.	5 x11 % x12 % 5 % x13 % x14 % 6 % x17 % x19		4 % x 4 % 5 % x 5 % 6 ½ x 6 ½		6 3 8		ying ase Case
		Will olad	PRICES	inerta.				
New Improv	ed Seneca View	Camera	Ou	r Price	5x7 \$30.60	6 1/2 x 8 1/4 \$32.30	8x10 \$34.00	11x14 \$55.28
F:8, and Bet	cus Convertible	v Camera, fitted e Symmetrical I	Lens, Speed	r Price	45.05	51.00	61.20	105.00
tigmat s	er. IV f:6.3 And 2 Lens fitted	w Camera, fitted astigmat Lens, in to 5x7, No. 3 Le ted to 8x10	Betax Shut-	r Price			102.50	en Compa en compa
II, Velo Optimo Lens fitt fitted to	stigmat Anasti Shutter. No. ted to 6½x8½, 8x10, No. 7 L	w Camera, fitted gmat Lens, Speed ? Lens fitted to No. 5 Lens and Bo lens in Studio Sh	F:4.5, and 5x7, No. 4 etax Shutter nutter fitted					
						130.00		
		ries 1, F:6.3 Len	PARTY CONTRACTOR OF THE PROPERTY OF THE PARTY OF THE PART	r Price	83.50	110.00	130.00	205.00
		ther Bellows		r Price	5.50	6.00	6.50	8.30
for Trip	ood, Lens and	se with extra constitution shutter in place	e of case	r Price	2.00	2.00	2.50	2.50
		Sed			3.50	E 100 100 100 100 100 100 100 100 100 10	4.50	100000000000000000000000000000000000000
EXCIN TOL 9	nums Front E	Cu		L LLIGE	0.50	4.00	4.50	4.75

### Camera City View and Studio Outfit

For home portraiture and general viewing.



With Double Tongued Bed,
Rack and Pinion both
Back and Front. Sliding
and Wide Angle Front
Bed, Jarless Back, Extreme Rise and Fall
in Front, Detachable Bed Brace—
Patented.

Rigidity of construction is the dominating feature of the Camera City View Outfit. The celebrated Seneca system of reinforcement strengthens the entire frame until it will well nigh withstand any reasonable strain put upon it. The mahogany and cherry construction with heavy nickel plated brass trimming allows a superior finish and workmanship. Absolute rigidity of the bed even when the front and back standards on large cameras are fully extended is secured by the use of the Seneca Detachable Bed Brace. Not only is it serviceable when both front and rear extensions are used, but it may be used to the same advantage with only one of the extensions.

A bellows of genuine leather which is guaranteed not to crack or become porous is a regular part of the equipment.

The many other features are: The three-section double tongued bed with detachable brace; rising and falling front; sliding and wire angle front bed; vertical and horizontal swing back; reversible and JARLESS BACK, PATENT BELLOWS SUPPORT AND THE DOUBLE AND SINGLE SLIDING DIVISIONS.

The outfit is complete, it is capable of the finest results under a wide variety of conditions. The capacity of the lens board for all lenses of a reasonable diameter makes it very suitable indeed for home portraiture; the appearance of the outfit makes it very desirable for that purpose. It will stand the wear and tear of years.

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Number of Holders Regular Case will Carry with Camera x4 1/4 6 x4 1/4 5 5 x5 1/4 6 8 8 1/4 3 3
---	--

Regular equipment includes Camera, Detachable Brace, Sliding and Wide Angle Front Bed, Carrying Case and one Improved Double Plate Holder (English Book Holder above \$x10), one extra Lens Board and Long Carrying Case with compartments. (This style case will accommodate Camera, 6 Extra Holders, Tripod, Lens and Shutter.) Square case furnished for 11x14 size.

hished for 11x14 size.				
TWO TOUR, DING, HITCHES BOR (WORLD DE	5x7	61/2 x 81/2	8x10	11x14
Complete as above without lens or shutter a Camera City View and Studio Outfit, fitted with Seneca Three-focus Convertible Symmetrical Lens, f:8, and Betax Automatic (dustproof) Shutter		\$ 39.95	\$ 42.50	\$ 63.75
Camera City View and Studio Outfit, fitted with Series I Velostigmat Anastigmat Lens, f:6.3, and Betax Automatic (dust-proof) Shutter. No. 3 Lens fitted to 5x7, No. 4 Lens fitted to 6½x8½, and No. 5 Lens fitted		60.35	69.70	112.50
to 8x10, and No. 6 Lens fitted to 11x14 Camera City View and Studio Outfit. fitted with Series II, Velostigmat Anastigmat Lens, speed f:4.5, and Optimo Shutter. No. 3 Lens fitted to 5x7 size, No. 4 Lens fitted to 6½x8½ size, No. 5 Lens in Auto Shutter	83.50	110.00	132.00	215.00
fitted to 8x10 size, and No. 7 Lens in Studio	04 50	144.00	173.50	275.00
fitted to 11x14 Extra Improved Plate Holders	94.50	1.65	1.80	5.10
Seneca Portrait Double Film Holders	1.50	1.65	1.80	5.10

# High Speed Shutters

ADDITION OF THE PERSON OF THE PERSON AND THE PERSON AND THE	5x7	61/2 x 8 1/2	8x10
Seneca Focal Plane	\$22.50	\$24.75	\$26.10
Extra for Optimo Speed Shutter	9.00	9.00	9.00

### Reducing Backs for Seneca View Cameras

For Using Smaller Plate Holders.



Made to interchange with the regular back of the Camera, In ordering, it is simply necessary to specify the style of Seneca View Camera for which the back is intended. The back includes one double Improved plate holder of the size required. For illustration, the No. 2A Reducing Back for 5x7 View cameras to take 4x5 plate holder includes one 4x5 plate holder. Made in either the mahogany or ebonized finish.

#### PRICES

No.	2A	for	5	x	7	View	to	take	4x5, 3½x5½ or 3½x4½, 8½x8½	10
**	5A	"	64	4x	81/2		"	"	5x7, 4x5 or 31/4x51/2, 101/4x101/4	55
2 64	9A	*	8	x	10		"		6½x8½, 5x7 or 4x5, 12x12	
	12A	**	11	x	14		"	"	8x10 or 10x12, 16¼x16¼10.8	30

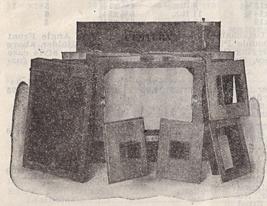
Extra for sliding division for dividing the plate, 50c.

#### Reducing Backs for Eastman and Korona View Cameras

4x5 for 3¼x4¼ Plate	Holder	\$4.50 Not Made	
od neitw eldesorvine chr al		Prices include one plate holder	
By purchasing a	5 x 7	for 4x5 Plate Holder\$ 5.75	Eastman Not made
t The Arts of the City Addition	61/2 x 81/2	for 5x7 Plate Holder 6.35	\$10.45
Reducing Back	8 x10	for 6½x8½ or 5x7 Plate Holders 6.90	11.40
you will have	7 x11	for 5x7-6½x8½ or 8x10 Plate Holders Not made	11.40
two Cameras in	11 x14	for 8x10 or 6½x8½ Plate Holders	Not made
one, that is, two	11 x14	for 10x12 Plate Holders 9.20	Not made
different sizes.	7 x17	for 6½x8½ Holders, Reversible	Not made
	8 x20	for 8x10 Holders, Revers-	Not made

One Plate Holder furnished with Eastman Backs, none with the Korona.

### The Century Multiplying Back



With the Century Multiplying Back, a view camera can be converted into a multiplying camera by simply removing the reversing back and placing the multiplying back in position—as easily accomplished as changing the reversing back from a vertical to a horizontal

This back is constructed to give one, two, four, nine, fifteen and twenty-four exposures on a 5x7 plate, and can be instantly adjusted to the Century and Empire State Cameras in the 6½x8½ or

The Century Multiplying Back accommodates the regular 5x7 view plate

In ordering, be sure to specify the style of camera for which the back is intended. When the Century Multiplying Back is ordered for any view camera not mentioned above, a nominal charge will be made for special fitting.

Sliding Ground Glass Carriage

For use on the No. 2 Eastman View 8x10 camera only. Price NOT including holder \$17.10

Korona Banquet Cameras

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 from 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 springs keep the plates in the focal plane. Bellows length 22% inches. Lens Board 5½x 5½ inches. Weight 18 lbs. Dimensions closed, 7½x18½x23¾.

With Canvas Covered Case and one holder.

Our Price \$ 64.50

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 pur-poses 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

12x20 Korona Banquet Camera. 12x20 Korona Holders ...... Our Price \$ Our Price Camera with Turner-Reich Ser. 2 F:7.5 Anastigmat Lens, General Shutter Our Price 215.00 Optimo or Ilex Universal Shutter in place of General, extra.....

F. & S. Banquet Camera

The F. & S. Banquet Camera is not only the best possible instrument for photographing large groups at banquets or other occasions where the negative must be made indoors, but it is also excellently adapted to general outdoor group and view work. The dimensions of the picture—12x20 inches, or with the smaller size, 7x17 inches—are particularly suitable for outdoor groups and general architectural purposes.

The construction of the camera permits its elevation so that when making indoor groups those in remote parts of the room and at the same stime thought the same at the same stime thought the same stime the same at the same stime the same at the same stime the same at the same stime stime the same stime stime the same stime stim

The construction of the camera permits its elevation so that when making indoor groups, those in remote parts of the room, and at the same time those close to the camera, will be included. This is accomplished by a swinging lens board with great rise and fall. By adjusting the back of the camera in a vertical position and lowering the lens board so that the optical axis of the lens will fall through the center of the plate with the lens pointing downward, the rectilinear lines of the interior of the building will be preserved and the greatest possible number of figures included in the picture.

The camera is provided with both front and back rack and pinion focusing adjustment, and the front track of the camera is wide enough to permit the sliding lens board frame

and the front track of the camera is wide enough to permit the sliding lens board frame to drop between the rails.

Two size tripod screw plates are fitted to the bed, one taking a stand and tripod screw, and the other a larger size.

The whole camera folds up compactly, and is provided with a handle so that the camera may be carried about when not contained in the carrying case.

The woodwork is finished in hard oil, and the metal parts are of polished brass. The

instrument is rigidly constructed and the adjustments are actuated with the utmost pre-

Focal capacity, 7x17, 16½ inches. Dimensions when closed, 19½x5½x14. Weight, 8 pounds. Size of Lens Board. 5x5. Focal capacity, 12x20, 22 inches. Dimensions when closed, 24x6x19. Weight, 14

pounds. Size of Lens Board, 64x64.		
F. & S. Banquet Camera, including Carrying Case and one	7x17	12x20
Double Plate Holder, or cut Film Holder Our Prices	\$80.75	\$ 96.50
Extra Double Plate Holders, each Our Prices	8.25	12.35
Extra Double Cut Film Holders, each	8.25	12.35
Extra Lens Board, each	1.00	1.20
For Turner-Reich ser, II f:7.5; No. 6 Lens, 15 inch focus in Betox Shutte	er,	
extra	150 20	150 20



### Korona Panoramic View Cameras

5x12, 7x17 and 8x20.

The panoramic shaped picture is always pleasing and it is adapted to a great deal of work done by the commercial photographer, being especially suited for groups, views of industrial plants, interiors and other subjects which require a wide angle of view without including too much sky and foreground,

Lens board Bellows length ... Camera folded .... Weight of Camera

3½x5½ 1/2 inches inches 5 14 x 16 x 10 34 51/2×211/4×131/4 Including one Double Holder and Case.

6x6 321/2 inches 6x24 1/2 x14 3/4

#### 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

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 5x12 Camera we suggest a 6½x8½ Series II Turner-Reich F: 6.8, with focal lengths of 10½ inches, 18 inches and 24 inches. For the 7x17 Camera an 8x10 Series II Turner-Reich Anastigmat F: 6.8, with focal lengths of 12 inches, 21 inches and 28 inches, and for the 8x20 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 inches, 24 inches and 36 inches.

With each camera we include a strong canvas case, lined with canton flannel, with metal clasps and the most comfortable handle made. The 5x12 case takes the camera and sty holders with extra hed exciten and heace.

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,

Price	Price 5x17	8x20
Korona Panoramic View Camera	\$ 51.00	\$ 59.50
Ditto, with Turner-Reich Convertible Lenses F:6.8, Series II Betax Shutter 129.35	151.80	209.80
Extra Korona Plate Holders 3.80	4.75	5.70
Extra Korona Cut Film Holders	6.65	7.60

### Korona Home Portrait Outfits



leries 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 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 re-

move the plate holders.

With the camera is included a short canvas case, lined with canton flannel, which takes the camera and six holders in 5x7 size and three holders in 6½x8½ and

Size	Bellows Length 13½ inches	Lens Board	Weight 5 lbs.
5x7 61/2x81/2	161/2 inches	7x7	6 lbs.
8x10	18½ inches	9x9	8 lbs.

#### Including Camera, Lens and Shutter, One Holder and Canvas Case

	5x7	6½x8½	8x10
Home Portrait Outfit, Convertible Rapid Rectilin- ear Lens, F:8, Betax Shutter Home Portrait Outfit, Rapid Rectigraphic Lens	\$40.40	\$ 50.50	\$ 57.60
F:8, Betax Shutter Home Portrait Outfit, Series II Turner-Reich	60.60	72.90	84.30
Anastigmat F:6.8, Optimo Shutter	95.75	130.25	151.70
Home Portrait Outfit, Verito F:4, Studio Shutter Home Portrait Outfit with Velostigmat Series	75.95	93.50	116.45
II, F:4:5, Anastigmat Lens, Betax Shutter	79.10	129.50	165.50
Korona Folding Studio Stand only	12.60	13.50	13.50
Korona Plate Holders	1.35	1.68	1.80
Leather bellows, extra	4.50	5.25	6.75
Camera Only, with Case and Holder	28.80	31.50	.32 .85
Optimo Shutter in place of Betax	4.50	5.00	6.00

### Folmer & Schwing Home Portrait Outfit No. 2



Home Portraiture is one of the most profitable and satisfactory branches of modern photography. The better class of patrons frequently prefer the intimate surroundings of the home to the more formal studio, as a place to have the family portraits made, and it is more profitable for the photographer. He is usually able to secure larger orders for portraits, and at a higher

Suitable Apparatus for doing this work is very essential. The Folmer & Schwing No. 2 Home Portrait Outfit is most thoroughly efficient in quality.

The Camera supplied is richly finished in dark mahogany, harmonizing perfectly with the nickel finish of the metal parts. The camera is parts. The camera is provided with front and back rack and pinion focusing attachments, as well as vertical and horizontal swings. The raising and lowering front is not attached to the bellows, and affords a movement of three inches, more than ample

for the most exacting work. A spring actuated folding lens hood effectually shades the lens when working towards the light. The front board measures 7x7 inches, which will admit the use of large lenses. The sliding ground glass carriage is constructed to permit the making of two 5x8 exposures on an 8x10 film or plate. The lens being in center for each exposure, also for full 8x10 plate, vertical and horizontal.

exposure, also for full \$x10 plate, vertical and horizontal.

The Home Portrait Stand is unique in appearance, very compact and rigid. It occupies but a small space when folded. The top is a finely finished aluminum casting, which can be quickly removed from stand. It can be tilted in either angle, and locked tight by simply turning a milled head screw. The center upright of stand is made of heavy gauge brass tube, finely nickeled, into which telescopes another tube, to which the top is attached. The whole stand can be lowered to within 30 inches of the floor, or raised to 4½ feet. The legs are made of mahogany finish, to harmonize with the woodwork of the camera. The legs are fitted with noiseless casters. fitted with noiseless casters.

The Home Portrait Reflector can be elevated to 7 feet; is made of white cloth, 6 feet 4 inches by 44 inches wide, suspended at each end from a jointed metal rod, and supported by a light metal stand that folds compactly when not in use.

The Auto Studio Shutter works back of the lens, and is operated by a cable release.

The shutter is noiseless in action.

The Sterling Plate Holders for Eastman Portrait Film or Plates are furnished with this outfit.

The Cases. Two solid sole leather carrying cases contains the complete outfit.

The Lens. We recommend the Bausch & Lomb Zeiss Tessar Lens, Series 1C F-4.5,

No. 18; focus 11% inches. This lens is suitable for the finest portraits, groups and figure work. It is highly corrected for covering power, and has remarkable speed.

The photographer possessing one of these outfits will find an unlimited field in which to

extend his business.

#### SPECIFICATIONS

Dimensions closed, 15x12½x5. Focal capacity, 22 inches. Size of Lens Board in No. 0 Studio Shutter, 5½x5½ inches. Size of Lens Board, 7x7 inches. Weight, 10 lbs.

Length when folded, 27 inches. Weight, 101/2 lbs. REFLECTOR-

Length when folded, 271/2 inches. Weight, 5 lbs.

Dimensions, 28x7x141/2.

	Dimensions, 28x7x14½. THE PRICE
1	8x10 F. & S. Home Portrait Camera No. 2 with one 8x10 Sterling double Portrait Film
	Holder, and velvet-lined sole leather case with lock and key\$80.00
L	8x10 Sliding Ground Glass Carriage
1	F. & S. Home Portrait Stand No. 2
L	No. 2 Back Ground, 7x8 feet
L	F. & S. Reflector
L	Focusing Cloth
0	Extra 8x10 Sterling Film or Plate Holders, each, \$3.25
l	No. 0 Auto Studio Shutter
1	B. & LZeiss Tessar Lens, Series, Ic, F.4.5, No. 18
ı	Velvet-lined Sole Leather Carrying Case with lock and key for Stand, Reflector and
	Back Ground

### The Graf Variable Anastigmat

CENTRAL CAMERA COMPANY

The Graf Variable Anastigmat

You can get any diffusion you like with the diaphragm wide open, by varying the adjustment. The f stop changes a little, as the adjustment is made, since the focus varies somewhat, getting shorter as the adjustment is turned toward sharp; the actual measure of the diaphragm is the same, and the difference in the f stop is occasioned by the change in focal length. In trying out the lens it might be wise to use up a dozen plates, at different adjustments, as suggested below. Develop them and see what the lens does. It might be well if you are not used to diffused type lenses to hold toward the sharp awhile, and gradually work softer and softer as you get used to it.

TRIAL ADJUSTMENTS

1. Make several plates with full sharp adjustment. Diaphragm full open f3.8.
2. Make several at middle diffusion adjustment, full open, about f4.2.
3. Do likewise at full diffusion adjustment, wide open, f4.5.
4. Likewise with full diffusion, stopped down to f6.3.

You have two lenses all rolled up into one; an anastigmat and a perfect soft focus. It has no halo. The image is chemically correct. It has more diffusion than any soft focus without halo, and the quality of the soft focus image given is quite the finest that has ever been obtained by any lens of any kind.

THE GRAF VARIABLE ANASTIGMAT

Size Plate

	ANT TELLIFORM		Size Plate		
	Focal Length	Focal Length	Recommended for	Will Cover	The Price
No.	Sharp f3.8	Soft f4.5	Good Perspective	(Inches)	In Barrel
	(Inches)	(Inches)	(Inches)		Mount
61	5 1/2	6 1/2	2 1/4 x 3 1/4	31/4 x 4 1/4	\$57.50
62	6 1/2			4x5	67.50
63	71/2	7 ½ 8 ½	3 1/4 x 4 1/4	41/4×61/2	82.50
64	81/2	9 1/2	4x5	5x7	99.00
65	11	121/2	5x7	8x10	165.00
61 62 63 64 65 67 68 69	14	16	6½x8½	10x12	264.00
68	16	18	8x10	11x14	330.00
69	18	201/2	10x12	13x16	414.00
	me Maer sined	THE SUPER	ANASTIGMATS-14.5		

Our f4.5 Series of Super Anastigmats are fast lenses of exquisite correction, giving sharp, crisp images when used wide open. Critical definition is obtainable at f4.5. They are best for hand camera work, especially on reflecting cameras, and also for studio work where sharp portraits are required.

The f6.3 lenses are slower, and stop for stop have the same depth as the f4.5 lenses, but at the same stop they are slightly better in both angle and definition. The better correction is obtained at the expense of speed. These are the finest lenses manufactured for

The f7.7 Series are lenses of especially fine correction. They are useful in any work where

xtrem	e speed	l is not requisi	te. gornesson base	d loost ent.	idali adi ebash	then werking to	
couple the eac sample the leg of	e speed No. 1 2 3 4 5 6 7 8 9	1 is not requisi  Focal Length  2 1/2  3 1/2  4 1/2  5 1/2  6 1/2  7 1/2  8 1/2  9 1/2  11  12 1/2	Plate 1½x1½ 1½x2½ 2x3 2¼x3¼ 3¼x4¼ 4x5 or 3¼x5½ 4¼x6½ 5x7 5x8 6½x8½ 8x10	Price In Barrel \$30,00 31,50 33,00 37,50 43,50 49,50 60,00 73,50 91,50 129,00 165,00	In Acme Shutter \$42.00 43.50 45.00 49.50 59.50 67.50 78.00 93.00 111.50	In Universal Shutter \$46.50 56.50 64.50 75.00 89.00 107.50	Salah Sarangan Salah Salah
an tody	2	13	81/4 X101/4	178.50			
1	3	16	10x12	264.00			18
		18	11x14	330.00			
nw is	15	20	13x16 THE SUPER	420.00 ANASTIGMAT	TC 400		
			THE SUPER			In General	
ivan 2	No. 21 22 22 23 24 25 26 27 28 29 30 31 32 33	Focal Length 2 1/2 3 3 1/2 5 3/4 6 3/4 8 9 10 1/2 12 1/2 17 20	Plate 1 ½ x 1 ½ 1 ½ x 2 ½ 2 ½ x 3 ½ 3 ¼ x 4 ¼  4 x 5 or 3 ¼ x 5 ½ 5 x 7 5 x 8 6 ½ x 8 ½ 8 x 10 10 x 12 11 x 14 14 x 17	Price In Barrel \$22.50 22.50 22.50 24.00 27.00 49.50 58.50 82.50 115.50 159.00 186.00 264.00	In Universal Shutter \$30.50 30.50 30.50 32.00 35.00 35.00 61.50 72.50 96.50 131.00	In General Shutter \$28.50 28.50 30.00 33.00 33.00 59.50 70.50 94.50 129.00	THE REAL PROPERTY AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AD
			THE SUPER	ANASTIGMAT		es Dimensions,	100
0.023 4 0.51 4 0.58 4 0.51 4	No. 10 11 12 13	Focal Length 3½ 5 5 % 6 % 10	Plate 2¼x3¼ 3¼x4¼ 4x5 or 3¼x5½ 6½x8½	Price In Barrel \$16.50 16.50 21.00 22.50 70.50	In Universal Shutter \$24.50 24.50 27.00 29.00 84.40	Sx10 F. & R. Ho Holder, and v Sx10 Eliding va & Eliding va No. 2 Back Gr F. & E. Relleg	
0.8 4	15 16 17 18	$12\frac{1}{2}$ $14\frac{1}{2}$ $16\frac{1}{2}$ $18\frac{1}{2}$ $20$	8x10 10x12 11x14 12x15 14x17	93.00 115.00 135.00 165.00 216.00	109.00 131.00 151.00		

#### Taylor-Hobson Cooke Lenses PRE-EMINENTLY SATISFACTORY FOR EVERY PHOTOGRAPHIC REQUIRE-MENT

Cooke Anastigmats differ from and are superior to other anastigmats because they consist of only three uncemented elements. This simple construction makes possible a unique adjustment in the final corrections and insures the maintenance of uniform excellence.

More light reaches the sensitive film or plate through three glass than through six or eight. Moreover there is no cement used, while it is a recognized fact that the cement necessary in more complex construction turns more or less yellow in time. Cooke lenses always retain their sparkling bril-

Taylor-Hobson Cooke Lenses are the original and should not be confused with other

lenses bearing the name Cooke.

For the best possible lens for every photographic requirement choose a Taylor-Hobson Cooke.

COOKE ANASTIGMAT—Series IIa F 3.5

For extra rapid work, sporting events, press subjects in dull weather.
The 6¼ and 7½ inch lenses are especially recommended for use with Graplex Type

No.	Equivalent	Plate Cov-	In Barrel
	Focus	ered at full	with Iris
	THE REAL PROPERTY AND ADDRESS.	aperture	Diaphragm
160	3 1/2 UG.	1%x21/2	\$ 64.75
161	30.03.4 00.0	21/4 x21/4	70.00
162	na ea 5 na c	2 1/2 x 3 1/2	75.25
163	61/4	31/4 x 4 1/4	89.25
164	71/2	3 1/4 x 5 1/2	106.75
COO		-Series II F	1.5 0. 18 .01

For rapid work, press photography and re-

No.	Equivalent Focus	Plate Cov- ered at full	In Barrel with Iris
		aperture	Diaphragm
170	41/4	21/2 x 3 1/2	\$ 55.00
171	00.01.41/4	3 1/4 x 4 1/2	64.75
172	6	4 x5	73.50
173	7	314 x51/2	89.25
174	81/4	5 x7	102.50

COOKE ANASTIGMAT-Series IV F 5.6 For subjects requiring a lens of medium speed, excellent for amateur portraiture, animal studies, enlarging, etc.

Vo.	Equivalent	Plate Cov-	In Barrel
	Focus	ered at full	with Iris
	Inches	aperture	Diaphragm
80	5	31/4 x 41/4	\$ 60.50
81	6	31/4 x 51/2	67.50
82	8	5 x 7	85.75
83	91/2	5 x 8	103,25
84	10½ F6	61/2 x 81/2	131.25
85	13 F6	8 x10	169.75
86	16 F6	10 x12	238.00
87	18 F6	12 x15	271.25

COOKE ANASTIGMAT—Series III F 6.5 For landscapes, street and general photography. An excellent lens for view and com-

merc	ciai work.		
No.	Equivalent	Plate Cov-	In Barrel
	Focus	ered at full	with Iris
	Inches	aperture	Diaphragm
190	4 3/4	21/4 x31/4	\$52.50
191	51/4	31/4 x 41/4	56.00
192	5 1/2	4 x5	58.50
193	6 1/8	31/4 x51/2	63.00
194	71/2	5 x7	75.25
195	81/2	5 x8	84.00
MATERIAL STREET	and an extendition or global to the particular property response		the same of the last of the la

COOKE ANASTIGMAT% Series V-VA F 8-F10 For commercial photography, architecture,

mac	hinery and s	tationary obje	cts.
No.	Equivalent	Plate Cov-	In Barrel
	Focus	ered at full	with Iris
	Inches	aperture	Diaphragm
200	11 (F8)	61/4 x 81/4	\$ 88.50
201	13 (F8)	8 x10	113.75
202	16 (F'8)	10 x12	168.00
203	18 (F8)	12 x15	210.00
204	25 (F10)	16 x18	294.00

200	KE CINI	EMAT	OGRAPH—Se	ries I-F 3.1
No.	Equiv't	MM	Plate cov-	In Barrel
	Focus	S. C. KITTL	ered at full	with Iris
	Inches		aperture	Diaphragm
150	1 1%	40	M. P. Film	\$50.75
151	2	51	"	52.50
152	21/4	58	Commence " and the	54.25
153	3	76		59.50
154	3 1/2	90	100	67.50
155	4	102	1%x21/2	75.25
156	5	127	21/4 x 21/4	88.50
COO	KE PRI	MOPL	ANE	

53

Anastigmat Wide Angle, Series VIIA P 6.5
For interiors, exteriors, photographing machinery, etc., in confined situations and for general wide angle work. Angle about

lo.	Equivalent	Plate Cov-	In Barrel
	Focus	ered at full	with Iris
	Inches	aperture	Diaphragm
210	3	31/4 x 41/4	\$ 50.75
211	4	314 x 51/2	52.50
212	5	5 x 7	56.00
213	6	61/4 x 81/4	63,00
214	7	8 x10	75.25
215	8	10 x12	101.50
OOF	E TELEPI	TOTO-F 5.8	

For obtaining large images of distant objects. Ideal for amateur, commercial and

CIGIL	LINE DIIOL			
	Equiv't	Plate cov-	Camera	
No.	Focus	ered at full	Extension	Price
	Inches	aperture	Required	p 21-12
20	81/2	21/2 x31/2	51/4	\$ 77.00
21	11	31/4 x 4 1/4	6 3/4	91.00
22	121/2	4 x5	71/2	101.50
223	15	5 x7	9	154.00
24	20	61/4 x 8 1/4	121/4	280.00
COOL	CE PROC	ESS LENS		REVERS

ING PRISMS Series V and VA-F 8-F 10-F16

10.	A Stree of square stree of prism	2022 Equiv't focus	HATHATHUII 9000000	late	pp-1000 2x 8 ½ x10 x12 x15 x20 x24	Price Lens	99.00 127.75 235.00 329.00 438.75
$\mathbf{z}$	M CH	HH	HA	Щ	10	HH	щщ
30	21/4	11	F 8	61/	x 81/2	. 8	99.00
31	216	13	E 8	8	x10		127.75
2.0	2 /2	16	F 8	10	x12		187.75
0.4	01/	10	TO	19	V15	and the same of the	235 00
33	0 72	10	F o	14	710		200.00
$^{34}$	31/2	25	F10	16	XZU		329.00
35	41%	30	F16	20	x24		438.75
-	Daison	fon	langer	cin	og on	annlies	tion

Prices for larger sizes on applicat COOKE ANASTIGMAT PORTRAIT LENSES WITH DIPPUSION ADJUSTMENT—

For soft focus effects.
Series I F 3.1—For extra rapid artistic portraiture. Focus Inches at full aperture Equivalent Plate covered In Barrel

Focus Inches at full aperture 8 1/4 10 1/4 12 1/2 \$147.00 314 x41/4 4 x5 5 x7 222.25 285,25 Series II A F 3.5-For very rapid studio

Equivalent Plate covered In Barrel Focus Inches at full aperture \$168.00  $9\frac{1}{2}$   $10\frac{1}{2}$   $12\frac{1}{2}$ 4 % x 6 1/2 201.25 5 x 7 6½x 8½ 251 257.25 392.00 15 x10 Series II F 4.5-For rapid group work. In Barrel Equivalent Plate covered No. Focus Inches at full aperture

\$155.75 6½x 8½ 8 x10 101/2 238.00 261 13 294.00 262 141/2 8 x10 472,50 10 x12 16 630,00 12 x15 Series VI F 5.6-For daylight studio and

outdoor work. Equivalent Plate covered In Barrel

Focus Inches at full aperture \$175.00 270 271 13 245.00 10x12 16 18 12x15 280.0

### Carl Zeiss-Jena-Photographic Lenses

Carl Zeiss—Jena—Photographic Lenses									
Series	No.		l Length in.	For Cameras	In Standard Mount N	In Sunk Mount B	In Focusing Mount A	In Ilex Acme of Optimo Shutters	
1c F/4.5	10 11 11a	4 5.5 6.5	1½ 2¼ 2½	1½x 1¼ in 1¾x 1¾ in 1¾x 2 in	. 35.00 . 35.00	37.50	.\$\$ . 40.00 40.00	50.00	
For Instantaneous Photographs	11b 12 13a	7.5 9 10.5	3 3½ 4½ 4½	134x 23% in 214x 314 in 214x 31/2 in	. 37.50 . 37.50	37.50 40.00 40.00	40.00 42.50 42.50	50.00 52.50 52.50	
Portraiture	13 14 15 15b	12 13.5 15 16.5	434 514 6	2½x 3½ in 3¼x 4¼ in 4 x 5 in 3¼x 5½ in	. 45.00 52.50	42.50 47.50 55.00	45.00 50.00 57.50	55.00 62.50 72.50	
Color Photography	15a 16 17	18 21 25	6½ 7 8¼ 10	434x 6½ in 5 x 7½ in 5 x 8 in	. 67.50 . 87.50	62.50 72.50 92.50 130.00	67.50 77.50 97.50 135.00	80.00 90.00 100.00 150.00	
75.25 75.25 101.50	18 18a 19	30 36 40	12 14 16	6½x 8½ in 7 x 9 in 8 x10 in	. 180.00 . 245.00	187.50	195.00	210.00	
of distant ob-	20	50	20	10 x12 in	. 400.00	rods satu	dent de for	Tories	
11b * F/6.3	0 1 1b 1a	5.5 6.5 7.5	1½ 2¼ 2½ 3	1½x 1¼ ir 1¾x 1¾ ir 1¾x 2½ ir	30.00	1.7777.0	35.00	45.00	
For Hand Cameras	2 3 4	9 12 13.5	3½ 4¾ 5¼	23/8x 23/8 ir 21/4x 31/4 ir 21/2x 31/2 ir	32.50 35.00	37.50	35.00 37.50 40.00	45.00 47.50 50.00	
Landscapes	5 5b 5a	15 16.5	6 6 1/2	3½x 4½ ir 4 x 5 ir 3½x 5½ ir	42.50	45.00 50.00	42.50 47.50 52.50	52.50 57.50 65.00	
	6 7	18 21 25	81/4 10	4 <sup>3</sup> / <sub>4</sub> x 6 <sup>1</sup> / <sub>2</sub> ir 5 x 7 <sup>1</sup> / <sub>2</sub> ir 5 x 8 ir	. 70.00 97.50	72.50	60.00 75.00	75.00 90.00 120.00	
Entre Entre Treus Entre	8 9 10 11	30 36 50 60	12 14 19 <sup>3</sup> / <sub>4</sub> 23 <sup>5</sup> / <sub>8</sub>	7 x 9 ir 8 x10 ir 10 x12 ir 12 x15 ir	. 180.00 . 280.00			160.00 210.00	
av.vsr av. 111a	0 00 1	7.5 9.5 12	3 3½ 4¾	23/8x 23/8 ir 21/2x 33/4 ir 31/4x 41/4 ir	. 25.00	27.50	30.00 30.00 32.50	42.50	
F/9 For Interiors	2 3 4	15 17 20	6 63/4 8	4 x 5 in 4 <sup>3</sup> / <sub>4</sub> x 6 <sup>1</sup> / <sub>2</sub> in 5 x 7 in	30.00	32.50	35.00 40.00 50.00	45.00 47.50 52.50 62.50	
and Architecture	5 6 7	23 27 32	9 1034 1234	6½x 8½ in 6½x 8½ in 8 x10 in	. 52.50 . 65.00			72.50 87.50 110.00	
ure star co	0 00 1	4 6 8.5	1½ 2½	1¼x 2¼ ir 2¼x 3¼ ir	. 27.50 . 27.50		· · · · · · · · · · · · · · · · · · ·	110.00	
V rapid shudlo	2 3 4	11 14 18	3½ 4½ 5½ 7	3½x 4½ in 4¾x 6½ in 5 x 7½ in	30.00	30.00 32.50 35.00	TANDINA TANDINA	MA REPORT	
00.8812 39.100	5 6 7	21 27 32	81/4	6½x 8½ in 8 x10 in 10 x12 in 10 x14 in	. 50.00 . 65.00	42.50 52.50 67.50	dent. Plat	Third	
20.500 CO.500 Crow Guora Fried In Harrel	7a 8 9	39 46 63	12½ 15½ 18 25	12 x15 in 12 x15 in	. 100.00 . 120.00				
87,8818	10	95 18	37½	20 x24 in	. 295.00	25.00	/ 97 50	45.00	
VII Protar	2 3	22 29	83/4 11½	434x 6½ in 5 x 7 in 6½x 8½ in	. 35.00 . 42.50	35.00 37.50 45.00 55.00	27.50 30.00 35.00	45.00 47.50 55.00	
Lens F/12.5	5 6 7	35 41 48 59	14 16 19 23	8 x10 in 10 x12 in 11 x14 in 12 x15 in	. 67.50 . 85.00	55.00	42.50 57.50 72.50 102.50	67.50 85.00 102.50	
00,880	8	69	27	12 x15 in 14 x18 in	147.00		130.00	135.00 172.50	

### Carl Zeiss Jena Lenses

MULADI SI	EX EL	LENS	raom an	TOTAL TOTAL	In	In	In	In
Series	No.	Focal Length		For Cameras	Standard	Sunk	Focusing	Comp.
de goldte w	61den	Cm.	In.	dilai nolista	Mount N	Mount B	Mount A	Shutter
	1.1	7 / 7	fw 4 gtois	21/- 21/6	\$57.50	## O OO	\$62.50	\$70.00
	2.1	834/7	41/2	3¼x 3¼ 3¼x 4¼	62.50	\$60.00 65.00	67.50	75.00
	3.1	111/2/7	5	4 x 5	70.00	72.50	75.00	82.50
	2.2	834/ 834	0. 05 VEG	4 x 5"	65.00	67.50	70.00	77.50
	3.2	111/2/ 83/4	53/4	43/x 61/2"	72.50	75.00	77.50	85.0
Vlla	4.2	14 / 834	6	43/4x 61/2"	80.00	82.50	85.00	95.0
	3.3	111/2/111/2	634	5 x 7"	77.50	80.00	82.50	90.0
Double	4.3	14 /111/2	714	5 x 71/2"	87.50	90.00	92.50	102.5
	5.3	16 /111/2	8	5 x 8"	102.50	BITCONEL W		120.0
Protar	4.4	14 /14	-8 -8¾	5 x 8"	95.00	97.50	100.00	110.0
	5.4	16 /14	83/4	6½x 8½"	110.00	2	FIATE.	127.5
F/6.3	6.4	19 /14	91/4	61/2x 81/2"	127.50	9	datw 1	145.0
	5.5	16 /16	91/2	6½x 8½"	125.00	A	enture.	142.5
to	6.5	19 /16	101/4	7 x 9"	140.00		nes ger	157.5
Heb V &	7.5	23 /16	11986110	7 x 9"	172.50		T. ME. K.	192.5
F/7.7	6.6	19 /19	61178	7 x 9"	155.00		. MA.Z.	172.5
	7.6	23 /19	121/4	8 x10"	187.50		5a.x	207.5
	8.6	27 /19	21300	8 x10"	220.00	8 200	Z. 5 6.Z	245.0
	7.7	23 /23	131/2	8 x10"	217.50		. N.S. x 2	237.5
	8.7	27 /23	141/2	10 x12"	250.00		. 26 3 . Z	275.0
THE CONTRACTOR OF THE CONTRACT	8.8	27 /27	16.	10 x12"	275.00		- 96-124	300.0
et of Protar			00.50	4 x 5'	x100.00	11 3.8		112.5
et of Protar		. 2, 3, 4	02.72	5 x 7"	x115.00	81 18	- 8 x	130.0
et of Protars	D. Nos	. 3, 4, 5, 6	gg,ggr	7 x 9"	x220.00	81		237.

00.36T	2 3	9	3½ 4¾	2½x 3½′ 3¼x 4¼′	\$37.50 40.00	\$40.00 42.50	\$42.50 45.00	\$52.50 55.00
Double	5	13.5	51/4	3¼x 4¼* 4 x 5*	42.50 45.00	45.00 47.50	47.50 50.00	57.50 60.00
Amatar	6 7	16.5 18	61/2	3¼x 5½,	50.00 57.50	52.50 60.00	55.00 62.50	67.50 75.00
F/6.8	8 9	19.5	784 814	434x 632° 5 x 7°	65.00 72.50	67.50 75.00	70.00 77.50	85.00 92.50

## Pairs of Lenses Mounted in Stereo-Comp. Shutters

Les Control of Series	Focal Length		dange, neat and Nordere	a land and the range and the range of the ra		Focal Length	
AND SHARE STATE OF THE SHARE SHARE	Čm.	In.	ngle eler	dentise hereit var a	Cm.	In.	officer a
ic F/4.5 a a a a iiib F/6.3	9 12 13.5 15	3½ 4¾ 5¼ 6	115.00	Protar F/9  Double Protar VII 1.1  " " VII 2.1  " " VII 3.1	12 15 10.5 11.5	434 6 4 41/2	\$ 90.00 95.00 145.00 152.50 165.00
u u u u u u u u u u u u u u u u u u u	9 12 13.5 15 9	3½ 4¾ 5¼ 6 3½	102.50 110.00 120.00 110.00	" VII 3.1 " VII 2.2 " VII 3.2 " VII 4.2 " VII 3.3	13 13 14.5 15.5	5 534 6 634	157.50 170.00 192.50 182.50
4 7 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	12 13.5 15	43/4 51/4	115.00 120.00 125.00	med properties	or She	risa Try	************

## Special Lenses

The sayle of	LENS	THE REAL PROPERTY	i kan isan	tel igen from		
Series	Focal Length			In Standard Mount N	In Sunk Mount B	Focusing Mount A
Series	No.	Cm.	In.	12 colors 212	z or tris	HV.Witho
C F/3.5	0 0a 1 1a 2	3.5 4 5 7.5	13/8 19/16 2 3	\$32.50 32.50 35.00 40.00 47.50	\$35.00 35.00 37.50 42.50 50.00	\$37.50 37.50 40.00 45.00 52.50

#### Bausch & Lomb Protars

### VIIA CONVERTIBLE PROTAR-F:6.3-F:7.7-THE MOST UNIVERSAL LENS MADE

An anastigmat, the parts of which may be used separately, is obviously more nearly universal than the Tessar, since a variation in the focal length is obtainable by using the component parts singly. The construction of such a lens is a difficult task and amounts to producing two anastigmats corrected for use separately, which when used together produce an image conforming to the highest standard.

The advantage is that three different size images of an object from the same point, or the same size image from three different points may be obtained.

120.00 120.00	Single Fo	ation of Protars			and 1 with Diaphragm	In Shu	Volute itter t Barrel	Sh	npound utter it Barrel
Size of Plate Covered with	Front	Back	ombi quiva ocus,	Speed	mH	1 1	90	5	Price
oFull Aperture*	Le	Ba	100	ad;	Lens Barre Iris	No	FL	No	Pr
Z Inches 1 3¼x 3¼	7,3	7 10	4%	F:6.3	\$54.50	i	\$ 77.50	i	8 73.50
2 3½x 4½	834	716	4 1/2	F:7	57.75	î	80.75	ī	76.75
2 70 4 x 5	11 3	7 3 0	5 /2	F:7.7	63.00	1	86.00	1	82.00
4 x 5	83/4	8 3/4	0.005 18	F:6.3	60.75	1	83.75	1	79.75
\$ 4½ x 6½	1116	8 3/4	5 %	F:7	66.00	1 88	89.00	1	85.00
4 4 x 6 ½	13%	8 3/4	61/8	F:7.7	74.75	2	99.75	2	95.75
7 4½x 7¼	11 15	11 16	6 %	F:6.3	71.50	1 2	94.50	2 2	92.50
8 5 x 7 9 5 x 8	13 %	11 18	7	F:7 F:7.7	93.00	2	105.00	3	118.00
9 5 x 8 10 5 x 8	16 1/8	11 18	7 1/2 7 7/8 8 1/2 9 1/8 9 1/4	F:6.3	87.50	2	112.50	2	108.50
11 6½x 8½	16 1/8	13 34	0.0816	F:7	100.00	2	125.00	3	125.00
12 6½x 8½	18 %	13 %	916	F:7.7	123.50	3	150.50	3	148.50
13 6½x 8½	16 1/8	161/8	914	F:6.3	113.00	2	138.00	3	138.00
14 7 x 9	18 %	16 1/8	10	F:7	136.50	3	163.50	3	161.50
15 7 x 9	23 1/8	16 1/8	10 %	F:7.7	160.00	3	187.00	4	195.00
16 7 x 9	18%	18 %	1018	F:6.3	159.00	3	186.00	3	184.00
17 8 x10	281/8	18 %	11 %	F:7	182.50	3	209.50	4	217.50
18 8 x10	27	18 %	12%	F:7.7	214.50	3	241.50	4	249.50
19 8 x10	23 1/8	23 1/8	131/4	F:6.3	201.50	3	228.50	4	236.50
20 10 x12	27	23 1/8	14 18	F:7	233.50	3	260.50	100	268.50
22 10 x12	27	27	15 1/2	F:6.3	262.50	3	289.50		297.50
25 10 x12	30%	3034	181/4	F:6.3	367.00			221.	***************************************
28 11 x14	33 %	33 %	201/4	F:6.3	480.00			E	2014/4
30 12 x16	391/4	391/4	23 %	F:6.3	637.00	2 .			

#### BAUSCH & LOMB-ZEISS CONVERTIBLE PROTAR VII IN SETS. C AND D

We offer two sets complete with lenses mounted interchangeably, each set consisting of: one lens mount with iris diaphragm, cap and flange, and focusing scale, the single Protar lenses (three or four, as the case may be): a neat and compact morocco case containing all the parts of the set, or including shutter if so ordered. A screen ring is also furnished to screw into front of barrel or shutter, when single elements are being used. This furnishes a method of attaching a ray filter if desired.

#### C SET-BAUSCH & LOMB-ZEISS CONVERTIBLE PROTAR VII:

Fitted with aluminum Volute Shutter	141.00
D SET— BAUSCH & LOMB-ZEISS CONVERTIBLE PROTAR VIIa	216 50
Fitted with aluminum Volute Shutter	246.50

14 5 5M	Size of Plate Covered with Largest			FOCUS OF	4.0
135 170	Stops*	Front	Back	Combined	T -channel a
Series No.	Inches	Lens	Lens	Focus	Speed
( 2	5 x 8	00 05	83/4	91 - A	F:12.5
VII { 3	61/2 x 81/2	2 00 9	11 3	ar do de la companya	F:12.5
1 4	8 x10		13%		F:12.5
5	4½x 6½	11 18	83/4	5 %	F:7.0
VIIa { 6	5 x 7	13%	83/4	61/8	F:7.7
( 8	5 x 8	13%	11 16	7	F:7.7

Larger plates covered with smaller stops.

	Size of Plate	11071	oqu.		
	Covered with Largest			OCUS OF	
	Stops*	Front	Back	Combined	
Series No.	Inches	Lens	Lens	Focus	Speed
mpM 41 am	6½x 8½ 8 x10	10	113	186	F:12.5 F:12.5
VII 5	10 x12		163		F:12.5
6	11 x14	3.4	18 %	Est many begg	F:12.5
8 9 00 8	5 x 8 5 x 8	13 %	11 18	7	F:7.0 F:7.7
98.00.0	5 x 8	18%	113	71/2	F:7.7
VIIa } 11	6½x 8½	16 16	13%	8 ½ 9 ½	F:7.0
12 03.2	6½ x 8½ 8 x 10	18 % 18 %	13 ¾ 16 ¾	10 %	F:7.7 F:7.0
	red with smaller	stops.	1018	10	F.1.0

#### Bausch & Lomb Series Ic-f:4.5

The Tessar Ic is admittedly the most universal lens of the unsymmetrical type. Its simple construction of four thin elements of Jena glass makes the absorption of light practically nothing. The leading characteristic is speed. This aperture, F:4.5, is maintained in every size up to the largest, and its covering power in proportion to its focal length exceeds all other F:4.5 anastigmats. Combined with speed, we also have the highest optical corrections and needle-point definition.

The definition of the Ic Tessar at its full aperture, F:4.5, is remarkable.

Tessar Ic is unequalled for the most difficult speed photography on reflecting cameras, for studio work, for home portraiture, groups, landscapes and other applications of the art.

No. 30	Size of Plate Covered With Stop f:4.5 Inches	Equiva- lent focus Inches	Diameter of Lens Inches	Lens and Barrel with Iris Diaphragm	Fitted with Aluminum Volute Shutter	Fitted with Compound Shutter
12	21/4 x 31/4	31/2	3/4	\$32.00	\$55.00	\$50.00
13	2½x 3½	4 1/2	1	37.50	60.50	56.50
14	314 x 41/4	5	11/8	42.75	65.75	63.75
15	4 x 5	6	1 18	48.00	73.00	69.00
15a	5 x 7	71/4	1%	58.75	83.75	83.75
16	5 x 8	81/4	1 1%	72.50	99.50	97.50
17	61/2 x 81/2	9 7%	21/4	117.50	144.50	152.50
18	8 x10 ·	11 %	211	160.00	ringian	200.00
18a	10 x12	14 %	3 %	213.50		
19	11 x14	15%	3 %	266.50	MARKE BELIEF	
19 20	14 x17	1934	4 %	373.50	and dorigin man	100 000 000

#### Bausch & Lomb Tessar-Series IIb, f:6.3

Tessar, like all the other series, possesses characteristics which guarantee it a unique position among photographic lenses of the highest quality and perfection. It claims the attention and admiration of the photographic public, both amateur and professional. Its merits are based upon results which years of experiment have now fully demonstrated.

Simplicity-Tessar is an unsymmetrical doublet of four very thin lenses made of a new type of glass manufactured especially for this purpose. The front lens is uncemented, the two elements being divided by a very appreciable air space. The rear lens is cemented. The front and rear combinations are separated sufficiently to allow the Volute or Iris Diaphragm shutters to be properly fitted.

No.	Size of Plate Covered with Stops F:6.3 Inches	Size of Plate Covered with Smaller Stops Inches	Equivalent Focus Inches	Diameter of Lens Inches	Lens and Barrel with Iris Diaphragm	In Volute Shutter Without Barrel	In Compound Shutter Without Barrel
2a 3 4 5 6 7	2 ½ x 3 ½ 2 ½ x 3 ¼ 3 ½ x 4 ¼ 4 x 5 3 ½ x 5 ½ 5 x 7 6 ½ x 8 ½	3 ¼ x 4 ¼ 4 x 5 5 x 7 5 x 7 5 x 8 6 ½ x 8 ½ 8 x10	3 - 11/32 4 % 5 % 6 % 6 % 7 % 8 14	19/32 34 1 116 16 178 118	35.25 37.50 38.50 48.00 54.50 66.00 89.50	\$58.25 60.50 61.50 71.00 79.50 91.00 114.50	\$45.75 53.25 56.50 57.50 67.00 75.50 91.00 114.50
8 9 9a 10	8 x10 10 x12 11 x14 14 x17 16 x20	10 x12 12 x15 14 x17 15 x20 20 x24	12 14 % 16 ¼ 19 ½ 23 %	2 15 2 15 2 34 3 15 3 %	132.00 171.50 209.00 273.00 351.00	159.00 198.50	167.00 206.50 249.00

For matching lenses for stereoscopic work, add \$4.00 to the price of the lenses.

### Bausch & Lomb-Series V, f:18, Extreme Wide Angle

This lens should be chosen for the most exacting wide angle photography, because the corrections for flatness of field and astigmatism have been carried to a greater degree of perfection than in other lenses of a similar type. Its effective angle and covering capacity especially recommend the Series V for architectural and interior reproductions.

The angle of view of the image circle is about 110° in the size from

Size of Plate Covered with Stop F:18 No. Inches	Size of Plate Covered with Small Stops	Equiv. Focus Inches	Diameter of Largest Lens Inches	Lens and Barrel with Iris Diaphragm	In Volute Shutter Without Barrel
1 4½ x 6½ 2 5 x 7 3 6½ x 8½ 4 8 x10 5 10 x12 6 11 x14	5x 8 8x10 10x12 12x15 16x18 18x22 Matching fo	33% 47% 575 757 83% 1076 or Stereo V	7, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,	\$25.50 25.50 32.00 38.50 49.00 61.00	\$48.50 48.50 55.00 61.50 72.00 84.00

### Bausch & Lomb Medium Wide Angle Lens Series IV, F:12.5

A rapid wide angle lens for architectural work, for flashlight interiors and groups.

Series IV has two special points of merit—speed and covering power. It works at a speed of F:12.5, which is sufficient for instantaneous exposures out of doors, under favorable light conditions. Its large relative aperture makes it an admirable lens for flashlights of interiors and groups, admitting ample light for focusing interiors, and enabling one to obtain sufficient illumination with less flashlight than is possible with lenses of

We recommend Nos. 1 to 6 inclusive for rapid, wide angle work, for example, architectural or other subjects to be photographed instantaneously, and where the distance of the object from the camera is such as to necessitate the use of a wide angle lens.

	from the camera	a is such as to	necessitate the	use or a wit	te augue tems.		
	Size of Plat	te Size of Plate	e Equivalent	Diameter	Lens and		
	No. Covered with			ture foroups,	Barrel with		tter
	Stop F:12.5	Small Stops	Inches	Lens	Iris		t Barrel
	Inches	Inches	27	Inches	Diaphragm	No.	Price
	1 2½x 3¼	31/4 x 31/4	bassan3 1/8	1/4	\$ 19.25		
	2 31/4 x 41/4		411	Telemal T	19.25	1	\$ 42.25
	3 41/4 x 61/6		64	BR64 14	22.50	Bioff I.d.	45.50
	4 5 x 8	61/4 x 81/4	max 4741	Redent %	25.50	menl ml	48.50
	5 6½x 8½		1014	11	34.00	No 1 MG	57.00
	6 10 x12	12 x15	15 %	11/4	51.25	1 0	74.25
-	7 12 x15	16 x20	2313	1 5%	76.75	2	101.75
-	8 16 x20	18 x22	3511	2 5%	135.50	3	162.50
	9 20 x24	24 x30	483%	2 15	314.50		
	10 24 x30	28 x36	03.00	3 7/4	683.00	A 1	
		lenses for stere	eoscopic work.	add \$4.00 to	the price of	the lenses.	MADE.
	Tot matering	TOHOUS TOI BECT	and a morning		No. of the last of	THE RESERVE TO SERVE THE PROPERTY OF THE PERSON NAMED IN COLUMN TO SERVE THE PERSON NAMED IN COLUMN TO	

Bausch & Lomb Series Ic, Tessar F:3.5

The rise of the motion picture industry has brought up new problems, including a demand for lenses of enormous speed, as the motion picture operator cannot control the weather conditions and must usually take his pictures just as he finds them.

Owing to the short focal lengths which are ordinarily demanded, the speed of F:3.5 is attained. This means that the light admitted to the film is almost double that of the Series Ic Tessar, F:4.5, used on the reflecting cameras. Compared to ordinary camera lenses, Tessar Ic, F:3.5, is five times faster.

Owing to the short focal length of the lenses, 2 inch for the No. 1 and 3 inch for the No. 1a, the lenses have enormous depth even at fullest aperture. A greater speed than F:3.5, while attainable and useful on some occasions, shows a lack of depth qualities. F:3.5, represents the highest practical speed and it will be found that the lenses must be stopped down in good light, so as to prevent overexposure. stopped down in good light, so as to prevent overexposure.

IN BARREL WITH IRIS DIAPHRAGM

modification and		Covers at	Equivalent	Focus	ont and rear combin	The ir
Speed	Catalog	Full Opening	In. being	Mm.	Diameter man	Price
F:3.5	No.	34 x1	2	50	12	\$26.75
F:3.5	1	114×114	3	75	Size of 28/92 Size of	37.50
F:4.5	1a	34 × 1	114	32	Pigle of one	32.00
	two sets of	IN SPIRAL		OUNT	Cevered da Covere	
Service of the	III. Wildtriff	Covers at	Equivalent		allium the dilivite	Della
Speed	Catalog	Full Opening	In.	Mm.	Diameter	Price
F:3.5	No.	% x1	Ted Ledoreder	50	aquille in this of the land	\$30.00
F:3.5	ot 1 lenne	1 1/4 x 1 1/4	INTERNATION OF THE	32	idnehes the Inches	35.25
F:4.5	la la	3/4 x1	THE STATE OF THE	832	216x 816 at	30.20
82.08		The	Kalosat Len	S	24x 34c 2 34x4	3

Extensive development work in the field of Ultraviolet radiation has led us to the possibilities of a new type of lens affording some unique and very valuable properties

in photography.

The introduction of the Kalosat Spectral Diffusion Lens offers both the amateur and professional photographer a means of expression that defies imitation.

The Kalosat is constructed of Quartz, which is transparent to all of the valuable light rays in the spectrum, including the ultraviolet. This feature makes it the fastest lens known and, indeed, the most accurately made computations show the Kalosat Lens to possess five times the speed of fast lenses made of glass.

The combination in the Kalosat of a high refractive index with a wide range of spectral transmission produces in the picture a spectral diffusion of unique quality. The result of this phenomenon is a soft-focus effect of remarkable perspective. The ease with which such desirable results are secured will prove a source of real satisfaction to all who use this lens.

These lenses are supplied in two series mounted in barrel and iris diaphragm as per

the	RALO		IES I-f.4.	5 w anitae	ra thorn	KALO	SAT SER	IES II-f.	3.3
to I	Diameter	Equiv't	Plate	Price	Ismatis	Diameter	Equiv't	Plate	Price
A	11/2	ar6%	4 x 5 5 x 7	\$ 24.00	AB	11/2	9 % 12 1/4	4 x 5 5 x 7	\$ 24.00
BCC	2 1/2	11 ¼ mon	6 1/2 x 8 1/2 8 x 10	88.50	da e Colo	3 1/2 801	15 ¾ 18-9/10	6½x 8½ 8 x10	115.00
ater	lov al	hite arra	TA	dominated I	DI		•	CLULL	

For

Enlarging and

Copying Work

This Shutter

Is Recom-

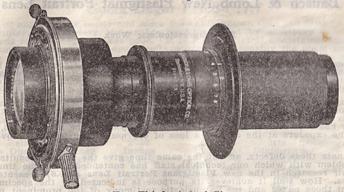
mended.

New Ideal Packard Enlarging Shutter FITTED WITH RUBY NON-ACTINIC WINGS

These Shutters are constructed along the same lines as all Packard Shutters, but are equipped with Non-Actinic transparent wings which enables the examination of the projected image. It is absolutely safe for enlarging and copying. PRICES

Size 2 -inch		5.70	Size 31/4-inch	16 x12	\$6.9
2 1/4 -inch		5.94	3 1/2 -inch		7.1
21/4-inch		6.17	3 % -inch		7.0
2 % -inch		6.40			7.6
3 -inch	***************************************	6.65	4½-inch	***************************************	8,0

124 So. Wabash Avenue, CHICAGO, ILL. Bausch & Lomb Telephoto Attachment



Two-Thirds Actual Size A Telephoto lens is a so-called negative element, that is, a dispersive lens, and it must be used in connection with a photographic objective, which is the positive element. It is always of shorter focal length than the positive. It magnifies the image produced by the latter, so that it forms a valuable adjunct to a photographic equipment, especially since it makes it possible to get pictures of views otherwise inaccessible by reason of distance or location.

or location.

The Telephoto affords a very wide range of focus with ordinary bellows extension, and gives the same good perspective as the long-focus lens with the same bellows extension. Because of the magnification of its image by the Telephoto, the photographic lens should be as perfect as possible, for all defects will be magnified in exactly the same proportion as is the image. With the magnification of the image there is a decrease of illumination, because the same amount of light is distributed over a considerably larger area. Thus, the exposure must be longer and it is, therefore, highly desirable to use a fast lens for this class of work in order that the exposure may not be too prolonged.

The time of exposure required for Telephoto combinations can be found by multiplying the time that would be required by the positive element alone by the square of the magnification used.

For instance: the exposure for No. 15 Tessar Ic with stop F:16 may be  $\frac{1}{2}$  second; with a magnification 3x, the exposure would have to be 9 times longer, i. e.,  $\frac{4}{2}$  seconds, and with a magnification 8x, an exposure of  $\frac{64x}{2} = 32$  seconds.

Positive :	Equival't	Telephoto		Bellows Draw	At Eight Ma Image Circle	Bellows Draw
Number	Focus	Negative	Inches	Inches	Inches	Inches
15 Ic	Inches	Element	51/4	4 5/8	16	16
15a Ic	6 1/2	2	5	4 %	141/4	16
5 IIb	71/2	2	5	4 %	15 1/2	161/4
5a IIb	61/8	2	4 1/2	4 3/8	13	16
5k IIb	7 10	2	5	4 1/8	131/2	16
6 VIIa	6 17	2	41/4	4 5%	15	16%
7 VIIa	6 1/8	2	4 3/4	4 3/8	16	171/4
8 VIIa	6 %	2	4-1/4	4 1/2	131/4	161/6
9 VIIa	Tukel en	and 2 touto	an doi 5 w as so	41/2	of 14 and at	161/4
16 Ic	71/2	2	6	5 3/4	18	191/4
17 Ic	8 1/6	3	6	5 1/2	20	19%
6 IIb	9 7%	3	5 7/9	5 1/4	163/4	19 %
7 IIb	81/4	3	5 1/2	5 %	17	201/8
And the second second	10	3	CO L olderer	The organi		

				SET DURING THE TRANSPORTER		
Positiv	e Lens Equival't	Telephoto	At Three Ma	gnifications Bellows Draw	At Eight M	lagnifications Rellows Draw
Number	Focus	Negative Element	Inches	Inches 5 %	Inches 17½	Inches
10 VIIa 11 VIIa	Inches 7%	Element 3	5 1/2	5 1/2	16	2014
12 VIIa 13 VIIa	91/8	3	1015 1/2 2010rd	5 17	151/2	19%
14 VIIa 18 Ic	91/4	3 3	51/4	5 %	ago 124 [549m]	19%
8 IIb 15 VIIa	11 %	4 4	8 1/4 8 1/2	7 1/2	21 ½ 22 ½	2614
16 VIIa 17 VIIa	10 %	4	8 734 1158	ad vo 7 % od o	211/2	26 %
18 VIIa 19 VIIa	11 %	4	8 1/2	7 1/2	23 22 1/2	28
15 VIII	1314	4	notion to	t pood and ro	I aixes, one f	It is made it

In the above table will be found the combinations which we recommend, together with the magnification and bellows draw for the two extreme magnifications. Focus, Inches Fitted to Bausch & Fitted to Lenses of No.

Lomb Lenses Other Manufacture \$43.75 52.75 61.50 69.50

In every instance lenses should be sent to us to secure correct adjustment in fitting Telephoto Attachments.

### Bausch & Lomb New Plastigmat Portrait Lens

#### For Impressionistic Work

Quite a definite school of photography has been developed in recent years by the use of so-called "diffused" or "soft focus" lenses. While the results attained have gained more or less popularity, most of the lenses heretofore available for this work have been disappointing to photographers because of their optical imperfections.

Photographs made with them at full aperture have all too often proved unsalable because of the lack of detail in the high lights, clogging of the shadows and the extremely fuzzy indistinctness of the finished picture. To obtain satisfactory detail and sharpness the photographer has been compelled, in most cases, to stop down the lens to F:16, thus greatly prolonging the exposure at the cost of a loss of expression and possible movement of the subject.

To eliminate these defects, and at the same time give the artistic results desired, has been the problem with which our technical staff has centended for some time past. The result of their research in the new Plastigmat Portrait Lens (F:5.6) presented herein for the first time. How well it achieves its purpose is indicated by the specimens of work reproduced in those pages and the enthusiastic testimony of the prominent photographers who gave it a thorough trial in their studios before we were satisfied to place it on the market.

With the Plastigmat it is possible to obtain the desired results with the full opening of the lens. In computing it we have introduced a slight confusion of the image-forming rays over the entire field, thus avoiding the needle sharpness of the anastigmat and producing chemically soft negatives which eliminate 90% of the retouching. At the same time it avoids also the disagreeable diffusion disliked by the average patron; the high lights do not clog and there are no chalky whites. Detail is preserved in the deepest shadows to a remarkable degree, with almost a total absence of the so-called double lines, except in very contrasty lighting of the subject. And last, but by no means least, the photographer gets in the negative exactly what he sees on the ground glass, without any guess-work in focusing.

To summarize, the **Plastigmat Portrait Lens** removes the several obstacles which have prejudiced many photographers against undertaking this impressionistic class of work and paves the way for truly artistic effects.

#### PLASTIGMAT PORTRAIT, F:5.6

Code Word	No.	Size of Plate Covered, Inches	Equivalent Focus, Inches	Diameter of Lens, Inches	Lens and Barrel with Iris Diaphragm
Hight Higre Hilal	0 1 2 3	$\begin{array}{c} 4 & \times & 5 \\ 5 & \times & 7 \\ 61 & \times & 81 & 2 \\ 8 & \times & 10 \end{array}$	9 12 15 18	2 <sup>3</sup> / <sub>15</sub> 2 <sup>3</sup> / <sub>4</sub> 3 <sup>5</sup> / <sub>16</sub>	\$55.00 70.00 90.00 115.00

Each lens in barrel is furnished in a case, which protects it from injury. Lens hood, cap and flange are included.

### Eastman Adjustable Lens Hood

This article replaces the clumsy and many times unsightly makeshifts with which the photographer has put up with in the past. One great advantage of this hood is the fact that if bumped into by the photographer by accident, it does not pull over the camera with it. The lens hood merely drops off, and can be readjusted instantly.

In Rembrandt lightings, the hood may be adjusted so as to guard against side lights.

It is made in 3 sizes, one for lens hood 2 to 4 inches, the other 3½ to 6 inches. The material is black morocco, with nickel plated spring band, and the inside is lined with fine non-reflecting black velvet.

#### PRICE

No. 0, for	lenses	21/2	to	3 1/2	in.	diameter\$2.85
No. 1, for	lenses	31/2	to	41/2	in.	diameter 3.35
No. 2, for	lenses	4 1/2	to	6	in.	diameter 4.00



# Goerz Dagor F:6.8-F:7.7

No lens of any make is better and more favorably known than the famous Goerz Dagor. in every country, under every imaginable condition used by amateurs and professionals alike, this lens has absolutely made good. It is a symmetrical anastigmat made up of two cemented combinations. At full aperture it covers very sharply the plate for which it is listed; when stopped down it covers a much larger plate and cuts an angle of 90 degrees. This makes the Dagor a most perfect wide angle lens for buildings, interiors, etc. The single combinations may be used with medium stops for securing large images of distant objects. The Dagor with Compound, Acme or any standard shutter may be fitted to any camera with adjustable bellows extension. The Goerz Dagor is the dependable lens for the amateur, commercial photographer, lecturer, traveler and scientist.

#### PRICES OF DAGOR LENSES

				late Sharply	Covered at		
Equivalent			Full			In Barrel	With Acme
Num-	Focus	Relative	Opening	F:32	F:64	Iris	or Compound
ber	Inches	Opening	Inches	Inches	Inches	Diaphragm	Shutter
000a	3	F:6.8	234 x 234	31/4 x 4 1/4	At F:64 a	\$36,00	\$51.00
00	31/2	F:6.8	3x3	4x5	Dagor lens	39.00	54.00
00a	4	F:6.8	3x3	4 1/2 x 5 1/2	will cover a	42.00	57.00
0a	5	F:6.8	31/4 x 4 1/4	5x8	plate with a	42.00	60.00
1	6	F:6.8	4x5	61/4 x 8 1/4	diagonal of	45.00	60,00
1a	61/2	F:6.8	314x514	61/2 x81/2	about twice	51,00	69.00
2	7 "	F:6.8	5x7	8x10	the focal	54.00	72.00
3	814	F:6.8	5x8	10x12	length of	63.00	81.00
4.0	91/2	F:6.8	61/2 x 8 1/2	11x14	the lens.	8 75.00 08	96.00
50	10%	F:6.8	7x9	12x16	88.88	87.00	108.00
6	12	F:6.8	8x10	16x18	in vortse ander	105.00	129.00
8 0	19	F:7.708	12x15	22x25		123.00	150.00
107 V	14 1000	F:7.7	10x12	18x22		159.00	192.00
7a	161/2	F:7.7	11x14	20x24		207.00	240.00
100	1072	*	~ ~ ~ ~	-0112	THE WORLD IN	ALCOHOLD TO A CONTROL OF THE PARTY OF THE PA	

#### GOERZ DOGMAR F:4.5 ANASTIGMAT LENSES

Number	Equivalent   Focus   Inches	Size of Plate Sha Full Opening Inches	rply Covered at   F:16 Inches	In Barrel with Iris Diaphragm	or Compound Shutters
000a 00 1 1a 2a 2a 3 4	3 4 5 6 6 1½ 7 7 1½ 8 1½ 9 ½ 10 1½	1 % x 2 % 2 ½ x 3 ¼ 3 ¼ x 4 ¼ 3 ½ x 4 ¼ 4 x 5 4 x 6 4 ½ x 6 ½ 5 x 7 5 x 8 6 ½ x 8 ½	2 ¼ x 2 ¾ 2 ¾ x 3 ¾ 3 ½ x 4 ½ 4 x 5 4 x 6 4 ½ x 6 ½ 5 x 7 5 x 8 6 ½ x 8 ½ 7 x 9	\$36.00 42.00 45.00 54.00 60.00 69.00 75.00 90.00 129.00 153.00	\$51.00 57.00 63.00 75.00 81.00 90.00 99.00 117.00 162.00 186.00

#### DOGMAR F:5.5

6 7 7a	12 14 16½ 19	7x9 8x10 10x12 11x14	8x10 10x12 11x14 12x16	180.00 195.00 228.00 270.00	For Portraits and Small Groups
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#### EASTMAN KODAK ANASTIGMAT-f.4.5

		in the an work liky Asme. 22.	Size of Plate		Lens in Barrel
panny		Mount with Irla Dispinagio, 211.00;	Covered with Stop	Focus, Inches	with Iris Diaphragm
No	20	Trenas parinose Al, 303 Laisadoon signet	f.4.5, Inches	41/2	\$33.00
No.	31		3 ¼ x4 ¼	5 1/2	37.50
No.	32	111	3 ¼ x5 ¼	716	43.50 53.50
No.	33		5 x7	8 3/4	66.50

#### BAUSCH & LOMB KODAK ANASTIGMAT LENS-SERIES f.6.3

No.	LB	state of the doublet. Accurate me saldenger of the doublet, Accurate me unless we the sald th	Size of Plate Covered with Full Aperture	Equivalent Focus, Inches	\$22.00
No.	1	off Igranall 81 40	2 ½ x4 ¼ 3 ¼ x4 ¼	4 ½ 5	25.00 27.00
No. No.	3 4		3 ¼ x5 ½	6 % drane.I	28.00 34.50 48.00
No. No.	5	00.85	6 ½ x8 ½	10 10	65.00

## Turner-Reich Convertible Anastigmat 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.

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 recommend it for instantaneous exposures and outside work. Turner-Reich Lenses are sold subject to ten days' trial so the burden of proof rests upon the actual results produced by each lens and not upon any statement of ours.

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	P. lent	of Ba	of F.	andori .	Inches	ening liches	ber Inches Op
	met is, in ilva ilva us,	us cus	ses ses Pla	In Auto	In Betax	In Ilex Universal	In Ilex
No.	Len Len Equ	Foc	Foc For	Barrel Our Price	Shutter Our Price	or Optimo Our Price	Acme Shutter Our Price
0	% 5	8	12 3½x 4¼	\$ 42.75	\$ 43.20	\$ 49.05	\$ 55.20
1	78 614	11	14 4 x 5	8 0 46.80 ad	48.15	53.55	57.15
2	11/8 71/2	12	18 5 x 7	56.25	58.95	62.55	66.15
3	11/4 81/2	14	20 5 x 8	61.65	64.35	69.75	73.80
4	1% 10%	18	24 61/4 x 81/4	86.85	86.85	92.75	96.30
5	1 1 12	21	28 8 x10	98.10	100.80	105.30	118.80
•6	2 15	24	36 11 x14	150.30	150.30	154.80	172.80
	min a min or	10 -	amphimations ofice	o monking	aparture of	E-19.5 and W-16	regrestively for

The single combinations give a working aperture of F:12:5 and F:16 respectively for the rear and front combinations. Barrel mounts have an iris diaphragm.

\*Working aperture F:7.5.

Turner-Reich Convertible Anastigmat F:6.8 in Sets.

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 doubtlet with either the front or back combination and really adds in this way three new lenses to the photographer's—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 8x10 symmetrical anastigmats. This is where the economy comes in and the con-

venience should be considered as well.

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 expos-

ures, even instantaneous exposures under suitable conditions.

#### PRICES

Single Combinations	Set for 6½x8½ Focal Lengths in Combination	or 8x10 Camera Working Aperture		
14 in. No. 3	14 in. + 18 in. = 8	in. F:6.4	No. 4 General\$16.20	
18 in. No. 4	14 in. + 24 in. = 91/2	in. F:7.6	No. 4 Betax 13.50	
24 in. No. 4	$14 \text{ in.} + 28 \text{ in.} = 10\frac{1}{2}$		No. 4 Optimo 20.25	
28 in. No. 5	18 in. + 24 in. = 10 1/2		TEAH.	
	18 in. + 28 in. = 11½	in. F:7.5	No. 4 Ilex Universal 18.00	
dyalent Lengin B	24 in. + 28 in. = 13	in. F:8.3	No. 4 Ilex Acme 22.50	

Price of set without Mount, \$175.75; Barrel Mount with Iris Diaphragm, \$11.00; Average cost of ten lenses \$17.57 each; Average cost of five doublets, \$35.14 each.

### Turner-Reich Symmetrical Anastigmat f:6.8 SER. III.

The Series II and Series III Turner-Reich Anastigmats are identical in optical qualities and the single combinations of the latter may be used separately like those of the convertible lenses but they are equal instead of dissimilar in focal length. The singles of the symmetrical series are about twice the focal length of the doublet. Accurate mounting and fitting of lenses cannot be guaranteed unless we are allowed to do the work, and if customer supplies the shutter it should be sent to us and we will furnish proper diaphragm and focusing scales for the lens.

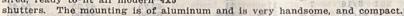
27.00	Focal	THE RESIDENCE AND THE PARTY.	For	In.	General	Universal
No.	Length	Diameter	Plates	Barrel	Shutter	Shutter
6	14 in.	2 in.	10x12	\$119.70	8126.90	\$128.70
(7):86	17 in.	2½ in.	11x14	156.60		No. 5
(20.88	21 in 0	914 in	14-17	240.20		

### The Regular Adon Telephoto Lens

officeds has biell stell a golden (For Hand Cameras)

The regular Adon is a complete telephoto lens made especially for use on short bellows hand cameras. At the same extension as the ordinary lens, the Adon gives a picture three times the size, and that at apertures allowing for snap shots under favorable light conditions.

Its optical construction is so perfect that sharply defined pictures can be obtained at full aperture, with medium extensions. It is provided with a flange for attaching to a separate lens board or can be supplied when so desired, ready to fit all modern 4x5



Regular Adon Telephoto Lens.

ADON

Escoular of Hts for the Carthern		Walankata Calawlatan	
Aluminum Light Hood Extra Cap for Lens Hood	\$1.15 .60	Telephoto Calculator Burchett Color Screen	6.00

#### of work that are Dallmeyer "Dallon" Telephoto Lens

#### ANASTIGMAT SERIES VI. F/5.6, SERIES KVI F:7.7 AND SERIES KVII F:6.8

The "Dallon" is a true anastigmat telephoto, the definition from center to edge at the full aperture is excellent and negatives made with these lenses will stand a high degree of

enlargement.

The "Dallon" produces images twice the size obtained with lenses requiring equal bellows extension used at same distance from the object.

Series VI can be fitted to the following Graflex Cameras:—Nos. IB and IC for the 1A Graflex, No. 3 for the 3A, No. 1 for 3½x4½ Auto, No. 2 for 4x5 Auto, Nos. 3 and 4 for 5x7 Auto, No. 1B for Auto Jr., No. 2 3½x4½ R.B. Auto, No. 4 for 4x5 R.B. Auto, No. 1B for 2½x3½ R.B. Jr., Nos. 1 and 2 for 3½x4½ R.B. Telescopic Graflex, No. 3 for 4x5 R.B. Telescopic, No. 4 for Naturalist, 5x7 Compact and Press.

It is therefore an ideal lens for travel, sport, games, etc., where it is desirable to record detailed action.

The Series VI has an aperture F/56 and is thus particularly suitable for rapid work

The Series VI has an aperture F/5.6, and is thus particularly suitable for rapid work with Reflecting Cameras, but can, of course, be fitted to most other cameras: for instance, it can be used with great advantage on a studio camera for portrait work. The equivalent focal length is approximately, twice the camera extension; it is thus possible to obtain, on an ordinary camera, a much improved perspective as compared with that produced

by an ordinay lens, since the picture may be taken at twice the distance away.

The Series XVI Dallons can be fitted to the following Graflex Cameras:—No. 2 for 4x5 Auto. No. 4 for 4x5 R.B. Auto, No. 2 for 34x44 R.B. Telescopic, No. 4 for Naturalist, 5x7 Compact and Press.

The Series XVII No. 2 can be fitted to the 34x44 R.B. Telescopic Graflex.

The Series XVI has an aperture F/7.7, and is smaller both in diameter and length than the Series VI; its compactness and lightness make it suitable for use on ordinary hand cameras, particularly as it can, if necessary, be fitted to most of the usual between lens shutters on the market. The aperture is sufficient for instantaneous work in many cases, and its price should put a first class telephoto lens within the reach of all.

	DAI	LON TELEPH	Infinity	VI—F/5.6	Price datas ad
No. 180 1180 110 110 110 110 110 110 110 110	Plate Size Inches 2 ½ x 3 ½ 2 ½ x 3 ½ 3 ¼ x 4 ¼ 4 x 5 3 ½ x 5 ½ 4 % x 6 ¼	Equiv. Focus Inches 9 10 11 12 14 17	Back Cell to Screen 4½ Inches 5½ Inches 6 Inches 7 Inches 81% Inches	Barrel Mount \$ 80.00 88.00 95.00 102.00 124.00 167.00	Focus Mount \$102.00 112.00 121.00 128.00 150.00 192.00
28.14 08.88 08.88 2027 1 Muoring	DAL 4 x5 4 % x6 ½	LON TELEPH	OTO SERIES 6 Inches 8½ Inches	XVI—F/7.7 \$ 66.00 117.00	\$ 80.00
2	3 1/4 x 4 1/4	ON TELEPHO	6 Inches	NVI—F/6.8 \$110.00	\$132.00

#### Wollensak Lenses

#### SERIES I VELOSTIGMAT F:6.3

The Series I is a perfect Anastigmat, being triple convertible in construction, with full correction for astigmatism, spherical and chromatic aberration, a flat field and absolute freedom from coma, distortion and flare.

The working aperture of F:6.3 is sufficiently rapid for all general work, excepting

extreme speed photography.

The front and back combinations are corrected for individual use, the two being of sufficiently different focal length to make the Series I truly three lenses in one. The single elements can be employed to advantage where a reasonably large image is desired, or for improving perspective in photographing distant scenes, copying, etc. In using an element singly, it is necessary to stop down to about F:8 or F:11 to get good definition

over the entire plate.

The Series I Velostigmat is equally suitable for landscape and view work, architectural and commercial photography, copying and enlarging, and for all other classes of work requiring fully corrected objective.

No. 0 1	Plates Covered Sharply atF:6.3 Inches 2½x3½ 3½x4½ 4 x5	Diam. of Lens Inches 27/32 7/8	Equiva- lent Focus Inches 3½	rately at F:18 Inches	Sepa- rately at F:12.5 Inches	With Barrel \$ 27.00 29.25	Price With Betax Shutter \$ 31.50 33.75	Price With Optimo Shutter \$ 36.90 40.45
2A 3 4 5 7	3½x5½ 5 x7 6½x8½ 8 x10 11 x14	1 1/16 1 3/16 1 17/32 1 31/32 2 9/16	6 1/2 7 9 1/2 12 1/2 16	14 16 17 21 1/2 28 38	10 10 11 16 1/2 20 26	31.50 36.00 42.75 67.50 85.50 144.00	36.90 40.50 47.25 72.00 90.90 153.00	45.10 47.70 54.45 79.20 97.65

### Velostigmat Series II F:4.5

The Series II, having the corrections found in the Series I, with greater speed, is in every sense of the word a modern lens, and will do well all branches of work that are within the scope of any ultra-rapid Anastigmat; i. e., Studio, speed, press, commercial, group and home portrait work, also copying.

The addition of a diffusing attachment to the three

No.

largest sizes raises it to the class of the highest priced portrait lenses, and with its fine corrections. goes that type one better, besides being much less

Diam.		Plates Cov'd	Price with	Price	Price	
of Equ	ivalent	Sharply	Sharply Barrel		with	
Lens	Focus	at F:4.5	A THE PROPERTY OF	Betax	Optimo	
Inches	Inches	Inches		Shutter	Shutter	
7/8	31/2	21/4 x 41/4	\$29.70	\$34.20	\$39.60	
11/8	6	31/4 x 41/4	32.40	37.80	45.00	
1%	6	4 x 5	36.00	43.20	47.70	
1 19/32	7	5 x 7	45.00	51.30	58.50	
1%	81/4	5 x 8	58.50	66.60	73.35	
21/3	91/2	61/2 x 81/2	90.00	99.00	105.75	
234	12	8 x10	121.50	132.30	Pine	
3 13	14	10 x12	157.50	lection C	with Het	
3 16 4 77	16	11 x14	202.50	nsed. Wi	ed men ti	
14.	191/2	14 x17	315.00	as alterdity	not Innot	

No. 4, 5 and 7 can be had in Studio Shutter same price as Autic.

The Nos. 4, 5 and 7 sizes have diffusing adjustment which makes them particularly valuable for portrait and group work.

### Velostigmat Series IV Anastigmat, F:6.3

#### THE LENS FOR THE HAND CAMERA

The Series IV supplies the amateur with a long-felt want.

The price is low enough, and the quality high enough to enable every one to own an The price is low enough, and the quanty high enough to enable every one to own an anastigmat lens. The Ser. IV is a fully corrected anastigmat, differing from the above Velostigmats only in covering power and the fact that the Ser. IV is not convertible.

It will fully meet the requirements of all camera users who do not need extreme speed and convertibility.

The finish is the same as the above Velostigmats.

				PRIC	ES			
	Size Plate Covered	Equiva	Diameter	to Sercourt		Price with	Price with Betax	Price with Optimo
No	. F:6.8	Focus	Lens	Speed	In cells	Bbl.	Shutter	Shutter
0	24x 34	31/2"	21/32"	F:6.3	\$13.50	\$14.40	\$20.70	\$27.10
1	34x 44	514"	13/16"	F:6.3	15.30	16.20	22.50	28.80
2	4 x 5	6 0"	15/16"	F:6.3	15.75	16.65	23.85	31.05
2A	31/x 51/2	6%"	1 1/16"	F:6.3	16.20	18.00	24.30	31.50
3	5 x 7	7 "	13"	F:6.3		29.25	34.65	41.85
4	61/4 x 81/4	91/2"	1%"	F:6.3	PERCENTER OF C	45.00	51.30	58.50
5	8 x10	12 "	1%"	F:6.3		63.00	70.20	76.95
	Title on Ale a NY	00 -1	I	A - CA		47.		-1 - 1 2 1 -

When the No. 00 size is desired to fit very compact cameras, the cameras should be sent to us and we will fit the lens to the shutter on the camera at the same price as

it is listed in barrel.

### Velostigmat Series III Wide Angle F:9.5

Speaking generally, no photographer's equipment is complete except it include a fast Wide Angle lens. There are so many times when a picture must be made in a small room where a long focus lens would be out of the question, or where the subject is a building in a narrow street, or an interior, or perhaps a banquet, where the focal length of the general commercial lens, such as the Series I Velostigmat, is too great.

So, for just such emergencies we created the Series III—a perfectly corrected Anastigmatic Wide Angle objective, covering the plate for which it is listed at the unusual speed of F:95, and embracing an actual 90 degree angle of view.

Particular attention is directed to the fact that the Series III is a convertible lens, each element being corrected for use alone and each being about twice the focal length of the doublet.

The finish in	black enamel	with gold	engraving,	is both	With Betax	With Optim
Plate Covered	d Equivalent	Working	With Barre	the cal	Shutter	Shutter

	Plate Covered	Equivalent	Working		COURTE	Price	Reg. Price	
N	lo. at F:9.5	Focus	Aperture	Price				
	3 5 x 7	4.3 in.	7/16	\$38.25		\$42.75 901 01	9180 \$49.95	
	4 61/4 x 81/4	5.4 in.	9/16	45.00		48.60	55.80	
ridi	5 8 x10	6.25 in.	9/16 5/8	58.50	Libour	63.90	71.10	
	7 11 -12	9. in.	15/16	90.00	bara o	96.30	103.50	
	NOTE-To asc	ertain cost o	of Velostig	mat in mounts	fitted	to customer's	own shutter,	
	TIOTTO TO MUC	ON COURT CODE				4 10 4 40 10 10 10 10 10 10 10 10 10 10 10 10 10	The second secon	

deduct following amounts from list prices in barrel: No. 1, \$2.75; No. 2, \$3.75; No. 2A, \$3.75; No. 3, \$4.75; No. 5, \$6.50; No. 6, \$7.50.

#### WOLLENSAK EXTREME W. A. SERIES III A

90 degrees, F: 12.5 on larger plates, 100 degrees.

The new Series IIIa with its speed, extreme angle, reserve covering power and moderate price, offers a combination of qualities that should prove of especial interest to the

commercial photographer. On the plate for which it is listed, the Series IIIa includes an angle of view of 90 degrees. Because of its large circle of light, it can be made to cover a plate a size larger by stopping down, thus affording an angle of approximately 100 degrees.

The Series IIIa gives excellent definition wide open, and must be stopped down but little to give wiry detail to the very corners.

No.	Size	Larger Plates, Smaller Stops	Focus	Dia. Lens	Barrel	Betax
3 4 5 6 7	5x7 6½x8½ 8x10 10x12 11x14 14x17	6½x8½ 8x10 10x12 11x14 14x17 17x20	45/6 53/8 63/4 67/8	13/4 17/4 17/4 117/2 117/2 13/4 21/8	\$20.25 25.65 29.25 36.00 45.00 58.50	\$26.55 31.95 37.35 43.20 54.00 66.60

### Verito Diffused Focus F:4

The Verito has met with a most welcome reception by the best known workers in artistic portraiture and landscape

the best known workers in artistic portraiture and landscape work, as it is a tool that allows the operator to put individuality into his work.

The speed of the Verito—F:4, makes it especially desirable for portraiture, either in the studio or at home, and even at this large aperture, it is possible to obtain an image remarkably free from flare and "running around," and with that beautiful "roundness" or "standing-out" effect, gradually growing sharper as the aperture is decreased in size.

The Verito is a double lens.

The owner of a Verito can make portraits, groups, landscapes, etc., "as the eye sees," but sharp negatives cannot be made with it unless stopped down to an aperture of F:11

The rear combination of the Verito is especially desirable for large heads and other work requiring ideal perspective. Thus the owner of the Verito in reality has two lenses in one,—a fact that should be borne in mind when considering the purchase of a lens for artistic work.

Soft diffused lighting effects will be found preferable in every instance, and it will be noted that a very moderate degree of contrast in the lighting will give a decided degree of contrast in the finished negative.

Nos. A and B are conpact in size, and primarily intended for roll film and plate cameras. The maximum working speed or aperture F:6 is ample for hand camera work and at that aperture a very pleasing degree of diffusion is obtained, the quality of which is practically the same as obtained with the F:4 lenses when used at an aperture of F:6.

	Size	Equiv- alent Focus	Rear Combi- nation	Diam. Lens	Speed	in Barrel Our Price	Studio Shutter Our Price	With Betax Shutter Our Price
A	314x 414	5 in.	10 in.	1 in.	F:6	\$20.25		\$25.65
B	4 x 5	61/2 in.	14 in.	11/4 in.	F:6	22.50	deleT oltero	28.80
1.0	4 x 5	6 1/4 in.	10 in.	1% in.	F:4	25.65	\$ 37.35	MaL.Gan
2	4 x 5	7 in.	11 in.	1% in.	F:4	29.25	40.05	40.05
THE VALUE	BIR IT TOOL	9 in.	14 in.	21/4 in.	F:4	38.25	48.15	50.85
pinon	61/m 81/m	111% in.	20 in.	3 in.	F:4	49.50	63.00	A STOCKED V
5	8 m10	14 % in.	20 in.	31/4 in.	F:4	69.75	83.25	***********
7	11 =14	18 in.	34 in.	4 1/4 in.	F:4	90.00	108.00	***********

### Wollensak Series V Anastigmat F:7.5

The amateur who has been using a hand camera with an ordinary R. R. lens will welcome the Series V, as it presents the possibility of securing anastigmatic sharpness in his pictures and yet is offered at a price that is within the reach of all.

The Series V can be furnished in our shutters of quality, or in mounts to fit the shutters on the popular hand cameras of the better grade, such as Ansco, Seneca, Kodak, Ensign, etc.

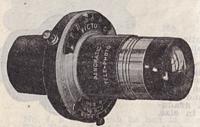
It is advisable to send the camera in to us to insure accurate adjustment of the focal scale to the lens.

No.	Size	Focus	Diameter of Lens	Cells	In Barrel	With Betax Shutter	With Optimo Shutter
•0	21/4 x31/4	3½ in.	18/32 in.	\$7.20	\$ 8.10	\$14.40	\$19.80
•0	1%x2½	3 1/2 in.	16/32 in.	7.20	A 8.10	14.40	19.80
•1	31/4×41/4	5 in.	21/32 in.	8.10	9.00	15.30	21.60
•1	21/2×41/4	5 in.	<sup>21</sup> / <sub>82</sub> in.	8.10	9.00	15.30	21.60
•2	4x5	5% in.	25/32 in.	8.55	9.45	15.75	22.05
*1 *1 *2 *2 *2 *2A	2 % x 4 %	5% in.	25/32 in.	8.55	9.45	15.75	22.05
2A	31/4 x 5 1/2	6½ in.	7/8 in.	9.00	9.90	17.10	24.30
3A	5x8	8 1/4 in.	1 3/32 in.		22.50	28.80	36.00
2	61/2 x81/2	10½ in.	1 º/32 in.		36.00	43.20	50.40
degreen	8x10	13 in.	119/32 in.		47.25	56.25	63.00

\*These sizes can be adapted to practically all types of hand cameras and where desired can be fitted to the Victor Shutter at the cost of the lens in barrel. Please specify camera to which lens is to be fitted unless it is sent to us for fitting.

Lenses in cells to fit customer's own shutter at prices of lens in barrel.

### Pancratic 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 made to order. The Pancratic is sold by dealers all ready for use in any shutter having openings for the lens cells 1 15 in. diameter, and most 4x5 and 5x7 cameras have shutters of this size. Larger shutters must be sent to us for fitting for which we charge \$1.50.

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 anastig-mat lens; in fact, the Pancratic is, superior in covering power and much more convenient while very much smaller and lighter. This lens has given perfect satisfaction to many hundreds of customers. 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 3½x4½ to 8x10 may be covered.

Magnification3	4 sd.	nad dvith	Intel 6	arres 7ant	willer 8
Light circle5½"	71/2"	91/2"	111/2"	13 1/2"	1516"
Bellow length required8"	11"	14"000	17"	20"	151/2"

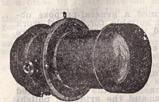
Weight of Lens and Case, 6 oz.

No. 1. Pancratic Telephoto Lens with Leather Case
No. 1 General Shutter 9.00
A Shutter of some kind is much preferable to a Barrel Mount for a Lang of this kind

Ask for Booklet, sent free of charge, Telephotography with a Pancratic Telephoto

### Vitax Portrait F:3.8

124 So. Wabash Avenue, CHICAGO, ILL.



It is true that Anastigmat portrait lenses, such as our Series II Velostigmat, with diffusion attachment, have come into great favor; yet it cannot be denied that in a modern studio lens, one built on a modification of the Petzyal formula, as the Vitax, will produce superior results for some classes of work. For this reason the Vitax will be found in a vast number of leading studios, including many where there is also a Series II Velostigmat.

The Vitax has a curved or saucer-shaped field, a point in its favor for portraiture, against the flat field of the Anastigmat. Therefore, the Vitax produces an image with beautiful "roundness" or "stereoscopic" effect and by dif-

fusing, free from wiry definition, yet not fuzzy.

The diffusion is controlled by a knob, accessible without removing lens from front board, as is necessary with some types. There are two ways of using it, either of which will give pleasing results. First, turn diffusion adjustment to any desired number, and then focus on subject—stopping down just enough to get the desired depth of focus; or, focus with the lens wide open and as sharp as possible, and then turn diffusion until the entire field is equally soft or diffused. entire field is equally soft or diffused.

With the first method (which is generally used), the diffusion will be very slight and the use of a small aperture will have a tendency to eliminate it, while in using the second method, a marked degree of diffusion is obtainable. In group work the attachment set at about "3" serves to equalize the focus and overcome to a degree the curved field of the lens.

The scope of the Vitax is large heads, busts, three-quarter and full lengths; also small groups. Larger groups should be formed in a semi-circle, to allow for the curved field of the lens. For child photography the Vitax stands supreme.

We do not list sizes with the Vitax, as the different numbers are used on different plates, from 5x7 to 11x14, according to the class of work, and selection depends upon this and the size of the studio generally must govern focal length.

No.	Equivalent Focus	Inside Diameter of Flange	Diameter of Lens	Price in Barrel with Iris Diaphragm	Price with Studio Shutter	1 - 2 CO CO
3 4	10 in. 13½ in. 16 in.	3 in. 3 in. 4 in. 4 in.	3 % in. 4 % in. 4-23/32	\$ 94.50 121.50 166.50	\$108.00 135.90 180.90	0000

### Vesta Portrait F:5



Built on a modification of the Petzval formula, the Vesta, like the Vitax, produces "rounded" or "stereoscopic" effects so much desired in portraiture.

It is unlike the Vitax, principally because of its slower speed, and lack of a diffusion or equalizing attachment.

To those photographers who are in need of a most satisfactory studio lens but who cannot invest the price of the Series II Velostigmat, we very highly recommend the

The Vesta will be found entirely practical for busts, large heads and three-quarter lengths, and by slightly stopping down, it will take care of standing figures and

groups where speed in exposure is not essential. groups where speed in exposure is not essential.

The front lens is corrected for use alone, hence the owner of a Vesta has two lenses in one. The focal length of the single element is considerably greater than the doublet (see table below) and serves admirably in photographing large heads or other subjects requiring a long focus lens to obtain proper perspective. In using the front lens, place it behind the disphagen by first remaining the rear element. it behind the diaphragm by first removing the rear element.

The Vesta is beautifully finished in black, with white engraving.

No.	Size	Equiv- alent Focus	Focus Front Combina- tion	Outside Diameter of Flange	Diameter of Lens	Price Bar- rel with Iris Dia, Reg. Price
No. 1 2 3	3½ x4½ 4 x5 5 x7	6 in. 7 in. 10 in.	9 in. 11 in. 14 in.	3¼ in. 3¾ in. 4 in.	1% in. 1% in. 2% in.	\$18.00 24.75 30.60
4 5	6½x8½ 8 x10	11½ in. 14 in.	17 in. 21 in.	4½ in. 5¼ in.	2 ½ in. 3 in.	42.40 58.50

List prices if equipped with Wollensak between the lens Studio Shutter: 

### Versar Enlarging Portrait and View F:6



The Versar is what might be termed a general-purpose objective, moderate in price, and entirely suitable for general work where the fine corrections, etc., obtained with the Velostigmat are not essential.

The two elements of the Versar are of the same focal length, being about double the equivalent focus, and can be used separately by stopping down, the speed of the single element being about one-fourth that of the doublet, taking aperture for aperture. We recommend using the rear lens, as the proper place for the diaphragm in such cases is before the lens. Only the best imported optical glass is used in its construction, and the grinding, polishing, etc. have the same care as is given the Velostigmats.

The high speed of the Versar makes it desirable for ordinary studio work, including busts, full lengths and groups, and because

studio work, including busts, full lengths and groups, and because of its small size, and high speed, is a practical objective for home portraiture, and work of similar character. General view, commercial and architectural work can be done with the Versar when slightly stopped down, and its construction is such that it is very desirable for enlarging and copying.

Its merits as a portrait enlarging lens are deserving of special emphasis as it possesses the faculty of practically eliminating the traces of retouching in the original.

The Versar is furnished in highly finished black barrels with iris diaphragm and cap, or fitted to the various shutters of our manufacture as listed below.

Attention is directed to the fact that the Versar will not give fine definition to the extreme corners of the size plate for which it is listed unless stopped down to an aperture of about F:11.

No	Size has	Equivalent Focus	Diameter	Mounted in Barrel	With Studio Shutter	With Betax Shutter
2	di nodu xobeq	6½ in.	11/4 in.	\$ 20.70	ar to light secord	\$29.70
3	5 x 7	8% in.	. 1 1/2 in.	24.75	othe studio weneral	10 33.75 Dn
4	61/4 x 81/4	9½ in.	1% in.	32.40	\$ 43.20	42.30
5	driv 8 oix10	11% in.	2 in.	42.30 hieri	52.20	55.90
6	10 x12	15 in.	21/2 in.	54.00	64.80	64.80
7	modification in	16½ in.	2 % in.	68.85	80.55	OV
8	00.14 rex17	18 in.	2 in	90.00	103.50	
9	08.17. x20	22½ in.	3% in.	115.20	129.60	

NOTE—No. 5 is the largest size that can be mounted in Regno shutter. No. 3 and the larger sizes can be mounted in our Studio shutter.

### Voltas F:8

The Voltas F:8 represents an improvement on the older Three Focus Symmetrical type, and while it lacks the speed of the Versar, it is more compact, and is recommended for hand camera work, copying and enlarging and general view work, as well as portraiture and groups, where the lighting is ideal and the finer optical corrections and great speed are not essential.

Each element is corrected for use alone and is of different focal length, giving the owner three lenses in one. The long focal length of the front lens makes possible telephoto work, and the photographing of other subjects requiring a large magnification of the image.

It is hoped that the Voltas will not be confused with the ordinary R. R. or R. S. type of lenses, as it has been our endeavor to make the Voltas excel in its class and we urge those interested in this type to secure one for trial.

Attention is directed to the fact that this lens will not cover the size plate for which it is listed to the extreme corners with fine definition, unless stopped down to an aperture of F:11; also that the single elements must be used at a small aperture to give satisfactory definition.

The finish is the same as the higher priced lenses, being black enamel but with white engraving.

elff pint	Dlameter	Totomat Equivalent (mo)	Diameter	Barrel or
No.	Size	sunsili to Focus not	Mounted in	Betax Shutter
on orb	31/4 x 41/4	ni Mg 5 in. ni e	34 in.	\$10.80
20 AC2	4 x 5	6 1/2 in.	1 in.	12.60
3	5 x 7	art & 8 in, m at	1 1/2 in.	13.50
4	61/2 x 81/2	10½ in.	1½ in.	22.50
5	8 x10	12½ in.	1% in.	28.80
00,006	10 x12	16 in.	2 in.	45.00
7	11 x14	18½ in.	2 1/4 in.	51.75
*8	14 x17	22 ina and	2 % in.	67.50
*9	17 x20	26 in.	3 ¼ in.	85.50
		THE RESERVE ASSESSMENT OF THE PARTY OF THE P		A STATE OF THE PERSON OF THE PERSON OF

no to mutilate tails darked and it for transparent of the property of

### THE RAPID RECTIGRAPHIC LENS

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

The formula of the Rapid Rectigraph requires three elementary lenses in each combina-

The formula of the Rapid Rectigraph 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 Rectigraph 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 Rectigraph has the distinction of being the first convertible lens

No.	Size of Plate	Diameter of Lenses	Equivalent Focus	Focus of Back Lens	Focus of Front Lens	Mounted in Barrel	Mounted in Betax Shutter
1 2	4 x 5	% in.	61/4 in.	11 in.	14 in.	\$20.25	\$21.60
2 80	5 x 7	1 1/8 in.	7½ in.	12 in.	18 in.	24.20	24.30
3	5 x 8	1% in.	8½ in.	14 in.	20 in.	27.90	31.50
4	61/2 x 81/2	1½ in.	10½ in.	18 in.	24 in.	30.60	33.30
5	8 x10	1% in.	12 in.	21 in.	28 in.	39.60	42.30
6 92	10 x12	2 in.	16 in.	251/4 in.	34 in.	48.60	54.00
7 20	11 x14	21/4 in.	18½ in.	29 1/4 in.	39½ in.	64.80	2
8 00	14 x17	2% in.	22 in.	34 % in.	47 in.	81.00	
9 81	17 x20	3 1/4 in.	26 in.	41 in.	56 in.	108.00	DL

For matching lenses for stereo work, add \$2.50 to price of lenses.

### Emil Wide Angle Lenses in Cells F:16

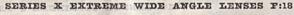
This lens is well known for its good qualities, and it has popularized the wide angle lenses in cells. It is well corrected for achromatism, and gives a perfectly rectilinear image with even illumination.

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 % in.	% in.	Rayo 4x5 toob!	\$7.15
4 % in.	3/4 in.	5x7	9.50
6 1/4 in.	1 in.	61/2 x 81/2	11.40
7¼ in.	1 1/8 in.	som 0 8x10	15.10



# Wide Angle Lenses



Furnished only in barrel mount with revolving stops.



No.	Plate Size of	of Lenses Diameter	Focus Back	Focus Equivalent	Price
1	5x7	% in.  1 in. 1½ in. 1½ in. 1½ in. 2 in. 2 % in.	3 in.	3 % in.	\$17.20
2	6½x8½		4 1/6 in.	4 5% in.	20.90
3	8x10		4 3/4 in.	5 % in.	24.70
4	10x12		6 in.	6 ½ in.	28.50
5	11x14		6 7/8 in.	7 ½ in.	33.25
6	14x17		8 1/4 in.	9 in.	40.30
7	17x20		10 in.	11 in.	51.30

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 and 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.

		The second secon		
No.	Plate	Focus	Focus	Barrel
	Size of	Equivalent	Back	· Price in
1 1 - 2	4x5	4 in.	3 1/2 in.	\$9.50
5011 0	5x7	5 1/2 in	4 3/4 in.	11.90
THE PAUDITIES	6 1/2 x 8 1/2	6 ½ in.	5 1/2 in.	15.20
4 5 03	8x10	8 in.	7 1/4 in.	19.00

### VOIGTLANDER HELIAR LENS F 4.5.

For Reflex and Focal Plane Cameras, Press Work, etc., and those requiring a Lens that may be used under conditions when Lenses of a smaller aperture would result in failures.

Enlargements may be made from 4 plate negatives, to 34x47 inches, without material loss of detail and definition.

The "Heliar" also is unrivalled as a Portrait Lens.

Full Aperture, F 4.5, in all sizes. Angle of View, 50°.

#### HELIAR F 4.5.

No.	Equivalent Focus, Inches	Size of Plate Sharply Covered F 4.5, Inches	Ordinary Mount	Counter Sunk Mount	Focusing Mounts
1	13/8 13/4 2	11/8x 3/4	\$42.30	olven garagedoptic	\$49.34
2 3	134	11/8x1	42.30	manufacture Countries had	49.34
3	2	2 x1½ 2 x1⅓ 2 x1½	43.70	Burrell & Percesson	52.08
5	298	2 x11/3	46.36	Ser British Order and the	54.48
0	23/8 23/4 31/4	2 x1½ 2 x2	49.34	\$54.48	57.57
6 7	374	2 x2 23/x2	52.08 57.57		60.34 64.52
0	434	3½x2½	60.34	59.58 62.05	67.35
8 9	53/8	41/4x31/4	64.52	67.35	73.02
10	6.00	43/4x3½	67.35	71.66	75.78
11	61/2	4 x5	79.25	81.85	85.95
12	71%	1051/2x4 01 03.	86.15	89.01	94.52
13	718 814 912	6 x4	118.00	122.35	127.58
14	91/2	7 x5	141.00	146.60	150.16
15	111/2	8½x6½	192.60	203.88	LUXE
16	131/4	9½x7	254.85	CATIONS CAMPILES	THERE WILLIAM
17	161/2	10½x8¼	332.24	ndinged bess nich	sped days to
18	19	12 x10 pmp	404.10	til tob covered Have	at sual win'
19	24	16 x12	794.67	the wide ougle len	healtstarged

### Voigtlander Collinear Lens. F 6.3.

#### "The Perfect Lens"

This Lens is fully as quick as the majority of Anastigmats, does all kinds of ordinary instantaneous work, view work, flash light, outdoor groups, copying, and for small hand

We supply "Collinears" to fit Kodak hand cameras, so mounted that they can be fitted by the purchaser into the shutter of his camera. No alteration of shutter is necessary in the camera. A correctly marked diaphragm scale is supplied with each set.

#### VOIGTLANDER COLLINEAR F 6.3.

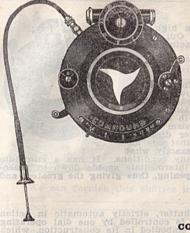
No.	Equivalent Focus, Inches	Size of Plate Sharply Covered— at Full Aperture, Inches	Ordinary Mount	Counter Sunk Mount	Focusing Mount
1	31/4	3½x2¼	\$46.02	\$48.70	\$53.58
2 3 4 5 6	31/2	3½x2½	49.51	52.20	57.56
3	the 14 millions	4 x31/4	52.40	54.60	58.97
4	434	43/4x31/2	54.44	57.85	61.72
5	4¾ 5¼	5 x4	59.27	61.80	67.21
6	6	6½x4¾	66.48	69.00	73.03
7	6½ 7½	6½x4¾	72.51	73.90	79.36
8 9	71/8	7 x5	82.15	85.20	90.38
9	8 11 8	8 x578	87.98	90.36	94.50
10	10	81/4x57/8	118.93	ni lo out east an	do georgel
11	12	8½x6½	162.15	and the same of the	saga tol Di
12	141/2	9 x7	213.54		
13	171/2	10 x8	292.61	Stow sizes obtwo	or extreme
14	201/2	12 x10	356.73	anti pend onl min	Nogrees wil



### Iris Lens Flanges

No. 1	for	lenses	4-10 to 2 4-10" Dia.	55.25
No. 2	for	lenses	4-5 to 3 1-5" Dia	5.70
No. 3	for	lenses	1-5 to 4" Dia,	6.25
No. 4	for	lenses	2 to 3%" Dia.	7.60

This is an adjustable flange, which is attached to front board and will accommodate various size lenses without any additional attachment For example, the No. 1 is for lenses measuring 4-10 to 2 4-10 inches in



### Compound Shutter

#### A SHUTTER FOR SPEED AND SERVICE

A shutter with an ample variety of speeds, uni-A shutter with an ample variety of speeds, unform exposure and mechanical accuracy is an absolute necessity in successful photography. Regardless of the perfection of the lens, satisfactory results can be obtained only when that lens is equipped with a shutter which functions properly.

The Compound Shutter is an exceptionally efficient. inter-lens shutter for the photographer who wishes speed combined with the greatest possible compactness. It is both an automatic and a setting shutter, neither adjustment interfering with the perfect action of the other.

Bulb and time exposures are made without setting the shutter. When an instantaneous exposure is to be made, however, the setting lever must be depressed before the shutter will operate. The larger sizes have a pin just above the diaphragm scale instead of the disc, as illustrated, for designations of the disc, as illustrated. nating the kind of exposure to be given.

#### COMPOUND SHUTTER

× 11000	Light	Aperture	Thread	Aperture	Diam.	f Casing		Price
No.	mm	ins.	mm	ins.	mm	ins.	Speed	TOTAL .
00	15	9/16	19	ABS NEW	45	134	1/300	\$18.00
0	23	7/8	27	1 1/16	57	2 3/16	1/250	18.00
1	27	1 1/16	30.5	1 3/16	66	2 9/16	1/200	19.00
1a	27	1 1/16	35	1 3/8	66	2 9/16	1/200	19.00
2	30	1 3/16	40	1 9/16	75	3 1/16	1/150	21.00
2	35	1 3/8	45	1 3/4	75	3 1/16	1/150	21.00
2	40	1 9/16	49	1 15/16	87.3	3 7/16	1/100	25.00
3a	40	1 9/16	54.8	2 5/32	87.3	3 7/16	1/100	27.00
A	52	2 3/10	67.5	2 7/16	106	4 3/16	1/75	35.00
F amin	04	2 9/16	01.0	2 1/10		Someone .	1/50	40.00
Hittin	e to Go		if nurch	aged with	shutter.	free of	charge. Fitting	

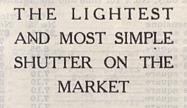
lenses according to size, prices upon application.

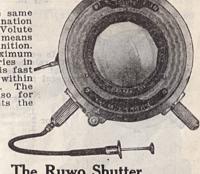
#### Bausch & Lomb Volute Shutter

In the Volute shutter the diaphragm blades are the same

In the Volute shutter the diaphragm blades are the same as the shutter blades which means maximum illumination with minimum motion. There are more blades in the Volute shutter than in any other shutter on the market. This means absolutely uniform exposure, covering power and definition. The Volute shutter is a setting shutter and its maximum exposure is one second. The minimum exposure varies in the different sizes as per table below but the shutter is fast enough for moving objects at such ranges as are within the limits of the cameras of the non-reflecting types. The pointer on the top sets for the various exposures, also for time and bulb exposures. The lever on the side sets the shutter and also serves as a finger release.

No.	Inches	Automatic	Volute
	Opening	Exposures	Shutter
1 2 3	1 1 7 2	1 sec. to 1/150 sec. 1 sec. to 1/100 sec. 1 sec. to 1/75 sec.	only \$23.00 25.00 27.00





### The Ruwo Shutter

The Ruwo Shutter

The Ruwo Shutter is simplicity in itself and is noted for the ease by which it is operated and its non-vibrating qualities. The body is made of aluminum with metal blades of which there are six sections, guaranteeing uniform exposure and quick operation. It is attached on the front of the lens with thumb screws which hold it securely. No fitting necessary.

Ruwo S-7 remaining light aperture is 2% inches and will take lenses from 2% inches up to 3% inches. Sizes of lenses to fit must be specified or the shutter will be sent with a light aperture of 2% inches.

Ruwo S-6 remaining light aperture is 2% inches and will take lens up to 2% inches. Sizes of lenses must be specified or the shutter will be sent with a light aperture of 2% inches or 2% inches.

Ruwo S-6 remaining light aperture of 2% inches or 2% inches.

Ruwo S-6 Ruwo S-7 Ruwo S-6 Ruwo S-7 Ruwo S-6 Ruwo S-7 Ruwo S-6 Ruwo S-7 Ruwo S-6 Ruwo S-6 Ruwo S-6 Ruwo S-6 Ruwo S-6 Ruwo S-6 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-6 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-6 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-7 Ruwo S-6 Ruwo S-7 Ruwo S-7

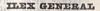
Extra 3-ft. Release, \$2.50 Each

#### ILEX SHUTTER

NOW IS THE TIME to fit your camera with a high-grade shutter. Look at these extremely low prices. Our extra-ordinarily large purchase direct from the manufacturers enables us to offer these extemely low prices.

#### ILEX ACME

This shutter, while built to meet the demand for an extra-ordinary fast speed, has every advantage of the slower speeds. Positive and accurate speeds and exact variations under all con-ditions is secured by the Famous Ilex Gear Combination, working ditions is secured by the Famous Ilex Gear Combination, working in co-operation with the auxiliary speed adjuster, both of which are embodied in its construction. The entire mechanism is controlled automatically by one dial operating in either direction, tead of two separate indicators that interlock against one another. The different speeds indicated on the dial are exactly what you get. It is impossible for them to vary under any conditions. It has a minimum exposure of 1/300 of a second and furnishes all the intermediate speeds down to 1 second as well as time and bulb. Star-shaped light opening, thus giving the greatest and most aven illumination.



This shutter is a popular priced "general-use" shutter, strictly automatic in action and does not require setting. The entire mechanism is controlled by one dial operating in either direction. It has the Ilex Gear Combination embodied in its construction, which gives an accurate 100th, 50th, 25th, 10th, 5th in addition to time and bulb.

#### ILEX UNIVERSAL

This shutter is without a question the highest grade automatic shutter made. The high speed is fast enough for most purposes and has all intermediate speeds down to one second, in addition to time and bulb. It gives a maximum exposure of 1/150 of a second. Excepting such cases as require extraordinary fast speed.

Number 00	Light Aperture	Lens Opening % in.	Outside Diameter 1% in.	Price for Acme Shutter \$16.20	Ilex Universal Price \$13.05	Ilex General Price \$ 9.00
0	% in.	1 rd in.	2 ra in old	16.20	13.50	10.80
1	1 in.	1 is in.	2¼ in.	16.65	14.40	11.70
2	1 in.	1 1 in.	2 % in.	18.00	16.20	13.50
3	1% in.	1% in.	3 in.	20.25	LATING ON THE	to G welling
4	1% in.	2 is in.	3% in.	22.50	18.00	16.20

### Wollensak Optimo Shutters

(Speed 1/300th)

Is set by the right-hand lever which remains in its "set" position until released, making it easy to discern whether or not the shutter is set. These models have been adopted by the Ansco Company for several models of their Special Ansco Cameras.

No.	Light Aper.	Outside Diam.	Optimo Shutte
0 10 212	He in.	2 18 in.	912.60
1		21/4 in.	oels by 13.50
1A or 2	1 in.	2 % in.	15.30
3	1% in.	3 in.	18.00
4	1% in.	3 % in.	. 20.25

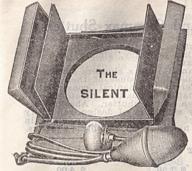
### Improved Packard Ideal Shutter

Specially Adapted for View Cameras

This shutter has three wings, with the special advantage of a very large opening in a very small shutter. It works without jar or vibration and may be used back of the lens. No. 5 is for "time" work only, No. 7 for time and instantaneous

Opening	Outside Dimensions		Price
		Vo. 5	
1½ inches		5.95	87.30
134 inches		5.95	7.30
2 inches	4 inches square	5.95	7.75
21/4 inches		6.40	7.75
2½ inches 2¾ inches		7.10	7.75
2% inches			
3 inches		7.10	8.20
3 inches		7.10	8.20
3 1/4 inches		7.10	8.20
3½ inches	6½ inches square	7.10	8.20
3½ inches 3½ inches 3¾ inches		7.10	8.88
4 inches		7.55	8.88

We are fully equipped to repair shutters and cameras at moderate prices. Before estimates can be given it is necessary that we examine the article to be repaired. Send your shutter or camera with your instructions.

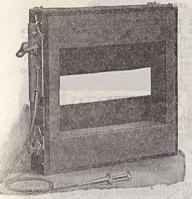


Improved Silent Shutter

Every photographer who has experienced repeated failures owing to the "click" of his shutter in opening, causing his child subject to look toward the lens at the vital moment of exposure, or some member of a group, or an individual sitter to move just at the wrong time, will instantly appreciate the great value of the Silent Shutter, which will enable him to expose while his subject is unconscious of it.

In this improved shutter, which is made in pivot bearing style, the manufacturers have eliminated all of the rubber operating parts, replacing this with the all-metal valve and it is now operated with a double neck syringe bulb which eliminates the shut-off formerly used.

	We can furnish this shutter in th			
2 1/2 3 3 1/4	inch Sinch S	5.85 6.30 6.75 5	inch	\$ 8.10 9.00 9.90 9.90 10.80



### The Graflex Focal Plane Shutter

Folmer's Patent, Feb. 5, 1907, and April 21, 1908. For ultra rapid photography, the Graffex Shutter presents numerous advantages over those working in front of, between or behind the lens. To secure suc-cessful negatives of rapidly moving objects, such as horse and automobile races, railroads, football games, horse and automobile races, railroads, lootbail games, base ball contests, etc., there is no style of shutter that can equal the Graflex. And while constructed primarily for high-speed work, it is also adapted for slow automatic and time exposures of any duration. Its position immediately in front of the sensitive plate or film insures the distribution of light with equal intensity upon every portion of the sensitized surface.

portion of the sensitized sur		5x7, \$22.50
Dimensions		8 % x 8 % x 1 %
Weight	61/2 x81/2, \$24.75	26 oz. 8x10, \$27.90
Dimensions	10x10x1 7/8	111/2 x111/2 x2
Weight	32 oz.	40 oz.

### Montauk Roller Blind Shutter

This is the most efficient form of shutter, as the illumination is equal all over the plate, and there is no vibration. The body is finely polished mahogany, the metal parts being heavily nickel plated. Speed ranges from 1/15 to 1/90 second. Can also be set for time. Made in two models. No. 1 fits on the hood or front of the lens. No. 2 is of the behind-thelens type, and screws on the outside of the front board

n good it 188	PRICES	W MINDUOJET JEHL J	
1 1/2 -inch	The state of the s	\$5.00	ELECTRICAL PROPERTY OF THE PARTY OF THE PART
1 34 -inch		5.25	
2 %-inch	o ov rol ansi signi	5.50	
2 1/2 -inch	A contract to the party of the	5.75	1 1918
%-inch	ens la Autoer fore	7.00	I BOOK I
%-inch	I.I Lens (without eng		TO GOLD
-inch	ak with RR Lens, No.	10.25	All Marie
%-inch	HILLS ADAM SITMOM SA	12.25	and No 3 Hoy

STANDARD	Thread Dian	m. Price
PLANGES	218"	\$1.35
Thread Diam. Price	2-29/32"	1.50
##" \$ .50	3.3."	1.60
1 % "	3 5%"	1.75
1 %"	4 3 "	2.00
1%"	4-23/32"	2.50
111" 1.00	ord BR There	
2 7 1.25	T SIST on all	

fits, specify size, type and mounting. Special flanges can be made to order at an additional cost on receipt of mounting to be fitted.

LENS CAPS	Inside Diam. I	Price
Inside Diam. Price	/3" 6000 500	3 .95
114"	3 1/4 "	1.00
1 1/4"	3 1/2"	1.20
1 1/4 "	4"	1.40
.65	4 1/6 "	1.65
214"	5 3/8"	2.00
3 1/4"		200

D.R.G.M.

Note-In addition to the above, we have intermediate sizes, which are governed in price by the next larger size. When ordering caps, specify outside diameter of lens cell.



### Betax and Gammax Shutters

These are the new Wollensak gearless.

These are the new Wollensak gearless, pumpless shutters. "the line of Xact Xposure" combining accuracy, simplicity, reliability and beauty.

The Betax and Gammax shutters operate on a new principle, and because of their fundamentally different mechanical construction, offer a combination of qualities heretofore unobtainable in a single shutter. Absolute accuracy, sturdy simplicity of design, reliability and beauty of finish,—that is the story in brief of these new gearless, pumpless shutters.

|--|

No.	Light Aperture Bulb	Attachment No. 1	Betax \$ 7.50	Gammax \$ 4.00
i	¥"	No. 1	8.00	5.00
2	1 "	No. 1	9.00	6.00
*3	1%"	No. 1	12.00	
4	134"	No. 2	15.00	
b	21/4"	No. 3	18.00	



#### "Pockescope" THE POCKET TELESCOPE

For Everyone Who Loves the Great Outdoors Magnification over four and one-half times; length, 3½ inches; diameter, 1 inches maximum; beautifully finished, optically correct; furnished in gray suede leather case. \$2.00



The Biascope will appeal to the thousands who have bought Pockescopes, and to the millions who cannot afford a highpriced glass. Every sportsman, motorist, boy scout, theatre goer, tourist and bird student, everyone who loves the Great Outdoors will appreciate the merit and the value of the Biascope.

Here are the complete specifications: Power, 6X; length, 4¼"; maximum width, 3%"; optical system, Galilean type; adjustment with handy control lever, with diopter scale for setting; construction, brass throughout, fin-ished with black crystallized lacquer, like the Pockescope; furnished with handsome pin-grain leather case with two snap fasteners:

### Kodak Diffusion Portrait Attachment

This new attachment softens the lines and lends a very artistic and pleasing effect. In a sense it takes the place of that retouching which removes harshness. It does not produce an out-of-focus appearance. Without additional effort the average amateur may now produce portrait results which advanced amateurs have heretofore obtained only by bother-some methods in printing. some methods in printing.

No.	1.	For Regular Vest Pocket Rodak with single lens, for No. v and No. 2 Box	
		Brownie	
No.	2.		1.20
MO	3	For No. 1 Autogr. Kodak Jr., with f:7.7 Lens, 1A Autogr. Kodak Jr., with single	
240.		lens, RR Lens or Kodak Anastig, f:7.7 Lens (without engraving on front	
		of lens barrel) also for 1A Autogr. Kodak with RR Lens, No. 3 Autogr. Kodak	
		of lens parrel) also for the Autogr. Rodak with the belis, ive of Autogr. Rodak	1 00
		with RR Lens, and for 2A Foldg. Autogr. Brownie with single or RR Lens	1 20
		Ti- OC and Ma 9 Day Duarmia Comanag	

740. 71	Por 20 and 110. 6 Box Brownic Comercial and
No. 5.	For 2C Autogr. Kodak J., with single or RR Lens, for 3A Autogr. Kodak Jr.,
AND SECOND	with single or RR Lens. For 3A Autogr. Kodak with RR Lens, and for
	2C and 3A Autogr. Brownie Cameras with single or RR Lenses
MO G	For the No. 1 14 and No. 2 Autoor Kodek Specials fitted with any lens 1.45

	2C and 3A Autogr. Brownie Cameras with single or RR Lenses	
No. 6.	For the No. 1, 1A and No. 3 Autogr. Kodak Specials fitted with any lens 1	.45
No. 7.	For 2C Autogr. Kodak Jr., with f:7.7 Lens, for 3A Autogr. Kodak Jr., with	
OWENE	f.77 Long for 2A Autogr Kodak with f.77 Long for 3A Autogr Kodak	

	Special with any lens	1.45
No. 8.	For Vest Pocket Kodak with RR Lens for V. P. Special, fixed focus model with	
	Anastigmat Lens, No. 1 Kodak Jr., with single or RR Lenses, ser. II No. 1	

No. 9.	No. 3 Autogr. Kodak with Kodak Automatic Shutter	1.20
No. 13.	For 1A Autogr. Kodak Jr., with f:7.7 Lens with engraving on front of lens	
externan	bbl., 1A Autogr. Kodak with f:7.7 Lens, No. 3 Autogr. Kodak with f:7.7 Lens	1.20
No. 8a.	For Special V. P. Kodak focusing model	1.20

The Rich Diffusatone

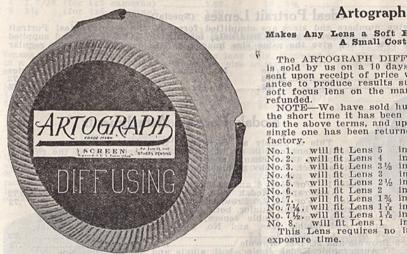
AN AID TO ARTISTIC PHOTOGRAPHY For Portraiture and Pictorial Landscape Work. Adapted for Use by Both Professional and Amateur Photographers

The Rich Diffusatone is a screen designed to meet every requirement for soft focus work. It is simple, practical, convenient to use and absolutely dependable. No need to buy a special lens to obtain the rich effect of the diffused image in your photographs. You can place the Diffusatone on your regular lens and it immediately adapts it for soft focus work. The Rich Diffusatone gives an attractive and artistic appearance to your work. This simple device is an ingeniously constructed screen for instantly and conveniently con-

verting any lens into soft focus equipment.

To obtain best results the Rich Diffusatone should be purchased complete with the Barré Self Centering Adapter. The Diffusatone Screens will be furnished without holder if desired. The screen requires an increase of five times in exposure.

No. 1 2 3 4 5	Size of Screen 1 % x1 % 1 % x2 % 2 % x2 % 3 ½ x3 ¾ 4 % x4 %	Barré Adapter, adjustable for lens barrels ½ to 1 ½ ½ to 1½ 1½ to 2½	Price complete with Barré Adapter \$2.00 3.00	Price of Screen only without Adapter \$1.00 1.50 2.00
	1 /4 / 1 / 8	1 1/2 to 3 1/4	5.50	2.75
		2 to 4 1/2	7.50	3.75



Makes Any Lens a Soft Focus Lens at A Small Cost

The ARTOGRAPH DIFFUSING LENS is sold by us on a 10 days' trial, and is sent upon receipt of price with our guarantee to produce results superior to any soft focus lens on the market or money

NOTE—We have sold hundreds during the short time it has been on the market on the above terms, and up to date not a single one has been returned as unsatis-

ractory.							
No. 1.	will	fit	Lens	5	inch	diam.\$1	0.00
No. 2.	will	fit	Lens	4	inch	diam.	8.00
No. 3.	will	fit	Lens	31/6	inch	diam.	8.00
No. 4.	will	fit	Lens	3	inch	diam.	7.00
No. 5.	will	fit	Lens	21/6	inch	diam.	7.00
No. 6.					inch	diam.	6.00
No. 7.	will	fit	Lens	1 3/4		diam.	6.00
No. 714.	will	fit	Leng	17			6.00
No. 71/2,	will	fit	Leng	15	inch	diam.	6.00
No. 8,	will	fit	Lens	9"	inch	diam.	5.00
This.	Long	ro	aniros	no	iner	ease in	the
exposur				, no			10
exposur	e till	16.			MEDIN		

### Eastman Portrait Diffusion Disks

Use your favorite lens, focus sharply, and put on the Disk, either A or B, to give the diffusion you desire. No change in time of exposure.

Furnished in two sizes:  No. 1, 3½-inch diameter  No. 2, 4½-inch diameter	A for slight Diffusion B for greater Diffusion \$6.00
No. 1, A or B, Disk, each No. 2, A or B, Disk, each Adjustable Disk Holders are made to hold the	7.50
No. 1, for lens barrels from 3 to 4½-incl No. 2, for lens barrels from 4¼ to 5½-incl	diameter \$4.00

SPECIAL EASTMAN PORTRAIT DIFFUSION DISK HOLDER For lens barrels 41/2 to 61/2 inches in diameter. Price .....



### Rexo Color Filters Special

This is a three times filter, and can be used with any make of dry plates on the market. It gives true color value to all objects in a picture, whether landscapes, snow scenes, interiors, flowers, portraits or otherwise. It should be used in photographing mountains or distant objects. It prevents halation, as it absorbs the rays that cause it. The most beautiful cloud effects are obtained with it.

No.	Diam. in inches	Price	No.	Diam. in inches	Price
50	111	\$0.72	54	1 1/2	\$0.72
51	1 %	.72	56	1 1/2	.72

The Ideal Portrait Lens

These lenses increase the light-gathering power of the ordinary lenses that are supplied with all modern hand-cameras

The use of the Ideal Portrait Lens as an adjunct to the lens on your hand-camera means, then, that you are in a position to make portraits with the same softness and roundness that your professional acquaintances are making. It also means that you can make them to the full size of your plate and by at least one-third shorter exposure, this is due to the fact that the Ideal Portrait Lens shortens the working focus of the lens with which it is used, and as the aperture remains



the same, the speed of the combination is increased from 25 to 33 ½ per cent.

The lens is mounted in a neat brass cell, polished and plated, with adjustable springs, to fit over the hood of the lens like a cap.

No	Full directions are supplied		Inches manual	Our Our
	Diam.dilw brief filly	Price older in	Diam.	Price
00	76 1 14 00.18 00.88	\$0.90 8 1.12 9	1 %	\$2.25
1	118 (for 4x5 cameras)	1.35	21/4	3.15
3	For box cameras		2 ½	3.60
6	1½ (for 4x5 cameras)	1.80	3	4.50

Ideal Portrait Lenses (Special)

The following numbers and sizes are simplified forms of the regular Ideal Portrait lenses described above, consisting of one lens only, mounted in a brass cell and supplied in a cardboard box. They give the same size images as are secured with the regular

Diam. in	WHITE TO	Diam. in
No. Inches	Price	No. Inches Price \$0.72
51 1%	72	56 1½



### Kodak Portrait Attachments

This is simply an extra lens which fits on in front of the regular lens and in no way affects the operation of the camera, excepting to so change the focus as to permit working close to the subject, thereby giving good sized head and shoulder portraits.

Order by number.
No. 1. For Nos. 0 and 2 Brownies, and Vest Pocket
Autographic Kodak with single lens

No. 2. For No. 2A Brownie	.7
No. 3. For No. 1A Autographic Kodak Junior, both single and double lens; Nos. 1A and 3 Autographic Kodaks, with double lenses; No. 2A Folding Autographic	pti
Brownie, both single and double lens, and No. 1 Kodak Junior with Kodak	
Anastigmat, F:7.7 lens	.7
No. 4. For No. 3 Brownie and 2C Box Brownie	.7:
No. 5. For No. 2C Autographic Kodak Junior, both single and double lens; Nos. 2C and 3A Folding Autographic Brownies, both single and double lenses and No. 3A	HE H
	.73
No. 6. For Nos. 1A and 3 Autographic Kodaks, Special, V. P. Kodak with R.R Lens, Kodaks with Kodak Anastigmat, F:7.7 lens, and No. 1 Autographic Kodak, Special	.72
No. 7. For No. 3A Autographic Kodak, Special; No. 3A Autographic Kodak and No.	TOTAL STREET
2C Junior with Kodak Anastigmat, F:7.7 lenses, and Stereo Kodak model 1	.75
No. 8. For No. 1 Autographic Kodak Junior, both single and double lens, Vest Pocket Autographic Kodak, Special, and No. 2 Folding Autographic Brownie, both	h
single and double lens. V. P. Kodak with R. R. Lens, No. 1 ser. II Kodak	.75
No. 13 For No. 1A Autographic Kodak Junior, with Kodak Anastigmat lens. F:7.7	No. of
(with engraving on front of lens barrel), No. 1 Autogr. Kodak with f:7.7 Lens, No. 3	
Kodak with f:7.7 Lens	.75

The Ideal Duplicator

These Duplicators are fitted with adjustable springs, covered with rubber. They slip over the lens like a cap; made in

all sizes to fit any lens.

By attaching the Duplicator to the lens of any camera, a person or persons can be photographed in two positions on the same plate, without showing any division line where the two exposures meet on the plate. Many humorous pictures can be

ate without either one haven be turned around so that	ing seen the other	. The duplicator	
art of the plate.			
o. Inches	Singyoud Our 2009	No. Inches	Our
n Diam.	Price Price	in Diam.	Price
0 7/8	\$0.22	5 2	80.4
1 14	.27	6 214	.5
12		7 21/2	.5
3 11/2	.36	8 2 3/4	.6



The Ideal Enlarging and Copying Lens

The Ideal Enlarging and Copying Lens will enable those possessing cameras that are not long focus instruments to photograph small articles to their full size or even larger, if it is desired. It will be found invaluable for copying pictures, making lantern slides by reduction with a short bellows hand camera and photographing small

Some idea of the value of this lens can be learned when two photographs taken with and without the lens are com-pared as to size. A 4x5 photograph when copied with an ordinary camera, will produce a picture about the size of postage stamp, and when our enlarging and copying lens is attached the photograph

can be copied full size, or can be enlarged beyond its natural size.

The lens is mounted in a brass cell, polished and nickel plated, with adjustable springs, so that it fits over the hood of the objective lens like a cap.

Full directions are supplied with each lens.

in Diam. Price No. in Diam. 20 11/8 1 5/16 (for 4x5 cameras) ... 10 1.35 11 12 13 (for 4x5 cameras) .....

Ideal Copying and Enlarging Lens (Special)

The following numbers and sizes are simplified forms of the regular Ideal Portrait lenses described above, consisting of one lens only, mounted in a brass cell and supplied in a cardboard box. They give the same size images as are secured with the regular

Vide-Bi	Diam. in			Diam. in	
No.	Inches	Price	No.	Inches	Price
50 51	78	\$0.72	54	1 7/16	\$0.72
51	1 5/16		56	1½	770

(Special)

Ideal Telephoto Lens

The Telephoto lens is useful in photographing distant objects where the size of the image is not large enough with the regular lens alone. The Telephoto lens is made in the same style as the other auxiliary lenses, mounted in brass, brass and nickel plated. It is adjustable to fit any ordinary 4x5 or 5x7 camera, the lens of which does not exceed 1½ inches in diameter.





(Special)

A Wide Angle lens is used in connection with the A Wide Angle lens is used in connection with the regular lens of any folding camera. It increases the angle of view and is useful for interior work. It slips on over the lens just as the Portrait lens and its object is to reduce the focal length of your regular lens. Adjustable to fit any ordinary 4x5 or 5x7 lens, the outside diameter of which does not exceed 11/2 inches.

Copying Lenses and at the same price.

THE RAY FILTER SPECIAL is made also up to and including 1½" at \$0.72 each in any size.

Wollensak Ray Filters

WOLLENSAK filters are made of fine imported optical glass, mounted in hand-spun brass mounts, with three adjusting screws, thereby enabling the operator to secure the filter in perfect plane or alignment, to the lens on which it is used. The color dyes are of the highest grade possible to obtain, the coating is done by hand, is free from strike and other imperfections, and each filter must conform to our high standard before being passed by our Testing Department.

These standard filters, which are regularly supplied on all orders, require an exposure of but four times normal, and are therefore suitable for work requiring fast exposures, and give sufficient corrections for commercial photography.

The range of sizes is such that they will fit all Wollensak Lenses, as well as other

No.	Will Fit	Lens	Mounts I	From	Price	No.	Will Fit Lens Mounts From	Price
1	1-5/32	in. to	1-13/32	in.	\$1.80	ploa 6	2- 3/8 in. to 2-5/8 in.	\$4.00
2	1- 7/16	in. to	1-17/32	in.	2.00	151 (11) 7	2-11/16 in. to 3- in.	4.70
3	1- 9/16	in. to	1-25/32	in.	2.25	otton to 8 non-	3- 1/16 in. to 3-1/2 in.	5.95
04.5	1-13/16	in. to	2-0	In.	2.70	0 0	3- 9/16 in. to 4-1/8 in.	6.75
6	2- 1/16	in to	2- 5/16	In	8.95	1010	4 8/16 in to 4-5/8 in	U.10



The Wollensak Telephoto and Wide Angle Lens

as well as the Wollensak Wide Angle Lens, can be had in the same style as the Filters.

The WOLLENSAK TELEPHOTO LENS is used for photographing distant objects where
the size of the image is not large enough with the regular Lens alone.

THE WOLLENSAK WIDE ANGLE LENS, is used in connection with the regular Lens.
It will increase the angle of view and is valuable for interior work.

	These Lenses can	be had in th	e following	sizes:			
No	. Will Fit Lens	Mounts Fron	n Price	No.		Lens Mounts Fi	
1	1- 5/32 in. to	1-13/32 in.	82.00	sabe 6	2- 3/8	in. to 2-5/8 in.	
2	1- 7/16 in. to	1-17/32 in.	2.20	fernes 7	2-11/16	in. to 3- in.	5:20
3	1- 9/16 in. to	1-25/32 in.	2.50	8	3- 1/16	in. to 3-1/2 in.	6.55
4	1-13/16 in. to		3.00	9	3- 9/16	in. to 4-1/8 in.	7.40
5	2- 1/16 in. to		3.70	10	4- 3/16	in, to 4-5/8 in.	8.90

### Ingento Color Filter Series A

(Ideal Ray Filter)
This Color Filter Series A can be used with any make of dry plates on the market. It gives true color value to all objects in a picture, whether landscapes, snow scenes, interiors, flowers, portraits, or otherwise. It should be used in photographing mountains or distant objects. It prevents halation, as it absorbs the rays that cause it. The most

beautiful cloud effects are obtained with it.

This Color Filter only increases the exposure with Iso plates exactly three times. It may be used for snap shots, and is, therefore, the quickest filter on the market.



#### Ingento Color Filter Series B

(WALLACE'S VISUAL LUMINOSITY.)
A new departure in Color Filters as radical and as far advanced over the ordinary "adjusted" filter as the dry plate is over the daguerreotype. Daylight spectograph with Series B. Filter.

Daylight spectograph without filter. The Ingento Color Filter Series B was designed by Mr. R. James Wallace, F. R. A. S., A. A. P. S., instructor in Photophysics at the Yerkes Observatory of the University of Chicago. Mr. Wallace is well known as final authority on all matters pertaining to orthochromatic photography, his whole working lifetime having been devoted to the working of the physical lifetime that the lifetime having been devoted to the working and to achieve this lifetime having along the to research, demonstrating and teaching along this line.

The "Ingento Series B" is the highest achievement in color filters, it having been originally designed for critical scientific use. In the possession of such a filter, you get the benefit of this experience, and get a color filter that is not approximately, but absolutely

The "Ingento Series B" is the most rapid in action of any accurately measured filter yet made. This permits its use on work where ordinarily the increase in exposure time necessary with any other "adjusted" filter would prevent its employment. This screen requires 8 times normal exposure.

	In nickel plated cells wi	th rubbe	er covered	d adju	stab	le springs	3.			
	Style	A Styl	le B					Style	A St	tvle B
	(Int		Prices			-			Our	Prices
No.	0, for No. 3 F. P. K	80.68	\$0.90	No.	8,	ameter	21/2	in	\$2.92	\$3.37
	1, diameter & in	1.12	1.35	No.	9,	diameter	234	in	3.15	3.82
	2. for box cameras	1.12	1.35	No.	10,	diameter	3	in	3.60	4.50
	3. diameter 17 in	1.12	1.35	No.	11,	diameter	31/4	in	4.05	4.95
	4. diameter 1 1/2 in	1.35	1.57	No.	12,	diameter	31/2	in	4.73	5.62
	5. diameter 1% in	1.80	2.25	No.	13,	diameter	4	in	5.40	6.30
	6. diameter 2 in	2.02	2.70	No.	14,	diameter	41/2	in	6.07	6.97
	7, diameter 21/4 in	2.47	2.92							

Kodak Sky and Color Filters The Kodak Sky Filter is designed to equalize the great difference in light between The Kodak Sky Filter is designed to equalize the great difference in light between sky and foreground in landscape photography. Therefore only the upper half of the sky filter is stained yellow; the lower half being colorless. The Kodak Color Filter is stained throughout and is for use for all subjects, such as flowers for instance, embracing colors which act weakly on the sensitive films. Specify which is wanted.

No. 1. For Vest Pocket, Autographic Kodak with single lens; Nos. 0 and 2 Brownies \$0.72

No. 2. For No. 2A Brownie o. 3. For No. 1A Autographic Kodak Junior, both single and double lens; Nos. 1A and 3 Autographic Kodaks, with double lenses; No. 2A Folding Autographic Brownie, both single and double lens, and No. 1 Kodak Junior with Kodak Anastigmat, F:7.7 No. 4. For No. 3 Brownie

No. 5. For No. 2C Autographic Kodak Junior, both single and double lens, Nos. 2C and 3A Folding Autographic Brownies, both single and double lenses and No. 3A Autographic Kodak with either B. B. or Kodak Autographic shutter.

No. 6. For Nos. 1A and 9 Autographic Kodaks, Special, and No. 1 Autographic Kodak 1.15 1.15 Special Autographic Kodak, Special, and No. 2 Folding Autographic Brownie, both single and double lens, Regular V. P. Kodak with RR Lens, No. 1 ser, II Kodak 72.

No. 13. For No. 1A Autographic Kodak Junior, with Kodak Anastigmat lens, F:7.7 (with engraving on front of lens barrel), 1A and No. 3 Autog. Kodak with f:7.7 lens... 1.15.

No. 8A. For N. P. Kodak Focusing Model 72.

### Wratten & Wainwright Contrast Filters

The set of light filters for general commercial work consists of eight filters, "K1," "K2" and "K3" being orthochromatic filters, and "G" a deep yellow filter for contrast work; "A," "B," "C" being the standard tri-color set and "F" a deep red filter for special Approximate Multiplying Factors

Name	The Transfer of the Christian Control of the Christian C		For Ortho- chromatic Plates
"K1" Very Light Yellow	As a correcting screen where the exposure		9
'K2" Light Yellow	must be short	1 1/2	15
"K3" Yellow	For correct rendering with Panchromatic	3	100
	* plates	4 1/2	25
"G" Strong Yellow	Where contrast is wanted with yellow objects (Golden Oak Furniture)		30
"A" Orange Red	For mahogany with a Panchromatic plate	12	
"B" Green	For Photographing typewriting and making		2 10 20
	green, white but, red, dark		12
"C" Deep Blue	To photograph blue as white	6	0
"F" Deep Red	For photographing blue-prints and general- ly photographing red as white	24	_
	FA TO A TOP OF BANK TO THE PARTY OF THE PART		

### Filters

	Gelatine Film	Circles of Squares in B Glass	Mtd. Circles in Light Metal Cell in B Glass	cialis	Gelatine Film	Squares in B Glass	
3/4 -inch	\$0.20	\$1.15	\$2.40	2 1/8 -inch	\$0.45	\$2.25	\$4.50
1 -inch	.20	1.30	2.55	2 1/2-inch	.65	2.85	6.00
11/4 -inch	.20	1.45	2.85	3 -inch	.75	3.75	7.50
1 1/2 -inch	.25	1.65	3.15	3 1/4 -inch	1.10	4.75	
1 % -inch	.30	1.75	3.30	3 ½ -inch	1.25	5.65	
1 % -inch	.30	1.90	3.45	4 -inch	1.60	6.75	
2 -inch	.35	2.10	4.20	5 -inch	2.50	9.40	

Prices of Mounted Circles in Light Metal Cell in "B" Glass larger than 3 inches will quoted on application.

Prices of Wratten Filters in "A" Glass quoted on application.

Adjustable Filter Holders-For 2-inch square filters or smaller, \$1.25; for 3-inch or smaller \$1.50: for 4-inch or smaller

Filter Test Chart-Contains Ortho (K), Contrast and Monochrome Gelatine film filters for viewing the subject to be photographed.



#### THE ROYAL FOREGROUND GRADED FILTER (Patented April 14th, 1911)

The Latest and Greatest Improvement in Ray Filter

STYLE A The only Ray Screen ever invented that will give an even, equal exposure to both sky and foreground, and produce a perfect cloud effect instanteously with ordinary plates.

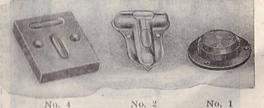
STYLE A slips over the front of the lens the same as a lens cap, and may be instantly attached or removed.

STYLE B is mounted in a sliding frame so as to bring a filter of any desired depth of color in front of the camera lens.

No. 0A 1A 2A 3A	STYLE A Diameter, Inches % 15-16 (for box cameras) 17-16	Price \$2.00 2.25 2.00 2.25	No. 10A 11A 12A	STYLE A Diameter, Inches 3 3 1/4 3 1/2	Price \$4.75 5.50 6.00	No. 5B 6B 7B 8B	STYLE B Diameter, Inches 1 34 2 2 144 2 154	Price \$ 5.50 6.00 6.75 8.00
4A 5A	1½ 1½ 1¾	2.50	4	STYLE B		9B 10B	2 3/4	8.75 9.50
6A 7A	2 214	3.00	No. 1B	Diameter, Inches	Price \$4.00	11B 12B	3 1/4 3 1/2	10.75
8A 9A	2 ½ 2 ¾	4.00	3B 4B	17-16	4.00	13B 14B	4 1/2	14.00 16.00

These instruments are of the greatest convenience for placing the camera and thereby rendering parallel lines correct.

Double Levels\$0.42	each
Circular Levels	each
No. 4. Montauk Double "Square" 1.25	each



81

#### Montauk Shutter Releases

For any and all shutters. Increasingly popular. Not effected by climatic

changes or drying out.

The Montauk gives long and continuous service.

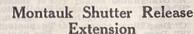
No. 4 —For Universal Goerz Sector Bausch & Lomb.

No. 5a—For Roller Blind Shutter.

No. 5a—For Roller Blind Shutter,
No. 9a—For old style Compound Shutter,
No. 12a—For Trigger Release Shutter,
No. 13 — For new Compound, Compur and Ibso.
No. 15 — For Koilos Shutter,
No. 20 — 8". For Wollensak Shutters,
No. 20 — 11". For Wollensak Shutters,
No. 200—16". For Wollensak Shutters,
No. 30 — For Ilex Shutters.
When ordering Compound Shutter, Release des

When ordering Compound Shutter Release, designate for old or new style compound shutters, so as to receive correct models.

Kodak Shutter Release, price



Similar in construction and operation to the Push Cord Shutter Release. One end is fitted with the finger pressure button, while the other has a special device to at-tach to any Montauk Shutter Release.

The extension is so very simple and substantial it gives long and continuous service, and one Extension will serve all your varied equipments as it will work with

any release.

There are times that a long release is imperative for such work as self-portraiture; there are a thousand other uses to which it can be put, notably photographing ani-mal life, in which field it is already justly popular

D. cr.	To be	CONTRACTOR OF THE PROPERTY AND APPROPRIES.	
		Price List	
117	inches	long	\$2.50
		long	3.00
	inches		3.50
300	inches	long	4.00
	inches		5.00
		long with Y for	
		and Shutter Release	6.00

### The Metallic Bulb

An all-metal bulb, will withstand heat or cold and does not become inoperative in dry climate, will outlast a rubber bulb-made in two models.

		PRICE	
		non-automatic or time shutters	.\$1.00
No.	2—For	automatic, setting and instantaneous shut	
	te	rs	1.00

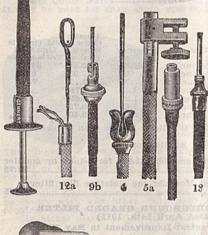
### Steel Glass Cutter C D 11

Steel glass cutters .....

		Camera Buibs	
		Prices, with Tubing	
No.	0,	for Pocket Cameras	\$0.22
No.	1,	Bulb, 31/4 x13/4 inches	.28
No.	2,	Bulb, 3¼ x1½	.45
No.	3,	Bulb, 3½x1¾	.58

#### Rubber Nipples and Tubing for Shutters and Washers

bilitters and washers
Prices
No. 1 Red Rubber Tubing for shutters,
per 1001
No. 2 White Rubber Tubing for studio
shutter, per foot
No 3 Rubber Hose for washers, % inch
diam., per foot
No. 4 Rubber Hose for washers, 9/16
inch diam., per foot
Rubber Nipple with brass connection, for
washers, each
Brass connections for bulbs



## Film Pack Adapters

		Graflex	Korona	Seneca	Premo
01/ 01/		Our Price \$4.28	Our Price	Our Price	Our Price
21/4 x31/4	***************************************		\$1.44	\$1.45	1.40
3 1/4 x 4 1/4		4.50		1.65	1.65
4 x5	EDonoumos	at and upart of	1.58	1.65	1.65
3 x51/4		5.25		1.65	1.65
31/4 x5 1/2	pour H	1 Acced 5.25	1.58		
5 x7	in the dominant	7.15	2.25	2.25	2.35

### Simplex Plate Holders

The material and workmanship of these holders is the same as our regular Ingento, however, they are fitted with patent pressed board slides without the wooden handles at the top. This is a great advantage, as the slide can be inserted at either end and shows instantly whether or not the plate has been exposed, at the same time the slides will last longer as there are no handles to break off or become loose. This feature also makes the holder more compact.

	PRIC	ES
Size 3 1/4 x 4 1/4 3 1/4 x 5 1/2	\$0.90 	Size 4x5 \$1.35 5x7 1.50

### Simplex Plate Holder-for Graflex and Reflex

	14 x 4 1/4		5x7
Price, Natural Finish	\$1.55	\$1.55	\$1.80
Price, Ebony Finish	1.80	1.80	2.25

### Plate Holders

No. of the latest and	314 x5 1/2 (	or	Contra man						
3 1/4 x 4 1/4	4x5	5x7	61/2 x 8 1/2	8x10	7x11	11x14	7x17	8x20	12x20
Premo\$1.40	\$1.40	\$1.65	\$1.90	\$2.25					
Kodak Double 1.45	1.45	Jack int	trenen.or	978 77	The sale of	ne nize d	de dina	oun.Le	7D
Graflex, 2¼ x3¼, \$1.65 2.35	2.35	3.15	innera ge	reiem		anoci -	Dength	O.M.1 10	381800
Graphic 1.90	1.90	2.15	2.35	2.60	· · · · · · · · · · · · · · · · · · ·	orini	Domest		
Korona 1.13	1.13	1.35	1.68	1.80	\$1.80	\$4.50	\$4.50	\$5.40	\$6.75
Seneca	1.35	1.50	1.65	1.80		5.10	20000		
Eastman View Film Holders		1.65	1.75	1.90	1.90	4.50	9.50		13.50
Korona film hold- ers, 5x12, \$4.50	1.13	1.35	1.68	1.80	1.80	4.50	6.30	7.20	WOL
Graflex Focusing Panels, 21/4 x31/4 3.10	3.32	4.05	5.47				tion	obd Phic	the lov
									The second second second



### The Rexo Dupli-Kit

This is a thin metal mask which fits in the back This is a thin metal mask which his in the back of the camera, enabling the taking of double the number of pictures one-half the regular size. Adapted for use with Rexo Cameras and Kodaks without alteration. Always specify size, style and name of camera name of camera.

Please note—Rexo Films must be used with

Dupli-Kit.

12 Pictures from a Six Exposure Roll

12 Pictures from a Six Exposure Roll Price, any size, 35c

### Eastman Film Sheath

The use of the Eastman Film Sheath permits the loading of portrait film in regular plate holders. It is made of aluminum and has a turned edge or rabbet at both sides and one end. The film is slid into the sheath, the edges of the film passing under the rabbets which securely holds the film. The sheath is then placed in the holder in the same manner as a dry plate.

Film Sheath No. 1—For Use with Curtain Slide Holders	Film Sheath No. 2—For Use with View Holders
5 x 7\$0.25	2¼ x3¼ or 3¼ x4¼ \$0.10 5¼ x5¼ or 4x5 .14 5 x 7 .19
6 ½ x8 ½	614 v814 .28
8 x10	8 x 10







### The Ideal Tripods

#### (COMBINATION)

These tripods are of the compact combination sliding and folding type. Each leg is composed of three sections, the lowest section slides into the second, while the upper section folds back upon it. The height is regulated by a clamp screw in the lower

The heads are readily detached and are fitted with universal camera screw. When set up for use, the legs are locked to the head and cannot become detached by accident.

The No. 1 Jr. has a brass head. Nos. 2, 21/2 and 3 have matched wooden heads.

The wood is thoroughly seasoned and all metal parts are polished brass lacquered. The length, fully extended, is 56 inches.

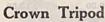
No.	Made of	Length Folded Inches	Diameter of Head Inches	For Cameras	Our
1-Jr	Spruce	21	3	5x 7 or smaller	\$2.95
2	Maple	21	31/2	5x 7 or smaller	3.40
21/2	Hardwood	22	4 3/4	8x10 or smaller	4.35
2	Ash	22	5.86	11x14 or smaller	5.65

# Ingento Tripods

#### (Sliding)

Great strength and extreme rigidity are the essential features of Ingento Tripods. consist of two sections, formed by a center leg sliding between two outer pieces.

No.	Closed Inches	Extended Inches	of Head Inches	2,35	For	Cameras	Our Price
0 Special	29	08.456	18 3 02.1		5 x 7	or smaller	
1	301/2	56	41/4	1.85		or smaller	
2	321/2	60	4 %		8 x10	or smaller	3.15





when tripod

This is an

invalu a ble

teature.

grasped

hand



condition.

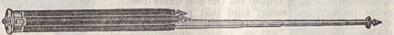
## THE KORONA Folding Studio Stand



They	
zehea0	
Our Price \$1.35	
\$1.35 2.70 3.15	
3.15	
	ľ
ald ald	
min s	

-jextoog and at w No. 1	-Weight, 31/8 lbs. No. 2-We	ight, 5 1/2 lbs.	rarinder	Price \$11.50
For 5 x7 Cameras, No. For 6 1/2 x 8 1/2 Cameras, No.	2			12.60
For 672 X672 Cameras, 110.	CROWN TRIPODS	and a mall!		
	Size of Height			Our
	Head Extended	Weight		Price
No. 1	4 in. 52 in.	36 oz.		\$ 7.10
No. 2	6 in. 56 in.	65 oz.		7.60
No. 3	6 in. 66 in.	70 oz.		8.80
No. 4	6½ in. 66 in.	84 oz.		9.95
	CASES FOR CROWN TRIP	ODS		
	No. 1	No. 2	No. 3	No. 4
Sole Leather	\$4.75	\$5.20	\$6.20	\$7.05
Sole Heather	SCHOOL SECTION OF THE			Our
				Price
Century 12-foot tripod				\$31.35 25.20
Legs only				25.20

### Kodak Metal Tripods



The Kodak Metal Tripods have telescoping legs of brass tubing-the lower ones nickeled -the upper, black enameled. They are in weight, compact and exceptionally rigid.

CONTROL OF STREET AND	Length		Our
Sections Close		Weight	Price
0 151/ 1-		15 oz.	\$2.55
140. 0		25 1/2 OZ.	3.60
10. 10	THE RESIDENCE OF THE PARTY OF T	25 1/2 oz.	4.25
110. 1		25 oz.	4.05
No. 2C 5 13½ in		26 oz.	4.75
No. 2 5 13¾ ir			6.15
No. 6 6 11% ir		24 oz.	2.58
Leather Carrying Case for No. 0 to No. 2			2.98
Leather Carrying Case for No. 6			2.30
THE THE THE PROPERTY OF THE PR			

Price, No. 2

### Crown Tilting Tripod Top

By the aid of this attachment the camera may be tilted at any angle upward or downward, and permits of the camera being reversed instantly for vertical pictures without changing the camera back or removing the camera from the tripod.

#### THE PRICE

Crown	Tilting	Tripod	Top	No.	1	\$2.10
	Tilting					2.50
	Tilting					3.15
	sional T					6.95

#### R. O. C. TRIPOD TRUCK

A handy attachment for converting the tripod into a light and rigid studio stand. It has three folding arms which are provided with sockets for the tripod legs. When set up the legs may be locked into the sockets. It is provided with casters. The photographer will find it invaluable in home portraiture, copying or on slippery floors, where the tripod Price, No. 1

#### EASTMAN TRIPOD BRACE

For camera up to and including 14x17.....

Those who have dropped a camera through the legs spreading on slippery pavements or polished floors, or had an expensive outfit upset by the wind will appreciate the protection which this device will give. It locks the tripod legs securely, preventing vibration, and can be attached and detached easily. It is just the thing for Cirkut tripods, home portraiture or tele-photography, where rigid-



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THE KODAPOD

The little Kodapod-which is carried easily in the pockettakes the place of a tripod, when a tree, fence, or similar object is near at hand. Its jaws have a bulldog grip that holds the wood like a vise, and likewise the Kodak, firmly in position. By means of a clamping screw, the camera

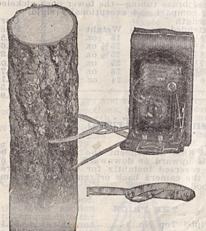
may be adjusted to the correct vertical or horizontal position. It fits any standard tripod socket.
The Kodapod \$1.65

### The Optipod

PRICE, \$1.22

The Optipod embodies all the features of the old Universal Clamp as well as offering new conveniences. It may be readily attached to any straight edge such as is afforded by table, chair or automobile windshield, and holds the camera in rigid position during exposure.

Used in connection with a tripod, the Optipod offers the advantage of its ball and socket joint that permits the camera to be tilted down or up without altering the position of the tripod.



A New SIMPLEX Product TREE - POD APPLICABLE ANYWHERE

Any Height Any Angle A RIGID CAMERA SUPPORT IN VEST

Convenience:

The TREE-POD furnishes you with a most efficient camera or kodak support at any time and in most any place. It dispenses entirely with the bothersome tripod. You can affix it to anything—a tree, fence, telegraph post, side of a house, automobile, or to any old stump in the woods.

POCKET FORM

Efficiency:

Due to its construction, the TREE-POD when fastened to any object maintains such a firm grip thereon that it is capable of sustaining the weight of an 8x10 camera. To verify this, fasten the TREE-POD to a tree or fence, then press down on it with all your weight. You will find that, to quote the words of a delighted user, "it is possible to actually sit on it."

### Vest Pocket Kodak Tripod Adapter

The adapter simply slips over the front standard of the Vest Pocket Kodak and by attaching to a tripod may be used in either the vertical or horizontal positions. It may be instantly detached when not in use. Price \_\_\_\_\_\_\$0.48

### Brownie Tripod Adapter

The Brownie Tripod Adapter is designed for use on the Nos. 0, 2 and 2A Brownie cameras which are of the box type and not equipped with tripod sockets.

### Ansco Tripod Adapter

This attachment is to be used with the No. 0, or No. 2 Vest Pocket Ansco Cameras which heretofore could not successfully be used for time exposures due to the lack of tripod socket.





#### Ansco Direct View Finder

A great many hand-camera owners desire to see the image of the picture they wish to take in a larger size than the ordinary view-finder permits. This desire has brought about a call for an Ansco finder of the so-called Direct-View type. It is with pleasure that we announce this month such a device, which is superior in construction to other similar view-finders on the market, and which will meet the demand in a manner that will bring about general satisfaction.

The Ansco Direct View-Finder is an attachment, designed for use on all Ansco Vest-Pocket cameras, the Folding Ansco models No. 1A and No. 3A and the Ansco Junior Models Nos. 1A, 2C and 3A. Its use enables the operator of the camera to determine by looking through the eye-piece of the finder the composition of his picture by direct vision, just as it will appear on the film or plate. It is a very valuable accessory, particularly for the V-P models, wherever a larger image than the regular view-finder will give is desired.

The finders are neatly packed, one in a carton. Price.................\$2.50

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 frequenty very convenient in hand camera work and they are better than ordinary finders for centering fast-moving objects on the

These finders may be used with a camera of any size. Size of Lens 18x15

For 24x34

34x444

4x5 For 21/4 x 31/4



Direct View-Finders A and B

New supply just received from France direct from Manufacturers.

STYLE A. Also known as sure shot. A high-grade brilliant direct-sight finder with sight and centering lines. Can be fitted permanently or detachable as desired Style B

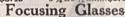
ICINE UDAYS	title tablishing				A	Price
No. 1 31/2	x41/4 Sty	le Beonno			\$1.45	\$0.60
	x51/600111	diemeter	April 1000000-	PRAA JAGAN SEE	1.45	1.00
No. 3 4	x5			emil .	1.45	1.00
No. 4 5	¥7		Transfer (1900)	Lingvill seem	1.75	1.25
	x61/2	3X9/1	L)	SIGROR SERVE	2.00	not made
No. 6 8	x10		-0.	ond of seek	2.50	not made
	e nurnose	of both	Direct and	Reflecting	Mirror	Finder. W

When used STYLE C. Serves the purpose of both Direct and Reflecting Mirror Finder. When used as a Direct Finder the mirror is folded back and slipped into the base of finder which affords protection. This finder is supplied with both sight and centering lines.

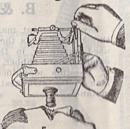
				. 2100	
No.	7	4	x5	\$3,00	
			x7	3.75	
			x81/2 or 8x10		
			And the first of the second se		

Graphic Sight Finder

These finders are so constructed that they may be readily attached to the camera. Horizontal and vertical centering lines, engraved on the lens, make it possible to exactly center the object by means of vertical sight bar at the back of the bed plate. When the lens frame on the finder is folded down, the bar automatically drops into position. This finder is thoroughly effective and occupies but little space. PRICE. 31/4 x51/2 ......\$3.45 4x5.....\$3.45 5x7.....\$3.45









Corona Focusing Glass, nickel plated .....

Corona Focusing Glass, nickel plated. \$3.00
Three legged construction, compound lens, adjustable, lacquered and polished 1.00
Compound lens, adjustable, lacquered and polished. 1.50
Tupper Pneumatic Grip, Focus Glass and Microscope. The great advantage of the Tupper is that: If placed with slight pressure against the ground glass by suction it will remain on the spot until removed. 1.75