

C-430



The photos illustrate the results obtained with a Carl Zeiss "Tessar" F/4.5 of $5\frac{1}{4}$ inch focal length in combination with "Distar" and "Proxar" Supplementary Lenses on an Ideal B Camera. The top left-hand picture was taken with a "Distar", and the right-hand one with a "Proxar". The bottom picture, from exactly the same point of view, with the "Tessar".

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Choosing a Camera

Z EISS Ikon is the merger of the former firms of Ica, Contessa-Nettel, Ernemann, and Goerz, Europe's largest and best known camera manufacturers.

It is rather a difficult matter for the amateur to decide which camera suits him best, when one considers the number of different camera models on the market today. However, the following important points should be considered before purchasing a camera.

The Question of Price: A really good camera represents an initial outlay only, and films, plates, developing and printing cost just as much, size for size, no matter what brand of camera you use. In fact, a cheap camera with a poor lens will result in a high percentage of wasted materials, and will be far more expensive in upkeep than a Zeiss Ikon camera. An examination of the specifications and prices given in this catalogue will show you that the price of a Zeiss Ikon camera is dependent, to a large extent, on its optical and shutter equipment.

Size of the Picture: With a Zeiss Ikon camera and a Carl Zeiss lens, the question of the size of the picture is not so important, for all Zeiss lenses give such splendid definition that enlargements even from smaller sizes up to $5 \times 7''$ and larger can be made. With such small sizes, owing to the great "depth of focus", a greater margin is permissible for errors in focusing, and consequently small cameras are easier to work than those taking larger pictures.

Type of Camera: The roll film camera is the most popular with amateurs due to its convenience in use. Plate and film pack cameras, such as the Maximar, Trona, and Ideal are designed to suit the amateur who takes a more serious view of his hobby. For advanced amateurs who are interested in sports or press photography, the Orix and Miroflex are recommended. For interior and architectural photography the Ideal and Juwel cameras are unsurpassed. The perfection of the modern film pack gives to the plate cameras many of the advantages of roll films, plus the additional advantage that the picture can be focused on the ground glass.

Carl Zeiss Tessar Lenses

The advanced amateur with a thorough knowledge of the principles of photography, knows that the quality of a negative depends to a very large extent upon the optical performance of the

lens fitted to his camera. All Zeiss Ikon cameras, no matter what their price, have lenses of the highest grade in their respective classes. With the exception of a few Junior models, Carl Zeiss lenses are standard equipment. The optical excellence of the Zeiss Tessar is well known in every branch of photography throughout the world.

On page 50 is a list of cameras on which Zeiss "Distar" and "Proxar" supplementary lenses may be used.

Zeiss Tessars have the advantage of convertible lenses by the addition of "Distar" and "Proxar" supplementary lenses. The addition of a "Distar" to the Tessar gives a larger image of distant objects, and improved perspective on near ones; while the addition of a "Proxar" shortens the focus of the Tessar and increases the angle of view. The Proxar-Tessar combination will therefore be welcome in photographing interiors, street scenes, etc.

There are so many possibilities for the employment of "Distar" and "Proxar" lenses that the prospective purchaser may well select a Zeiss Ikon camera on which they can be used. The following is a list of Tessars used in Zeiss Ikon Cameras.

Tessar F/4.5 makes exquisitely sharp and brilliant pictures over a wide angle and the resulting negatives can be enlarged very considerably.

Tessar F/3.5 is a truly universal and very rapid lens with sharp definition over the whole plate.

Tessar F/2.7 is still more rapid. Its extremely large aperture will permit exposures even under very unfavorable light conditions. It is fitted to the Miroflex and movie cameras.

Tele-Tessar F/6.3 can be used in an equivalent focal length considerably larger than the camera extension required. Thus it is possible to use a Tele-Tessar of an equivalent focal length of 10" on a camera the extension of which does not exceed 6".

Some of the Compur shutters are of the new improved type with self-timing device, allowing the photographer approximately 12 seconds to get into his own picture before the exposure.

All Zeiss Ikon cameras take standard American plates and films. Cut films may be used in plate holders with the aid of cut film sheaths. Tripod sockets have standard thread; focusing scales are marked in feet, and diaphragm markings are in the familiar F system.

A completely equipped service department is maintained in New York, where all necessary parts are stocked, and repairs made by a staff of expert mechanics.

General Construction of Zeiss Ikon Cameras

WHEN you look at the outside of any high grade camera it might seem to you that the graceful lines and the shiny appearance so characteristic of new cameras are the only indications of the photographic value of the camera. The final test of superiority of the best cameras, however, lies in the construction, workmanship and optical equipment,

and on these points Zeiss Ikon cameras lead the world.

Camera Body: Zeiss Ikon camera bodies are made of one piece of light metal covered with genuine leather and equipped with genuine leather bellows. The Junior models, however, are covered with leatherette.

Hinged Front: The lens and shutter equipment of most cameras is mounted on a rigid metal U standard. A hinged front which insures ease of operation, and is one of the reasons why Zeiss Ikon cameras are so compact, is found in all models.

Horizontal and Vertical Movement: The U standard has ample horizontal and vertical movement which is especially valuable in architectural photography and the more complicated "shots". The Ideal and also the Juwel have the tilting bed which further increases their range of work.





F^{ocUSING:} The focusing device of the Junior models is a simple radial lever, while the more advanced models have the technically perfect micrometer, both of which enable the photographer to focus his camera quickly and accurately.

Double Extension Bellows: Double Extension Bellows are valuable features in some Zeiss Ikon cameras, by means of which close-ups can be taken.

Clamp-on Plate Holder: The Juwel and the Ideal have this feature which further increases the ease of manipulation of the camera and prevents disturbing the focus registered on the ground glass back.

Ikonometer with Peep Sight: The Ikonometer, a wire view finder, with the peep sight gives the photographer the same possible accuracy he would secure if he were looking through a ground glass back. What you see in the Ikonometer, you get in your picture.

You may examine a Zeiss Ikon camera at your nearest dealer who will be glad to show you its many points of superior construction. And when you own a Zeiss Ikon camera you will be proud of its advanced design and its sturdy yet craftsman-like appearance. Surely, you will be inspired to finer photographic accomplishments!

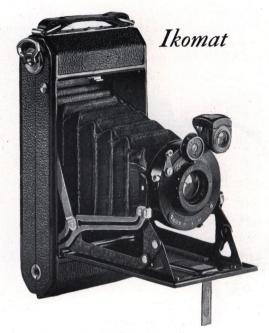
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THIS is an ideal camera with which to introduce amateurs into the art of photography. The Ikonette is a light camera constructed of an all metal body covered with leatherette. It is small enough to be carried comfortably in a gentleman's pocket or a lady's handbag. Because of its compactness and ease of operation, this camera will appeal to many amateurs.

One single movement sets the camera for infinity, and for 6 feet by simply pushing the infinity catch aside. The Frontar lens works at an aperture of F/9 with two additional stops. A brilliant view finder and tripod socket for vertical and horizontal pictures is standard equipment.

Picture Size	15/8 x 21/2 inches
Lens	, Frontar F/9 of 3¼ inch focal length
Shutter	Automatic
Speeds	Instantaneous and Bulb
	I x 21/2 x 43/4 inches. Weight: 10 ozs.

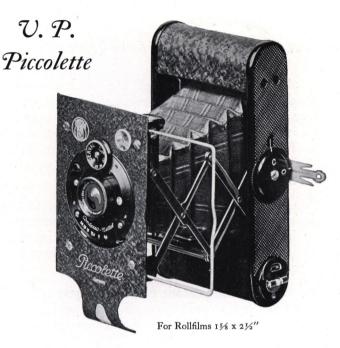


For Rollfilms 21/4 x 31/4"

THE Ikomat, a new addition to the Zeiss Ikon series, has an all metal body of modern design and is well finished in black lacquer with highly nickeled metal parts. This camera is simple to operate, for slight pressure on the locking button causes the baseboard to open and the camera is ready for action immediately.

Due to its hinged back, the Ikomat is one complete unit. The back has a pressure plate also, which keeps the film in focal plane. The Ikomat is equipped with a rapid lens, the Novar F/6.3 in a new focusing mount with adjustable front cell.

Picture Size	.2¼ x 3¼ inches
Lens	Novar F/6.3 of 41/8 inch focal length
	. Derval with cable and finger release
Speeds	. 1/25 to 1/100 sec. Time and Bulb
Camera Size	. 1 1/2 x 35/16 x 7 inches. Weight: 22 ozs.



THE Vest Pocket Piccolette is a small, compact camera, conveniently carried in one's pocket. Being a fixed focus model, the Piccolette, when open, is immediately ready to make snapshots. The Ikonometer as well as the brilliant finder show the actual composition of the view. The trellis supports insure rigidity and, thereby, parallelism of the lens with the film.

A special feature of the Piccolette Camera is the convenient method of loading. The film race positively guides the film and prevents buckling. See illustration on page 11.

> Picture Size....15% x 2½ inches Lens.....Novar Anastigmat F/6.3 of 3 inch focal length Shutter.....Derval with cable and finger release Speeds......1/25; 1/50; 1/100 sec. Time and Bulb Camera Size.... x 2½ x 4½ inches. Weight: 10 ozs.

Icarette and Cocarette Cameras

INGENUITY of construction, use of the best material, and highgrade workmanship have produced in the Icarette and Cocarette models the finest and best rollfilm cameras that money can buy. Their sturdy yet elegant construction is the delight of the amateur as well as the professional. Their dimensions have been kept as small as possible and yet they contain everything that makes for efficiency.

In order to make these cameras available even to the beginner, *Junior models* of the Icarette and Cocarette cameras are offered, differing from the standard models in their somewhat simpler equipment and especially in their lens and shutter equipment.

Whenever price is an important consideration, and yet a camera is required, which will give all-round satisfaction, the *Junior models*, offered on pages 12 and 13, will make a strong appeal.

They combine simple design with dependable, sturdy construction, and operate with a minimum number of adjustments.

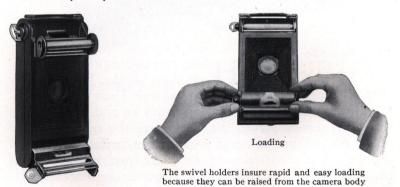
The Junior models are made in two sizes: Model C for photos of $2\frac{1}{4}x_{3}\frac{1}{4}$ inches, Model D for photos of $2\frac{1}{2}x_{4}\frac{1}{4}$ inches.

All Juniors are equipped with anastigmat lenses, fast enough for snapshots, even in poor light. The lenses give good definition, allowing enlargements of many diameters. The shutters are automatic permitting exposures of 1/25, 1/50, 1/100 second, besides time and bulb. The body of the Juniors is of light metal, which insures stability, and their folding standard carriage gives perfect rigidity to the lens front.



THE loading of the *Cocarette Models* is made very simple because the whole film carrier may be removed from the camera sideways. When reinserted, the film carrier is firmly snap-locked. In order to secure absolute flatness of the film for exposure and also easy winding, the film runs in a guide as illustrated.

In the *Icarette Models* the backs are removable and the swivel holders, as illustrated below, make the loading of the film a very easy matter.

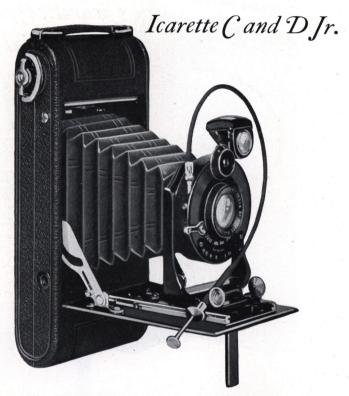


Film spool holder



HERE are two equally worthy Model D, 2% x 3%" A HERE are two equally worthy that will make good outdoor companions. Their many advantages have been enumerated on pages 10 and 11. The film threading device makes the Cocarettes the easiest to load of all the rollfilm cameras and assures perfect flatness of the film. Thus, out-of-focus negatives, due to buckling of the film, are eliminated. These cameras are elegantly finished in black leather and nickel trimmings.

Picture SizeModel C, 21/4 x 31/4 inches. Model D, 21/2 x 41/4 inches
LensNovar F/6.3 Model C, 4 ¹ / ₈ inch; Model D, 5 inch focal length
ShutterDerval Automatic with cable and finger release
Speeds
Camera Size
WeightModel C, 19 ozs. Model D, 25 ozs.

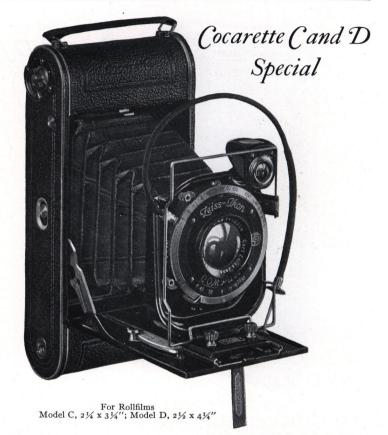


For Rollfilm: Model C, 21/4 x 31/4"; Model D, 21/2 x 41/4"

THE elegantly finished Junior Icarettes are covered with black leather, have leather bellows and nickel trimmings. It is a real manufacturing achievement that these models can be offered at such low prices. See details on pages 10 and 11.

Picture Size	Model C, 21/4 x 31/4 inches. Model D, 21/2 x 41/4 inches
Lens	Novar F/6.3. Model C, 41/8 inch; Model D, 5 inch focal length
Shutter	Automatic with cable and finger release
Speeds	1/25 to 1/100 sec. Time and Bulb
Camera Size	Model C, 11/8 x 31/8 x 63/4 inches. Model D, 15/8 x 37/6 x 81/4 inches
Weight	Model C, 22 ozs. Model D, 27 ozs.





THESE cameras are of all metal construction, finished in polished black enamel with nickel trimmings, and covered with genuine leather. The focus is readily set by means of a convenient focusing lever. Cocarette C and D Special are as suitable for interior views as for outdoor shots, and may be used in either vertical or horizontal positions.

Both models have the new Compur shutter with selftiming device, allowing the photographer approximately 12 seconds to get into his own picture. In addition to the

brilliant view finder, these cameras have an Ikonometer which permits the photographer to observe his pictures full size from eye level position.

These special cameras have the usual Cocarette feature

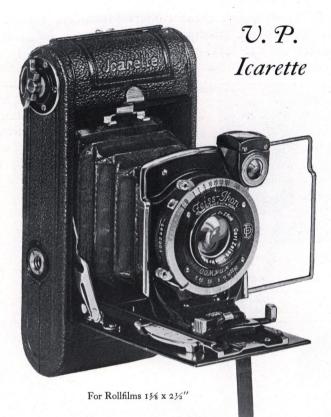


(page 11) that is, a film carrier removable from the camera body. This film carrier facilitates accurate loading of the spool, insuring a perfectly flat surface and easy winding of the film. Buckling is thus completely eliminated by the special film race.

> Observe the convenient method of loading the film holder and how the film race prevents buckling of the film

Picture Size......Model C 2¼ x 3¼ inches, Model D, 2¼ x 4¼ inches Lens......Zeiss Tessar F/4.5, Model C, 4½ inches; Model D, 4¾ inches focal length Shutter.....Compur with cable and finger release and self-timing device Speeds.....I to 1/250 sec. Time and Bulb Camera Size.....Model C, 1½ x 3¼ x 6½ inches; Model D, 1½ x 3¼ s 8 inches Weight.....Model C, 23 ozs. Model D; 30 ozs.



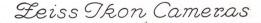


THE Vest Pocket Icarette is a delightful and perfectly constructed little instrument. It is built of metal throughout, finished in polished black enamel with nickel trimmings, and covered with fine grain leather. Besides the usual brilliant view finder, it has an Ikonometer finder, enabling the photographer to observe the picture full size from eye level position. The new Compur Shutter has eight speeds ranging from 1 to 1/300 second. This speed arrests motion in photographing rapidly moving objects, such as athletes in action, races, diving, airplanes in flight. The Zeiss Tessar Lens on the V. P. Icarette produces depth of field with illumination and definition, the same as it does in motion pictures, where we all marvel at the perfect detail, even when enlarged to the size of a theater screen. Thus brilliant enlargements up to 8×10 inches, or even more, can be made from negatives taken with the V. P. Icarette.

The V. P. Icarette may be used in either horizontal or vertical positions. The shutter can be operated with its flexible cable release on time or bulb for slow exposures of any duration. Thus, this very versatile little camera is as suitable for interior pictures and even portraiture, as it is for snapshots.

Due to its small film size the V. P. Icarette is a very economical camera to operate. In fact, it costs no more to use a V. P. Icarette and having postal-card size enlargements made, than to use a postal-card size camera. The results are as good if not better, the camera is easier to operate, and more convenient to carry. The V. P. Icarette is furnished in a leather case.

Picture Size
LensZeiss Tessar F/4.5 of 3 inch focal length
Shutter New Compur with cable and finger release
Speeds I to 1/300 sec. Time and Bulb
Camera Size



Icarette C and D



For Rollfilms Model C, 2¼ x 3¼"; Model D, 2½ x 4¼"

THE Icarette Models C and D are identical, except for size and weight. They are built entirely of durable light metal, attractively finished in black enamel and nickel, and covered with fine grain pin seal leather. The backs of these models have end locks, secure yet easy to put on or take off, and they are positively light-proof. The improved film holder insures even, free winding of the film.

The front has screw operated vertical movement. There is a brilliant reflecting finder, also an Ikonometer wire finder, which always indicates the correct view, even when the front is elevated. Focusing is accomplished with a focusing lever.

The optical equipment is the Carl Zeiss Tessar F/4.5 of $4\frac{1}{8}$ inch focus in the Model C and $4\frac{3}{4}$ inch focus in the Model D.

The shutter is the new Compur with self-timing device and speeds from 1 to 1/250 second, time and bulb exposures.

As a constant companion no better camera could be selected than one of the Icarette Models C or D. A leather case is furnished with each camera.

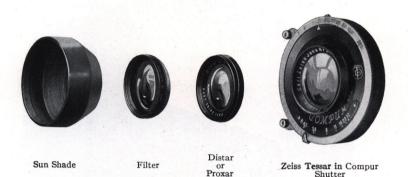
Picture Size	. Model C, 21/4 x 31/4 inches. Model D, 21/2 x 41/4 inches
	.ZeissTessarF/4.5ModelC,41/8 inch, Model D,43/4 inch focal length
Shutter	New Compur with cable and finger release and self-timing device
Speeds	.I to I/250 sec. Time and Bulb
Camera Size	.Model C, 11/6 x 31/4 x 7 inches. Model D, 19/6 x 33/8 x 81/4 inches
Weight	Model C, 26 ozs. Model D; 31 ozs.



THE Baby Cocarette, making 2 x 3" pictures, is truly "the small camera for large pictures." This compact camera has an all metal body covered with genuine leather, and in size is not very much larger than a vest pocket camera. This camera meets the demand of many amateurs who wish for compactness and yet desire a comparatively large picture.

The Baby Cocarette has the brilliant and Ikonometer finder as well as the new model Compur shutter. This camera also has the usual Cocarette feature (page 11) that is, a film carrier removable from the camera body. This film carrier facilitates accurate loading of the spool, insuring a perfectly flat surface and easy winding of the film.

Picture Size	2 x 3 inches
Lens	Zeiss Tessar F/4.5 of 31/4 inch focal length
Shutter	Compur with cable and finger release
Speeds	I to I/300 sec. Time and Bulb
Camera Size	1 1/4 x 23/4 x 53/8 inches. Weight: 14 ozs.

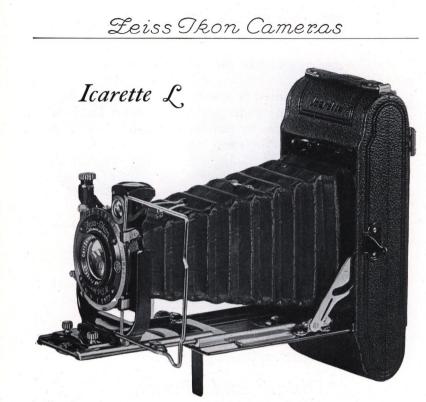


All cameras with double extension bellows and equipped with Carl Zeiss Tessar lenses, listed on the following pages 22-41, may be used with

Zeiss supplementary lenses "Distar" and "Proxar"

D^{ISTARS} increase—Proxars shorten the focal length of the camera lens. On page two are shown reproductions of photographs made with the Carl Zeiss Tessar F/4.5of $5\frac{1}{4}$ inch focus on an Ideal B Camera, one of them with a Distar added and another with a Proxar added to the Tessar. This illustrates the advantage a camera owner has in being able to change the focus of his lens, resulting with Distar in a telephoto, with Proxar in a wide-angle lens combination, by a very simple and inexpensive method.

A list of Zeiss Ikon cameras with double extension bellows, and the respective Distar and Proxar Lenses which may be used with them, also showing the change in focal length that can be effected, is contained on page 50.



For Rollfilms $2\frac{1}{4} \ge 3\frac{1}{4}''$ and Plates $2\frac{1}{2} \ge 3\frac{1}{2}''$

THE Icarette L is a rollfilm and plate camera, having $7\frac{1}{2}$ inch double extension bellows. It takes six exposure rollfilms $2\frac{1}{4} \times 3\frac{1}{4}$ inches of any make. The hinged back is fitted with a panel which is readily removable so that a plate holder, film pack adapter or focusing back may be inserted for the use of plates or cut films $2\frac{1}{2} \times 3\frac{1}{2}$ inches $(6\frac{1}{2} \times 9 \text{ cm.})$ as well as of film packs $2\frac{1}{4} \times 3\frac{1}{4}$ inches. The 7 inch bellows permits the use of Distar Lenses, and when plates are used, objects within one foot of the camera may be photographed. A Proxar Lens for wide-angle work may be used with the Icarette L, making it a universal camera for all-round photographic work.

The Icarette L also has the new Compur shutter with self timing device.

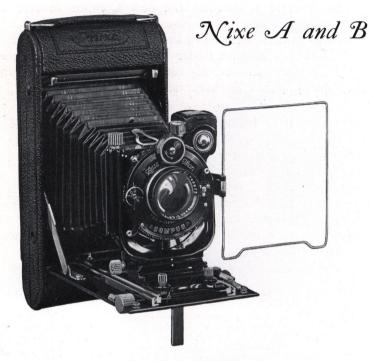
The front can be raised or lowered by means of a micrometer screw. A brilliant finder and the eye-level Ikonometer finder allow one to correctly center the picture. The camera is supplied with a leather case.



Picture Size: Rollfilms: 2¼ x 3¼ inches Plates: 2¼ x 3¼ inches (6¼ x 9 cm.) Lens: Zeiss Tessar F/4.5 of 4¼ inch focal length Shutter: New Compur with cable and finger release and self-timing device Speeds: I to I/250 sec. Time and Bulb Camera Size: 15% x 3¼ x 7 inches. Weight: 31 ozs.

Supplementary Distar and Proxar Lenses may be used on this model. See pages 21 and 50.





For Rollfilms or Plates Nixe A, $3\frac{1}{4} \ge 4\frac{1}{4}$ "; Nixe B, $3\frac{1}{4} \ge 5\frac{1}{2}$ "

NORE complete or better film cameras have ever been produced. These most unusual models can be used either with rollfilms or plates. Constructed entirely of special light metal, they are attractively finished in durable black enamel with nickel trimmings, and covered with selected black grain leather.

The double bellows extension is essential for telephoto work with the Distar Lens. For close work the camera will give excellent results. The Nixe has ample horizontal and vertical front movements, useful for photo-

graphing buildings or eliminating objectionable foreground. The adjustments are operated by micrometer screws.

In addition to the usual brilliant finder, an Ikonometer finder is fitted. The image shown in the wire frame, when looking through the rear peep-hole, is always correct, regardless of the position of the camera front or bellows extension.

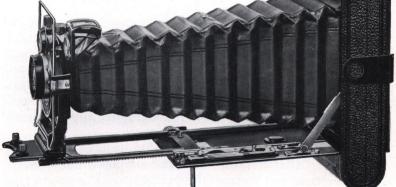
The back of the Nixe is fitted with a removable panel and pressure plate. When



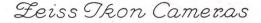
these are removed, a focusing back or plate holder and film pack adapter may be inserted.

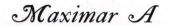
The new film-holding device simplifies loading and assures perfect alignment, supplying just sufficient tension to keep the film absolutely flat at all times. The camera is furnished with a leather case.

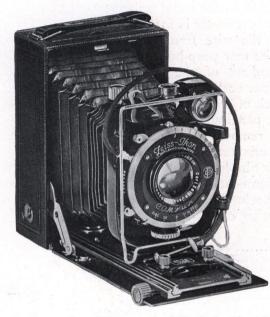
Nixe A, 31/4 x 41/4 inches. Nixe B, 31/4 x 51/2 inches
Zeiss Tessar F/4.5 Nixe A, 51/4 inch; Nixe B, 6 inch focal length
Compur with cable and finger release
I to I/200 sec. Time and Bulb
Nixe A, 10¼ inch extension Nixe B, 12¼ inch extension
Nixe B, 12 ¹ / ₂ inch extension
Nixe A, 134 x 434 x 83% inches Nixe B, 134 x 43% x 9½ inches
Nixe B, 134 x 438 x 91/2 inches
Nixe A, 44 ozs. Nixe B; 52 ozs.



Supplementary lenses Distar and Proxar may be used on these models. See pages 21 and 50





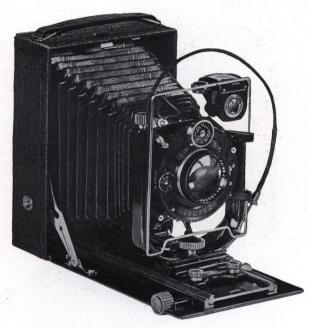


For Plates 21/2 x 31/2" (61/2 x 9 cm.) and Film Packs 21/4 x 31/4"

THESE Maximar plate cameras have many of the features of the advanced models, yet are moderately priced. Both of these cameras are of all metal construction, well finished, and covered with genuine leather. They are equipped with a Carl Zeiss Tessar F/4.5 mounted in Compur shutters; Model A having the new model Compur with selftiming device which allows the photographer approximately 12 seconds to get into his own picture.

Both models have double extension bellows permitting the use of "Distar" and "Proxar" supplementary lenses. Ample vertical and horizontal movement enables one to take architectural as well as more difficult shots.

Maximar B

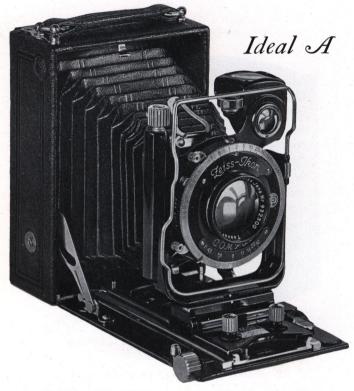


For Plates and Film Packs 3¹/₂ x 4³/₄" (9 x 12 cm.)

The ground glass back has a large focusing hood thus rendering the use of a focusing cloth unnecessary. Both brilliant view finder and Ikonometer are standard equipment.

Picture SizeMaximar A, 2 ¹ / ₄ x 3 ¹ / ₄ inches. Maximar B, 9 x 12 cm. (3 ¹ / ₄ x 4 ³ / ₄ inches) LensZeiss Tessar F/4.5. Model A, 4 ¹ / ₄ inch; Model B, 5 ¹ / ₄ inch focal length
ShutterModel A, New Compur with cable and finger release and self timing device; Model B, Compur with cable and finger release
Speeds
Bellows
Model B, 10½ inch extension
Camera Size Model A, 178 x 314 x 5 inches
Model B, 2 ¹ / ₄ x 4 ³ / ₈ x 6 ¹ / ₄ inches
WeightModel A, 25 ozs. Model B, 40 ozs.

Supplementary Distar and Proxar lenses may be used on this model. See pages 21 and 50.



For Plates 21/2 x 31/2" (61/2 x 9 cm.) and Film Packs 21/4 x 31/4"

 $\mathbf{F}_{\text{the Ideal A. It is constructed of metal, finished in pol$ ished black enamel, and covered with pin grain seal leather. $The <math>8\frac{1}{2}$ inch double extension permits focusing on objects as close as nine inches from the camera, a decided advantage in making copies or photographing small objects.

Zeiss Distar and Proxar Lenses can be used in combination with the Zeiss Tessar F/4.5.

The lens front of the Ideal A has both vertical and horizontal movements of one inch, considerable for a camera of this size. These adjustments, together with the long extension, are most important in architectural photography.

The Ikonometer wire finder furnished with the Ideal A is absolutely accurate, indicating correctly the front movements as well as the correct view when the Distar Lens is used.

For critical work, focusing may be done while viewing the image on the hooded ground glass. The focusing is done by rack and pinion adjustment and can be locked at any desired point. The bellows are fitted with an automatic takeup, eliminating the possibility of sagging and cutting off part of the picture. The Ideal A is equipped with a Carl Zeiss Tessar F/4.5 of $4\frac{1}{8}$ inch (10.5 cm.) or $4\frac{3}{4}$ inch (12 cm.).

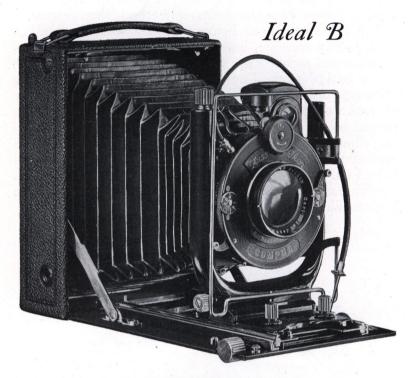
With each camera are supplied three single metal plate holders, film pack adapter, and leather carrying case.

Picture Size	For Plates: 21/2 x 31/2 inches. For Film Packs: 21/4 x 31/4 inches
Lens	Zeiss Tessar F/4.5 of 434 inch focal length and 41% inches
Shutter	New Compur with cable and finger release and self-timing device
Speeds	. I to 1/250 sec. Time and Bulb
Bellows	Black leather, 81/2 inch extension
Camera Size	.17% x 35% x 5 ³ /6 inches. Weight: 23 ozs.



Supplementary lenses Distar and Proxar may be used on this model. See pages 21 and 50.

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For Plates and Film Packs 31/2 x 43/4" (9 x 12 cm.)

THE construction of the Ideal B is entirely of metal, insuring strength and rigidity. The finish is black enamel and nickel, the covering of fine grain seal leather.

Its bellows extension of 1114 inches is sufficient to permit the use of Distar Lenses. Photographs can be made of objects within 11 inches of the camera, a necessity when making copies and pictures of small objects.

The front has a vertical movement of I inch and a horizontal movement of $\frac{3}{4}$ inch. There is also a vertical swing back, quite an innovation in so small a camera.

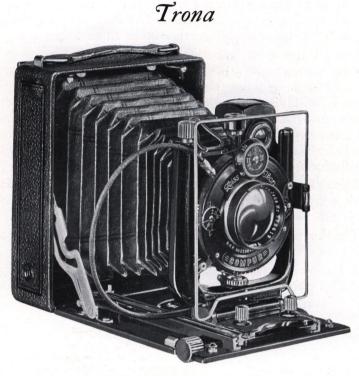
One of the most important features of the Ideal B is the Ikonometer, the most accurate finder that can be fitted to a camera. Holding the camera at the eye's level, the view is observed through the Ikonometer. As the metal frame moves forward, backward, up or down, with the lens, every variation in the angle of view, due to extending the bellows, is accurately registered. A large brilliant reflecting finder is also provided.

Metal kits may be had for both plate holders and film pack adapter so that $3\frac{1}{4} \times 4\frac{1}{4}$ inch plates or film packs may also be used.

The shutter is interchangeable and may be easily removed, being held in place with a bayonet lock.

A leather carrying case, three single metal plate holders, and film pack adapter are supplied with every camera.

Supplementary lenses Distar and Proxar may be used on this model. See pages 21 and 50.



For Plates and Film Packs 31/4 x 41/4"

T_{($3\frac{1}{4}$ x $4\frac{1}{4}$ inches) and the general make-up of the instrument appeal to those who require a very compact camera, making a picture of suitable size as a contact print, and combining in its construction every required adjustment for serious photography.}

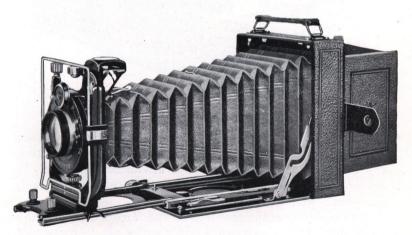
A large protecting hood over the ground glass back obviates the use of a focusing cloth.

The Ikonometer wire finder is the most accurate of all camera finders. It indicates correctly the view included when the lens front is used for vertical or horizontal movement. Even when a supplementary lens such as the Zeiss Distar is used, the Ikonometer shows the correct view.

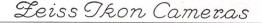
The maximum bellows extension is ten inches, so that objects within twelve inches of the camera may be photographed without a supplementary lens. For distant objects this long bellows extension can be used to excellent advantage with a Zeiss Distar Lens. When extended, the front stops automatically, focused for distance. Focusing is done with rack and pinion which may be locked for any distance.

With each camera are supplied three single metal plate holders, film pack adapter and a leather carrying case.

Picture Size	
Lens	Zeiss Tessar F/4.5 of 51/4 inch focal length
Shutter	Compur with cable and finger release
Speeds	
Bellows	
Camera Size	2 x 4 ¹ / ₂ x 5 ¹ / ₂ inches. Weight: 33 ozs.



Supplementary lenses Distar and Proxar may be used on this model. See pages 21 and 50.



Trona F/3.5



 $T_{9 \ x \ 12}$ cm. pictures and combines in its construction every required adjustment for the advanced amateur. It is constructed of metal, finished in black enamel with nickel, and covered with genuine leather.

One of the important features of the Trona F/3.5 is the Ikonometer, the most accurate finder which can be fitted to a camera. When holding the camera at the level of the eye, the view is observed through the Ikonometer. As the camera

is moved in any direction, the Ikonometer shows every variation in the angle of view. A large brilliant view finder is also provided.

The long bellows extension of 10½ inches enables the photographer to take pictures within 12 inches of the camera without using a supplementary lens. For distant objects this long bellows extension can be used to excellent advantage with the Zeiss Distar lens.

The focus is set by means of rack and pinion which may be locked for any distance. The Zeiss Universal Tessar F/3.5 supplied with this camera is a rapid lens giving brilliancy and clean-cut definition while covering a large field.

Three metal plate holders are furnished with each camera as well as a film pack adapter and leather carrying case.

Supplementary Distar and Proxar lenses may be used on this model. See pages 21 and 50.



For Plates and Film Packs 4 x 6" (10 x 15 cm.)

THE Orix, formerly known as the Trix, has won an enviable reputation for itself, having been adopted by many of the leading dailies as the most satisfactory camera for this very difficult branch of photography. In order to withstand such hard daily use, in any season and any weather, it must be solidly constructed. Press work requires a camera that can be readily concealed about the person, yet producing pictures large enough for newspaper reproduction. It must have a perfect lens both for detail and extreme speed, for the press-photographer cannot choose his light and must be equipped to make pictures under the most trying light conditions. The operation of the camera must be simple, for in many instances but a moment of time is available to make ready and take the picture. The camera must also be suitable for flashlight work, holding the camera and operating the flash at the same time. The Orix meets all of these conditions.

The camera has a bellows capacity of $13\frac{1}{2}$ inches, vertical and horizontal front movements of $1\frac{1}{2}$ and $3\frac{1}{4}$ inches respectively, Ikonometer as well as a large brilliant view finder, three tripod sockets, hooded ground glass back, and rack and pinion focusing device.

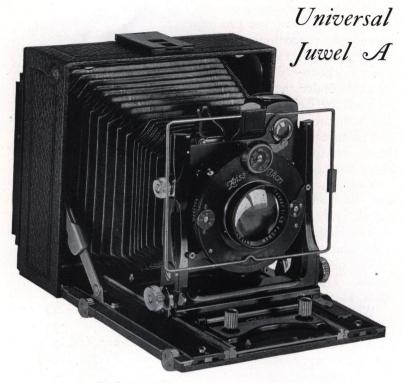
The plate holders are of sheet steel, strong and accurately made. Three of the Orix holders are of about the same bulk as one double wooden holder of corresponding size.

With the camera are included a leather carrying case, three plate holders and film pack adapter.

A special press outfit consists of camera with spring back, 12 plate holders, 2 cable releases in strong leather carrying case.

6 inches (10 x 15 cm.)
iss Tessar F/4.5 of 61/2 inch focal length
mpur with cable and finger release
to 1/200 sec. Time and Bulb
ack leather, 13 ¹ / ₂ inch extension
8 x 5 1/4 x 73/4 inches. Weight: 54 ozs.
t

Supplementary lenses Distar and Proxar may be used on this model. See pages 21 and 50.



For Plates and Film Packs 3¹/₄ x 4¹/₄" or (9 x 12 cm.)

PORTRAITURE, landscapes, architecture, telephotography, are a few branches of photography which actually become a pleasure when attempted with the Universal Juwel A. Note the extreme rise and the tilting feature of the front, the swing back and the sixteen inch bellows. The vertical and horizontal front movements are operated by micrometer screw adjustments. Two rack and pinion focusing screws are provided so that the front may be extended by the front thumb screw and the back by the rear thumb screw. The construction is entirely of metal.



The clamp-on, single plateholders, as well as film pack adapter are made of metal, and will accommodate plates or film packs 9 x 12 cm. or $3\frac{1}{4} \times 4\frac{1}{4}$ inches. The back of the camera can be revolved, enabling horizontal and vertical exposures to be made without the necessity of turning the entire camera.

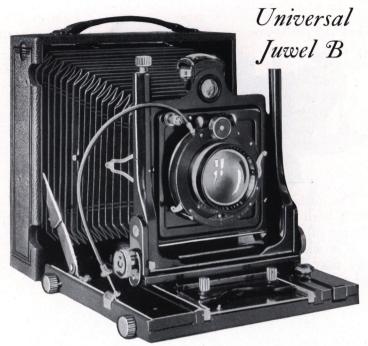
The bellows capacity is ample for the use of Zeiss Distar Lenses.

The camera is especially well adapted for wide-angle work with a Carl Zeiss wide-angle Protar of 33/8 inch focal length.

If a wide-angle lens is used, the bed may be lowered and the front set parallel with the back.

A leather carrying case, six single metal plate holders, and a film pack adapter, are included with each Universal Juwel A.





For Plates and Film Pack 5 x 7".

THE aristocrat of all cameras, the Universal Juwel B, makes its appeal to the whole-hearted, ambitious photographer. It may well be termed "a camera with unlimited possibilities".

It is a jewel in appearance as well as in name, microscopically accurate in adjustments, structurally correct, and of perfect design.

The construction of the Universal Juwel B is of ebonized hardwood, metal reinforced. The plate holder or film pack adapter is locked in position by the pressure of a button, an exclusive and valuable feature. The large focusing hood eliminates the necessity of a focusing cloth.

Of utmost importance is the Carl Zeiss Tessar Lens, its large working aperture of F/4.5 being suitable for interior portraiture, autochromes, exposures in poor light; in fact, wherever perfect optical correction, combined with extreme speed is required, the Tessar is unequalled.

For wide-angle work with an extremely wide-angle lens, the front adjustments of the Universal Juwel B permit dropping of the camera bed, also tilting the lens panel to any angle required.

The front of the Universal Juwel B has extreme vertical and horizontal movements, operated by screw mechanism. Both the front and revolving back of the camera have swing adjustments so that even when the camera is pointed upward at an angle, the lens and plate may be set vertical and parallel with each other. These adjustments are the same as illustrated on page 39, showing the Universal Juwel A. In photographing many subjects these movements are absolutely essential to enable one to obtain the best results.

With the Universal Juwel B are included three double wooden plate holders, film pack adapter, and a leather carrying case.

Picture Size	. 5 x 7 inches
Lens	Zeiss Tessar F/4.5 of 8¼ inch focal length
Shutter	
Speeds	
Bellows	Black leather, 19 inch extension
Camera Size	.3 ¹ / ₂ x 9 x 9 inches. Weight : 8 lbs. 4 ozs.

Supplementary lenses Distar and Proxar may be used on this camera. See pages 21 and 50.



Miroflex A and B



Miroflex A for Plates $2\frac{1}{2} \times 3\frac{1}{2}$ " for Film Packs $2\frac{1}{2} \times 3\frac{1}{2}$ " Miroflex B for Plates and Film Packs 9 x 12 cm. $(3\frac{1}{2} \times 4\frac{3}{2})$ "

THIS fascinating universal camera combines the advantages of a sport camera with those of a reflex camera, enabling the amateur to master many photographic requirements.

The finest material and workmanship distinguish this ingenious creation. The camera body consists of a light metal casting, covered with fine black leather. It is easily manipulated free-hand or may be used on a tripod, like a conventional camera. Shutter speeds range from 1/3 to 1/2000 sec., and are set by lifting and rotating a single timing knob. The shutter speed may be changed at the last moment. A gear brake, entirely unaffected by cold, heat or moisture, always insures a smooth action, absolutely free from vibration. Focusing is accomplished by a focusing lens mount. In order to recheck the focusing on the ground glass, the shutter may be opened again, and it is not necessary to reset the predetermined shutter speed for exposure. Single plate holders or a film pack adapter may be used. The sliding frontboard will also accommodate a Zeiss "Tele-Tessar" F/6.3 lens.

The Miroflex is fitted with bellows, and when folded is compact and convenient to carry. Pushing a button auto-



matically unfolds the reflex hood, ready for instant action.

The Miroflex, held by a neck strap, provides ideal operating conditions, as the object may be observed right side up and focused, up to the very moment of "shooting".

Both Miroflex A and B have the same features and are

operated in an identical manner.

The camera equipment includes six plate holders, film pack adapter and leather carrying case.

1 1	
Picture Size	Model A, 61/2 x 9 cm (21/2 x 31/2"), Model B, 9 x 12 cm.
	$(3\frac{1}{2} \times 4\frac{3}{4}'')$
Lens	Model A, Zeiss Tessar F/4.5 of 434 inch focal length " $F/3.5$ of 534 "
	" F/3.5 of 5¼ " " " " F/2.7 of 5¾ " " "
	Model B, Zeiss Tessar F/4.5 of 6 inch focal length " $F/3.5$ of $6\frac{1}{2}$ " " " " " " $F/2.7$ of $6\frac{1}{2}$ " " " "
	" " $F/2.7 \text{ of } 6\frac{1}{2}$ " " "
Weight	Model A with Tessar F/4.5, 3 lbs. 12 ozs.
	Model A with Tessar $F/3.5$, 4 lbs. 4 ozs.
	Model A with Tessar F/2.7, 4 lbs. 8 ozs.
Weight	Model B with Tessar F/4.5, 5 lbs.
	Model B with Tessar F/3.5, 61/4 lbs.
	Model B with Tessar $F/2.7$, $6\frac{1}{2}$ lbs.
	Camera Size (closed): Model A, 2 ¹ / ₂ x 4 ³ / ₄ x 6 inches
	Camera Size (closed): Model B, $3 \times 5\frac{1}{2} \times 7$ inches
	Shutter: Focal Plane type with gear brake
	Speeds: 1/3 to 1/2000 sec. Time and Bulb
57	R
	A A A A A A A A A A A A A A A A A A A
AR	



Kinamo S. 10

KINAMO S.10 is constructed of all metal and is covered with genuine leather. It is the smallest 16 mm. movie camera made and is so compact and light that it fits into your pocket easily.

It is equipped with a Carl Zeiss Tessar F/2.7 insuring a light-gathering capacity greatly in excess of standard lenses usually furnished on movie cameras. Focusing is no problem, as all objects from 5 feet to infinity are always in focus. For close-ups, supplementary lenses may be had.

The film magazines are furnished loaded with 33 feet of 16 mm. Eastman Kodak safety film, orthochromatic or panchromatic. This is a very convenient length for it enables the movie photographer to take several complete "shots" using all of the film, thereby getting quick developing service. After exposure it is only necessary to send the exposed magazine to the nearest Eastman Kodak agency for servicing.

Kinamo S.10 is indeed the camera for sports lovers and home folks who have always wanted a light weight movie camera well adapted for universal use.

Picture Size	16 mm. film
Lens	Zeiss Tessar F/2.7 of 15 mm. focal length
Camera Size	
Weight	



Even a child can take pictures with the Zeiss Ikon Kinamo

"DIAPHOT" and "KIDIAPHOT"



E xposure Meters to determine quickly the correct exposure or diaphragm opening for any subject, in almost any light. No calculating to do, no complicated table to use and no paper to expose! The diaphragm markings are in both U. S. and F systems: F/3.5 and smaller for still photography, and F/I.4and smaller for movie cameras. It is about the size of a small thin

watch, beautifully made, and supplied in a neat leather purse.

Metal and Wooden Tripods

THE metal tripods are made with the greatest precision of the best brass tubing finished in polished black lacquer. Metal tripods have a flat nickeled top which provides a firm support for cameras. When not in use this flat top folds compactly against the tripod.

The metal tripods have 5 sections which measure extended 50'' and closed 15''

The wooden tripods are constructed of smooth, solid stock stained black. They have a revolving top upon which the camera rests securely. By means of this revolving top it is unnecessary to move the tripod when a change of view is desired, for the camera always remains firmly on the revolving top and a simple motion will bring the camera to focus the desired view.

The wooden tripods have 4 sections and measure extended 52" and closed 18"



Miraphot

WITH the "Miraphot" Automatic Enlarger it is as simple to make enlargements as contact prints. Enlargements of 1.3 to 3.5 diameters may be made, the maximum size being 11 x 14 inches. The largest negative from which enlargements can be made is 9×12 cm. $(3\frac{1}{2} \times 4\frac{3}{4}$ inches). The Miraphot is always in focus, so it is only necessary to move the sliding handle up or down until the picture appears in the desired size. Turning a knob places a red glass over the lens so that the sensi-

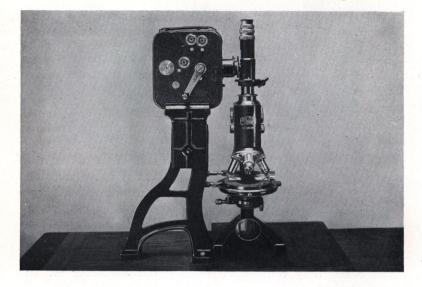
tized paper may remain in place, while adjusting for the required size.

The construction of the Miraphot is entirely of metal, attractively finished in black and nickel. It can be connected to any light socket. The lens equipment is either the Tessar F/4.5 or Novar F/6.3.

The lamp housing consists of a specially designed parabolic reflector which produces even and brilliant illumination.

Enlargements made with a Miraphot from small negatives will equal if not surpass prints obtained from larger negatives, thus allowing a substantial saving in the cost of films or plates. The Miraphot is supplied with electric bulb, cable, socket and switch.

Microphot



F^{OR} the scientifically inclined as well as for the scientist, the Microphot is a valuable auxiliary for microscopic work. With this attachment one may take not only photomicrographs but also moving photomicrographs for reproduction on the motion picture screen.

The Microphot makes it possible to watch an object under the objective, *during the exposure*, thus simplifying the work of taking instantaneous or moving pictures of microscopic objects, especially moving ones.

Through an eyepiece on this attachment, correct lighting and focusing may be observed. This eyepiece also shows whether the desired object is still within the field of vision as well as the desired stage of its motion.

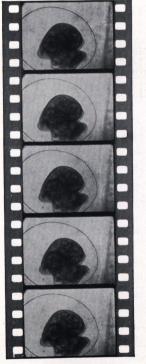
The Microphot can be used with well-known movie cameras using either 16 mm. or 35 mm. film.

THE Zeiss Ikon Universal Kinamo, for standard 35 mm. film, is suitable for all the usual branches of movingpicture work and also for scientific purposes as shown on page 48.

The lens is fitted to the front by means of a bayonet lock which enables rapid changing of various types of lenses which can be used with this camera. The lens drive is equipped with four speeds, namely, 1, 2, 4, and 8 pictures per turn.

The Universal Kinamo is loaded with 80 feet of any standard 35 mm. film. Its lens equipment is the well-known Carl Zeiss Tessar F/2.7.

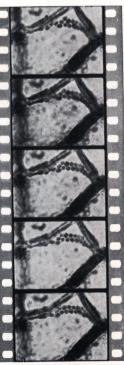
A special folder on the Universal Kinamo sent upon request.



Magnification 10X Embryo of the Snail

The Universal Kinamo Picture Size . . 35 mm. Lens. Zeiss Tessar F/2.7 — 4 cm. focal length Size. . . . 2 % x 5 % x 6" Weight. 3 ¼ lbs.

Strips of micro-films taken with the combination of the Universal Kinamo and Microphot.



Magnification 1000X Movement of Protoplasm in a vegetable cell

THE following list of double extension* Zeiss Ikon Cameras, fitted with Carl Zeiss Tessar Lenses shows which Zeiss Distar or Proxar Lenses may be used. To order Distar or Proxar Lenses use new designations as given below.

	Distar			Proxar		
Camera			gnation	Combined	Designation	
	focal lgth., inches	old	new	focal length, inches	old	new
Icarette L 41/8 inch	5½ 6	2.5/II 3/II	2.5 x 32 3 x 32	31/2	2/II	2 x 32
Nixe A 5¼ inch	7 ¹ ⁄ ₄ 8 3⁄ ₄	2/III 3/III	2 x 37 3 x 37	4 ¹ ⁄ ₄	2/III	2 x 37
Nixe B 6 inch	8 10	2/IV 3/IV	2 x 42 3 x 42	43/4	2/IV	2 x 42
Maximar A 41% inch	5½ 6	2.5/II 3/II	2.5 x 32 3 x 32	3½	2/II	2 x 32
Maximar B 534 inch	7 ¹ ⁄ ₄ 8 3⁄ ₄	2/III 3/III	2 x 37 3 x 37	4 ¹ ⁄ ₄	2/III	2 x 37
Ideal A 4 ¹ / ₈ inch 4 ³ / ₄ inch	5 ^{1/2} 63/4	2.5/II 3/II	2.5 x 32 3 x 32	33⁄4 33⁄4	1.5/II 2/II	I.5 X 32 2 X 32
Ideal B 5¼ inch	7 [±] / ₄ 8 ³ / ₄	2/III 3/III	2 x 37 3 x 37	4 ¹ ⁄ ₄	2/III	2 x 37
6 inch	10 8 10	3.5/III 2/IV 3/IV	3.5 x 37 2 x 42 3 x 42	43⁄4	2/IV	2 x 42
Trona 5¼ inch	83/4	3/III	3 x 37	4 1/4	2/III	2 x 37
Trona F/3.5 51/4 inch	83/4	3/VI	3 x 51	43/4	1.5/VI	1.5 x 51
Orix 6½ inch	8 1/2 I I	1.5/VI 2.5/VI	1.5 x 51 2.5 x 51	51/2	1.5/VI	1.5 x 51
Universal Juwel A 6 inch	8 10 111/4	2/IV 3/IV 3.5/IV	2 x 42 3 x 42 3.5 x 42	43⁄4	2/IV	2 x 42
61/2 inch		3.5/VI 1.5/VI 2.5/VI 3/VI	3.5 x 42 1.5 x 51 2.5 x 51 3 x 51	5 1/2	1.5/VI	1.5 x 51
Universal 8¼ inch Juwel B	1134 134 16	1.5/VII 2/VII 2.5/VII	1.5 x 57 2 x 57 2.5 x 57	7	ı/VII	I X 57

* To use Distars and Proxars on single extension cameras or cameras not equipped with ground glass, would require the fitting of a secondary special infinity scale on the camera bed.



CARL ZEISS PHOTO LENSES

for every photographic purpose are unsurpassed in definition and covering power

BIOTAR F/1.4.

TESSARS F/2.7-3.5-4.5-5-6.3.

DISTAR.

Proxar supplementary lenses for TESSAR.

TELE-TESSARS F/6.3.

DOUBLE PROTARS F/7-6.3-7.7.

PROTARS F/18 PROTAR LENSES F/12.5. Sets of convertible protars.

TRIOTARS F/3—3.5 and TRIPLETS F/4.8—5.

APOCHROMAT TESSAR and PLANAR PROCESS LENSES and accessories.

YELLOW FILTERS of yellow Jena glass. DUCAR COMPENSATION FILTERS for color photography.

Special lens equipment for amateur movie cameras. Ask for Zeiss photographic lens catalog. Pamphlet "How Zeiss lenses are made" free on request.



Carl Zeiss Prism Binoculars

A^{MONG} the more than twenty popular models of Zeiss binoculars there is one for every purpose.

As a companion on your travels, for sports, on hunting trips, the Zeiss will bring out distant scenes in remarkable detail.

For nature lovers the Zeiss binocular can easily be converted into a magnifier by adding an objective front lens. Binocular booklet describing all models sent on request.

Smallest circle shows all that can be seen with an 8power non-prismatic glass.

Middle circle, the field of view of the average 8-power prismatic binocular.

The entire circle, the field of view of a Zeiss 8-power wide-angle Prism Binocular.

