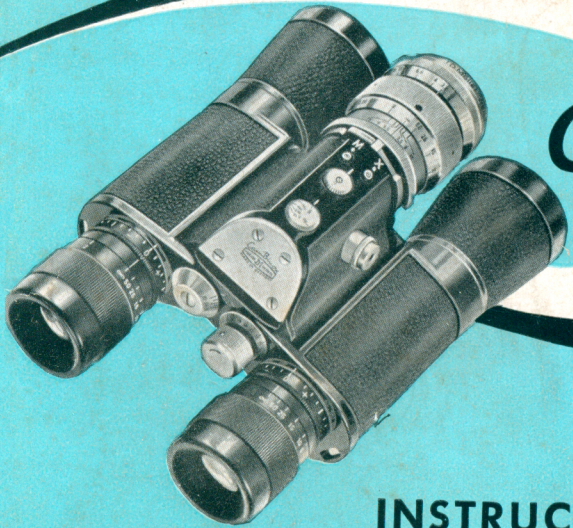


CamBinox

THE PHOTO-BINOCULAR

INSTRUCTION FOR USE

First turn the page and note the illustration. It indicates the various parts of your CamBinox that are of importance in its handling.

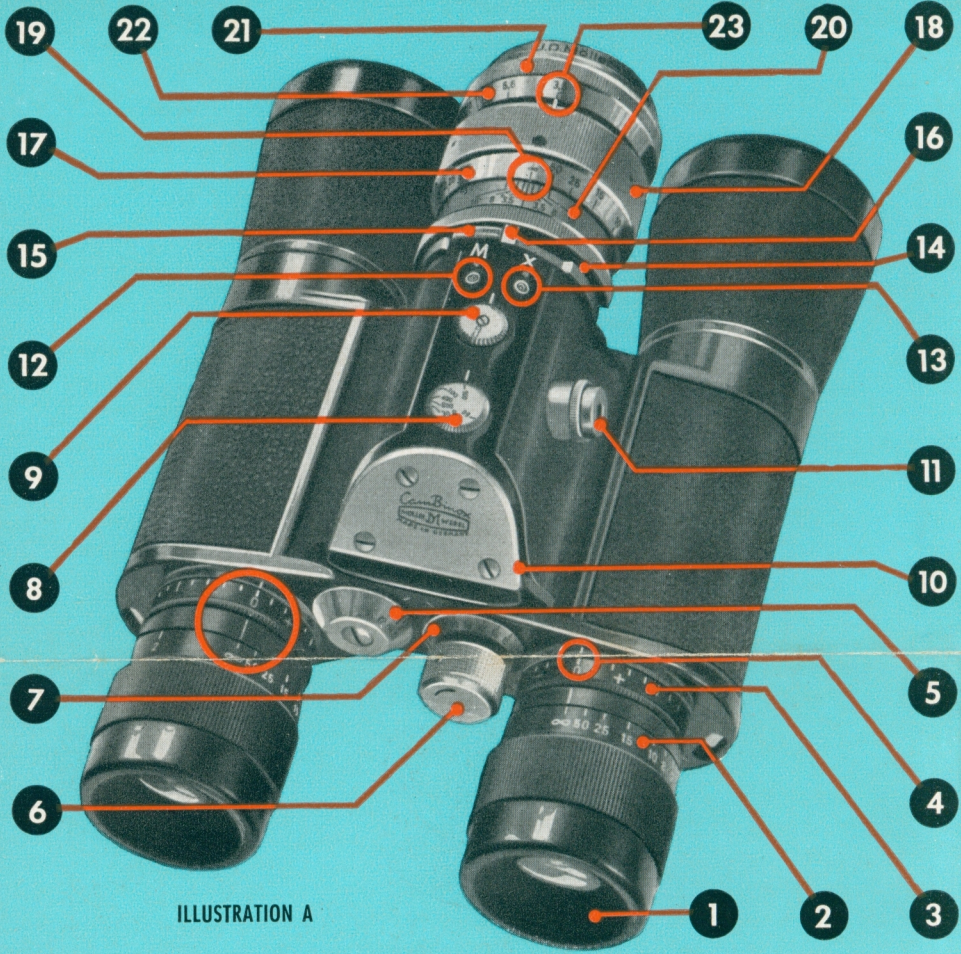
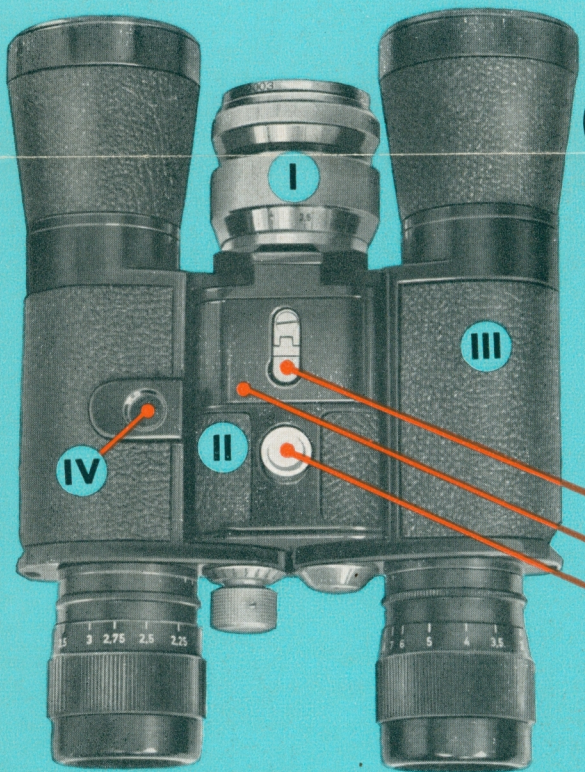


ILLUSTRATION A



I Camera objective

II Camera body

III Binocular half

IV Tripod screw thread

ILLUSTRATION D

ILLUSTRATION B

ILLUSTRATION C

In no time will these directions explain the CamBinox in detail to you. And that's what you need to get acquainted with your CamBinox.

1 **The Eyepieces** are individually adjustable

2 **The Eyepiece Distance Scale** indicates the distance of the object

3 **The Correction Scale** shows degrees of far or near sightedness and enables corresponding corrections

4 **The Correction Mark** is the reference point for the correction scale

5 **The Pupillary Distance Scale** indicates the degree to which the binocular halves are bent

6 **The Winding Knob** transports the film and cocks the shutter

7 **The Exposure Counter** registers the number of the respective picture

8 **The Fast Shutter-Speed Dial** and

9 **The Slow Shutter-Speed Dial** set the exposure

10 **The Slit** permits the attachment of accessories

11 **The Shutter Release** disengages the shutter for exposure

12 **The M-Contact** and

13 **The X-Contact** permit the attachment of flash equipment with (M) and without (X) retarding ignition

14 **The Bayonet Socket** holds the exchangeable objective in place

15 **The Locking Latch** and

16 **The Retainer** secure the objective

17 **The Lens Distance Scale** and

18 **The Focusing Ring** serve to establish the correct focus

19 **The Distance Scale Mark** is the reference point for the lens distance scale

20 **The Depth of Field Scale** indicates the range of sharp focus

21 **The Diaphragm Ring** and

22 **The Diaphragm Scale** serve to establish the correct diaphragm

23 **The Diaphragm Mark** is the reference point for the diaphragm scale

24 **The Locking Knob** holds the cassette carrier in the camera

25 **The Cassette Carrier** lodges the film cassette

26 **The Hinged Nub** serves to withdraw the cassette carrier

CamBinox

as a Binocular

The binocular part of your CamBinox consists of a high-grade prism binocular 7×35, field of view 380 ft. at 1000 yds. distance or 127 m at 1000 m distance. This part can be used as a binocular without photographing. When taking pictures, it serves as a view finder and as a distance measurer; for this you will, however, have to accommodate it to your eyes.

Start the accommodation by rotating the correction scale (3) before even lifting the CamBinox to your eyes in such a way that its "0"-mark will point at the correction mark (4). Thereupon rotate the eyepieces (1) to the left up to the stop.

Then seize with each hand one of the binocular halves in such a way that each of the two eyepieces (1) will be conveniently placed between your

thumbs and your index fingers. Then lift the CamBinox with its eyepieces before your eyes, the camera frame pointing upward.

Now point your CamBinox on an object at a distance of more than 300 ft. [abt. 100 m], or still better more than 600 ft. [abt. 200 m]. With that the image will yet appear somewhat hazy and you therefore will have to focus it by rotating the eyepieces (1) to the right, first for one eye and then for the other. The respective eye is normalsighted, if, after the accommodation, the "∞"-mark of the eyepiece distance scale (2) will point at the "0"-mark of the correction scale (3), as illustrated by figure **C**. Should this not be the case, the respective eye is ametropic.

C

In case of ametropia rotate, to avoid an inaccurate measuring of the distance, the correction scale (3) in such a way that its "0"-mark will point at the "∞"-mark of the eyepiece distance scale (2). The degree of ametropia will then be indicated by the correction mark (4) on the correction scale, each interval from one mark on the correction scale to the other corresponding to one diopter (dptr.).

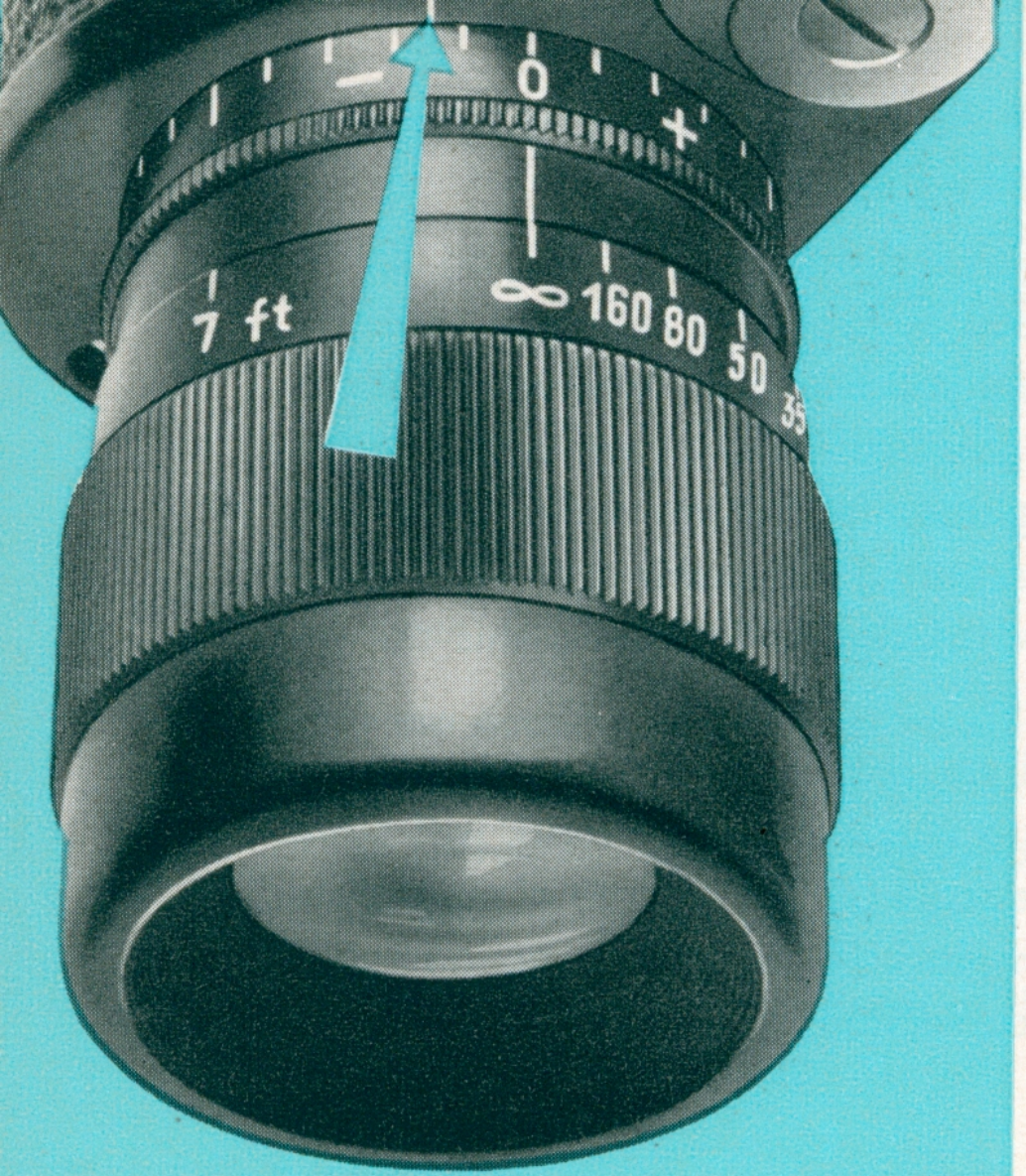


ILLUSTRATION E

The accommodation f. i. of —1,5 diopters is shown in the illustration **E**. The diopters of each of your eyes may be read in the same way on the respective correction scale (3). If you will take note of your diopters, you may, in the subsequent use of your CamBinox, set them on the correction scale immediately and without any re-determining.

E

Finally bend the two halves of the binocular downward to such a degree that the two separate focused fields will be blended in one single image. The distance between the eyepieces required for this by your eyes is indicated by the pupillary distance scale (5).

Now the binocular is accommodated to your eyes and you can thus determine with it the distance to any object ranging from 7 ft. [in metric engraving 2 m] to ∞. For this end, rotate the eyepieces (1) first to the left up to the stop. While observing the object, rotate the eyepieces to the right until the object will appear in microscopic sharpness. Now the "0"-mark of the correction scale (3) indicates the distance to the object on the eyepiece distance scale (2). The illustration **F** shows for example the focusing of an eyepiece on an object at a distance of about 65 ft. [abt. 20 m].

F

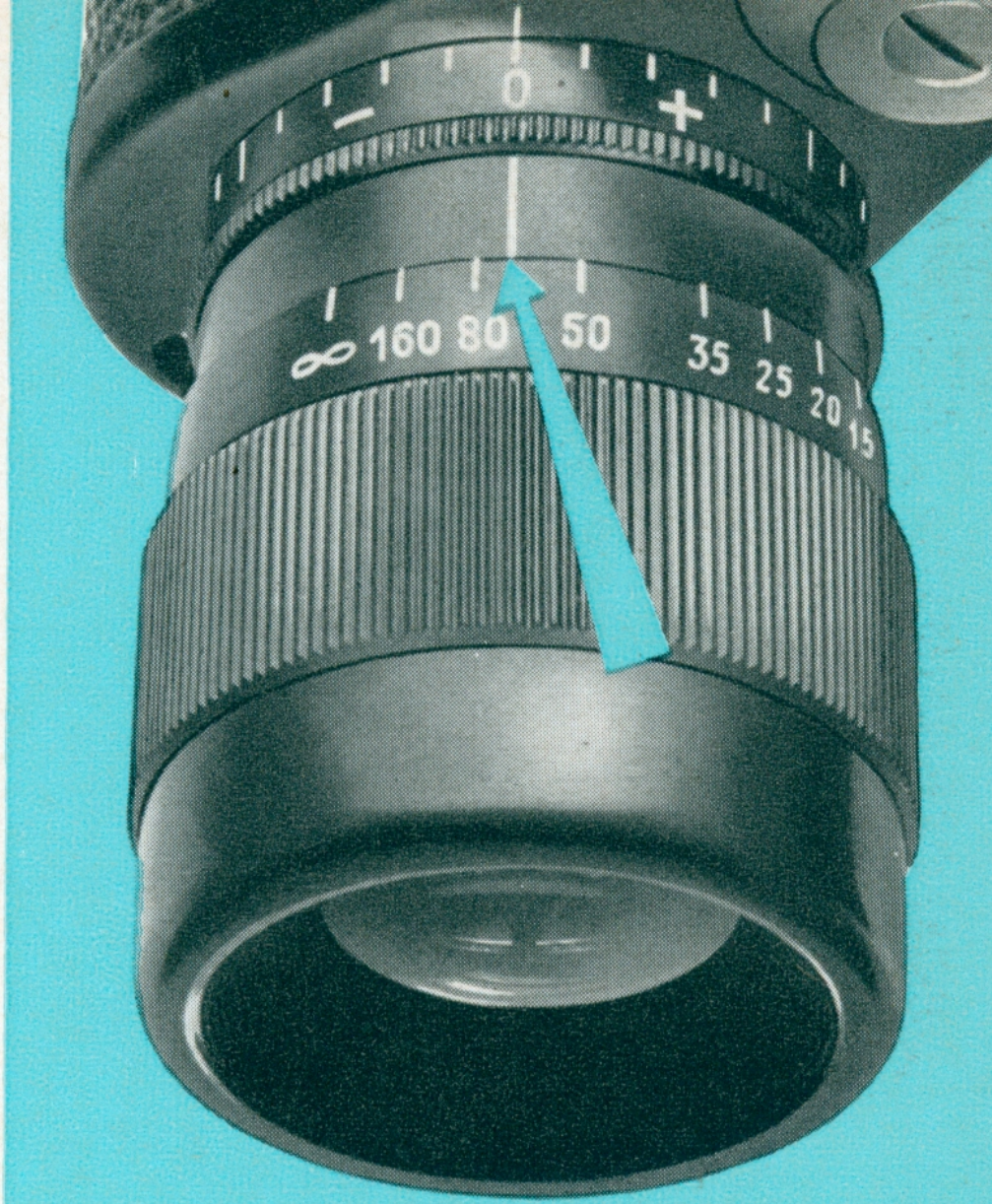


ILLUSTRATION F

CamBinox

as a Camera

The camera-objectives are high-grade lenses of various focal lengths, specially designed for CamBinox. The standard objective JDEMAR, with an opening of 1 : 3,5 and a focal length of 90 mm [$3^{35}/_{64}$"]* is shown by the illustration **B** on the folder. The bayonet socket (14) permits a rapid exchange of the objectives, an internal thread on the front ring of the objectives the attaching of filters and sun shades.

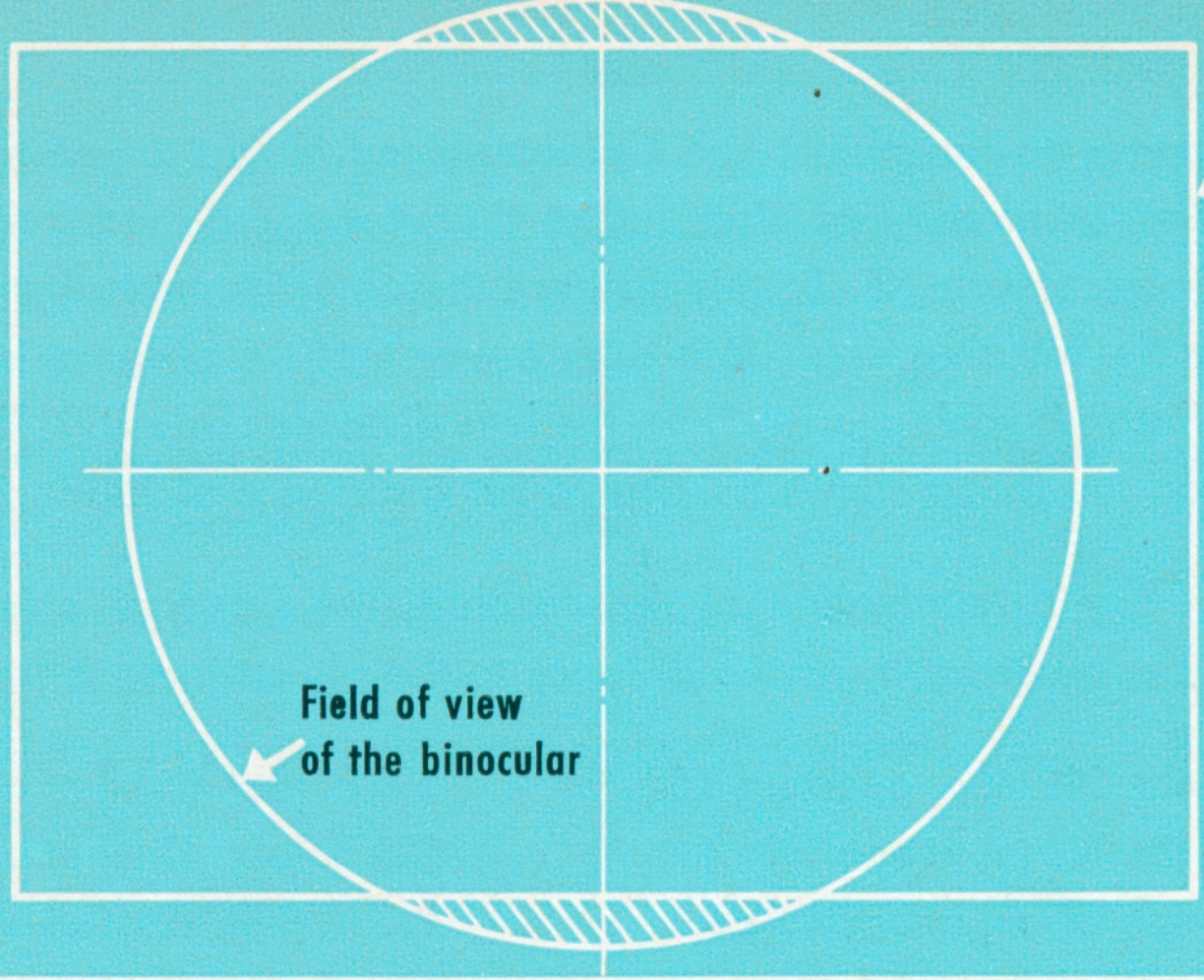
B

The finder function is performed by the binocular. The view in the binocular will be photographed by the standard objective f = 90 mm, as shown in illustration **G**. At the shortest photographing distance of 7 1/2 ft. [in metric engraving 2,25 m] the standard objective 90 mm picks up an image area of 14" × 10" [in metric engraving 0,33 × 0,24 m].

G

*) Lenses with focal lengths of 135 mm [$5^{21}/_{64}$"], 50 mm [$1^{31}/_{32}$"] etc. will be available. Upon request, we shall inform you as soon as they are on the market.

ILLUSTRATION G



DISTANCE OF OBJECT

	1000 yds.	7 1/2 ft.
image field	468 ft. x 333 ft.	14" x 10"
field of view	380 ft. ∅	10 3/4" ∅

	1000 m	2,25 m
image field	156 m x 111 m	0,33 m x 0,24 m
field of view	127 m ∅	0,28 m ∅

The distance to the object can be determined by the binocular of your CamBinox, as already pointed out, so that it may be read from the eye-piece distance scale (2). To this distance the objective must then be set by rotating the focusing ring (18) in such a way that the distance is indicated by the distance scale mark (19) on the lens distance scale (17). The illustration **B** on the folder shows f. i. how to set a distance of 150 ft. [abt. 50 m].

B

Without any determination of the distance, the standard objective f = 90 mm can be set at ∞, if the distance to the object is more than

650 ft. [abt. 200 m] at aperture 3,5
550 ft. [abt. 170 m] at aperture 4
390 ft. [abt. 120 m] at aperture 5,6
280 ft. [abt. 85 m] at aperture 8
200 ft. [abt. 61 m] at aperture 11
135 ft. [abt. 42 m] at aperture 16.

The range of sharp focus for each distance can be read on the lens distance scale (17) by means of the depth of field scale (20). It is indicated by

the two aperture values engraved for each aperture. For a distance set at 150 ft. [abt. 50 m] at aperture 8 it covers, as shown for example by the illustration **B** on the folder, with the standard objective f = 90 mm a range from about 90 to 400 ft. [abt. 30 to 125 m].

B

To set the diaphragm rotate the diaphragm ring.(21) until the diaphragm mark (23) shows the desired value on the diaphragm scale (22).

The winding knob (6) must be turned — before taking the picture — in the direction of the arrow until it stops. Thus the film has been transported and the shutter has been set simultaneously. This coupled action prevents double exposure.

The exposure is made by a metal focal plane shutter. It can be set for instantaneous exposures to 1/30, 1/50, 1/100, 1/200, 1/400, 1/800 sec. and in-between values, and for time exposures of any length. Before setting the exposures, the shutter must be cocked.

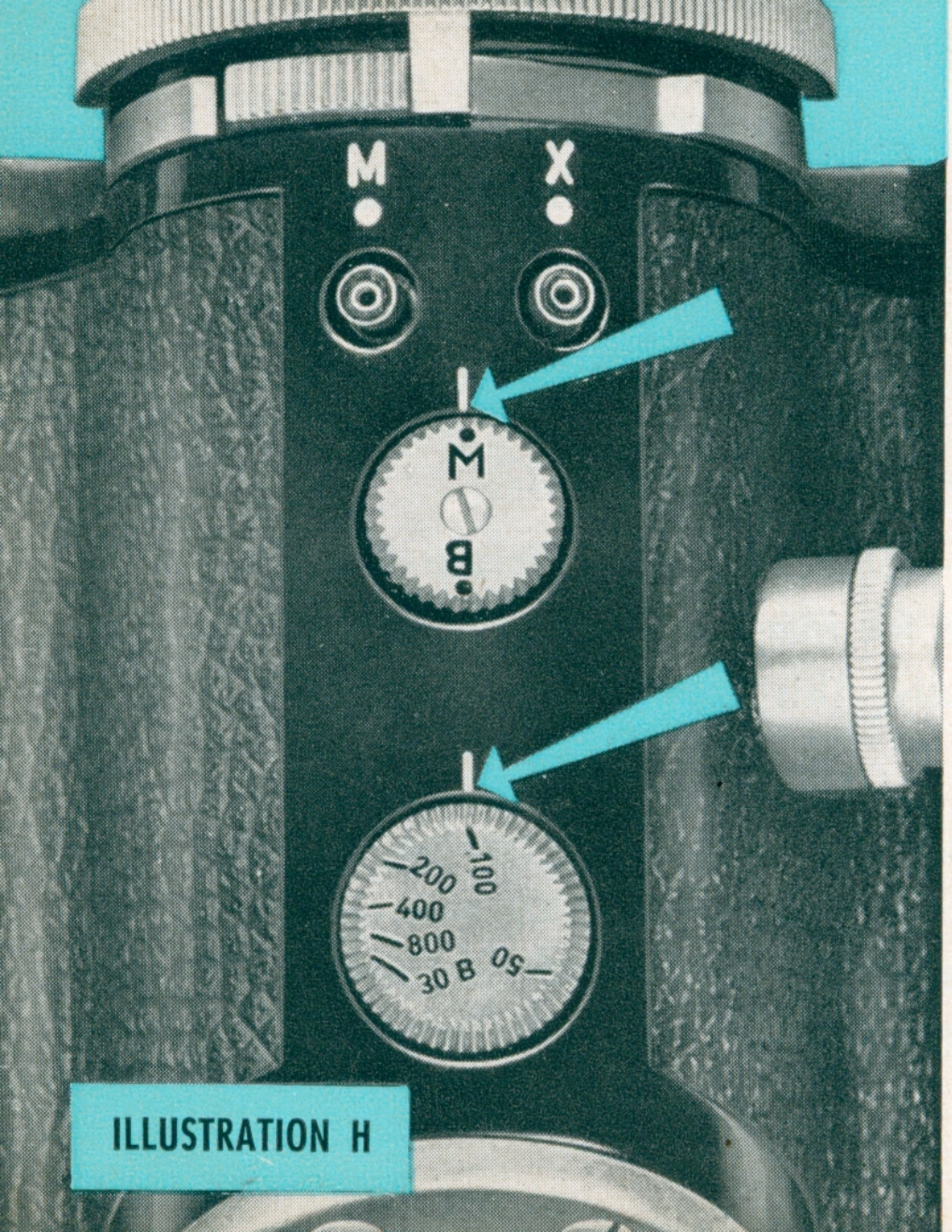


ILLUSTRATION H

For instantaneous exposures first set, by turning the dials, the "M"-mark of the slow shutter-speed dial (9) and then the desired exposure mark of the fast shutter-speed dial (8) until they will be lined up with the respective white marks on the camera body. The illustration **H** gives an example for the adjustment to an instantaneous exposure of 1/100 sec.

H

For time exposures set the "B"-mark of the slow shutter-speed dial (9) and the "30 B"-mark of the fast shutter-speed dial (8) until they will be lined up with the respective white marks on the camera body. The "B"-mark engraved on top of the slow shutter-speed dial corresponds to the "30"-mark. This adjustment for time exposure is shown by the illustration **I**.

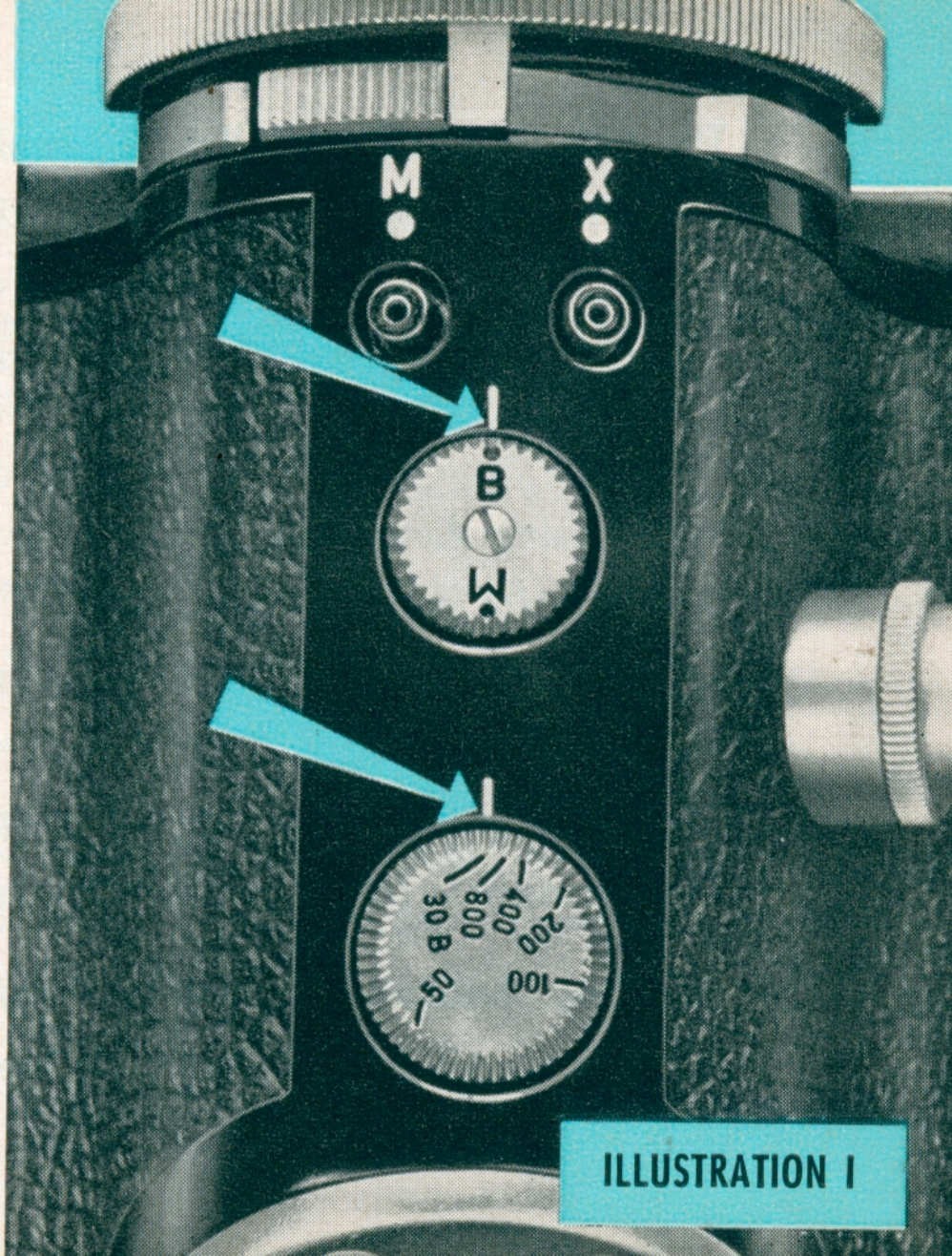


ILLUSTRATION I

The fast shutter-speed dial (8) should be turned only by pressing it gently in. When its desired exposure mark is lined up with the respective white mark on the camera body, the dial will lock itself in the proper position as it springs out. Should it fail to spring out, it may become freed by slightly moving it.

When using the standard objective f = 90 mm for exposures of 1/50 or 1/30, take special care to avoid motion in the picture; steady your CamBinox or lean your elbows on some support. When using objectives of larger focal lengths, steady your CamBinox also for shorter exposures. For it must be remembered that all telephoto lenses must be steadily held or fixed even for rather short exposures.

For longer exposures you will therefore have to use a tripod on which to fix your CamBinox by means of the tripod screw thread.

For exposing the picture the shutter release (11) has to be pressed down very gently to avoid a jerk and, consequently, unsharp pictures.

With instantaneous exposures the shutter works automatically, whereas with time exposure, it opens with the pressure on the shutter release (11) and remains so as long as the pressure lasts.

To assure steadiness with time exposures, when using a tripod, a cable release may be screwed into the screw thread in the middle of the shutter release (11).

For flash exposures the shutter is synchronized to 1/30 sec. On the top of the camera body you will find the "M"-contact (12) for flash guns **with** retarded ignition and the "X"-contact (13) for flash guns **without** retarded ignition (f. i. for electronic flash).

For changing objectives the locking latch (15) of the bayonet socket (14) is pressed down and the objective is then rotated a quarter turn towards the shutter release (11). The objective may then be easily removed.

When re-inserting the objective, slip it into the camera body in such a way that the retainer (16) will engage in the cutout of the locking latch (15). When rotating thereupon the objective away from the shutter release (11), the retainer will audibly snap against the notch in the cutout of the locking latch and hold the objective in place.

The CamBinox special film of the ADOX-Fotowerke Dr. C. Schleussner G.m.b.H., Frankfurt/Main, is a non-perforated 16 mm [$\frac{5}{8}$"] black and white superfine grain film with a sensitivity of $^{14}/_{10}$ DIN [16—20 ASA] and a high resolution power. Its negatives are 10×14 mm = $^{25}/_{64}$" x $^{35}/_{64}$". For color pictures and projection a positive film is planned.

Colour photos, too, with CamBinox

The new CamBinox reversal colour film with Super Anscochrome-Emulsion now permits photographing with CamBinox in natural colours too. For photos in daylight it will have to be exposed like 21° DIN, whilst for photos in artificial light it must be exposed like 16° DIN, when using a conversion filter. Its high speed will enable you to take photos even at unfavourable conditions of light and shortest times of exposure.
Every film pack of this new colour film contains a daylight double cassette for 20 exposures, which, like the conversion filter LIFA CB 12, required for exposures at artificial light, together with its threaded adapter, is available at your CamBinox dealer's.

The film is developed in the

"JDEM COLOR-LABOR FUR 16 mm"
IN WEDEL BEI HAMBURG, POSTSCHLIESSFACH

Either transparency strips, or diapositives ready for projection in a plastic frame of 5×5 cm can be supplied to option.
In other countries than Germany the film can be handed to the Ansco-Developing Establishments, provided that their installations are suitable for the shape of the CamBinox diapositive.

The film cassette shown on the illustration **K** is a double cassette with the CamBinox special film for 20 exposures. Thus there is no necessity of re-winding the exposed film, and the film can be rapidly and easily exchanged. Containers, each holding two cassettes ready for use, are in stock at your CamBinox-dealer's.

K

When loading the camera, bend the two binocular halves in such a way that they will be adjusted as flat as possible. Then tilt up the knurled part of the hinged nub (26) out of the cassette carrier (25). Slide the locking knob (24) with one hand towards the eyepieces (1) and keep it in this position. Now, using the other hand, you can withdraw the cassette carrier from the camera body with the hinged nub, whereupon the locking knob will snap back.

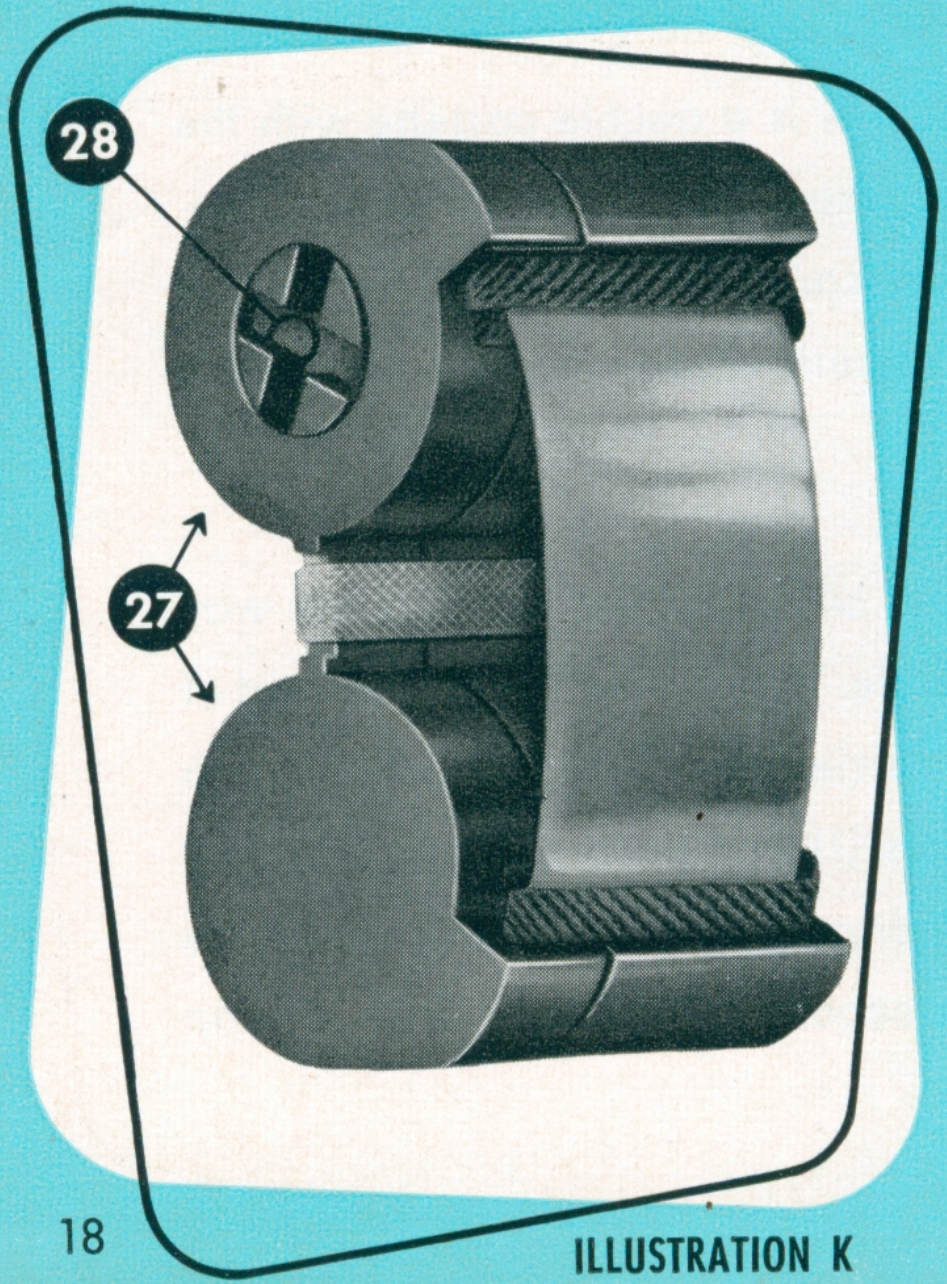


ILLUSTRATION K

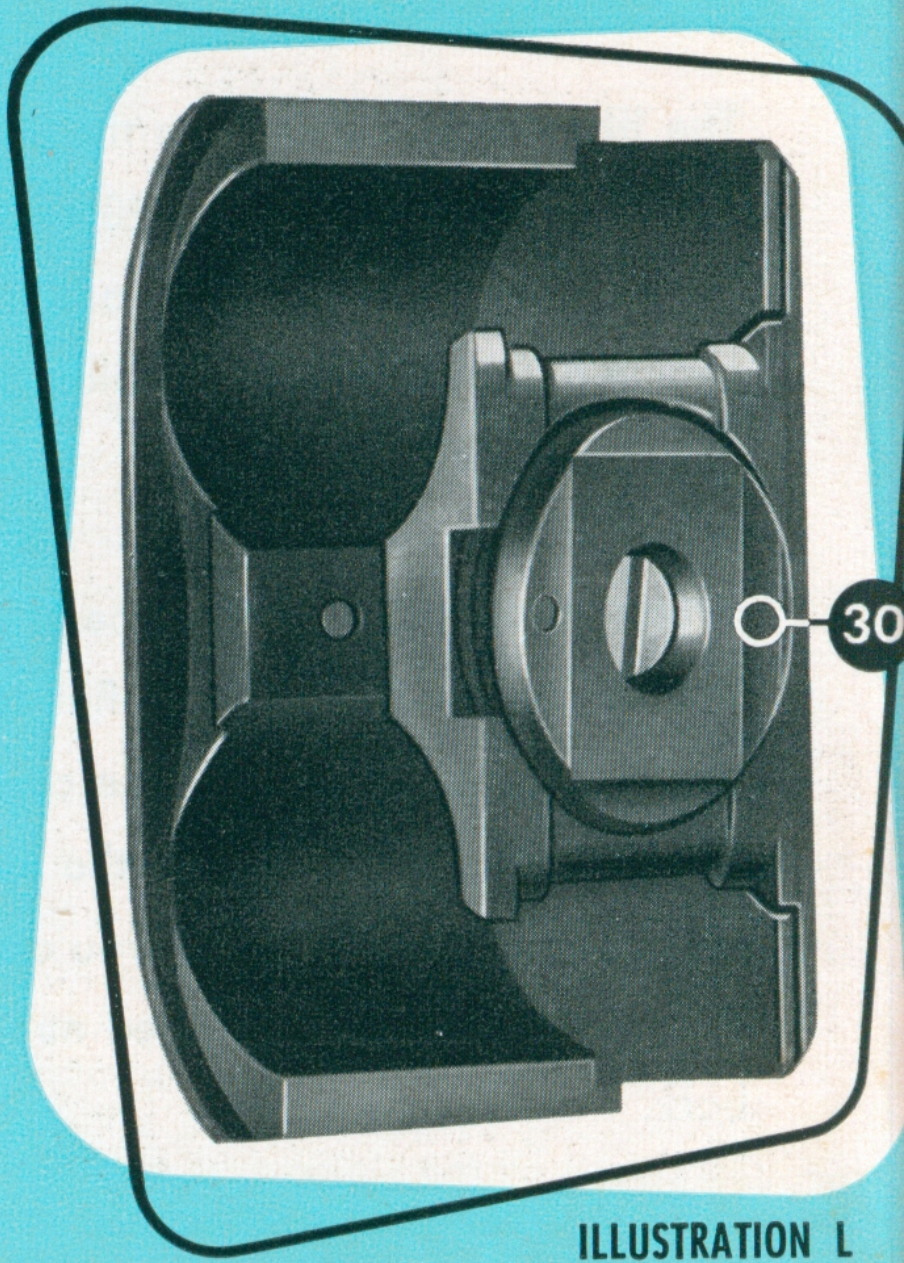


ILLUSTRATION L

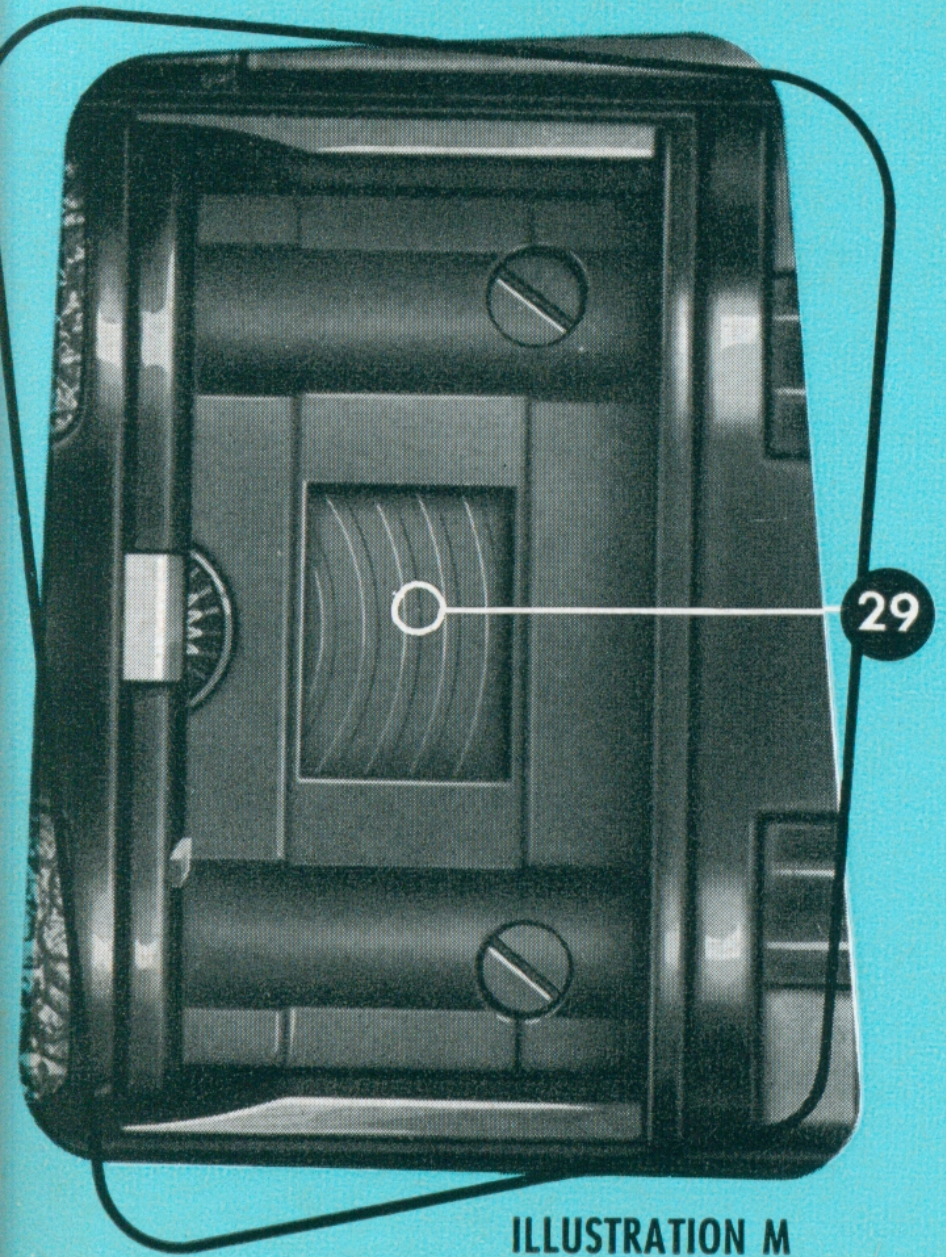


ILLUSTRATION M

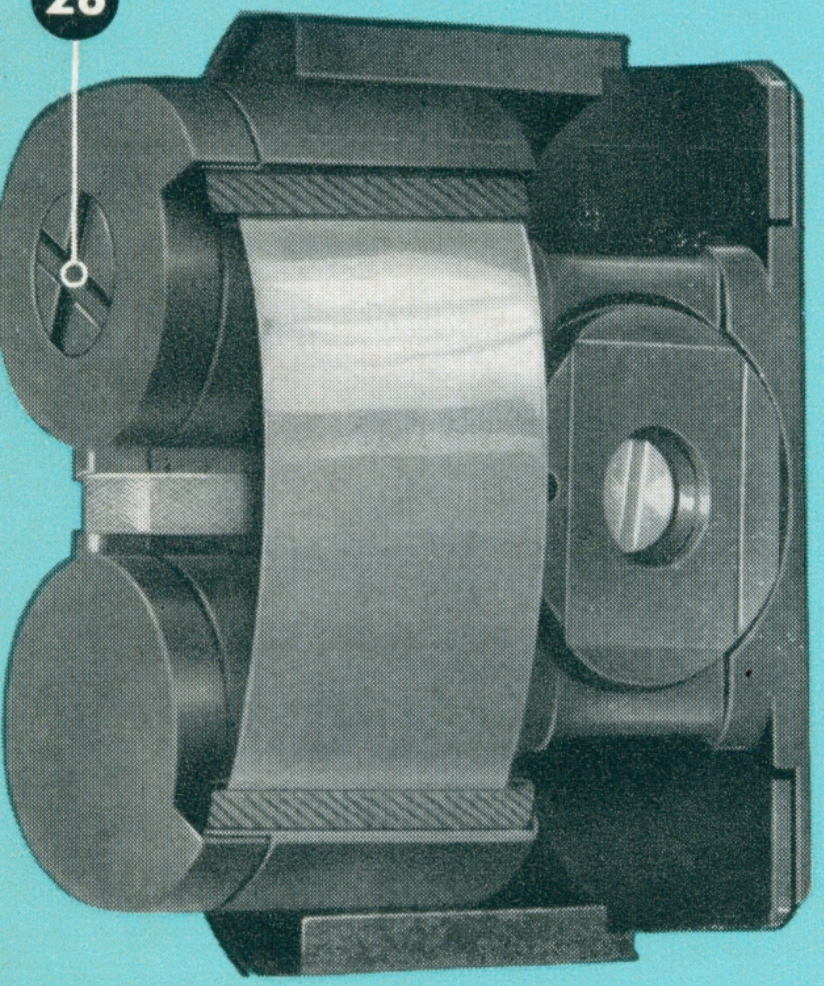
27 **The Film Cassette** is a loaded double cassette ready for use

28 **The Crossnotch** facilitates the transport of the film

29 **The Gate** determines the size of the negative

30 **The Pressure Plate** presses the film against the gate

ILLUSTRATION N



Into the cassette carrier (25), as shown in the illustration **L**, the film cassette (27) is inserted. The film must be threaded outside of the springy pressure plate (30) of the cassette carrier, and the crossnotch (28) must point outward, as indicated on the illustration **N.** Now slide the locking knob (24) back in the direction of the eyepieces (1), keeping it in this position again. Let the cassette carrier with the film cassette slip into the camera body, let the locking knob snap back by slightly pressing with your thumb. Finally tilt back the hinged nub (26).

L

N

Then turn the winding knob (6) slowly in the direction of the arrow until it stops. An audible snapping of the transport key in the crossnotch (28) indicates that the film is being transported.

Now release the shutter for a first blind exposure and repeat its cocking and releasing for a second one.

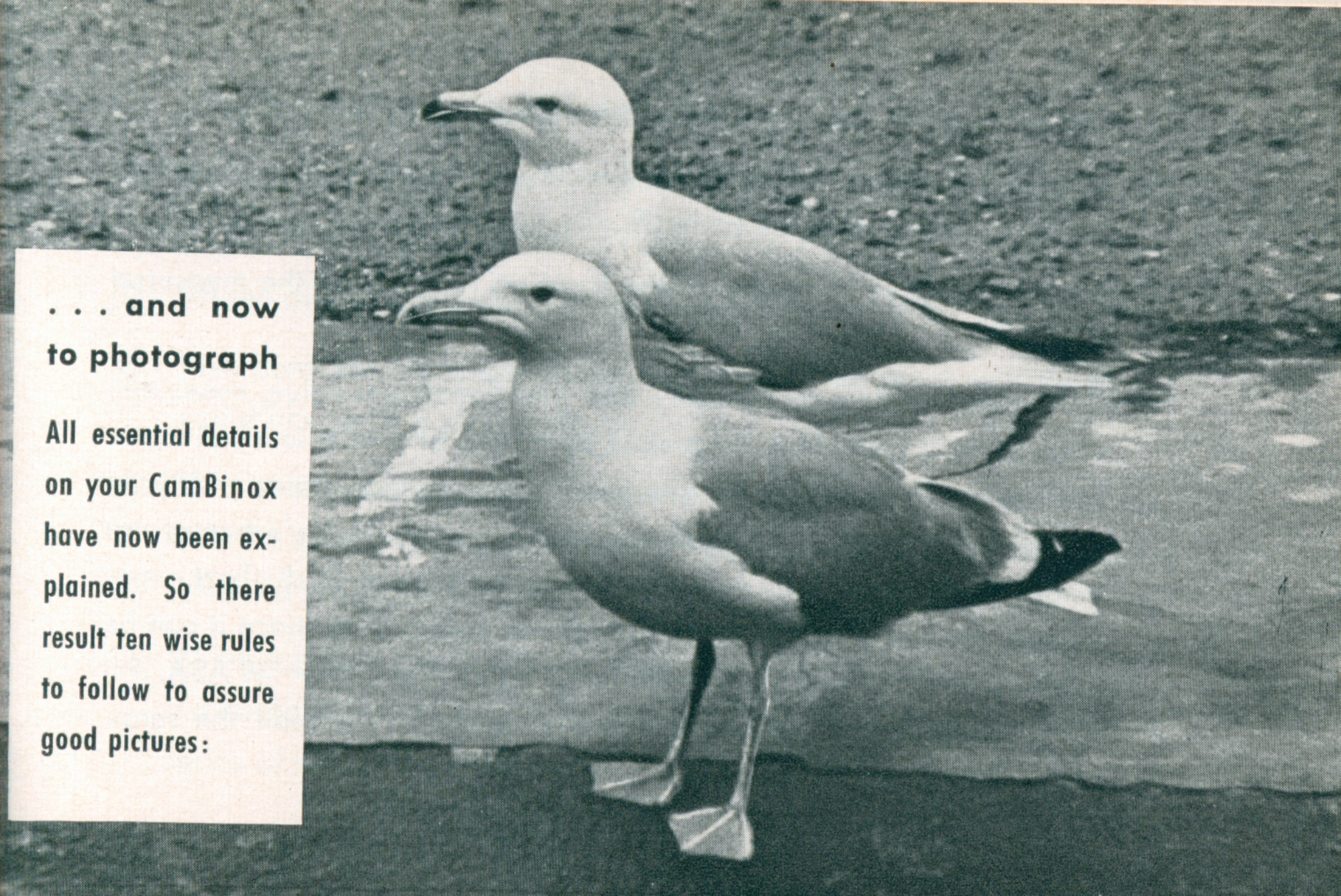
After cocking the shutter for a third blind exposure, set the exposure counter (7). For this purpose, draw the winding knob (6) away from the camera body and turn it in the direction of the arrow, until the white mark on the body will be lined up with the "0"-mark of the exposure counter. Then let the winding knob snap back and release the shutter for the third blind exposure. And now the CamBinox is ready for action.

When the shutter is now cocked for the first shot, the "1"-mark of the exposure counter (7) will point to the white reference mark.

Thus the exposure counter (7) will indicate, after each cocking of the shutter, the number of the exposure ready for taking. Please bear in mind that the exposure No. 20 is indicated by the return to the "0"-mark.

The unloading of the camera is done in the reverse order of the loading procedure. After having exposed the whole film, wind it by two subsequent blind exposures into the light-proof film cassette (27). Straighten the two binocular halves by bending them and remove the cassette carrier (25) from the camera body, as already described. Finally press the shutter release (11) to uncock the shutter.

Please **avoid** direct sunlight, when loading or unloading the camera. Change films only in the shade. The shadow of your body is alrecdy sufficient for example.



. . . and now to photograph

All essential details on your CamBinox have now been explained. So there result ten wise rules to follow to assure good pictures:

(1) Focus the binocular on the object by adjusting the eyepieces (1).

(2) Read the distance to the object — when not using a range finder — on the eyepiece distance scale (2).

(3) Set the objective by means of the focusing ring (18) on the measured distance.

(4) Determine the time of exposure and the diaphragm value, especially when using a color film, if possible by means of a selenium cell exposure meter. In doing so, bear in mind that offhand photos with your CamBinox — like all offhand telephotos — should be exposed not longer than $^{1}/_{100}$ sec. to avoid motion in the picture. Such short exposures are made possible by the CamBinox special film, since it can be exposed like a film with a sensitivity of up to $^{18}/_{10}$ DIN = 40 ASA, if it is subsequently treated by developers which fully exploit the sensitivity of the film.

(5) Turn the winding knob (6) until it stops.

(6) Set the time of exposure by means of the slow shutter-speed dial (9) and the fast shutter-speed dial (8).

(7) Set the diaphragm value by means of the diaphragm ring (21).

(8) Then point the binocular on the object, until you see it, exactly as you would like to fix it on the photo.

(9) To take the picture, press the shutter release (11) gently but steadily with the middle finger of your right hand. Experienced photographers will hold their breath at that moment.

(10) Without taking the CamBinox from your eyes, you can turn the winding knob (6) for the next exposure and go on taking an uninterrupted series of snapshots right away.

Some final suggestions:

Your CamBinox Dealer keeps everything ready you may require for your CamBinox. You can get there for your CamBinox the ever-ready case, filters, the CamBinox special film of the ADOX-Fotowerke Dr. C. Schleussner G.m.b.H., Frankfurt/Main, a developing tin for 16 mm film and a suitable developer.

The developing and printing are just as simple as with miniature films. Good results require careful work.

The developing and printing will be done by your CamBinox dealer or, upon request, by our works-laboratory. If you do the developing yourself, use an approved fine grain developer. If the CamBinox special film with its 14/10 DIN (16–20 ASA) – Emulsion has been exposed like a film with

higher sensitivity, in order to attain such short exposure times as are desirable for telephotos, use developers, which completely exploit the sensitivity of the film.

CamBinox Maintenance is made very simple by its well-devised design. However, the shutter should not be kept cocked over longer periods of time, nor should the CamBinox remain without objective, to avoid the infiltration of dust. Dust may be removed from the outer surfaces of the lenses, from the film guide, and from the film gate with a soft brush, and from the camera body with a soft duster. If anything will ever become amiss with your CamBinox, don't try to repair it yourself; specialists should effect such a repair, as they alone are able to do it successfully. Therefore, bring your CamBinox to your dealer who will arrange repairs.

The **certificate of warranty** will be sent to you as soon as we have received the guarantee postcard attached to the instruction book. Preserve this certificate carefully, for, due to the serial number noted on it, you will be able to prove ownership in case of loss or theft.

This prospectus has shown how to become quickly familiar with the CamBinox and how to handle it correctly. Now

CamBinox

will help you to see more, to enjoy more,
and to retain the telescopic views in good pictures.

Sender:

Profession:

Residence:

Full Address:

(to be filled out in block letters)

J. D. MÖLLER
OPTISCHE WERKE GMBH
WEDEL
IN HOLSTEIN
WESTERN GERMANY

(Please fill out in block letters or type writing)

I have bought

CamBinox

Serial No. .....

on the (date) .....

at (dealer's firm) .....

in (dealer's residence) .....

Please send me the certificate of warranty and inform me about:

.....

.....

.....

.....

.....

(Place and date) (Signature)

(This space is to be left empty)

SINCE 1864

MÖLLER

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