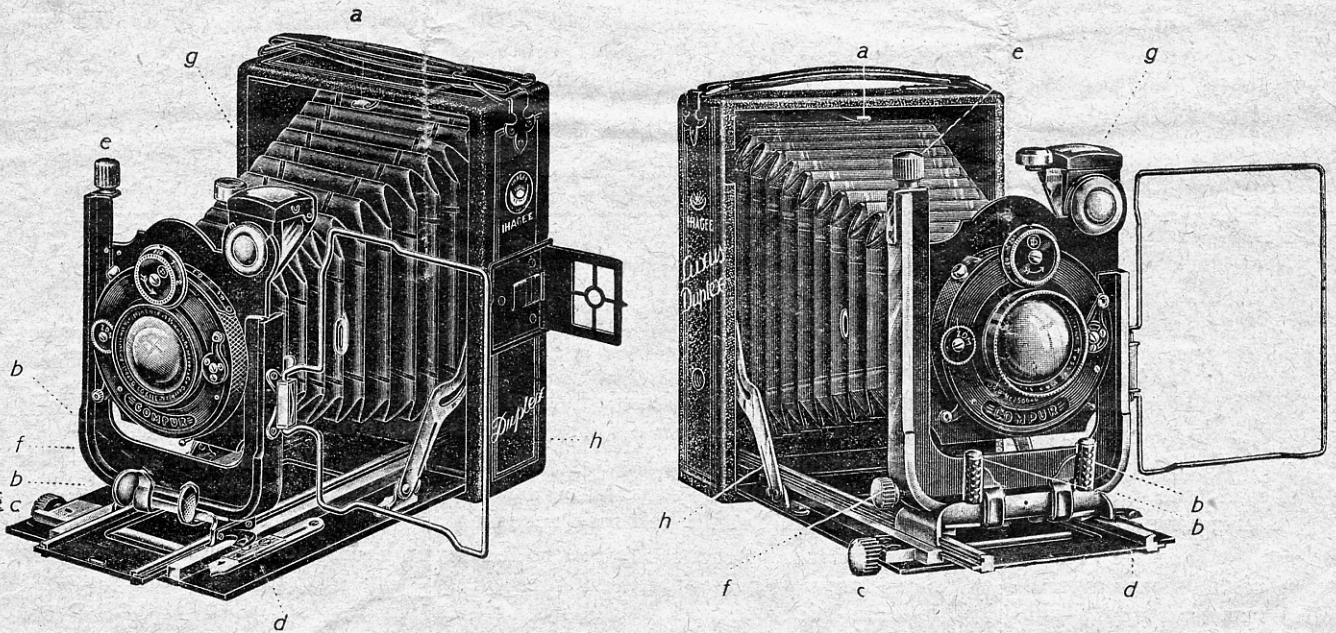


Directions for use of Ihagee-Cameras with double extension



To open the camera.

Press the concealed button *a* beneath the camera-handle (fig. 1). Next pull down the base-board until the side-struts lock with a sharp click. Press the two halves of the plated finger-grip *b* at the base of the lens support towards each other (fig. 2) and pull the lens support forward to its limiting stop. The camera now is set for infinity.

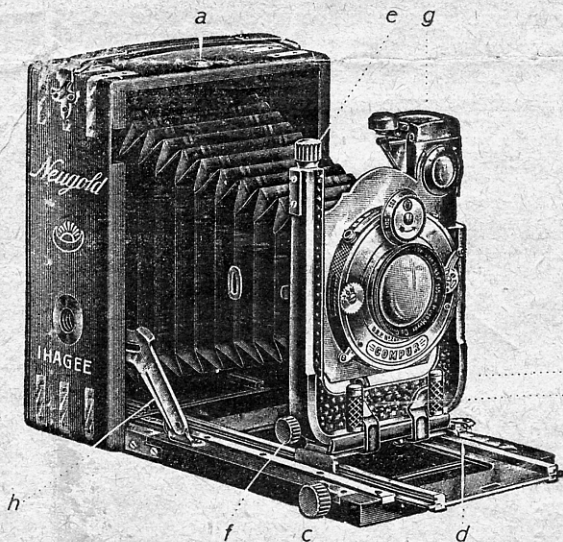
When focussing at a distance of about one hundred times length of the lens the focussing may remain at infinity. For nearer distances pull out the knob of the rack and rotate until the pointer *e* is opposite the desired distance as shown on the focussing scale. To operate the rising and falling front turn the pinion *f*. For the cross front (or rising front for horizontal pictures) the pinion *g* is utilized.

The double extension.

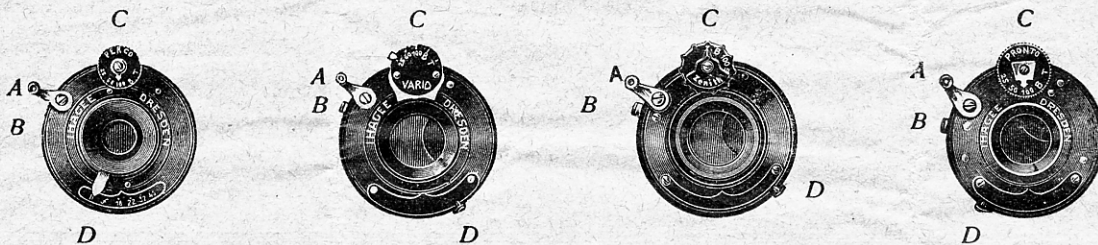
With double anastigmats the front — lens can be screwd off and the backlens alone may be used. As the focal distance thus will be double the rapidity will be considerably diminished and in consequence the exposure should be extended.

The focussing.

Plateholders must be loaded in the dark-room using a deep red light, which may be produced by a special safety lamp for photographic purposes. Take the plate after having removed the wrapper between thumb and forefingers holding the plateholder with the other hand. Place the plate on the spring fitted at the button of the slide and pushing same down the



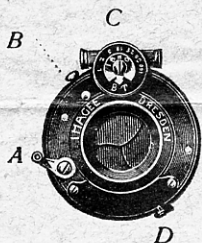
Instructions for shutters fitted to Ihagee Cameras



There are seven different lens shutters fitted to Ihagee cameras named respectively the Perco, the Vario, the Zenith, the Pronto, the Ibsor and the Compur. The first four shutters named are similar in their manner of working. They have three speeds $\frac{1}{25}$ th, $\frac{1}{50}$ th and $\frac{1}{100}$ th sec. and are also fitted for Time and Bulb exposures. All that is necessary with these shutters is to set them to three desired speed, in the case of the Vario the speed disc is fixed and the small pointer is moved to the requisite figure. In the case of the other three the pointer is fixed and the disc is rotated until the speed required is opposite the Pointer. Exposures are made either by pressing the release lever *A* or by means of the Cable release supplied with all shutters. This is screwed into the socket *B*. Instantaneous exposures require one pressure only of the release. With bulb exposures the release is **kept pressed** until the desired time has elapsed, when the pressure is relaxed. In the case of "Time" exposures the first pressure opens the shutter and the second pressure closes it. "Bulb" exposures are useful when a duration of $\frac{1}{4}$ to 1 sec. is desired, for anything over 1 second "Time" exposures are better.

Note. Time exposures should always be completed. If the blades are left open not only is the picture spoiled, but any alteration of speed while the blades are open is likely to damage the mechanism of the shutter. At the bottom of all shutters will be found the diaphragm or "stop" scale and lever. This is for adjusting the lens aperture, and the figures on this scale must not be confused with the shutter speeds.

The Ibsor Shutter. This shutter has a complete range of speeds from 1 second to $\frac{1}{125}$ th second shown as follows 1 = 1 sec. 2 = $\frac{1}{2}$ sec. 5 = $\frac{1}{5}$ th second and so forth. It is of the "Everset" type and does not require to be set before exposure. Exposures are made either by means of the exposure lever *A*, or with the cable release, which is screwed into the socket *B*. The Ibsor is a very accurate shutter, having a watch movement control which is greatly superior to the old air cylinder method. It is very simple to use. Just rotate the speed disc until the required speed is shown against the pointer. Press the lever or cable release and the exposure is made. The Ibsor shutter is fitted with Bulb and Time exposures. In the case of Bulb exposures pressure on the release is maintained during the whole time of the desired exposure, while in the case of Time exposures the first pressure opens and the second pressure closes the shutter blades. At the lower edge of the shutter casing is the diaphragm scale controlling the stops and this must not be confused with the shutter speeds.



The "Compur" shutter is the finest between lens shutter made and is an improvement on the "Compound" shutter which has attained world fame. It has a great range of speeds from 1 sec. to $\frac{1}{3000}$ th second in the smallest sizes and from 1 second to $\frac{1}{250}$ th second in those sizes most generally used. In use it is somewhat different to other shutters. The disc *C* is first set to the type of exposure required, whether Time, Bulb or Instantaneous. This is done by rotating the disc until the letter indicating the type of exposure is opposite the register mark.

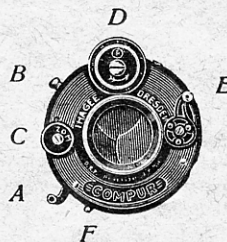
Instantaneous Exposures. Set the disc *C* so that the letter *I* or *M* is opposite the register mark, next rotate the disc *D* at the top of the shutter until the desired speed is opposite the register mark. The shutter should now be "Set". This is done by pressing the lever *E* until it locks. To expose, press the lever *A* or the cable release which may be screwed into the Socket *B*.

Bulb Exposures. Turn the disc *C* so that *B* is opposite the register mark. **Do not** set lever *E*. Make the exposure by pressing release *A* or the cable release, maintaining the pressure for the duration of the exposure. When the pressure is relaxed the shutter will close.

Time Exposures. Turn the disc *C* so that *T* or *Z* is opposite the register mark **do not** set lever *E*. Press once to open the shutter and again to close it, when the desired exposure has been given.

Special Note. The setting lever *E* should never be depressed whilst the shutter is set for **Bulb or Time**. If it is attempted to depress it, resistance will be felt. If it is forced down the shutter will be damaged.

Diaphragms. In the Compur shutter the diaphragm scale is not found at the bottom edge of the casing as with other shutters. The lever actuating the diaphragm is fitted there and is marked *F* in the illustration, but the register will be found at the top of the shutter casing immediately behind the speed disc.



Caution

Never oil any part of any shutter, to do so will put the shutter completely out of order.

Never use force, if resistance is felt, **stop**: you are probably not using the shutter correctly.

If a shutter fails or gets out of order do not attempt to repair it as the mechanism is very delicate. Take it to your dealer who will place the work in skilled hands.

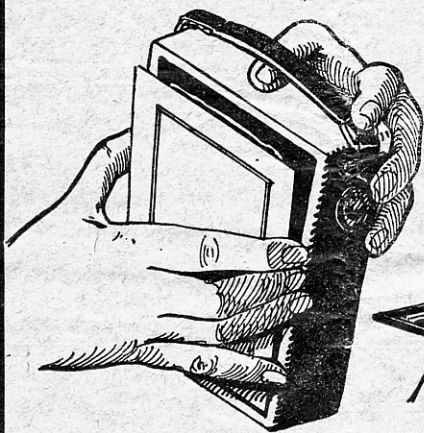


Fig. 1

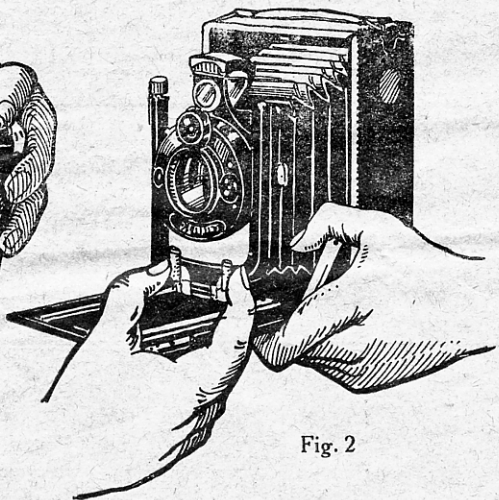


Fig. 2

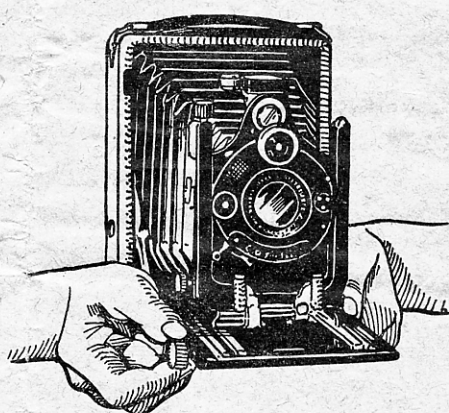


Fig. 3

The backlens being roughly double the focal length of the double lens, requires the one of the double extension. Rack forward until a complete sharp image is visible on the focussing screen.

Using the tripod is indispensable by taking views with the backlens. With simple anastigmats the backlens may not be used. But to utilize the double extension in a better way it is advantageous to use the "Ihagee-Outfit", an invaluable accessory.

For the best results it is advisable to focus on the hooded ground glass screen until a sharp picture results. Having done this or having focussed the picture at the scale the screen is removed and a single plate-metal-slider loaded with its sensitive plate, is slid into the place vacated by the screen (fig. 4). Draw out the slide and expose by means of the shutter. If there is no time to focus in the above manner the picture can be obtained by means of the scale and the limits of it by the rotating view finder *g*. Some cameras are fitted with a very practical wire view finder, it is to be found at the lens-holder and is moved upwards until it stands parallel to the lens. The sighting-frame is likewise erected, and the object viewed through the same and the wire view finder. The picture is now to be seen in its correct outlines. After having taken the picture shut at once the plate holder.

The shutter

See separate instruction at back.

To close the camera.

If the rising or sliding front has been used return these to its central position. Also the view finder must be brought back in its normal position. Then turn the double extension quite back in the camera and press the

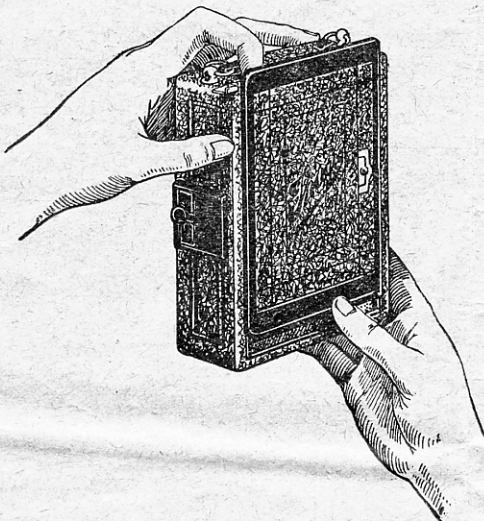


Fig. 4

milled button against the baseboard. That is absolutely necessary for closing the camera. Push the lens support back along its rails as far as it will go by means of the plated finger grip as when opening. Press the struts *h* against the camera at the same time raising the baseboard. The side-struts will now be unlocked and the base-board closed until a catch is felt to lock.