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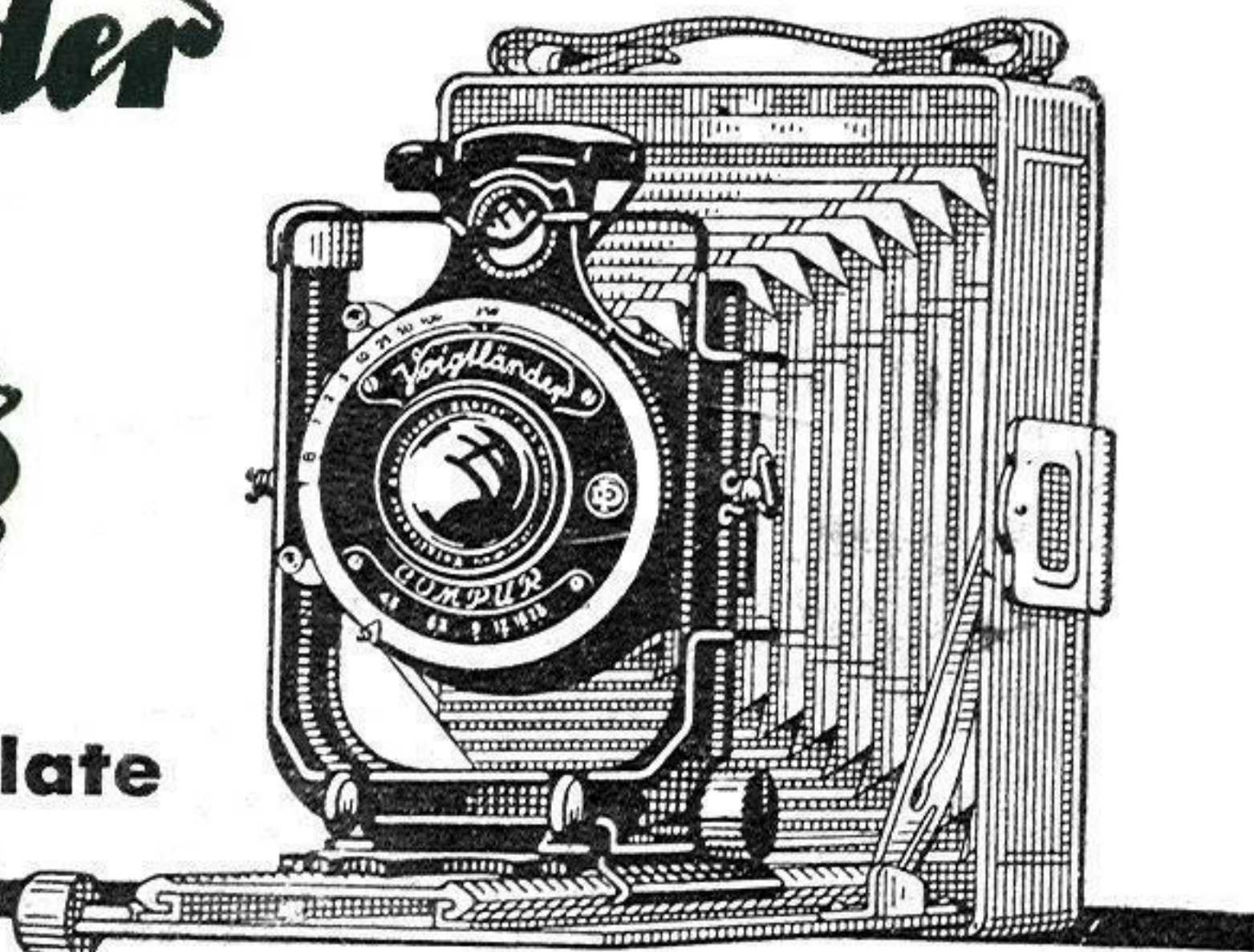
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# Voigtländer

## Wiss

3 1/2" x 2 1/2" and 1/4 Plate



# Instructions for use

**Voigtlander & Sohn Aktiengesellschaft**

Nr. 3253/136 engl.

## Preliminary Note

Every Voigtlander camera is made to last for years provided — and this is a point to be noted — that it is handled with reasonable care. In his own interest therefore, the user should carefully study the instructions for the manipulation of his instrument. If, however, he works the various movements in a random manner without following our directions, it is easy to cause damage to apparatus of such refined construction, and the repair of any damage will naturally cost time and money. Therefore, make it a rule to exercise care.

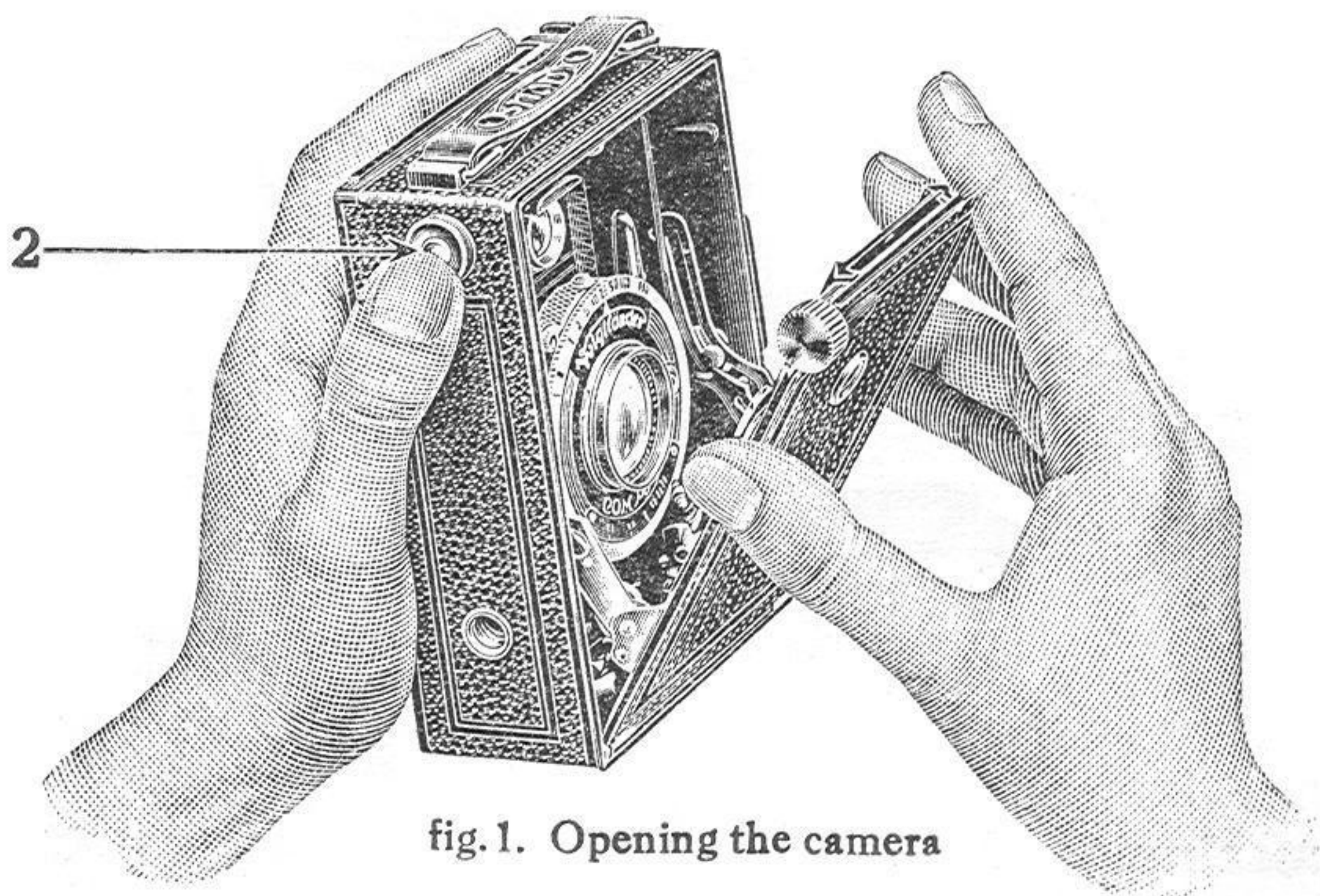


fig. 1. Opening the camera

## To Open the Camera for use

Take the camera in the left hand and support it with the right. With the left thumb press on the release button 2 (fig. 1). (In the case of the  $\frac{1}{4}$  plate Avus this button is placed in the center of the top of the camera body underneath the leather covering.) The baseboard will then swing out against the thumb, proceed to press the baseboard down to right angles until the struts engage on either side. If the thumb is not placed in that position it may cause the baseboard to drop down with considerable force and this may strain the hinges.

The next operation is to pull the front 4 (fig. 2) out by means of the finger grips 12 until it comes to a definite stop. The indicator 5 will then be exactly in line with the infinity mark  $\infty$  on the scale.

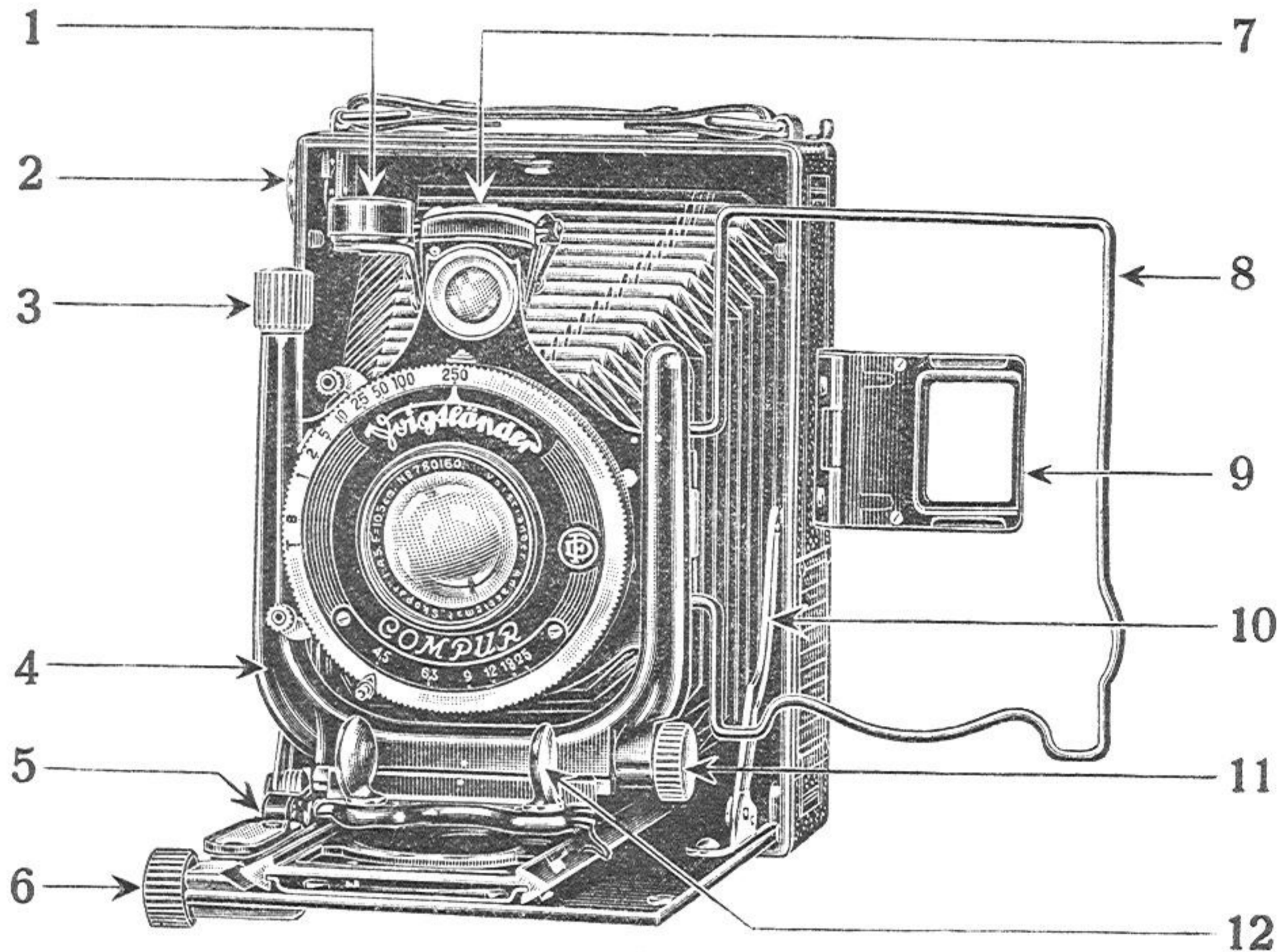


fig. 2. Working parts of the camera

## Focussing

To focus the camera for nearer distances pull out the milled head 6, then you can operate the rack and pinion adjustment.

Focussing can be done either by the scale or the image can be focussed on the ground glass. After the right position (focus) has been found the milled head is pushed back to its original position and the camera front is locked.

If the double extension is to be used pull the U front up to the infinity mark and rack forward as far as possible. Then press on the finger grips and pull out the front until it comes to a definite stop. The desired focus is obtained by means of the adjusting screw.

For use with the double extension in most cases the focussing screen is required. The screen is provided with a protecting hood to cut off light from outside. A small catch (13) keeps the flap of the hood in position (fig. 3).

In case the focussing screen should get broken take particular care to remove all splinters of glass from inside the camera. The screen frame is taken in both hands with the screen turned to oneself, and by means of the thumbs

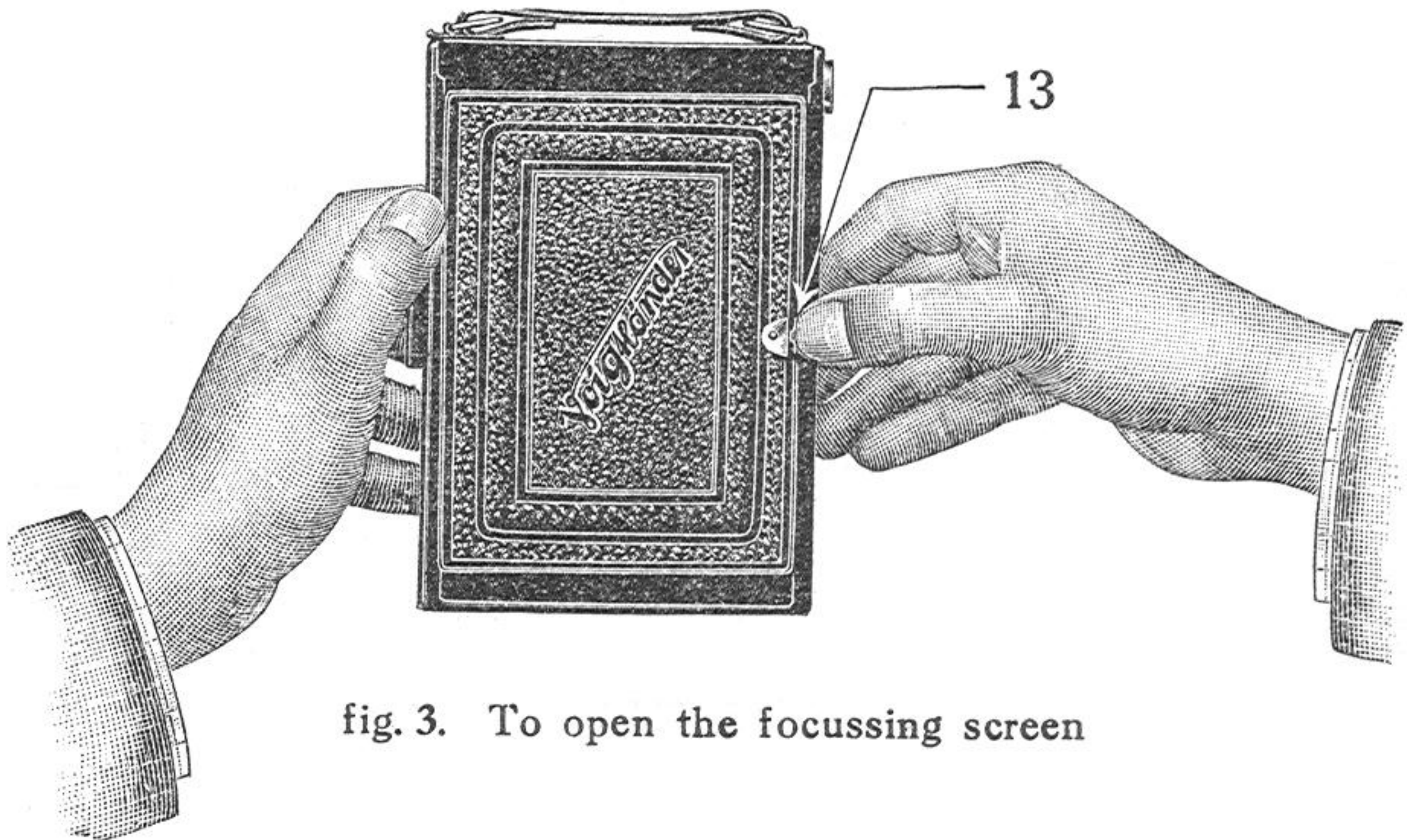


fig. 3. To open the focussing screen

the broken screen is pushed away to the open side of the frame. A new focussing screen is easily inserted in a similar manner.

The focussing screen has a smooth shiny side and a grained side (matt). This is the side which should always point towards the lens. In extreme cases when no new glass can be obtained an ordinary unexposed photographic plate will serve temporarily very well for the purpose. Here the emulsion side must face the lens.

Always see that the corners of the glass screen are slightly cut away to allow an escape of air out of the bellows when closing the camera.

## Iris Diaphragm

The iris diaphragm plays an important part in sharp focussing. It is operated by the lever 15 (figs. 5 and 6) attached to the shutter and allows the aperture of the lens to be reduced as required.

The chief purpose of the stop is to extend the depth of focus, which question is dealt with at greater length in the section "Depth of Focus". It is also used when the lens is

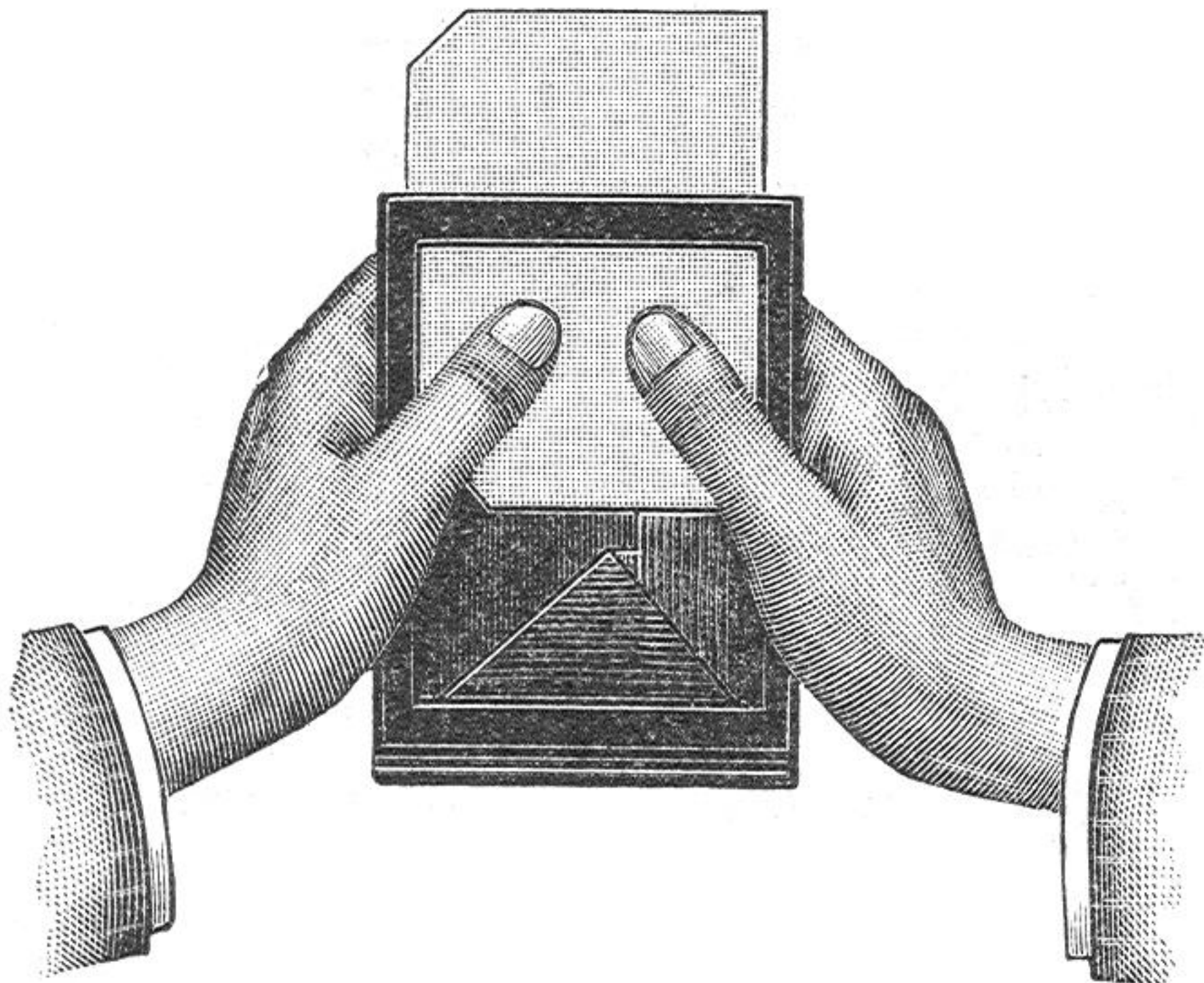


fig. 4. To exchange the broken focussing screen

moved up or down or to one side or the other from its central position. It then improves the sharpness of definition at the edge of the field which is thus displaced. The third use of the stop, but one seldom needed, is for stopping down in very bright light so as to avoid over-exposure of the plate. This is done if the speed of the shutter is not high enough to cut down the exposure to the required time. By stopping down to obtain greater depth of focus, a longer exposure is always required, so that in many cases there are limits to the extent to which this can be done.

## Depth of Focus

The lenses fitted to our cameras are designed to give at full aperture a sharp picture up to the edges of any object lying in the plane which is focussed on. But when it is required to obtain sharp definition, at the same time, of objects at different distances from the camera, the "depth of focus" needs to be extended over a number of planes in the object space and the lens must be stopped down. This applies to all lenses.

When focussing on a given distance each lens aperture corresponds with a certain range of depth of focus, which becomes greater as the lens is stopped down. The aim of the photographer is to adjust the stop and the distance focussed on so that as much as possible of the subject falls within this range (or region) of depth of focus.

A glance on the ground glass will show that, when stopping down, the depth of focus extends far less towards the camera than towards the extreme distance. For this reason focussing is done, at the outset, on objects which are relatively near. This applies also when there is little scope for stopping down on account of the light or movement of the subject, since an unsharp foreground conflicts with the natural sensation experienced by our eyes, which are accustomed to perceive a near object more clearly than one a long way off.

On every "Avus" camera is an engraved scale of depth of focus which is arranged on the co-ordinate system. In the left-hand vertical column are the distances in feet, and in the top horizontal column the stop values. If you go along the horizontal column opposite a particular distance until you arrive at the vertical column below a certain stop value, the figures you find here represent the zone of sharpness in feet that the particular focus and stop values give you.

## Shutter

The Avus camera can be supplied with either of the two shutters, Compur or Ibsor, the operation of which is as follows:

## Ibsor Shutter

The Ibsor-Shutter is an automatically acting shutter requiring no setting.

The speed is regulated by means of the speed dial 16, on which the figures *T* (for long time exposures) and *B* (for short time exposures) as well as those for instantaneous exposures from 1 second up to  $\frac{1}{125}$  th (or  $\frac{1}{100}$  th) second are engraved. The speeds, although fractions of a second, are written as whole numbers to make the reading easier.

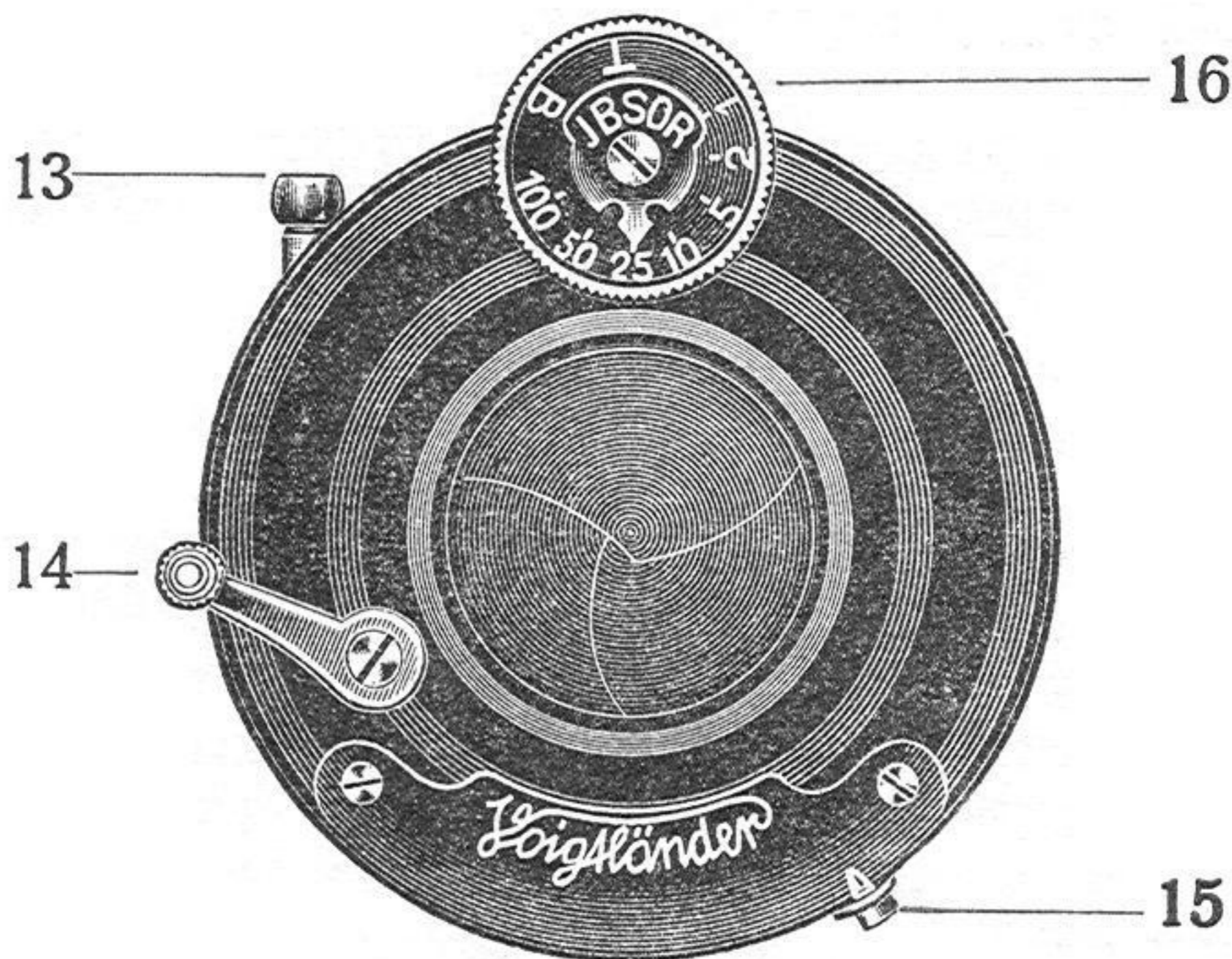


fig. 5. Ibsor Shutter

**Instantaneous exposures:** The speed is regulated by turning the dial 16 so that the required speed is just above the mark on the dial below it. In the right position one feels a little click. The shutter is now ready for making the exposure which is done by pressing the finger lever 14 or operating the cable release screwed into socket 13.

**Time exposures:** Turn dial until letter *B* is opposite the indicator; by pressing down the cable release or the finger release, the shutter opens and remains thus for as long as the pressure is exercised. If one intends to give an exposure of three seconds, count "one little second, two little seconds, three little seconds", as quickly as one usually



speaks. When saying "one" press the trigger and at the conclusion of the phrase, the pressure is released by letting the lever come up.

If the letter "T" is above the pointer, the shutter opens by operating the finger release 14 or the cable release and remains open until the release is pressed a second time. This is the setting to be used when focussing on the focussing screen and when making very long exposures or exposures by flashlight.

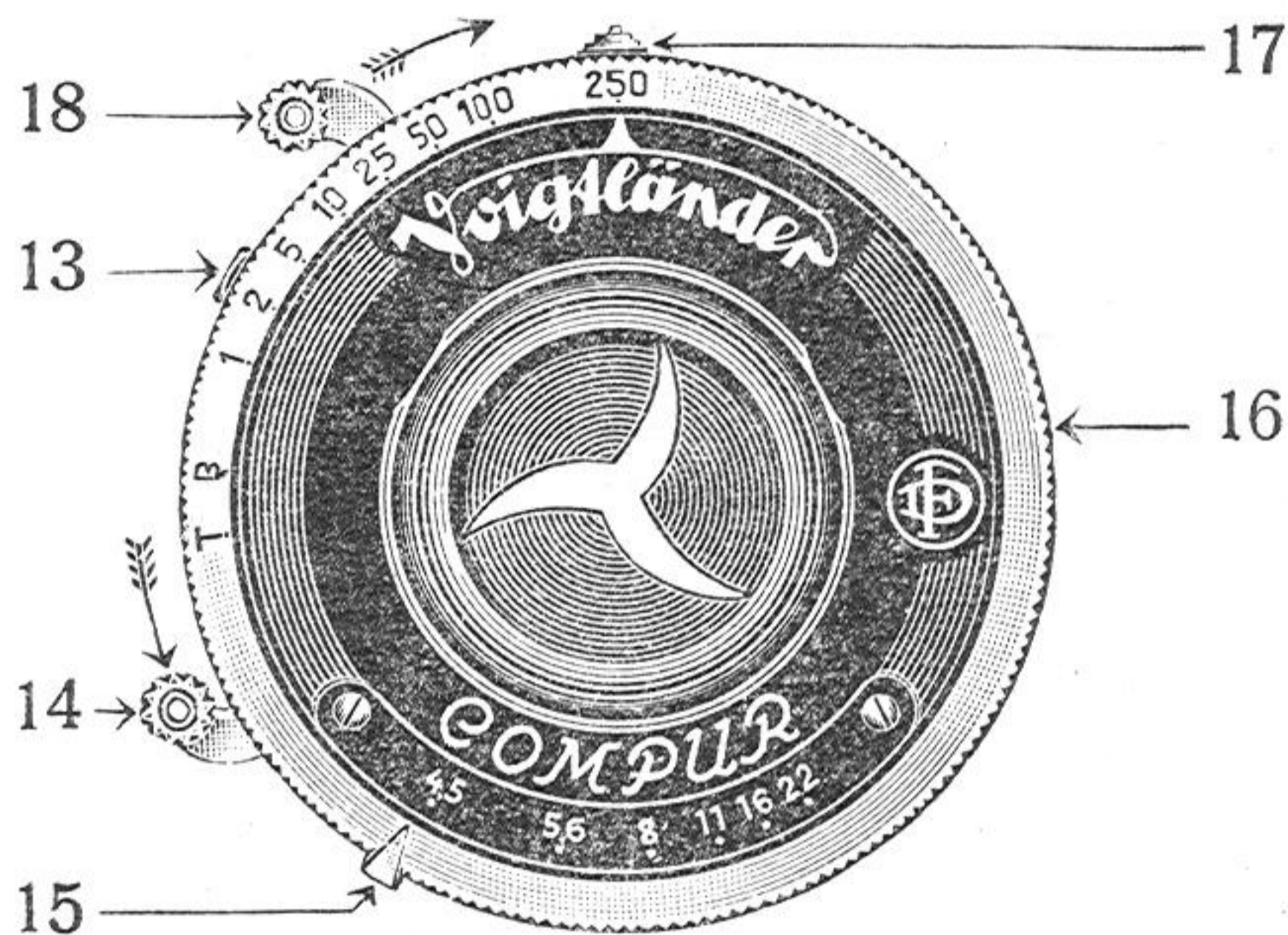


fig. 6. Compur Shutter

### Compur Shutter with self-timer

Round the shutter is the rotating ring 16 which is engraved with the letters *T* (long time exposures) and *B* (short time exposures) and with the instantaneous speeds from 1 to  $\frac{1}{250}$  sec. (or  $\frac{1}{200}$  sec.). These latter are marked as whole numbers instead of fractions, so as to be more easily read.

**Instantaneous exposures:** Turn the ring 16 till the speed required is opposite the index above the word "Voigtlander". The speeds range continuously from 1 to  $\frac{1}{100}$  sec., so that any intermediate speed may be obtained by setting the index line between two consecutive numbers, e. g.  $\frac{1}{75}$  between  $\frac{1}{50}$  and  $\frac{1}{100}$  sec. But this does not apply

between  $1/100$  and the maximum speed of  $1/250$  sec. (or  $1/200$  sec.), nor between *B* and 1 sec. The shutter is set (tensioned) by pressing the lever 18 to the right (when viewed from the front) until it is felt to stop. As a general rule it is immaterial whether the shutter is first set to the speed and then tensioned or if the reverse order is adopted, but **with the maximum speed it must always be set to speed before tensioning.** The shutter is released simply by pressing on the trigger 14 or the flexible cable screwed in at 13.

**Time exposures.** For time exposures the shutter is not tensioned; the lever 18 is locked when setting to *T* or *B* and any force applied to press it down will damage the shutter. By setting the letter *B* to the index line, the shutter opens on pressing the flexible release or trigger 14 and remains open as long as the pressure is maintained. To give an exposure of, say, 3 seconds, repeat distinctly and at the normal rate of speaking "one little second, two little seconds, three little seconds". The trigger or release is pressed at the "one", and pressure relaxed at the end of "three little seconds".

By setting the lever *T* opposite the line, the shutter is opened by the first pressure and remains open until a second pressure is given. This is the setting to be used when focussing on the focussing screen and when making very long exposures or exposures by flashlight.

**Self-timer.** To make an exposure with oneself in the picture: the shutter is first tensioned in the usual manner. Then the button 17 on the rim is thrust in the direction of the engraved arrow, whereupon the lever 18 can be operated a second time, thus tensioning the self-portrait release. Now press the trigger 14 or the flexible release, just as in making an ordinary exposure. This sets in motion the clockwork mechanism by which the shutter is operated after about 12 seconds. The speed is adjusted by setting the ring to the required time (1 to  $1/100$  sec.). **The self-timer cannot be used in conjunction with the maximum speed.**

The exposure having been made, the shutter automatically adjusts itself for normal exposures, so that the operation above described must be repeated if it is wished to give a further exposure in the self-portrait manner.

## Exposure

The right exposure, which is the most essential factor in photography, depends on three points:

1. Aperture of the iris diaphragm.
2. Speed of the plate.
3. Value of the actinic light.

We supply with each camera an exposure calculator with which the time of exposure may be quickly and easily ascertained.

## Finders

The Voigtlander Avus camera is fitted with two different kinds of finder, which are used as follows:

**Direct-vision Finder.** This consists of a wire frame 8 (fig. 2) attached to the right-hand side of the lens-front (viewed from the front) and an eye-piece 9 placed on the right-hand long side of the camera-body. When not in use, the wire-frame encloses the lens panel. It is brought into the working position by turning it outwards through an angle of  $180^{\circ}$  and is then held in position by springs. The eyepiece has likewise a spring hinge, and for use, is turned up parallel with the wire-frame. In order to include the correct part of the subject, the eye must be placed so that the outlines of the frame coincide with the mask of the eye-piece.

On account of the unalterable position of the frame finder, at the side of the camera, there is a slight difference between the picture shown by the finder and the picture actually on the ground glass when taking near objects. In the case of the Avus, this difficulty is overcome by a very clever arrangement of the diopter. You can draw out the diopter until the respective distance is next to the black metal tongue so that the frame finder gives you the correct field for any picture. In opposition to the brilliant finder, the frame finder also gives you the correct field when using the rising or cross front; you can even rely upon it when using the back cell of the Skopar lens or Focar lenses. A further advantage is that the camera is held at eye level which usually

means that the picture has a more pleasing perspective. For the above reasons we would recommend you to use the frame finder whenever possible.

**Brilliant Finder.** When taking pictures at the level of the chest, the brilliant finder 7 (fig. 2) is used, in the normal position for upright pictures, and after turning through a right angle for oblong pictures. The picture is viewed from the normal viewing distance of about 10 inches, taking care to place the eye directly above the centre of the finder. The mask on the top of the finder is specially designed to show both the upright and oblong pictures.

The small but bright picture in the finder can be magnified three or four times by fitting on a Finder Magnifier (see "Useful Accessories" at end of this booklet). When closing the camera the brilliant finder must always be in its normal position (for upright pictures), otherwise the camera will be damaged.

## **Holding the Camera**

In cases when some attractive subject has to be snapped at the right instant and without attracting too much attention, the camera is used in the hand. Needless to say one must have presence of mind and, especially, confidence in the apparatus. It is therefore well to practise all the required movements with the unloaded camera until they can be done without thinking about them.

Whilst opening and focussing the camera, a steady position must be taken up, since any slight wobble of the camera during the exposure would give rise to pictures with double outlines. In using the direct-vision finder, the camera is grasped with the left hand on the baseboard for upright pictures, whilst for oblong pictures it is held with the right hand on the top side of the body. At the same time it is most necessary to give further support to the camera so that the elbows should be pressed firmly against the body. When taking upright pictures it is usually well to support the camera against the forehead and the bridge of the nose; with upright pictures, against the

chin or cheek-bone and nose, according to which is found most convenient for looking through the finder.

In viewing the subject in the brilliant finder, the camera is held, for both upright and oblong pictures, with the left hand on the baseboard. The camera back is pressed against the chest.

A simple but practical expedient may be recommended to those who have not a steady hand. This is just a string or cord, 5 to 6 ft in length; on the upper end is a loop made so that it can easily be made larger or smaller. In taking upright pictures, this loop is put round the baseboard between the lens front and the struts; for oblong pictures, it is put round the turned up diopter. When making an exposure, the free (lower) end of the string is pressed under the foot so that the string is pulled taut when holding the camera in the correct position.

In operating the shutter by lever or trigger, any movement of the hand is liable to be communicated to the camera, so that the safest course is to use the flexible cable release, held in a wide curve. Before making the exposure, take a deep breath inwards and then out, since the body is most at rest after the latter. By taking the required care, exposures of  $\frac{1}{25}$  sec. or less may be given with the camera held in the hand.

In circumstances where there is time for previous preparation for the exposure, particularly as regards careful focussing on the ground glass, the camera is best screwed to a tripod. If need be, it may be placed on a table or other flat surface. The camera body is provided with two screwed "bushes", one for upright pictures and the other for oblong pictures.

When first screwing to the tripod, make certain that the tripod screw is not too long for the bush, otherwise the thread is easily damaged. If the screw on the tripod is too long it must be shortened or a little packing fitted.

A spirit level 1 (fig. 2), provided next to the brilliant finder, serves for showing that the camera is horizontal, when taking either upright or oblong pictures.

## Rise and Fall of Lens

In order to avoid "drunken lines" in architectural and similar subjects, care must be given to see that the ground-glass is upright, but in this position of the camera, too much foreground is included as a rule. To reduce the amount of foreground, the lens is raised in its front, which, when taking oblong pictures, is done by using the cross-front movement.

The rising and cross-front is controlled by the milled knobs, 11 for cross movement and 3 rising movement (fig. 2). The rise is approximately  $\frac{1}{2}$ " in  $3\frac{1}{2} \times 2\frac{1}{2}$  size ( $\frac{9}{16}$ " in  $\frac{1}{4}$  plate size). Drop approximately  $\frac{1}{4}$ " (resp.  $\frac{5}{16}$ "'). The sliding movement left to right is about  $\frac{5}{16}$ " (resp.  $\frac{3}{8}$ "'). The more the lens is decentred in using the cross movements, the more the diaphragm has to be stopped down.

The normal position of the front is indicated by markings and the front should always be in central position before closing the camera.

## Closing the Camera

Before closing the camera every part of the camera has to be in its normal position.

1. See that the BRILLIANT FINDER IS IN POSITION as used for vertical pictures.
2. See that the RISING AND CROSS FRONT IS CENTRAL.
3. See that the FRAME FINDER IS IN ITS TURNED DOWN PLACE.
4. See that the CAMERA EXTENSION IS RIGHT HOME and the RACK AND PINION ADJUSTMENT IS LOCKED.
5. See that the U FRONT IS RIGHT HOME IN THE BODY of the camera.

Proceed now to press the two struts downwards, and the base-board can be closed. The brilliant finder collapses automatically.

These operations should be performed carefully in succession and not hastily.

It is advisable to push the front home gently to allow the air to escape from the bellows. If the folds of the bellows should by accident become blown out, first smooth them out.

If sufficient attention is paid to the aforementioned points the life of the camera will be increased. **NEVER USE FORCE.**

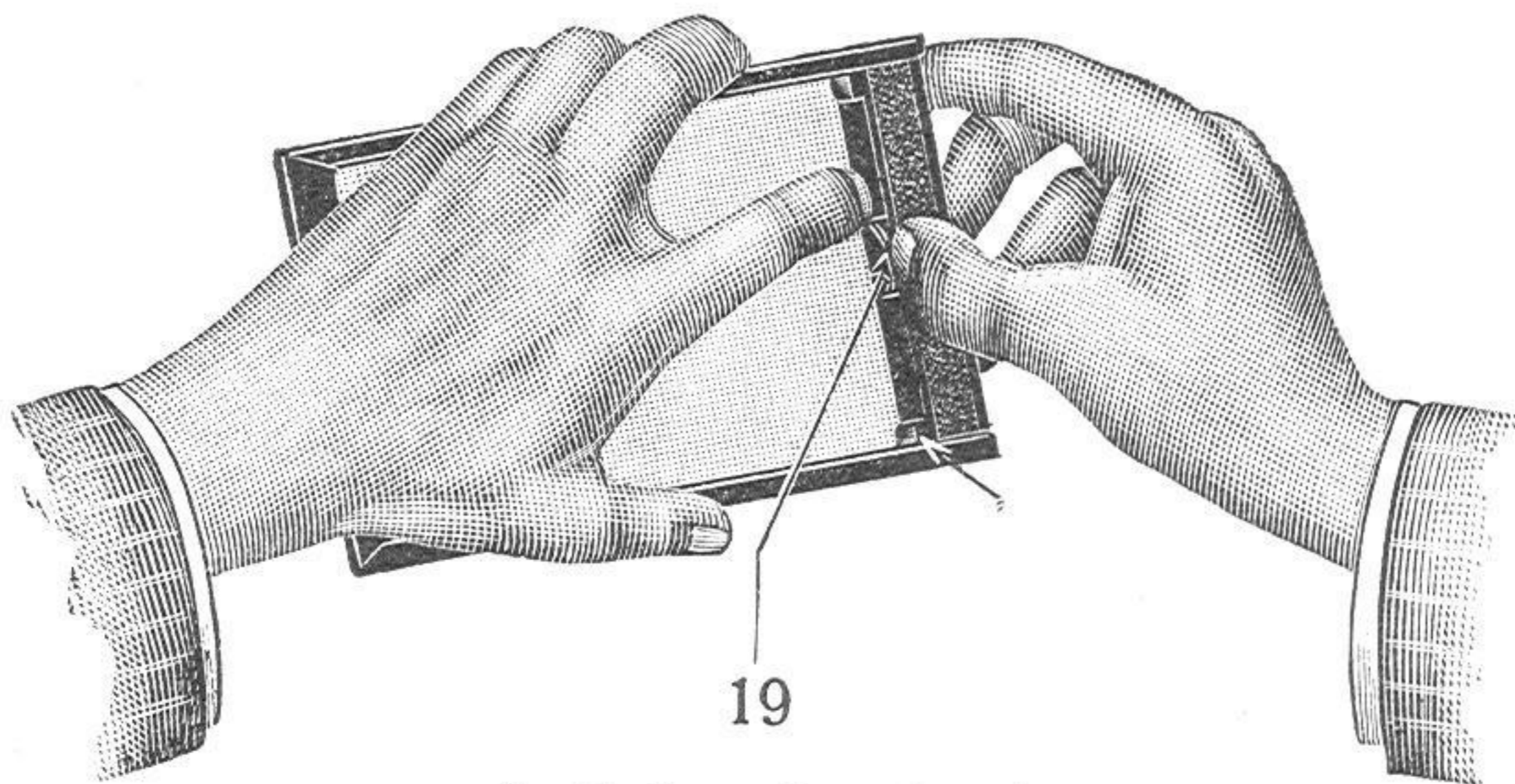


fig. 7. Inserting the plate

## Loading the Plate holders

The loading of the plate holder takes place in the dark-room or in a fully darkened place. Each time before using, all dust should be taken out of the interior of the plate holder and out of the velvet, as every speck of dust lying on the plate during exposure causes clear glass spots on the negative.

In the shadow of the ruby lamp a plate is now taken out of the box. This is also carefully dusted without touching the emulsion with the fingers. The plate holder is then taken between the thumb and the other fingers of the left hand in such a manner that the open side faces the ruby light. (Velvet to the top.)

With the right hand the long sides of the plate are gripped (emulsion facing the palm of the hand) and the plate is placed in the groove at the bottom. (Emulsion to the front.) The right thumb lifts the catch 19 (fig. 7), to be seen under the velvet strip. As soon as the plate is in position against the back of the plate holder, the catch can be returned to its ordinary position and the plate is then held firmly.

The plate holders have springs on the interior of the back by means of which the plates are pressed against the catches. The plate lies strictly in the focal plane when the

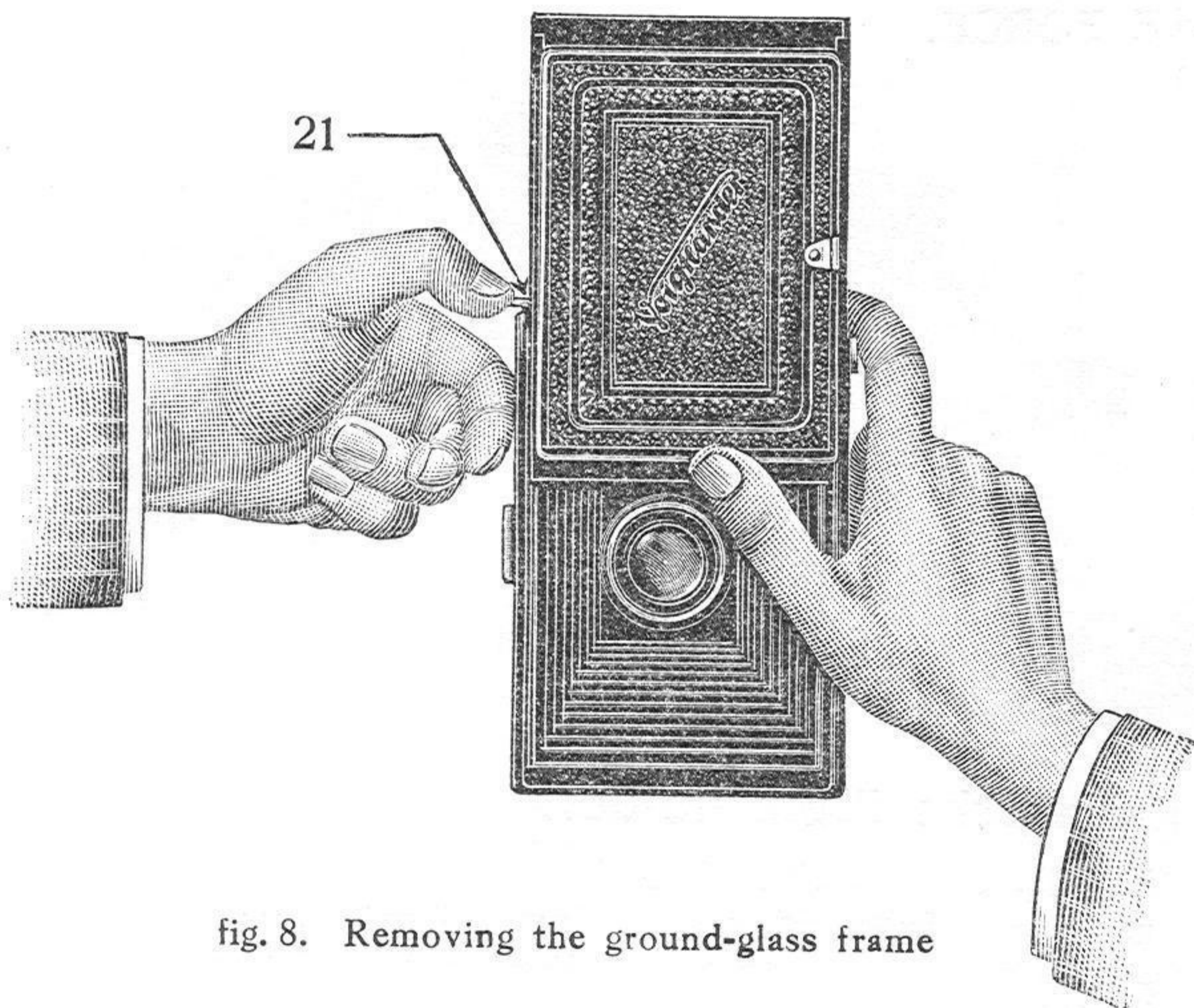


fig. 8. Removing the ground-glass frame

springs fulfill this purpose. To avoid blurred pictures it is therefore advisable — especially with new plate holders — to lift the springs a little.

When closing the plate holder, care should be taken to see that the shutter runs correctly in the two side grooves and that it is thrust far enough into the groove on the lower



narrow side. It must be perfectly flat: a shutter which is buckled or bent may give rise to difficulty in closing and may scratch the plates.

Loading of the plate holders should only be done shortly before the camera is to be used. It is not advisable to leave plates in the plate holders for any length of time. Chemical action takes place and the sensitive material suffers.

If the camera is not to be used for a time, remove the plates from the plate holders and store the plate holders with the sheath entirely withdrawn. This allows the velvet, which forms the light trap, to rise, and the dark slides will be absolutely secure against light.

### **Inserting the Plate holders**

Slip back the bolt on the top (21, fig. 8) pull out the focussing-screen frame. Insert the plate holder in its place with the shutter turned towards the lens. Now turn the catch back again, and, after making sure that the lens is not open, pull out the shutter of the plate holder, the catch preventing the plate holder itself from being shifted. It is a mistake to pull out the shutter only so far that it just uncovers the plate and remains in the light-trap. The shutter should be pulled right out. The reason for this is that the light-trap formed by the plush on the camera against that let in to the plate holder is much more perfect than that between the shutter and the plush on the camera.

### **A few points of advice for the use of Colour plates**

Colour plates are inserted with the sensitive side away from the lens, glass side towards the lens, and the black card supplied with the colour plate has to be left on its sensitive side. This goes towards the plate holder back.

To compensate for this difference of focus the ground-glass must be withdrawn and inserted glass-side towards the lens. Focussing has to be done by the ground-glass only, and not by the scale. For all colour-plates of course a special filter is required, which is supplied by the respective makers.

## Rear Component of the Skopar and Voigtar

The Skopar is an unsymmetrical lens, and thus the single components cannot be used separately. It is possible, however, to use the rear component of the Skopar for photographing small objects up to three times their natural size, a facility which is not afforded by other symmetrical objectives. When making such exposures, the front lens of the Skopar is unscrewed and removed, the camera set to the double extension and the objective brought up to the object to be photographed until the enlarged image is seen on the ground-glass. The lens is then stopped down a little, sharp focus obtained by sliding the camera to and fro, and exposure made with the smallest stop. The relative aperture (i. e. the F No.), which is required for calculating the time of exposure, is found as follows: Divide the camera extension by the diameter of the lens aperture actually visible both dimensions being measured in inches. The distance between lens and object is only an inch or so, and therefore focussing must be very carefully done.

By using the Voigtar in the same way, an enlarged picture may also be obtained, but the degree of enlargement is much smaller than with the Skopar.

## Sundry Hints

In time the instrument will accumulate dust which naturally will adhere to the lens. This is easily removed with a clean handkerchief which has already been through the wash and has no dressing in it.

In colder climates the change of temperature between outdoor and indoor is considerable and very often results in the steaming of the lens. It is best then to wait until the moisture has apparently disappeared from the lens and then proceed to wipe lightly with the handkerchief. In very bad cases it may happen that also the inner surfaces of the lenses may collect moisture. Then carefully unscrew the two halves of the lens from the shutter.

On no account must any attempt be made to unscrew the separate parts of the front and rear lens elements for it is

beyond the skill of even an experienced amateur to put them together again so perfectly as to restore their original optical quality. Anyone who tries the experiment in disregard of this caution will discover to his chagrin the extreme precision with which the assemblage of a lens of this kind is done.

Very often dust collects between the folds of the bellows. A good camel hair brush will remove all this dirt. This is best done by removing the focussing screen, opening the shutter, unscrewing the lens cells and then applying the brush to the inside of the bellows. By blowing at the same time through the open shutter, the dust is readily dislodged, especially if the outside of the bellows be simultaneously tapped gently with the finger.

## **Some Useful Accessories**

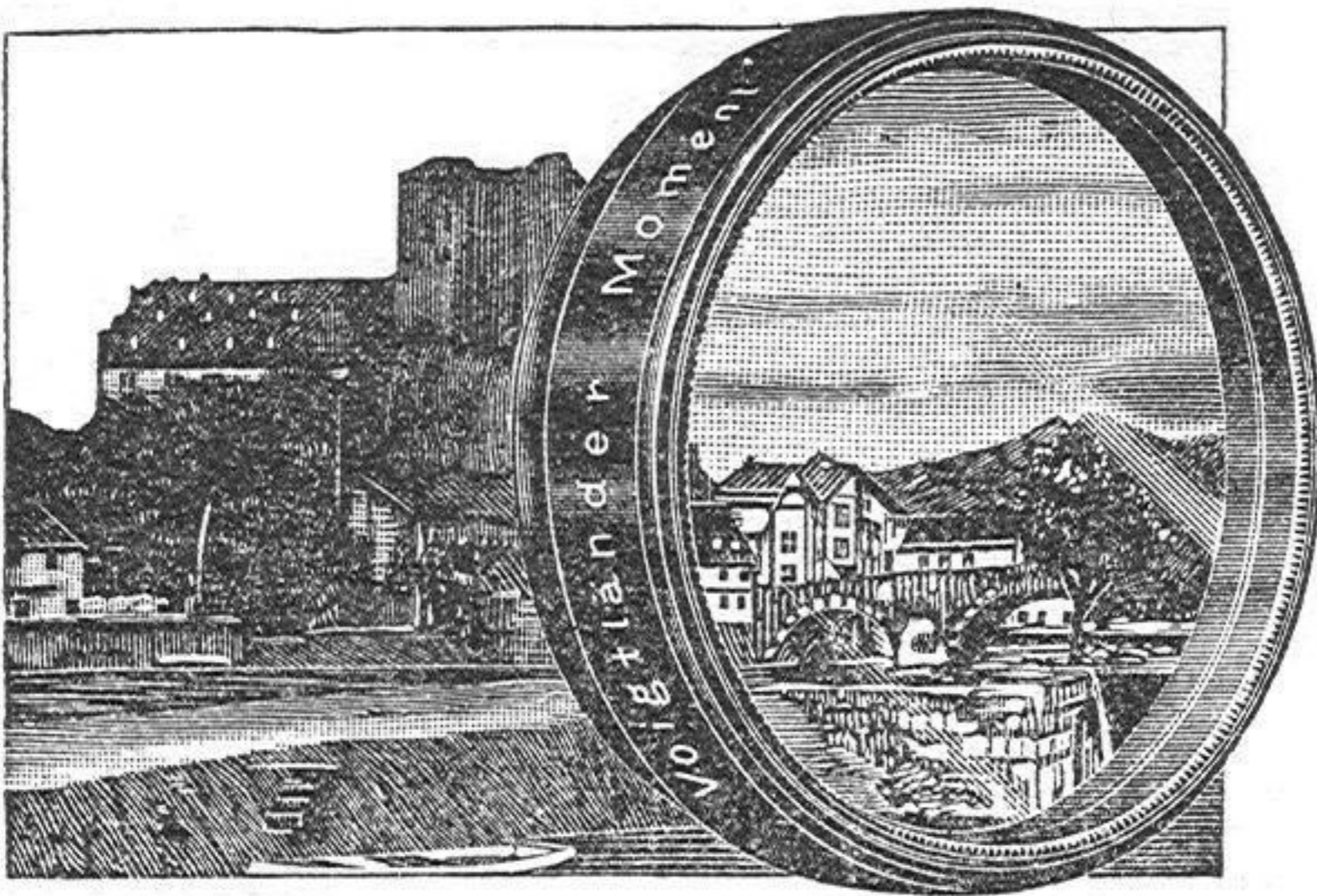
The following accessories are not absolutely necessary, but will greatly improve the final results.

### **Plate Holders**

Each camera is supplied with three plate holders. When going on a day's trip six holders may be required. On longer journeys twelve may be required. These can be obtained at any time. Only say: So many holders (standard fitting) required for the Avus camera  $3\frac{1}{2} \times 2\frac{1}{2}$ " ( $6,5 \times 9$  cm.),  $\frac{1}{4}$  plate, or  $9 \times 12$  cm., whichever size is required.

### **Film Pack Adapter**

We also draw attention to Film Packs, for which we supply a Film Pack Adapter. These have the advantage of being able to reload twelve in daylight. Of course, care has to be taken not to do this in brilliant sunshine. With most film packs there is no focal difference and the same scale of the camera can be used as for the plates. When ordering say: "Supply Film Pack Adapter (standard fitting) for the Avus Camera  $3\frac{1}{2} \times 2\frac{1}{2}$ ",  $\frac{1}{4}$  plate or  $9 \times 12$  cm.", whichever size is required.



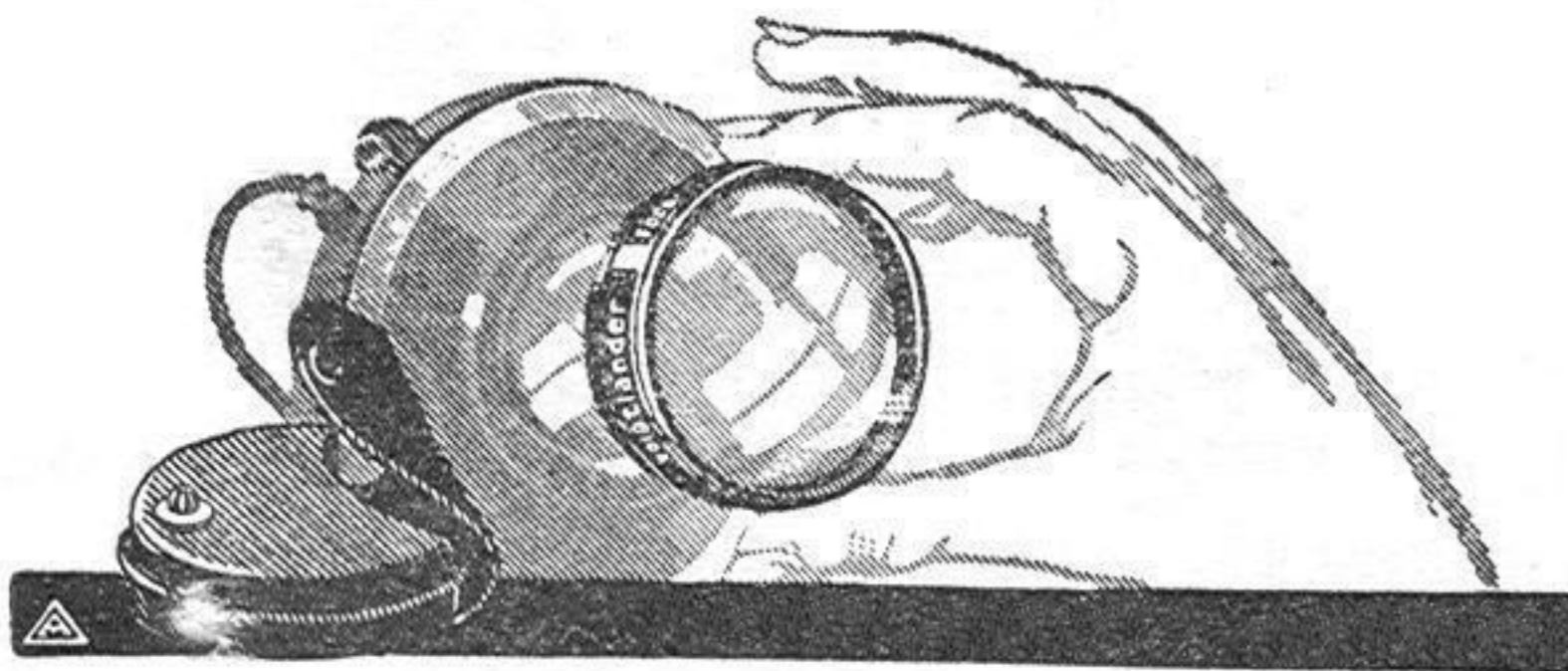
## Yellow Filters

Many amateur photographs are unpleasing on account of such defects as bad skies, black

flowers in a meadow scene, grey fruit blossoms against a white sky, glaringly white eyes or pronounced freckles in a portrait.

If you would obtain the natural effects of clouds, flowers and landscapes you must use an orthochromatic plate or film. The same applies to getting good renderings of blue eyes, blond hair and coloured clothing and to subduing the appearance of freckles. But in using such plate or film it is indispensable to employ a good yellow filter on the lens.

Voigtlander Yellow Filters fitting exactly any Voigtlander lens are supplied in two grades. For ordinary exposures use the Moment Filter ( $2\times$ ), to achieve a more prominent effect the Normal Filter ( $5\times$ ). When ordering please state: Camera (AVUS  $3\frac{1}{2}\times 2\frac{1}{2}$  or  $\frac{1}{4}$  plate), lens (VOIGTAR 1:6,3 or Skopar 1:4,5) and the density Moment or Normal.



## Focar Lens

The focal length of  $4\frac{1}{8}$  or  $5\frac{1}{4}$  ins employed for the

Avus camera represents the best for general purposes. On many occasions, however, it is of advantage to have a

longer focus at disposal, thus permitting of a larger image of the subject or, for the same size, of adopting a more distant standpoint and so obtaining a perspective more pleasing to the eye. The focal lengths of both the Voigtar and Skopar anastigmats may now be most simply lengthened by attachment of a Focar Lens. This Focar Lens is supplied in various patterns, thus forming a set from the one objective.

The Focar Lens is of advantage in all cases in which a larger image is required from the same standpoint or better perspective than that given by the ordinary lens is desired.

Large heads with good modelling, distant objects, subjects which for some reason cannot be approached near enough, pictorial renderings etc. — all these represent cases in which the Focar Lens renders invaluable service.

## ENLARGING LENSES

For Voigtar 1 : 6,3.  $4\frac{1}{8}$ " focal length:

Focar Lens No. 2	magnification about	1,3×
„ „ „ 4	„ „	1,5×
„ „ „ 3	„ „	1,7×

For Skopar 1 : 4,5.  $4\frac{1}{8}$ " focal length:

Focar Lens No. 2	magnification about	1,3×
„ „ „ 4	„ „	1,5×
„ „ „ 3	„ „	1,7×

For Voigtar 1 : 6,3.  $5\frac{1}{4}$  inches focal length:

Focar Lens No.13	magnification about	1,3×
„ „ „ 5	„ „	1,5×
„ „ „ 15	„ „	1,7×

For Skopar 1 : 4,5.  $5\frac{1}{4}$  inches focal length:

Focar Lens No. 6	magnification about	1,4×
„ „ „ 9	„ „	1,5×
„ „ „ 7	„ „	1,6×
„ „ „ 8	„ „	1,8×

## WIDE ANGLE LENSES

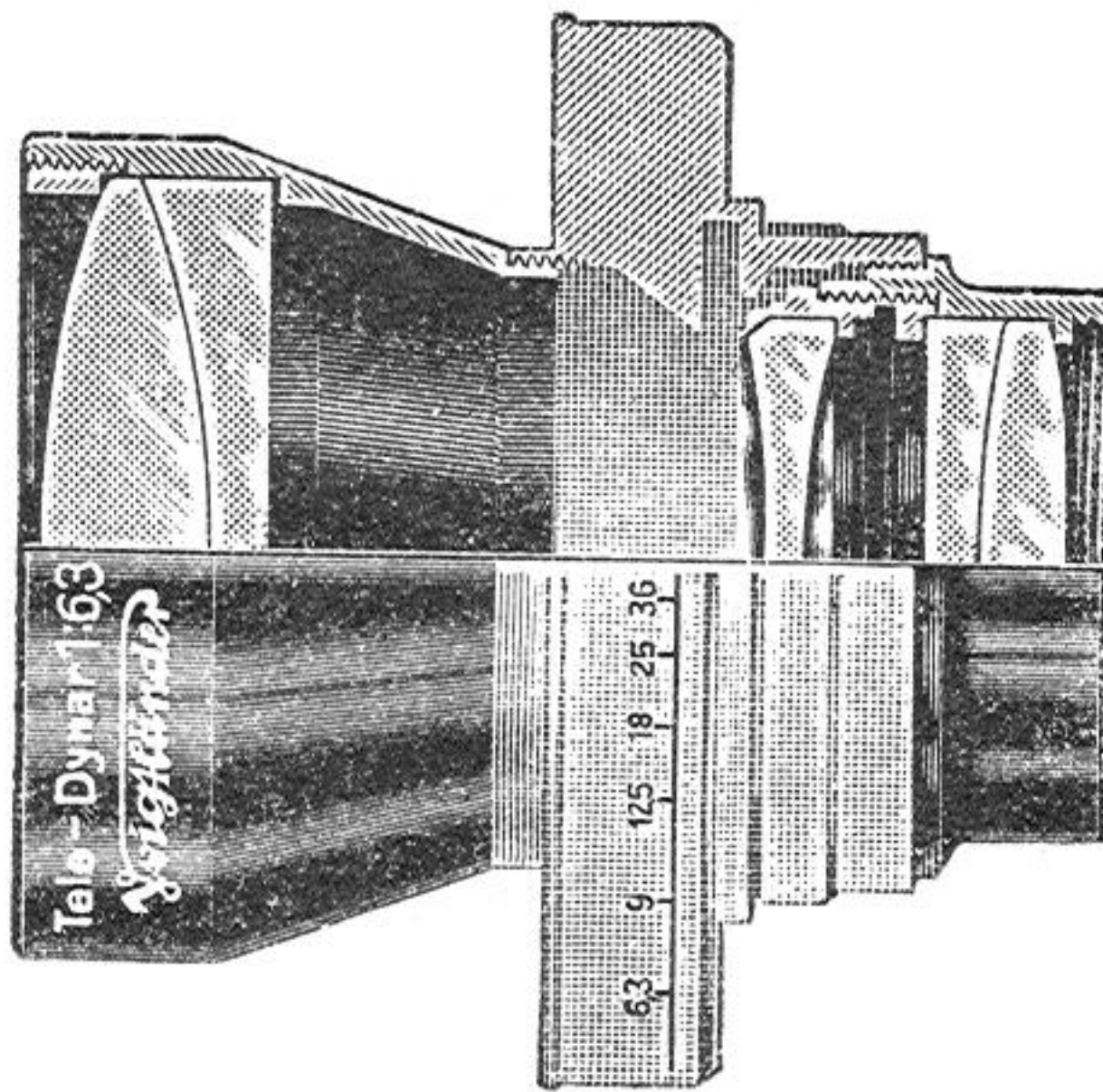
For Skopar 1:4,5.  $4\frac{1}{8}$ " focal length:

Focar Lens No. 30 enlarging field of view about  $1,18\times$

For Skopar 1:4,5.  $5\frac{1}{4}$ " focal length:

Focar Lens No. 31 enlarging field of view about  $1,18\times$

These Focar Lenses are supplied in a small grain leather case and may be readily carried in the pocket. When ordering, it is sufficient to quote the Voigtlander Focar Lens No. ....



### Tele-Dynar F/6,3

Telephotography is a most interesting hobby. In the days gone by it meant a great deal of calculation and the speed of the lenses was very slow. The speed of the Tele-Dynar F/6,3 is sufficient to cope with most subjects.

The results with the Tele-Dynar are far more perfect than in using a Focar Lens. With the Focar Lens of course the quality of the standard lens of the camera suffers to a certain extent and the definition is not of the first degree.

With the Tele-Dynar a magnification of about two times is obtained. It is supplied as two separate components which screw interchangeably into the camera shutter. A small case is provided for carrying the Components.

The Tele-Dynar can be supplied as follows:

For Avus  $3\frac{1}{2} \times 2\frac{1}{2}$ "

Voigtar  $1:6,3 f = 4\frac{1}{8}$ "

Skopar  $1:4,5 f = 4\frac{1}{8}$ "

} Tele-Dynar F/6,3 No. 2.

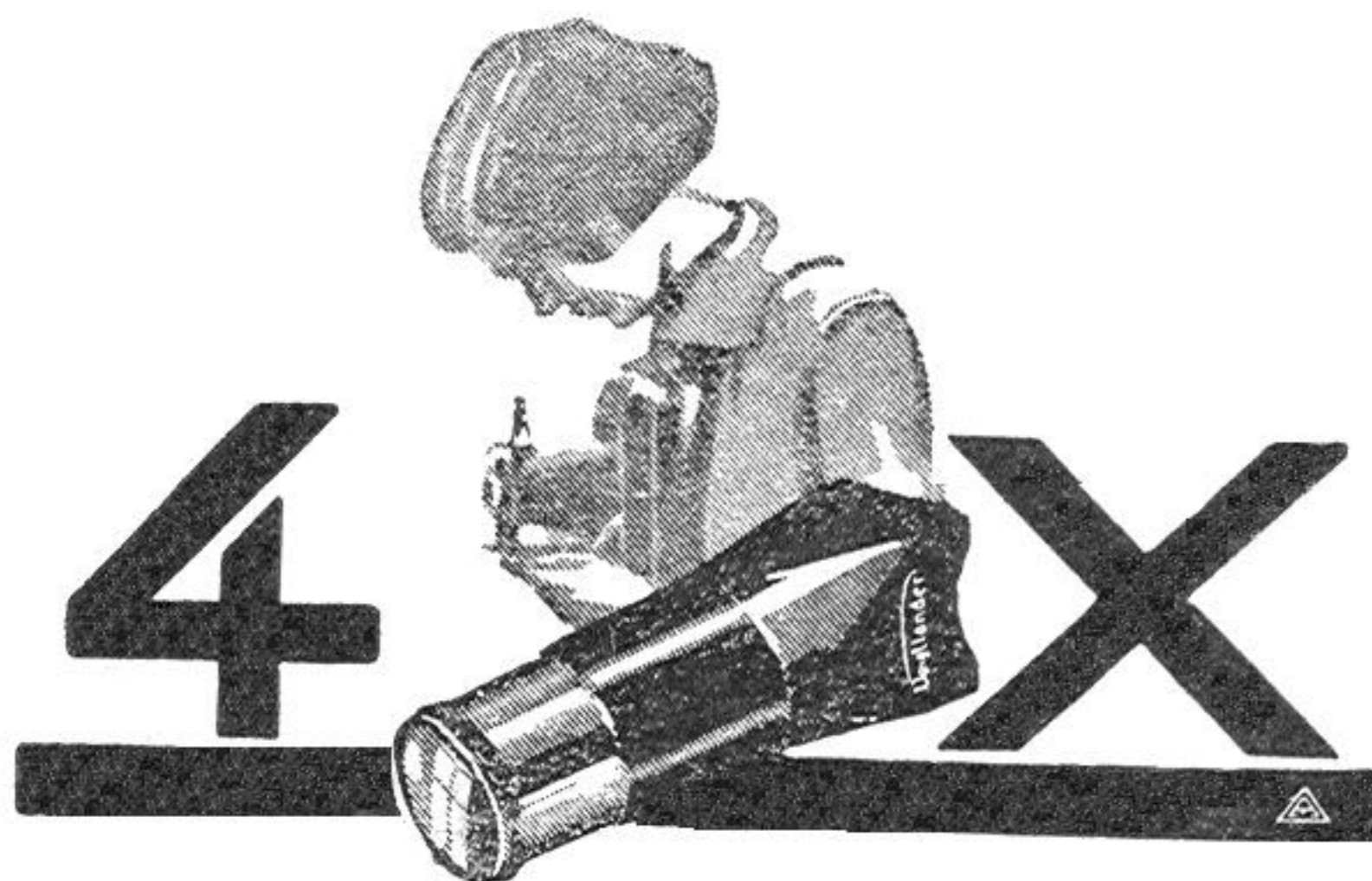
For Avus  $4\frac{1}{4} \times 3\frac{1}{4}$ "

Skopar  $1:4,5 f = 5\frac{5}{16}$ "

Tele-Dynar F/6,3 Nr. 3.

## Focal-plane Shutter

Moving objects can be photographed with the Compur Shutter as long as they do not move too quickly and when they are taken from the correct angle. If, however, you wish to photograph rapidly moving objects such as, racing motor cars, or motor cycles, horse races, athletics etc., it is better to use a Focal-plane Shutter. We supply a reliable Focal-plane Shutter which can be fitted to the camera in a moment in place of the slide. In this way any Avus can be made into a Two Shutter Camera, in a few moments. The Focal-plane Shutter gives you exposures up to  $\frac{1}{1000}$  sec. When ordering, the size of the camera is all you need to mention.



## Finder Magnifier

The picture in the brilliant finder is necessarily rather small and so is difficult for some people

to see it. The Magnifier overcomes this trouble. By putting the Magnifier on top of the finder four times magnification is obtained.

This Magnifier is so small that it can be carried in the vest pocket. The fitting is quite simple as it slips on top of the finder.

When ordering say

“Voigtlander Finder Magnifier” No. 2 for Avus  $3\frac{1}{2} \times 2\frac{1}{2}$ ”

“Voigtlander Finder Magnifier” No. 3 for Avus  $\frac{1}{4}$  plate.

## **A Last Word**

We all realise that every packet of plates contains a dozen possible pictures. The art consists in knowing how to produce them. If you know when and why to use the full aperture and when to stop down, when to expose for a longer or shorter time, you will get many more good negatives from a dozen plates than people who just press the button and think the camera will look after everything. It is of course beyond the scope of these instructions to offer a general guide to photography, but, as we want every user of a Voigtlander camera to obtain the best from his instrument, we recommend you to study an elementary text book of amateur photography. You will be amply repaid for the slight trouble by the excellence of the pictures you take.