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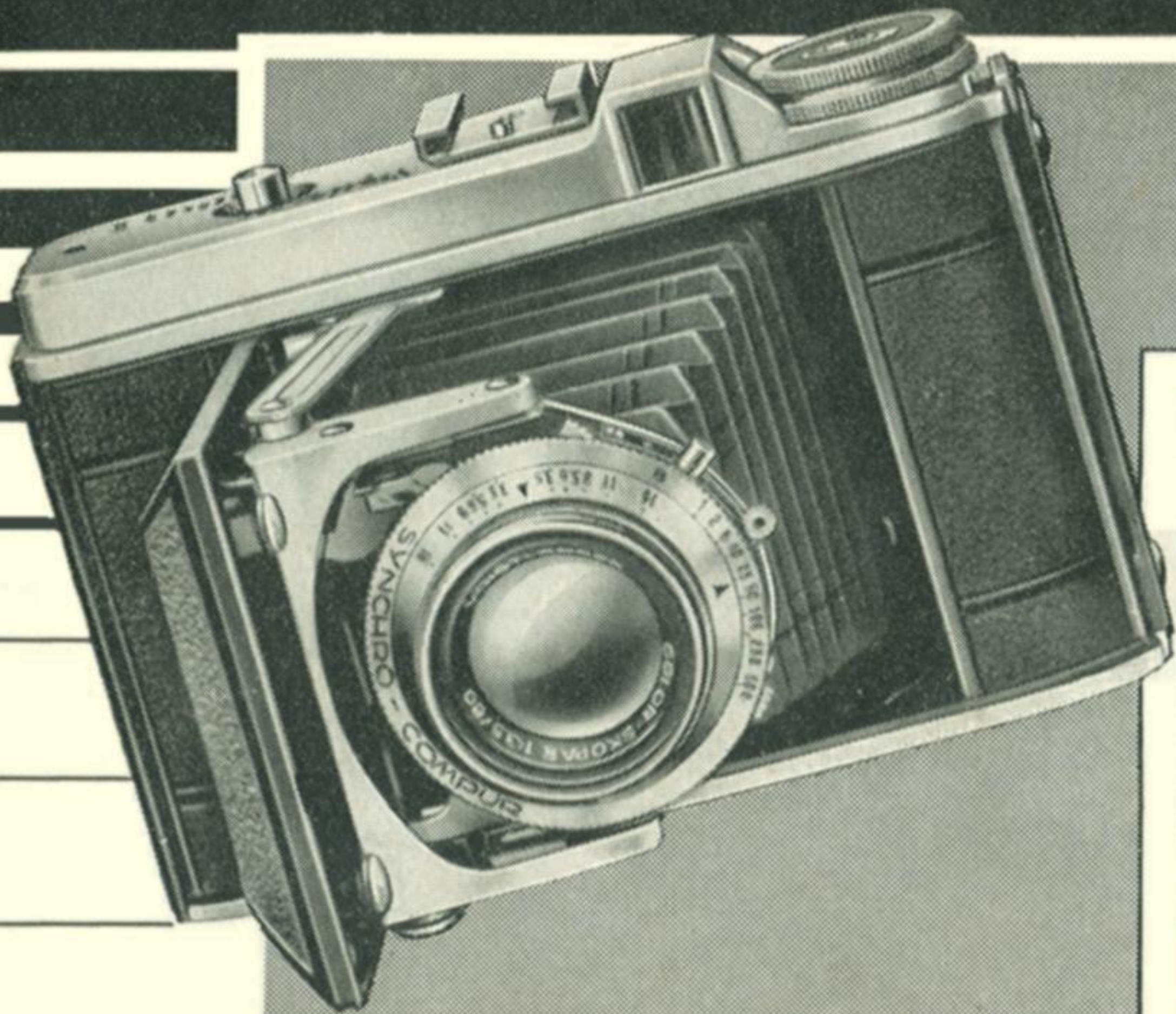
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Voigtlander

PERKEO II

6×6 cm • 2¼" × 2¼"

INSTRUCTIONS FOR USE

Donated to www.orphancameras.com

The most important point

of the Instruction Book will be found on this page, it is to ask you to read these instructions carefully, to make yourself conversant with the manipulation before starting to take photographs or investigating the mechanism.

Do not overlook the fact that the PERKEO II is a fine mechanical precision instrument. It should be handled with a gentle touch and understanding. It will re-pay you the good treatment by giving you an endless series of wonderful and sharp pictures.

Voigtländer

VOIGTLÄNDER A.G. BRAUNSCHWEIG

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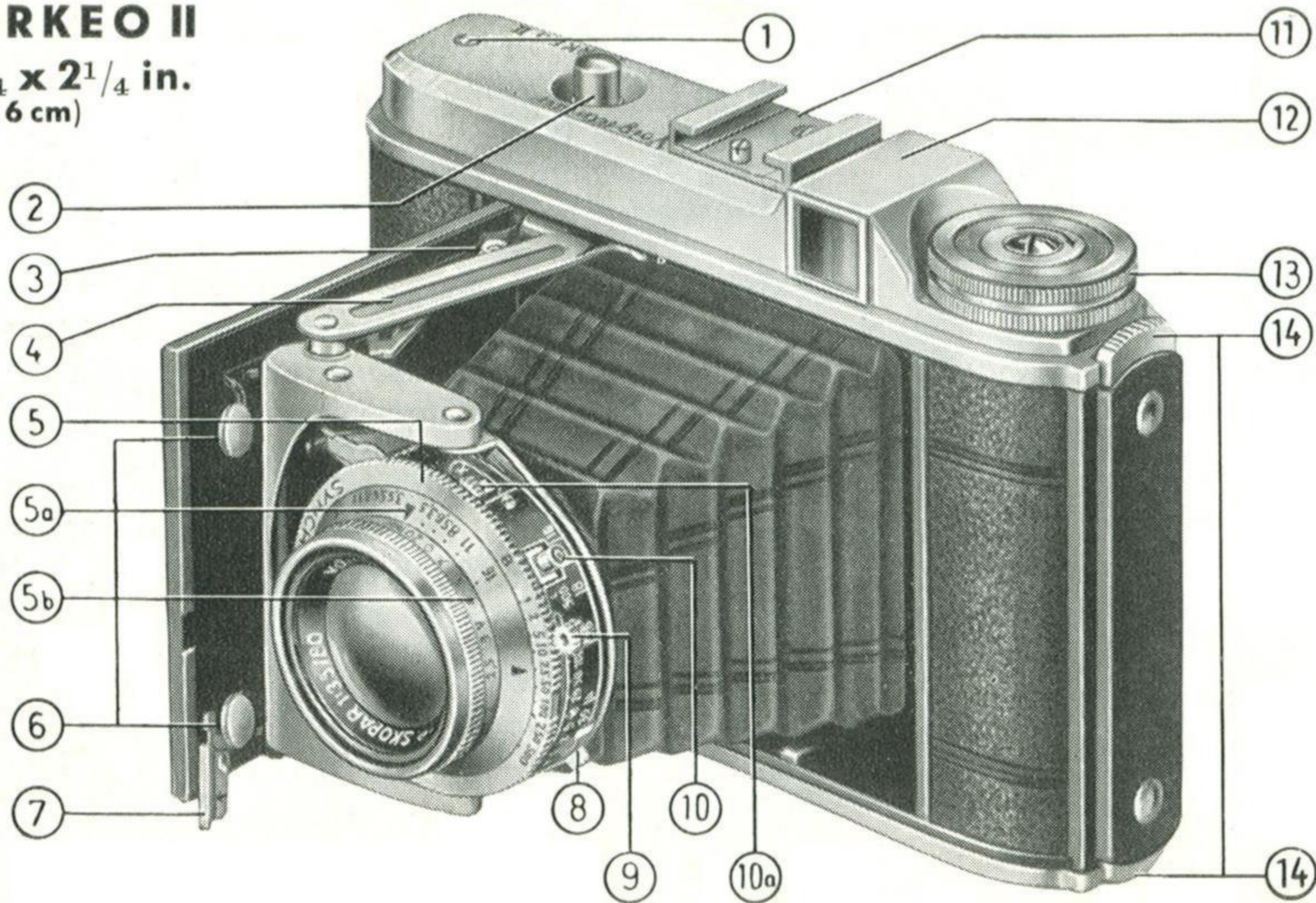
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PERKEO II

2¹/₄ x 2¹/₄ in.
(6 x 6 cm)

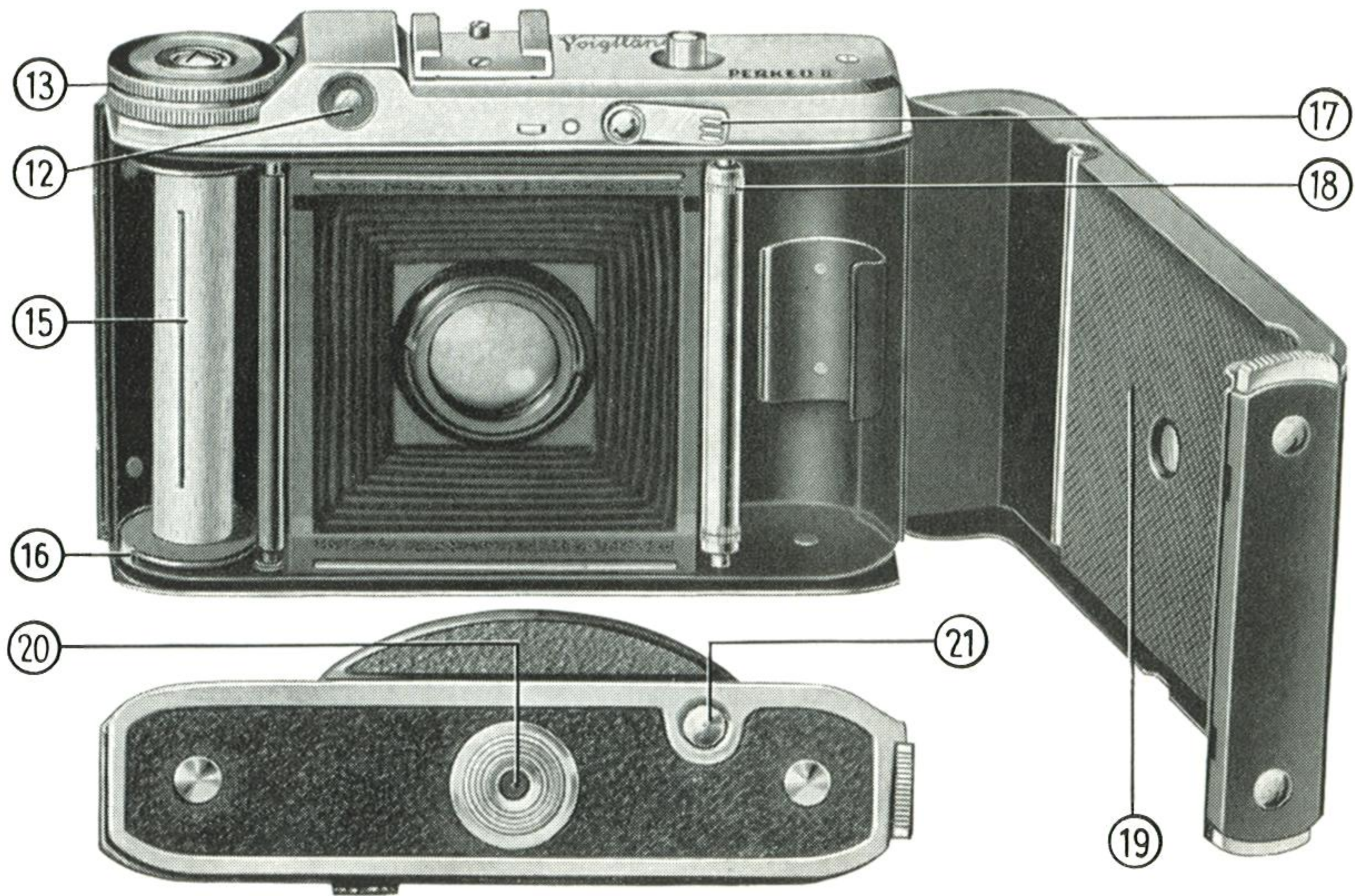


— 2 —

- 1 Film counter window
- 2 Body release
- 3 Cable release socket
- 4 Strut
- 5 Shutter speed ring

- 5a Front cover of shutter
- 5b Focusing scale
- 6 Keys for closing camera
- 7 Basebord leg
- 8 Aperture lever
- 9 Shutter tensioning lever

- 10 Flash contact
- 10a Synchronizing lever
- 11 Accessory shoe
- 12 Optical finder
- 13 Film transport knob
- 14 Back lock



- | | | | |
|-----------|---|-----------|-----------------------|
| 12 | Viewfinder eyepiece | 18 | Film counter shaft |
| 13 | Film transport knob | 19 | Pressure plate |
| 15 | Take-up spool in left-hand film chamber | 20 | Tripod bush |
| 16 | Spool holder of take-up spool | 21 | Button to open camera |
| 17 | Film release, to set and release the double interlock | | |

Important — Automatic Double Lock

The automatic release and film transport interlock of the PERKEO II protects against double exposure and against winding on of an unexposed film frame. That means: the shutter can only be released if the film has been wound on after an exposure has been made, and the film can only be wound on after the previous frame has been exposed.

Please remember: The release interlock is always in action. The film transport lock comes into play only when the locking lever **17** is pointed to the left — towards film-winder **13**. The film transport knob may be turned unhindered as long as the locking lever points to the right. The locking lever can only be moved if (after inserting the film) the film-winder **13** has been wound to a definite stop, or (in an empty camera) the picture counting shaft has been turned to the left until an audible click is heard. Therefore **never** try to actuate the release **2** or the film transport knob by force, this would, without doubt, lead to damage of the mechanism.

If you should want to release the shutter without film in the camera, wind the picture counting shaft **18** first (as described above).

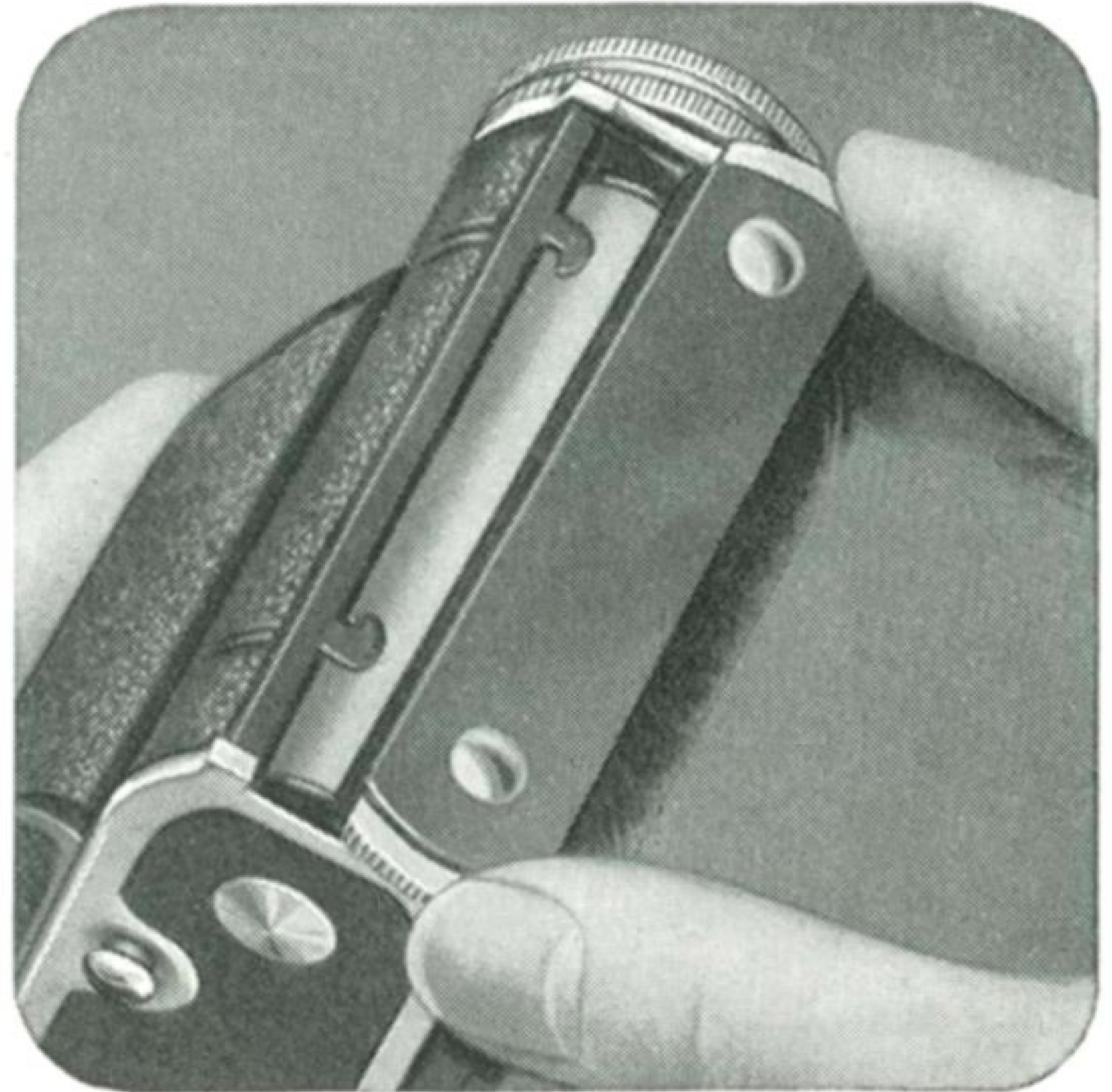
Open the camera back by pressing both locks **14** inwards (see illustration). When closing the back again, see that both locks engage properly.

The full roll of film goes into the right-hand film chamber. The empty take-up spool should be in the left-hand chamber below the film transport knob. If the empty spool is still in the right-hand chamber, pull out the film transport knob as far as it will go, and lock by a quarter turn. Swing out the spool holder **16**. Remove the take-up spool from the right-hand chamber, and insert in the spool holder, with the plain hole over the pin. Swing back the spool holder with the spool, and turn the film transport knob to let it fall back into place.

Loading the Camera:

Opening the Camera Back

Transferring the Take-up Spool



Loading: Inserting the Film



In this camera only filmspools can be used which have a thick core of metal or wood. These are marked on the packing of the spool with **B II/8** or **120**. First push the unexposed roll of film into the spring clip of the right-hand chamber. **Note:** If the film release **17** points to the left, move it over now to the right, as described on page 6 (second paragraph). Then pull the beginning of the backing paper off the spool, draw it over the film aperture, and insert the tongue at the end of the paper into the long slit of the take-up spool (see illustration).

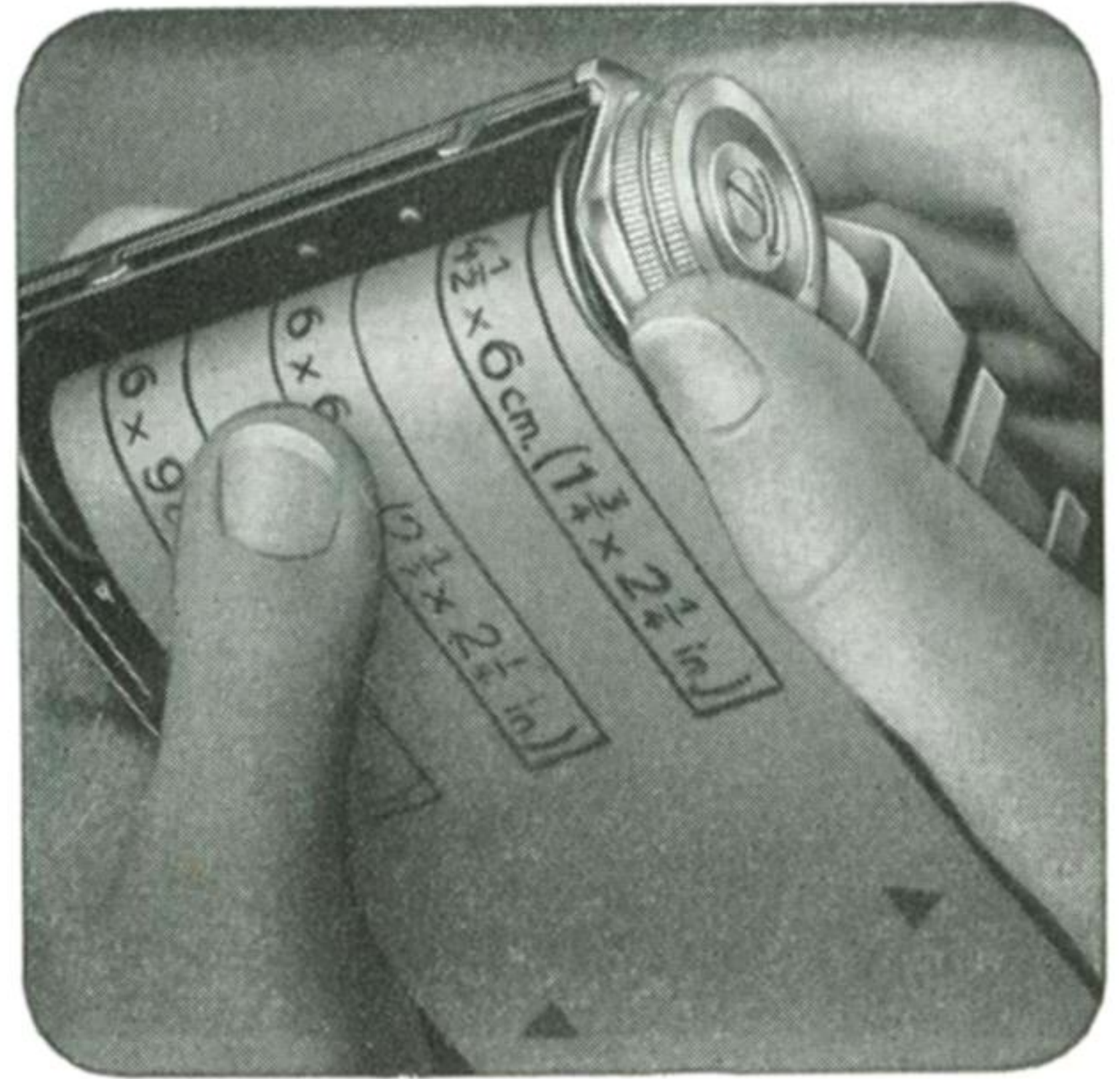
Slowly turn the film transport knob in the direction of the engraved arrow. This winds the backing paper tightly onto the take-up spool. If the paper does not run straight, push it into place with a slightly moistened finger.

Stop winding as soon as the two arrow heads ◀▶ appear on the backing paper, otherwise you may fog the beginning of the film.

Now close the camera back as already described, and open the red film window in the back. When closed, this shows a white cross. To open the window, turn the milled ring next to it.

Loading:

Tightening the Backing Paper



Loading: Setting the Film Counter



Turn knob **13** to the right until No. 1 appears in the film window.

Now close the window.

Care! Turn locking lever **17** to the left. This engages the film transport interlock and the picture counting window will automatically show a **1** (= 1 picture) in place of the red-white signal.

The film is now ready for the first exposure and after setting the camera and cocking of the shutter, the first picture can be taken. Do not forget: film transporter **13** has to be turned as far as it will go after each exposure, the picture counting window **1** will then show the following picture number.

Care! The locking lever must not be moved between exposures otherwise the automatic counting device would be reset to number 1.

Unloading

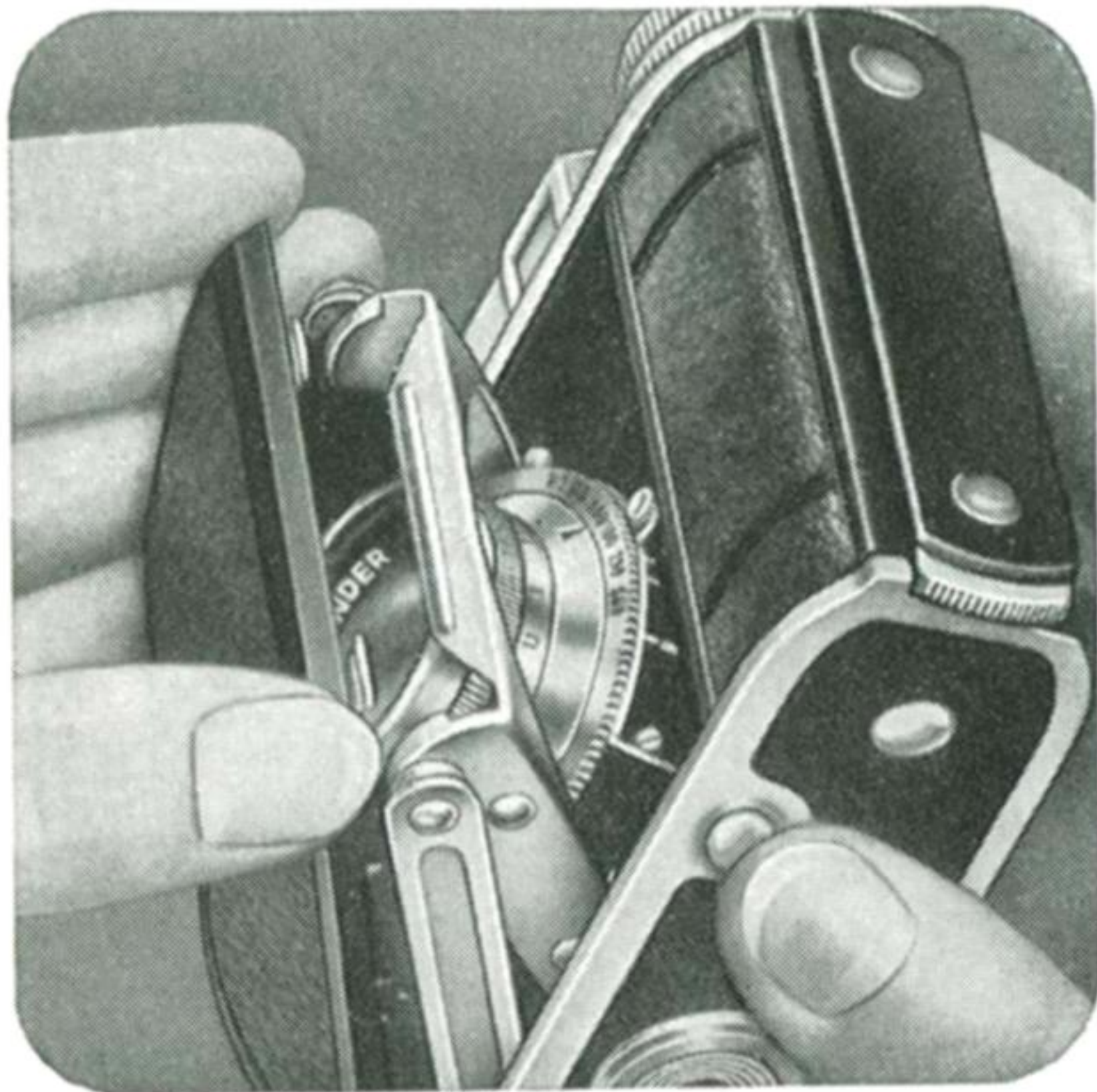
After the 12th exposure turn film transport knob again as far as it will go; the picture counting window 1 will then show the red signal.

Care! Now turn locking lever to the right and wind on the film until it is completely wound off on to the spool in the left chamber. The passing of the paper end of the film may be observed in the film window which should be opened.

Open camera back, pull up the film transport knob and fix it in this position, pull out spool carrier and remove film. Take care to hold film tight to avoid it unrolling. Hold over paper-end and seal it with the gummed tape fixed to it. Transfer empty spool.



Opening and closing camera front



On depressing button **21** the camera front will open up. It is pulled down with thumb and index finger on both corners until the two struts **4** engage.

To close, depress both keys **6** simultaneously, press front back towards camera body. Attention! Camera front support (**7**) must be completely swung in before.

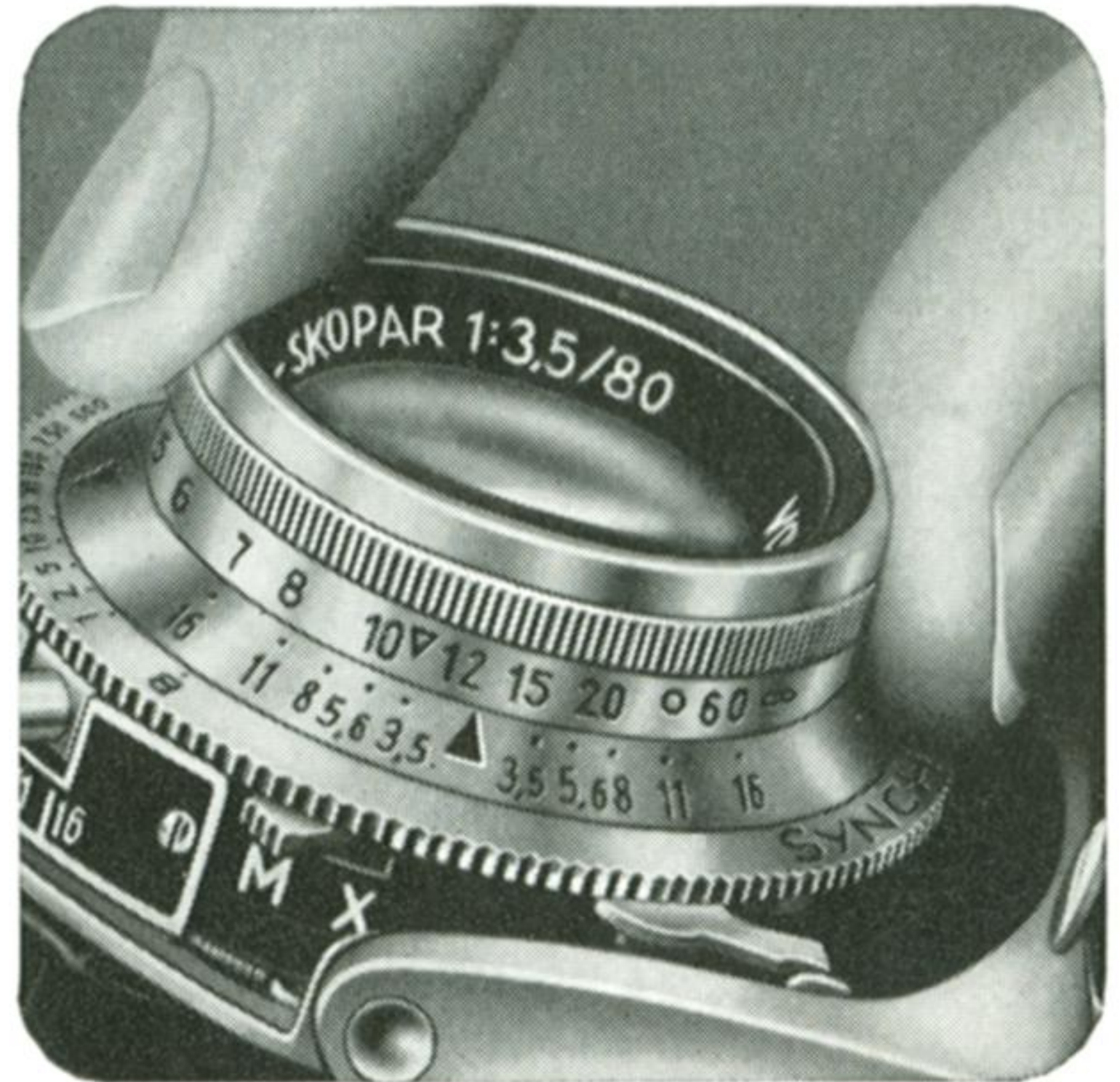
Please Note: Make sure that the base-board leg is completely folded up, otherwise the camera cannot be closed. Do not press the shutter release while opening or closing the camera, or you may damage the release mechanism.

Focusing

Estimate the subject distance — or better still, measure it with a rangefinder. Push the rangefinder into the accessory shoe on top of the camera.

To focus, turn the lens mount until the required distance mark is opposite the triangle ▲ on the front cover. The aperture numbers to the left and right of the triangle serve for determining the depth of field (p. 30).

The focusing scale also carries the marks ▽ (= 11 f.) and O (= 33 f.). These are zone focusing settings, and are explained on page 14.



Snapshot Focusing



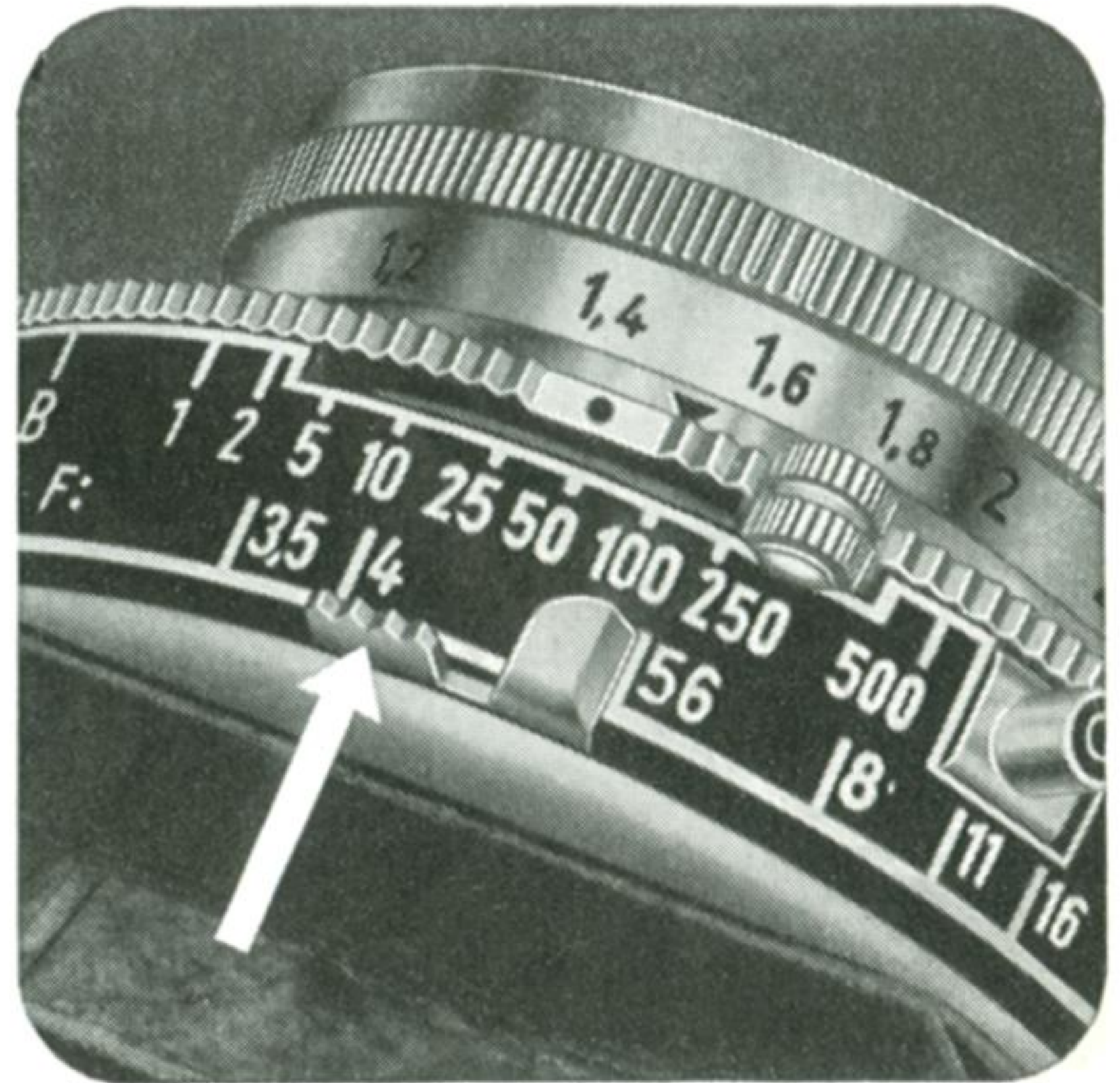
Snapshots taken unnoticed by the subject (for example children at play) often result in surprisingly pleasant pictures. There may be no time for critical setting of the distance, so this is the occasion for "zone focusing". For subjects between 8' 3" and 16' 6" set to the near focusing mark ∇ , and for those between 16' 6" and ∞ to the distant mark O. Do so in good light only; also **stopping down to at least 8** is essential in order to obtain sufficient depth of field.

These snapshot settings are extremely useful for sports pictures where the subject distance often changes with lightning rapidity.

Setting the Aperture ("Stop")

The iris diaphragm controls the amount of light falling on the film, and influences both exposure time and depth of field. It is necessary to remember that the aperture (or "stop") becomes smaller when the "stop number", i. e. the figure denoting it, becomes higher, and vice versa. From stop to stop the required exposure time is **doubled** (or halved, in the opposite direction). Example: If at aperture f 5.6 the correct exposure time ("speed") is $\frac{1}{50}$ second, the correct speed to which you must set at f 8 is $\frac{1}{25}$ second. — Aperture and depth of field are discussed on page 30.

The aperture is set by means of the setting lever 8 (see arrow). The indicator must be close to the index line of the respective figure.



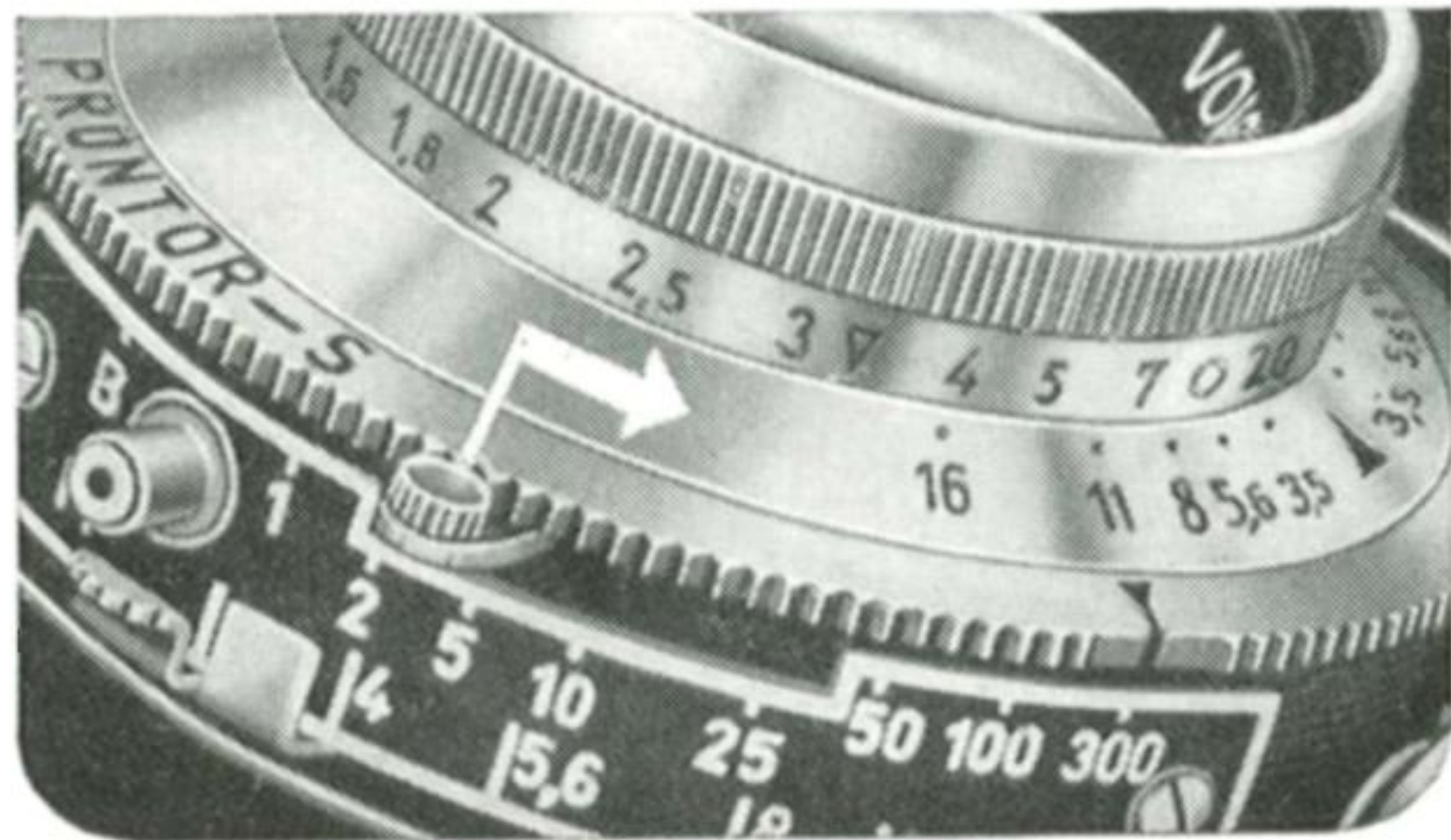
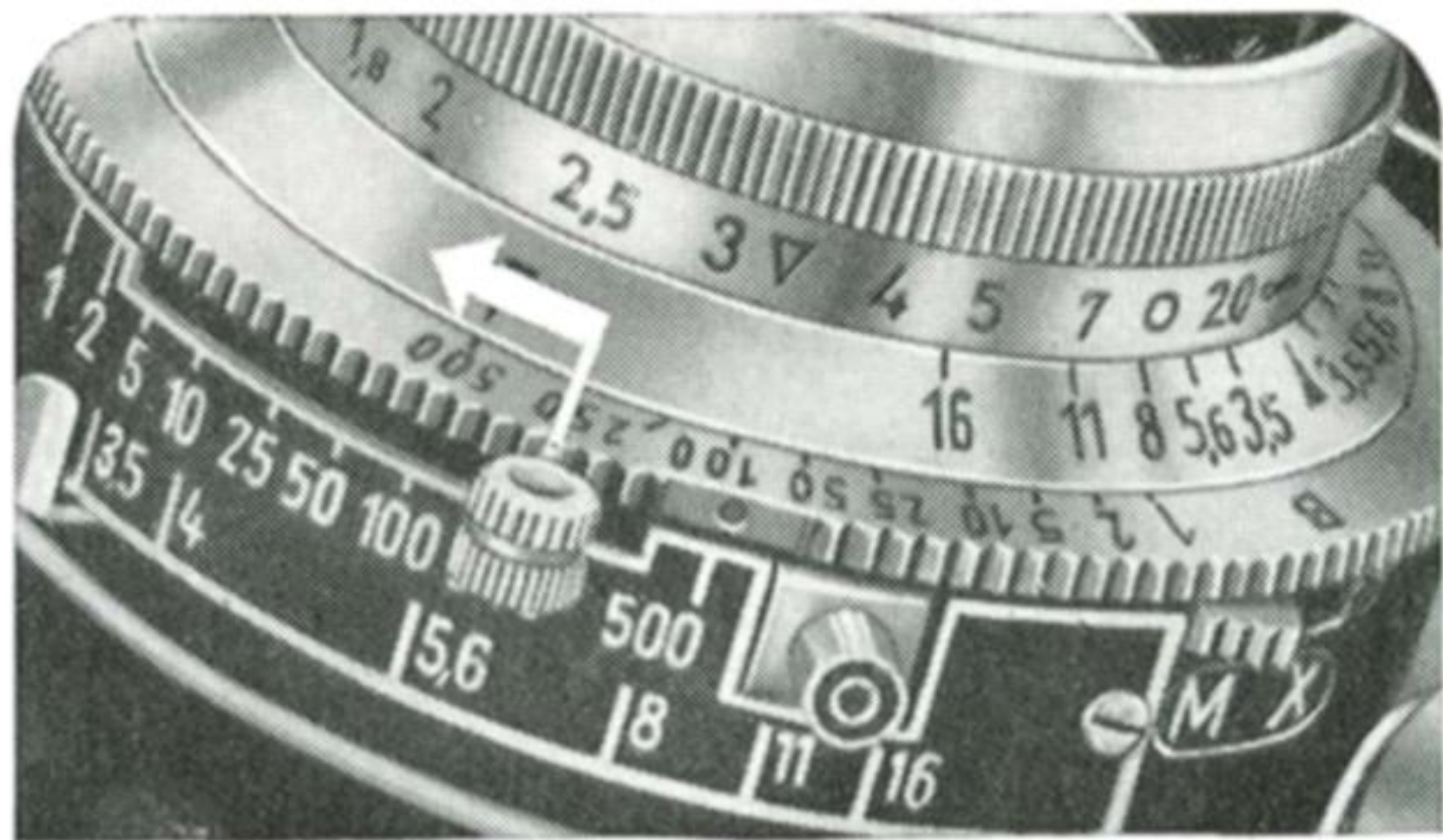
Setting the Shutter Speed

The PERKEO II is fitted with either the PRONTOR-S or the SYNCHRO-COMPUR shutter.

Turn the shutter speed ring until the red dot on the ring is opposite the required speed. The figure "1" stands for one second, all other figures are fractions of a second. The PRONTOR-S ranges from 1— $\frac{1}{300}$ sec., the SYNCHRO-COMPUR from 1— $\frac{1}{500}$ sec. Here the shutter remains open as long as the release is kept pressed down.

Tensioning of shutter (also when set to "B" = time exposure).

PRONTOR-S: Pull the tensioning lever up-wards as far as it will go (illustr. above).
SYNCHRO-COMPUR: Push down the tensioning lever as far as it will go (illustr. below).



The Selftimer

The PRONTOR-S has a built-in selftimer (delayed action release).

To use it set distance, aperture and shutter speed in the usual way. Then pull up the selftimer lever (with the red dot) as far as it will go in the direction of the baseboard (see arrow in illustration).

After pressing the release, you now have about 10 seconds to take your place in front of the camera for self-portraits, before the shutter goes off by itself.

Note: The selftimer cannot be used when the shutter is set to "B" for time exposures.



Holding the Camera



Hold your breath while exposing, and gently press down the release as far as it will go. Never jerk it.

For instantaneous exposures ($\frac{1}{25}$ second and shorter) hold the camera in the hand. Slower exposures ($\frac{1}{10}$ to 1 second) are no longer safe with the camera held in the hand, unless you can rest your elbows on, or lean against, some support.

For long exposure times ("B" setting) the camera must have a really solid support. You can place it on a level surface with the help of the baseboard leg, but the best way is to mount it on a tripod.

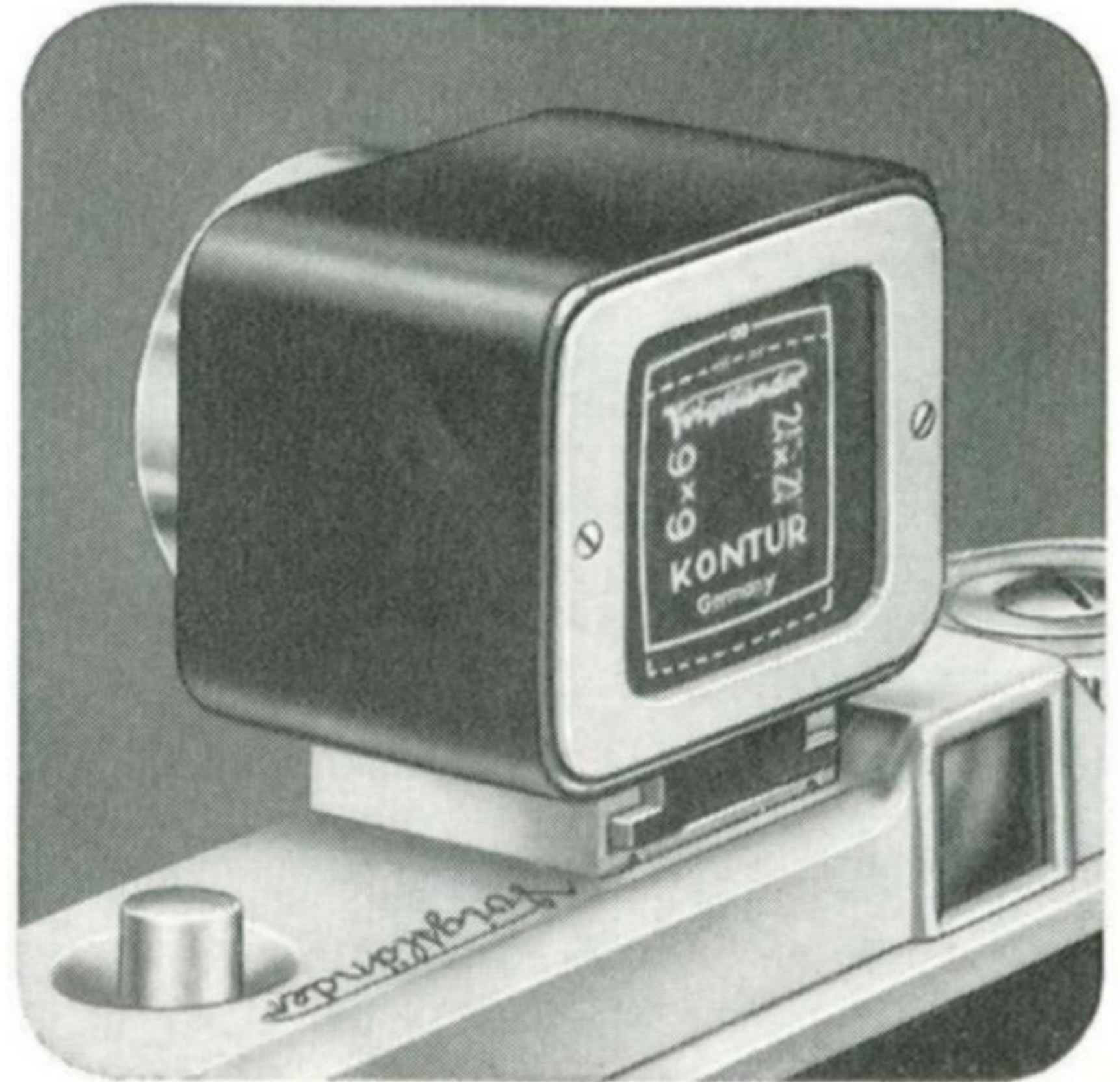
For very long time exposures use a cable release with a locking screw. Screw the end of the release into the socket **3**.

The Suspended Frame Finder "KONTUR"

The Voigtländer $2\frac{1}{4} \times 2\frac{1}{4}$ in. (6 x 6 cm.) suspended frame finder "KONTUR" is ideal for following fast moving subjects (sports shots, etc.); it is specially convenient for people who have to wear spectacles.

Keep both eyes open when sighting the subject. The eye looking past the finder sees the subject and its surroundings in their natural size and brightness, while the eye looking through the finder sees a white frame outlining the field of view. The dot in the centre of the viewfinder indicates the centre of the field of view, while the dotted line shows the parallax correction for near subjects.

To use the finder, insert it into the accessory shoe from the front, and push back fully.



Close-Up pictures with Focar Lenses

Do not miss the interesting field of "close-up" photography, which, unfortunately, many amateurs neglect. Large scale pictures of flowers, butterflies, and other insects, small "objets d'art", etc. may yield effects of extraordinary beauty. Moreover, with the help of Focar lenses you can make excellent copies of pages of books, stamps, or small pictures. Care, however, is recommended in portraiture, as perspective may easily appear distorted when working at close distance.

Voigtlander Focar Lenses in push-on mounts are supplied for two distance ranges:

Focar lens F 1 for subject distances
2' 7¹/₂" to 1' 6".

Focar lens F 2 for subject distances
1' 5¹/₂" to 1' 1¹/₂".

Size: 32 mm. diameter.

When focussing on	Sharp definition with	
	Focar 1	Focar 2
∞	2' 7 ¹ / ₂ "	1' 5 ¹ / ₂ "
60'	2' 6 ¹ / ₄ "	1' 5"
○	2' 5 ¹ / ₄ "	1' 4 ³ / ₄ "
20'	2' 3 ³ / ₄ "	1' 4 ¹ / ₄ "
15'	2' 2 ³ / ₄ "	1' 4"
12'	2' 1 ³ / ₄ "	1' 3 ³ / ₄ "
▽	2' 1 ¹ / ₂ "	1' 3 ¹ / ₂ "
10'	2' 1"	1' 3 ¹ / ₄ "
8'	1' 11 ³ / ₄ "	1' 2 ³ / ₄ "
7'	1' 11"	1' 2 ¹ / ₂ "
6'	1' 10"	1' 2"
5'	1' 8 ³ / ₄ "	1' 1 ¹ / ₂ "
4'6"	1' 8"	1' 1 ¹ / ₄ "
4'	1' 7"	1' 3 ³ / ₄ "
3'6"	1' 6"	1' 1 ¹ / ₂ "

How to use the Focar Lenses:

- For close-ups with Focar lenses, mount the camera on a tripod, and approach the subject until it appears in the desired size in the finder. According to the subject distance, push a Focar 1 or a Focar 2 lens over the camera lens mount.
- Measure the distance accurately from the front surface of the Focar lens to the centre of the subject, and set the focusing scale of the camera by the table opposite.
- The Focar lenses do not affect the exposure, but longer exposures are, of course, required when the lens is stopped down.
- At full aperture (f/3.5) the pictures will be slightly unsharp, particularly towards the corners. The definition improves on stopping down to f/5.6, and reaches its normal standard at f/11.
- At such close range the image on the negative is no longer exactly the same as the view through the finder (parallax error), but is displaced in the direction of the lens axis. With the Focar 1 this displacement amounts to about $\frac{1}{10}$ of the field area, with the Focar 2 to about $\frac{1}{5}$.

Filters

Your Voigtländer lens will give you pictures of excellent sharpness; but the mood of the picture can be improved, and special pictorial effects achieved, by using a filter. So when taking photographs out-of-doors (except in very few cases) use a filter to enhance your picture. — Especially the sky, with and without clouds, is rendered more naturally, and will look more beautiful. There are only few occasions when a filter should not be used: when very short exposure time must be given in unfavourable light conditions, for example for sport pictures in dull weather, fog or mist scenes, etc.

Voigtländer filters are made of spectroscopically tested, optical glass, critically ground with plane-parallel surfaces. This ensures that the superb definition given by the Voigtländer anastigmats is fully retained. The coloured glass of the filters is lightproof and heatproof.

The filters are supplied in push-on mounts, and may be used in combination with a Focar lens, and or Voigtländer lens hood. Suitable size for PERKEO II: 32 mm. diameter.

***Voigtländer* Yellow Filter G 1**

A light yellow filter recommended when only slight correction is desired, or where the increase in exposure time required with Filter G 2 (medium yellow) cannot be given.

Filter factor (exposure increase): 1.5—2 times.

***Voigtländer* Yellow Filter G 2**

The “universal filter“ for all outdoor work. Particularly suitable to bring out cloud effects on blue sky, to render correctly fair hair or ripe corn; spring and autumn foliage are given more brilliance. Indispensable for snow pictures in sunshine.

Factor: 2—3 times.

***Voigtländer* Orange Filter Or**

A filter for special effects. Renders the blue of the sky rather darker than natural, makes yellow and reddish colours stand out clearly. In distant views it reduces atmospheric mist, thus bringing out detail. In outdoor portraits it suppresses certain skin blemishes.

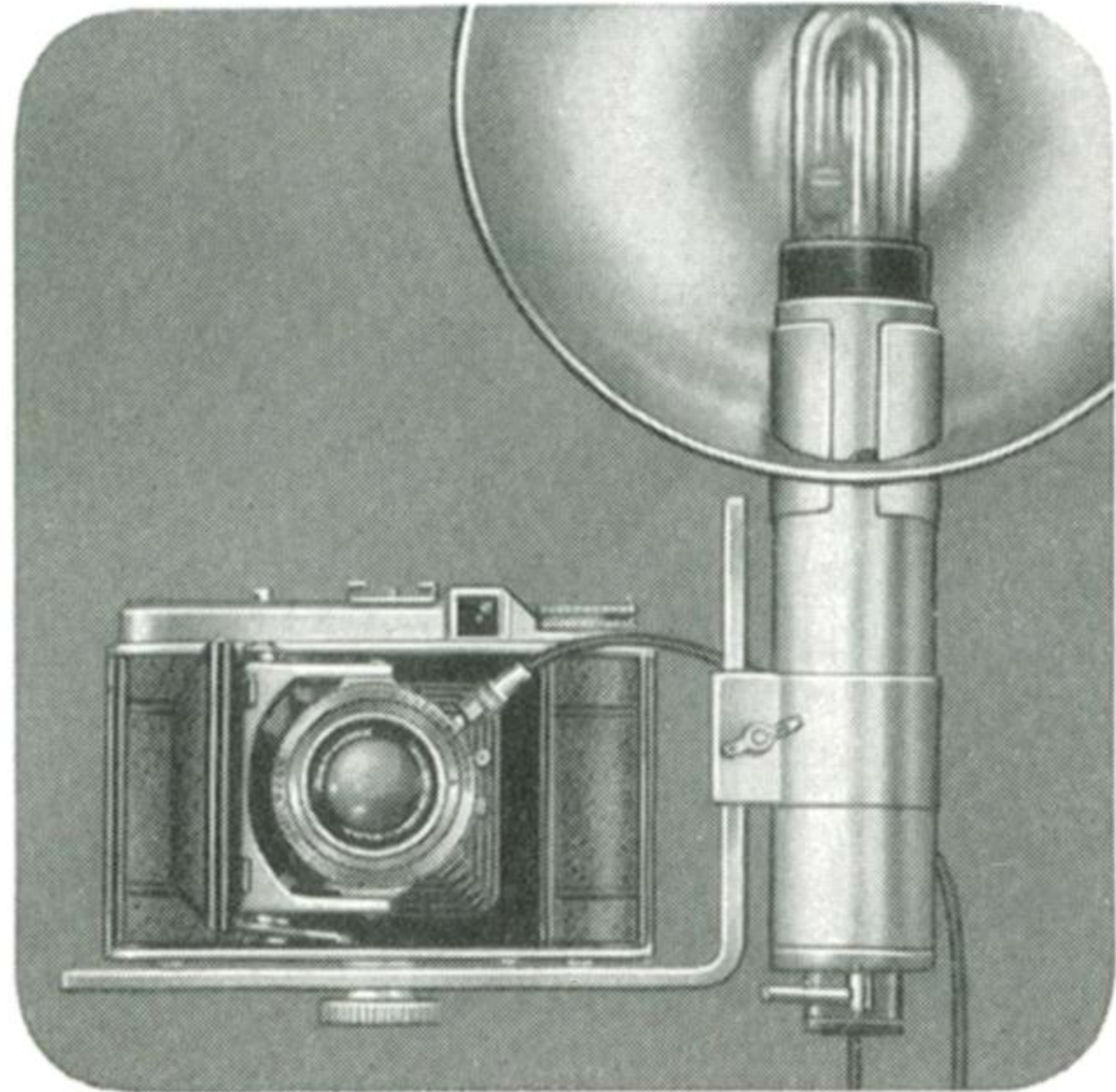
Factor: 5—6 times.

***Voigtländer* UV Filter**

Suppresses ultra-violet rays in high altitudes, which may cause unsharpness. In black and white photography it preserves the natural delicate aerial perspective; in colour photography it counter-acts the much disliked “blue tinge“, securing warmer tones in general.

Factor: No increase for black and white; 1½ times for colour film.

Synchronized flash exposures



Both the PRONTOR-S and the SYNCHRO-COMPUR shutters make it possible to take synchronized action shots with flash.

The flash can be used as sole light source, or equally well combined with daylight. It is very useful for lighting up shadow detail in against-the-light shots.

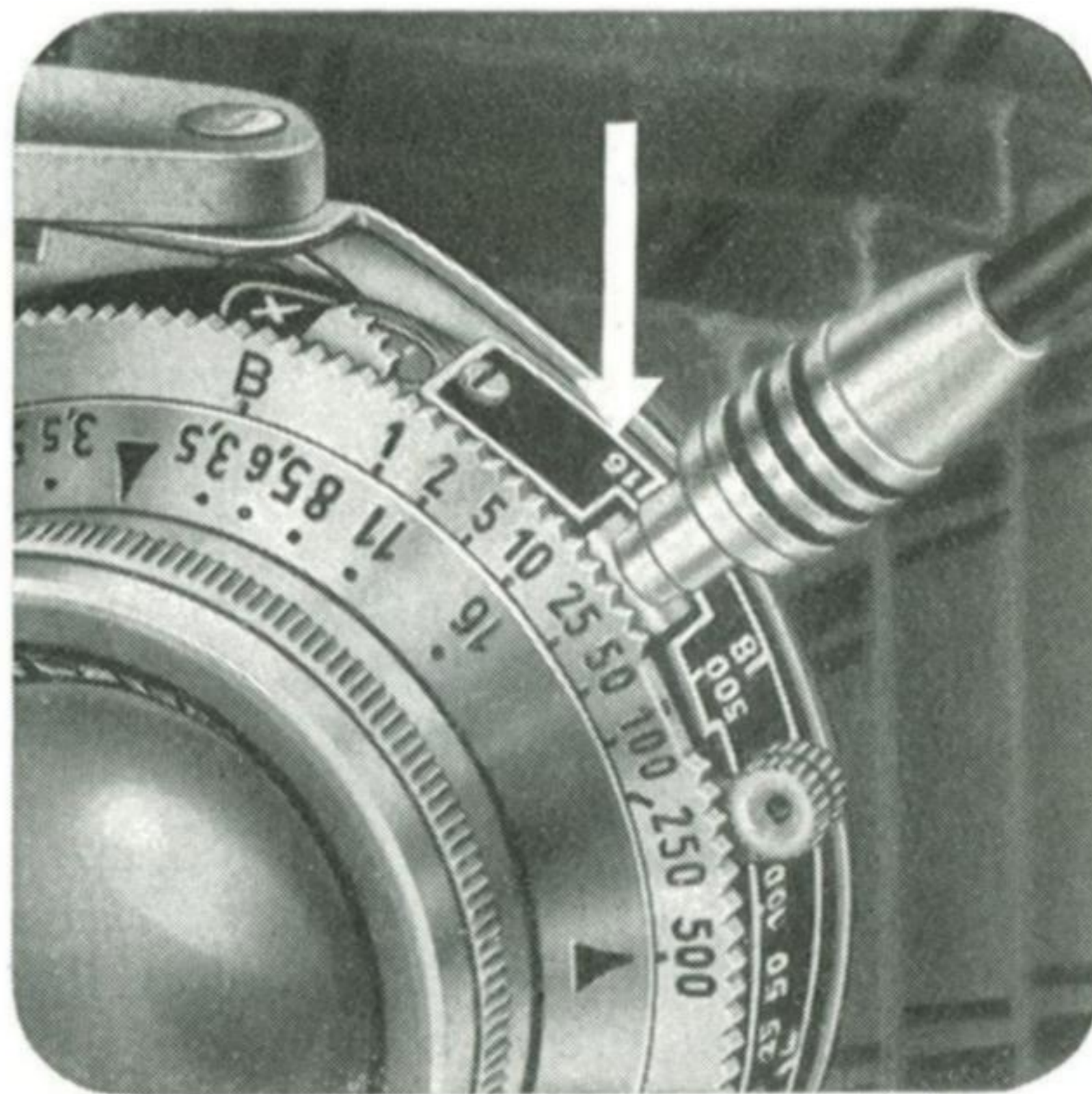
All commercial flash equipments, i. e. flash bulb and electronic flash equipment can be connected to the shutters.

You will find on the following pages a short instruction as to how the flash equipment should be connected and about the setting for different types of flash units.

First fix the camera to the bracket with a tripod screw. The flash unit should be to the left of the camera so as to allow free access to the body release and winding knob. Some light-weight flash guns can be fixed directly to the accessory shoe on the cap of the camera.

Then connect the special synchronising cable to the flash unit and push the plug over the contact of the shutter (see illustration).

Connecting the flash unit to the camera:



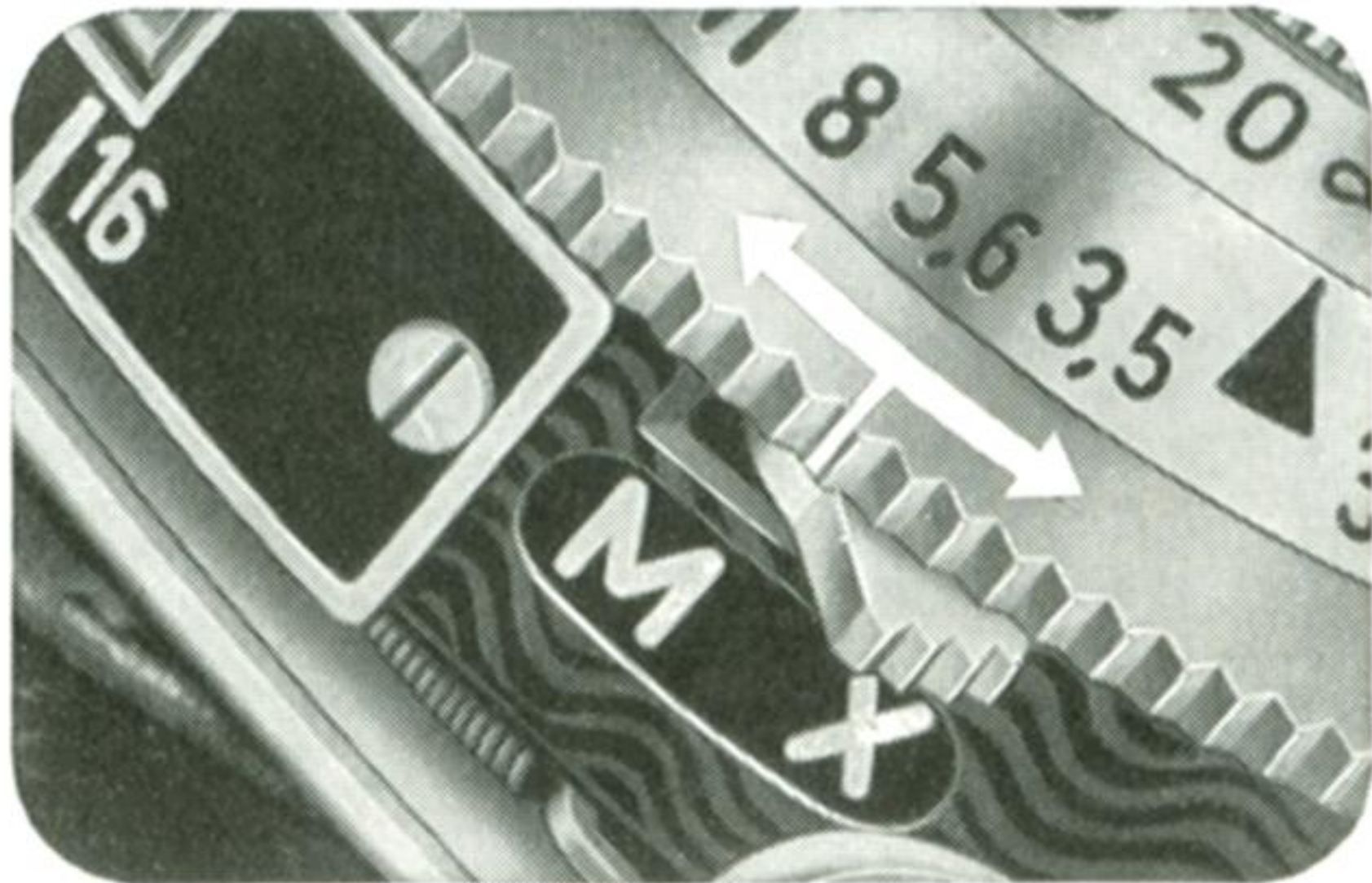
Setting the Shutter:

Flash bulbs and electronic flash tubes differ in time they take to reach their peak. They thus fall into several classes as shown on page 28. The flash should reach its peak brightness just when the shutter is fully open. To synchronize correctly and to avoid "blanks" there are the two ways of synchronisation "X" and "M".

The PRONTOR-S has the "X" synchronisation and synchronised shots (also with delayed action release) are only possible at those shutter speeds shown under "X" in the table on page 28. A special preparing of the shutter is not required.

With the SYNCHRO-COMPUR you can select either the "X" or "M" synchronisation according to the flash used by setting the synchronising lever (illustr. page opposite).

Take special care to set the corresponding shutter always to one of the speeds shown in the table opposite for the type of flash in use. Look up the instructions enclosed with the flash bulb or electronic flash unit for the correct aperture to be used.



"X" Setting with SYNCHRO-COMPUR

The flash contact closes at the instant when the shutter is fully open.

"M" Setting with SYNCHRO-COMPUR

The contact closes a short time — corresponding to the firing delay of class "M" flash bulbs — **before** the shutter opens.

Electrical Data for Shutters:

The outer pole of the flash socket is earthed to the shutter. To avoid wiring up the leads the wrong way round, get an expert to connect the cable for the first time.

The flash contact will carry the firing current of all types of electronic flash tubes. With flash bulbs it will carry a temporary load of 10 amps at 24 volts, thus allowing simultaneous firing of several bulbs connected in parallel. The longest permissible exposure time in this case is $1/10$ second.

Caution: The flash contact must not be used to fire bulbs from 110 or 220 volt electric mains.

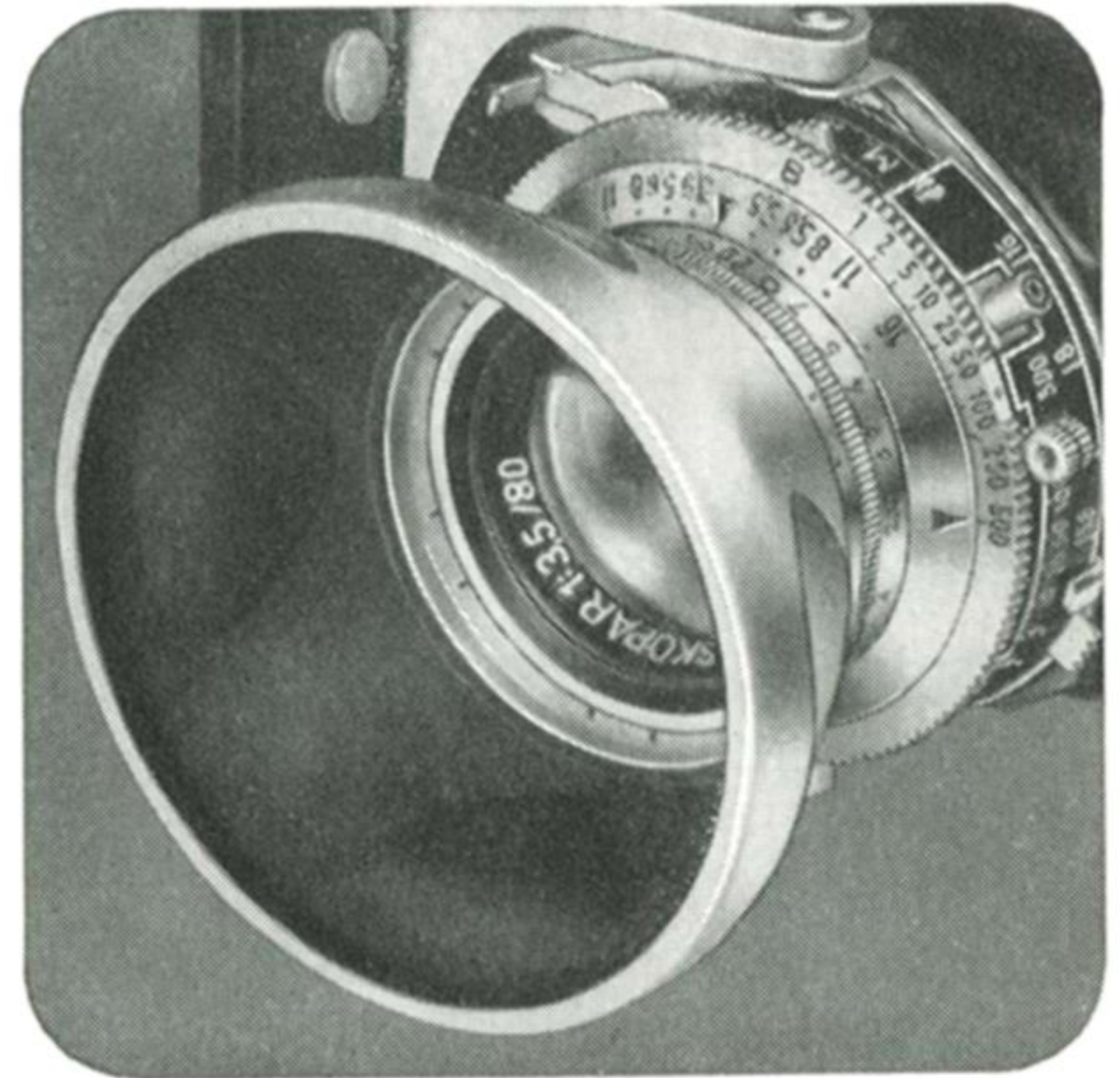
SUITABLE SHUTTER SPEEDS

Flash Bulbs			Synchro-lever Setting	
Class	Make	Type	X Exposure longer than flash	M Exposure shorter than flash
F	General Electric G. E. C. Mazda Westinghouse	SM	1 to 1/50	Not suitable for M-setting
	Sylvania	SF		
-	Osram	FO	1 to 1/50	Not suitable for M-setting
		F1, F2	1 to 1/25	
M	Osram	S2	1 to 1/10	1/25 to 1/500
	Osram	S1		
	Philips	PF14 PF25 PF56		
	General Electric G. E. C. Mazda Westinghouse	No.5 No.11 No.22	1 to 1/25	1/50 to 1/500
	Sylvania	Press 25 Press 40 Press 50 No.0		
	Sylvania	No.2	1 to 1/25	1/50 to 1/100
S	Philips	PF110	1 to 1/10	1/25 to 1/50
	General Electric Westinghouse	No.50		
	Sylvania	No.3		
Electronic Flash			Synchro-lever set to X	
Class	Kind		(Exposure longer than flash)	
X	Instantaneous Firing		1 to 1/500	
F	Relay-fired with 5ms. delay		1 to 1/100	

Against-the-Light Pictures

Against-the-light pictures with their shimmering light fringes and interesting shadows are among the most beautiful photographic possibilities. They are helped considerably by the use of a "lens hood", which protects the lens from disturbing reflections caused by direct or side light striking the glass. A good way is to arrange the subject in such a manner that it is illuminated from behind and the side. The lens hood is also very useful in artificial light. In bad weather it protects the lens from raindrops.

The lens hood for the PERKEO II is made of metal (diameter 32 mm.). It fits both the lens mount and the mounts of either Voigtländer filter or Focar lens already attached to the camera lens.



Aperture and Depth of Field

Depth of field comprises that part of the picture space (from near the camera towards the background) which will be rendered sharp in the photograph. The extent of this sharp zone, however, is not always the same; it depends on the distance of the subject and the stop used. It increases as you stop down; it decreases as the lens is opened up. Therefore, remember:

Large aperture (e. g. 3.5) — small depth of field;

Small aperture (e. g. 16) — great depth of field.

How far it will extend, you can easily find out. Having set the correct distance of your subject, you can simply read it off from front cover **5 a**. On the right and left of the index mark ▲ the aperture numbers are arranged in the same order; immediately above are the figures of the distance scale (feet). The depth of field extends from the figure opposite an aperture number on the left to the figure opposite the same aperture number on the right. (See illustration under Snapshot Focusing, page 14.)

Care of Camera and Lens

Successful work and long life of your camera depend mainly on its being handled correctly, and your care of it.

Do, please, treat it with the respect due to a precision instrument, and avoid using force. — If anything should not go smoothly, it is much better to read again the relative paragraphs of these instructions.

Before inserting a film, make sure every time there is no dust inside the camera; if necessary, clean it gently.

If the camera is not in use for a number of days, it is preferable not to leave the shutter tensioned, particularly not at $\frac{1}{500}$ second.

When on the beach, carry the camera in the **closed** ever-ready case, opening the case only when actually making an exposure. Beware especially of sand. — Avoid finger prints on the lens; they affect definition.

The lens is coated also on its outer surfaces (anti-reflection layer). It may be cleaned with a very soft hair brush, or a piece of clean, well-washed linen, or special "lens tissue".

Grease spots may be removed by gently dabbing with a wad of cotton wool moistened in alcohol.

Instructions in a Nutshell:

1. Open camera back by pressing both locks together.
2. Insert film spool in right-hand film chamber, and fix backing paper to take-up spool (Film release must point to the right).
3. Wind film transport knob until ◀▶ marks appear on backing paper.
4. Close camera back. Open film window in back and wind transport knob until No. 1 appears in film window. Close film window.
5. Pull film release to the left. Film counter window will show No. 1 instead of red signal. Focus and tension shutter, and film is ready for first exposure.

After 12th exposure:

Again wind film transport knob until it locks. Film counter window again shows red signal. Pull film release over to right. Continue winding film transport knob until film is fully wound up on spool in left-hand film chamber. Open back, pull up film transport knob, and lock. Remove exposed film spool and seal with attached gummed tape.

Films of ASA 25 and less

belong to the group of "fine-grain films", characterized by highest power of resolution, therefore permitting the highest degrees of enlargement. They require accurately determined exposure time.

Films of ASA 32 to 50

are always right for normal subjects. They are characterized by high speed coupled with fine grain.

Films of ASA 64 and more

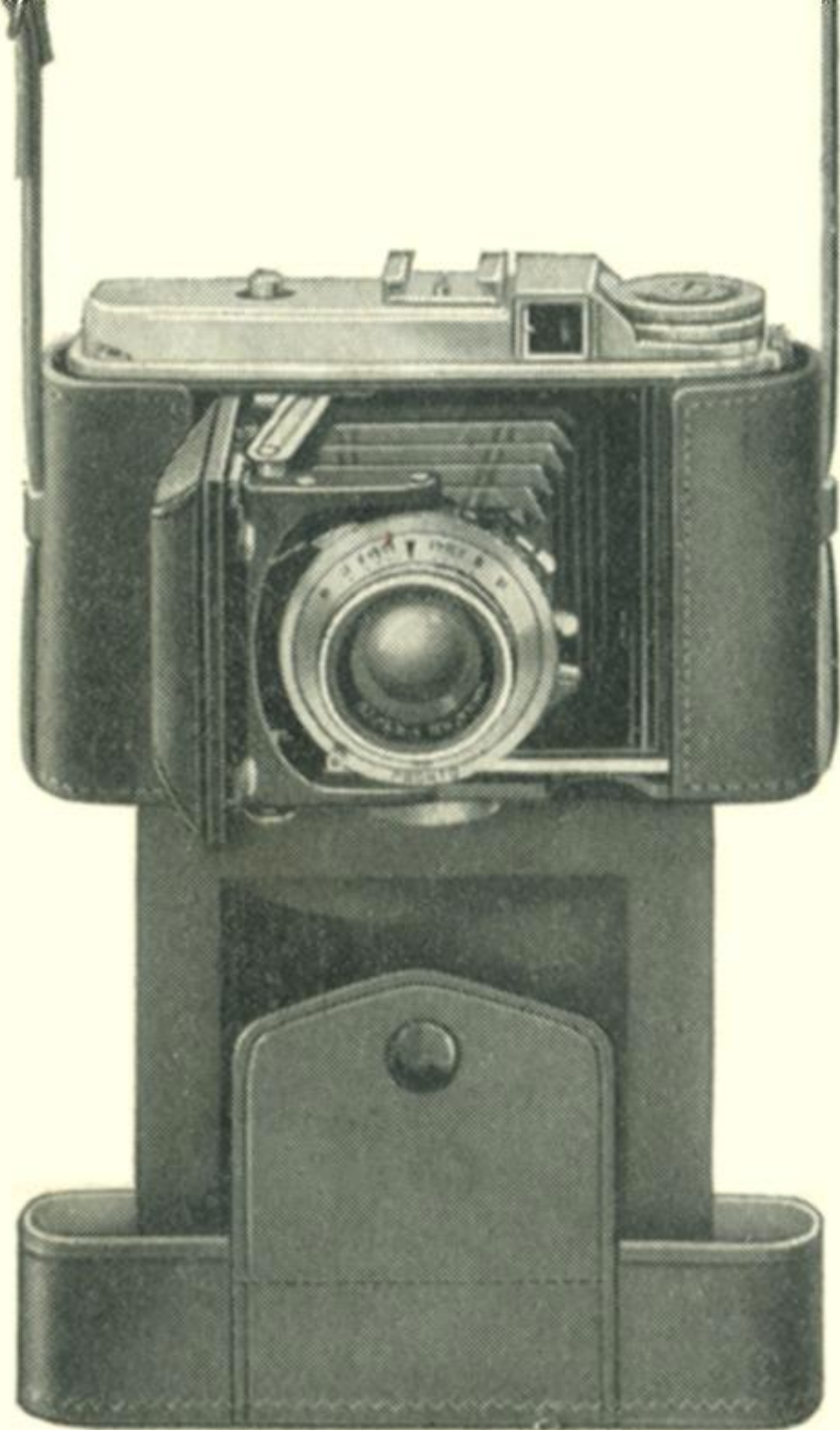
are used when in unfavourable light conditions exposure time must be kept very short. Because of their high sensitivity to red they are particularly suitable for photography by artificial light.

Note: twice (or half) the ASA number requires half (or twice) the exposure.

Comparison

of the most usual systems of film speed rating

ASA & BS	Din /10 ⁰	BS Log Index	Scheiner	General Electric	Weston	H & D
6	10	19 ⁰	20 ⁰	8	5	125
8	11	20 ⁰	21 ⁰	10	6	150
10	12	21 ⁰	22 ⁰	12	8	200
12	13	22 ⁰	23 ⁰	16	10	250
16	14	23 ⁰	24 ⁰	20	12	300
20	15	24 ⁰	25 ⁰	25	16	400
25	16	25 ⁰	26 ⁰	32	20	500
32	17	26 ⁰	27 ⁰	40	24	600
40	18	27 ⁰	28 ⁰	50	32	800
50	19	28 ⁰	29 ⁰	60	40	1000
64	20	29 ⁰	30 ⁰	80	48	1250
80	21	30 ⁰	31 ⁰	100	64	1600
100	22	31 ⁰	32 ⁰	125	80	2000
125	23	32 ⁰	33 ⁰	160	100	2500
160	24	33 ⁰	34 ⁰	200	125	3200



The smart

Voigtlander

EVER-READY CASE

for the PERKEO II is made of best quality hide, lined inside, fitted with a carrying strap.

You can shoot with the camera in the case, which fully protects the PERKEO II without reducing its instant readiness for action.