

This manual is for reference and historical purposes, all rights reserved.

This page is copyright© by M. Butkus, NJ.

This page may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

If you find this manual useful, how about a donation of \$3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you \$7.50 for a electronic copy or \$18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.

It'll make you feel better, won't it?

**If you use Pay Pal or wish to use your credit card,
click on the secure site on my main page.**



Voigtlander

BESSA II

6×9 cm·3¼"×2¼"

SYNCHRO-COMPUR

INSTRUCTIONS FOR USE

The most important point

of the Instruction Book will be found on this page, it is to ask you to read the 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 BESSA 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 wonderfully sharp pictures.

Voigtländer

VOIGTLÄNDER A.G. BRAUNSCHWEIG

Contents:

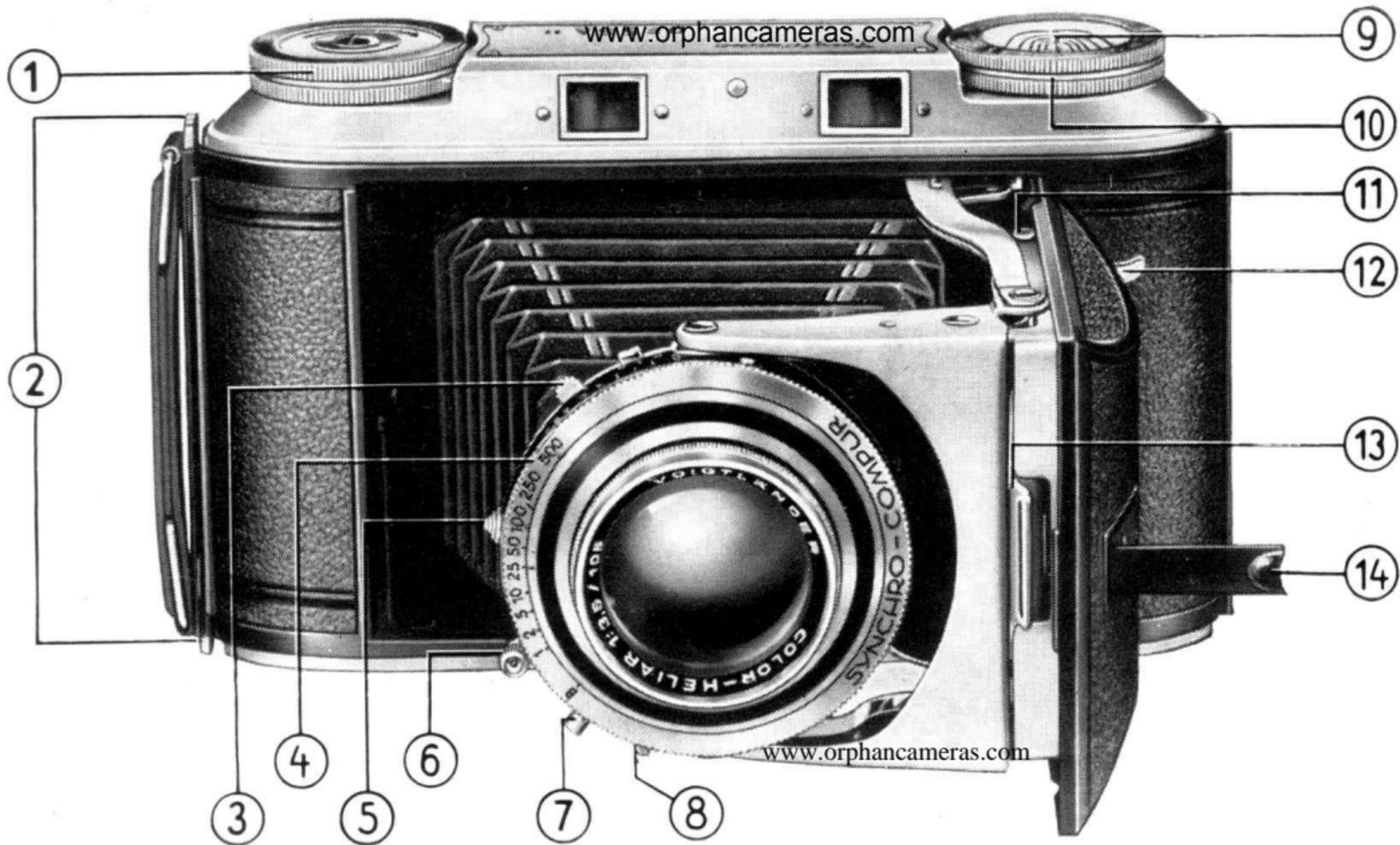
	Page:
Operation	
Opening and closing the baseboard	4
The aperture · The shutter · The self-timer	5—7
The rangefinder · Snapshot focusing	8—9
Holding the camera · Exposing	10
Loading and Unloading	
Opening the camera back	11
Loading the camera	12—13
Unloading	14
Transferring the take-up spool	14
Accessories	
Flash units	15—19
Focar lenses	20—21
Yellow, orange, green and U. V. filters	22—23
Lens hood · The KONTUR finder	24—25
Technical Hints	
Aperture and depth of field	26
Care of camera and lens	27
Film speeds	28

BESSA II 3¹/₄ x 2¹/₄

Synchro-Compur

- 1 **Film winder** (turn only in the direction of arrow)
- 2 **Catches** for closing the camera back
- 3 **Aperture lever** to set the iris diaphragm
- 4 **Speed ring** to set the shutter speeds
- 5 **Delayed action setting knob**
- 6 **Shutter lever** to tension the shutter
- 7 **Flash socket** to connect up flash units
- 8 **Synchronising lever** to set the synchronisation
- 9 **Depth of field indicator** on the rangefinder knob
- 10 **Focusing knob**
- 11 **Cable release socket**
- 12 **Body release**
- 13 **Key to close baseboard**
- 14 **Camera support** (pulled out)

Key to illustration opposite



Opening and Closing www.orphancameras.com

the Baseboard



Press the small button underneath the camera to open it. Pull down the baseboard by its two corners until the struts click into position. It is then ready for use.

To close the camera, press down the **key 13** and push the baseboard back into the body.

Note: Always close the camera in this way; never press on the struts or the lens mount.

The aperture (or stop) of the iris diaphragm controls the amount of light falling on the film, and thus the exposure. It also controls the depth of field.

The aperture decreases the larger the aperture number or f-number, and vice versa. Every aperture number requires twice or half the exposure of the preceding or following number respectively.

For example, if the correct exposure at f/5.6 is $1/50$ second, we would need $1/25$ second at f/8. See p. 26 for Aperture and Depth of Field.

To set the aperture, move the **lever 3**, until the pointer is opposite the required f-number.

Setting the Aperture



Setting the Shutter Speeds



Turn the **speed ring 4** until the red dot on the ring is opposite the selected exposure time. The figure "1" stands for 1 second, all other numbers are fractions of a second. The shutter can be set to any intermediate speed except between $1/10$ and $1/25$, or between $1/250$ and $1/500$ second. For time exposures set the shutter to "B". On releasing it will then stay open as long as the release is depressed. All speeds other than $1/500$ second can be set even after tensioning the shutter.

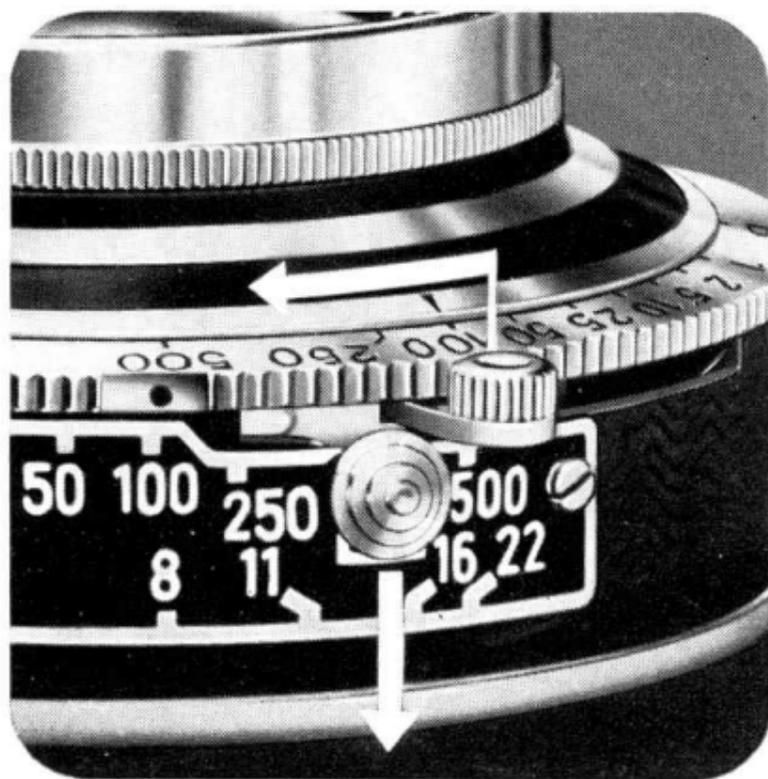
The shutter needs tensioning before every exposure — even when set to B. Pull up the tensioning lever as far as it will go (see arrow).

The SYNCHRO-COMPUR shutter has a built-in self-timer (delayed action release).

To set it, tension the shutter in the normal way, and then push back the small **setting knob 5** as far as it will go (see arrows in illustration). Now pull the tensioning lever further still to its second stop, and the self-timer is ready.

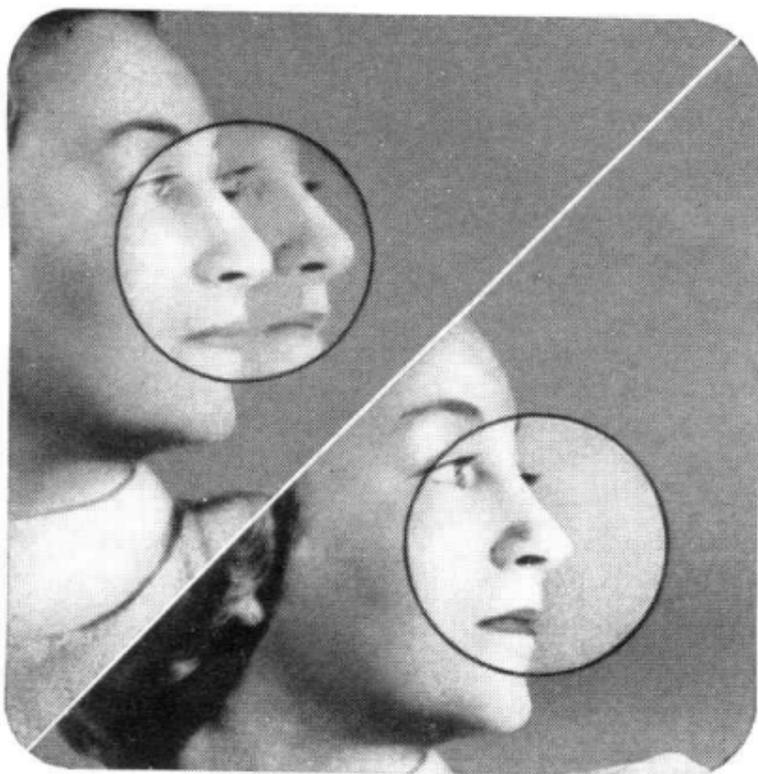
After pressing the shutter release you have about 10 seconds to get to your place in front of the camera before the shutter goes off by itself. **Note:** The self-timer cannot be used with the shutter set to B or to $1/500$ second.

The Self-Timer



Focusing with the Rangefinder

www.orphancameras.com



The combined view- and rangefinder is coupled to the camera lens. On looking through the eyepiece, you will see a bright circle in the centre of the view. As long as the rangefinder is not correctly focused, the subject appears as a double image within this circle.

Turn the **focusing knob 10** until the two images coincide and fuse into one. The lens is then accurately focused at the right distance.

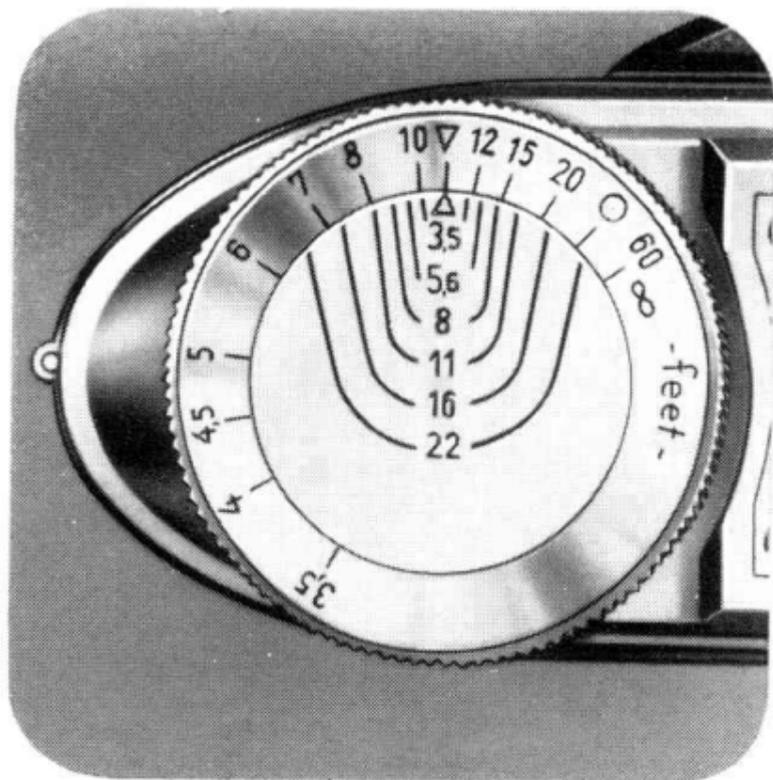
You can focus by rangefinder even when the camera is closed, or else set the distance by the distance scale on the focusing knob.

Candid snapshots (e. g. of children at play) often give surprisingly attractive pictures. You do without the rangefinder and set the distance to the near-point ∇ (11 feet) to get everything sharp from 8 to 16 feet; or to the far-point \circ (33 feet) for subjects from 16 feet to infinity (∞).

Stop down to at least f/11 to make sure of sufficient depth of field.

In good light these settings are very useful for sports photography where the subject distance may change very quickly.

Snapshot Focusing



Exposing



Look through the finder, with the eye close to the eyepiece, so that you see the whole image right to the corners. During the moment of exposure hold your breath and depress the shutter release quite softly as far as it will go. You can make instantaneous exposures ($1/25$ second or faster) with the camera held in the hand. For slower exposures ($1/10$ to 1 second) the camera should be supported; at least prop up your arms or body against something firm.

For long time exposures (shutter set to B) a solid support for the camera is absolutely essential. Mount it on a tripod with the tripod bush underneath the camera. Preferably use a cable release with locking device for long exposure times; this screws into the **cable release socket 11**.

Loading and Unloading the Camera

The BESSA II has been purposeley designed to take only roll film spools having a thick core of metal or wood, and marked on the packing with B II/8 or 120. You obtain 8 exposures of $3\frac{1}{4} \times 2\frac{1}{4}$ inches each with these films.

Important: Do not allow any strong light to fall on the film, once you have removed the protective wrapping. Always load and unload the film in the shade, the shadow of your own body will do.

First, press the two catches and pull away the back (see figure).



Inserting the Film Spool

www.orphancameras.com



Of the two spool chambers, the one under the film winding knob holds the empty take-up spool. If it is in the other chamber, remove it and change it over (see bottom of page 14).

In the opposite chamber put the unexposed film spool. Hold the film with the tip of the coloured backing paper pointing towards the take-up spool. Put the pin in the chamber in the aperture at the end of the spool (see figure), then push the spool in the chamber. The film is now correctly positioned.

Break the paper seal on the backing paper, pull the paper over the film aperture and push it deep into the wider slit of the take-up spool. (See figure on the right.)

Preparing for the First Exposure

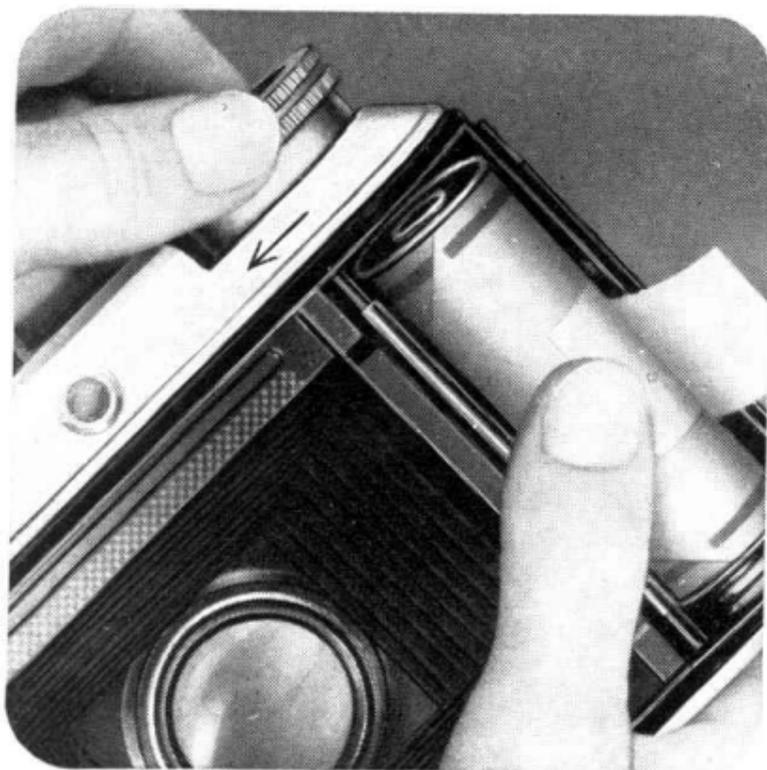
Now turn the film winder in the direction of the arrow until the two marks ◀▶ or the thick black line appear on the paper. The backing paper must run straight; if it does not, push it sideways on the take-up spool with a moistened finger.

Close the Camera Back, making sure that both spring catches engage properly.

Open the film window in the back by turning the milled knob next to it. Turn the winding knob in the direction of the arrow until the figure "1" (first exposure) appears in the window. Close the window; open it only when winding on to the next number.



Removing the Film



Close the baseboard (see page 4) and wind the film winding knob in the direction of the arrow until the whole of the film has been wound on to the take-up spool. Through the film window you can watch the backing paper move past.

Open the camera back. Grip the film firmly to prevent it from unwinding, pull up the winding knob and lock it by a quarter turn (see figure). Take the film spool out and immediately seal it with the gummed label.

It is a good idea to put the empty spool in the take-up spool chamber at once. Simply handle the camera as previously described, but in reversed order, taking care to insert the spool with its slotted end facing the winding knob.

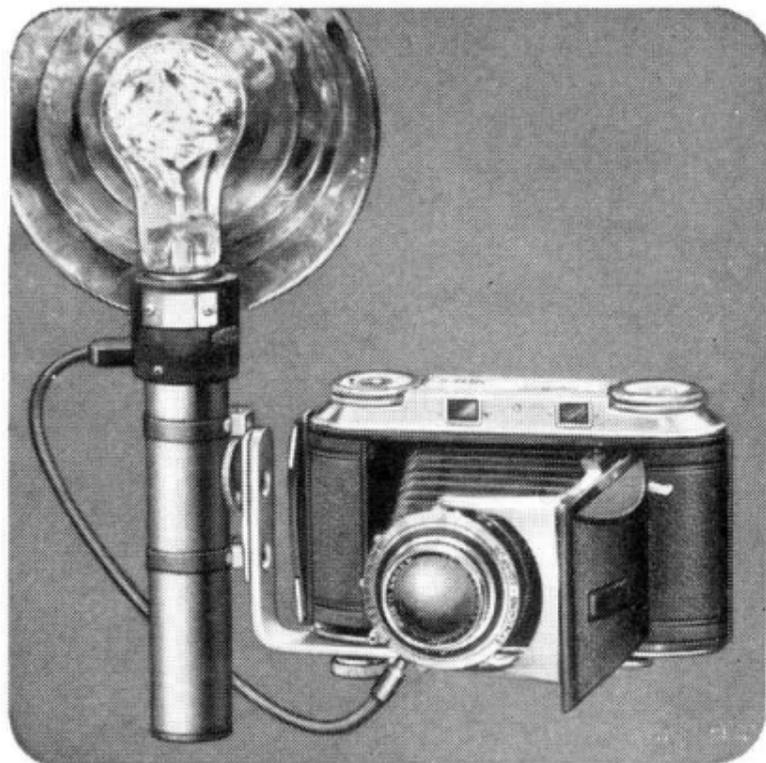
With the SYNCHRO-COMPUR shutter you may take action pictures with flash at any shutter speed up to $\frac{1}{500}$ second.

The flash can be used either by itself, or combined with daylight or any other light. It is particularly useful for lighting up shadow areas in against-the-light shots.

All makes of flash units — flash guns for bulbs as well as electronic flash equipment — can be used with the Synchro-Compur shutter.

The following pages give a brief account of how to connect and use such equipment for flash exposures.

Speed-Synchronised Flash Shots



Connecting the Flash Unit to the Camera:



First fix the camera to the connecting bracket of the flash unit by means of a camera fixing screw, with the flash to the right-hand side of the camera (see p. 15), so that it does not interfere with the operation of the release. Some light-weight flash guns can even be mounted directly on the detachable accessory shoe (see page 25).

Then connect the flash unit to the camera by pushing the plug at the end of the flash lead over the contact on the shutter (see illustrations on the left).

Setting the SYNCHRO-COMPUR Shutter.

The flash should reach its peak brightness just when the shutter is fully open. The synchronising lever — and also the shutter speed and aperture — must therefore be set to suit the type of flash in use.

Flash bulbs and electronic flash tubes vary in the time they take to reach their peak, and are classified in the table on p. 19. Set the synchronising lever either to "X", or to "M", according to the flash used (see illustration on p. 18). Then set the shutter speed according to the values shown in the table, tension the shutter, and the camera is ready for the flash exposure. Look up the correct apertures in the instruction leaflet enclosed with the flash bulbs or electronic flash equipment.

The built-in self-timer can be used for flash shots only with shutter speeds given for the "X" setting of the synchro-lever (see table). The actual position of the synchronising lever is immaterial in that case, as the "M" setting is automatically put out of action when you use the self-timer.

Close-Ups with Focar Lenses

Do not miss this highly interesting field of photography which so many amateurs seem to neglect. Large close-ups of flowers, butterflies and other small creatures, "objets d'art", etc. can yield extraordinarily beautiful results. Moreover with the Voigtländer Focar lenses you can easily copy pages from books, stamps, or small pictures. But be careful when using Focar lenses for portraiture, as the pictures may show distorted perspective.

The **Voigtländer** Focar lenses are available in 37 mm. push-on mount for the BESSA II, covering two close-up ranges:

Focar F 1

for distances from 2' 7 $\frac{1}{2}$ " to 1' 6" inches,

Focar F 2

for distances from 1' 5 $\frac{1}{2}$ " to 1' 1 $\frac{1}{2}$ " inches.

Distance scale on camera set to	Subject in sharp focus when using	
	Focar 1	Focar 2
∞	2' 7 $\frac{1}{2}$ "	1' 5 $\frac{1}{2}$ "
60'	2' 6 $\frac{1}{4}$ "	1' 5"
○	2' 5 $\frac{1}{4}$ "	1' 4 $\frac{3}{4}$ "
20'	2' 3 $\frac{3}{4}$ "	1' 4 $\frac{1}{4}$ "
15'	2' 2 $\frac{3}{4}$ "	1' 4"
12'	2' 1 $\frac{3}{4}$ "	1' 3 $\frac{3}{4}$ "
▽	2' 1 $\frac{1}{2}$ "	1' 3 $\frac{1}{2}$ "
10'	2' 1"	1' 3 $\frac{1}{4}$ "
8'	1' 11 $\frac{3}{4}$ "	1' 2 $\frac{3}{4}$ "
7'	1' 11"	1' 2 $\frac{1}{2}$ "
6'	1' 10"	1' 2"
5'	1' 8 $\frac{3}{4}$ "	1' 1 $\frac{1}{2}$ "
4'6"	1' 8"	1' 1 $\frac{1}{4}$ "
4'	1' 7"	1' 3 $\frac{3}{4}$ "
3'6"	1' 6"	1' 1 $\frac{1}{2}$ "

Working with Focar Lenses:

- Approach the subject until its image in the finder is the size you want. Then push an F 1 or F 2 Focar lens — whichever covers that subject distance — over the camera lens mount.
- Measure the distance accurately from the front surface of the Focar to the centre of the subject, and set the distance on the focusing knob of the camera according to the table opposite.
- At full aperture (f/3.5) the image is slightly unsharp, particularly towards the corners. The definition improves, however, at f/5.6 and reaches its normal standard at f/11.
- The Focar lenses have no effect on the exposure time. Longer exposures are, of course, required when stopping down.
- Owing to parallax, the image on the negative is no longer exactly the same as the view in the finder. The displacement amounts to about $\frac{1}{8}$ of the image area with the Focar 1, or about $\frac{1}{4}$ with the Focar 2.

Using Filters

Your Voigtländer lens will satisfy your most exacting demands as far as definition is concerned, but you can greatly enhance the mood of your pictures or obtain special effects with Voigtländer filters. With a few exceptions, therefore, use a filter for all outdoor exposures whenever possible. The sky in particular, with or without clouds, will show up much more effectively with filters.

Do without filters only when you need very short exposure times in poor light, such as sports shots in dull weather, or fog or mist subjects, and the like.

Voigtländer filters are made of spectroscopically tested glass, dyed in the mass, with all surfaces polished absolutely parallel. They thus fully preserve the outstanding definition of the Voigtländer anastigmat lenses. These mass-dyed filter glasses are guaranteed fast to light and heat. All filters are supplied in a push-on mount (37 mm. diameter for the BESSA II) and can be used together with a Voigtländer Focar lens, or the lens hood, or both.

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

This is an all-round filter for outdoor shots. It strongly shows up white clouds against a blue sky, and increases the luminosity of fair hair, ripening wheat, or spring or autumn foliage. It is indispensable for snow scenes. **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 Green Filter Gr

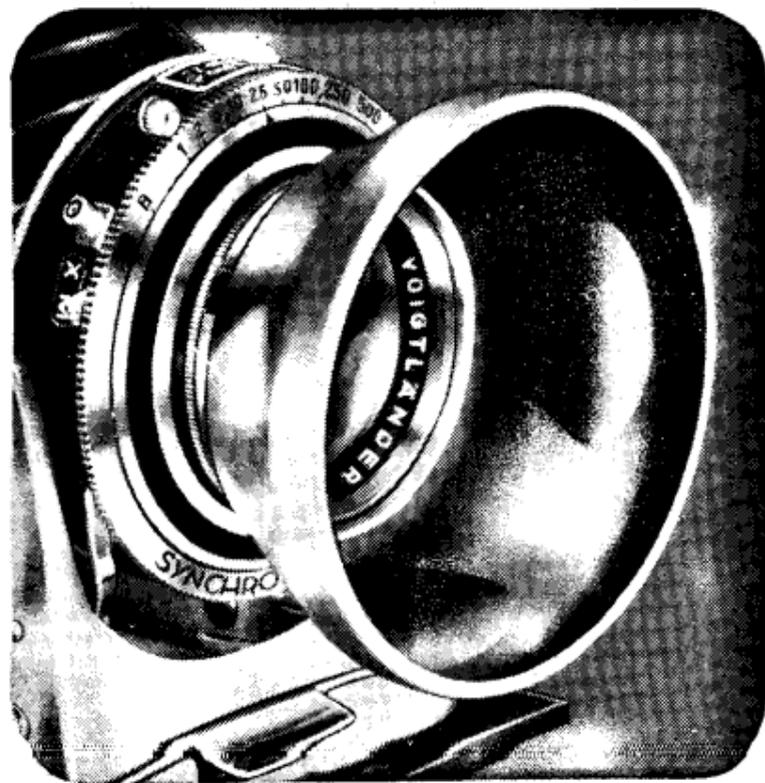
for better reproduction of green in landscapes. When using certain panchromatic films, highly sensitive to red, the action of green is promoted by subduing the red. Consequently too pale lips and too dark eyes are avoided on portraits in artificial light. **Factor:** 3—4 times.

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; $1\frac{1}{2}$ times for colour film.

Shots against the Light



The brilliant outlines and intriguing shadow patterns of these provide some most attractive pictorial subjects. Here the lens hood is an important accessory for it shields the lens from disturbing direct light. Preferably take such subjects with the light coming at an angle from behind.

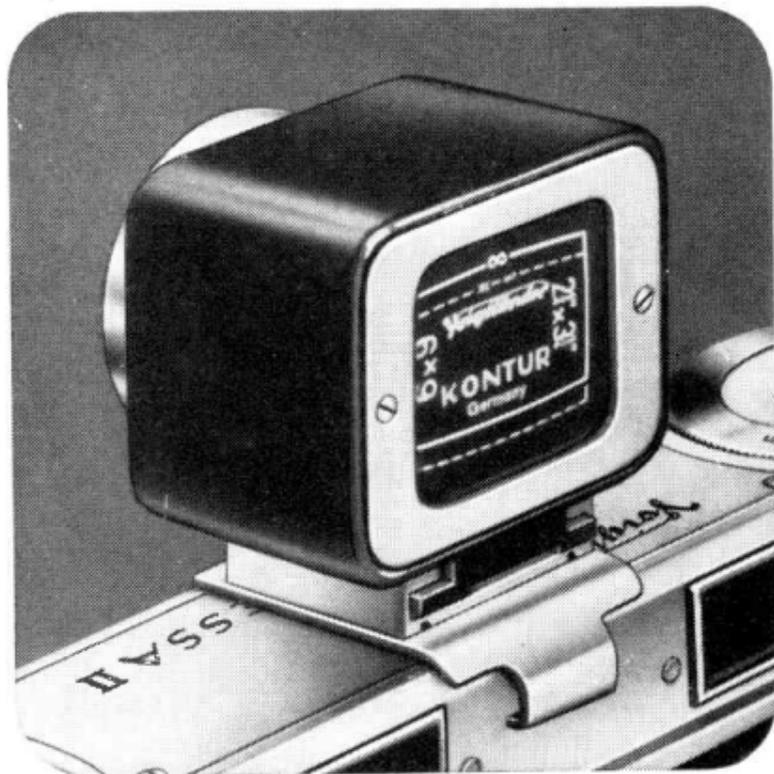
The lens hood is also useful in bad weather, as it protects the lens against drops of water which might fall on it.

The metal lens hood, 37 mm. in diameter for the BESSA II, will fit on the camera lens as well as on top of any Voigtlander filter or Focar lens already mounted on the lens.

The Voigtländer 3¹/₄ x 2¹/₄" view finder "KONTUR" is ideal for following fast moving subjects (sports shots, etc.); it is specially convenient for people who have to wear spectacles (art. No. 335/88). 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 from 3.3 to 6.6 feet.

The finder fits into the accessory shoe while the dotted line shows the parallax is first pushed over the fastening pegs on the top of the camera (right picture). **Note!** Do not allow any direct sunlight to reach the eyepiece of the KONTUR finder.

The View Finder "KONTUR"



Aperture and Depth of Field

The depth of field of a picture is the part of the view which is still reproduced sharply in front of, and behind, the focused distance.

This depth of field is, however, not fixed. It becomes greater the more you stop down the lens; and decreases, the larger the lens aperture used. So remember:

Large apertures (e. g. f/3.5) give little depth of field,

Small apertures (e. g. f/16) give great depth of field.

You can read off the depth of field at any time from the depth indicator. After focusing, the \triangle mark at the top of the indicator points exactly to the focused distance. Below the \triangle mark you will find a series of aperture numbers, with a pair of lines from each leading to the rotating outer ring with the distance scale. The depth of field at any aperture always extends from the distance above the left-hand line to the distance above the right-hand line corresponding to the same aperture (see example on p. 9 under "Snapshot focusing").

Care of Camera and Lens

Successful results and long life of the camera largely depend on correct handling and proper care. So:

- Please treat the camera gently. Never use force; if anything seems to jam, better re-read the relevant sections of this booklet.
- Before loading a film, always remove any dust inside the camera.
- Avoid leaving the shutter tensioned for days on end, particularly when set to the top speed.
- At the seaside carry the camera in its closed ever-ready case to protect it against wind-blown sand. Open the case only when actually taking pictures.
- Never touch the lens surface with your fingers; finger marks will spoil the definition.
- All surfaces, including the outer ones, of the lens carry an anti-reflection coating. To clean the lens use a soft sable brush or a piece of clean soft linen. Grease spots may be removed by careful dabbing with a piece of cotton wool moistened with alcohol.

Films slower than 25° B. S. Log Index (25 ASA)

are extra fine grain films of the highest resolving power, allowing very great enlargement. They need accurate exposures.

26—28° B. S. Log Index (32—50 ASA) Films

are best for average subjects. They are fast and give fine grain.

Films faster than 29° B. S. Log Index (64 ASA)

are useful when short exposures are required in poor light. Their high red sensitivity makes them particularly suitable for artificial light shots.

Remember:

Every increase or decrease of 3° B. S. Log Index (double or half the ASA Index number) halves or doubles respectively the exposure required.

**COMPARISON OF COMMON
FILM SPEED SYSTEMS**

BS. Log Index	ASA & BS.	Din /10°	Scheiner	General Electric	Weston	H & D
20°	8	10	21°	10	6	150
21°	10	11	22°	12	8	200
22°	12	12	23°	16	10	250
23°	16	13	24°	20	12	300
24°	20	14	25°	25	16	400
25°	25	15	26°	32	20	500
26°	32	16	27°	40	24	600
27°	40	17	28°	50	32	800
28°	50	18	29°	64	40	1000
29°	64	19	30°	80	48	1300
30°	80	20	31°	100	64	1600
31°	100	21	32°	125	80	2000
32°	125	22	33°	160	100	2500
33°	160	23	34°	200	125	3200
34°	200	24	35°	250	160	4000

www.orphancameras.com

The smart

Voigtländer -

Ever-Ready Case

for the BESSA II is made of best-quality hide, lined inside, and is fitted with a carrying and neck strap.

This case will hold the camera while taking pictures, without reducing its speed of action in any way, and protect the BESSA against damage.

