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EUMIG C3

DIRECTIONS FOR USE OF THE EUMIG CAMERA C 3.

Although filming with the Eumig Camera is extremely simple, it is nevertheless advisable to study carefully these short instructions, which will enable you to avoid any mistakes and to be successful even with the first film you make.

Any use of force must be avoided as the Eumig Camera will run quite smoothly, as long as it is properly handled. Although the few movements prescribed are very easy to execute, it is advisable to practise the same before starting to take pictures. Almost every difficulty experienced is caused by wrong handling of the camera or by a faulty loading of the film.

Winding up the spring motor.

Before loading the film, the motor spring must be wound up by turning key 1 (Fig. 1) to the right, in a clockwise direction. The motor spring is exceedingly strong and, on one winding, will operate about 8 feet of film quite regularly and smoothly, which corresponds to a projection period of about 40 seconds, at the speed of 16 pictures per second. Nevertheless it is advisable to wind up the camera after each shot. If the camera is not to be used for some time, it is advisable to let the motor spring run down, without loading the film, in order to preserve the spring.

Setting of the footage (metre) indicator.
Now the footage indicator 2 (Fig. 1) is pressed down and turned forward until the red mark between the figures 0 and 25 (7½) is exactly opposite the red mark on the ring surrounding the indicator disc.

Adjustment to film speed.
The red dot on the turning knob 3 (Fig. 1) is turned forward to the letter corresponding to the speed of the film used, viz.:

	Scheiner	Din	ASA	Weston
A	17°	7/10	3	2,5
B	20°	10/10	6	5
C	23°	13/10	12	10
D	26°	16/10	25	20
E	29°	19/10	50	40

The film material has not always the same speed, and we recommend therefore that, before using a new kind of film, a trial exposure should be made and developed. Naturally, any intermediate adjustment (e. g. between C and D) can be selected, if required. This kind of adjustment refers to the reversal process, and applies equally to daylight and artificial light, as our special selenium cell gauges chiefly or only the actinic light, i. e. those rays which principally affect the film emulsion.

Colour films:
In the Eumig Camera C 3 any colour film may be used in the same way as black and white films, without

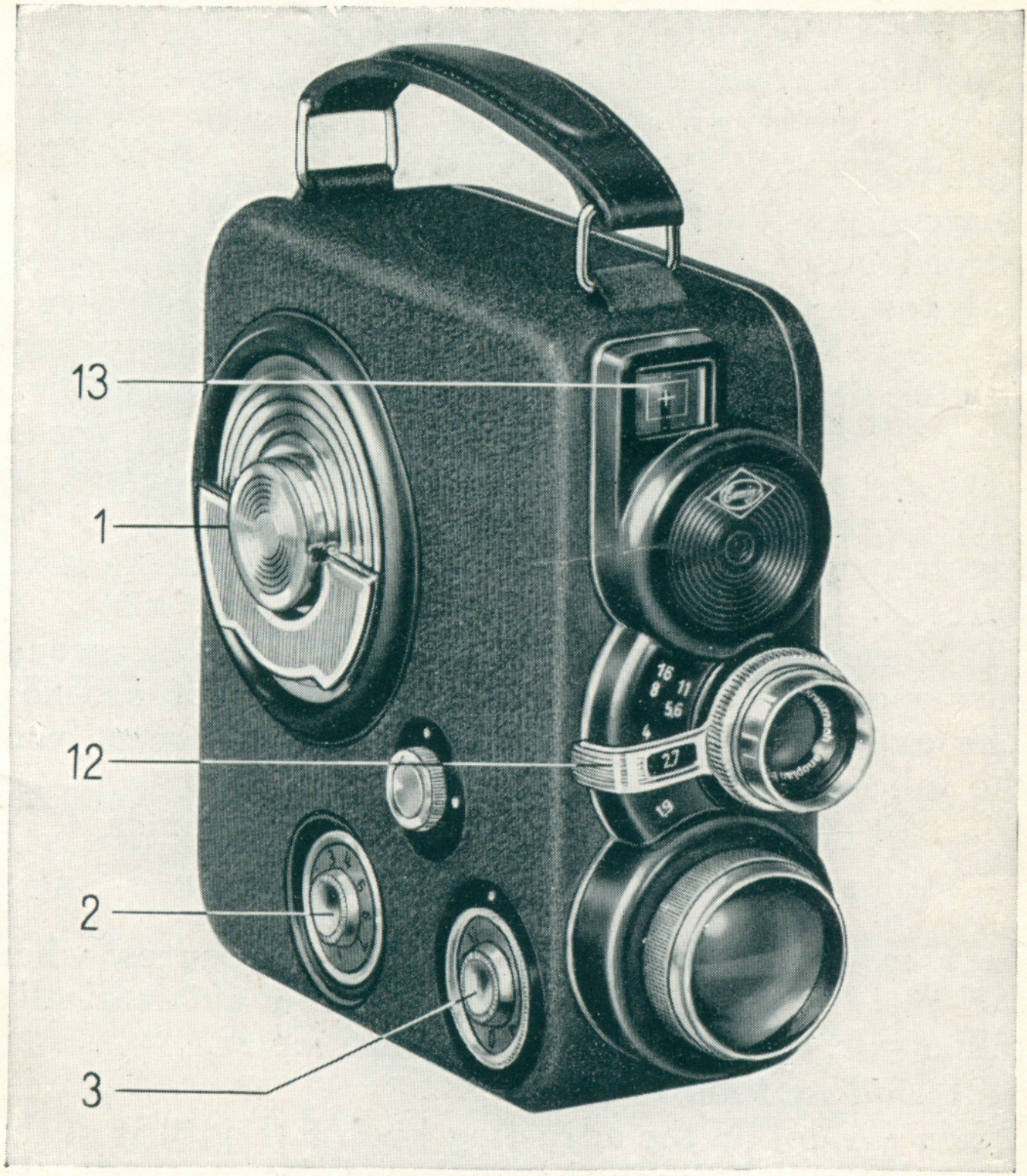


Fig. 1

using any filters. The adjustment to the film speed is in this case done exactly in the same way as described in the preceding chapter.

Speeds.

(Normal, Fast, and Slow Motion.)

Connected with the turning knob 3 (Fig. 2) is the setting to the desired speed, i. e. 8 to 32 pictures per second. By turning disc 4 (Fig. 2) the speed of exposure can be altered and the exposure meter is at the same time automatically adjusted to the altered speed. Care must be taken when doing so, not to alter the film speed which has been set. The red dot of the regulator of the film speed must remain on the same letter.

The normal exposure speed is 16 pictures per second, corresponding to an exposure of about 1/36 seconds. The exposures at various speeds may be seen from the following table:

8	pictures	per	second . . .	1/18 seconds
16	„	„	„ . . .	1/36 „
32	„	„	„ . . .	1/72 „

As already mentioned, the varying exposures, when the picture frequency is varied, are automatically taken into account by the exposure meter.

Stills and continuous running.

When the dot on the adjusting knob 5 (Fig. 3) is at the top, the camera can be operated by pressing the release knob 6 (Fig. 3) at the back of the camera. If

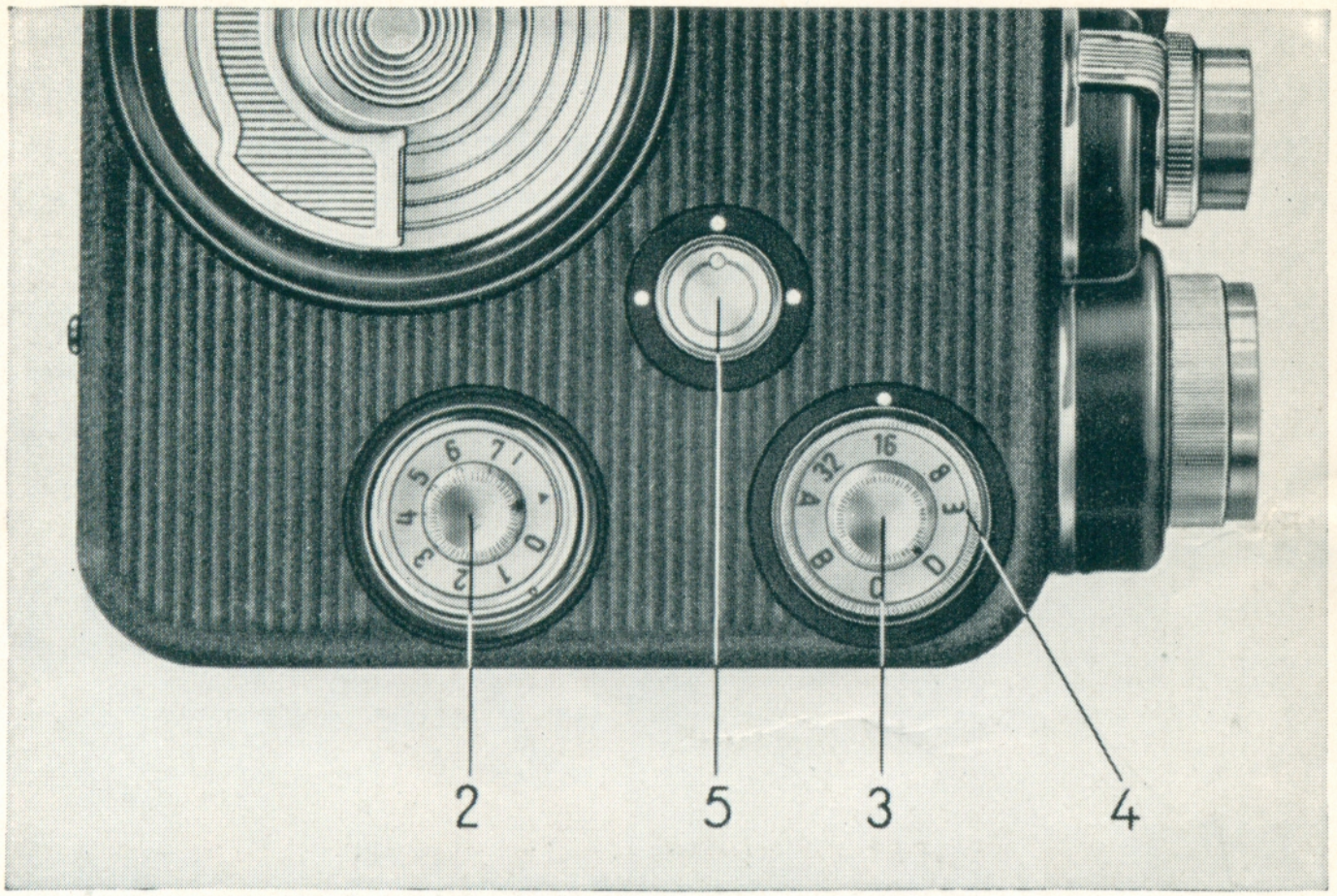


Fig. 2

the knob is turned to the right, in a clockwise direction, the mechanism is adjusted for continuous running which enables one to take pictures of oneself.

By turning this knob to the left, the mechanism is automatically locked. In this case single exposures can be made, by screwing the distant cable release, which is supplied with each camera, into the release knob 6 (Fig. 3). For this purpose, it is advisable to set the camera on a firm support or on a tripod, in order to avoid any shaking or movement of the camera while

the individual exposures are made. On account of the reduced initial speed of the spring motor the exposure time is about 1/10 seconds. It is therefore necessary to reduce by two stops the diaphragm setting indicated by the position of the indicator in the finder (see chapter **„Exposure“**). So, if the reading of the exposure meter with a frequency of 16 pictures per second, gives stop 8, when operating for single pictures stop 16 must be used.

Loading the film.

(As far as possible, this should not be carried out in bright sunshine.)

The Eumig Camera is opened by giving a quarter turn to the knob on the left-hand side of the camera, and by taking off the lid.

The standard 25 feet (7½ metre) spool for double 8 mm. film is placed on the upper spool spindle, in such a way that the film runs out on the left-hand lower side. One must carefully follow the film path as indicated in the camera (see illustration No. 4). The film is transversally inserted between the film gate 9 (Fig. 4) and the pressure pad 10 (Fig. 4), as is clearly shown in illustration 5, until the automatic gate closes again. The beginning of the film is then fastened in the slot of the lower, empty spool, and the latter is so mounted on the lower winding-up core that the indication “I“ is visible. The spool must firmly rest on the bottom of the camera.

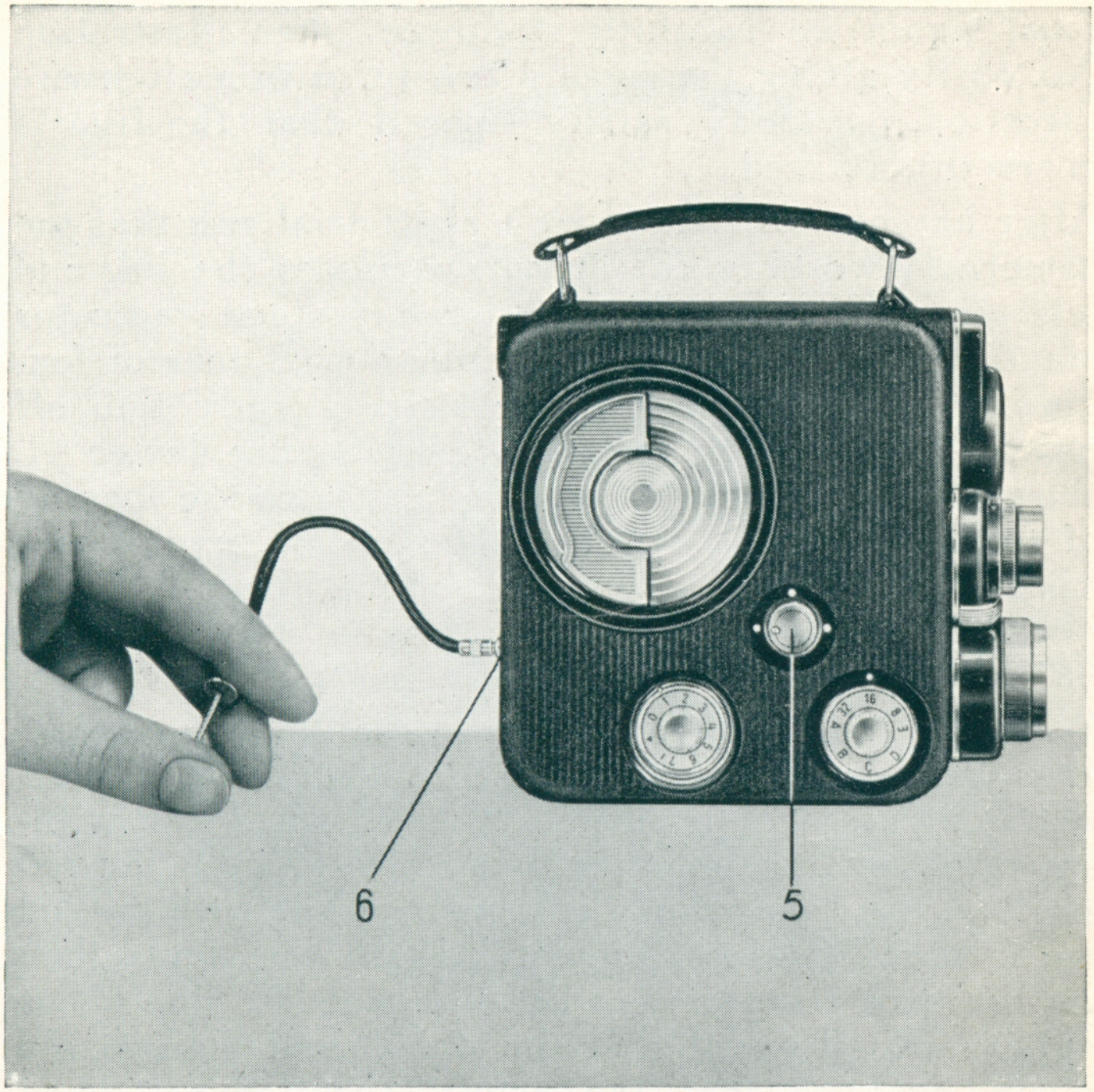


Fig. 3

If the beginning of the film is too short to fasten it easily on to the lower spool, it is advisable to let the mechanism run a little while. The film track indicated

must again be carefully followed. (See illustration No. 4.) By giving the spool a few turns in a clockwise direction, one may satisfy oneself that the film is correctly attached.

After having ascertained by a short trial run that the camera is working correctly, one closes the lid, and lets the clockwork run until the footage indicator stands at 0. One can now expose without fear of fogging the picture, as the film strip already run off protects the film against this. The looping device 11, shown in illustration 4, greatly facilitates the loading of the film, and by its special operation, avoids any kind of trouble in the transport of the film.

Reversing the film.

When the footage indicator stands at 25 (7½), exposures must be interrupted as the film must now be reversed. For this purpose, one lets the mechanism run, without exposing, and with the cover closed, until the red mark on the footage indicator corresponds with the red mark on the disc which encircles the same. Only then has the protecting strip of the film run off. One opens the camera (if possible in the shade) and changes the spools over, so that the empty spool comes down below, while the full spool, **reversed** (the mark "II" being now visible), is so fastened on the upper spool spindle that the film again comes out on the left-hand lower side. After the film has been properly loaded,

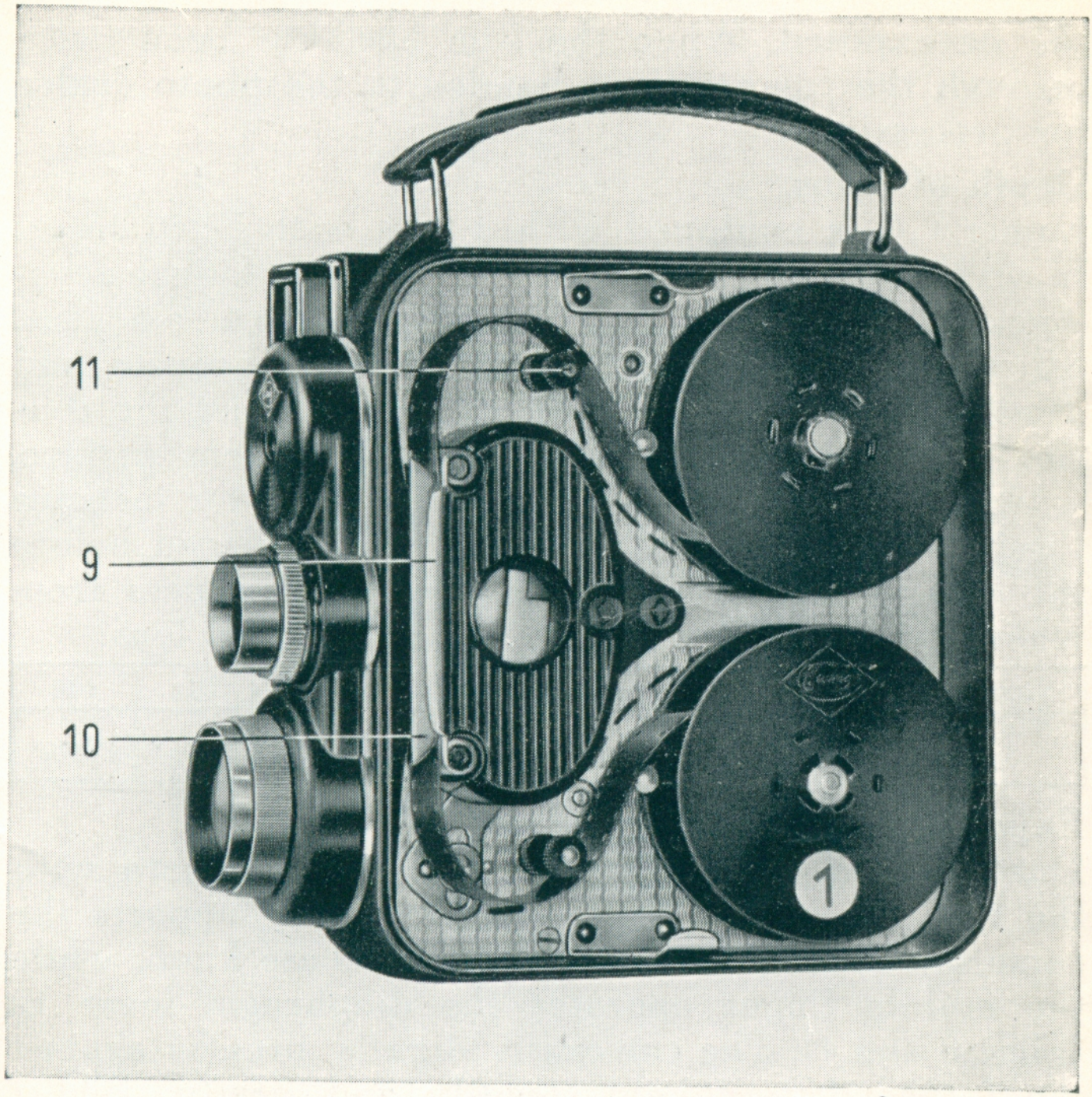


Fig. 4

as already described (see chapter **"Loading the film"**), and after the protecting strip has again run off (footage indicator standing at 0), the second half of the film

can be exposed. When the film has thus been twice through the camera, it is handed to the photo dealer for processing.

Depth of focus.

Eumig C 3 is equipped with a lens with fixed focus. In accordance with the latest stage of technical development, the camera is fitted with a coated lens, which gives pictures of needle point sharpness and utmost brilliance. When reflecting the light, the coating appears as a blue colouring of the lens surface, which, however, has no filtering effect, as for instance the different colour filters, that can be placed before the lens. We give below the shortest distances from which one can film without a supplementary lens:

Stops	f:1.9	2.7	4	5.6	8	11	16
Minimum distance from subject . . .	2'6"	2'3"	2'	1'9"	1'6"	1'3"	1'

Exposure.

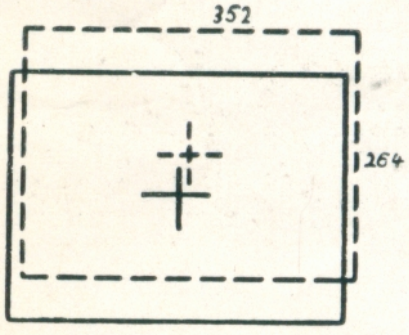
During exposure, it is best to hold the camera with the left hand. With the right hand one supports the camera, the thumb resting on the release knob, while the middle finger operates the diaphragm lever 12 (Figs. 6 and 1). The camera is slightly pressed against the forehead, and held steadily and firmly. Whilst selecting the picture in the finder, the pointer, likewise visible in the finder, is at the same time brought into line with the cross marked in the finder, by operating the shutter lever. The correct aperture of

Fig. 5

the diaphragm of the lens is thus automatically obtained. Any movement with the camera during exposure should be made very slowly and evenly.

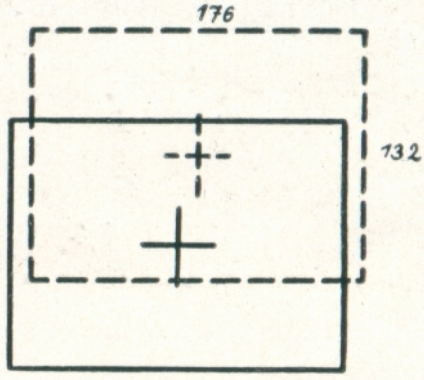
For pictures taken at a distance of 2 metres (6'7"), the view finder 13 (Fig. 1) has a mark (—2—) showing the upper limit of the picture. For pictures to be taken at a distance of less than 5 feet (1.5 metres) it is recommended to use a portrait attachment. In such cases the picture visible in the finder does no more coincide exactly with the picture on the film, because the optical axis of the finder and the axis of the lens are not the same. With the Eumig Camera C 3 this Parallax, as it is called, amounts to .59 inch in a horizontal and 1.93 inch in a vertical direction. From the following illustrations it can be seen to what degree pictures taken from various distances will be affected by the parallax, which in itself is however invariable. The dotted lines represent the picture visible in the finder, while the full lines are for the picture really taken on the film.

Portrait attachment 100 cm.



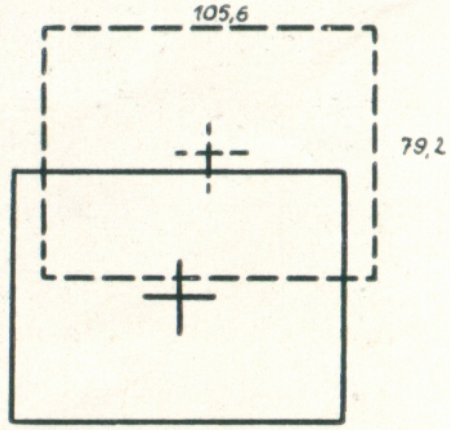
Distance from object:
3'3 1/3"
Field of vision:
1'1.86" x 10.4"

Portrait attachment 50 cm.



Distance from object:
1'8"
Field of vision:
6.93" x 5.2"

Portrait attachment 30 cm.



Distance from object:
1 foot
Field of vision:
4.16" x 3.12"

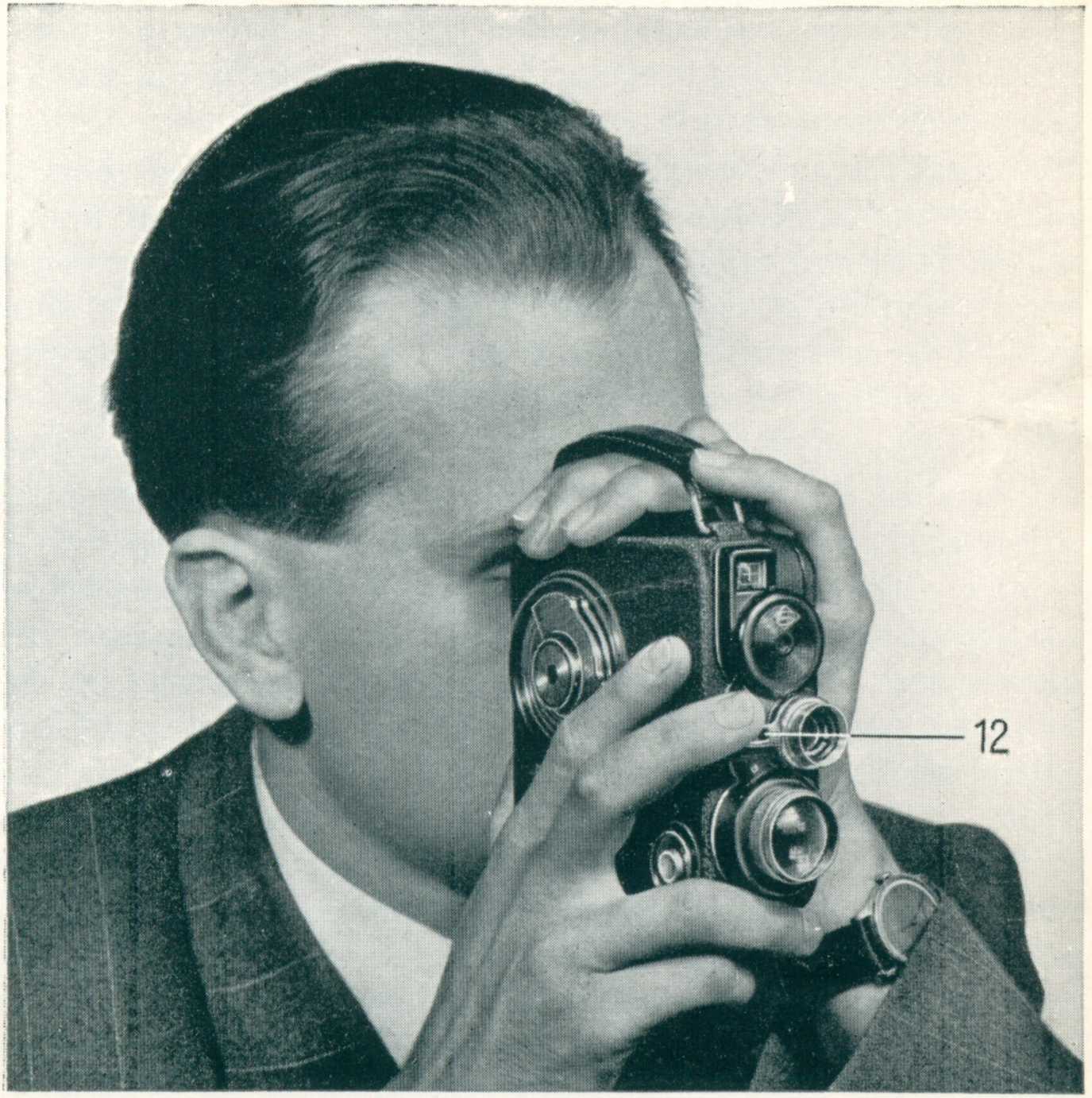


Fig. 6

The central point of the field of vision must therefore be moved somewhat downward in the finder, as is shown by the above illustrations.

For pictures taken with the tele attachment EUMAKRO 2 × the exact field of vision is shown by the smaller rectangle in the finder.

By completely pressing the release knob, the mechanism is set in motion, and by the evenly buzzing noise, which is heard, one knows that the camera is working regularly. In general, the length of every single shot should be at least half a metre (1'8"), which at 16 pictures per second corresponds to about 8 seconds.

When exposing against the light, special care must be taken that the rays of the sun do not strike the selenium cell or the camera lens. If during exposure there is any alteration of light, the shutter can be adjusted by moving the shutter lever, without interrupting the exposure. If the pointer in the finder cannot be brought towards the right into the central position, although the shutter lever is at the lowest position, the light is too weak, and the pictures would be underexposed. If, on the other hand, the pointer cannot be brought towards the left into a central position, even when the shutter lever is as high as possible, the light is too strong, and the pictures would be over-exposed. In this case, use our grey filter and metal filter with 3 slits (see chapter **"Exposures with filters and/or artificial light"**). When lighting conditions are bad, one can perhaps help oneself out with the speed of 8 pictures per second, whereas, when lighting is excessive, correctly exposed pictures may be obtained

with the speed of 32 pictures per second. It is true that pictures so taken have the effect of fast and slow motion respectively. Deviations of the pointer in the finder by the width of the pointer to the right or left of the middle of the finder cross may be neglected as of no effect on the final result. **In exceptionally difficult circumstances, and to gauge the brightness of a particular subject, one may go quite close up to the subject, regulate the pointer and then, with this adjustment, make the exposure from the desired viewpoint (e. g. a person in dark clothing against a light field of snow).**

Exposures with filters and/or artificial light.

In particularly strong light, or if one wants to obtain special kinds of pictures, we recommend the use of our special double filters, which, on the one hand, retard the passage of light and, on the other hand, increase the effect of the pictures, thus giving them a more artistic value. If for any reason one wishes, or is compelled to, use the filter, one simply places the two filters in position, one in front of the cell and one in front of the lens. There is no need of any special conversion, or of taking into account the factor of prolongation of exposure for the respective filter. It is a matter of course that, when taking pictures in artificial light, the sources of light (home lamps) must be so disposed that the light does not fall directly on to the cell or lens.

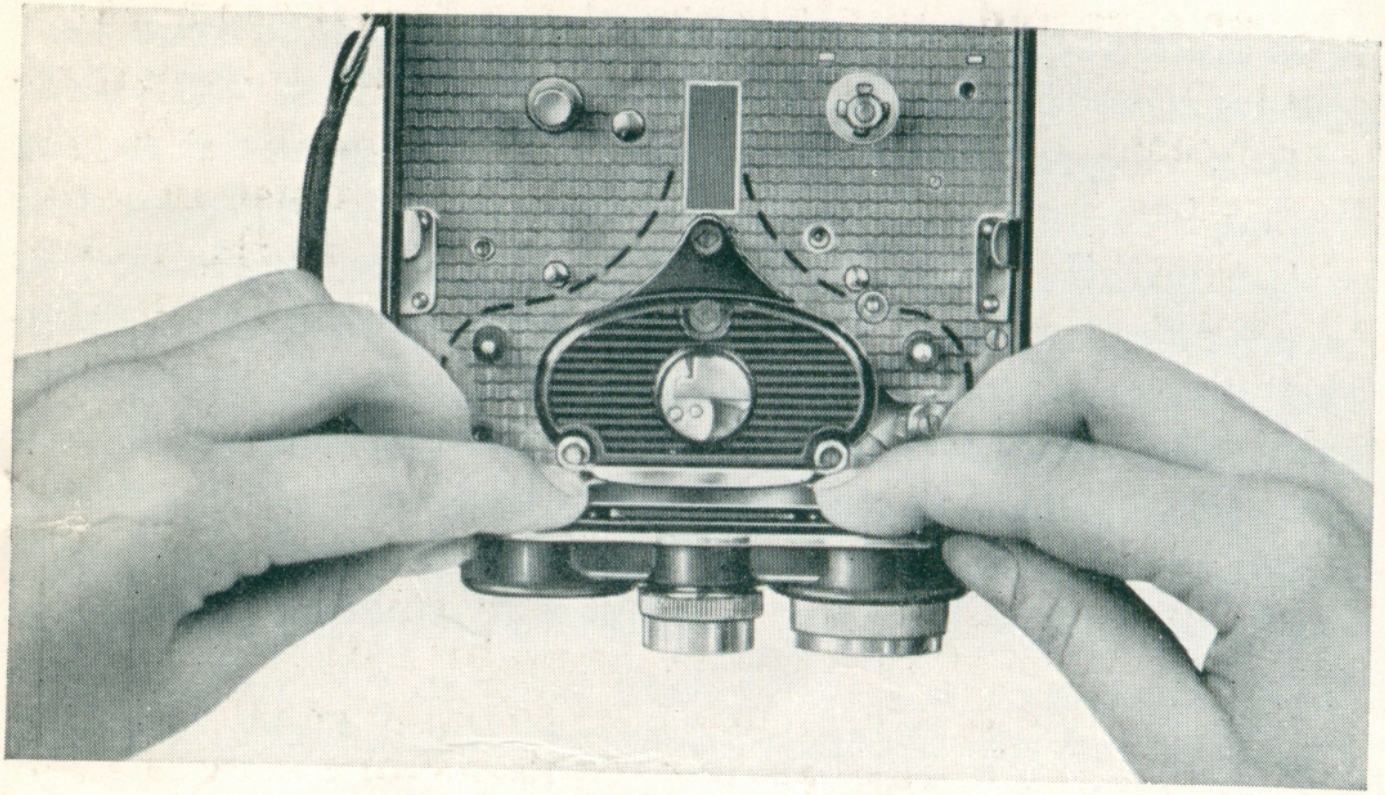


Fig. 7

Moreover, when taking pictures in artificial light, it is absolutely necessary, for measuring the light, to come as close as possible to the subject to be photographed (say 1 or 3 feet), so as to avoid any misleading results, as might be caused by those parts of the room which are not fully illuminated by the home lamps.

In the case of portraits, trick pictures, and titles, it has proved particularly useful, for measuring the light, to display an unfolded sheet of newspaper instead of the actual subject. The black and white structure of ordinary daily papers will then allow an exact measuring of the average degree of brightness.

Proper care and maintenance of the Eumig Camera.

From time to time one should clean the lens with a fine brush. The lens coating is to be treated with special care. The brush used for cleaning must be very soft, entirely dry and absolutely clean. If the lens is too much soiled for being cleaned with the brush, it is recommended to breathe on the lens and to clean it with an especially soft doeskin, however, without any pressure or friction. In very cold weather the lens easily gets misty when taken into a warm room; one must pay attention to this, otherwise one gets cloudy pictures. One should make a habit of pushing the shutter lever up, after each exposure, so as to close the cell diaphragm. Just as one protects one's eyes from the bright rays of the sun, so should the electric eye of the camera not be unnecessarily exposed to the sun. Similarly, one should protect the camera from great heat. The film track must be cleaned from time to time with a soft cloth or leather. On no account must the film path be scratched. The cleaning operation is very easy. The film gate is pressed down with both hands by its side springs against the lens, and lifted out of the camera (see illustration No. 7). Replace it in the same way after cleaning.

The Eumig Camera is a precision instrument and must be treated as such.

EUMIG, VIENNA X, AUSTRIA

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