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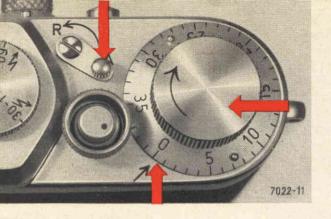
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Leica III g

INSTRUCTION BOOK



# Turn the Transport Knob

in the direction of the arrow as far as it will go. This tensions the focal plane shutter and at the same time advances the film by one frame. Make sure that the reversing lever is fully pushed to position "A" (if set between "A" and "R", the transport mechanism is locked).

## The Film Counter

automatically indicates the number of exposures made. After loading the film, set the counter disc to 0. The disc can be turned by its small lug against the direction of the arrow on the transport knob.

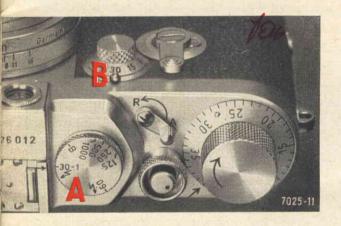


## The Release Button

Press the release button with your right index finger — press gently, don't jar it! Careless releasing will impair the sharpness of your pictures. As there are different, ways of releasing for upright and horizontal shots, be sure to hold the camera steady (pages 14–15).

## Setting the Shutter Speed

The LEICA III g has two shutter speed dials: the fast speed dial (A) on the top of the camera, and the slow speed dial (B) on the front. The complete range of settings covers shutter speeds from  $^{1}/_{1000}$  to 1 second, as well as time exposures of any duration. The steps are chosen so that each setting yields half or double the exposure time of the next lower or higher setting respectively. As a general rule, remember that the speeds marked on the fast shutter speed dial ( $^{1}/_{30}$  to  $^{1}/_{1000}$  second) are suitable for hand-held exposures. For the speeds slower than  $^{1}/_{30}$  second it is advisable to mount the camera — at least in the beginning — on a firm tripod, to avoid camera shake.



# The Fast Shutter Speed Dial

The engraved figures indicate fractions of a second, e.g.  $1000 = {}^{1}/_{1000}$  second,  $125 = {}^{1}/_{125}$  second. The speed set can be read off opposite the arrow only when the shutter is tensioned. To change the shutter speed, lift the speed dial, turn it to the required speed, and let it drop into position again. No intermediate settings are possible. The fast shutter speed dial rotates as the shutter runs down,

and will show the correct setting only after the shutter has been tensioned again. The fast shutter speed dial also carries two flash symbols ( $\frac{1}{2}$ ) in red and black, which are only required for flash synchronization (pages 24–27). At the B setting the shutter remains open as long as the release button is depressed. The shutter speeds from  $\frac{1}{30}$  to 1 second are set on the slow speed dial. In that case the fast speed dial must first be set to 30–1 or to the red  $\frac{1}{2}$  mark.

## The Slow Shutter Speed Dial

sets an escapement which controls the speeds from  $^1/_{30}$  to 1 second. A small spring catch engages at  $^1/_{30}$  second; the slow speed dial can only be turned if you first push back this spring with the thumb nail. The figures are easily readable from above, and indicate shutter speeds of  $^1/_{15}$ ,  $^1/_8$ ,  $^1/_4$ ,  $^1/_2$ , and 1 second. Unlike the fast shutter speed dial, the slow speed dial can be set to intermediate positions, e. g.  $^3/_4$  second between  $^1/_2$  and 1 second.

On releasing at the T setting, the shutter opens and remains open. It only closes on turning the slow speed dial away from this setting. This is useful for photomicrography and other special purposes.

Remember always that the slow speed dial yields the right speeds only if the fast speed dial, after tensioning, is set to 30-1 or to the red ½ mark.



# The Delayed Action Release (Self-timer)

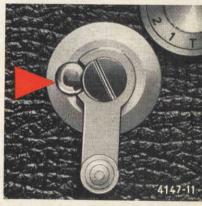
Turn the self-timer lever downwards until it locks. To release the self-timer, press the small button at the side, but first check that the shutter is tensioned, for only then can it be released by the self-timer.

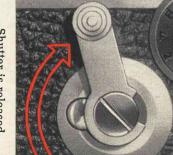
The delay is about 8-10 seconds, you thus have plenty of time to take your place in the picture. By observing the movement of the lever as the mechanism runs down you can not only hear but also see the moment of exposure, since the lever releases the shutter always in the same position during its return.

Before the self-timer releases the shutter, it can always be stopped and re-tensioned. The shutter can also be released in the normal way when the self-timer is tensioned. When the shutter is not tensioned, the self-timer can be released without opening the shutter. It is not advisable to keep the self-timer permanently tensioned.

The self-timer can be used with all shutter speeds from 1 to  $^{1}/_{1000}$  second and with time exposures, as well with synchronized flash of all types. See also pages 24–27.







Shutter is released after 8—10 seconds

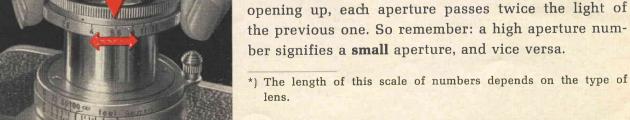


# **Extending the Lens**

When not in use, the collapsible lenses of the LEICA can be unlocked by turning the front slightly anticlockwise, and pushed into the camera body. For use, pull out the lens as far as it will go, and lock by turning to the right.

## Setting the Aperture

Turn the lens of your LEICA to the light, and rotate the aperture ring. You can then see through the lens components how the iris diaphragm opens and closes. The aperture or f-numbers - 2 - 2.8 - 4 - 5.6 - 8 - 11 - 16 - 22 - 32 - are a measure of the amount of light reaching the film\*). They are chosen in such a way that closing down the aperture from each number to the next reduces the light by one-half. Conversely, on opening up, each aperture passes twice the light of the previous one. So remember: a high aperture number signifies a small aperture, and vice versa.



## Focusing the Lens

The standard 5 cm. lenses of the LEICA focus from "infinity" to  $3^{1}/_{2}$  feet. The focusing lever locks in the infinity position. To release the lever for focusing on nearer distances, depress the button at the end of the lever.



Catch locking the lens at the infinity setting

Releasing the infinity catch for focusing

## The Distance Scale

The scale conveniently shows the focused distance, and at the same time indicates the depth of field at the aperture used.



# The Depth of Field Scale

The picture reproduces with maximum sharpness those parts of the scene which are at the exact distance on which the lens is focused. This maximum sharpness **gradually** falls off in front of, and behind, this distance, resulting in a certain zone within which everything is still acceptably sharp. The smaller the aperture used, the greater will be the depth of this zone of sharpness, i. e., the depth of field.

To find the limits of this zone, look at the depth of field scale of your lens. If, for instance, you have set your 5 cm. lens to 15 feet, the useful depth of field with an aperture of f/4 extends from about 13 to 18 feet. At f/8, it would cover a field from about 10 to 25 feet. (See illustration 1).

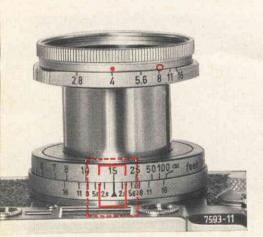


Fig. 1

If you now look at the various distance settings, you will notice that the depth of field obtainable is appreciably less at near distances than at far ones. For instance, at f/8 and 5 feet, the depth covers a zone from 4'5" to 5'9" feet (see illustration 2); while at f/8 and 25 feet the depth extends from 14 to 100 feet (see illustration 3).

# Zone Focusing for Snapshots

with the 5 cm. Lenses

Near zone: Focus on 10 feet at f/8, to obtain a zone

from 8 to 15 feet.

Far zone: Focus on 35 feet at f/8, to obtain a zone

from 17 feet to infinity.

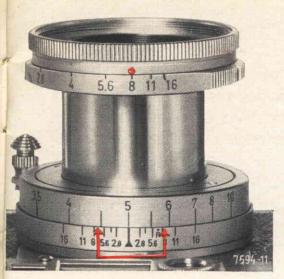


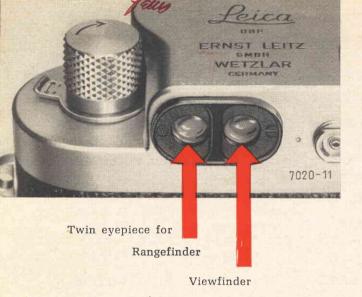
Fig. 2



Fig. 3

# **Useful Rules for Stopping Down**

- 1. The plane of maximum sharpness is always at the distance on which the lens is focused. Focus, therefore, on the centre of interest of the subject.
- 2. For distant views without foreground set the lens to infinity and use a medium aperture e. g. f/5.6 or f/8.
- 3. For portraits use a large aperture about f/2.8 to f/4 to subdue the background, and possibly the foreground, by keeping them slightly unsharp.
- 4. Landscapes with foreground, views in town, and interiors usually require great depth of field. Measure the near and far limits of the zone of sharpness required, and set them on the depth of field scale, so that both are opposite similar aperture figures. This aperture, together with the distance read off in the centre, are the correct settings.
- 5. With candid and action shots there is often no time for exact focusing with the rangefinder. In that case use a zone focus setting for the required depth zone.

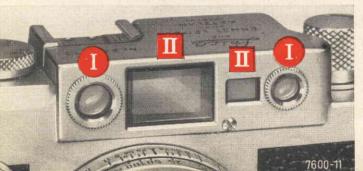


# The Twin Viewfinder and Rangefinder Eyepiece

The twin eyepiece combines the eyepieces of the viewfinder and the rangefinder. A slight movement of the eye is sufficient to change from the one to the other. The eye should be close to the eyepiece, with the eye socket in contact with the LEICA body.

Window for

- I Rangefinder
- II Viewfinder and brilliant frame



For users with defective eyesight, correction lenses are available for the twin eyepiece, to take the place of spectacles. This has the advantage that the eye can get really close to the eyepiece, and permits photographers with even strong eyesight defects to see the whole field of view in the viewfinder and rangefinder. The correction lenses are made according to the optician's prescription for distance glasses.



## The Reflected Frame Finder with Automatic Parallax Compensation

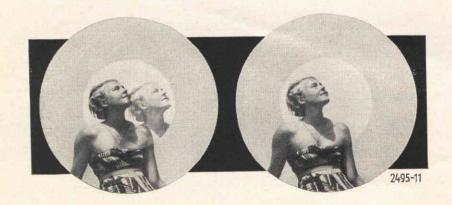
On looking through the right-hand finder eyepiece, you will see the exact field of view for the standard 5 cm. lens outlined by a bright frame. The corner marks visible at the same time in the finder indicate the field of view for the 9 cm. lens.

An ingenious adjustment of the reflected brilliant frame compensates automatically for parallax during focusing, and covers the full focusing range of the lens.

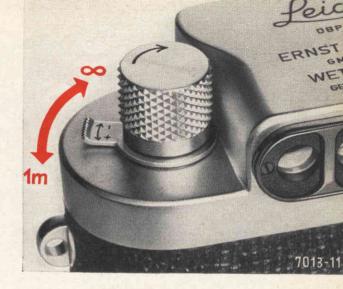
Special viewfinders can be fitted in the accessory shoe (9) for lenses with focal lengths up to 13.5 cm.

# The Coupled Rangefinder

The left-hand aperture of the twin finder eyepiece is the rangefinder eyepiece. Measurement of the distance is automatically coupled to the focusing movement of the lens. The measuring accuracy is exceptionally high, as a magnifying eyepiece shows the subject under observation on a larger scale than the unaided eye. With the lens set to infinity, any nearer object appears with double outlines in the rangefinder field. Turning the helical focusing mount of the lens will bring these two images nearer together until they fuse into one when the lens is set to the correct distance. The LEICA lenses in screw mount with focal lengths up to 13.5 cm. are automatically coupled to the rangefinder as soon as the lens is screwed into the camera.



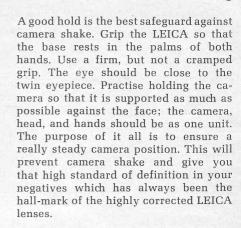
To utilize the maximum accuracy of the rangefinder, always use the centre of the rangefinder field. For the beginning, we therefore recommend the following method: Place the index finger of your left hand over the window showing the direct rangefinder image - the small external rangefinder window - so that only a small bright circle is visible in the eyepiece. Sight the subject in the centre of this circle. If you uncover the rangefinder window again, you will see a double image of the subject within a larger round area. Now move the focusing lever of the lens until the double outlines coincide. That is the point of correct focus. With this method you use exactly the centre of the rangefinder field. After some practice in rangefinding you can of course do without covering the rangefinder window. A good way with near subjects is to set the distance, and compensate for small changes by moving the whole camera forward or back.



# Focusing the Rangefinder Eyepiece

A small lever permits adjustment of the magnifying eyepiece of the rangefinder for near and distant subjects. This at the same time provides correction for minor defects of eyesight between +2 and -4 dioptres. Move the small lever until you obtain the best sharpness to suit your own eyesight.

## Holding



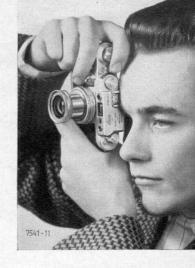
Press the release button smoothly and gently, never jerk it. Move only the index finger, not the whole hand. At first try it with shutter speeds of  $^{1}/_{60}$  second or faster; after some practice you will eventually be able to expose even slower shots without camera shake

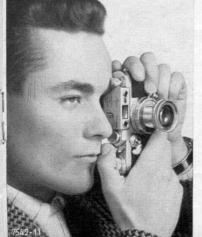
If you find it more convenient, the left eye is just as suitable for viewing as the right one.



#### the Camera

When you want to change from horizontal to vertical shots, turn the LEICA upright about the optical axis of the finder. The camera hold does not change much. Grip the LEICA in the same way as for horizontal views.





Alternatively, you can also bring the right hand down for upright pictures, and release with the thumb. Grip the camera so that the tip of the thumb rests against the release button, and the fingers exert a counterpressure on the base plate. Focus the lens with the left hand, and support the upper part of the camera against your forehead. This hold makes for particularly smooth releasing.

www.orphancameras.com



### The Interchangeable Lenses of the LEICA III g

You have a choice of focal lengths from 2.8 to 40 cm., and have at your disposal even lenses with the exceptional aperture of f/1.5. With this range you can chose your viewpint at will, and have complete control over the field of view and perspective. You can make the fullest use of the pictorial possibilities available. Every one of these lenses represents the

peak of achievement possible at the present-day level of scientific research and production.

## **Changing Lenses**

When changing the lens, hold the camera in the left hand. With the right hand grip the lens by its focusing mount close to the camera body, and unscrew by turning anti-clockwise. Screw in the new lens clockwise; do not tighten excessively. Lenses with infinity lock should be locked at infinity for changing.

Avoid changing lenses in strong direct light. Turn your back on the sun, and hold the camera opening towards your body. If you keep the camera and lens separately, use a protective cap for each.

Any high class lens can yield its maximum performance only if the two outside glass surfaces are in perfect condition. And it is much better to keep the surfaces clean than to keep cleaning them. A light yellow filter (with black-and-white film) or a colourless ultra-violet filter (with colour film) that is permanently left on the lens will protect the surface against outside influences (e. g. fine sand on the seaside).

To remove dust from the lens surface use a soft camel hair brush, or in an emergency a clean linen rag previously washed with pure washing soap. (Other washing or cleaning agents may leave harmful chemical residues.)

Every LEICA lens with screw changing mount will fit every LEICA body with screw mount.





### In its Ever-ready Case

the LEICA III g is protected against the weather and minor knocks, but is always ready for action. As it is held in the case by a screw it will not easily get lost.

When taking upright pictures, keep the lid of the case well clear of the lens. See illustration,



correct

#### Filters

improve the tone values of black-and-white pictures. The yellow and orange filters in particular bring out pictorial cloud effects. The new truly neutral LEITZ polarizing filters are also useful in colour photography, for they subdue disturbing reflections from glass, water, and varnished surfaces (though not metals) and increase the contrast of clouds against a blue sky.

#### Lens Hoods

protect the lens against direct rays of strong light sources that can give rise to flare, and also against rain and snow. Lens hood and filter can be used together; provided the correct hood is used for the lens, it will not cause vignetting (i. e. cutting off of the corners of the negative field). If you use the ever-ready case for the LEICA III g with SUM-MARIT f/1.5 lens (ENSOO), the lens hood can remain permanently in the ever-ready case; simply invert it over the lens.



#### **LEICA Films**

Perforated 35 mm. film, as used in the LEICA, is supplied by film manufacturers all over the world. It is available in several packings and a wide range of emulsion types for various purposes.

Daylight cassettes consist of a light-tight shell, containing a length of film sufficient for 20 or 36 exposures 24×36 mm., for loading into the LEICA by daylight (no darkroom required).

Daylight refills contain the same length of film wound up on a spool and protected against the light by a paper leader. They are intended for loading into empty LEICA cassettes by daylight, and are then handled like daylight cassettes.

Darkroom refills contain a suitably trimmed length of film for spooling onto the centre spool of the LEICA cassette in the darkroom.

 $35\ mm.\ bulk\ film$  is available in lengths of 5 metres upwards in light-tight tins. They are designed for cutting and loading into cassettes in the darkroom — see instructions for the LEICA cassette.

Black-and-white films are available in all these packings, positive film and other special emulsions only as bulk film, and colour films usually only in daylight cassettes.

Of the various film characteristics we shall mention only the speed, as this is important for correct exposure.

firstclass enlargements. of about  $32 \, \text{to} \, 64 \, \text{ASA} \, (17/10^{\circ} \, \text{to} \, 20/10^{\circ} \, \text{DIN})$  are ideal as all-round material for most purposes. They yield brilliant images, fine grain, and high resolution, with appreciable exposure latitude, and the negatives produce Medium speed emulsions

High-speed emulsions of about 100 to 200 ASA (22/10° to 25/10° DIN) or more are special films for exposures in poor light (interiors, theatre, and night shots), as well as short exposure times (sports photography). Fineness of grain and resolving power are limited.

Slow emulsions of about 10 to 25 ASA (12/10° to 16/10° DIN) are special films yielding the finest grain and highest resolution to reproduce minute detail. They are suitable for copying, architectural photography, and scientific work.





Now take the take-up spool in the left hand, and the freshly loaded cassette in the right, both with the spool knobs pointing down. Push the beginning of the film under the clamping spring of the take-up spool as far as it will go. The perforated film edge must lie close against the spool flange, as shown in the illustration.

## **Loading the Camera**

Although daylight cassettes and closed LEICA cassettes are light-tight, avoid loading or unloading the camera in direct sunlight or strong artificial light. The shade of your own body will provide adequate protection. Also, do not leave exposed or unexposed cassettes lying about, but keep them in a cassette tin until you are ready to use or develop them.

Before opening the camera, make sure that it does not already contain a film. To do that, pull out the rewind knob and turn it in the direction of the arrow. If you feel a resistance, first rewind the film fully and unload the camera as described on page 23.

Turn the key in the base plate in the direction marked "auf — open", and lift off the base plate. The special LEICA cassette and the take-up spool are now easily removable. Place the camera in front of you on the table, with the open base upwards, and the camera back facing you.



Before inserting a new cassette, move the reversing lever (4) fully to "A" (advance). If the lever is not fully pushed to "A", the film transport and shutter release are locked. Check that everything is in order by winding the transport knob and releasing the shutter.

Next, draw out just enough of the film leader from the cassette to unable you to insert the two parts — take-up spool and cassette — into the camera. The milled spool knobs should point upwards, while the film slides into the film slot at the back of the camera. Check that the position of the film corresponds to that shown in the diagram; the emulsion side must face lens and focal plane shutter. The take-up spool winds up the film with the emulsion side out.

Check also that the take-up spool and cassette are fully pushed home, so that the film is correctly positioned in the film track, and that the teeth of the transport sprocket engage the perforations of the film. If the cassette will not go in fully, turn the rewind knob slightly to and fro.

Replace the base plate, and lock it, thus closing the camera light-tight. Tension the film by pulling out the rewind knob (see illustration on page 20) and turn it carefully in the direction of the arrow engraved on it, until you feel a slight resistance.

The length of film between the cassette and take-up spool is of course already fogged, and useless for exposure. It must therefore be wound on inside the closed camera to bring a fresh, unexposed portion of film into position.



Advance the film, and release the shutter. Repeat these steps, and set the film counter disc to No. 0. Advance the film once more; the film counter will now indicate No. 1, and the camera is ready for the first exposure. You can recognize whether the film is advancing correctly by watching the shaft of the rewind knob; this should turn against the direction of the arrow.

#### To Set the Film Indicator

in the camera back press one finger against the centre, and turn it to the type and speed of the film loaded in the camera. One of the three pointers next to the appropriate symbol (black-

10 Talk ASA

and-white for black-and-white film, sun on red back-ground for daylight colour film, or lamp on red back-ground for artificial light type colour film) should point to the required film speed in ASA or DIN.

## If the Film was Incorrectly Loaded

it may become detached from the take-up spool, and will not advance (the rewind knob does not move while winding the shutter). In that case reload the film properly as follows.

- 1. Move the reversing lever (4) to "R" (rewind).
- 2. Turn the rewind knob (10) in the direction of the arrow, but only as long as the release (1) also rotates, then stop immediately. At this point the film has passed the shaft of the release button, and only a short length protrudes from the cassette. This is important when inserting the film again. If you were to wind the film completely into the cassette, you would have to draw out the end again in a darkroom.



## Unloading

When you have exposed the whole film, the transport knob can no longer be turned; a sign that the film must be rewound into its cassette. Set the reversing lever (4) to "R", pull out the rewind knob (see illustration on page 20), and turn it in the direction of the arrow until you feel a resistance. Do not press the release button while doing this. Wind past the resistance, and give the rewind knob about one more turn. The film will now have come off the take-up spool, but a short piece should still protrude from the cassette. You can now open the camera (page 21), and remove the cassette with the exposed film. It is not advisable to rewind the film fully into the cassette, because the protruding piece makes the cassette more light-tight. Make a note on this piece that the film is exposed.

You can also expose only part of the film, say the first ten frames, rewind it, and change to another film (e. g. colour). When reloading the first film, proceed as with an unexposed film, and then keep releasing the shutter and advancing the film with the lens covered by a lens cap, until film counter (originally set to 0) indicates No. 12.

# Using Flash

A flash is synchronized when it lights up at the precise instant when the shutter is open. The speed-synchronization of the LEICA III g permits the use of all electronic flash units and flash bulbs. Setting the shutter speed automatically determines the correct moment of firing of the chosen flash. The enclosed table "Flash Guide Numbers for the LEICA III g" indicates the shutter speeds suitable for the various types of flash, and their guide numbers when using the collapsible LEITZ flash reflector.

Before using the table, note the following points.

- 1. Flash bulbs of class M and FP are synchronized at all shutter speeds shown as suitable in the table.
- 2. **Electronic flash units**, on the other hand, are synchronized only when the fast shutter speed dial is set to one of the two  $\frac{1}{2}$  symbols. The black  $\frac{1}{2}$  symbol indicates the shortest suitable shutter speed of  $\frac{1}{50}$  second, while the red  $\frac{1}{2}$  symbol yields a shutter speed of  $\frac{1}{30}$  second.

Fig. 1

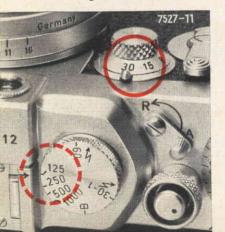


Fig. 2

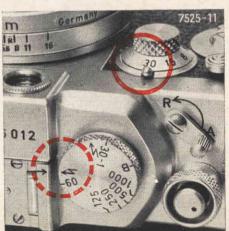
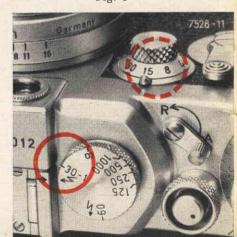


Fig. 3



3. Slow shutter speeds (times longer than 1/30 second) are synchronized with both electronic flash and flash bulbs by setting the fast speed dial to the red ½ symbol, and the slow speed knob to the required time.

 The B setting on the fast shutter speed dial can be used with flash bulbs as well as electronic flash

#### A few practical hints:

The LEITZ flash guns with collapsible reflector spread the light very evenly over the subject area. You will find this particularly useful when photographing with the wide-angle lenses.

Note that the guide numbers are only meant to be an approximate guide. They assume the use of the LEITZ collapsible reflector, and subjects of average brightness, with allowance for some light being reflected from the walls and ceiling indoors. For extreme subject conditions adjust the aperture accordingly. Negatives exposed in this way can be developed normally, in other words together with daylight shots on the same film. Normal development of flash exposures also has the advantage that the flash appears to cover the depth of the subject better than the use of a higher guide number coupled with over-development. The latter procedure has been recommended at times, but tends to emphasize only the more intensely lit portions of the foreground.

#### Watch these Points with Colour Film:

With daylight type reversal colour film use only electronic flash or blue coated flash bulbs.

With artificial light type reversal colour film use yellow coated flash bulbs.

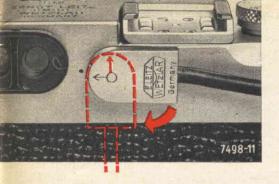
With type F reversal colour film (flash type) use clear flash bulbs.

With negative colour film either clear flash bulbs or electronic flash can be used, as colour correction is possible at the printing stage. Use only blue flash bulbs as fill-in lighting for pictures taken by daylight.

The possible shutter speeds for flash bulbs of the same type are of course independent of the colour of the bulb. The filter effect of the coloured coating will, however, lower the guide number.

The wide range of colour films available and the need for exact exposures makes it impossible to give specific guide numbers. We therefore suggest that you should first make some trial exposures with the chosen flash and film combination. The following method will yield an approximate guide to exposures for colour film with blue flash bulbs. First work out from the table the aperture corresponding to the guide number for the same flash bulb with clear glass envelope, and then increase the aperture as follows.

- (a) with daylight reversal films of 32 ASA or  $17/10^{\circ}$  DIN (e. g. Ektachrome or Anscochrome) open up by one stop;
- (b) with daylight reversal films of 20 ASA or  $15/10^{\circ}$  DIN (e. g. Agfacolor L-UT) open up by two stops;
- (c) with daylight reversal films of 10 ASA or  $12/10^{\circ}$  DIN (e.g. Kodachrome K 135 or Ilford Lolour) open up by two-and-a-half to three stops.



Connect the flash plug of the cable from the flash gun to the flash socket at the back of the camera. This is situated immediately to the right of the twin eyepiece. The LEITZ flash cables are fitted with a special plug which can be locked into the flash socket of the LEICA III g. Insert the plug horizontally into the flash socket of the LEICA, so that the engraved arrow at first points towards the twin eyepiece. Press in slightly, and turn downwards until it engages; the plug is now secure against accidental pulling out. To remove the flash plug, press in again, and turn into the hori-

zontal position to unlock, then lift for flash 12-13 off. (See also leaflet cables for the LEICA).

The swivelling flash gun bracket which can be attached to the LEICA will take all usable types of flash guns.

