

CHAPTER III

THE MODERN ROLLEIFLEX AND ROLLEICORD

AT the beginning of the post-war period, the last described models with the exception of the 4 × 4 Sports Model were still in regular production, in spite of serious shortages of raw materials, greatly depleted staffs and a partly demolished factory. Undeterred by difficult conditions, the manufacturers immediately started to produce improved models, but their plans were not allowed to materialize until 1951. Meanwhile, small improvements began to creep into what can only be described as 'intermediate' models. First came the coated or 'bloomed' lenses, both in the Zeiss Tessars and Triotars, and then in the Xenars, made by Schneider – newcomers to the Rollei range. Already well known, the Schneider lenses proved to be so successful that they are now retained as four element alternatives for the Rolleiflex and standard equipment in the Rolleicord. The next important introduction was the flash contacts built into the shutter. The outlet plug was first located in a central position on the camera front, midway between the shutter release and the cable release aperture. After these intermediate models came the Rolleicord III, IV and V, the Automat II, the 1954 Improved Model, and the Automat 2·8, the Light Value Models and the Exposure Meter Models. For the sake of accuracy this order is therefore retained in the following detailed instructions for the modern cameras.

The Rolleicord III and IV

These models appeared in 1951 and 1953 respectively and followed closely the lines of the earlier Rolleicords II and IIA but with several additional refinements. The most important introductions were the f/3·5 Schneider Xenar four-element lens, a well-known system of proved quality over many years: both this and the viewing lens are hard coated to give freedom from inter-lens reflections, greater contrast, and the ability to pass more light both to screen and to film. There was an improved method of loading the film, which made it virtually automatic, a new focusing hood, with direct vision finder and the addition of the base lock and safety catch of the Automat.

Various other small improvements, including a flash synchronized shutter, and built-in cine film back, have also been incorporated.

Focusing Hood

The focusing hood is now entirely re-designed, and, as in the Automat II, there is no locking catch; to open it, all that is needed is a little upward pressure on the thumb marks at the back of the hood (Fig. 37 No. 1) and after being erected a little way by hand, the hood then springs into the vertical position on all four sides. A large focusing magnifier is brought into position over the centre of the screen as soon as light pressure is applied with the finger to the top or front plate of the hood (No. 15). A little further pressure on this same plate, pushing it inwards and upwards until it clicks into the horizontal position, now reveals a new type open frame finder with a sighting window on the back flap (Fig. 38 No. 5). This is a return to the highly successful frame finder of the Rolleicord I and IA. On the outside of the back flap, a small chrome plated button (No. 6) is located and a light pressure on this releases the top plate, which at once flies back into position to allow focusing again on the fully hooded screen.

Focusing

As in the earlier model Rolleicords, focusing is effected by turning the large milled knob (Fig. 37 No. 8) at the right side and towards the front of the lens panel of the camera, when viewed from the normal operating position. By observing the screen through the magnifier mentioned above and turning this knob forward and back, the subject will appear sharp at one particular setting. This is easiest if some fine detail is chosen on which to focus. Because of the wider aperture of the viewing lens than of the taking lens, depth of field (see Fig. 44) will be greater on the negative than it is on the screen and this, of course, always ensures needle sharp focusing.

Depth Scale

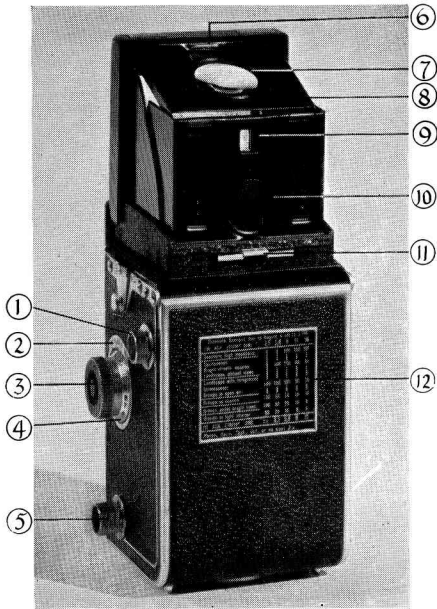
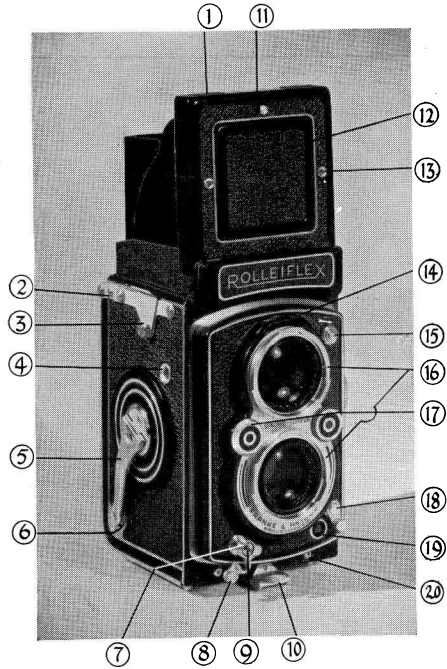
The focusing knob (Fig. 37 No. 8) is engraved in either feet or metres, according to the market for which it was designed, and it is rotated against a depth of focus scale (see Fig. 43) from which the focal depth can be read off at a glance. It is only necessary to notice which measurements are included between the two like apertures shown at either side of the central position (see pages 83-84).

Shutter Speeds

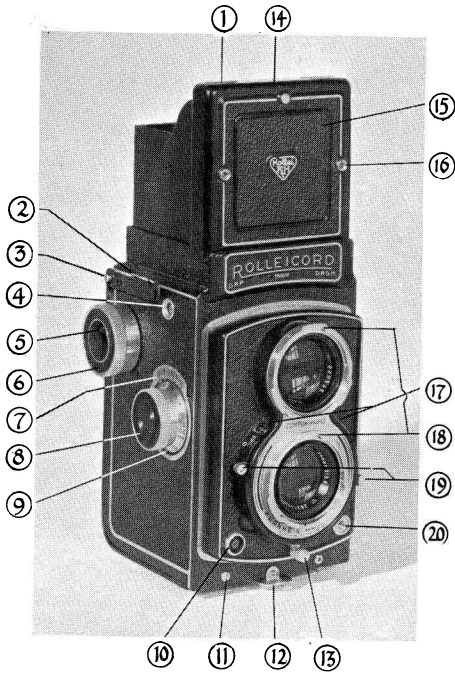
The shutter speeds and lens apertures appear in the peep windows on the upper sides of the taking lens cover and these can be seen from the normal operating position above the camera. The shutter speeds appear in the right hand window (No. 17) below it. The following range of speeds are available: 1 second, $\frac{1}{2}$ second, $\frac{1}{5}$ th, $\frac{1}{10}$ th, $\frac{1}{50}$ th, $\frac{1}{100}$ th, $\frac{1}{250}$ th, $\frac{1}{500}$ th second; 'T' for Time exposures (Rolleicord III only) and 'B' for Bulb or Brief time. Intermediate speeds can be judged and used

Fig. 35

Rolleiflex Automat II, front view: (1) Hood erecting thumb marks; (2) Back hinge and release catch; (3) Neck strap eye and anchor; (4) Film numbering peep window; (5) Crank handle; (6) Crank handle stowage; (7) Shutter release; (8) Shutter release guard; (9) Cable release socket; (10) Base clip; (11) Focusing hood; (12) Direct vision finder collapsing panel; (13) Cine film finder mask studs; (14) Shutter speed and lens aperture peep window; (15) Delayed action release; (16) Double bayonet lens mounts; (17) Shutter speed and lens aperture setting wheels; (18) X and M flash adjusting lever; (19) Flash socket; (20) Locating studs.

**Fig. 36**

Rolleiflex Automat II, back view: (1) Take-up spool retaining knob; (2) Depth of field scale; (3) Focusing knob; (4) Focusing scale; (5) Feed spool retaining knob, and cine film rewind knob; (6) Screen magnifier erection stud; (7) Screen magnifier; (8) Light deflector plate; (9) Direct vision finder peep window; (10) Eye level focusing magnifier; (11) Screen accessory retaining clip; (12) Exposure chart.

**Fig. 37**

Rolleicord III, front view: (1) Hood erecting thumb marks; (2) Neck strap eye and anchor; (3) Back hinge; (4) Film numbering peep window; (5) Frame stop release button; (6) Film wind knob; (7) Depth of field scale; (8) Focusing knob; (9) Focusing scale; (10) Flash socket; (11) Locating studs; (12) Base clip; (13) Double action shutter set and release lever; (14) Focusing hood; (15) Direct vision finder collapsing panel; (16) Cine film frame finder studs; (17) Shutter speed and lens aperture peep windows; (18) Double bayonet lens mounts; (19) Shutter speed and lens aperture setting levers; (20) Cable release socket.

Fig. 38

Rolleicord III, back view: (1) Focusing hood; (2) Take-up spool retaining knob; (3) Feed spool retaining knob, and cine film rewind knob; (4) Screen magnifier; (5) Eye level direct vision finder peep window; (6) Collapsing panel release button; (7) Exposure chart; (8) Levelling feet.

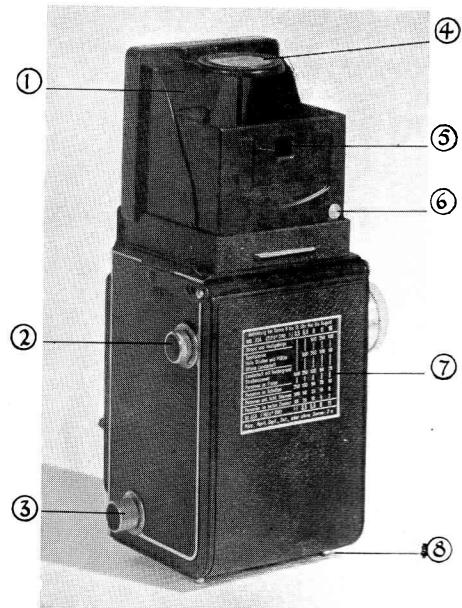
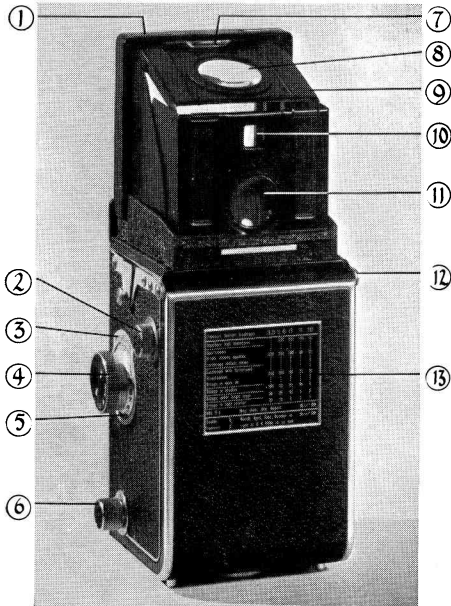
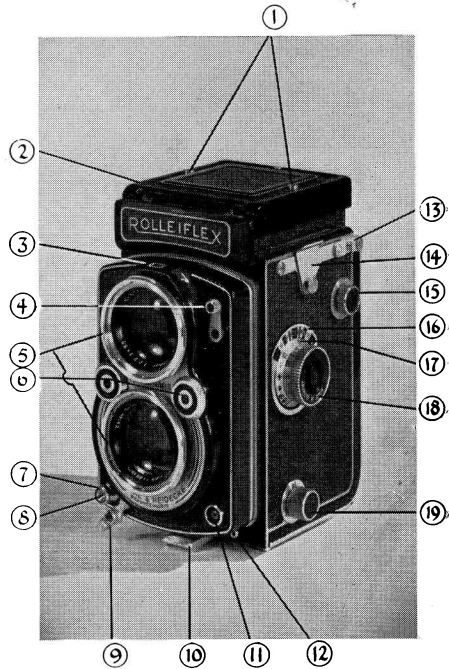
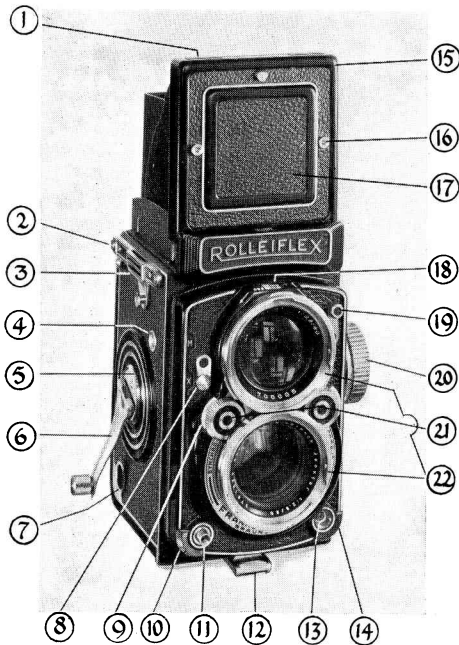


Fig. 39

Rolleiflex Automat f/2.8, front view: (1) Cine film frame finder studs; (2) Focusing hood; (3) Shutter speed and lens aperture peep window; (4) Delayed action setting lever; (5) Double bayonet lens mounts; (6) Shutter speed and lens aperture setting wheels; (7) Shutter release; (8) Cable release socket; (9) Shutter release guard; (10) Base clip; (11) Flash plug; (12) Locating studs; (13) Back hinge and retaining catch; (14) Neck strap eye and anchor; (15) Take up spool retaining knob; (16) Depth of field scale; (17) Focusing scale; (18) Focusing knob; (19) Feed spool retaining catch and cine film rewind knob.

**Fig. 40**

Rolleiflex Automat f/2.8, back view: (1) Hood erecting thumb marks; (2) Take-up spool retaining knob; (3) Depth of field scale; (4) Focusing knob; (5) Focusing scale; (6) Feed spool retaining knob and cine film rewind knob; (7) Screen magnifier erection stud; (8) Screen magnifier; (9) Light deflector plate; (10) Eye level finder peep-hole; (11) Eye level focusing magnifier; (12) Back hinge; (13) Exposure chart.

**Fig. 41**

Rolleiflex Automat 2-8c, front view: (1) Thumb grips; (2) Back hinge; (3) Neck strap eye and anchor; (4) Film numbering peep window; (5) Interlocked film wind release lever; (6) Crank handle; (7) Crank handle stowage; (8) Flash setting lever; (9) Speed setting wheel lock release; (10) Shutter release lock; (11) Shutter release and cable socket; (12) Base clip; (13) Flash plug; (14) Flash connector lock; (15) Focusing hood; (16) Cine film viewfinder-mask studs; (17) Eye level finder collapsing frame; (18) Lens aperture and shutter speed peep windows; (19) Delayed action lever; (20) Focusing knob; (21) Speed and aperture setting wheels; (22) Large size double bayonet lens mounts.

Fig. 42

Rolleiflex Automat 2-8c, back view: (1) Depth of field scale; (2) Focusing knob; (3) Film type reminder panel; (4) Film type and film speed reminder setting lever; (5) Film speed reminder; (6) Focusing scale; (7) Feed spool retaining knob, and cine film rewind knob; (8) Adjustable focusing screen magnifier; (9) Eye level viewfinder peep window; (10) Eye level focusing adjustable magnifier; (11) Screen accessory retaining clip; (12) Cine film counter; (13) Take-up spool retaining knob and cine film release knob; (14) Exposure indicator.

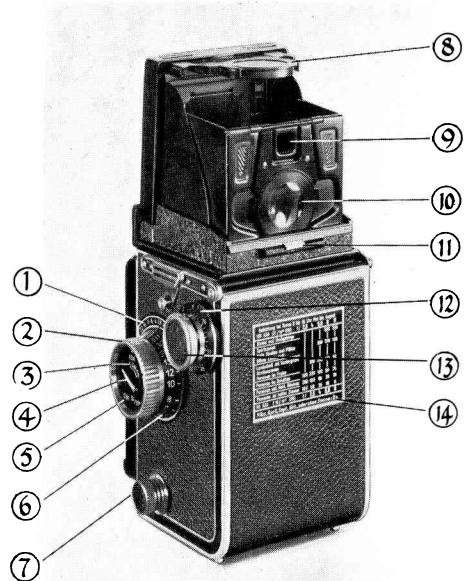
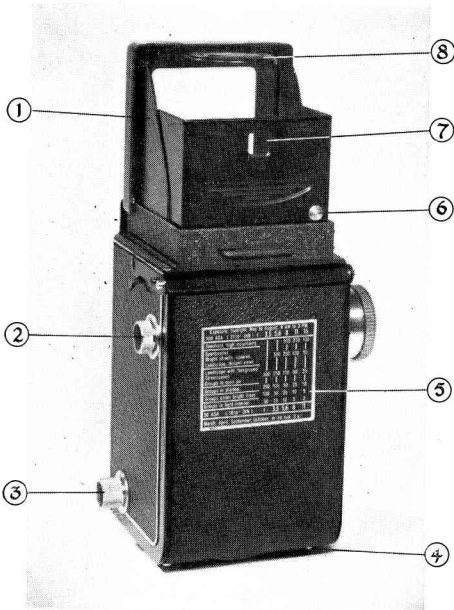
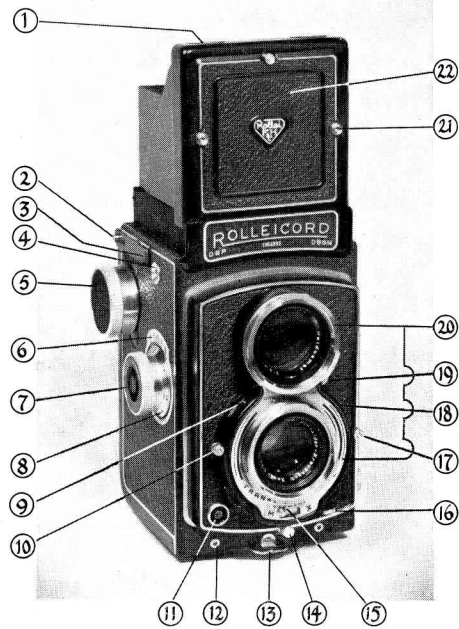
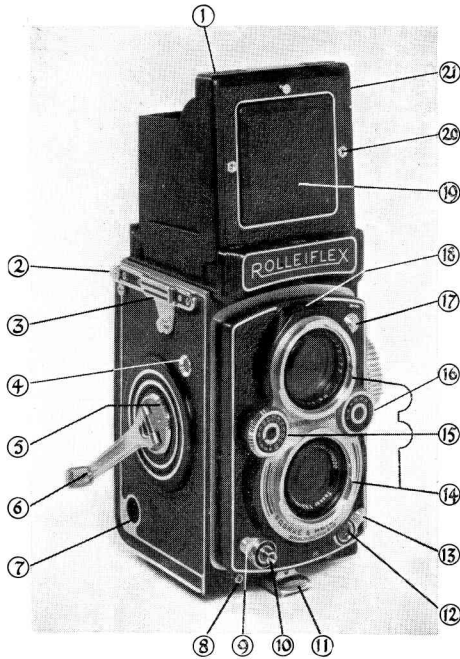


Fig. 42a

Rolleicord IV, front view: (1) Hood erecting marks; (2) Back hinge; (3) Neckstrap eye and anchor; (4) Film numbering peep window; (5) Film wind knob; (6) Depth of field scale; (7) Focusing knob; (8) Focusing scale; (9) Shutter speed window; (10) Shutter speed setting lever; (11) Flash socket; (12) Locating studs; (13) Base clip; (14) Shutter setting and release lever; (15) X and M flash adjusting lever; (16) Cable release socket; (17) Lens aperture setting lever; (18) Lens aperture window; (19) Optional double exposure release; (20) Double bayonet lens mounts; (21) Cine film frame finder studs; (22) Direct vision finder collapsing panel.

**Fig. 42b**

Rolleicord IV, back view: (1) Focusing hood; (2) Take-up spool retaining knob; (3) Feed spool retaining knob and cine film rewind knob; (4) Levelling feet; (5) Exposure chart; (6) Collapsing panel release button; (7) Eye level direct vision finder window; (8) Screen magnifier.

**Fig. 42c**

Rolleiflex Automat with Light Value Scale, front view: (1) Thumb grips; (2) Back hinge; (3) Neckstrap eye and anchor; (4) Film numbering peep window; (5) Interlocked film wind release lever (for double exposure); (6) Crank handle; (7) Crank handle stowage; (8) Locating studs; (9) Shutter release lock; (10) Shutter release; (11) Base clip; (12) Flash socket; (13) X and M flash adjusting lever; (14) Double bayonet lens mounts; (15) Shutter speed adjusting wheel with light value scale; (16) Lens aperture and light value adjusting wheel; (17) Delayed action release; (18) Speed and aperture peep window; (19) Collapsing panel; (20) Cine film frame finder studs; (21) Focusing hood.

Fig. 42d

Rolleiflex Automat with Light Value Scale, back view: (1) Depth of field scale; (2) Focusing scale; (3) Take-up spool retaining knob; (4) Focusing knob with film speed and type reminder panels; (5) Feed spool retaining knob and cine film rewind knob; (6) Light value table; (7) Screen accessory retaining clip; (8) Eye level focusing magnifier; (9) Eye level viewing window; (10) Screen magnifier; (11) Screen magnifier erecting clip.

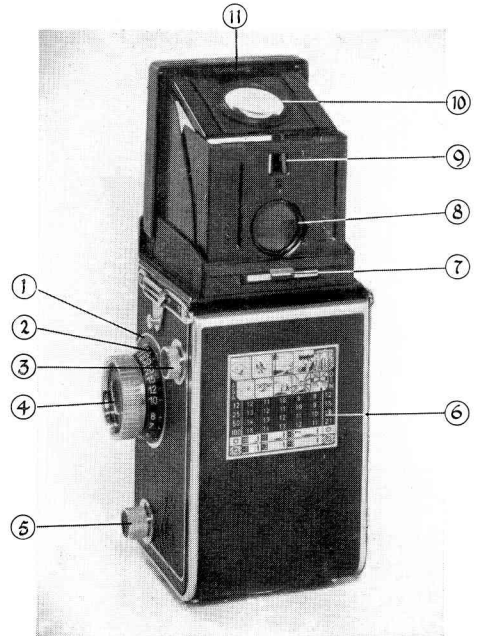
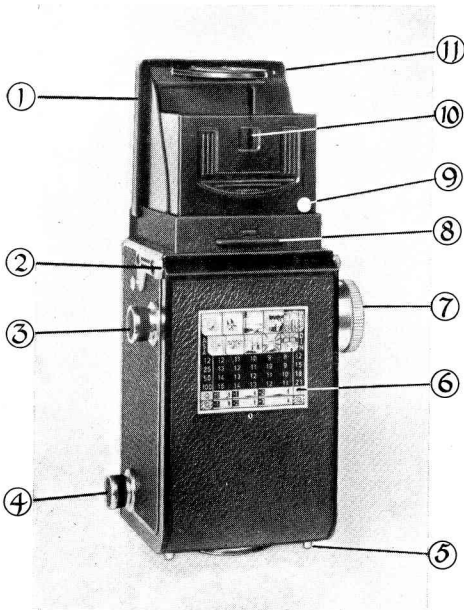
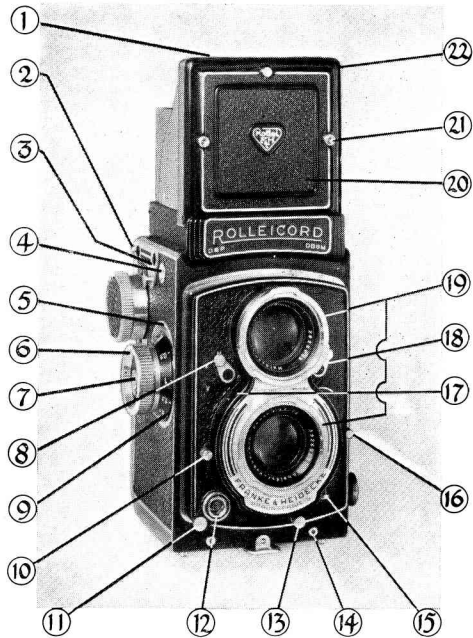
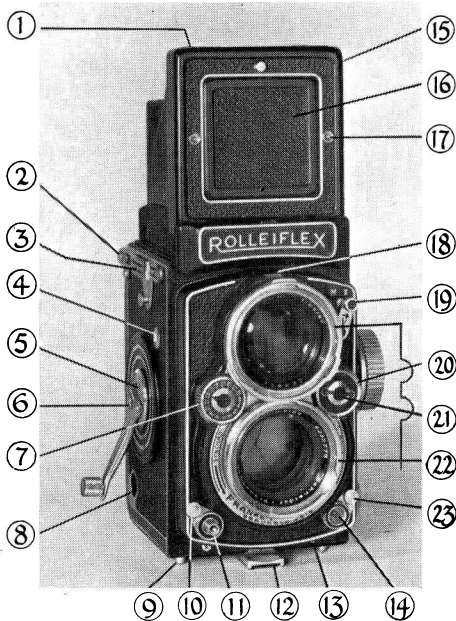


Fig. 42e

Rolleicord V, front view: (1) Thumb grips; (2) Back hinge; (3) Neckstrap eye and anchor; (4) Film number peep window; (5) Depth of field scale; (6) Focusing knob; (7) Film speed reminder; (8) Flash and delayed action setting lever; (9) Focusing scale; (10) Speed dial and light value scale adjusting lever; (11) Flash cable lock; (12) Flash plug; (13) Shutter setting and release lever; (14) Locating studs; (15) Cable release socket; (16) Aperture setting lever; (17) Speed, aperture and light value peep windows; (18) Double exposure release; (19) Double bayonet lens mount; (20) Eye level finder collapsing frame; (21) Cine finder mask studs; (22) Focusing hood.

**Fig. 42f**

Rolleicord V, back view: (1) Focusing hood; (2) Back hinge and release; (3) Take-up spool retaining knob; (4) Feed spool retaining knob; (5) Levelling feet; (6) Light value table; (7) Film wind knob; (8) Screen accessory retaining clip; (9) Collapsing panel release button; (10) Eye level direct vision window; (11) Screen magnifier.

**Fig. 42g**

Rolleiflex Automat 2·8D, front view: (1) Thumb grips; (2) Back hinge and lock; (3) Neckstrap eye and anchor; (4) Film numbering window; (5) Interlocked film wind release; (6) Crank handle; (7) Speed setting wheel with light value scale; (8) Crank handle stowage; (9) Levelling feet; (10) Shutter release lock; (11) Shutter release and cable thread; (12) Base lock; (13) Locating studs; (14) Flash socket; (15) Focusing hood; (16) Collapsing panel; (17) Cine frame finder studs; (18) Speed and aperture peep window; (19) Delayed action and flash adjusting lever; (20) Lens aperture and light value adjusting wheel; (21) Light value uncoupler; (22) Double bayonet mounts; (23) Flash plug release.

Fig. 42h

Rolleiflex Automat 2·8D, back view: (1) Depth of field scale; (2) Focusing knob; (3) Film speed reminder; (4) Film speed and film type adjustment; (5) Film type reminder; (6) Focusing scale; (7) Feed spool retaining knob and cine film rewind knob; (8) Screen magnifier; (9) Eye level viewing window; (10) Eye level focusing magnifier; (11) Screen accessory retaining clip; (12) Take-up spool retaining knob and cine film release knob; (13) Cine film counter; (14) Light value table; (15) Crank handle; (16) Base hub with tripod bush.

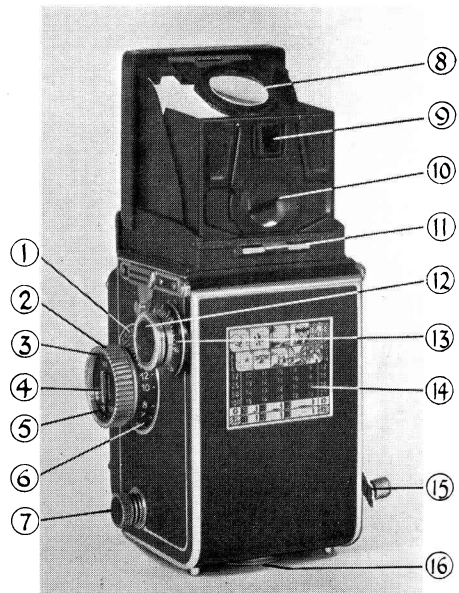
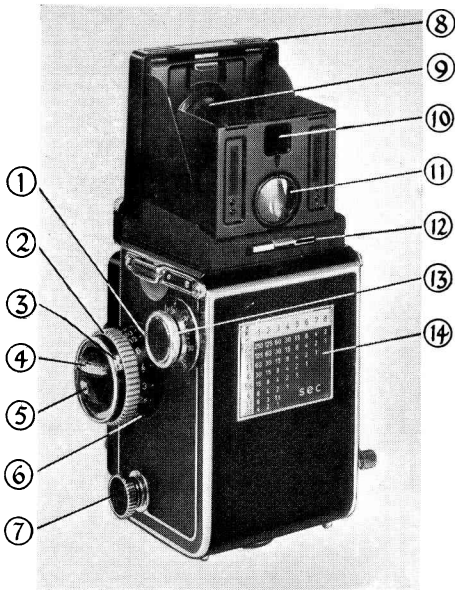
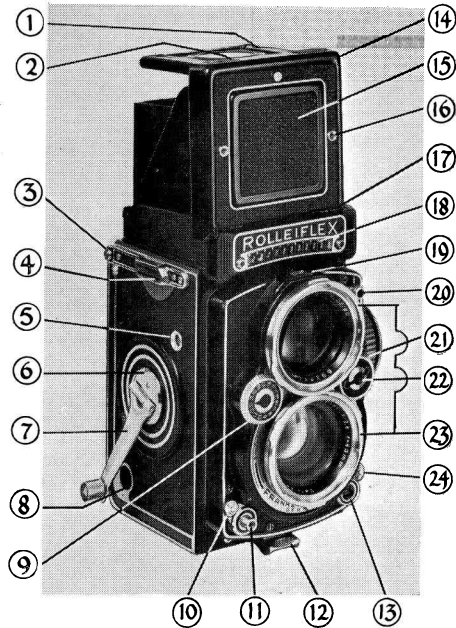
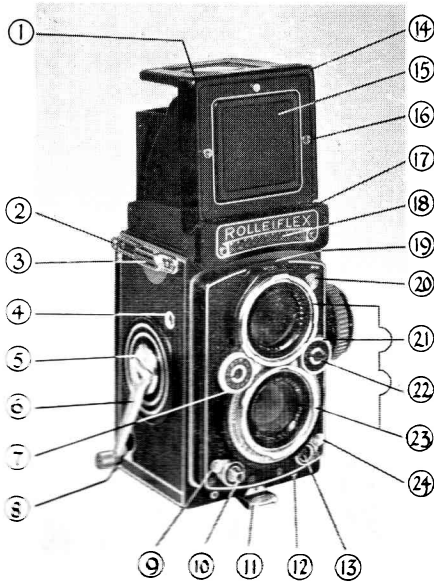


Fig. 42i

Rolleiflex Automat 2·8E, front view: (1) Screen magnifier; (2) Thumb grips; (3) Back hinge and lock; (4) Neckstrap fixing; (5) Film numbering window; (6) Interlocked film wind release lever; (7) Crank handle; (8) Crank handle stowage; (9) Speed setting wheel with light value scale; (10) Shutter release lock; (11) Shutter release with cable thread; (12) Base lock; (13) Flash socket; (14) Focusing hood; (15) Collapsing panel; (16) Cine frame finder studs; (17) Exposure meter baffle release; (18) Exposure meter photo cell; (19) Speed and aperture peep window; (20) Delayed action and flash adjusting lever; (21) Lens aperture and light value adjusting wheel; (22) Light value uncoupler; (23) Double bayonet mounts; (24) Flash plug release.

**Fig. 42j**

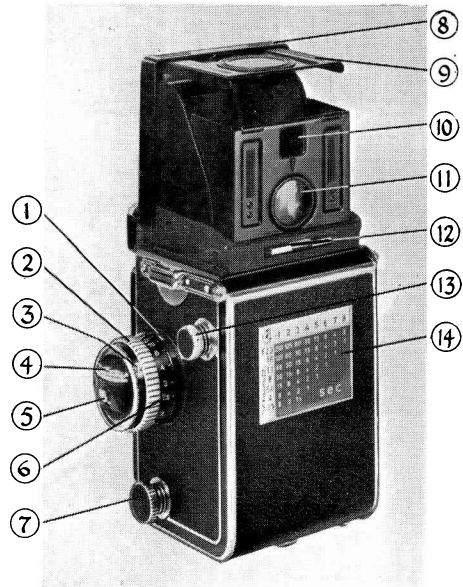
Rolleiflex Automat 2·8E, back view: (1) Depth of field indicator; (2) Focusing knob; (3) Exposure meter light value indicator; (4) Exposure meter scale and needle; (5) Film speed reminder; (6) Focusing scale; (7) Feed spool retaining knob and cine film rewind knob; (8) Focusing hood; (9) Focusing magnifier; (10) Eye level finder window; (11) Eye level focusing window; (12) Screen accessory retaining clip; (13) Take-up spool retaining knob and cine film release knob; (14) Long exposure calculator.

**Fig. 42k**

Rolleiflex Automat Exposure Meter Model, front view: (1) Thumb grips; (2) Back hinge and lock; (3) Neckstrap fixing; (4) Film numbering window; (5) Interlocked film wind release lever; (6) Crank handle; (7) Speed setting wheel with light value scale; (8) Crank handle stowage; (9) Shutter release lock; (10) Shutter release with cable thread; (11) Base lock; (12) Locating studs; (13) Flash socket; (14) Focusing hood with screen magnifier erected; (15) Collapsing panel; (16) Cine frame finder studs; (17) Exposure meter baffle release; (18) Exposure meter photo cell; (19) Speed and aperture peep window; (20) Delayed action release; (21) Lens aperture and light value adjusting wheel; (22) Light value uncoupler; (23) Double bayonet mounts; (24) Flash plug release.

Fig. 42l

Rolleiflex Automat Exposure Meter Model, back view: (1) Depth of field indicator; (2) Focusing knob; (3) Exposure meter light value indicator; (4) Exposure meter scale and needle; (5) Film speed reminder; (6) Focusing scale; (7) Feed spool retaining knob and cine film rewind knob; (8) Focusing hood; (9) Focusing magnifier; (10) Eye level finder window; (11) Eye level focusing window; (12) Screen accessory retaining clip; (13) Take-up spool retaining knob; (14) Long exposure calculator.



between any of the marked values except between 1/10th and 1/25th second and also between 1/250th and 1/500th second. The model IV, however, has no "T" position.

Lens Apertures

These appear in the left hand peep window (No. 17) and are changed by the lever (No. 19) beneath it. These are marked f/3.5, 4, 5.6, 8, 11, ∞, 22. Any intermediate stop can be used as the occasion demands. Whichever aperture may be selected for use in taking the picture, the viewing lens always uses the widest aperture of which it is capable.

Loading the Camera – Opening the Back

Whenever possible, a position away from bright sunlight should be chosen, but if this is not feasible, then some shade should be provided with the body. The lens cap should always be in position during this operation. Place the camera face down on a flat surface or alternatively on its head, and looking at the base of the camera (Fig. 47) turn the safety catch (No. 2) to the left in the direction of the arrow, then lift the catch (No. 1), swing up the back so that it rests against the hinge or in the latter case swing it down so that it rests on the flat surface.

Inserting the Spool

Now that the back is open turn the winding knob (Fig. 37 No. 6) in a clockwise direction until the winding key (Fig. 45 No. 2) is in a vertical position. Pull out the retaining knob (No. 8) at the other end of the spool chamber and give it half a turn. It will then remain fixed in the 'out' position. Take an empty spool from a No. 120, 20 or B-2 film and insert it with the key way vertical and to the right so that it engages the winding key of the camera, then let the spool fall comfortably into the spool chamber, give the retaining knob (No. 8) another half turn until it drops back into position and engages the other end of the empty spool.

Inserting the Film

The feed spool chamber is located at the opposite end of the open camera. Take a spool of film, size 120, 20 or B-2 and with the seal still unbroken, insert it with the key way to the left, on to the pivot inside the right hand corner of the spool chamber. Pull out the retaining knob (No. 10) and push the roll into a horizontal position against the leaf spring (No. 11) letting the knob then return right home, when it will engage the end of the roll. Now break the film seal, remove all traces of the gummed paper and pull out a few inches of paper leader.

Now lead the end pennant over the 'gate' and over both rollers and insert the end into the wide slot of the take-up spool. Push it right through until it appears in the narrow slit at the other side of the spool and then turn the winding knob (Fig. 37

No. 6) at the same time centring the film between the shoulders of the take-up spool so that it lies comfortably and does not ride up at one side. Turn it a few inches further until the arrows or triangles printed on the backing paper appear opposite the two red dots at the side of the gate (Fig. 45 No. 1).

Closing the Camera. Winding to 'No. 1'

Now swing the back into the closed position. Push home the clip (Fig. 47 No. 1) and fasten the safety lock No. 2 by turning it to the right against the direction of the arrow and pressing it right home. Turn the camera to its normal operating position and continue turning the film wind knob in a clockwise direction until a definite stop is felt. At this point No. 1 will be seen to have appeared in the film counter window at Fig. 37 No. 4. The starter trip of the earlier model has now been omitted as has the red window in the base which is no longer necessary.

Shutter Operation Rolleicord III

The Rolleicord III is now ready for action and to operate the shutter choose a convenient speed in the peep window (No. 17) (other than 'T' or 'B'). With the camera in the normal operating position, pull the shutter setting lever (No. 13) to the limit of its travel towards the right with the right forefinger (see Fig. 51). The shutter is now cocked and ready for release at once or at a later time as required. To make an exposure, press this same lever gently but firmly to the left until a definite click is felt when the exposure is made. The film winding knob can now be turned to the next definite stop by pressing in the centre of the winder knob, and bringing the next frame of film into the gate. Proceed in like manner through the remaining eleven exposures and after No. 12 has been exposed it will be found that no stop will be encountered and the film can be wound right off.

Loading the Rolleicord IV

This camera is also loaded, the film and spools inserted and the film wound to number one, as in the Rolleicord III. After this the new interlock comes into operation. This is actuated by a small stud (Fig. 42a No. 19) located over the aperture scale between the two lenses. When in the upper position, a small silver spot can be seen below this stud and in this position the film wind is interlocked with the shutter mechanism. Once the film has been wound to No. 1 in the peep window at (No. 4) the shutter is operated as described above for the Rolleicord III.

Provision for Double Exposures

At any stage during the run of the film through the model IV, double or multiple exposures can be made by depressing the stud (No. 19) so that a small red spot appears over it. In this position the shutter setting lever (No. 14) can be set and released as many times as required without the necessity of winding on the film. However, as

soon as an adequate number of trick exposures have been made, the lock should again be engaged by clicking up the stud (No. 19), having first of all wound the film to the next frame. Now further single exposures can be made until a double exposure is again required. In both cases, after the 12th frame has been reached, the film wind knob should be turned until the click of paper against the metal indicates that all the backing paper has been wound on to the take-up spool. The film is, of course, removed from the camera as for the previous model III.

Time and Brief Time Exposures

For exposures of longer duration than one second, the shutter scale should be set at 'B' and for this it is still necessary to cock the shutter. After this, push the shutter release lever to the left, hold it there for the required length of time and then allow it to return to its normal position when the shutter blades will close. In some of the 'Cord III's there is a 'T' position and for long time exposures of say half a minute or longer, set the shutter to 'T' and in this position the blades are opened at one pressure of the release lever to the left, they will then remain open until a second pressure is given in the same direction. This may be some time afterwards, perhaps even an hour in the case of night photographs at a small aperture. For both these speed settings, a cable release should be screwed into the socket at Fig. 37 No. 20 and the camera placed on a tripod or other firm support. There is however no 'T' setting on the Rolleicord IV.

Removing the Exposed Film

When the film has been wound off, open the camera back again as described on page 55, pull out the retaining knob (Fig. 45 No. 8) at the same time steadying the roll with the finger, withdraw it first from the left side, and seal down the film with the adhesive paper provided. (Occasionally this sealing strip may be caught up behind the pressure plate.)

Synchronized Shutter

The Compur shutter of the Rolleicord III is internally synchronized for flash photography (see Chapter XIV, Part II, 'Flash Photography'), and the standard outlet (Fig. 37 No. 10) to accommodate the normal Compur co-axial plug is situated at the bottom left of the focusing panel when looking at the camera from the front; electronic flash can be used at all shutter speed settings, short delay flash bulbs of the S.M. type can be used on all speeds up to 1/100th second, and long delay bulbs of the Phillips' P.F. Series, or the Sylvania Press Series can be used up to 1/25th second. With these later types, 1/50th second can be used, but only part of the light output of the flash bulb will be utilized. The Rolleicord IV is fitted with full X and M synchronization allowing all types of flash to be used on all speeds. The change over lever can be seen in Fig. 42a No. 15.

Cine Film Equipment

On the front of the open frame finder mentioned on page 44 are three locating studs (Fig. 37 No. 16 and Fig. 43 No. 21) which accommodate the direct vision finder mask for use with the Rolleikin II Cine Film Equipment (see page 115). To use 35 mm. cine film, it is no longer necessary to fit a separate back as the new combination back fitted to this model contains a special adjustable pressure plate (Fig. 45 No. 7). As in the Automat II, this has two positions which can be changed by pressing it down against its springs and then in a horizontal direction. When in one position, the figures $2\frac{1}{4}'' \times 2\frac{1}{4}''$ (6×6 cm.) are shown and in the other, $1'' \times 1\frac{1}{2}''$ (24×36 mm.) are revealed. It follows, of course, that the necessary film size in figures must be visible when that particular film stock is used.

The lower of the existing film spindles (Fig. 38 No. 3) now serves a double purpose, and for cine film only the upper spindle (No. 2) needs to be changed, the lower one acting as a rewind knob.

Changing the Back

Removal of the camera back for cleaning or for fitting the Plate Back Adaptor (see page 103) is effected by placing the camera on its face, swinging up the back to the limit, then raising the left back hinge (No. 3) with the finger nail about $1/10$ th of an inch, lifting the back out at this side, allowing the hinge to fall back into position again, then the camera back will come away from the second hinge. To replace it, it is only necessary to reverse these actions.

Cable Release

In the model IV the cable release socket has been repositioned. It is now in the base of the shutter housing under the aperture setting lever. It points downwards and slightly outward and, therefore, does not interfere with any lens accessory.

Ever-Ready Case

These models use the later type ever-ready case described on page 153 and illustrated at Fig. 100. There is a removable panel in this, around the take-up spool retaining knob which can be taken out when the new Rolleikin II is fitted, and this will then expose the new cine film exposure counter dial.

Size and Weight

These models measure approximately $5\frac{1}{2}''$ high by $3\frac{3}{4}''$ wide by $3\frac{3}{4}''$ deep ($14.2 \times 9.7 \times 9.9$ cms.) and weighs 1 lb. $13\frac{1}{2}$ oz. or 830 grammes.

THE ROLLEICORD V

Early in 1955 appeared the Rolleicord V, the most advanced design in this the lower priced 'twin', Fig. 42e and 42f. It is now so automatic in its operation that it is rapidly catching up on the fully automatic Rolleiflex. It is similar in most external features to its predecessor, the Rolleicord IV, having the same focusing hood and direct vision finding arrangements, the same back and focusing method.

The main differences lie in the shutter which has now been fitted.

This is now the X.M. Synchro Compur with Light Value Scale, having interlinked speed and aperture dials. This shutter, as well as having X. and M. synchronization, has also a delayed action device incorporated. A new enlarged focusing knob has been fitted similar to the Rolleiflex, and similar neck-strap and back hinges have been used. The camera is loaded exactly in the same manner as the Rolleicord IV and the arrangement of take-up and feed spools is identical. The film spool retaining pivots have been slightly redesigned as can be seen from Fig. 42f.

The optional double exposure release has also been slightly redesigned and instead of being a sliding button, it is now a lever which rotates on a pivot, although the upper and lower positions correspond to the previous model, i.e. in the upper position the film is interlocked with the shutter mechanism, and double exposures can be carried out when in the lower position (Fig. 42e No. 18). Shutter setting and release is exactly as for the Rolleicords III and IV, as described on page 56.

Flash Synchronization and Delayed Action

At the other side of the lens panel between the two lenses, a new control lever has been fitted which changes over the X. and M. flash settings (Fig. 42e No. 8). This has a third position which is marked 'V' and which introduces for the first time into the Rolleicord series a delayed action mechanism in the shutter. This is set automatically when the shutter is cocked by the cocking lever which is in the usual position underneath the shutter housing (No. 13). Delayed action can also be used with flash on the 'X' position only, by setting the lever at 'V', plugging in the flash socket in the usual way and releasing the shutter. Not only can the photographer take up his position in the picture, but at the same time, as the shutter is released, the flash will take place.

The flash plug (No. 12) is now situated at the bottom left of the camera front and incorporates a plug lock. To open the lock it is merely necessary to flick up the locking lever (No. 11).

Light Value Scale

The previous exposure table at the back of the camera has been replaced by the light value table which operates in the same manner as that of the 1954 Improved Rolleiflex Automat described on page 69-70. The operation of the new 10-speed Compur

shutter is fully described on page 70 and the use of the light value table on page 91. The light value scale is controlled by the speed setting lever (No. 10) and the numbers appear with the lens aperture in the peep window at No. 17. Operation of the aperture setting lever is quite free and independent.

Film Speed Reminder Panel

This is incorporated in the front of the focusing knob and indicates the Din and A.S.A. speeds by turning the small central button. Size and weight of the camera is just as for the Rolleicord IV and described on page 58.

THE MODERN ROLLEIFLEX AUTOMAT

This model sometimes known as the Automat II, although not officially designated so by the makers, marks the culmination of their war-time ideas. A small number of these, produced during 1950/51 appeared with synchronized shutters but without the variable delay of the 'X.M. Synchro Compur' shutter with which all modern Automats are equipped. There are many small improvements and innovations in this Series and a number of major changes. Among these latter can be counted the improved light-trapping arrangements of the camera back, a new focusing hood which ensures completely trouble-free erection, a larger magnifier with light shade, an eye level direct vision finder with eye level focusing window adjacent to it, built-in cine film accessories and the before-mentioned fully synchronized shutter. The lens is either the $f/3.5$ 75 mm. Zeiss Tessar or Schneider Xenar, both of which are factory coated. Another improvement in this camera is the introduction of anti-reflection light baffles inside the taking chamber, similar to those incorporated in the specialists' 2.8C Model, described later in this chapter. These were installed as from camera No. 1287500 (approx.).

Since late 1953 the base hub of the camera has been redesigned and now has a deep groove milled from its outer periphery. This is to accommodate the new mating device called the Rolleifix which is designed to remove the danger of the small single point tripod fixing screw in a camera of principally vertical distribution of weight (see page 157).

Bayonet Mounting of Accessories

As in the Automat I and the Rolleicord IIA, both viewing and taking lenses are equipped with a double bayonet fitting to accommodate various accessories. The lens hood is used on the outer bayonet and the Rollei filters, etc. on the inner bayonet. Full details of the method of attachment of these accessories are given in the chapters on the Accessories on pages 122 and 134.