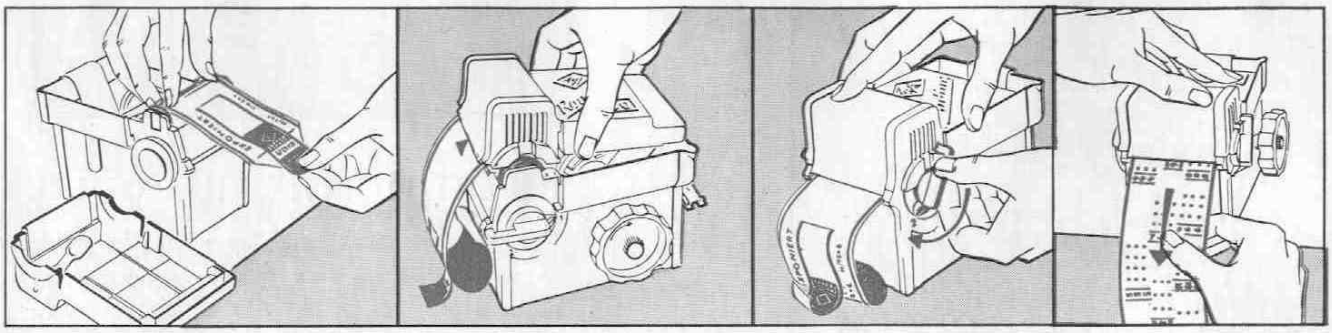
LOADING THE FILM

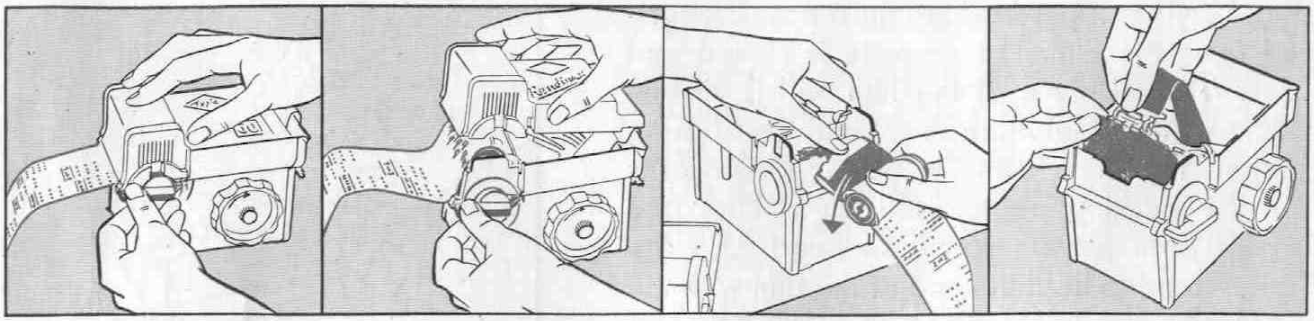
This and all other operations can be carried out in daylight, but direct sunlight should be avoided. Before inserting the film make sure once again that *the spooling chamber, cassette, film guide and leader strap are perfectly dry*, otherwise they must be rubbed dry with a cloth.

Only films which are properly and tightly rolled can be developed in your Rondinax 60. If necessary, the backing paper can be tightened up carefully, but attention must be paid to the risk of electrostatic discharge in hot weather. Please read the special instructions on page 16.

Fig. 6 With your fingernail slit the seal securing the exposed film. Now insert the film so that the paper backing can be drawn out to the rear. By pressing the film against the clamping springs visible in illustration 6 it will be secured firmly in the tank.



6 7 8 9



10 11 12 13

Fig. 7 Now unroll about 4 inches (10 cm.) of the paper backing and put the lid on.

Fig. 8 Then fasten the tank by pressing down the lid firmly and turning the handle so that the pointer is opposite the mark "2".

Fig. 9 Pull out the backing paper slowly and evenly, preferably downwards at an **oblique** angle, until No. "1" on the paper appears and greater resistance is felt. This resistance is caused by the joint between film and backing paper.

Fig. 10 This operation has fed the actual film into the cassette, which is now rendered light-tight by turning the pointer on the handle to "1". **Important!**

Fig. 11 When the cassette is closed this unlocks the tank and the lid can then be removed with safety.

Fig. 12 The paper backing must now be parted from the film. The cassette is closed and only a small piece of the film end is visible. Remove the empty film spool and the backing paper, lay them with the paper downwards on the backing paper used for pulling and grasp **both** papers with one hand. Use the other hand to hold the end of the film with the joint. Lay the joint across the knife edge of the tank and the paper backing can then easily be severed obliquely. To prevent the cassette from opening during this operation it is advisable to hold down the handle to keep it in the locked ("1") position.

Fig. 13 Now open the clip of the leader strap and fasten it to the end of the film exactly **in the middle** of its width, using the cut-out portion of the knife edge as a positioning guide. Fasten the clip firmly so that its point pierces the rather thick joint of the film.

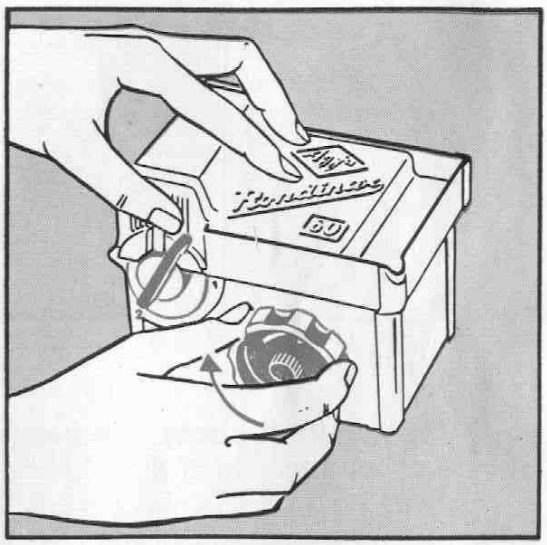


Fig. 14

DEVELOPING

First close the lid in the usual way, turning the handle to **position "2"**. Fig. 14 By turning the knob of the spiral the film is now drawn by the

The following operations must be carried out without a break, and no films should be processed until you are fully conversant with the nature and sequence of them. You are advised to read the section on developers, film types, temperature and times on page 13 carefully beforehand.

leader strap into the developer, wound on to the spiral and slowly agitated in the developer. The knob should be turned in short, jerky movements in the direction of the arrow during the **entire development time,** about half a turn every other second. The development time depends on the developer, type of film and temperature which, as already mentioned, can be seen from the table on page 18.

BRIEF INTERMEDIATE WASH

When development is complete the developer is poured from the tank by tilting it as illustrated and **turning** the spiral **all the time.** This is followed at once by three washing operations, still moving the film by turning

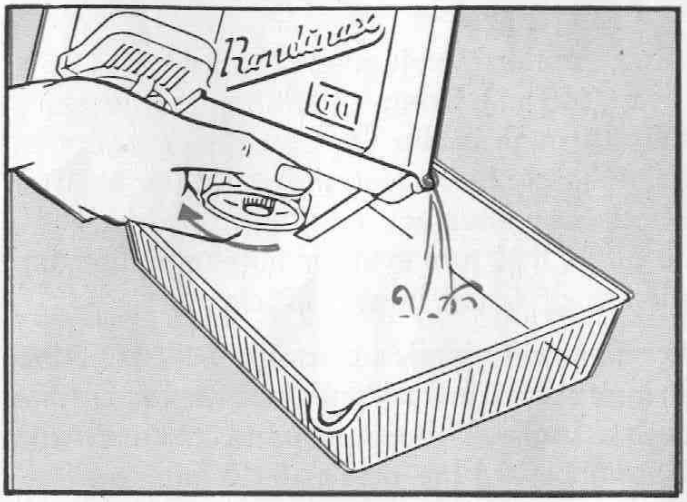


Fig. 15

the knob. **Do not open the Rondinax 60 at this stage,** as the film remains sensitive to light until it has been fixed.

FIXING

After the third wash empty the tank and pour 5 oz. (150 ml.) fixing solution into the small filling trough in the lid. Commence agitation immediately by turning the spiral knob. After about 2 minutes you need not turn the knob so often, a ¾ turn every minute until the completion of fixing being sufficient.

For films of speeds up to 18° DIN (50 ASA) fixing takes about 5–8 minutes, for faster films such as Agfa ISS, Agfa Isopan Ultra and Agfa Isopan Record the time is 8–10 minutes.

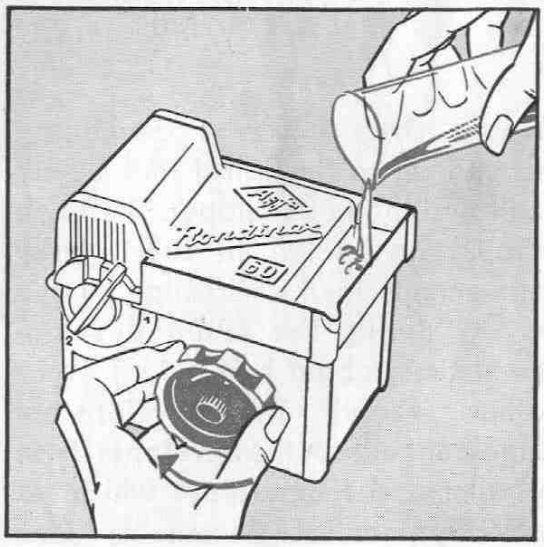


Fig. 16

You can now open the tank. If the film still bears evidence of milkiness in several places, in spite of adhering to the correct fixing time, replace the lid and continue turning the knob for about 1–2 minutes more when the film will be properly fixed. It is quite safe to use the fixing solution twice, but not more than this. See page 16 for instructions on preparing the fixing solution.

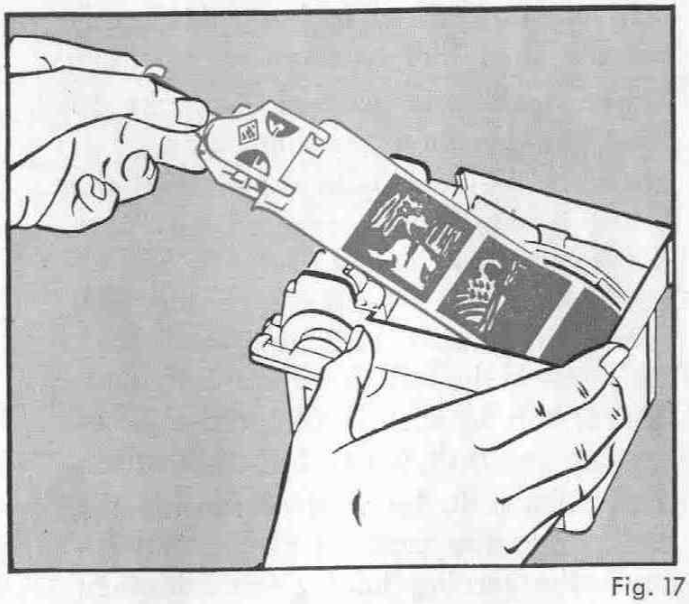


Fig. 17

FINAL WASH

After fixing, the film must be thoroughly washed to remove unwanted chemicals. Pour off the fixing solution, moving the agitation knob continuously. If you wish to use the solution again it should be poured into a separate container. The final wash can be given either in the tank or in a sink. If several films are to be developed in succession it is advisable to wash the film out-

side the tank so as to have this ready for the next film as soon as possible.

When washing in the tank first take off the lid and remove the film guide.

Now fill the tank with water until the spiral is completely covered and turn the knob a few times to release any air bubbles between the coils of the film. Rotate the knob occasionally and leave the water in the tank for about 5 minutes. Repeat this operation about 5–6 times pouring in fresh water for each wash.

If the film is to be washed **outside the tank,** undo the packing screw and remove the turning knob. You can then remove the spiral with ease and place it under running water in a deep basin, sink or similar receptacle. By this method the film should be washed for about 30 minutes.

After developing in Atomal the film should be washed extra thoroughly; in the tank about 8–10 washes each of 5 minutes' duration, or 45 minutes under running water outside the tank. If these instructions are followed rigorously you can be certain of obtaining satisfactory prints and enlargements from the negatives even after many years.

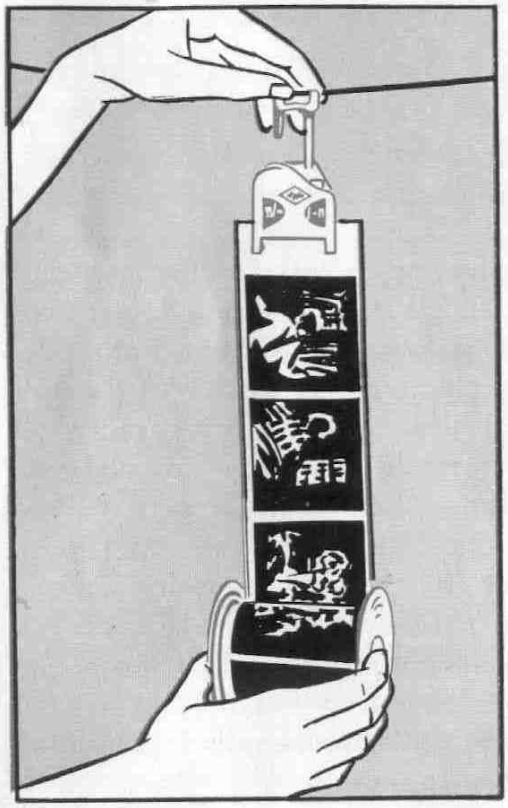


Fig. 18

DRYING THE FILM

Wet films are very susceptible to scratches and should therefore be handled as carefully as possible. When hanging up a film to dry it is best to unroll it from the spiral as shown in fig. 18.

You can also leave the spiral in the tank but then the packing screw will have to be loosened if the film is to unroll satisfactorily. Fasten a film clip to the free end of film and hang this from a taut string or wire about 6 ft. above the floor.

Now hold the spiral or Rondinax tank beneath this string and draw it slowly downwards; in this way the film unwinds from the spiral without being touched by hand. As soon as you have unwound the entire film, release the end from the leader strap clip and attach a second film clip to this end. *Do not use the tank spiral to weight the film.*

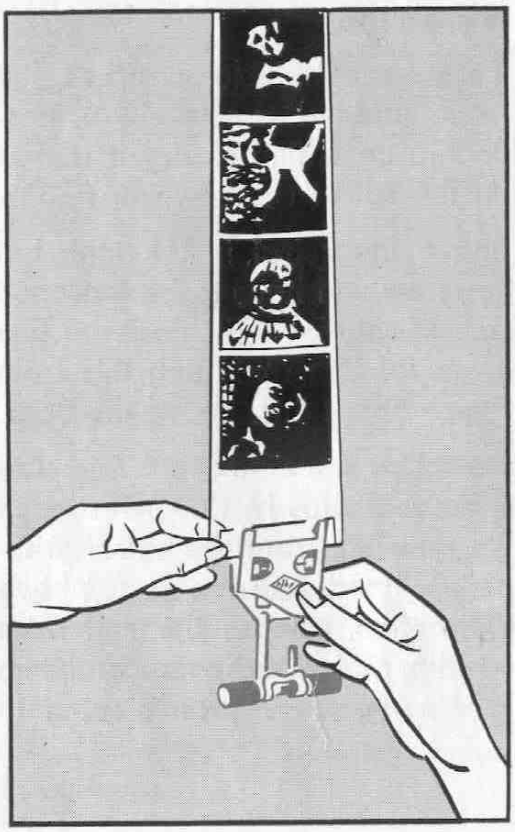


Fig. 19

After this, remove any excess water or drops from the film. To do this, pull the lower free end of the film taut and wipe down both sides carefully with a clean, moist, extra soft chamois leather. Do not use cloth or other materials because the film emulsion is very soft and sensitive to scratches when wet. Be sure to see that the film is held firmly by the top clip so that it does not fall down. Never dry films in the sun or near a stove or fireplace! Dust is the greatest enemy in photography and the slightest particle of dust on a negative is clearly visible in enlargements, so see that your films dry in a dust-free room.

DEVELOPERS • FILM TYPES • TEMPERATURE • TIMES

Developers should be made up in the prescribed manner. If several films are to be developed in succession it is advisable to prepare suitable amounts of stock solution.

Follow the makers' instructions accompanying films and developers and keep exactly to the developing temperature and times given.

If working conditions in development are standardized—always use the same concentration of solution at the same temperature—one will very soon become familiar with the characteristics of the respective type of film and developer, and ascertain the specific times of development.

The table on page 18 contains reliable information about development times with Agfa developers, and this can be used as a standard guide.

IMPORTANT!

Times of development shown by personal experience to be most suitable should be maintained on all future occasions in order to obtain uniform, optimum development.

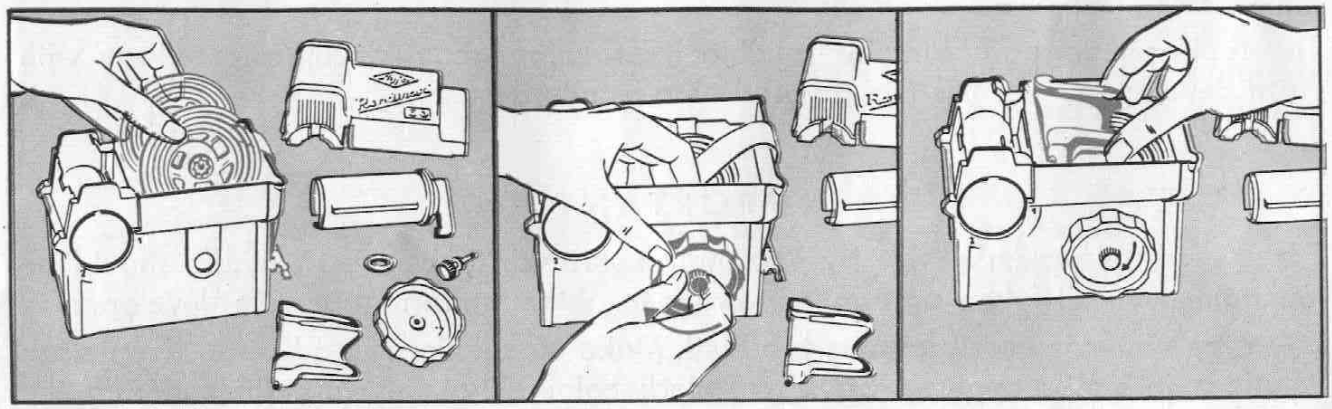
Fresh tap water is nearly always too cold. Make up solutions in advance. Keep stock solutions in well stoppered bottles of dark coloured glass, store them during the winter in heated rooms.

CLEANING

After use the tank must be thoroughly cleaned and should be dismantled for this purpose. Thoroughly wash the tank body, lid, turning knob and packing screw (do not lose the thin washer), film guide, spooling chamber and especially the spiral, leader strap and clip in running water. In some cases it may be necessary to use a brush to free the grooves of the spiral from gelatin residues etc. After cleaning, all parts—particularly the leader strap and clip—should be wiped down until completely dry.

REASSEMBLING THE TANK

Fig. 20 Replace the spiral with its square spindle hole facing the hole in the tank side.



20 21 22

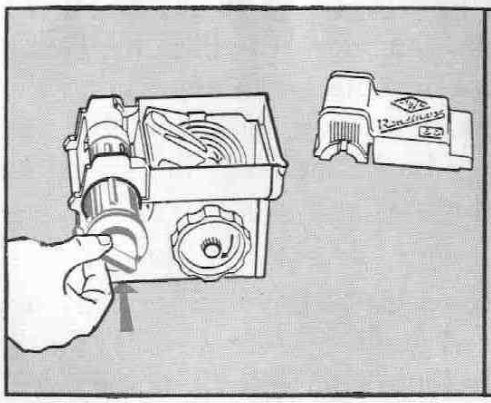
Fig. 21 Secure the turning knob to the spiral with the packing screw and washer. Tighten the packing screw so that the knob rotates readily.

Fig. 22 Insert the film guide with its ribs uppermost and its axis resting in the two guide grooves.

Fig. 23 Replace the spooling chamber so that the guide rib engages with the tank groove, and push right home.

Fig. 24 Place lid on tank

Fig. 25 and press down, at the same time turning the handle to position "2" to lock the tank.
The tank is then ready for further use.



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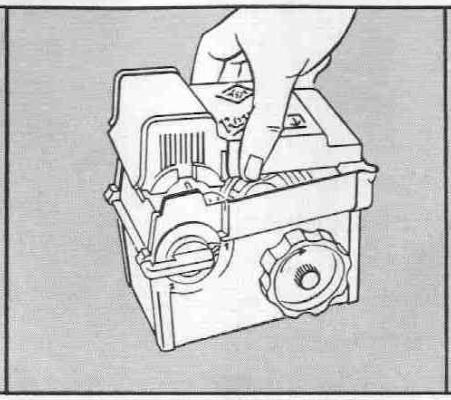

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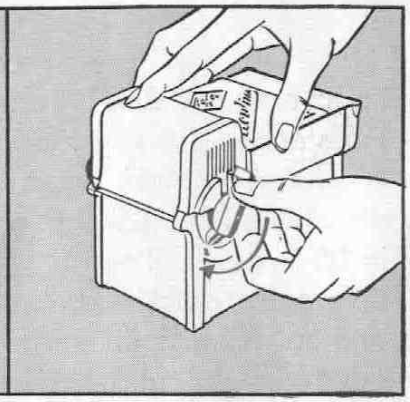


25

MAKING UP THE FIXING SOLUTION

To fix only one film 1½ oz. (40 grams) fixing salt are dissolved in 7 fl. oz. (200 ml.) of water. A stock solution is made by dissolving 7 oz. (200 grams) of fixing salt in 35 fl. oz. (1 litre) of water. The solution cools quickly as the salt dissolves and so fixing baths must be made up in advance and allowed to warm up to 64–68° F (18–20° C).

APPENDIX

Instructions for special cases

1. Films with torn backing paper should not be developed in the Rondinax tank. Damage of this kind can cause trouble when separating the paper from the film, and this can only be remedied in complete darkness.

2. If you wish to develop a partly exposed (and therefore only partly rolled up) film left in the camera for some length of time (2 weeks

or more), it may happen that difficulty will be experienced in feeding it into the spooling chamber. This is due to the fact that the film has lost its curl through being stretched for too long. This applies particularly to films used in Rolleiflex and box type cameras. The curling tendency can be restored by leaving the film rolled up for at least one day.

3 Films used in roll film adapters cannot be developed in the Rondinax 60 because after exposure they are wound on to the take-up spool in the opposite direction to that of the feed spool.

4 If loading difficulties should be experienced when separating the paper backing (possibly caused by faulty camera spooling), do not use force! Open the tank in complete darkness by moving the handle **to the vertical position** and remedy the deficiency. Then close the lid and re-set the handle pointer to "2".

Note! Use the vertical position of the handle only in this particular instance.

Agfa Films and Agfa Developers — Developing times at 68° F (20° C)

The table gives the developing times in minutes for normally exposed negatives	Isopan FF	Isopan F	Isopan ISS	Isopan Ultra	Isopan Record
DIN° (ASA)	13° (16)	17° (40)	21° (100)	25° (250)	
Agfa Atomal new Ultra fine-grain developer	**7–10**	**10–12**	**10–12**	**10–12**	**9–12**
Agfa Final Fine-grain developer	5–6	7–9	7–9	7–9	—
Agfa Rodinal Universal developer 1:75 dilution	15–18	**14–18**	**14–18**	—	—
1:50 dilution	—	—	—	—	15–20
Agfa Rodinal Universal developer 1:100 dilution	**16–20**	—	—	—	—

The times specially recommended are printed in **thick type.**

Records of practical experience

Development time in minutes	Temperature	Type of film					
DIN (ASA)							
Developer							

INSTRUCTIONS IN BRIEF

1. Prepare solutions (each 4 to 5 oz. or 130 to 150 ml.). Adjust temperature of solutions and tank to 68° F (20° C).
2. Set pointer to "1", remove lid, lay out leader strap and film guide.
3. Add 4–5 oz. (130–150 ml.) developer, check temperature, replace film guide.
4. Insert film and press against clamping springs, slit paper backing and draw out about 4 inches.
5. Put lid on, pointer to "2", draw out paper backing obliquely downwards.
6. Stop when exposure number "1" appears. Turn pointer to "1", open tank.
7. Sever paper backing, attach film clip, close tank, set pointer to "2", wind film on to spiral by continuous movement of turning knob.
8. During development (see page 18 for times) turn spiral knob in short, jerky movements.
9. Pour off developer, turning knob continuously.
10. Wash three times by pouring water into trough in lid; turn spiral knob all the time.
11. Pour in about 4–5 oz. (130–150 ml.) fixing solution. Fix for 10–15 minutes, again turning the knob. Afterwards pour off fixing solution.
12. Thorough final wash in tank or sink, at least 20–30 minutes.
13. Hang up film and weight free end, remove excess water.
14. Dismantle tank, clean thoroughly and dry, then reassemble.

INSTRUCTIONS FOR USE

Agfa

MADE IN GERMANY

AGFA RONDINAX 35 U

Daylight Developing Tank for 35 mm. Films

Type No. 3617

CONTENTS IN ALPHABETICAL ORDER

Fold back this flap when reading the instructions

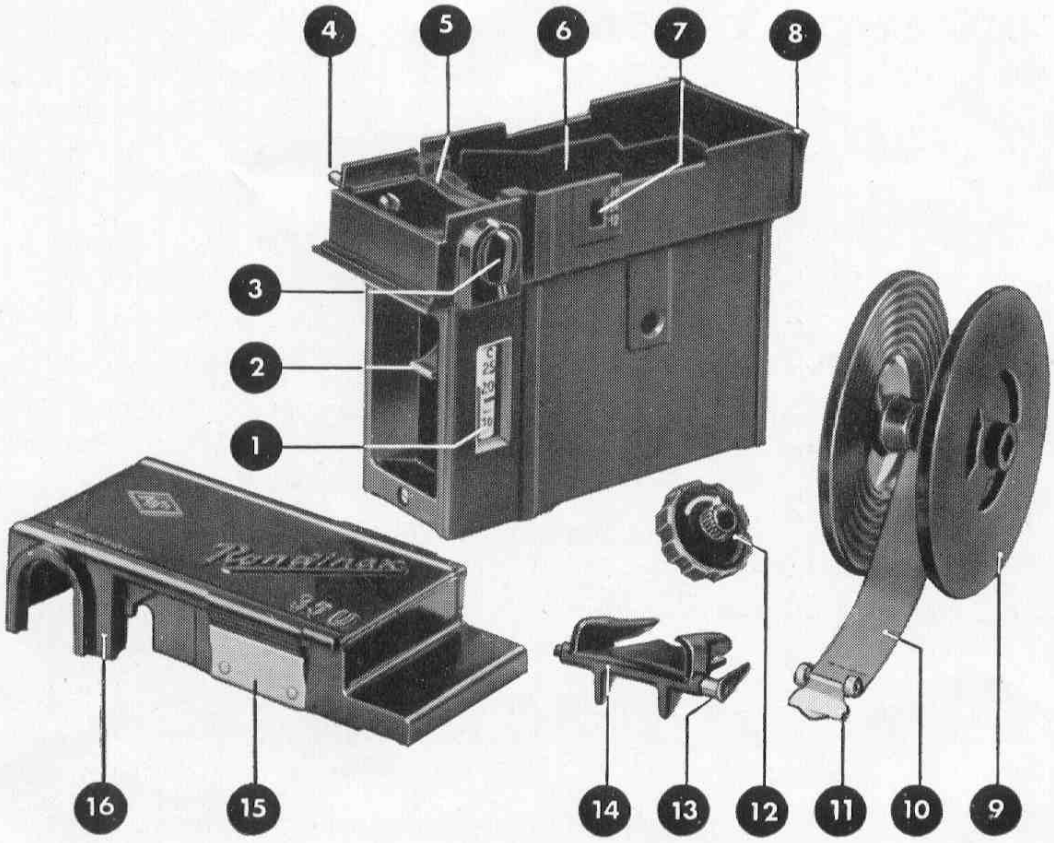


Fig. 1

① = Thermometer
② = Cutting lever
③ = Cassette opening key
④ = Cassette locating peg
⑤ = Guide slot for cutting knife
⑥ = Developing chamber
⑦ = Scale indicating length of film on spiral drum
⑧ = Lip for emptying tank
⑨ = Spiral drum
⑩ = Tension band
⑪ = Film clip
⑫ = Winding knob and sealing knob
⑬ = Locating pin
⑭ = Film guide
⑮ = Spring plate with serrated grip
⑯ = Lid

DEAR READER,

The Agfa Daylight Developing Tank 35 U puts you in the happy position of being able to develop your films yourself without the necessity for a dark room. It makes no difference whether the film you want to develop is a full length 36 exposure or a shorter length: any type of commercial miniature 35 mm. cassettes can be accommodated.

Do not allow yourself to be deterred by the fact that we describe the whole procedure down to the last detail: read the instructions through carefully before attempting to develop a film. The manipulation of the tank is so practical and ingeniously devised that once the first film has been developed in it there is no need to refer again to the instructions. The summarised instructions on page 19 will provide sufficient reminder of the correct sequence of operations and the composition of the chemical solutions required.

PRELIMINARY PREPARATIONS

It is a good plan, before actually developing a film in the tank, to familiarise yourself with the procedure by carrying it through with the tank empty, preferably with a waste film.

The following solutions should be placed ready to hand: 7 fluid oz (200 cc.) developer working strength, at 68° F. (20° C.)—3 x 7 fluid oz (200 cc.) water (for intermediate rinsing)—7 fluid oz (200 cc.) fixing solution at 64–68° F. (18–20° C.). You will also require a bowl, a pair of scissors, a thermometer, a soft, clean chamois leather, and two film clips.

WARMING THE TANK

The correct temperature for development is 68° F. (20° C.), and **both** the developing solution and the tank itself must be brought **separately** to this temperature before winding in the film. The best way to ensure that the tank reaches this temperature with the least possible delay is to keep it at room temperature when not in use; for an empty tank at, say, 50° F. (10° C.) when brought into a warm room takes about an hour and a half to reach a temperature of 68° F. (20° C.). The temperature of the empty tank can be read, with the lid closed, from the built-in thermometer.

The practice of compensating for developing temperatures above or below normal by varying the time of development is liable to lead to incorrect results and should therefore be avoided.

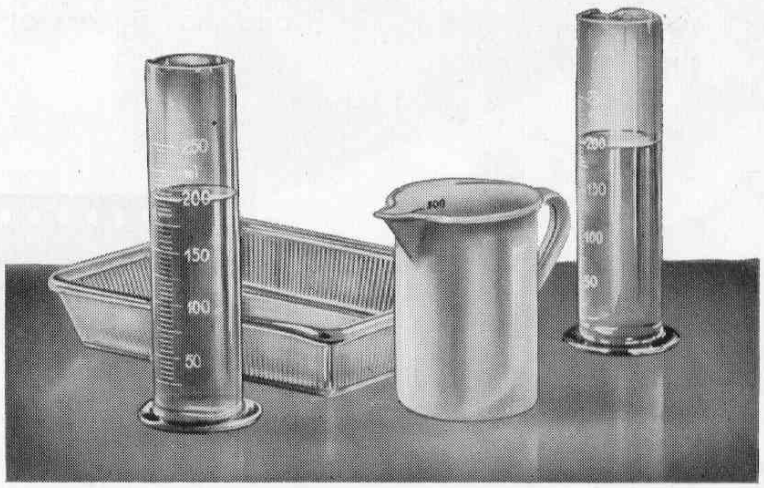


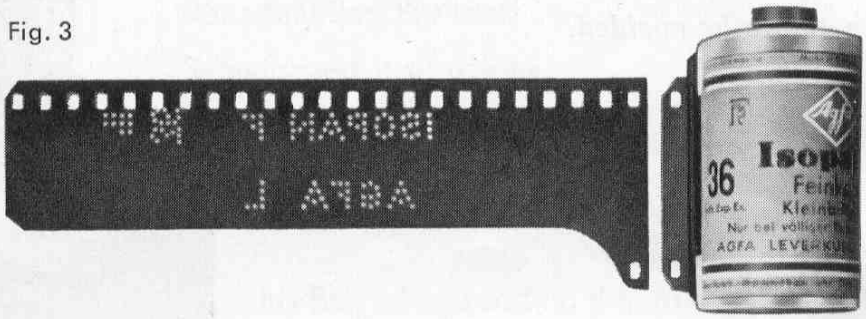
Fig. 2

CUTTING OFF THE FILM TONGUE

Films to be developed in the Rondinax 35 U should **not be completely rewound** into the cassette (the film tongue should protrude a little), and care should always be taken **when rewinding** to ensure that this does not happen. After a little practice you will quickly learn to detect the sound of the film leaving the take-up spool in the closed camera. If by accident the film tongue has been wound right back into the cassette it must be brought out again in the darkroom. If necessary your photographic dealer will gladly perform this small service for you.

The narrowed film tongue projecting from the cassette must now be cut off with a pair of scissors as shown in Fig. 3 and the corners of the leading edge rounded off, and turned slightly under.

Fig. 3



OPENING THE TANK

To open the Rondinax 35 U grip the lid by its two serrated grips (17) and pull it off vertically from the tank body; in doing so a certain amount of spring pressure has to be overcome.

Make sure that when the tank was last cleaned and reassembled the sealing knob (18) was not screwed up too tight, and that the winding knob (19) turns easily, and also ensure that the cassette chamber, film guide (14), spiral drum (9) and tension band (10) (see Fig. 1) **are completely dry.**

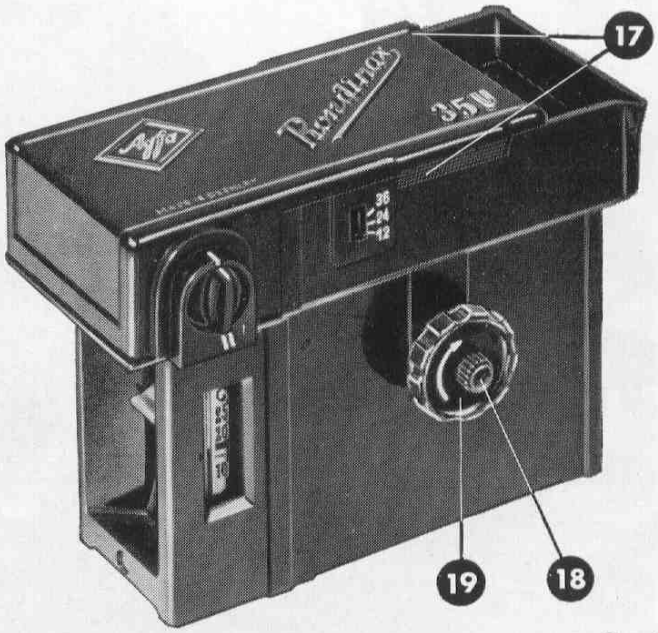
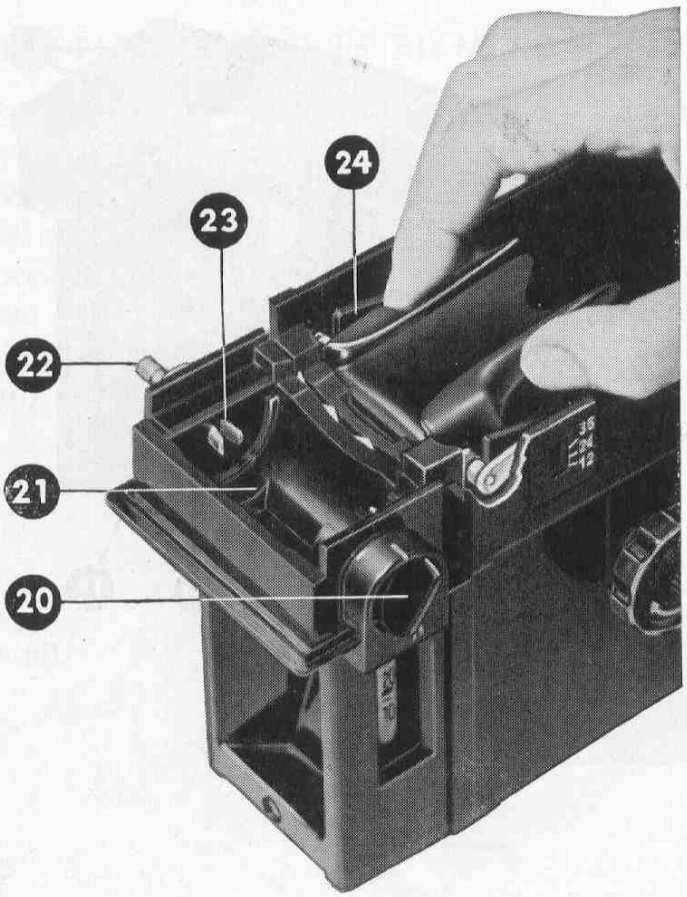


Fig. 4



LOADING THE FILM INTO THE TANK

Loading and developing may be carried out in daylight, but direct sunlight should be avoided.

Before loading any kind of cassette into the tank, the cassette key (20) must first be turned so that its index mark is opposite "I"; the peg (22) and the cassette key must then be pulled outwards. Now lower the cassette vertically into the chamber (21), with the **open end of the cassette** towards the **driving prongs (23)** and the **knob of the spool** facing the **cassette key (20). Finally push the peg (22) and cassette key (20) back home again.**

Before using your Rondinax 35 U to develop films in **special cassettes** (such as the Leica, Contax, Robot, Photavit or Karat) read carefully the explanation relating to the particular cassette involved which will be found on the **Appendix** on pages 16–18.

Fig. 5

ATTACHING THE FILM CLIP

To enable the tension band with its attached film clip to be more easily withdrawn the film guide (24) can be removed (see Fig. 5); however, do not on any account forget to replace it immediately as shown in Fig. 5. Open the film clip (26) attached to the tension band and lay it in the recess (25) (see Fig. 6) provided in the centre partition of the tank. With the left hand place the leading edge of the film up against the hinge of the open clip, holding the clip in the right hand. In closing the clip press the jaws firmly together to ensure that the end of the film is perforated and so held securely. Take care that the film is central in the clip, projecting an equal amount on both sides.

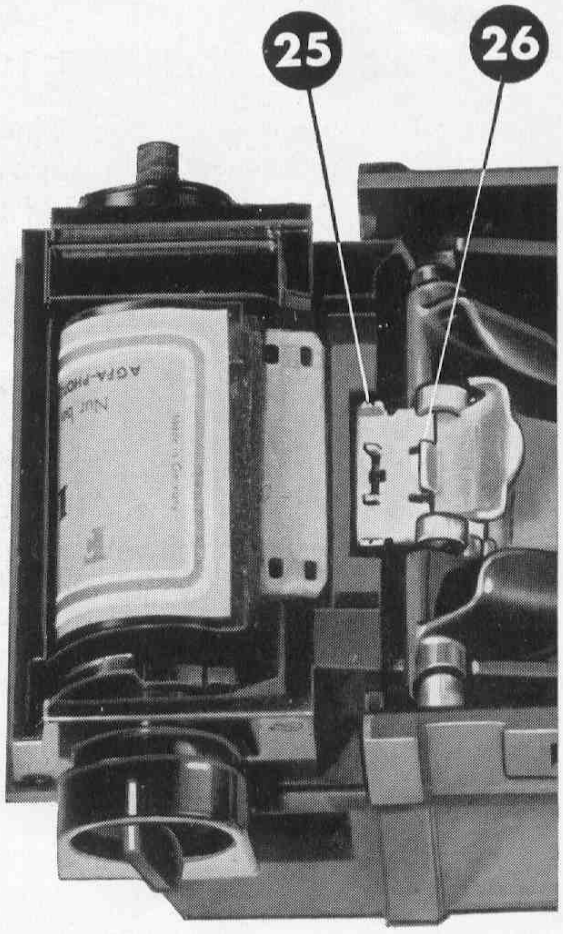


Fig. 6

WINDING THE FILM ON TO THE SPIRAL DRUM

With the lid still off, wind about 2 inches (5 cm.) of the film on to the film guide by turning the winding knob (19) (see Fig. 4) slowly in the direction of the arrow. This length of film is ample to ensure that the end of the film is threaded cleanly into the film guide. No exposed frames will be lost in this way at the beginning of the film, because in loading the camera at least one frame is wound on after the tongue is entirely on the take-up spool before the first exposure is made. Should resistance be felt even when only this short length of film has been wound in, this indicates either that the corners of the film have not been turned under or that the leading edge of the film is not gripped centrally in the film clip, or maybe even that you have forgotten to replace the film guide (14) (Fig. 1).

Replace the lid on the tank and by turning the knob (19) (Fig. 4) wind the film into the spiral grooves of the drum, which will fill outwards from the centre. As winding proceeds, the film length indicator will show approximately the number of exposures which have been wound from the cassette into the tank.

As alternative lenses there are the

Agfa Color-Telinear f/4.0 – 90 mm. telephoto and
Agfa Color-Ambion f/4.0 – 35 mm. wide angle,
each in helical focusing mount.

With all three focal lengths is incorporated:

the built-in coupled range and viewfinder
with automatic viewfinder parallax compensation and
reflection framing of field of view.

All three lenses have the same 37 mm. outside diameter front cell, so that only one set of filters and one lens hood is needed to serve all lenses. As an exposure meter we recommend the Agfa Lucimeter M or S or one of the accessory shoe attachable meters now commercially available.

May we finally suggest that you first of all take your camera and try out for yourself —without a film in the camera—the various points which are explained in the following pages? By so doing you will come to appreciate the advantages which the Ambi Silette has to offer, and at the same time familiarize yourself with the few operations that are needed to use it.

CUTTING OFF THE FILM

As soon as a considerable resistance to winding is felt, **stop turning the knob immediately,** as this indicates that the complete film has been wound on to the drum. In the case of a 36-exposure miniature film this indicator (7) (see Fig. 1) will read 36. The film must then be severed from the empty cassette by pressing the cutting lever hard upwards to a definite stop (see Fig. 7).

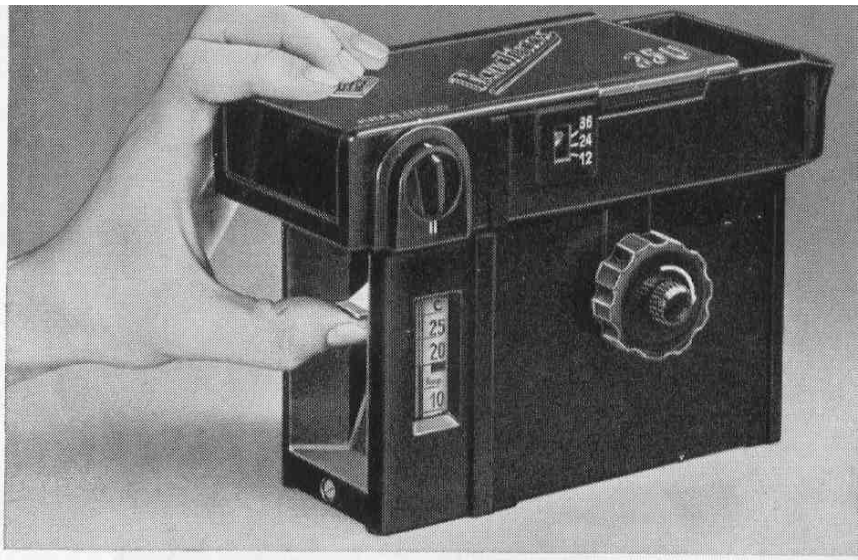


Fig. 7

If only part of the film has been exposed—say, 24 frames—there is no need to develop the whole film: wind the film on to the drum until the indicator (7) (see Fig. 1) points to 24, then with the knife cut off the part to be developed; there will then be wound on the drum 24 exposed frames together with about 2 inches (5 cm.) of unexposed film.

Leica and Contax all-metal cassettes must be closed **before** the film is cut.

INTERMEDIATE RINSING

When the developing time has elapsed pour off the developer by tilting the tank, still **continuing to turn the knob,** and give the film three successive rinses, turning the knob all the time. Throughout each rinse the film must be kept continuously in motion. **The tank must however still not be opened** because the film remains sensitive to light until after it has been fixed which is carried out in the next stage of the procedure.

Fig. 9

FIXING

After emptying the last rinse water slowly pour 7 fluid ozs. (200 cc.) of the already prepared fixing solution into the filling aperture in the tank lid and immediately resume rotation of the spiral drum. After about two minutes the rate can be slowed up, and for the rest of the fixing time it will suffice to give the drum about three quarters of a turn every minute.

DEVELOPMENT

The following procedure must be carried through continuously without a break, and it is therefore essential to be familiar **in advance** with the details and sequence of the operations. It is also advisable to read carefully through beforehand the section headed "Developers — Types of Film — Temperature — Development Time" (pages 12–13).

Check the temperatures of tank and developer and look up the "correct" developing time from the Table on page 20.

Pour the 7 fluid ounces (200 cc.) of developer into the filling funnel aperture in the lid and **turn the winding knob continuously in a series of jerks.** During the whole period of development **this rotation of the spiral drum must be continued,** the knob being given a half turn every two seconds in the direction of the arrow.

It is strongly recommended that the developing solution should be used once only.

Fig. 8

For films with a speed rating of 18° DIN or less the fixing time is about 5–8 minutes; higher speed films, such as Agfa ISS and Agfa Isopan Ultra require 8–10 minutes. The tank may now be opened. Should the film, notwithstanding having been fixed for the full specified time, still appear milky in places, the lid should be replaced and rotation of the knob continued. After another 1–2 minutes the film should be completely fixed. The fixing bath can be safely used twice, but we do not advise its use for more than two films. Details of the preparation of the fixing solution will be found on page 13.

FINAL WASHING

To free the film completely from chemicals, fixing must be followed by thorough and systematic washing. Continuing to rotate the knob, pour the fixing solution out of the tank. If you intend to use the solution again for a second film it must be poured into a separate bottle. The final washing operation can be carried out either in the tank or in a basin.

If the tank is to be used for washing, first remove the lid and take out the film guide.

Fill the tank with water until the drum is completely covered. To remove any air bubbles which may have been trapped between the turns of film, give the winding knob a few turns. Leave the film soaking in the tank full of water for about 5 minutes, rotating the knob a few times. Repeat this process five or six times.

If the film is to be washed outside the tank, the sealing knob must first be unscrewed and the winding knob removed. The spiral drum can then easily be taken out of the tank and may be placed in a deep bowl or washbasin and washed in running water for about 30 minutes.

When Agfa Atomal has been used for development, washing must be particularly thorough: about 8 to 10 changes of 5 minutes each in the tank or 45 minutes in running water. Only by meticulously observing all these times can it be guaranteed that even after a number of years the film will yield perfect enlargements.

DRYING

Wet films are very susceptible to damage, and must therefore be handled with the utmost care. It is therefore advisable to remove the film from the spiral drum for drying in manner shown in Fig. 10. The spiral drum can of course be left in the tank, but in that case to ensure frictionless unrolling of the film the sealing knob must be loosened. A film clip is then attached to the free end of the film and the film hung free from a line stretched at about 75 inches (190 cm.) from the ground. Holding the spiral drum or Rondinax tank

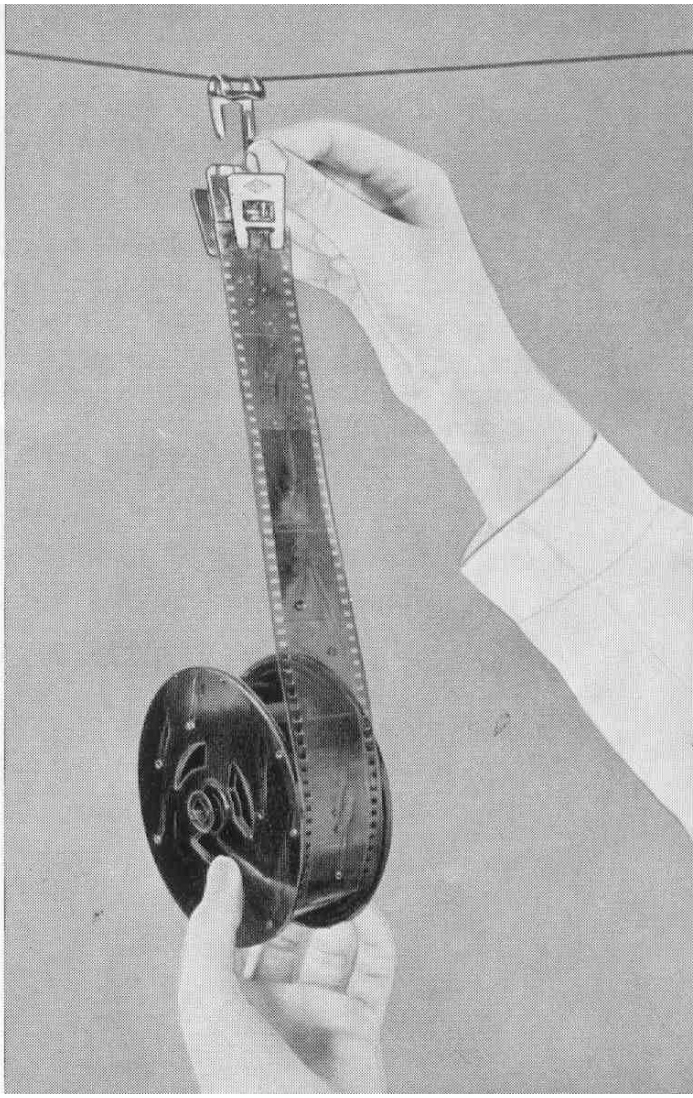


Fig. 10

beneath the stretched line lower it gradually to the ground; this causes the film to unroll from the grooves of the drum without any need to touch it at any point. When the whole film has unrolled, release the end from the clip on the tension band and replace it by another clip to weight the end down.

Do not use the spiral drum itself as a weight.

Surface water and water drops should be removed from the film. To do this pull the film taut by pulling on the free end and wipe it down carefully on both sides with a clean, moist, very soft chamois leather. Do not use any kind of makeshift rag for the purpose, because the emulsion in the wet condition is extremely tender and very susceptible to damage by scratching. Take care, too, that the top end of the film is securely held in the clip so that it does not become detached by the pull on the bottom clip. Never dry films in the sun or near a radiator. Dust is the greatest enemy in miniature photography, every speck on the negative making itself unpleasantly obvious in the enlargement. Always dry them, therefore, in a room free from dust.

DEVELOPERS — TYPES OF FILM — TEMPERATURE — DEVELOPMENT TIME

The developing solution must always be made up with the greatest care. If a number of films are to be developed in succession, have sufficient developer solution ready made up in advance.

Films should be developed in accordance with the instructions issued with them, and the development temperatures and times stated rigidly adhered to.

Always work under the same conditions—the same strength developer and the same temperature—in this way you will quickly get to know the characteristics of the types of film you use and the most suitable developing time.

The Table on page 20 gives details of the developing times which experience has shown to be most suitable for correctly exposed Agfa miniature films using Agfa developers; these will serve as a useful guide.

IMPORTANT

Once having found the best developing time as the result of experience, it should be strictly adhered to in order to obtain consistently good results.

Water straight from the tap is usually too cold, and solutions should therefore be made up well in advance. They should be stored in well sealed, dark glass bottles, and in winter kept in a warm room.

THE FIXING SOLUTION

For fixing a single film dissolve 1½ oz (40 gm.) of Agfa Fixing Salt in 7 fluid oz (200 cc.) of water. For a stock working solution dissolve a 7½ oz (200 gm.) package in 35 fluid oz (1 litre) of water. The solution cools rapidly as the salt dissolves; it should therefore be prepared well in advance and brought to 64–68° F. (18–20° C.).

CLEANING THE RONDINAX 35 U

After use, the Rondinax 35 U must be dismantled, and all its component parts—tank body, lid, winding knob, sealing ring, film guide, and more especially the spiral drum with its tension band—thoroughly washed in running water. If necessary, the grooves of the spiral drum should be cleaned of traces of gelatine etc. with a brush. When cleaning the body of the tank take care that no liquids penetrate into the loading chamber (27, Fig. 11) or into the guide slot of the cutting knife (28); otherwise the next film to be wound into the tank may pick up impurities. If need be, however, the knife and its guide slot can be cleaned by undoing the three screws (33, Fig. 11) on the front of the tank and lifting the loading chamber out of the tank, whereupon the knife will fall out. After cleaning, the retaining ring of the tension spring must be pressed on to the small bolt, the other bolt engaging with the driving pin of the lower part of the knife. The knife must be held in place while the loading chamber is being replaced on the tank. The two parts are then reunited with the three screws (33).

REASSEMBLING THE RONDINAX 35 U

The procedure for reassembling the tank is as follows:

Insert the spiral drum so that the square hole faces the hole in the tank wall. The sealing knob (30) with its spacing washer (32) and rubber washer (31) connects the winding knob (29) with the spiral drum. Tighten up the sealing knob only just sufficiently to seal the tank effectively while still allowing the winding knob to be easily turned. When inserting the film guide take care that the locating pins are lying correctly in their slots. Fig. 5 shows the correct position.

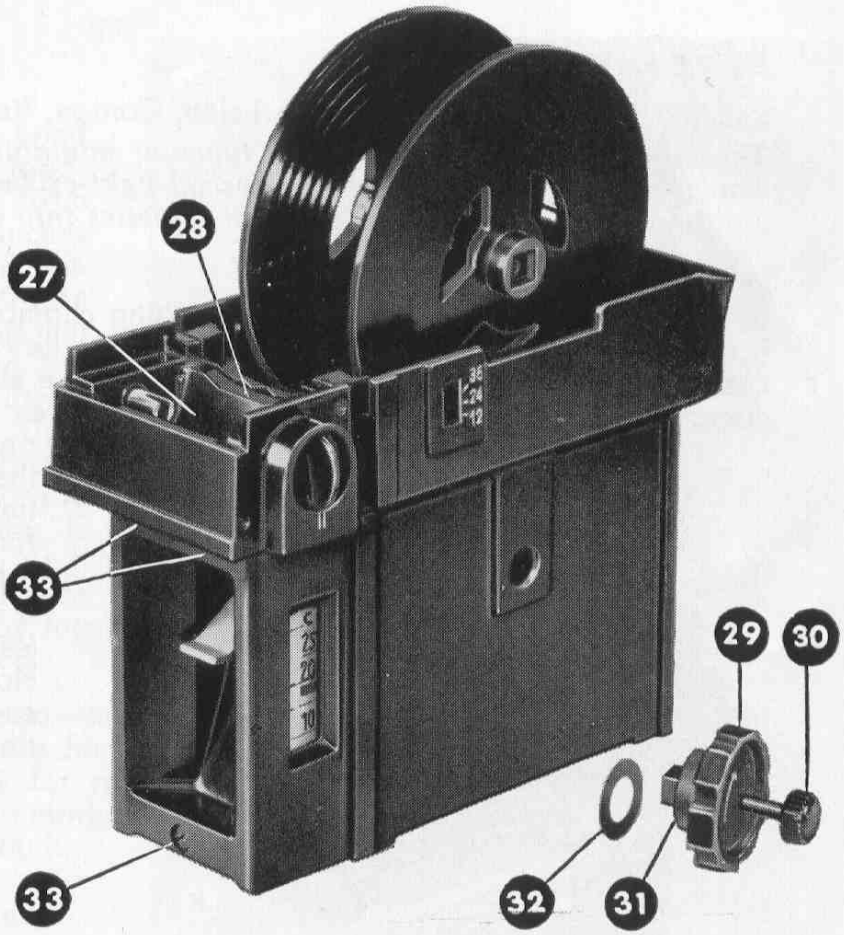


Fig. 11

APPENDIX

Special procedure when loading Leica, Contax, Robot, Photavit, and Karat cassettes.

The all-metal cassettes of various types of miniature cameras differ in construction and in dimensions, some of them having special light-excluding closing devices. Special instructions are therefore needed for loading such cassettes into the tank.

Leica Cassettes:

In placing the Leica cassette in the loading chamber take care that the cassette spring is **facing downwards** and that when the cassette key (3) is pressed inwards the recess of the cassette opening mechanism beside "C" can be slid over the operating knob "K" of the cassette. Press in the peg (4) and the cassette key (3), attach clip to the film as explained on page 5 and close the tank by replacing the light-tight lid. Open the cassette by turning the key (3) to the position II. All further procedure is as already described for standard cassettes.

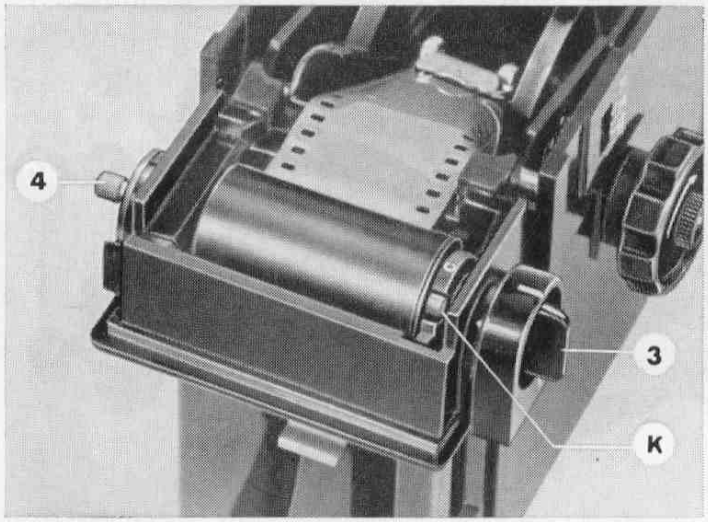


Fig. 12

If only **part of the film** is to be developed (see also page 7), the cassette must be closed **before cutting off the film,** i. e. **the cassette key** (3) must be turned **to the position "I".**

Contax Cassettes:

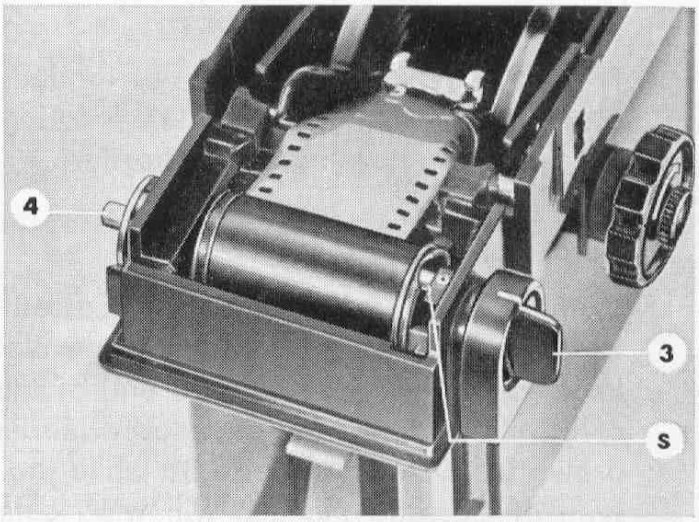


Fig. 13

In the case of Contax cassettes the end of the film must be attached to the tension band clip **before** the cassette is placed in the loading chamber. The procedure differs also from standard procedure in that about 2 inches (5 cm.) of film must be withdrawn from the cassette before clipping it up to the tension band. Thread the end of the film into the film guide by turning the winding knob in the direction of the arrow, and **only then** lower the cassette into the loading chamber. Then pull the film taut with the winding knob and turn the latter until the operating pin S of the cassette is exactly opposite the letter C (Contax). Push in the cassette locating peg, and close the tank by replacing the light-tight lid. The cassette may now be opened by turning the cassette key to the position "II". All further procedure is as already described.

If only **part of the film** is to be developed—see page 7—the cassette must be closed and rendered light-tight **before cutting off** the film by **turning the cassette key to "I".** When the cassette is removed from the tank for replacement in the camera, a small further movement of the closing shutter must be made by hand to bring the word "zu" (= closed) exactly to the middle of the cassette mouth.

Robot and Photavit Cassettes:

These two types of cassette are loaded in exactly the same way as manufacturers' film cassettes except that **the cassette locating peg and cassette key remain pulled out throughout the whole development procedure.**

Karat Cassettes:

With the 12-exposure Agfa Karat Cassettes, likewise, the cassette locating peg and cassette key remain pulled out throughout development. After clipping in the film turn the winding knob very slowly to feed the end of the film into the film guide. On account, however, of the shortness of the unexposed leader, **not more than five perforations** must be withdrawn from the Karat cassette while the tank remains open. There being no spool in this type of Cassette the film will wind completely out into the tank spiral as soon as the indicator reaches 12. For the same reason it is not possible to cut off for development a still shorter length of film by means of the cutting knife.

SUMMARISED INSTRUCTIONS

1. Prepare solutions (7 oz = 200 cc., see Introduction). Bring them and the tank to 68° F. (20° C.).
2. Open the tank by removing lid and hang tension band over edge of tank.
3. Cut off film tongue (not necessary with Karat cassettes) and pull about ¾" (2 cm.) of film out of cassette.
4. Place cassette in loading chamber (see page 4).
5. Place opened film clip (fixed to tension band) in recess in dividing wall of tank, insert end of film in clip and press the clip so that its teeth penetrate the film (see p. 5).
6. Thread about 2 inches (5 cm.) of film (for Karat films see p. 18) into film guide by turning winding knob (corners of film must be bent under); replace lid on tank.
7. Wind film into spiral drum by turning winding head. Finally cut off film from spool with cutting knife.
8. Carefully pour 7 oz (200 cc.) of developer into tank, i. e. into opening in lid, turning winding knob in direction of arrow, with short jerky movements, half a revolution every two seconds. Developing time 5–18 minutes—see Table, page 20.
9. Pour off developer while continuing to turn knob. Rinse for about 1 minute.
10. Pour 7 oz (200 cc.) of fixing solution into tank, and fix for 10 minutes continuing to turn knob.
11. Wash thoroughly: 20–30 minutes (see page 10). Finally hang up film to dry.
12. Take tank to pieces, thoroughly clean, and reassemble.

Agfa Films and Agfa Developers

Development times at temperature of 68° F. (20° C.)

The table gives times of development in minutes for correctly exposed negatives.	Isopan FF	Isopan F	Isopan ISS	Isopan Ultra	Isopan Record
DIN °	13°	17°	21°	25°	29°
Agfa Atomal New Ultrafine grain developer	9–10	11–12	12–14	12–14	10–12
Agfa Final Fine-grain developer	5–6	8–9	10–11	10–11	—
Agfa Rodinal Universal developer 1:50 dilution	—	—	—	—	15–20
1:75 dilution	12–14	14–18	14–18	—	—
1:100 dilution	16–20	—	—	—	—

Hints on Developing Agfa Isopan Record Film

For films exposed under very poor lighting conditions use Rodinal (1 : 50) or Atomal and increase developing time by 50–100% in order to make the most of the high speed of this film. The same applies to subjects of weak contrast.

Fix from 6 to 7 minutes in an acid fixing bath.

For very urgent cases:

Rapid developing: Rodinal diluted 1 : 10, developing time 2–2½ minutes (68° F. = 20° C.); rotate spiral drum continuously. The grain of the negative will then become slightly coarser.

Rapid fixing: When using a rapid fixing bath (e. g. Agfa 304) the fixing time will be from 2 to 3 minutes.

Agfa 304:

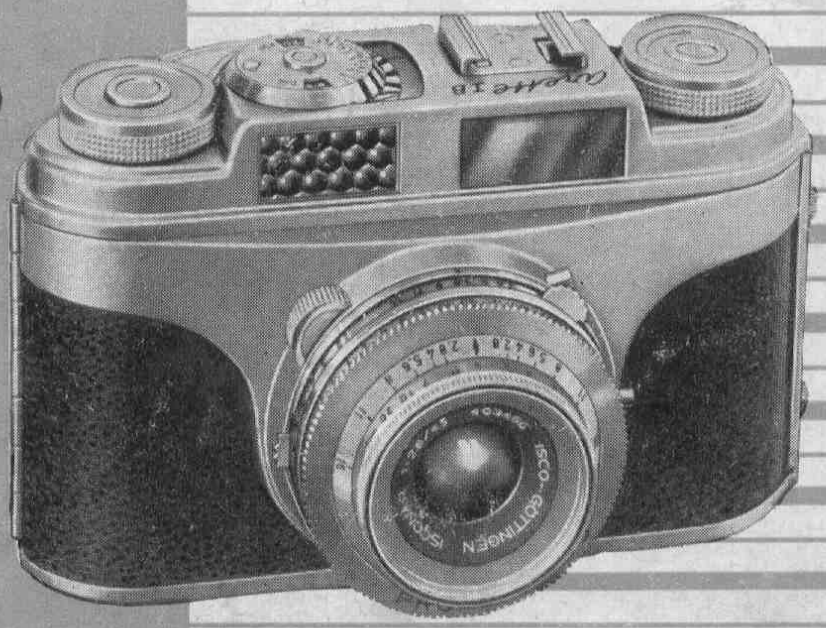
Sodium thiosulphate	4 ounces	(200 grams)
Ammonium chloride	1 ounce	(50 grams)
Potassium metabisulphite	175 grains	(20 grams)
Dissolve in water and make up to	1 pint	(1 litre)

AGFA AKTIENGESELLSCHAFT
CAMERA-WERK MUENCHEN

1714 engl. - 1259

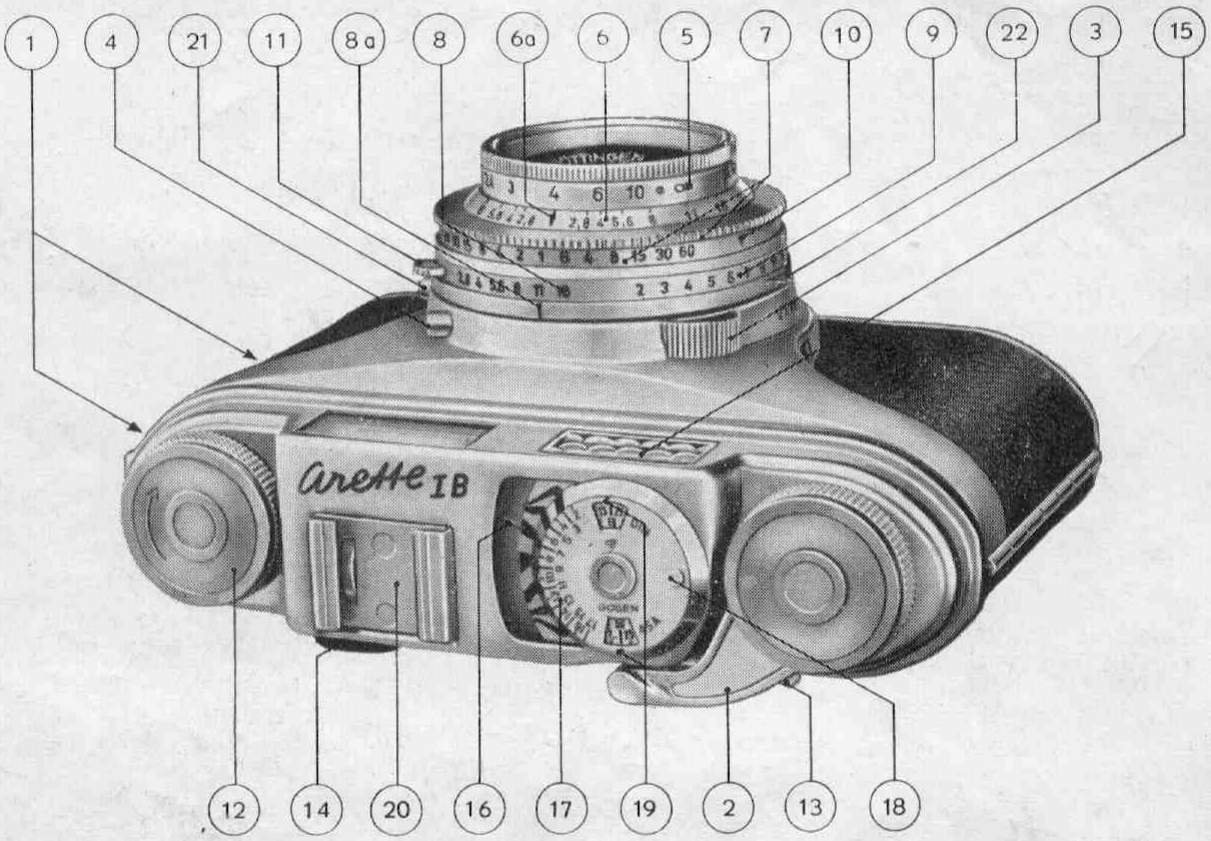
Arette IB

with exposure value meter



DIRECTIONS FOR USE

E


1
4
21
11
8a
8
6a
6
5
7
10
9
22
3
15
Arette IB
12
14
20
16
17
19
2
13
18

OPERATIONAL PARTS OF THE ARETTE IB

1 Double bolt of back
2 Rapid lever wind, simultaneously operates film transport and shutter cocking
3 Release knob
4 Cable release socket
5 Focussing ring with scale in feet
6 Depth of focus scale with focussing marker 6a
7 Time setting ring combined with scale for exposure times
8 Diaphragm scale with focussing marker 8a
9 Exposure value scale with red exposure value figures 2 to 17
10 Red focussing triangle marker for exposure value setting
11 Interlocking latch for exposure value setting
12 Rewind knob
13 R-lever for use during rewind
14 View finder eye-piece
15 Photo cell of the exposure value meter
16 Pointer of the exposure value meter
17 Dial with red exposure value figures
18 Button for adjusting figure dial 17
19 Scales for adjusting film sensitivity
20 Accessory shoe
21 Flash contact Socket
22 Synchro switch lever V-X-M on underside of camera (see page 6)
24 Exposure counter
25 Film indicator, to mark type of Film inserted

The attractive miniature camera ARETTE will become your reliable companion, soon to be indispensable. You will need to acquaint yourself with only a few manipulations in order to obtain successful pictures at all times. Contributing to this end are four distinguishing features of ARETTE; which:

ENSURE firm grip, by means of the original shape, which affords a natural grip

ENSURE faultless framing by means of the bright and accurate combined exposure meter – view finder

ENSURE rapid and reliable action by means of the rapid lever wind and shutter with exposure value setting

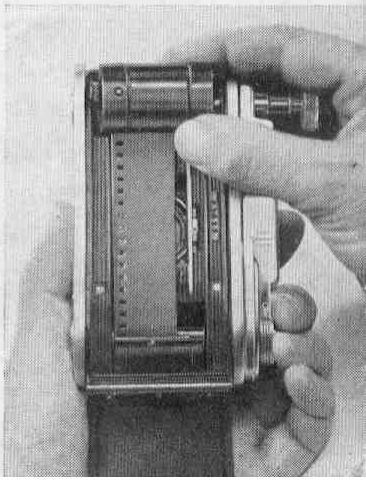
ENSURE correct exposure and colour-tone rendering by means of the built-in exposure value meter

FILM

The ARETTE takes the perforated miniature film (35 mm) as obtainable in the standard miniature cassette for 20 or 36 exposures, 24×36 mm. To open the back of the camera, the two bolts (1) are pressed against each other with the thumb and index finger of the right hand.

Thread the tapered end of the film which protrudes from the cassette into the red marked slot of the take-up spool until **a few millimeters** of the film jut out at the other side, then fold back pressing lightly with a finger. During this operation the perforated edge of the inserted film must lie against the lower wall. Care must be taken **that the end of the film not leave the slot unintentionally** as this may cause an obstruction towards the middle or end of the exposures.

The film cartridge is then inserted into the cassette chamber of the camera, after the backward winding knob (12) has been fully extended. As soon as the cassette is in its correct position, the rewind knob (12) is pushed back and by turning in the direction of the arrow the film is straightened, so that it lies on the focal plane. The back wall can now be replaced. Before taking photographs the film should be advanced as described on page 6.

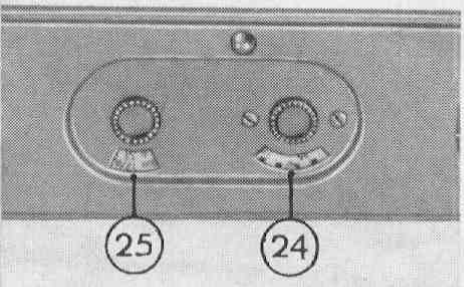


FILM TRANSPORT

To advance the film the lever wind (2) is moved until it comes to a halt. Prior to the next release, the film can be advanced by only one exposure as the built-in dual purpose interlocking device makes double exposure impossible. In order to obtain regular picture intervals on your film strip care should be taken that the rapid lever wind (2) is turned right up to the halting point. If this is not done the exposure counter (24) will not accurately indicate the correct number. This would, of course, only result in a slight imperfection which would have no bearing on the correct functioning of the ARETTE and would be rectified during the next lever action.

EXPOSURE COUNTER

The end of the film which protrudes from the cassette is always pre-exposed. Before photographs are taken this section of the film should be removed by means of 2 or 3 blank lever actions. Only after these blank lever actions should the counter (24) be brought into its basic position by pressing the knob with tip of the finger and turning the exposure indicator either right or left on to figure 0.



If, when practicing with the camera, before it is loaded, you cannot get the exposure counter (24) to indicate the expected value, don't be disconcerted. This discrepancy always adjusts itself during the next lever action. Once the camera is loaded

the blank retro-action of the counter mechanism which causes this apparent fault is completely checked and the exposure counter (24) will always reliably indicate the number of exposures made.

ADJUSTMENT OF FILM SENSITIVITY

After loading, the film sensitivity, which is shown on the package in DIN or ASA, should be transfered onto the exposure value meter. At the same time the dial (17) is set to indicate the sensitivity value of the film on the window (19) with the designation "DIN" or "ASA" as the case may be, by turning button (18). In addition, the type of film used should be shown on the film-in-use indicator at the base of the camera, the designations "Color-positive" and "Color-negative" indicating reversal colour film or negative colour film, respectively.

EXPOSURE VALUE READING AND EXPOSURE VALUE ADJUSTMENT

One of the most important factors in obtaining successful photographs is that precisely the right amount of light falls on to the film. In principle, it is the same whether this light volume is obtained by the effect of little light over a longer or of much light over a shorter period.

The principle of modern exposure value adjustment is to express this light volume, having due regard to the film sensitivity, in one number, the so-called exposure value.

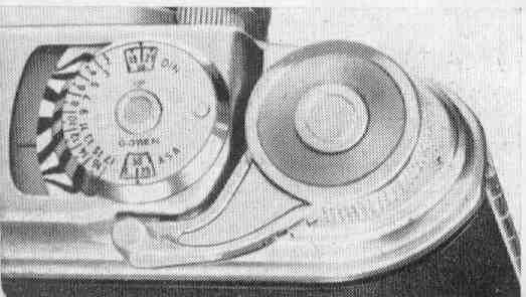
This exposure value number is read off the instrument of the exposure value meter and then adjusted on the shutter of the camera. The mechanism of the shutter takes care that the correct volume of light for exposure value adjustment always reaches the film in that it shuts the diaphragm for long exposures, so that the light only penetrates through a slight aperture and increases the aperture of the lens for short exposures.

This coupling of exposure time and diaphragm in the exposure value shutter permits facile and rapid action, unaccompanied by unnecessary mental effort. This particularly refers to colour film photographs which allow relatively little margin for exposure and must be exposured accurately.

PHOTOELECTRIC EXPOSURE VALUE METER

The camera is pointed towards the object. The needle of the exposure value meter, which can be read conveniently from above, will then move. The amount of reflexion is an exact indication of how much light falls from the object onto the camera.

As mentioned on page 7, sensitivity on the exposure meter is adjusted immediately after the film has been loaded by turning knob (18). The black-and-white framed field connects the needle deflexion with the red numerals on dial (17) from which the exposure value number can readily be read. Readings must be confined to the position of the needle inside this framed field and its extension should be disregarded. As an example

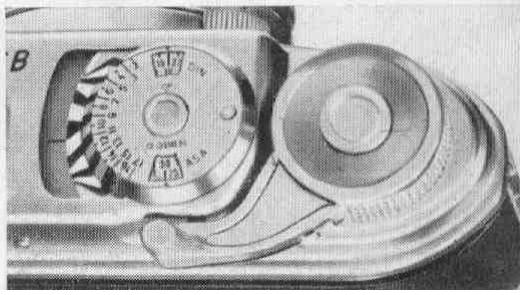


the illustration on page 8 shows the position of the needle at exposure value number 10. Frequently the needle (16) does not point to the centre of the field, but, as shown on the illustration on this page, points to an intermediate value. If the accuracy of the exposure value meter is to be fully used the intermediate exposure value – in this instance 9,5 – should be read.

The exposure value arrived at should be transfered to the shutter, as described on page 14.

The built-in exposure value meter and your ARETTE always view the subject in the same manner.

In order to obtain complete uniformity the optical system of the honeycomb lens captures the same picture angle as your camera subject. You will always be successful, provided care is taken that the essential features of the subject are being held. Very bright surroundings may falsify the result; the photos will be underexposed. Honeycomb lenses should, therefore, not be exposured to the glare of the sun, strong reflexes or lamps. For out-door readings the camera should be held inclining slightly downwards. The exposure meter is thus pointed toward the usually more important fore-ground and the bright sky eliminated as an adverse factor. Very dark surroundings can also lead to imperfections, though the resulting over-exposure is usually meaningless. Should strong contrasts appear, you must draw a little nearer to the more important features without, however, casting on them the shadow of your own body.



The honeycomb window may only be cleaned with clear water, under no circumstances may cleansing agents such as benzine, etc., be used.

LENS

The ARETTE I B is fitted with a lens of universally recognized quality, focus and contrast reproduction, ensuring equal success for black-and-withe and colour photographs. Five scales will be found on the lens mount:

(5) The distance scale on the distance ring (graduated in feet, 3.3 to inf. or meters, 1 to inf.)
Focussing results on the centre marker (6a) of the near-by depth of focus scale.

(6) Depth of focus scale with diaphragm values 2,8 4 5,6 8 11 16 engraved on both sides of the centre marker (6a).

(7) Time setting ring of shutter, to which the ring with the scale of the exposure times is connected. Focussing results on the centre marker (6a) of the depth of focus scale or on marker (8a) lying in alignment with the former. Only the black values 300, 125, 60 etc. signifying fractions of seconds (125 = $^1/_{125}$ sec.) can be adjusted on the shutter. The green figures 4, 8, 15, 30, 60 cannot be adjusted;

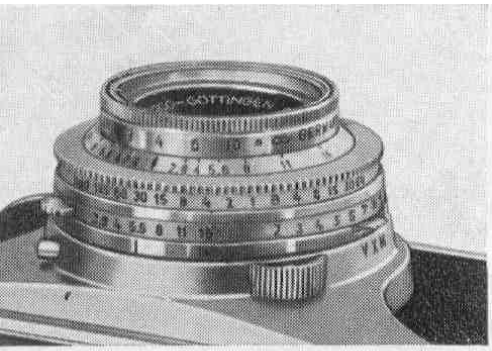
they are merely calculating aid implying full seconds for long exposures.

(8) Diaphragm scale with diaphragm values 2,8 to 16, to be adjusted on marker (8a).

(9) Exposure value line with red figures 2 to 17 to be focussed on to the red triangle marker (10).

DIAPHRAGM AND DEPTH OF FOCUS RANGE

The volume of light admitted by the lens is regulated by the diaphragm. However, this is by no means its most important function as the light volume affecting the film can also be influenced by other means, such as the selection of shutter speeds and fitting of colour filters. The diaphragm's main task in modern photography is to determine an adequate focussing area, the so-called depth of focus range. This extends from the focussing point both forward and backward and is largely dependent on the selected diaphragm aperture and focussing distance (distance from subject). This area can be easily read from the depth of focus scale (6) of the lens for any diaphragm value: The lens focusses clearly for this area which lies on the distance scale (5) between the corresponding markers of the diaphragm indicated on the depth of focus scale (6).



Example: At a distance of about 10 ft. (3 m.) selected at random and shown on the illustration, the depth of focus range extends:

		feet calibration	metric calibration
with aperture	2.8	from 9 ft. to 12 ft.	2.5 m. to 3.5 m.
„ „	5.6	„ 7.5 ft. „ 15 ft.	2.2 m. „ 4.3 m.
„ „	8	„ 6.8 ft. „ 18 ft.	2.0 m. „ 5.7 m.
„ „	11	„ 6 ft. „ 30 ft.	1.8 m. „ 10 m.
„ „	16	„ 5.2 ft. „ inf.	1.5 m. „ inf.

The less experienced may adopt the following rules for distance setting and selection of diaphragm:

When the **subject of the photograph is close at hand** set the distance in accordance with the centre marker (6a), following which the available depth of focus range can be read forward and backward, as described above.

Long distance photographs without foreground –, set at inf.

Close-up snaps – set diaphragm 8 at 8 ft. (2,4 m. or 2,5 m.), then the depth of focus will extend from about 5.8 ft. (1,7 m.) to about 13 ft. (3,8 m.).

Distant views with foreground – set diaphragm 5.6 at 30 ft. (10 m.); depth of focus then covers everything between inf. and 15 ft. (5 m.).

SHUTTER

The ARETTE is fitted with the PRONTOR SVS Shutter with exposure value. You need not concern yourself with the cocking of the camera shutter, as this is automatically controlled by the filmtransport. By adjusting time setting ring (7), 9 different exposures between 1 sec. and $^1/_{300}$ sec. can be focussed, as well as position B for long exposures (focussing marker 6a).

In order to set the shutter at the exposure value determined by means of the exposure value meter, the interlocking latch (11) is pressed down; thereafter the ring with the black diaphragm numbers (8), on which the red exposure value figures (9) are also inscribed, can be adjusted freely. You can also, on pressing the interlocking latch (11) adjust the time setting ring (7) or both rings (7) and (8) simultaneously.

The exposure value shutter is correctly set when the red triangle marker (10) points to the exposure value previously determined. Full and intermediate exposure value figures can be obtained.

Now you have adjusted the shutter to the correct exposure and can make your selection freely.

For photographs taken from the hand, select intermediate exposure, thus avoiding movement, say $^1/_{60}$ sec.

If much depth of focus is required, select a small diaphragm aperture (high diaphragm number).

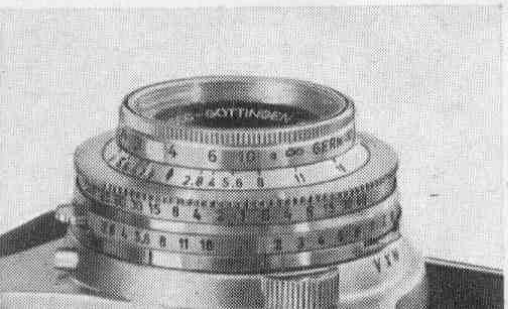
For rapid subjects select a short exposure time, say $^1/_{125}$ sec. or $^1/_{300}$ sec.

A few examples may illustrate the above. The illustration on page 12 shows (although not easily discernible from the picture) adjustment on exposure value 10. The time-setting ring was set at $^1/_{30}$ sec., the diaphragm opened automatically at 5,6. If, by adjusting the time-setting ring (7) the exposure times is altered to $^1/_8$ sec., the diaphragm shuts at 11. If $^1/_{125}$ sec., is selected, the diaphragm opens at 2,8.

Exposure time can be set before or after shutter cocking, as desired. Only the exposure times marked are available. Intermediate values cannot be indicated. If the marker points between two figures, either the shorter or the longer exposure time expires.

If, on the other hand, an intermediate exposure value (see page 9) has been indicated, intermediate graduation will be obtained on the diaphragm values. The illustration on this page shows the light value at 9,5.

For exposure value numbers over and above 12, all 6 diaphragm values can no longer be adjusted. For light values below 7, exposure times exceeding 1 sec. may result for small diaphragm apertures. In that case time-setting ring (7) should be set at "B". The green figures indicate the exposure time for the diaphragm value shown below in full seconds. For the photograph itself time-setting ring (7) should be left at "B" and, while the interlocking latch (11) is pressed downwards, diaphragm ring (8) should be set at the selected diaphragm value.



RELEASE

To release the shutter, release knob (3) is lightly pressed to the right in a downward direction with the index finger,until the shutter has operated. Sudden jerks and backward movements should be avoided, as these may blur the results. For time exposures set time setting ring (7) at "B". The shutter then remains open as there is pressure on the release. If a cable release is used, this should be screwed into socket (4). For long exposures it is adviseable to use a cable release with fixing screw.

SELF RELEASE

The self release has many uses, for instance when the camera user himself desires to appear on the photograph or when time exposures are taken from an insecure position and release is to result without the hand gripping the camera moving.

Shutter PRONTOR SVS of the ARETTE is set for self release when synchro switch lever (22) is brought into position V, **after adjustment of the rapid lever wind.** Exposure takes place approximately 8 seconds after pressing the release knob. Following release, the lever automatically returns to X.

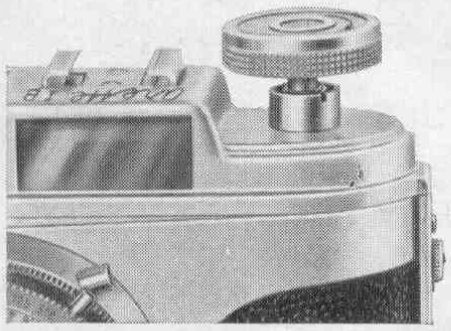
The self release mechanism always cocks automatically. When self release is not used lever (22) should remain in position X or M.

FILM REWIND

When winding the film after it has run through (20 or 36 exposures) a pronounced obstruction will be felt, this indicates the end of the film. Don't worry if the exposure counter (24) now shows a different figure from the expected 20 or 36. This is the case when the film cannot be pulled out a further full picture length due to film storage being exhausted.

Before opening the back wall the film must be re-wound into its cartridge. First, set lever for release of back winder (13) at idle (blank) by turning it towards R.

The rewind knob (12) is then pulled out a little for better grip, but only just until slight resistance is encountered. By then turning this knob in the direction of the arrow the film is wound back into its cassette. A change in the noise when windig the decreased resistance indicate that the film has now been rewound. Moreover, the exposure counter (24) ceases to revolte. Now open the back and remove the film in the enclosed cassette and have it developed. Do not forget to replace lever (13).



AFFIXING FLASH EQUIPMENT

The flash cable is fitted into the flash contact socket (21). The shutter takes flash pictures with flash tubes or expendable bulbs at all speed and enables you to master daylight exposures with additional flash light, including quick sport-action shots.

In order that the flash operates at the exact moment when the shutter opens, it is essential that the synchro switch lever (22) is correctly set. This requires no hard thinking if the table on page 18 is followed:

a) Duration of electronic tube flashes is very short. **For all exposure speeds** from 1 sec. to $^1/_{300}$ sec. the synchro switch lever is set **at X.**

b) For flash bulb equipment of the X range (say Osram XO and XP) and also for the electrically ignited flash caps, the synchro lever switch (22) is set at X. Only speeds 1 and $^1/_{30}$, possibly $^1/_{60}$, give correct exposures. **For standard conditions select $^1/_{30}$ sec.**

c) For flash bulb equipment of the M range (Osram XM 1 or Philips PF 1, PF 3 etc.) the synchro switch lever (22) is set at M. This applies to all speeds from 1 sec. to $^1/_{300}$ sec. **For standard conditions select $^1/_{60}$ sec.!** At speeds $^1/_{125}$ and $^1/_{300}$ sec. only part of the light given out by the flash lamp is utilized. In order to avoid

POSSIBLE SHUTTER SPEEDS FOR FLASH PHOTOGRAPHY

FLASH GUN	FLASH LAMP		SYNCHRO LEVER POSITION AT X or V Shutter time longer than duration of flash	SYNCHRO LEVER POSITION AT M Shutter time also shorter than duration of flash
	Manufacturer	Type		
Flash tube equipment (Electronic flash)	All outfits without ignition delay		B, 1 to 1/300	no exposure
Flash lamps "flash bulb type" only suitable for X position	General Electric Westinghouse	SM	B, 1 to 1/125	not suitable for M position
	Sylvania Wabash	SF		
	Osram	XO XP	B, 1 to 1/60	
		F 1 F 2	B, 1 to 1/30	
Flash lamps (flash bulb) suitable for M- and X-position	Philips	PF 100	B, 1 to 1/30	1 to 1/60
		PF 1 PF 3 PF 14 PF 25 PF 60	B, 1 to 1/30	1 to 1/300
	Osram	XM 1 SO S 2		
	General Electric Westinghouse	No. 5 11 22		
	Sylvania Wabash	Press 25 40 50 No. 0		
	Sylvania Wabash	No. 2	B, 1 to 1/30	1 to 1/125

under-exposure the directions included with flash bulb equipment should be followed.

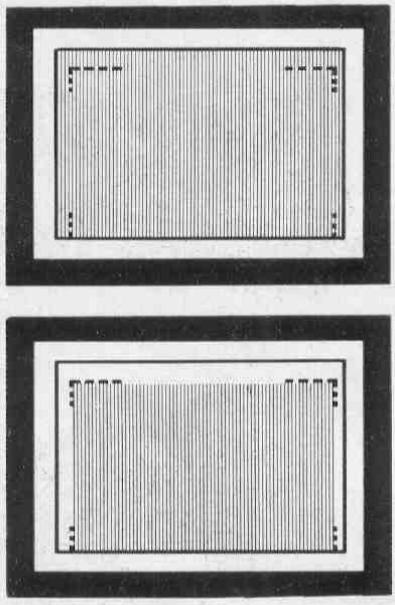
It is important that **exposure speeds are set before the diaphragm** by pressing inter locking latch (11). If the diaphragm is set first it will change again when the exposure speed is set.

For delayed action (self release) exposures, synchro switch lever (22) is set at V. Exposure then results with a delay of approximately 8 seconds and synchronization of flash lamps is always equal to setting X. When, therefore, synchronizing flash bulbs under **standard conditions select** $^1/_{20}$ **sec.** Following shutter release, the synchro switch lever (22) automatically reverts to X.

LUMINOUS FRAME VIEW-FINDER

The reflected frame view-finder greatly facilitates reliable definition of the image field. The image boundaries appear as brightly illuminated frames, apparently standing in the room, when applying the eye close to the view-finder eye-piece.

Strictly speaking, this luminous frame is intended only for sighting at "infinity". When observing at shorter distances the image field is slightly smaller, due to parallaxes and the fading of the image field. This smaller field is indicated at the corners by dotted lines for a distance of 3 feet (1 m.). Intermediate values can be estimated without difficulty.



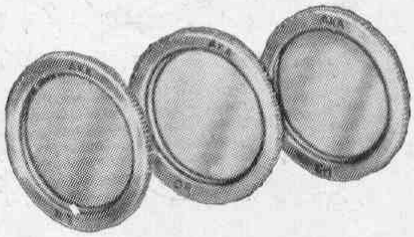
It is significant that the position of the reflected boundary lines in the view-finder image is unaffected by the direction from which the eye looks into it. Even when viewing slantwise, focussing errors cannot occur. This gives the user great confidence. He can go so close to the object as to completely the view finder-field without having the fear that parts of the image are missing on the photograph. Whatever his eye has seen inside the frame (and as a precaution a little beyond it) he will find on his film.

CONDITIONS OF GUARANTEE

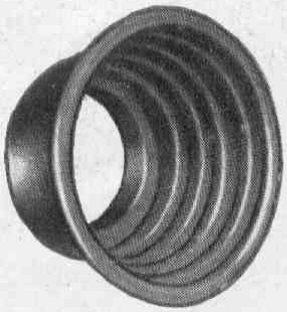
It is pointed out that markers' guarantee to repair as new extends only to cameras returned unopened within one year of purchase. Cameras and exposure meter which – for any reasons whatever – have been opened by strangers are excluded from this guarantee.

COLOUR FILTER AND LENSHOOD

The focussing ring (5) of the ARETTE lens has an internal thread so that accessories, i. e. colour filters, lens hood or close-up lenses, can be screwed into it.



Colour filters and close-up lenses, as supplied for AKARELLE, are suitable. These are double threaded and can, therefore, be interchanged at random. It is quite safe to screw a close-up lens, a colour filter and a lens-hood on to the lens; however, when doing so, the sequence indicated above has to be observed.



The screwed-on colour filter causes the incident light to be weakened by a certain degree. To make up for this the exposure time must be lengthened or – simpler still – the exposure value obtained must be decreased by the exposure value points mentioned on page 23.

Example: When using orange filter O 3 and the exposure value number arrived at 13, the exposure value shutter is set at 13 — 2,5 = 10,5.

When taking photographs against the light and for colour photographs a lens hood is indispensable. Otherwise you will obtain dull and unsatisfactory photographs.

There is, however, no reason at all why you should not use the hood for all your photography.

In this respect the ARETTE offers you special facilities. Lens-hood and, if necessary, a colour filter may permanently remain screwed into the lens, even when the ever-ready case is shut. The lenshood only needs folding back and is thus stored away comfortably in the roomy ever-readay case.

After the ever-ready case is opened it only requires a slight movement of the hand and the lenshood returns to its correct position. Trifles may frequently by decisive. Such is the case with this special feature of the lenshood which contributes largely to the constant state of readiness of the ARETTE.

ARETTE IB ACCESSORIES

Lens Hood: 32 mm, collapsible, rubber,
the indispensible protection from light falling diagonally from the front and for use with colour photography.

Colour filters: 32 mm, in practical screw-on mount:

Light yellow	32-G 1	Extension Factor . . 2	Decrease of light value 1
med. yellow	32-G 2	" " . . 4	" " " " 2
green yellow light	32-GR 1	" " . . 2	" " " " 1
green yellow medium	32-GR 2	" " . . 4	" " " " 2
orange	32-O 3	" " . 4-6	" " " " 2,5
red	32-R 3	" " . . 8	" " " " 3
Ultra violet	32-UV	without extension	0
Blue (for artificial light photography)	32-B	f. art. lt; factor approx. 8	" " " " 3
		f. day. lt; factor . . 2	" " " " 1

Colour filter COLOR without extension to avoid the violet or blue tint when using colour films, where this may be expected. It corresponds to the Agfacolor-Photo Filter K 29 C.

Ever-ready case B, made from velvet lined smooth hide.

De Luxe ever-ready case C, with chromium plated vignette.

Lens lid (32 mm) as spare.

Close-up lenses, 32 mm, in screw-on mount

lenses 1,0 1,5 2,5 diopt. — for three distance ranges

Focussing table for close-up lenses for ARETTE I B for lenses of 45 mm focal length.

Objectives with feet-calibration

		Setting of the Focussing Scale feet	∞	60 ft	30 ft	20 ft	15 ft	10 ft	8 ft
Supp. Lens No. 1	Dioptre 1,0	Near Point inch	42,5	39,4	38,2	37,0	35,6	32,5	30,4
		Focussing Distance inch	**45,1**	**41,7**	**40,3**	**39,0**	**37,4**	**34,2**	**32,0**
		Far Point inch	47,9	44,5	43,0	41,3	39,6	36,4	33,7
		Size of Field inch x inch	19,3x29,1	17,7x27,0	17,1x26,0	16,7x25,2	16,1x24,2	14,6x22,0	13,8x2,5
Supp. Lens No. 2	Dioptre 1,5	Near Point inch	27,7	27,0	26,3	25,5	24,9	23,8	22,9
		Focussing Distance inch	**29,1**	**28,3**	**27,4**	**26,6**	**25,9**	**24,6**	**23,8**
		Far Point inch	30,8	29,7	28,7	27,8	27,0	25,7	24,8
		Size of Field inch x inch	12,2x18,1	11,8x17,7	11,2x16,9	10,8x16,5	10,6x15,9	9,8x15,0	9,4x14,2
Supp. Lens No. 3	Dioptre 2,5	Near Point inch	18,4	17,7	17,4	17,2	17,0	16,6	16,1
		Focussing Distance inch	**18,9**	**18,3**	**17,9**	**17,7**	**17,5**	**17,0**	**16,5**
		Far Point inch	19,5	18,8	18,4	18,2	18,0	17,5	17,0
		Size of Field inch x inch	7,1x10,6	6,7x10,2	6,7x10,0	6,7x9,9	6,7x9,7	6,5x9,4	6,3x9,0

The distances should be measured from the rear of the camera. It is advisable to stop the lens down to at least 5,6; very small diaphragm apertures should, however, be avoided. In view of the close-up lenses, an extension of the exposure time is unnecessary.

7 ft	6 ft	5 ft	4,5 ft	4 ft	3,5 ft
29,2 **30,6** 32,3	27,8 **29,0** 30,9	26,1 **27,3** 28,8	25,4 **26,4** 27,8	24 **25,3** 26,6	23,2 **24** 25
13,4x20,0	12,4x18,7	11,8x17,9	11,2x17,3	10,8x16,5	10,2x15,6
22,3 **23,1** 24,1	21,6 **22,3** 23,2	20,6 **21,2** 22,0	20,2 **20,8** 21,5	19,5 **20,1** 20,8	18,7 **19,3** 19,9
9,2x13,8	8,8x13,2	8,3x12,4	8,1x12,0	7,7x11,4	7,3x11,0
15,8 **16,2** 16,6	15,5 **15,9** 16,2	15,1 **15,5** 15,8	14,9 **15,2** 15,6	14,6 **15,0** 15,3	14,3 **14,7** 15,0
6,1x8,9	6,0x8,7	5,7x8,5	5,6x8,3	5,4x8,1	5,3x7,9

The figures on the uppermost line show the distance values of the scale of the lens mount. The heavy-type numerals in each group indicate the appropriate distances of the object from the camera rear, measured in feet. The depth of focus range applying to diaphragm 5,6 can be ascertained from the figure above it (front focussing boundary) and the figure below it (back focussing boundary). The size of the field is the subject area captured in the photograph.

Close-up lenses, 32 mm, in screw-on mount
lenses 1,0 1,5 2,5 diopt. – for three distance ranges

Focussing table for close-up lenses for ARETTE I B for lenses of 45 mm focal length.

Objectives with meter-calibration

	Setting of the Focussing Scale meter	∞	20 m	10 m	7,0 m	5,0 m	4,0 m	3,0 m	2,4 m	2,0 m
Supp. Lens No. 1 Dioptre 1,0	Near Point cm	108,0	100,5	98,0	95,2	91,8	87,6	82,5	78,0	74,1
	Focussing Distance cm	**114,5**	**106,5**	**103,5**	**100,4**	**96,6**	**92,7**	**86,6**	**81,7**	**77,5**
	Far Point cm	121,8	113,4	109,8	106,2	102,0	97,6	91,1	85,6	81,0
	Size of Field cm x cm	49x74	45x68	44x67	43x65	41x62	39x60	37x56	35x52	33x50
Supp. Lens No. 2 Dioptre 1,5	Near Point cm	70,4	69,3	67,5	66,1	64,3	62,5	60,2	58,2	56,1
	Focussing Distance cm	**74,0**	**72,5**	**70,5**	**68,9**	**67,0**	**65,1**	**62,6**	**60,4**	**58,2**
	Far Point cm	78,2	76,3	74,0	72,2	70,1	68,1	65,3	62,9	60,5
	Size of Field cm x cm	31x46	30x45	29x43	28x42	27x41	26x39	25x37	24x36	23x34
Supp. Lens No. 3 Dioptre 2,5	Near Point cm	46,7	45,6	44,8	44,4	44,0	43,5	42,6	41,1	40,3
	Focussing Distance cm	**48,0**	**46,8**	**46,0**	**45,5**	**45,1**	**44,6**	**43,6**	**42,2**	**41,2**
	Far Point cm	49,5	48,2	47,3	46,8	46,3	45,8	45,0	43,3	42,3
	Size of Field cm x cm	18x27	17x26	17x25	17x25	17x25	17x24	16x24	16x23	15x22

The distances should be measured from the rear of the camera. It is advisable to stop the lens down to at least 5,6; very small diaphragm apertures should, however, be avoided. In view of the close-up lenses, an extension of the exposure time is unnecessary.

1,7 m	1,5 m	1,3 m	1,2 m	1,1 m	1,0 m
70,5 **73,5** 76,8	67,7 **70,4** 73,4	64,2 **66,7** 69,4	62,0 **64,3** 66,9	60,0 **62,2** 64,6	57,8 **59,8** 62,0
31x47	30x45	28x42	27x41	26x40	25x37
54,2 **56,2** 58,4	52,4 **54,2** 56,3	50,5 **52,2** 54,1	49,2 **50,8** 52,6	48,2 **49,8** 51,6	46,8 **48,3** 49,9
22x33	21x32	20x30	19x29	19x28	18x27
39,3 **40,3** 41,3	38,7 **39,6** 40,6	37,8 **38,7** 39,6	37,4 **38,3** 39,2	36,9 **37,7** 38,6	36,4 **37,2** 38,0
15x22	14x22	14x21	14x21	14x20	13x20

The figures on the uppermost line show the distance values of the scale of the lens mount. The heavy-type numerals in each group indicate the appropriate distances of the object from the camera rear, measured in cms. The depth of focus range applying to diaphragm 5,6 can be ascertained from the figure above it (front focussing boundary) and the figure below it (back focussing boundary). The size of the field is the subject area captured in the photograph.

Apparate- und Kamerabau GmbH.
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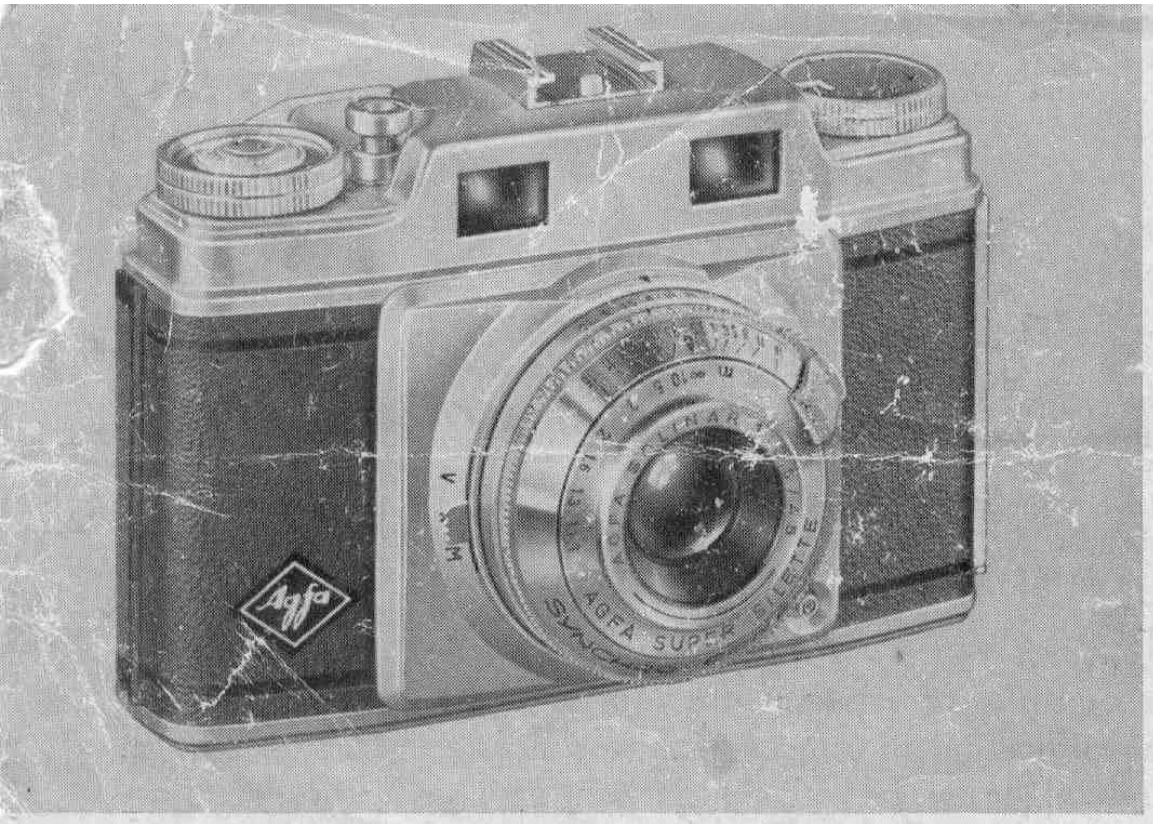


Agfa

MADE
IN GERMANY

INSTRUCTIONS FOR USE
AGFA SUPER SILETTE

DEAR READER,

If you have acquired an Agfa Super Silette your enjoyment of it should not be marred by any difficulties in using it. The few simple instructions which are set out in this booklet can be quickly learnt in a single careful reading, trying out for yourself, with the unloaded camera, the operations which are

described and illustrated in it. The general view of the camera on page 4, with its numbers corresponding to the index on the opposite page, will simplify reference to the names and functions of the various parts.

A few trial settings of the coupled rangefinder, checked against the actual measured distances of the object on which the camera is focused, will quickly convince you how simple to use and how reliable it is.

The 24 x 36-mm. Agfa Super Silette is designed to take 35-mm. miniature film, both black-and-white and, of course, colour film (Agfacolor).

The Agfa Super Silette is supplied in two models one of which is equipped with the three-element Agfa Apotar lens in Prontor-SVS shutter whilst the other is fitted with the four-element Agfa Solinar lens in Synchro-Compur shutter with Light Value Scale; both lenses are f / 3.5 – 45 mm. miniature anastigmats of highest correction and utmost sharpness.

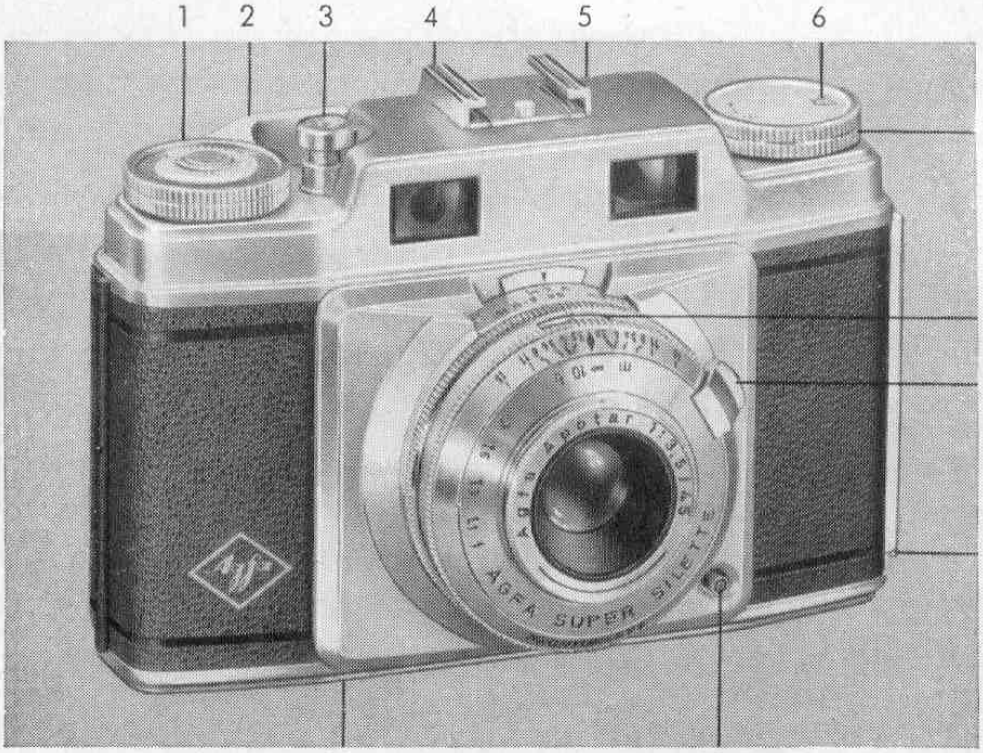


Fig. 2

INSTRUCTIONS FOR USE OF THE AGFA SUPER SILETTE

TABLE OF CONTENTS

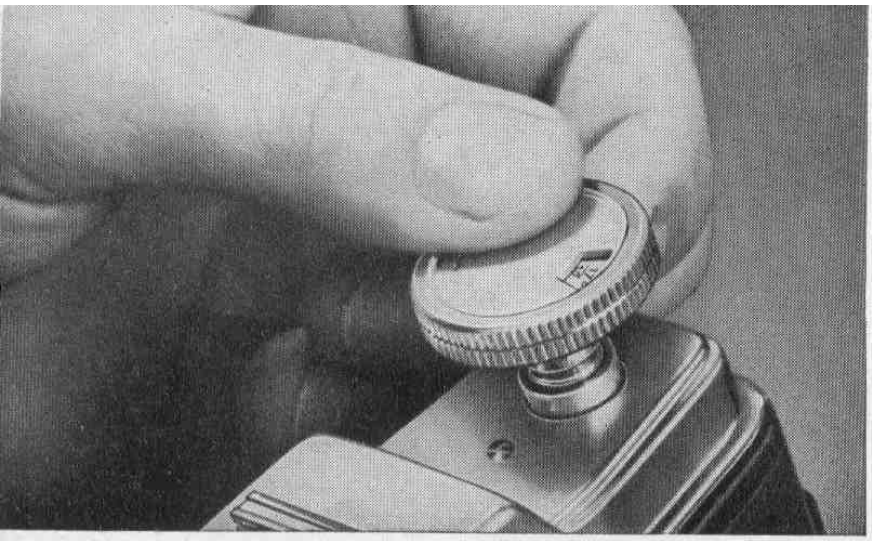


Fig. 3

FILM TYPE INDICATOR

Before loading the film into the camera it is advisable to set the film type indicator, which will be found on the face of the rewind knob, so that if a long interval should elapse between exposures there will never be any doubt as to what type (or speed) of film is in the camera.

To set the indicator, the rewind knob is pulled right out and taken between index and thumb as shown in Fig. 3. The indicator disc can then be rotated by the milled edge pointing downwards until the required film designation appears in the window, for example:

8 ASA	40 ASA	100 ASA	160 ASA	Col NT	Col ND	Col RT	Col RD

OPENING THE CAMERA

The back of the Super Silette is opened by sliding the latch plate by its projecting lip (Fig. 4) in the direction of the arrow. The back will then spring up and can be opened by the finger grip provided.

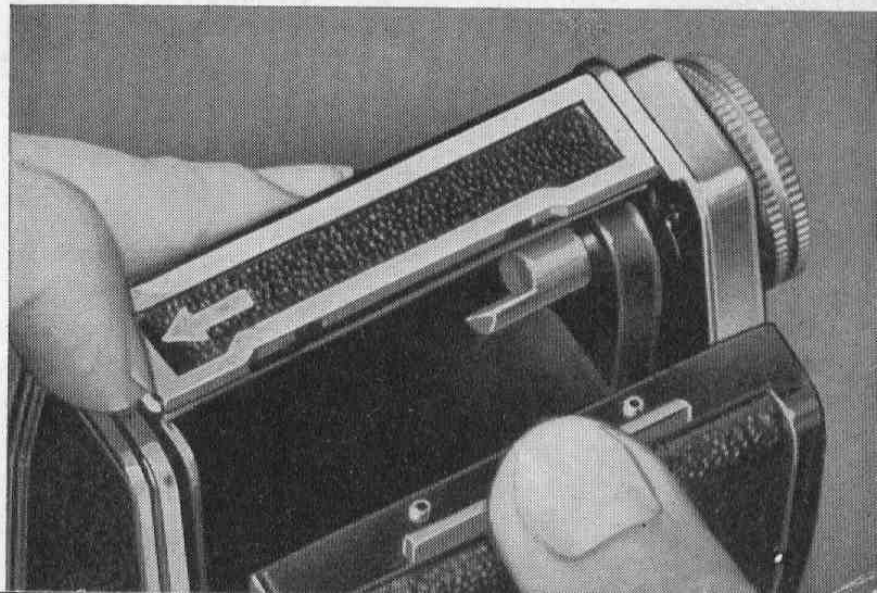


Fig. 4

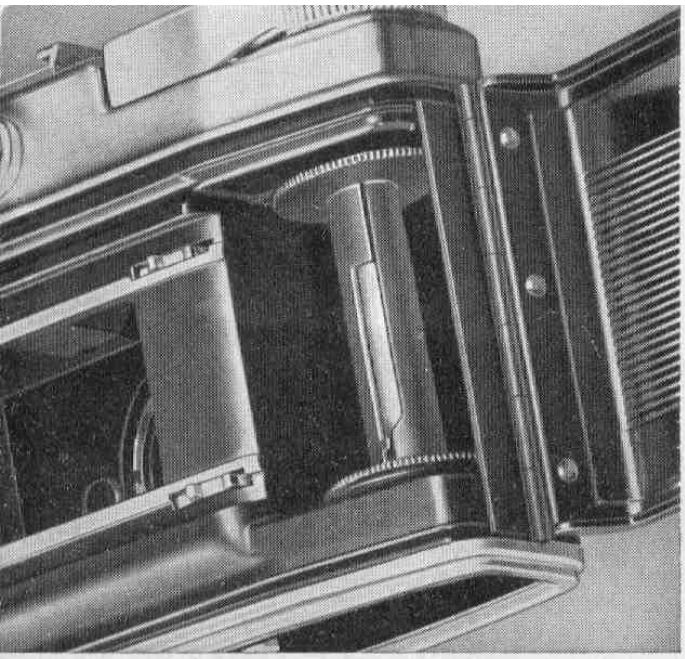


Fig. 5

WITH THE BACK OPEN

the two film chambers are visible, on the left the empty chamber to take the 35 mm. cassette and on the right (Fig. 5) the fixed take-up spool. For loading, the milled disc should be rotated until the slot with its transport cog is in the position shown.

INSERTING THE CASSETTE

To insert the new cassette—this should be done if possible in subdued light—the rewind knob is pulled right out. With the new cassette inserted the knob is then gently pushed back, rotating it slightly, so as to engage with the spool of the cassette.

Note:

The rewind knob is rather loose in its seating.

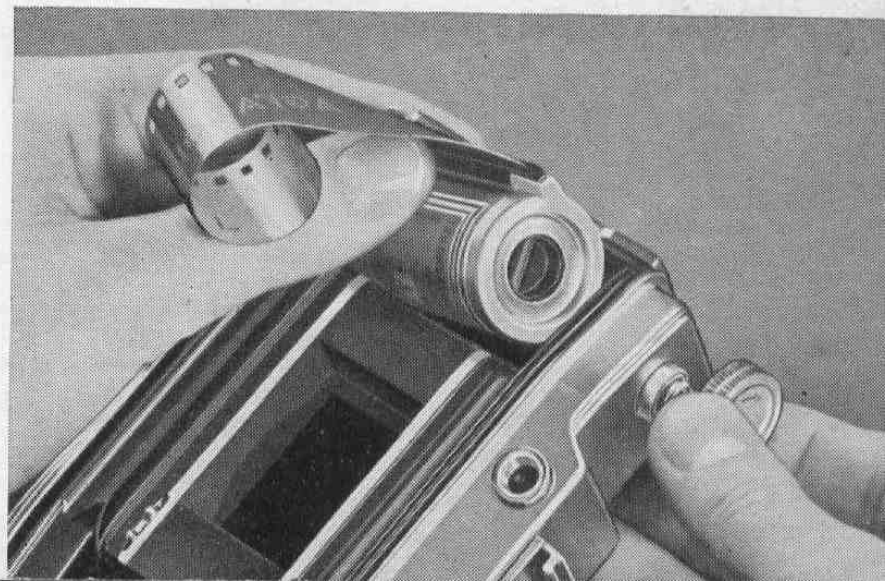
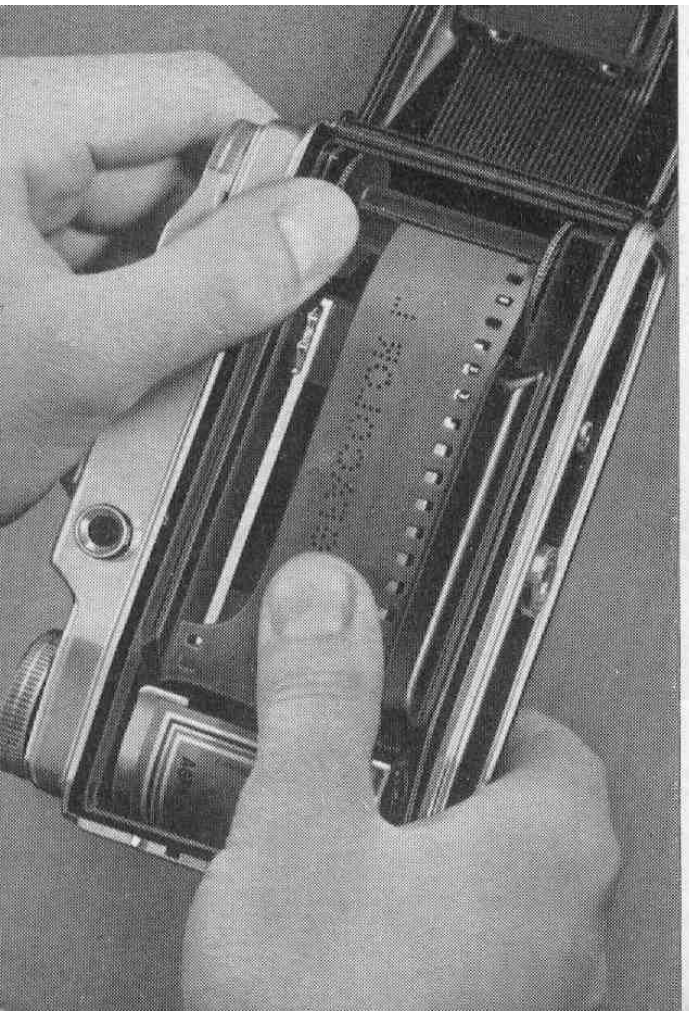


Fig. 6



THREADING THE FILM AND PULLING IT TAUT

The **narrow** end of the film is now inserted into the spool slot as far as the second perforation; the perforation must engage with the small cog on the take-up spool. The take-up spool is then turned by means of the milled disc until the film is pulled taut. Only about 1/3" of the **full** width film should project from the cassette.

Fig. 7

CLOSING THE CAMERA

Having checked that the film perforations are engaging cleanly with the teeth of the lower drive sprocket the back of the camera may be closed, and locked by pressing with both hands, as shown in Fig. 8, until the catch snaps to.

Fig. 8

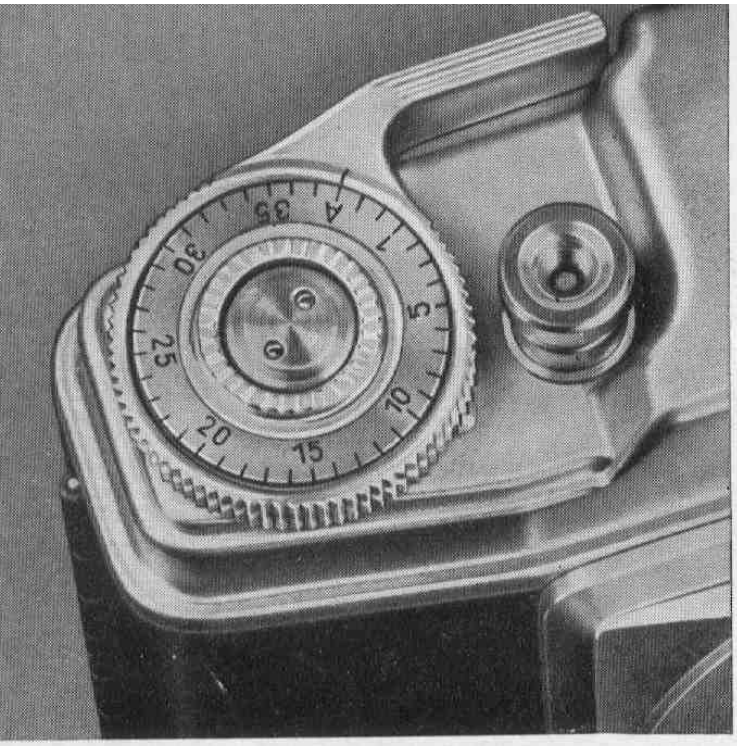


Abb. 9

EXPOSURE COUNTER

Before the first exposure can be made the film counter must be set to the zero position.

The inner, milled, ring on the top of the dial, which is incorporated in the rapid winding lever, is depressed with the thumb and rotated anti-clockwise until the letter A is opposite the index line on the rim (see Fig. 9). Two blank exposures must now be made as follows:

Each time the lever is operated it transports the film by one frame and at the same time winds the shutter.

With the thumb of the right hand grip the edge of the lever and swing it firmly round as far as it will go (Fig. 10).

If the lever is found to be locked it must be freed by first pressing the shutter release button.

Caution: In operating the rapid winding lever do not forget to pull it right to its stop.

Now depress the shutter release knob which is beside the counter dial and repeat once again the whole operation of winding on the film and releasing the shutter. The exposure counter is now set on one stroke ahead of "1".

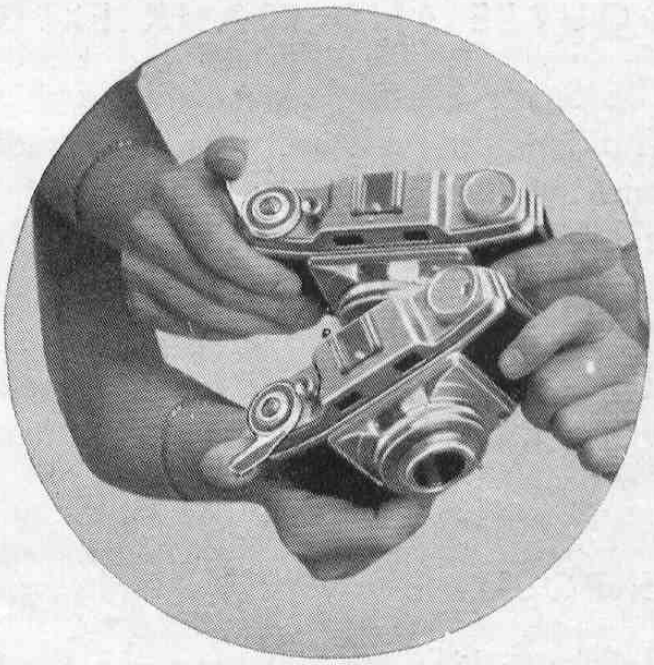


Fig. 10

Caution: The rewind knob usually rotates as the film is wound on: it must not therefore be prevented from turning while the lever is operated.

DOUBLE AND BLANK EXPOSURE LOCK

The Super Silette has a safeguard against double and blank exposures. That is to say, it is not possible to make two exposures on the same frame, and the film cannot be inadvertently fed forward until an exposure has been made. If therefore it is found that the release button cannot be pressed, the film must be wound on by operating the rapid winding lever, or the lever was not moved right up to the stop. This can be remedied, without wasting any film, by again operating the lever as far as it will go. When it cannot be moved the camera is ready for another exposure.

EXPOSURE

Before making the first exposure, the film should be moved on one frame by operating the rapid winding lever, so that the exposure counter index now reads "1" (see page 13).

The handling of the shutter fitted to the Agfa Super Silette calls for detailed explanation since the exposure (determined by the shutter speed and the relative aperture) is decisive for obtaining negatives of correct density.

Please read carefully the chapter referring to the shutter of your camera (p. 25 for Prontor-SVS, or p. 28 for Synchro-Compur).

RANGE FINDING

Range finding with the built-in coupled rangefinder is an extremely simple operation, and is carried out as follows: A glance through the view-finder eyepiece will reveal that in the middle of the slightly tinted field-of-view there is a circular central patch of a light blue colour.

This central image, which is the part used for range finding, will at first appear double, consisting of two overlapping identical images laterally displaced relatively to one another (see Fig. 11).

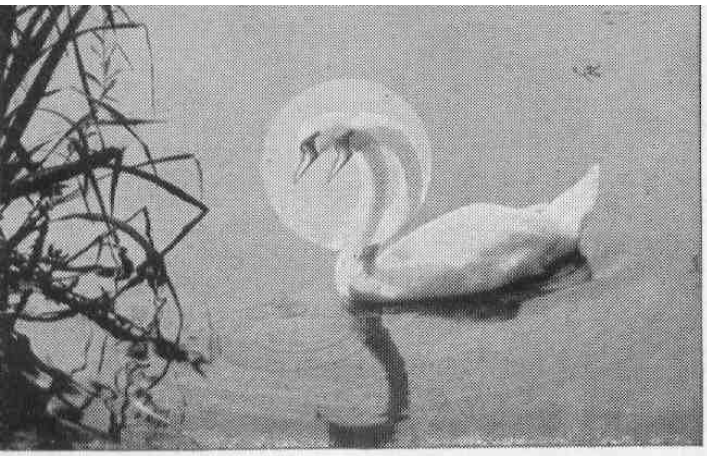


Fig. 11

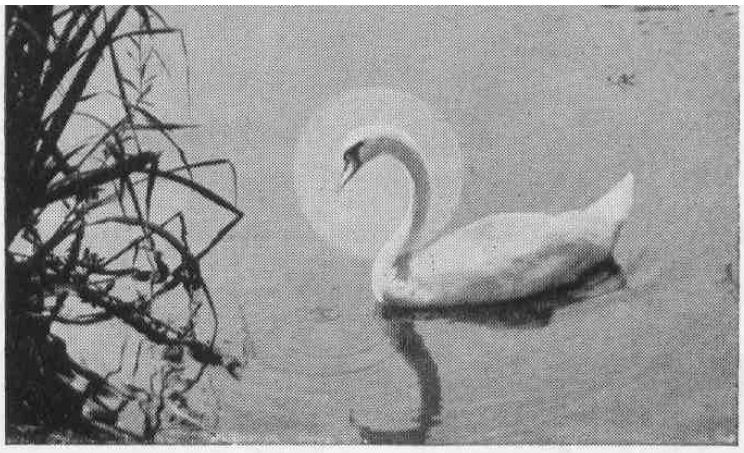


Fig. 12

If the focusing lever 9 on the front of the lens mount (Fig. 2) is now moved with the middle or index finger of the left hand the overlapping images in the centre will approach one another and at one position of the focusing lever will completely coincide (Fig. 12).

At this point the camera lens is automatically focused on that portion of the subject which is seen in the central blue image. This can be checked by noting the distance which is now indicated on the distance scale by the black index mark in the centre of the depth-of-field scale.

The focus settings obtained with the rangefinder can be absolutely relied upon; they entirely eliminate any need for judging distances. When the camera is used horizontal the images move sideways — with vertical pictures they move up and down.

Here are a few hints:

Cover up for a moment with the finger the front viewfinder window on the release button side. It will be found that the image, now all one colour, is more agreeable, particularly for selecting and studying the subject. By removing the obstructing finger only when it is desired to use the rangefinder, the advantage is gained of a sudden change of colour in the small central patch which shows up the double image very clearly.

Moving subjects, such as processions, can be photographed with greater certainty if the most suitable distance is first of all decided upon, the distance scale set to this distance, and the subject watched in the rangefinder as it passes into the range of sharp focus. All that one need then do is to watch the procession in the rangefinder and press the shutter release at the moment that the two images coincide in the bright central circle, indicating that the subject is exactly in focus.

For *horizontal pictures* the camera is held firmly in both hands as shown, and with the index finger or middle finger of the right hand the release button is pressed down gently and steadily as far as it will go. It is important to take up a firm stance, and not to tilt the camera sideways.

Viewfinder parallax: The image in the viewfinder shows at a reduced scale the actual picture which will appear on the film. When taking *close-ups* a

Fig. 13

small error arises from the fact that the view-finder is higher than the camera lens. In practice this only affects pictures in which the subject is within about 3–6 feet from the camera. To compensate for this the camera should be slightly raised when taking horizontal pictures; for vertical pictures it should be turned slightly towards the viewfinder side.

When taking *vertical pictures* it is most convenient to use the thumb of the right hand to operate the shutter release.

UNLOADING THE CAMERA

When the exposure counter registers 36, 20, or 18, as the case may be, there is only enough film left for one exposure. If, in loading, too much film has been wound up, it may happen that the film cannot be wound on to this last exposure, the rapid film transport lever coming to a stop before the end of its travel. In this case, the last exposure has to be sacrificed.

whether it can still be rotated after release of release knob 12. When this point is reached rewinding should be stopped, for it must be remembered that the processing laboratory has still to develop the film, and its end must not be allowed to slip into the cassette. The back of the camera can now be opened as described on page 7. The rewind knob is pulled right out to the stop so that the cassette can be removed easily. It should be placed as soon as possible in a light-tight wrapping, and for convenience marked "exposed".

After the last exposure, the film must be wound back into its light-proof cassette. To do this, the release knob on the base of the camera (see fig. 14) should be depressed with the left thumb whilst with the right hand the rewind knob is pulled out **until the first stop** (appr. ¼"), and the film wound right back by turning the knob in the direction of the arrow. This point has been reached when the film leaves the take-up spool; this can be felt by the slightly increased resistance which has to be overcome. The knob is then given a careful further turn to see

Fig. 14

DIAPHRAGM – EXPOSURE TIME – DEPTH-OF-FIELD

The diaphragm scale of the Agfa Super Silette shows the following stop values:

3.5 4 5.6 8 11 16. Stops may be set to intermediate half-way positions.

Stop: The choice of stop, or aperture, calls for some more detailed explanation of its function. The light coming from the subject has to pass through the iris diaphragm. This will allow more or less of the light to pass through, according to whether it is fully open or closed down, but in any case it only allows a fraction of the light to reach the film. The apertures corresponding to the numbers which appear on the diaphragm ring are so chosen that, commencing with the aperture f/4, the next smaller aperture (next higher number) reduces by one half the light which is actually used in taking the photograph.

Shutter speed: The amount of light needed to photograph any particular subject on any particular film is definitely fixed. There is a fixed relationship between the shutter speed (or exposure time) and the size of the stop,

and in order to maintain this relationship the following rule must be observed: The higher the stop number, the longer must be the exposure time; the lower the stop number, the shorter the exposure time. For example, if the exposure table gives an exposure time of $^1/_{30}$ second at f/8, and it is necessary to use $^1/_{60}$ second in order to avoid camera shake, then this shorter exposure time demands a larger stop so as to let through more light, and the diaphragm scale must therefore be set to 5.6.

Depth-of-field: Similar to the exposure time, the range of sharp definition in front of, and behind, the distance focused depends on the choice of the stop number. With a small stop (stopping down) this range of sharpness is considerably enlarged and is known as depth-of-field. Its extent increases further with the object distance.

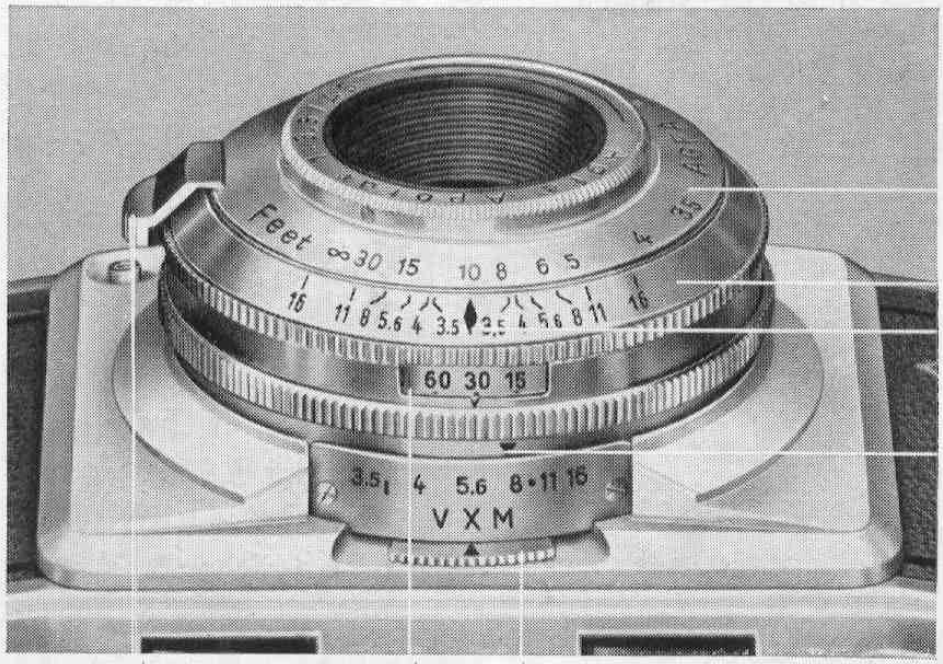
The depth-of-field is thus a function of the stop and the subject distance, and the exact values corresponding to a range of subject distances and f/numbers are given in the table on pages 38/39.

The **approximate** depth-of-field corresponding to the actual distance on which the camera is focused can, however, also be read off from the *depth-of-field scale* on the focusing ring. Take for example the setting shown in Fig. 15, page 25, where the camera is focused on 10 feet. The stop numbers are marked out symmetrically to left and right of the distance index. The scale shows that if the lens is stopped down to f/8 the range of sharp focus will extend from the distance which appears opposite 8 on the one side to that opposite 8 on the other side, viz. from about 6 feet to about 20 feet.

The two-point setting is the easiest and quickest practical way of arriving at the depth-of-field. The index of the diaphragm ring is set on the red dot between 8 and 11 and the focusing index mark to the red 10 or 30 of the distance scale. The following data should then be noted:

DIAPHRAGM SETTING	DISTANCE SETTING	DEPTH-OF-FIELD
between 8 and 11	10 feet (near)	7 feet to 20 feet
	30 feet (distant)	15 feet to infinity

THE PRONTOR-SVS SHUTTER



Distance Scale

Depth-of-Field Scale

Index Mark
for Distance Setting

Diaphragm Ring
and Index

Fig. 15

Setting Lever for Flash Synchronization and Delayed Action

Window and Index Notch for Shutter Speeds

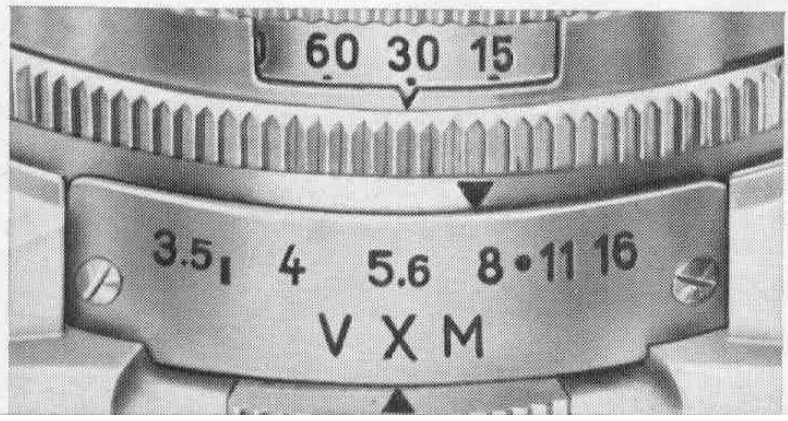
Focusing Lever

By rotating the upper milled ring (Fig. 16) the following shutter speeds may be set against the notch in the small window:

B 1 2 4 8 15 30 60 125 300

It is not possible to set intermediate values.

These figures indicate fractions of a second: thus, for example, 2 = $^1/_2$ second, 30 = $^1/_{30}$ second. The setting B gives time exposures (from a tripod): so long as the release button continues to be pressed, the shutter remains open. The B setting must not be used when taking pictures with delayed action (synchro-lever set to "V").



The shutter is fully synchronized, i. e. it has a synchro-lever (Fig. 16) which can be set either to X or M as desired. The purpose of these settings is explained under the heading "Flash Technique" (p. 35).

Fig. 16

If the photographer himself wishes to be in the picture, he must set the synchro-lever to the "V" position, which cocks the delay mechanism. (**Cannot be used with B setting.**) This may be done either before or after winding the shutter. Moreover, should the lever have been set to "V" inadvertently, it can be moved back again without setting the delay mechanism in operation. When set to "V" the delayed action can be used with flash, but only for X-synchronization. The lever should be returned to the X setting after each exposure using the delayed action, as a safeguard against making the next exposure with the delayed action unwittingly in operation.

THE SYNCHRO-COMPUR SHUTTER WITH LIGHT VALUE SCALE

THE MEANING OF LIGHT VALUE

Before commencing for the first time to use a camera with a "Light Value" shutter the following notes should be very carefully studied, with the camera at hand, in order that the fullest possible use may be made of the advantages of the Light Value system. The figures given in this chapter refer to Fig. 17, page 33.

The correct exposure for a particular subject has in the past been expressed—whether by tables, or exposure meter, or as the result of experience —in terms of the required shutter speed and stop for a film of given sensitivity. The factor which determines the ultimate density of the negative is however simply that proportion of the total *quantity of light* reflected from the subject which is permitted to reach the film. This factor is completely determined by the shutter speed and the relative aperture.

It is quite immaterial, so far as correct exposure is concerned, how these two factors are varied so long as their product remains the same: whether, in other words, the lens is permitted to pass a high proportion of light (by using a large stop) for a short time, or whether a longer exposure is given