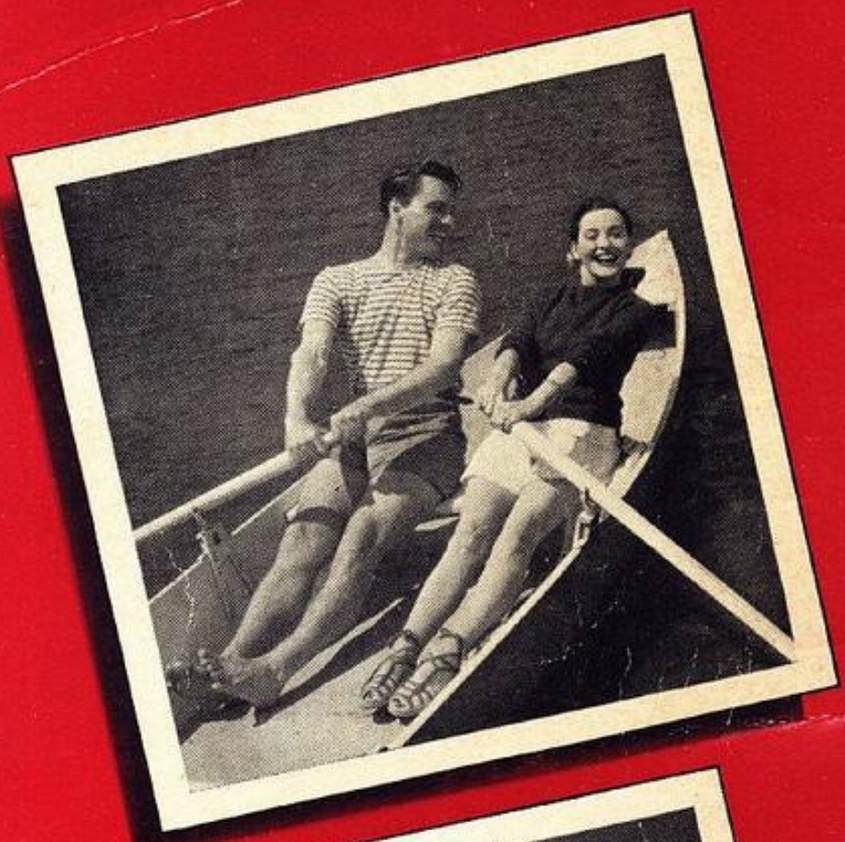
INSTRUCTIONS FOR THE USE OF THE

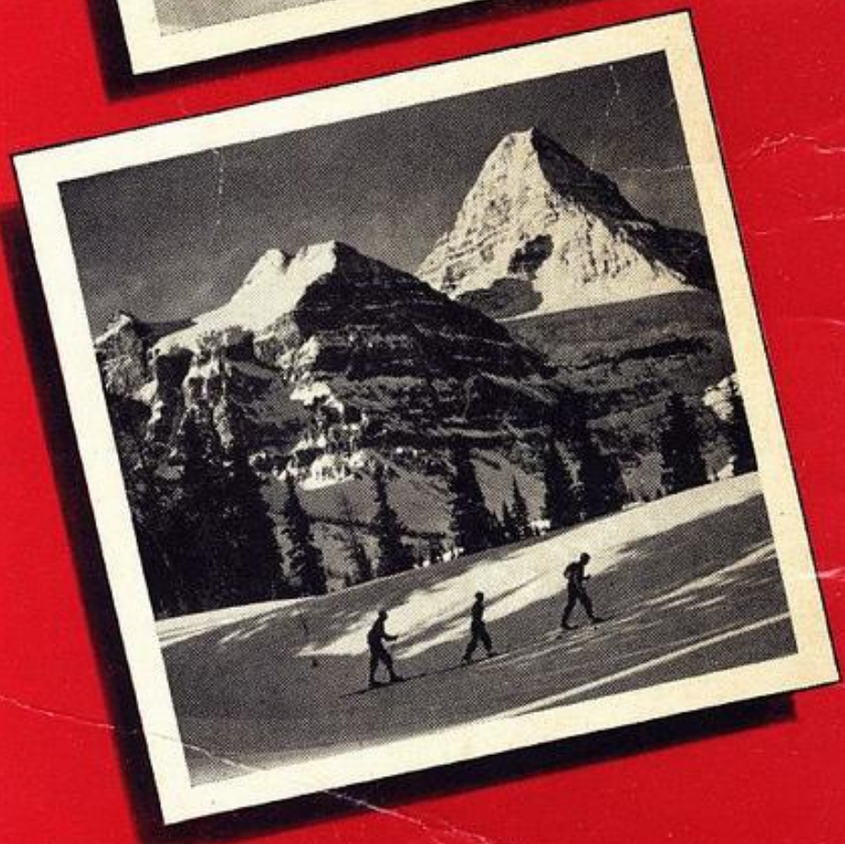
Ansco AUTOMATIC Réflex

f3.5

JN171

Ansco, BINGHAMTON, N. Y.





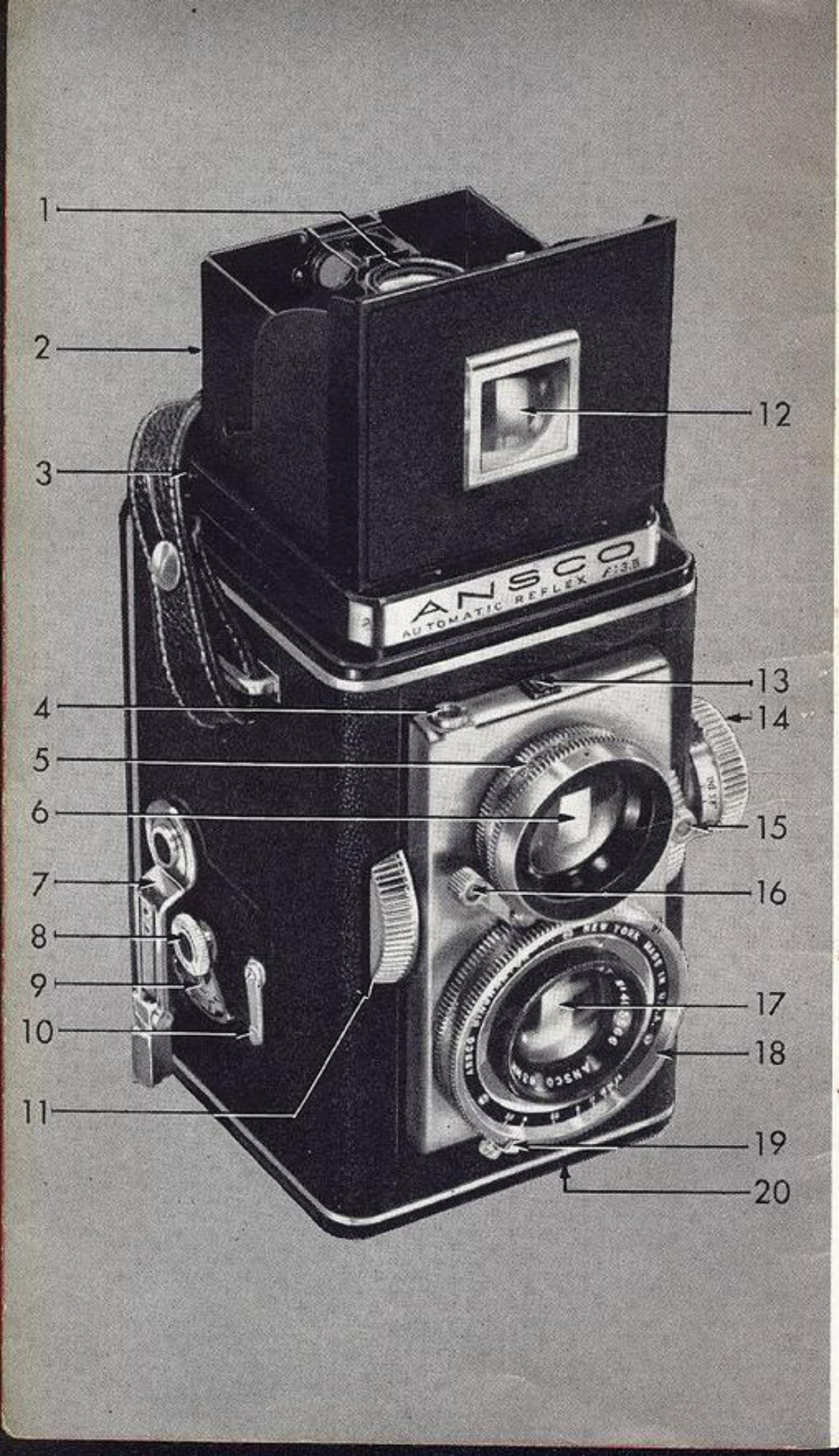
Your Reflex Camera is a precision instrument of all-American manufacture—America's finest precision 2¼ x 2¼ Reflex. It is known as a twin-lens reflex camera because it is equipped with two matched lenses; one used as a focusing and view finder lens, the other for actual picture taking.

The f3.5 color-corrected anastigmat taking lens, with which your Ansco Reflex Camera is equipped, is 83mm in focal length and coated to give higher light transmission and increased speed. The matching finder lens is f3.2 and also coated. These precision-built optical units assure accurate focusing and crisp, sharp negatives.

Before making any exposures, read carefully the following instructions, study the illustrations and thoroughly familiarize yourself with each operation. You will find it helpful to take a few imaginary pictures until you have thoroughly mastered the operation of each part of the camera. The operation of the camera will then become more or less automatic and more thought can be devoted to lighting conditions, exposures, composition and many other factors which are important in taking a satisfactory picture.

OPPOSITE PAGE — ACTUAL SIZE OF REFLEX PICTURES

12 FULL 2 1-4 X 2 1-4 EXPOSURES ON A 120 ROLL



OPERATIONS OF THE CAMERA

1. Magnifying lens.
2. Viewer hood.
3. Release for opening back (release on opposite side—not visible).
4. Socket for addition of cable release for operating shutter.
5. Shutter speeds given on top of this ring.
6. Focusing finder lens.
7. Handle for winding film.
8. Knob for setting exposure counter.
9. Exposure counter.
10. Resetting lever.
11. Auxiliary focusing rings.
12. Optical eye-level view finder.
13. Diaphragm settings revealed here.
14. Focusing knob.
15. Shutter "cocking" lever.
16. Shutter release.
17. Taking lens.
18. Shutter speed setting ring.
19. Diaphragm adjustment lever.
20. Tripod socket (not visible in picture but centrally located at base of camera).

FIGURE TWO

TO OPEN THE FINDER HOOD—

To open the hood, hold the camera firmly in the left hand; then with the thumb of the free hand, press down gently on the hood release catch and the hood will snap into position.

FOCUSING—

For convenience, a focusing scale is located on the large focusing knob (Figure 1, #14) and is

numbered from 3′8″ through ∞ (infinity). Normally, however, you will focus using the ground glass or reflex-type finder. To focus with this finder, hold the camera as shown in Figure 2 and point the camera at any well-lighted object. Rotate the focusing knob or the auxiliary focusing rings (Figure 1, #11) — whichever is more convenient — until the image is in sharp focus on the ground glass. The object will appear in the ground glass as shown in Figure 3. The image you see will be the same size and composed as it will appear in your finished print.

FIGURE THREE

FIGURE FOUR AND FIVE

MAGNIFIER—

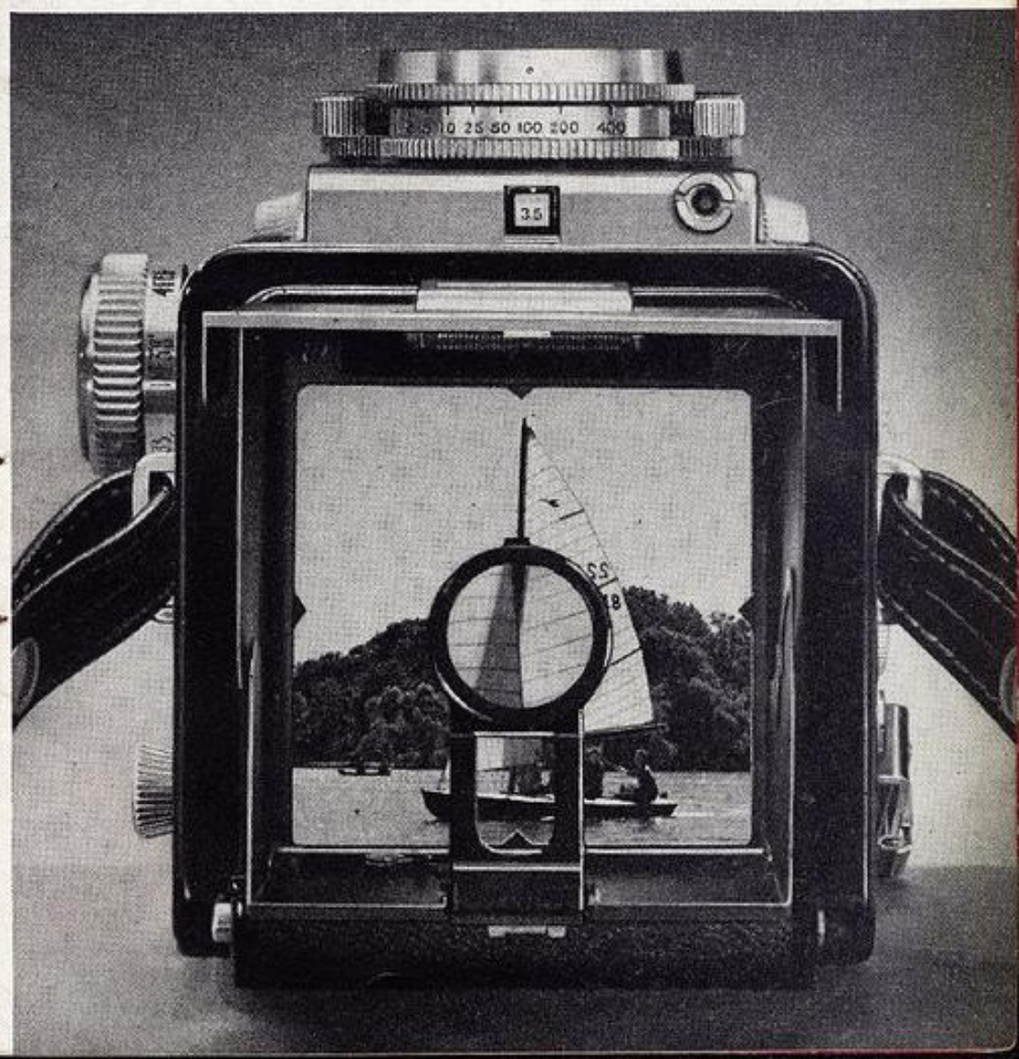
When taking close-ups, or for more critical focusing, use the magnifier focusing lens. To release this magnifier, press down the small button located at the base of the back panel of the hood (Figure 4) and it will snap into position. With the camera close to the eye (Figure 5) so that the

image is viewed through the small magnifier, the subject can be brought into extremely sharp focus as shown in Figure 6.

TO CLOSE THE FINDER HOOD—

To close the hood, pull the front element of the hood toward the back of the camera and downward until it is completely closed and a "click" of the hood release is heard. CAUTION: **BEFORE closing the hood, be sure that the magnifier lens has been returned to its normal folded position, by pressing down until it is caught and held by its catch. Press down on the lens frame—not the lens—to prevent finger marks.**

FIGURE SIX



THE SHUTTER—

The shutter is the mechanism which controls the time light is allowed to pass through the lens when a picture is made. Simply expressed, it does nothing more than uncover the lens for a short period of time so that light from the object to be photographed may pass through the lens and project an image upon the film. The shutter, however, allows exposures to be made with a high degree of accuracy and over a suitable range of speeds.

TO REGULATE THE SHUTTER SPEED—

The shutter speeds are shown along the top of the focusing lens barrel (Figure 1, #5) and read from B (bulb) to 1/400th second. When you have determined the proper shutter speed, turn the revolving ring on the lower lens mount (Figure 1, #18)—which, being coupled to the indicator ring, automatically turns the upper mount—until the desired speed is opposite the small red dot or line on the front of the focusing lens barrel.

THE SHUTTER RELEASE—

The shutter is released by pressing down on the shutter release lever (Figure 1, #16) or by using a cable release if desired. The shutter, however, must be cocked each time prior to its release by pressing downward on the cocking lever (Figure 1, #15) shortly before an actual exposure is made.

When no film is in the camera, the resetting lever (Figure 1, #10) must be pushed all the way

to the rear each time before the shutter release lever is depressed in order to disengage the double exposure preventive mechanism. Therefore, to make an imaginary exposure with your empty camera, cock the shutter, press the resetting lever to the rear, and then press down on the shutter release lever with an even steady motion until it stops.

BULB EXPOSURES—

When the shutter is set for B or Bulb (a term surviving from the days when camera shutters were operated by rubber bulbs) and after the shutter is cocked, it stays open as long as the shutter release remains depressed, and closes as soon as the pressure is released allowing the lever to return to its normal position. Bulb is used for comparatively short time-exposures, when, for example, light conditions do not permit instantaneous exposures. Since it is impossible to hold the camera perfectly still in the hands for any length of time, the camera must be used on a tripod or some other firm support when Bulb exposures are made. Actually, exposures longer than 1/25 second should be made with a tripod or other firm support to avoid "blurred" pictures. On the Reflex these shutter speeds would include 1, 1/2, 1/5, and 1/10-second, besides exposures which are made by Bulb.

THE DIAPHRAGM—

The iris diaphragm is an adjustable circular opening which governs the amount of light passing through the lens when the shutter is open. A scale of "f" numbers or "stops" has been adopt-

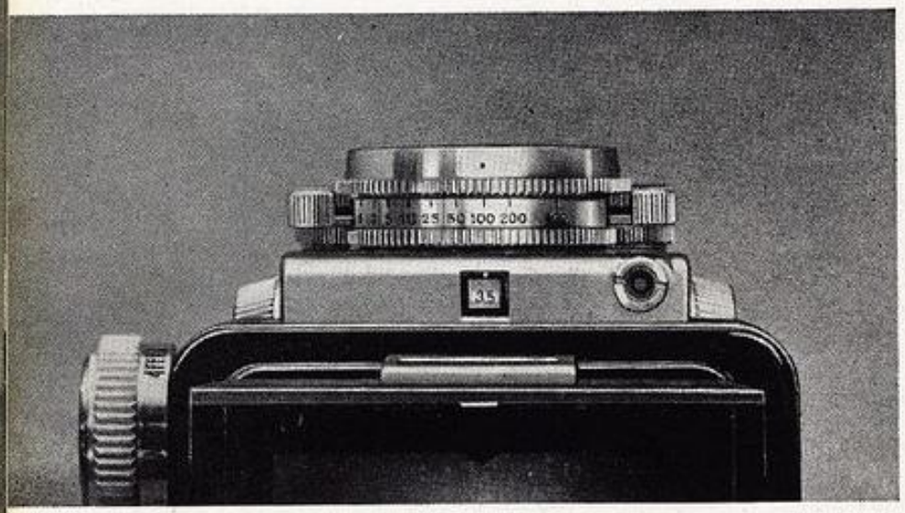


FIGURE SEVEN

ed which represent the same relative light-gathering power regardless of the size of lens.

The diaphragm is regulated by the small knob pointer at the base of the lens barrel (Figure 1, #19). As it is moved from a lower to a higher number, the diameter of the opening decreases, allowing successively less light to reach the film. At f3.5 the diaphragm is said to be "wide open" and at f32, fully "stopped-down". To better illustrate this principle, with your camera empty and the back open, set the shutter at B (bulb) and after cocking it, hold down the shutter release, and move the diaphragm lever back and forth. The action of the diaphragm leaves can be readily observed. Remember, the smaller the f number, the larger the lens opening and the greater the amount of light passed.

For convenience and speed in adjusting the lens opening, the diaphragm setting can easily be viewed through the small window at the top of the lens mount (Figure 7). This permits all adjustments to be made with the camera held in the normal "taking" position.

THE OPTICAL EYE-LEVEL FINDER—

The eye-level view finder (Figure 1, #12) is most convenient for photographing fast-moving objects, making rapid-fire shots, and taking flash pictures. To use this finder, hold the camera as shown in Figure 8 and center your subject in the forward element of the optical finder.

When taking a picture with this view finder, remember that you must first focus the camera by using either the ground glass or by estimating the distance from the subject to the camera and setting the footage indicator on the focusing knob. The exposure is made in the normal manner after focusing for the proper distance and setting the shutter for the correct speed and opening.

FIGURE EIGHT

EXPOSURE TABLE

FOR PLENACHROME FILM

Stop	f4	f5.6	f8	f11	f16	f22	f32
Bright Sunlight	—	1/400	1/200	1/100	1/50	1/25	1/10
Hazy Sunlight Soft Shadows	1/400	1/200	1/100	1/50	1/25	1/10	1/5
Bright Overcast No Shadows	1/200	1/100	1/50	1/25	1/10	1/5	1/2
Dull Overcast	1/100	1/50	1/25	1/10	1/5	1/2	1

See exposure table packed with the film, if film other than Plenachrome is used.

PROPER EXPOSURE—

The proper exposure to be given for best results varies considerably according to the conditions of exposure and speed of the film. Light conditions vary with the season, the time of day and even with geographic conditions. The camera, however, has sufficient adjustments on it to allow pictures to be made under almost all conditions. There is a wide assortment of Ansco films available in the 120 size, in black and white and color.

Average exposures for favorable conditions outdoors are given on opposite page, assuming that Ansco Plenachrome is used.

In general, close-ups require a greater exposure than distant scenes. In winter, outdoor exposures must usually be longer than in summer.

Greater depth of field will result when a small diaphragm opening is used. With the camera focused at Infinity and the diaphragm set at f4, everything from 67 feet to infinity will be sharp and in focus. When the camera is focused at infinity and the diaphragm set at f16, everything from 17 feet to infinity will be in focus. In other words, the depth of field, or the range of distance over which the picture is sharp and in focus has been increased by reducing the opening of the diaphragm.

DEPTH OF FIELD TABLE FOR REFLEX CAMERA

Setting	f3.5	f4	f5.6	f8	f11	f16	f22	f32
3 feet, 8 inches	3'6"-3'10"	3'6"-3'10"	3'5"-3'11"	3'4"-4'1"	3'3"-4'4"	3'1"-4'7"	2'10"-5'1"	2'7"-6'2"
4 feet	3'10"-4'2"	3'9"-4'3"	3'9"-4'4"	3'7"-4'6"	3'6"-4'9"	3'3"-5'2"	3'1"-6'	2'9"-7'3"
5 feet	4'9"-5'4"	4'8"-5'5"	4'7"-5'7"	4'5"-5'10"	4'2"-6'3"	3'11"-7'	3'7"-8'2"	3'2"-11'6"
6 feet	5'7"-6'6"	5'6"-6'7"	5'4"-6'10"	5'1"-7'3"	4'10"-7'10"	4'6"-9'2"	4'1"-11'4"	3'6"-19'2"
7 feet	6'5"-7'8"	6'4"-7'9"	6'2"-8'2"	5'10"-8'9"	5'6"-9'8"	5'-11'9"	4'6"-15'6"	3'11"-36'
8 feet	7'3"-8'11"	7'2"-9'1"	6'11"-9'7"	6'6"-10'5"	6'1"-11'9"	5'6"-14'11"	4'11"-22'	4'2"-108'
10 feet	8'10"-11'6"	8'9"-11'8"	8'4"-12'7"	7'9"-14'1"	7'2"-16'8"	6'4"-24'	5'7"-50'	4'7"-INF.
15 feet	12'7"-18'7"	12'3"-19'3"	11'6"-22'	10'5"-27'	9'4"-38'	8'-128'	6'9"-INF.	5'5"-INF.
35 feet	24'-65'	23'-73'	20'-129'	17'2"-INF.	14'5"-INF.	11'4"-INF.	9'1"-INF.	6'9"-INF.
INF.	76'-INF.	67'-INF.	48'-INF.	33'-INF.	24'-INF.	17'-INF.	12'-INF.	8'4"-INF.

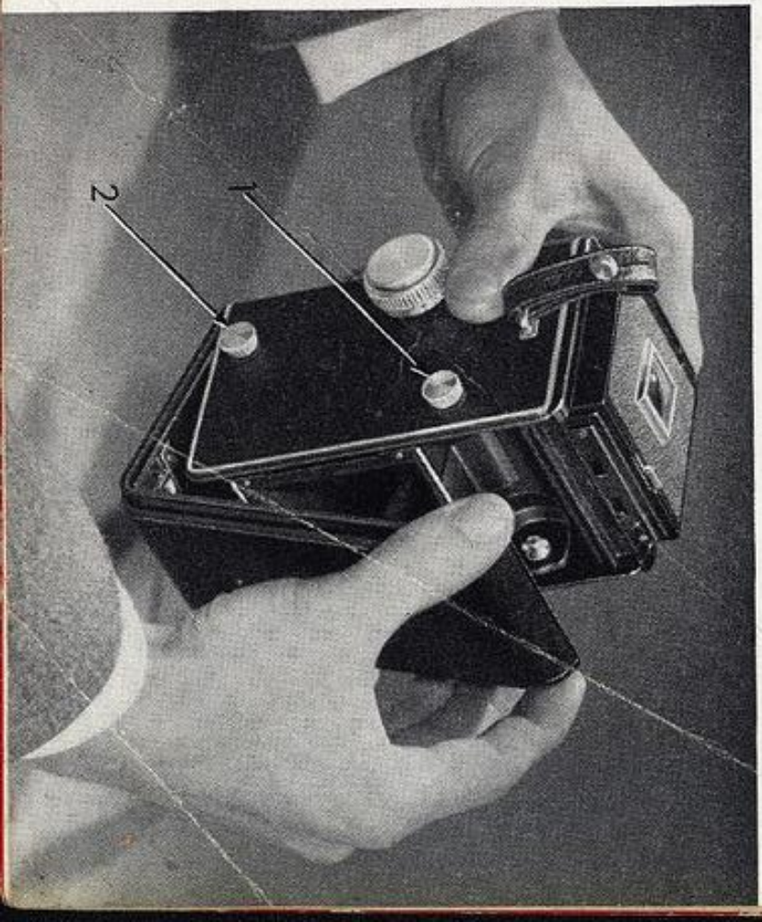


FIGURE TEN

LOADING THE CAMERA—

Before opening the back of the camera to insert the film, be sure to set the exposure counter indicator on the right-hand side of the camera at "N" (Figure 9). To set this counter, hold the resetting lever (Figure 1, #10) to the rear as far as it will go and then turn the indicator knob (Figure 1, #8) clockwise until the pointer of the exposure counter is directely opposite "N".

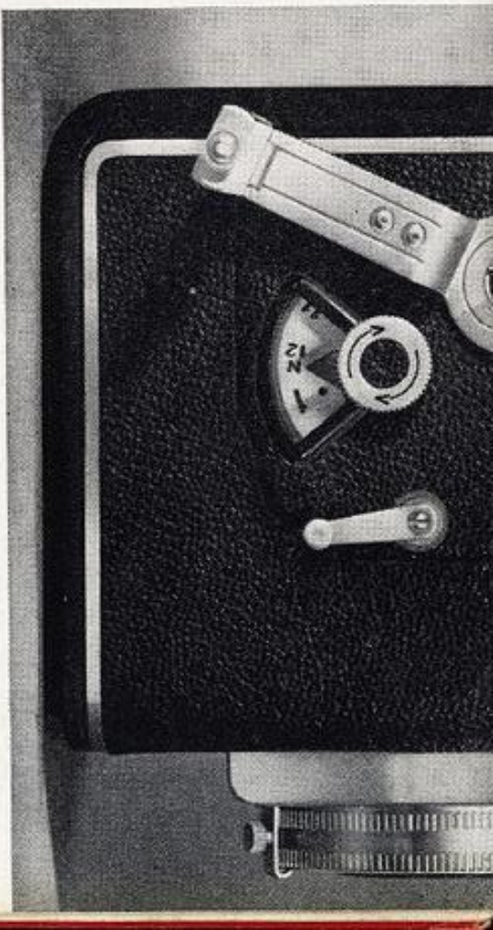
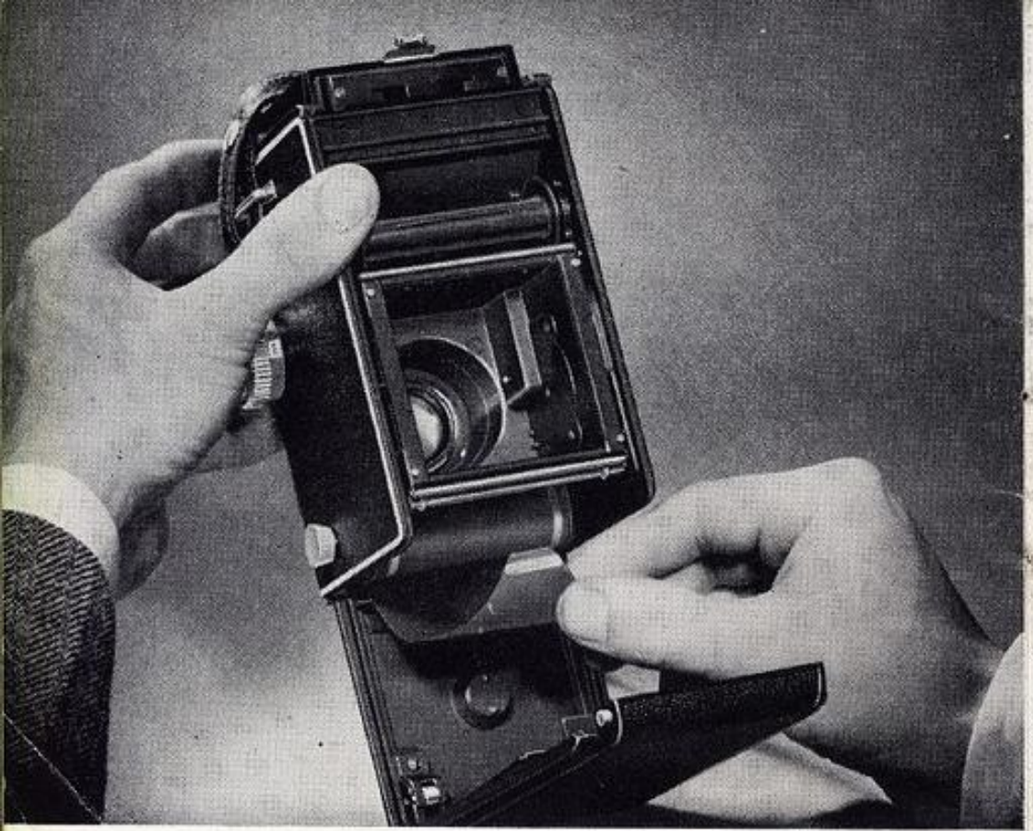


FIGURE NINE



ABOVE—FIGURE ELEVEN

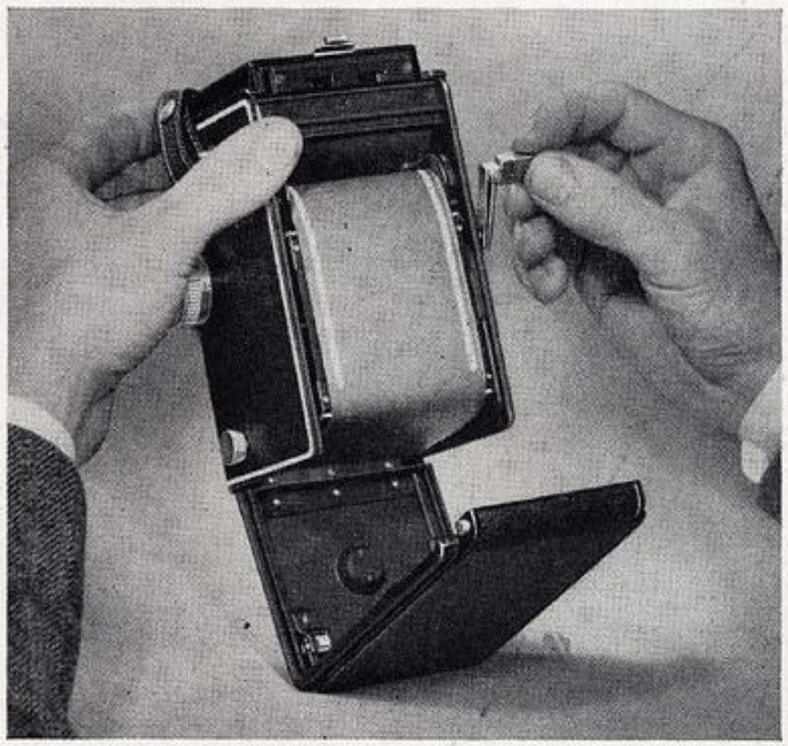
BELOW—FIGURE TWELVE

Open the back of the camera by pressing simultaneously the two release buttons (Figure 1, #3) at the top of the camera back (Figure 10). The back will open downward easily. The fresh roll of 120 size film goes into the chamber nearest the hinge. The empty spool on which the film is to be wound is placed in the upper chamber.

To load the film into the camera, pull out the supply spindle knob (Figure 10, #2) and place the fresh spool in the empty chamber. The spool should engage the stationary pin in the chamber and then the supply spindle knob should be pushed all the way in and its pin should engage in the spool end hole.

With the film held securely in position in the

FIGURE THIRTEEN



supply chamber, break the sticker which seals the roll, and carry the end of the paper (Figure 11) across the back of the camera. Make certain that the red, green or yellow side of the paper will show, the black side being toward the lens. Permit the paper to pass over the two small metal rollers (never attempt to thread the film under these rollers) and thread the pointed end into the wider slot in the empty spool as shown in Figure 12.

Be very certain that the paper is centered on the take-up spool in order that it will wind evenly. Now give the winding handle a full turn, sufficient to bind the paper and assure its firm grip by the upper spool (Figure 13). Close the back of the camera by swinging it back into place. A click indicates it is locked securely. Never open the back of the camera from this point until the film is completely wound on the take-up spool.

Turn the winding handle until the Figure 1

FIGURE FOURTEEN

appears in the peephole on the back of the camera. At this point, close the peephole slide. Then, while holding down the resetting lever, turn the exposure counter indicator to 1 (Figure 14). It will not again be necessary to refer to the peephole in the back of the camera until the insertion of a new roll of film.

Now that your camera is loaded, you are ready to make some exposures. The shutter must be cocked before every exposure, either before or after selecting the shutter speed. This is accomplished, as explained before, by pressing downward on the cocking lever (Figure 1, #15).

It is important to remember that the shutter will not release unless the film has been wound to the next exposure position after each exposure. This means that your Reflex Camera was designed to prevent double exposures. In case, however, a double exposure is desired, simply push the resetting lever (Figure 1, #10) to the rear until a slight "click" is heard. The cocked shutter can then be released to make the exposure.

AUTOMATIC FILM TRANSPORT—

With the automatic film transport feature of this camera, the winding handle will turn after each exposure only as far as the next number on the exposure counter. In other words, it is unnecessary to look at the peephole in the back of the camera.

After making the first exposure, turn the winding handle clockwise as far as it will go, but do not rotate it at an extreme speed. The film automatically will move into position for the second exposure, the exposure counter indicator will stop

at number 2, and, at the same time, the double-exposure preventive mechanism will be released. The winding handle may be turned counter-clockwise to an out-of-the-way position.

RESETTING LEVER—

This lever, (Figure 1, #10), in addition to the uses explained above, will release the automatic mechanism of the camera. For example, if it should become necessary to remove the film from the camera before completing the twelve exposures, hold this lever to the rear to release the automatic lock, set the indicator at "N", and the film can be wound onto the take-up spool.

If the shutter release should fail to operate properly, press the resetting lever and repeat the operation. Before doing this, however, be very sure that you have wound the film to the next number.

UNLOADING—

When the film has been completely wound onto the take-up spool, the indicator of the exposure counter will again be on "N", and the winding handle will move very freely. Then, open and swing down the back of the camera. Pull out the take-up knob (Figure 10, #1). The exposed roll may now be removed from the camera.

Fold under the pointed end of the paper and seal with the "exposed" sticker. The film is now ready to be developed and printed.

To prepare the camera for the next roll of film, remove the empty spool and place it in the

upper chamber and reload in the manner previously described.

Your Reflex Camera may be loaded and unloaded in daylight, but for best results, these operations should be done in subdued light, never in direct sunlight.

TRIPOD SOCKET—

This is for attaching a tripod to the camera and it is centrally located on the base of the camera (Figure 1, #20). A tripod, or other firm support, should be used for exposures longer than 1/25th second.

CAUTIONS—

Load your camera in subdued light, never in direct sunlight.

When loading the camera, be certain that the film is centered evenly on the take-up spool. Otherwise, it is likely to climb up one end of the spool, causing the protective paper to tear and possibly fogging the film.

Be sure that the magnifier lens has been returned to its normal folded position against the rear element of the hood before closing the hood.

Do not let the sun shine directly on the lens when taking a picture. This produces a "flare" of light on the film which shows in the finished picture. If photographing toward the source of light, use a lens shade or hold your hand or hat above the lens as a shade but sufficiently high to prevent its being included in the picture.

Keep the lenses of your Reflex Camera clean. A dirty lens or rain or mist on the front lens will cause fogged or cloudy pictures. To clean the lenses, use a soft linen or cotton cloth or lens tissue. With the camera unloaded, and the back open, it is also well to occasionally clean the rear element of the taking lens. At the same time make sure that the interior is free of dust or other particles.

Select your background carefully. A good subject can be spoiled by such backgrounds as telephone poles, clapboard houses, etc. A background of foliage is usually unobtrusive and pleasing.

* * *

The foregoing instructions explain the mechanical operations of your Automatic Reflex Camera. Do not be content, however, with the mastery of these simple details. Photography offers marvelous possibilities to the camera user who really attempts to obtain the maximum results possible with his equipment.

Your Automatic Reflex Camera is a fine instrument—the finest in its class. Learn to use it most effectively.

It is recommended that you keep your camera in a suitable case. See your photographic dealer for cases, filters, portrait attachments, sun-shades and other accessories that will add to the flexibility of your camera and improve the quality of your pictures.

Ansco

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Use

ANSCO COLOR

FILM IN YOUR REFLEX CAMERA

For Glorious Pictures in True Color!

Ansco Color is a remarkable new color film which produces brilliant transparencies in full, natural color—beautiful reproductions which capture colors as you see them in the original scene.

And you can develop Ansco Color Roll Film in your own darkroom by using solutions available in the Ansco Color Film Developing Outfit. You can see the completed transparency 90 minutes after the picture is taken! If you prefer to have your color films processed by a professional, they can be left with your local dealer.

Faithful, lifelike Ansco Color Transparencies are ideal for viewing by projection, or for making contact prints and enlargements in color on Ansco Color Printon.

The new Ansco Color Film is supplied in two types; one for daylight, the other for artificial light exposures.