

Auto Terra
Super

INSTRUCTIONS

A WORD ON AUTO TERRA SUPER

We congratulate you on your selecting the Auto Terra Super camera.

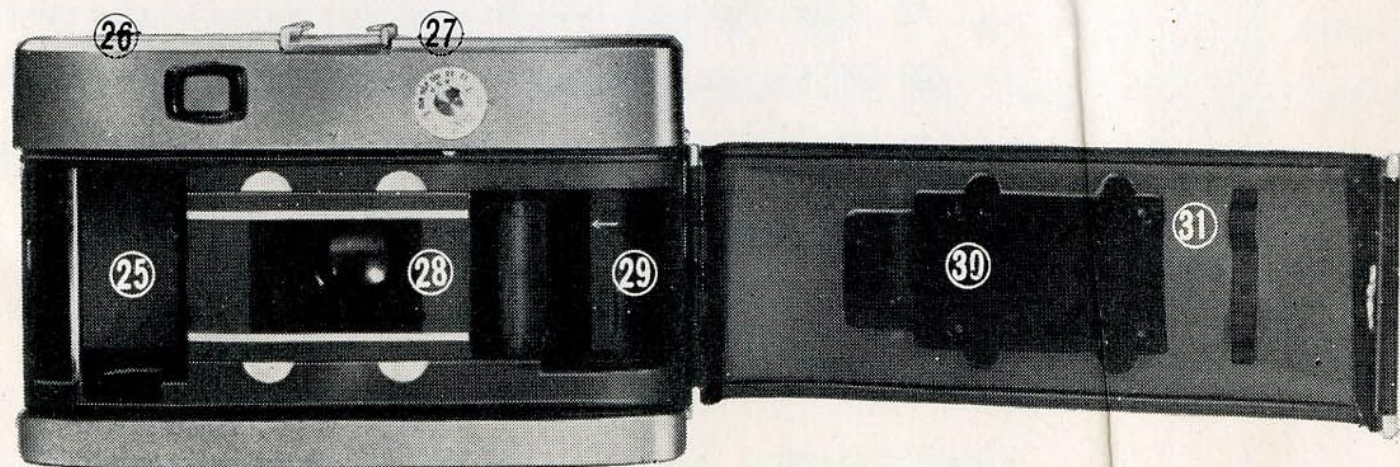
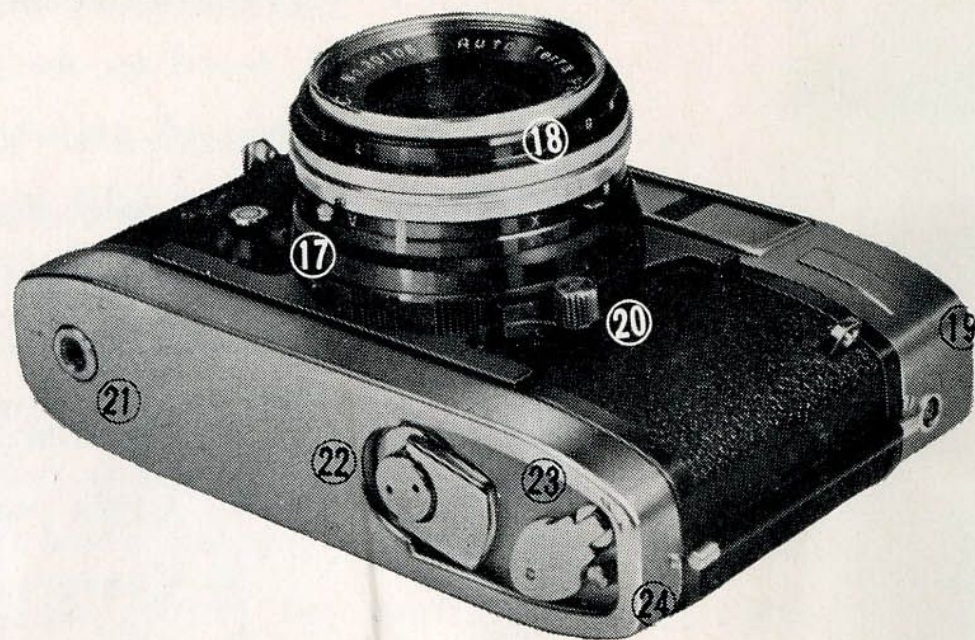
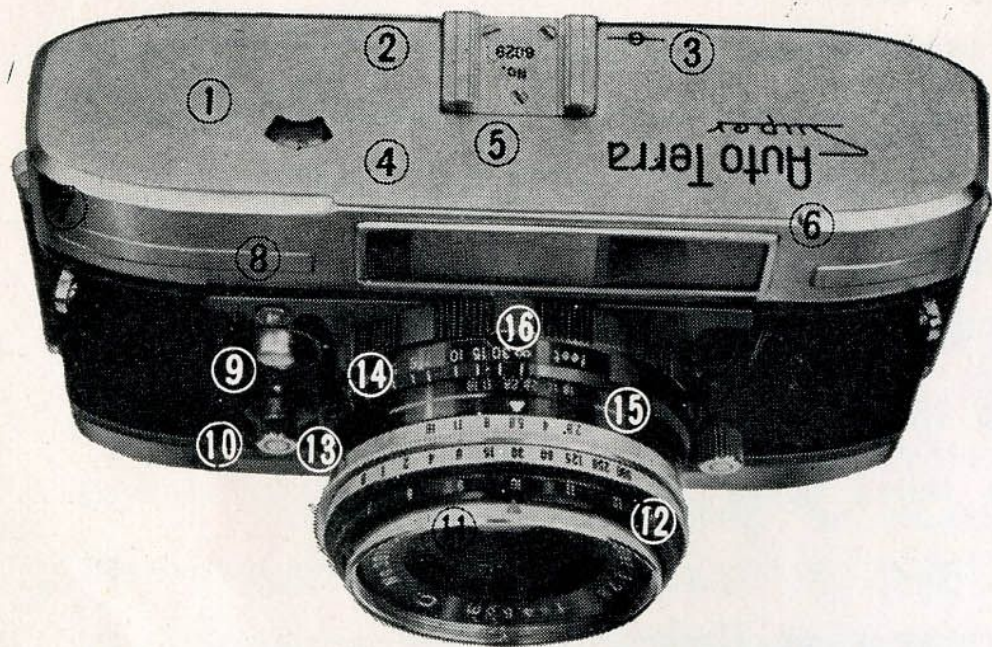
Please let us explain to you few more details of the camera.

This camera is considered to be the first lens shutter type camera coupled with amazing "One-Touch-Magic-System" which will enable you to operate the camera with one button. By merely pressing the shutter release button, Touch-O-Matic will release the shutter and take picture. When finger is released from the shutter release button, spring power will automatically transport the exposed frame, cocks the shutter reflectively to be ready to take another frame. This is very TOUCH-O-MATIC!

By taking good care of this Auto Terra Super, we sincerely hope that it proves to be a good companion to you for a long time. Please read the instructions contained in booklet and try to handle the camera properly. We explain to you proper methods page after page.

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NAME OF PRINCIPAL PARTS

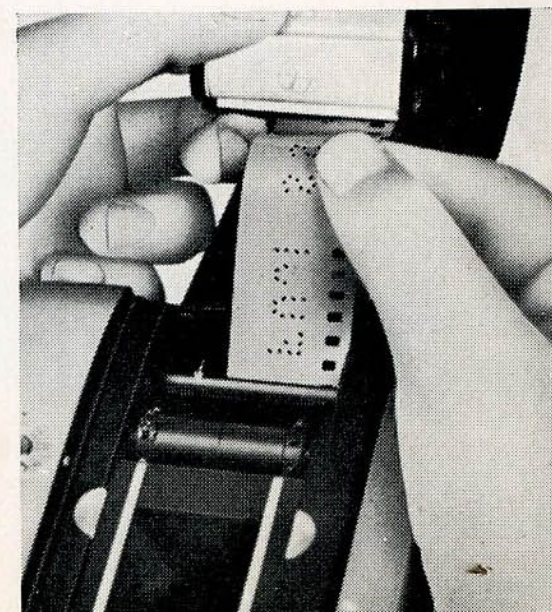
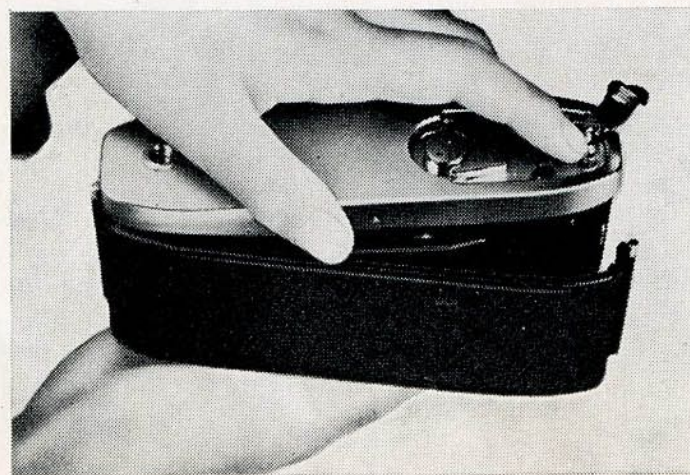
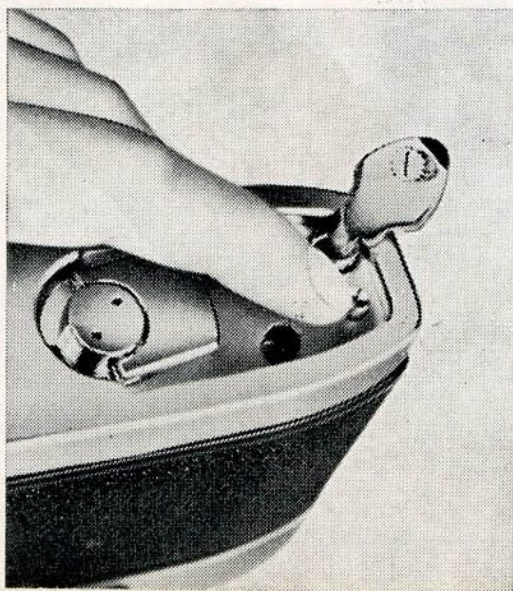
- | | |
|----------------------------------|---|
| ① Exposure Counter | ①7 Self-timer |
| ② Accessory Shoe | ①8 M-X Synchronization Lever |
| ③ Film Position Lined Mark | ①9 Flash Terminal |
| ④ Range Finder Window | ②0 Range Focusing Lever |
| ⑤ Bright Optical Frame | ②1 Tripod Bush |
| ⑥ View Finder Window | ②2 Power Charging Knob |
| ⑦ Neck Strap Ring | ②3 Rewinding Crank Handle |
| ⑧ Calbe Release Hole | ②4 Back Lid Opening and Closing Button |
| ⑨ Shutter Release Button | ②5 Film Cartridge Chamber |
| ⑩ Exposure Safty Knob | ②6 Finder Eye Piece |
| ⑪ Light Value Scale | ②7 Film Indicator |
| ⑫ Shutter Speed Scale | ②8 Sprocket |
| ⑬ Shutter-aperture Coupling Ring | ②9 Take-up Spool |
| ⑭ Lens Aperture Scale | ③0 Film Pressure Plate |
| ⑮ Depth of Field Scale | ③1 Cartridge Pressure Spring |
| ⑯ Distance Scale | |

HOW TO TAKE PICTURE

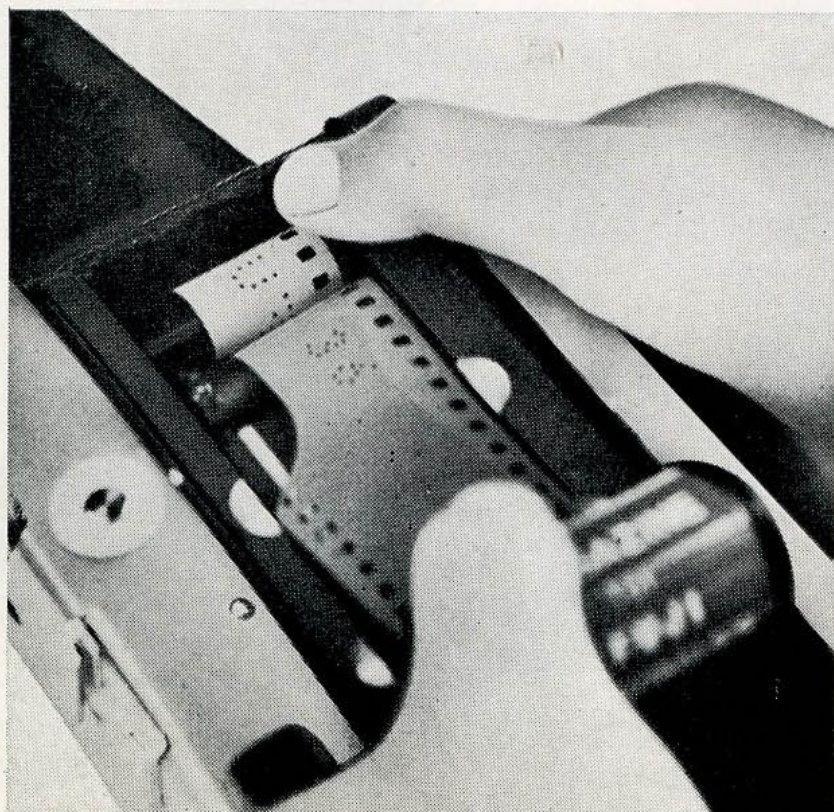
1) How to load film

It is advisable to load and unload your camera in shade.

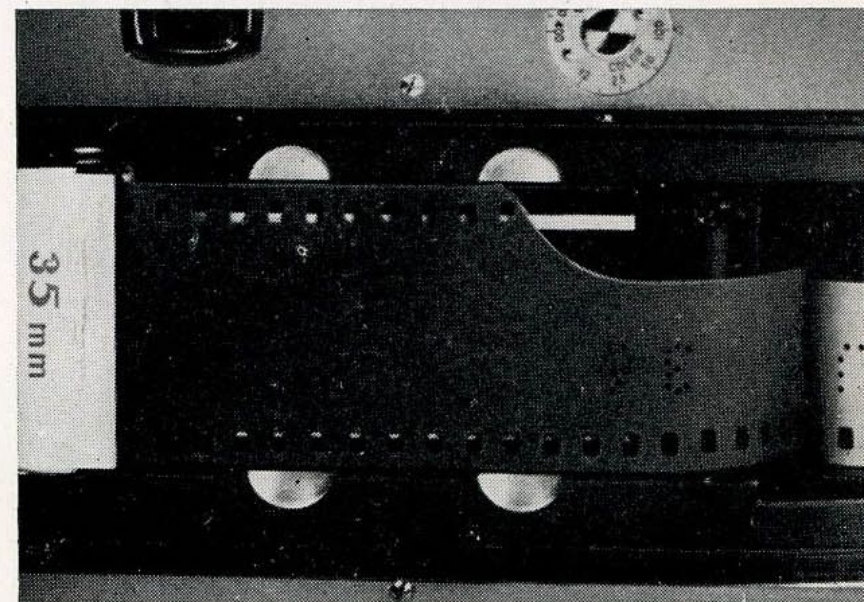
- a) Depress the back lid opening and closing button (20) and open the back lid. Insert the end of film into slit of take-up spool (26) in arrow pointing direction. If the slit is not in proper position to insert film, turn the spool with finger in the direction of the arrow.



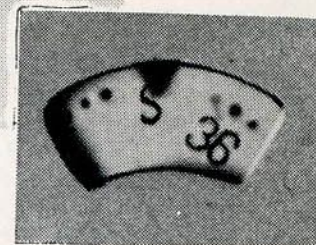
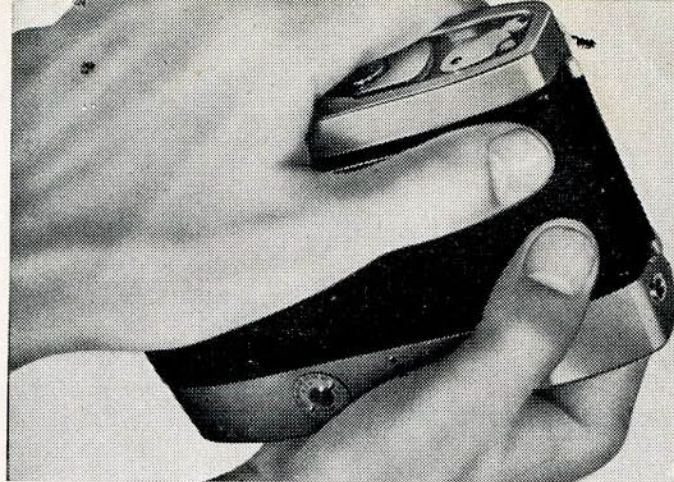
- b) Be sure to have the sprocket gear (28) engaged into perforation of film. By turning the spool with finger, wind the film one complete turn on the spool.



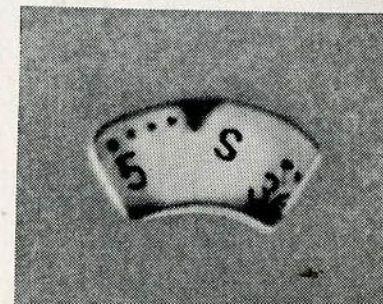
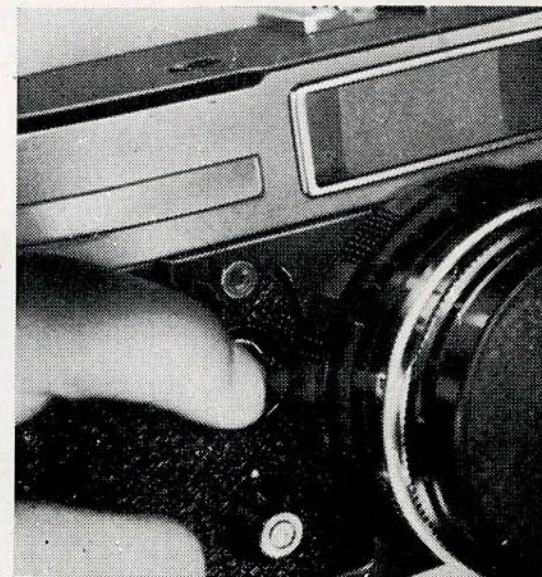
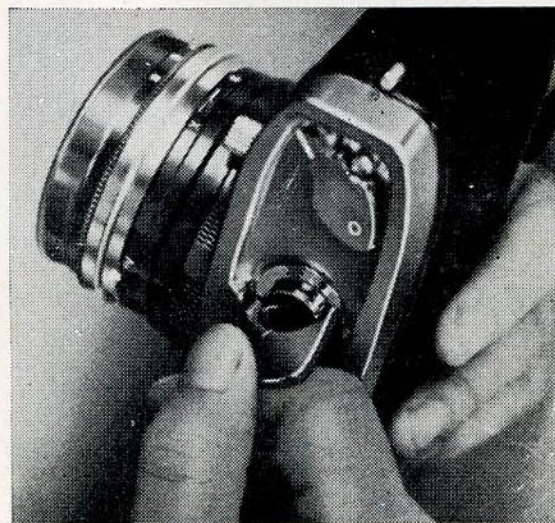
- c) Slowly stretch out the film enough length and put the film cartridge into film chamber(25). Be sure to have the film perforation engaged into sprocket gear.



- d) Replace the back lid by gently pressing the lid. The exposure counter(1) will then point the starting mark "S".



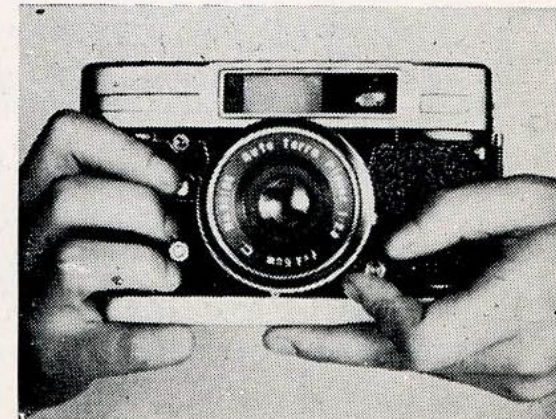
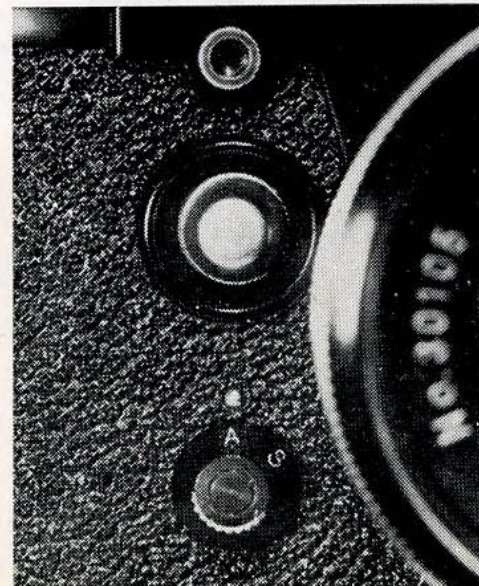
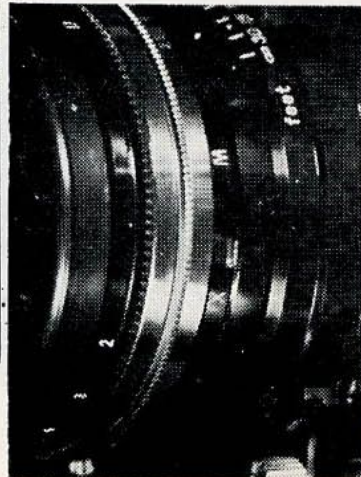
- e) By turning power charging knob (22) a few times and charge the power. Press the shutter release button (9) two times. With this operation, the exposure counter will register the first dot on the exposure counter. With each exposure, counter will advance to next dot automatically.



2) Shutter and Shutter Release

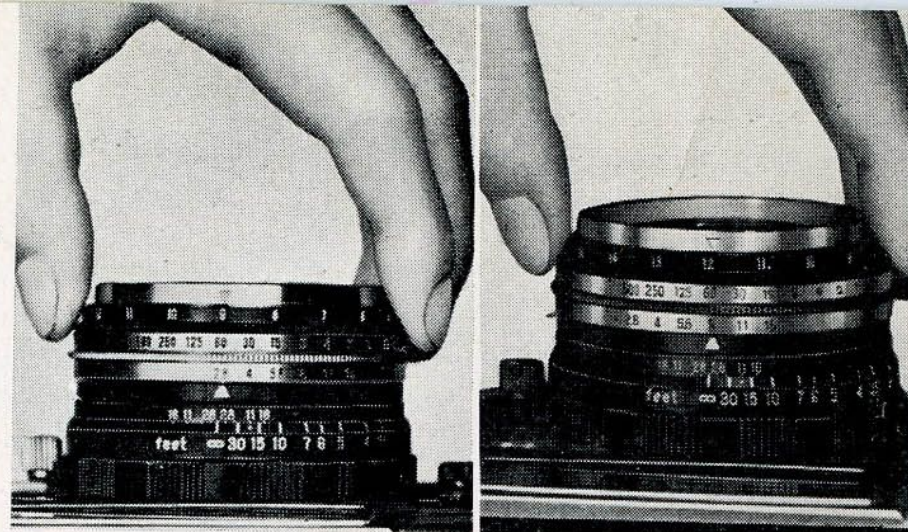
Shutter very reliable COPAL SVL with shutter speed of B, 1—1/500 second, light value index figures 2—17 and aperture openings of 2.8, 4, 5.6, 8, 11 and 16. Self-timer is equipped with this shutter. When you need to set self-timer, M-X synchronization lever(18) has to turn to the X, otherwise self-timer can not work. The COPAL synchronization deviec has two kinds of connecting points, M for the M-class flashbulbs, fully synchronized at all shutter speeds up to 1/500 second, and X for the electronic flash, or strobe-light at all shutter speeds. The lever has always to set at X except M-class flashbulb picture-takings.

With the aid of Touch-O-Matic installed in the shutter, photographing can be done by mere button pressing. Shutter release button is located at suitable position and slight pressure will release the shutter, therefore less chance of shaking the camere while picture is taken. If the button is pressed but shutter failed to respond, this is caused either by exhausted power or exposure safty knob in "S" position. Have the safty knob in "A" position when photographing.



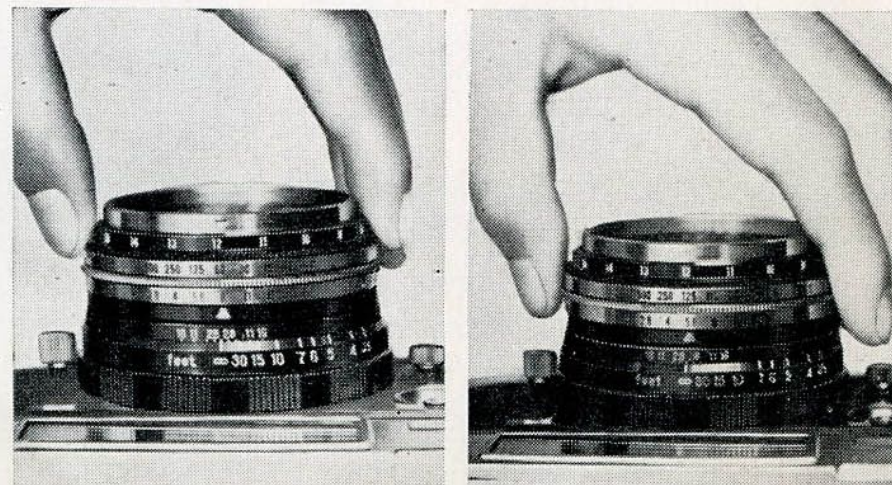
3) Determining the Aperture Opening of Lens

To set the desired shutter speed, for example $\frac{1}{60}$, turn the light value scale (11) right or left to coincide the \triangle mark with the shutter speed. Similarly by turning the light value scale right or left, coincide your desired aperture opening e.g. f8 with \triangle mark. This light value shutter can set the speed and aperture without changing the hand and it is popularly called the one hand system.



With the aid of exposure meter, it is more simple to gain your suitable exposure. Just read the light value number as shown by the exposure meter and have the ∇ mark coincide with the figure as given by the exposure meter. If you desire to change the shutter speed, hold the shutter-aperture coupling ring(13) with fingers and turn. The shutter speed is coupled with the aperture opening so the change in shutter speed will automatically adjust the aperture opening.

If you utilize the light value index table, shown at page 10, it is the most simple way to take a good picture. Just put your reasonable light value index figure on the light value scale, then determining the aperture opening of lens is over.



4) Light Value Index Table

| SUBJECTS ASA INDEX | Bright sun on light sand or snow & in the mountains | Distant view & Wide Sta- dium | In the street & Group- photo | Bright sun strong sha- dows | Cloudy bri- ght no shadows | Among trees | In light room | In dark room |
|-----------------------|--|-------------------------------------|------------------------------------|-----------------------------------|----------------------------------|-------------|------------------|-----------------|
| 32 | 15 | 14 | 13 | 12 | 11 | 7 | 6 | 5.5 |
| 50 | 16 | 15 | 14 | 13 | 12 | 8 | 7 | 6.5 |
| 100 | 17 | 16 | 15 | 14 | 13 | 9 | 8 | 7.5 |
| 200 | 18 | 17 | 16 | 15 | 14 | 10 | 9 | 8.5 |

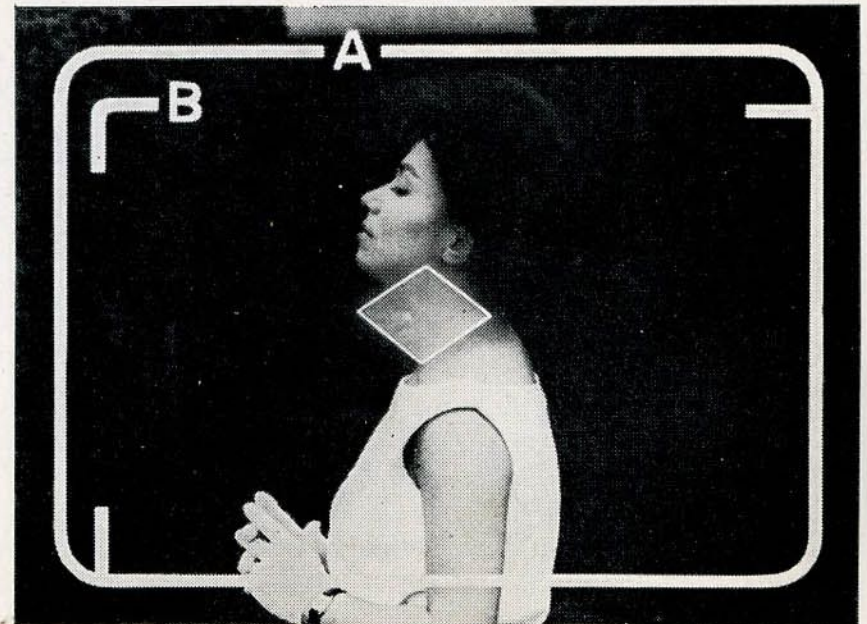
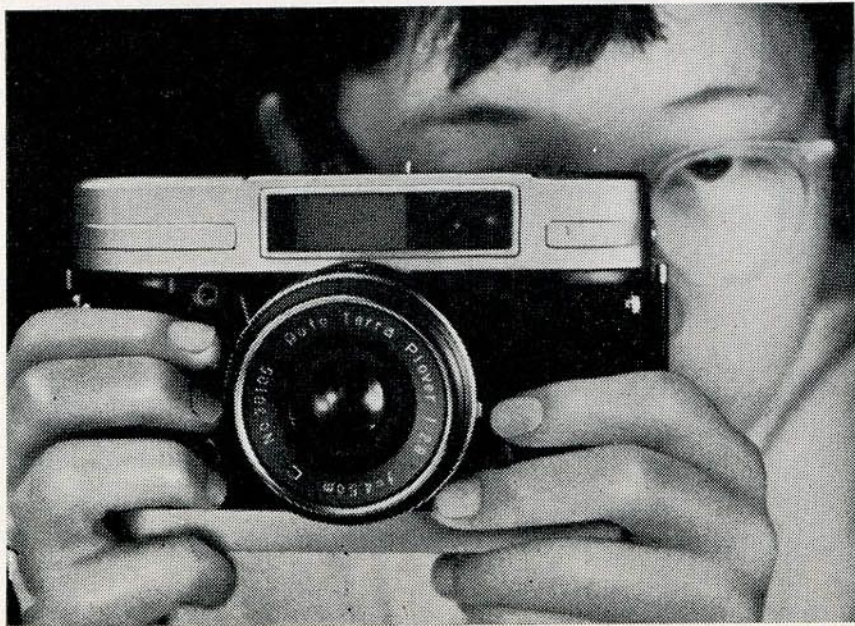
5) Exposure Index

| | | | | | | | | | | | | | | | |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| A S A | 16 | 20 | 25 | 32 | 40 | 50 | 64 | 80 | 100 | 125 | 160 | 200 | 250 | 320 | 400 |
| Weston (daylight) | 12 | 16 | 20 | 24 | 32 | 40 | 50 | 64 | 80 | 100 | 125 | 160 | 200 | 250 | 320 |
| G E | 18 | 24 | 32 | 36 | 48 | 64 | 75 | 100 | 125 | 150 | 200 | 250 | 300 | 400 | 500 |
| D I N | $\frac{13}{10}$ | $\frac{14}{10}$ | $\frac{15}{10}$ | $\frac{16}{10}$ | $\frac{17}{10}$ | $\frac{18}{10}$ | $\frac{19}{10}$ | $\frac{20}{10}$ | $\frac{21}{10}$ | $\frac{22}{10}$ | $\frac{23}{10}$ | $\frac{24}{10}$ | $\frac{25}{10}$ | $\frac{26}{10}$ | $\frac{27}{10}$ |

6) About the Range-View Finder

Range-view finder is the three window type. In looking through the eye piece(26), you will find a diamond shape frame in the center of finder. Focus the object and if two images coincide each other and one image appeared, the distance between the film surface and the object is properly adjusted.

The bright-line frame visible in the view-range finder (A) shows the area of the picture appear on the negative. When taking close-up pictures, the area of the picture will show in (B) frame. The (B) frame is the position of parallax correction boarder.

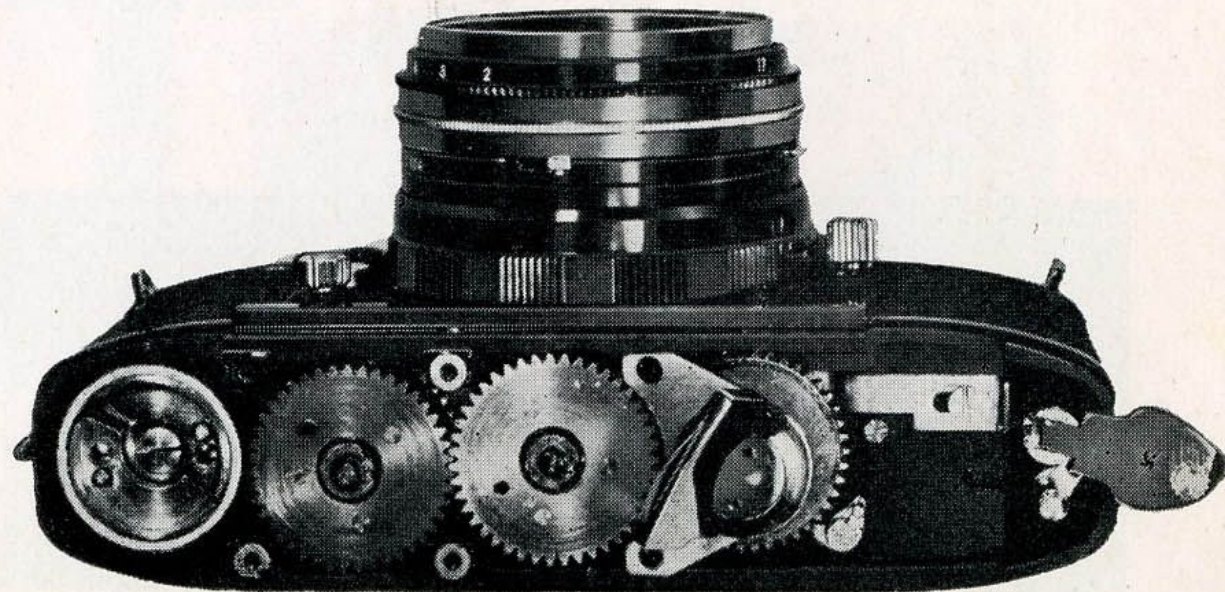


7) The Spring Motor

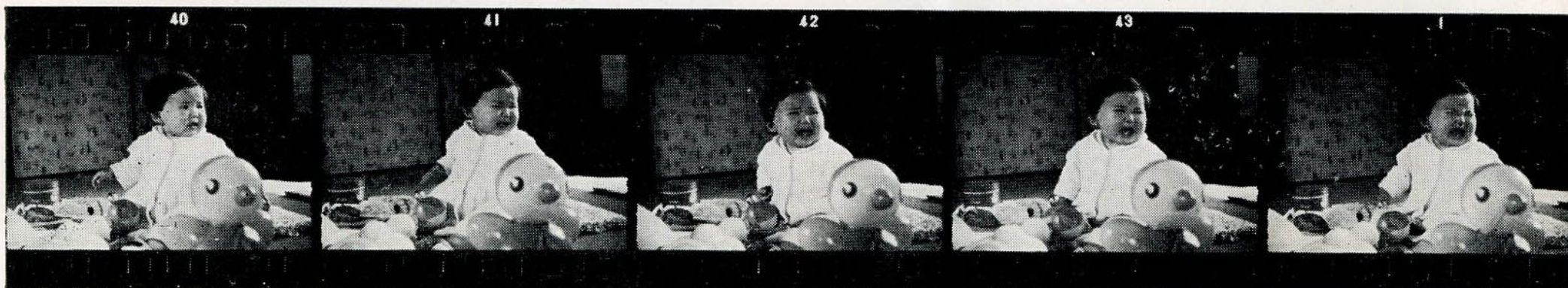
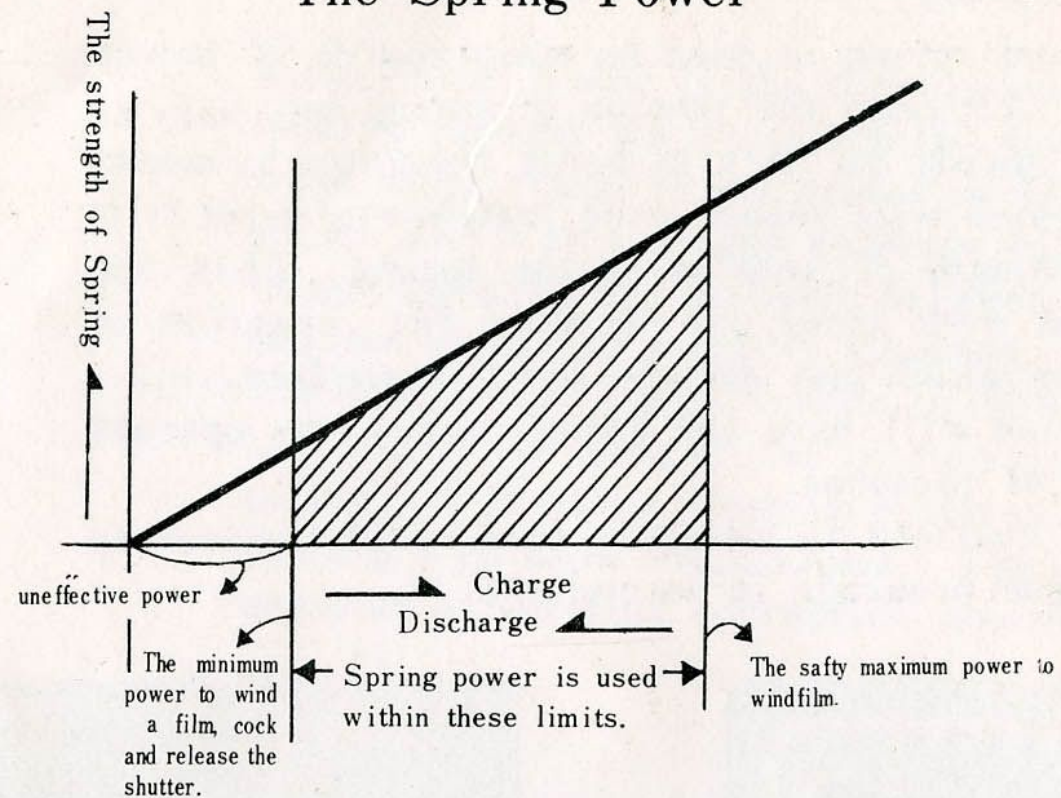
Highly tested steel spring is used as main source of power for this camera. Although the tension of spring may vary at each winding of spring but this is being regulated by means of a governor, which will ensure even transportation of film regardless of strength of tension on the spring. Thus the film will flow at even speed and prevents the creation of static electricity which may damage the film surface.

Fully wound spring will have the enough power to operate for even frames of pictures.

Spring motor is confined in moisture free, dust free casing and it is free from breakage in normal use.



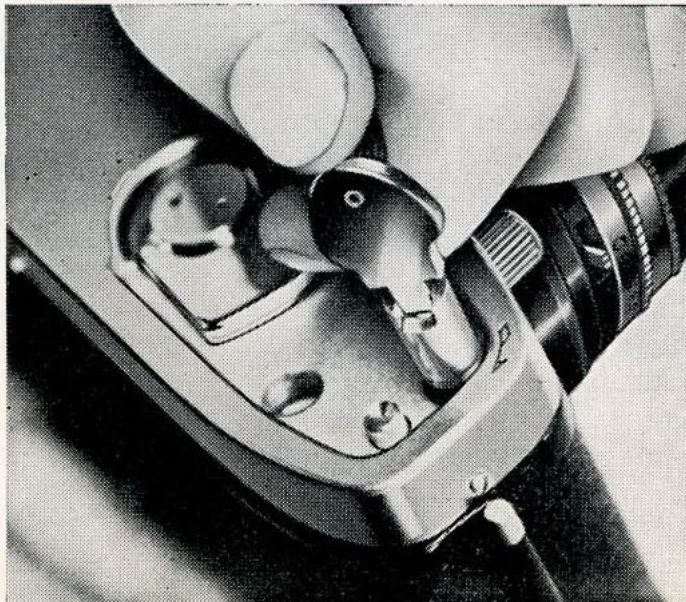
The Spring Power



8) Film Rewinding

The film exposed to the last frame must be rewound into the original cartridge from the take-up spool. If 20 exposure film is use, film counter will register 20 and if in case of 36 exposure film, it will register 36 when th last frame of film is exposed.

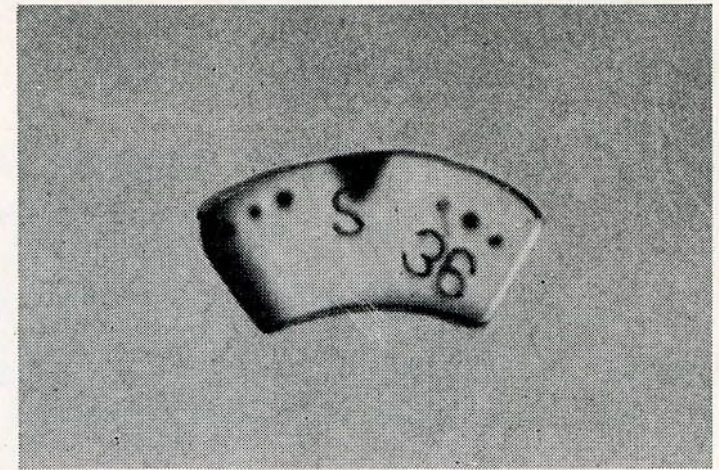
- a) Raise and pull out rewinding crank handle (23) until it makes "Click" sound.



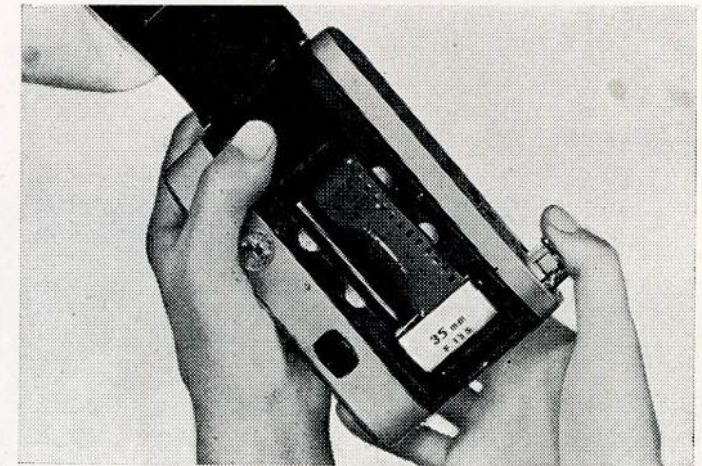
- b) Turn crank handle to the direction of arrow. When the film begin to be rewound into the cartridge, exposure counter will turn backwards.



- c) When exposure counter returned to "S" mark, it shows that film is almost completely wound into the original cartridge. By turning another one or two times, end of the film will become free from the take-up spool.



- d) Replace the crank handle to its original position and open the back lid by depressing the back lid opening button. Take out the film cartridge.



9) Plover lens and the depth of field table

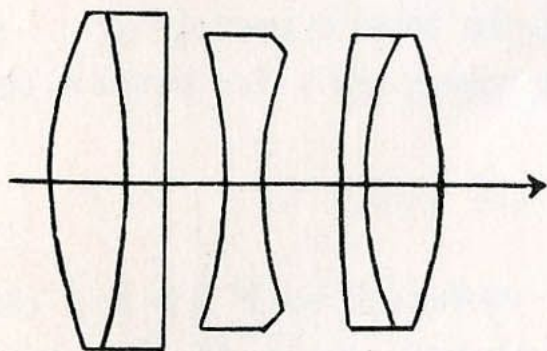
The lens is the one of five-element in three-block and the focusing distance is 45 mm in quasi-wide angle type. The general defect of this class is the COMA. However, this defect was sufficiently corrected in Plover lens by using new type of glass. And it is the excellent lens with high resolving power in its center and circumference, and ambercoated wholly to fit sufficiently for the colour film too.

Meter Unit

| Distance to the object (m) | F / 2.8 | F / 4 | F / 5.6 | F / 8 | F / 11 | F / 16 |
|----------------------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| | from ~ to | from ~ to | from ~ to | from ~ to | from ~ to | from ~ to |
| ∞ | 22.4 ~ ∞ | 15.7 ~ ∞ | 11.2 ~ ∞ | 7.8 ~ ∞ | 5.7 ~ ∞ | 3.9 ~ ∞ |
| 10 | 6.9 ~ 18.0 | 6.1 ~ 27.4 | 5.3 ~ 9.07 | 4.4 ~ ∞ | 3.6 ~ ∞ | 2.8 ~ ∞ |
| 5 | 4.1 ~ 6.4 | 3.8 ~ 7.3 | 3.5 ~ 9.0 | 3.1 ~ 13.6 | 2.7 ~ 38.4 | 2.2 ~ ∞ |
| 3 | 2.7 ~ 3.5 | 2.5 ~ 3.7 | 2.4 ~ 4.1 | 2.2 ~ 4.8 | 2.0 ~ 6.2 | 1.7 ~ 12.2 |
| 2 | 1.8 ~ 2.2 | 1.8 ~ 2.3 | 1.7 ~ 2.4 | 1.6 ~ 2.7 | 1.5 ~ 3.0 | 1.3 ~ 4.0 |
| 1.5 | 1.41 ~ 1.60 | 1.37 ~ 1.65 | 1.33 ~ 1.72 | 1.27 ~ 1.84 | 1.10 ~ 2.01 | 1.09 ~ 2.39 |
| 1.0 | 0.96 ~ 1.04 | 0.94 ~ 1.06 | 0.92 ~ 1.09 | 0.89 ~ 1.14 | 0.86 ~ 1.20 | 0.80 ~ 1.32 |
| 0.8 | 0.77 ~ 0.83 | 0.76 ~ 0.84 | 0.75 ~ 0.86 | 0.73 ~ 0.89 | 0.71 ~ 0.92 | 0.67 ~ 0.99 |

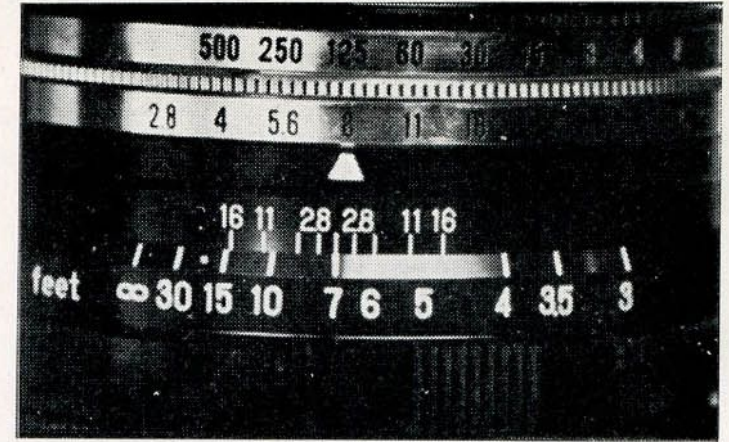
Feet Unit

| Distance to the object (Feet) | F / 2.8 | F / 4 | F / 5.6 | F / 8 | F / 11 | F / 16 |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | from ~ to | from ~ to | from ~ to | from ~ to | from ~ to | from ~ to |
| ∞ | 73.41 ~ ∞ | 51.39 ~ ∞ | 36.71 ~ ∞ | 25.69 ~ ∞ | 18.69 ~ ∞ | 12.85 ~ ∞ |
| 30 | 21.33 ~ 51.64 | 18.89 ~ 72.91 | 16.55 ~ 160.59 | 13.88 ~ ∞ | 11.55 ~ ∞ | 9.03 ~ ∞ |
| 15 | 12.48 ~ 18.80 | 11.64 ~ 21.10 | 10.68 ~ 25.19 | 9.51 ~ 35.54 | 8.36 ~ 73.05 | 6.96 ~ ∞ |
| 10 | 8.82 ~ 11.55 | 8.39 ~ 12.37 | 7.88 ~ 13.67 | 7.23 ~ 16.22 | 6.55 ~ 21.15 | 5.64 ~ 43.85 |
| 7 | 6.40 ~ 7.72 | 6.18 ~ 8.08 | 5.90 ~ 8.61 | 5.53 ~ 9.54 | 5.12 ~ 11.65 | 4.57 ~ 14.99 |
| 6 | 5.56 ~ 6.52 | 5.39 ~ 6.77 | 5.17 ~ 7.14 | 4.89 ~ 7.77 | 4.57 ~ 8.73 | 4.02 ~ 11.02 |
| 5 | 4.69 ~ 5.35 | 4.57 ~ 5.52 | 4.42 ~ 5.76 | 4.21 ~ 6.16 | 3.97 ~ 6.75 | 3.63 ~ 8.03 |
| 4 | 3.79 ~ 4.21 | 3.72 ~ 4.32 | 3.61 ~ 4.46 | 3.47 ~ 4.70 | 3.31 ~ 5.03 | 3.07 ~ 5.70 |
| 3.5 | 3.35 ~ 3.67 | 3.29 ~ 3.74 | 3.03 ~ 3.85 | 3.10 ~ 4.02 | 2.97 ~ 4.26 | 2.78 ~ 4.73 |
| 3 | 2.89 ~ 3.12 | 2.84 ~ 3.18 | 2.78 ~ 3.25 | 2.70 ~ 3.37 | 2.60 ~ 3.54 | 2.46 ~ 3.86 |



10) Depth of Field

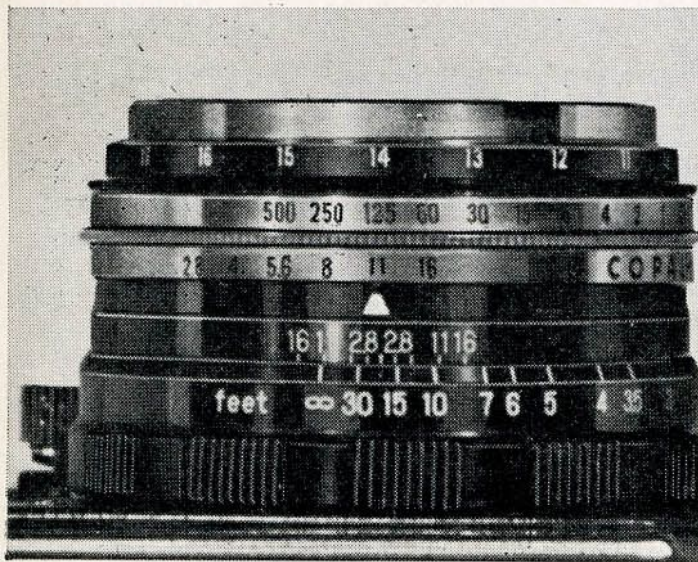
As shown by scale, the depth of field of focus increases in proportion to the smallness of the opening of aperture and decreases in proportion to its largeness. This range is commonly known as the depth of field.



Consequently you will have to make sure of your object in sharp focus, giving full consideration to this important factor. For instance, in taking a picture of a person, the blurring of the background by use of a wide opening aperture which will bring out the person distinctly. On the other hand, when taking a group picture where people are standing or sitting in rows a small opening becomes necessary to ensure that the focus is sharp on every subject.

Constant Focus

When the lens aperture scale is reduced to F 11 and constant focus mark (Red point) on the distance scale is met with the center of the depth of field scale, you can easily enjoy a picture-taking from 9 feet 5 inch (2.86m) to the infinity without focusing.



HOW TO TAKE CARE OF YOUR CAMERA

To keep the Auto Terra Super as your long lasting companion, you should always take proper care of it.

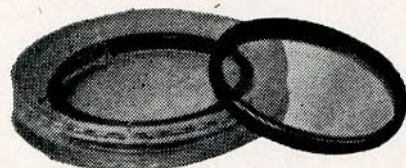
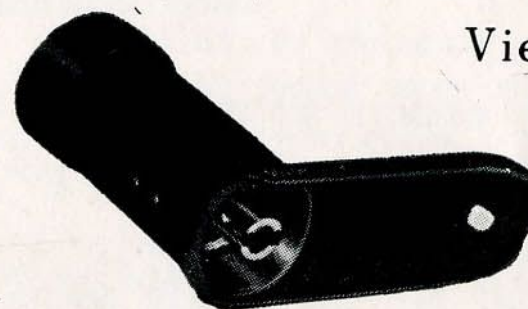
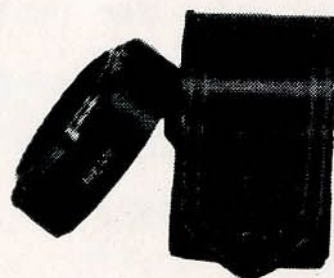
- a) After you have used the camera, dust the lens surface lightly with a lens brush. When the camera is exposed to wet weather or salty air, see that is clean before putting your camera away. Wipe the camera with soft cloth and wipe the lens with lens brush.
- b) When the camera is not in use, adjust the synchronization lever at X and shutter speed at $1/25$. Adjust the distance in infinity.
- c) Have the spring motor unwound.
- d) Store the camera in dry and moisture free place.

AUTO TERRA SUPER ACCESSORIES

You might better use AUTO TERRA SUPER accessories in order to enjoy your photo-field more.

Filter UV
" Y2

Lens Hood
with case
Neck Strap



Grip Motor
with case
Aux. Lenses

Telephoto F 65 mm

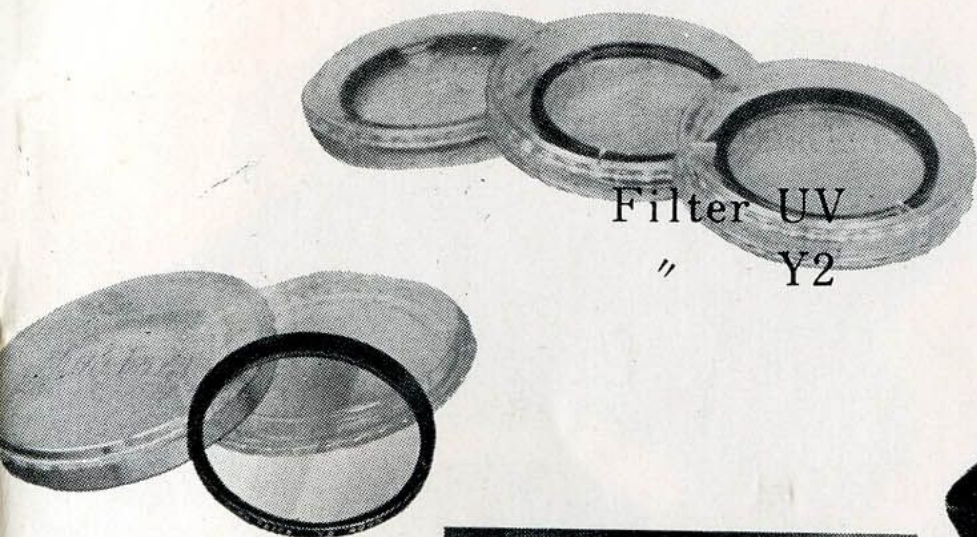
Wideangle F 35 mm

View-finder for above
with case.

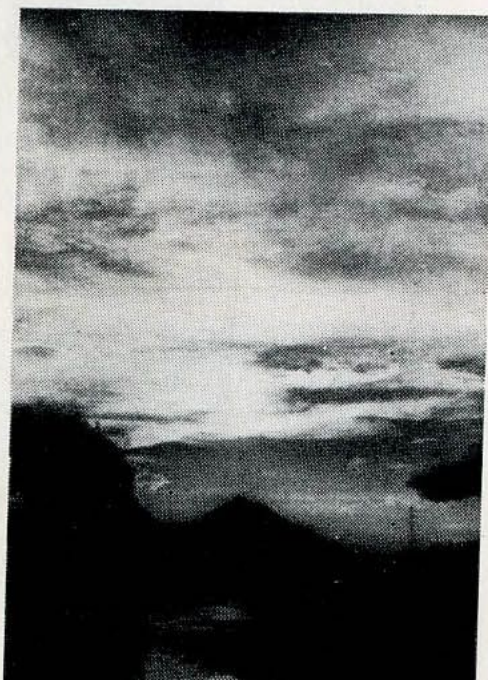


MASTERPIECE AND PRACTICAL USES

Lens Hood

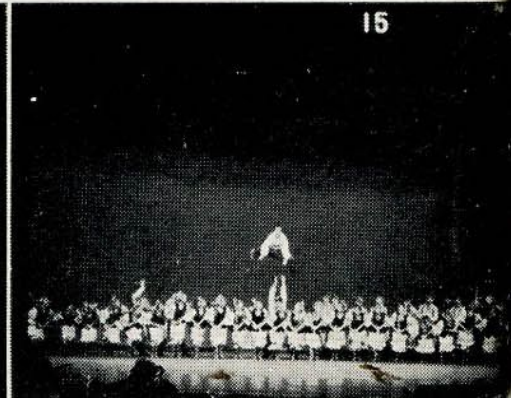
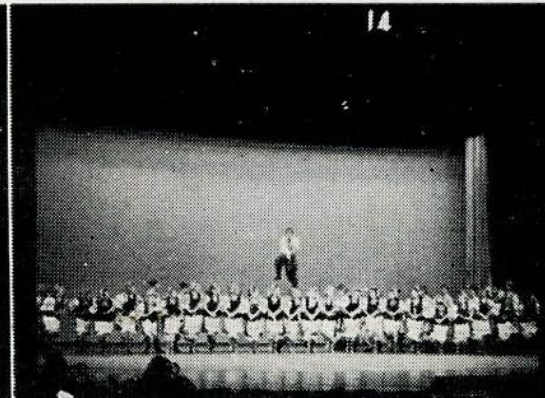
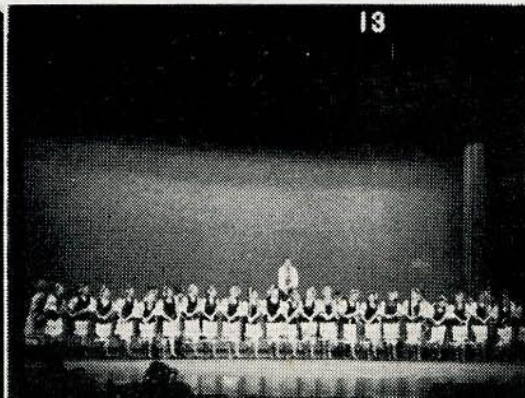
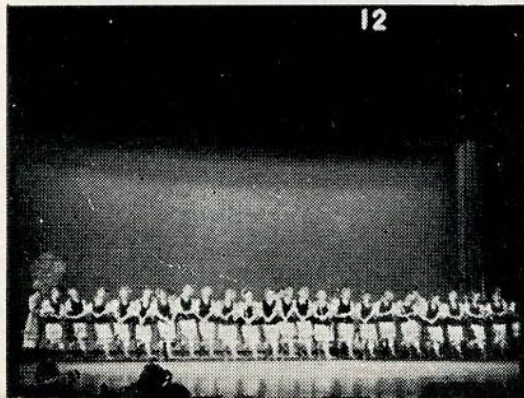
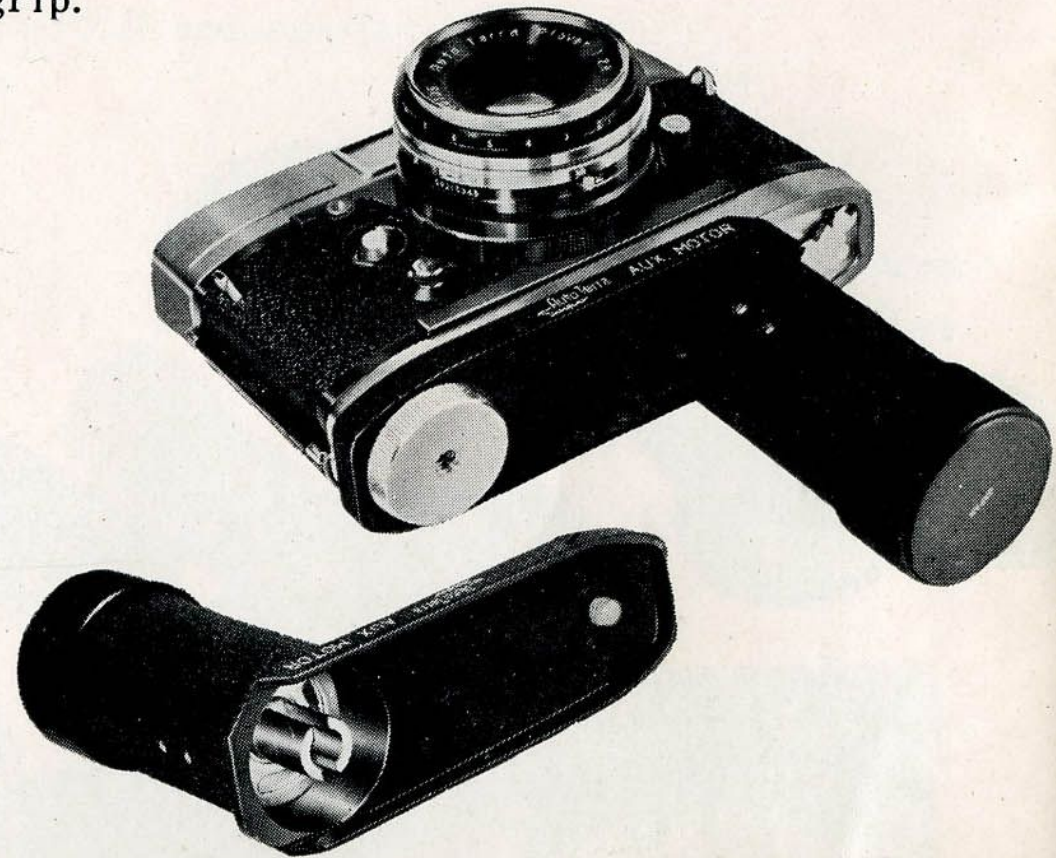
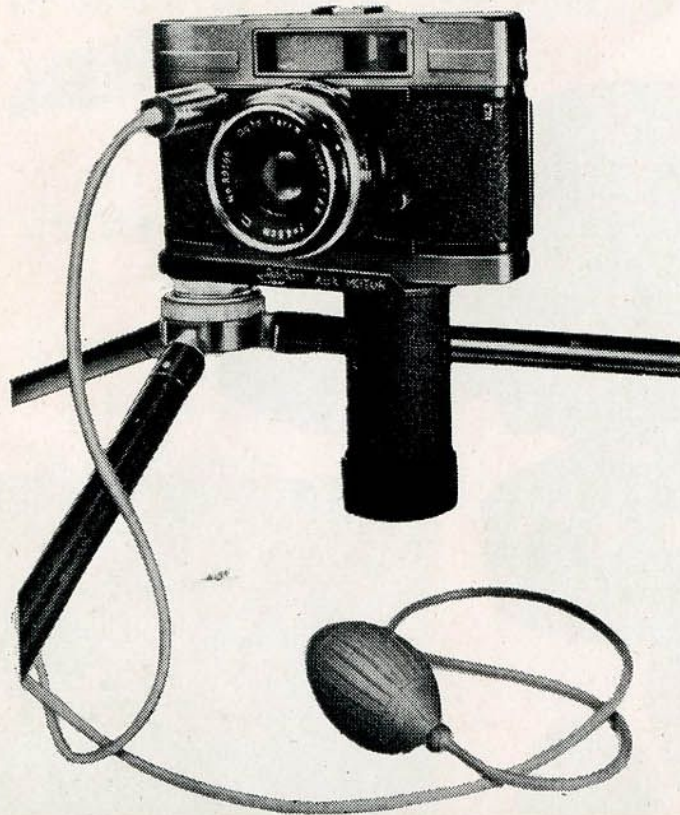


Filter UV
" Y2



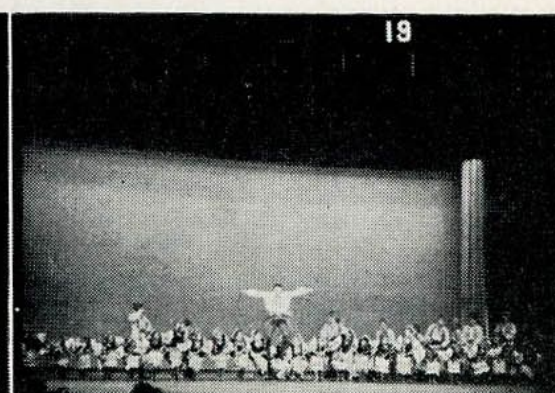
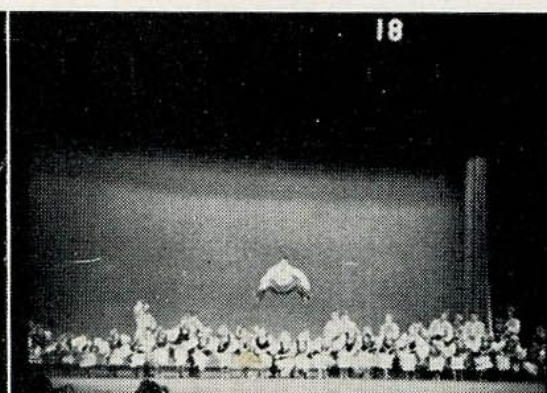
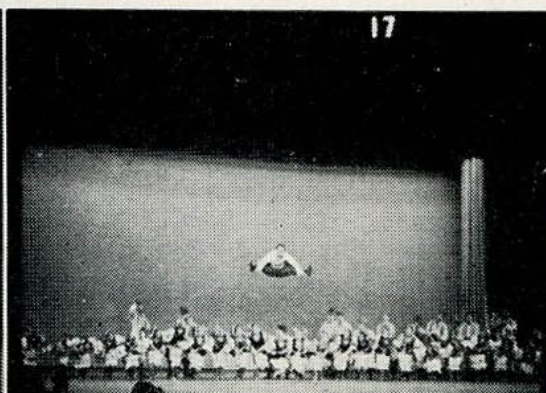
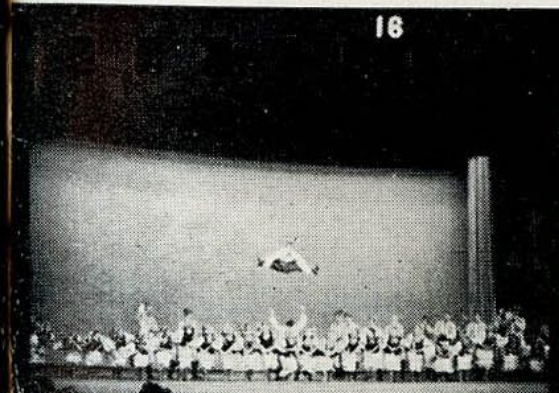
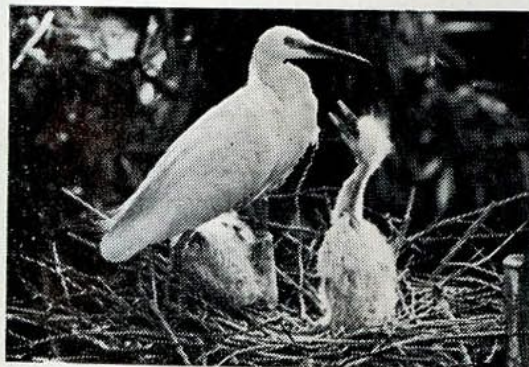
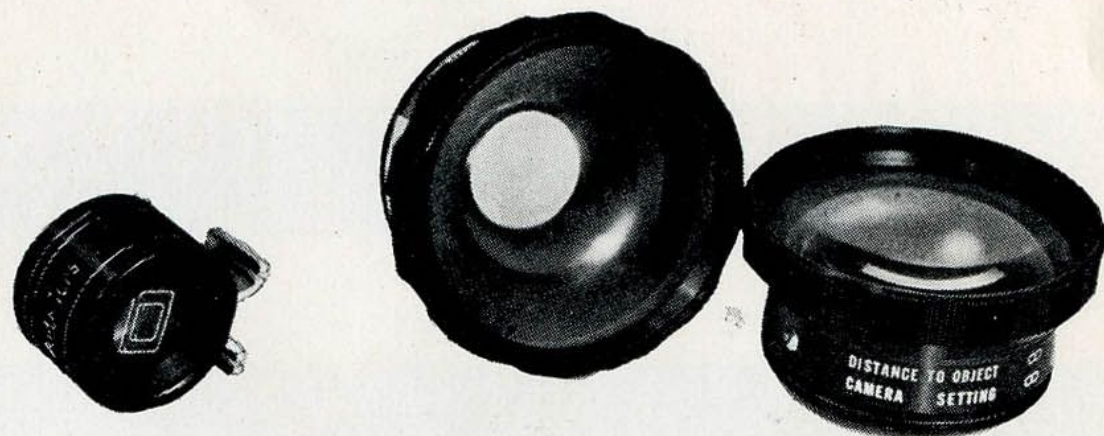
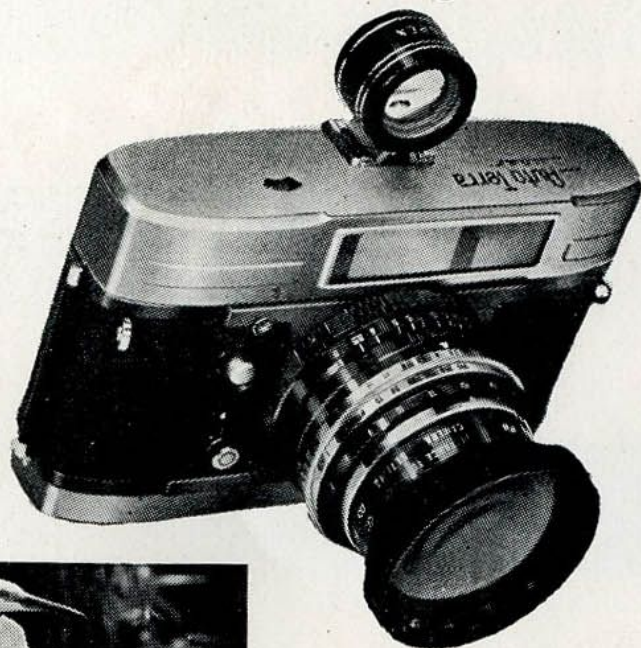
Grip Motor

This Pack will permit to operate for 20 continuous exposures. This power pack is so designed to use as a grip.



Aux. Lenses
Telephoto &
Wideangle.

You can spread your photo-field longer
and wider by using Aux. Lenses.



TERAOKA SEIKOSHO CO., LTD.