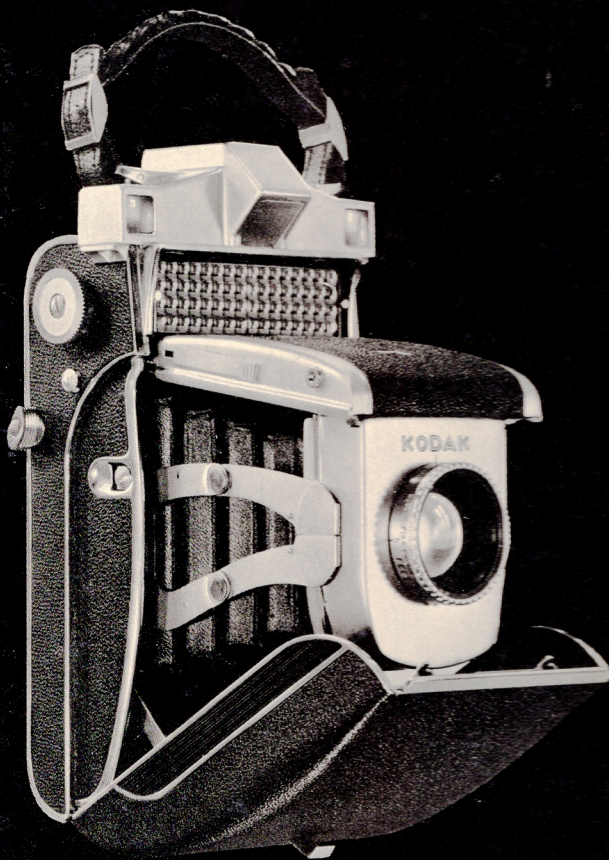


HOW TO USE THE

**SUPER
KODAK**


Six-20



For Exceptional Picture-Taking Ability

THE Super Kodak Six-20 takes the guess-work out of picture making. The film is wound into place with a lever instead of the conventional winding key. The first stroke of this lever automatically makes your shutter ready for exposure. You need do but two things, select your shutter

speed and focus your Super Kodak. The "Electric Eye" automatically determines the proper diaphragm opening, after you have chosen the shutter speed that you wish to

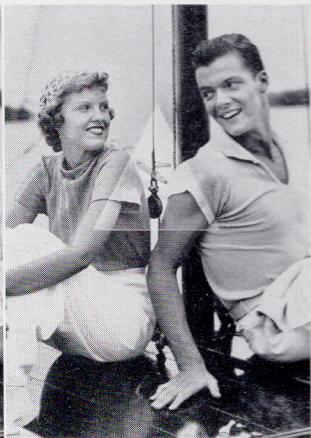


**SUPER
KODAK
SIX-20**

use. This assures the proper exposure for all normal subjects. Decide at what speed you wish to make the exposure, draw back the shutter release and you have the picture. No bother, no worry about light condition—the Electric Eye sees to that. The PHOTOELECTRIC CELL has been set at a compromise so that good exposure is obtained in daylight with Kodak Verichrome or Kodak Panatomic-X Film. To take full



Note the broken lines — an out-of-focus effect.



Lines inside and outside the triangle in coincidence.

advantage of the speed of Kodak Super-XX Panchromatic Film, the diaphragm must be set manually to the second smaller opening than the one indicated in Diaphragm Opening Window, page 11

A second feature is the combination view, and new type split field range finder. With this range finder it takes but a moment to focus your Super Kodak. Select any distinct line in your subject, revolve the lens until this line inside the triangle (seen in the center of the field) and this same line outside of the triangle is in coincidence. The first illustration shows how an out of-focus

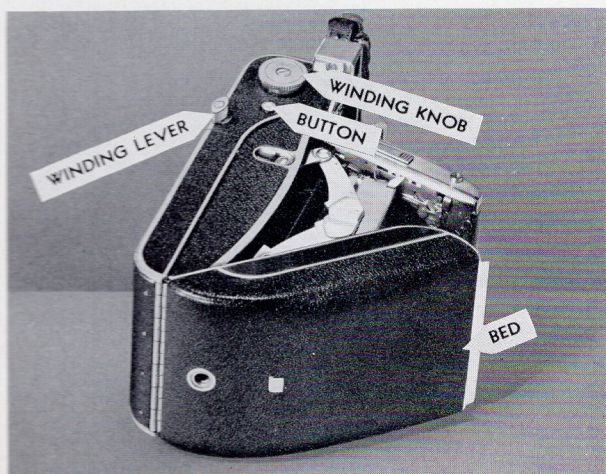
picture appears in the range finder and the second, the same picture when the camera is in focus.

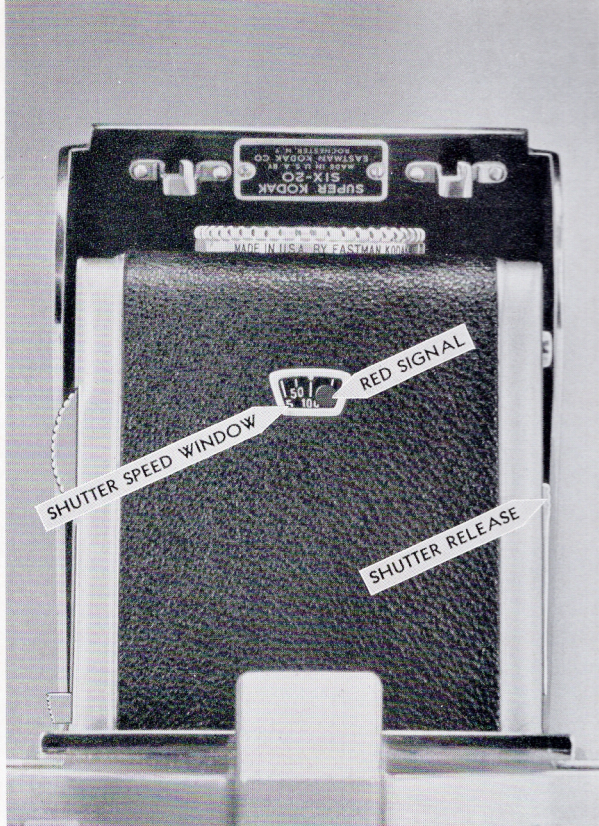
Now a word about reading this manual. We wish that you become thoroughly familiar with the operation of your Super Kodak before you load it with film. Read an entire section referring to its illustration, before attempting to move this or that lever. We feel sure if you read the manual in this way, you will have no difficulty in operating your Super Kodak.

OPENING THE FRONT

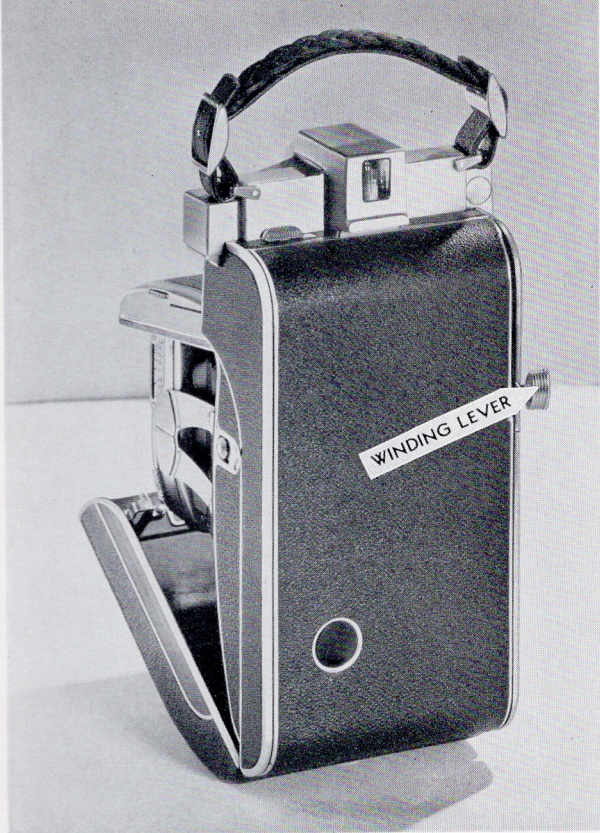
Hold the camera with the hinged end towards you and the side with the WINDING KNOB up. Press on the BUTTON next to the WINDING KNOB and draw out the BED slowly until it locks, see illustration.

3





A RED SIGNAL (a red spot) shows in the SHUTTER SPEED WINDOW; should this signal not be seen, the shutter is already set, and it will be necessary to draw back on the SHUTTER RELEASE to bring this signal in the window

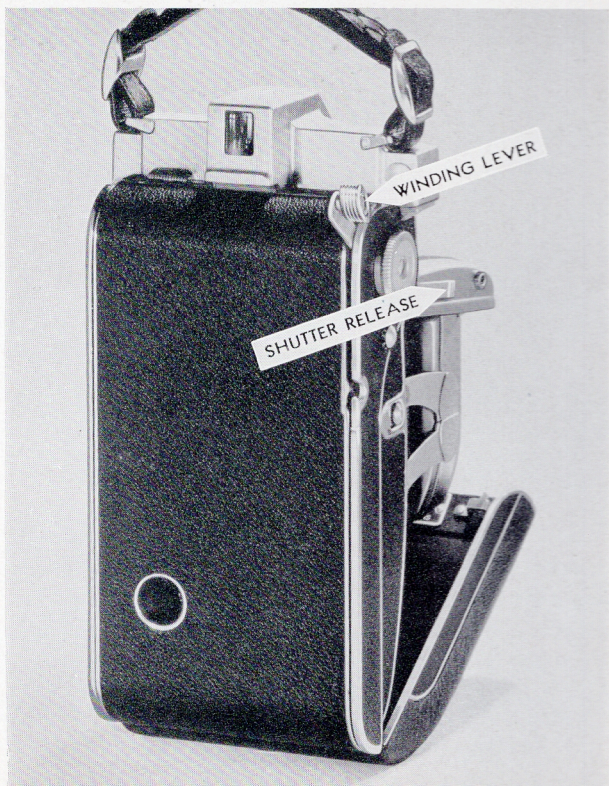


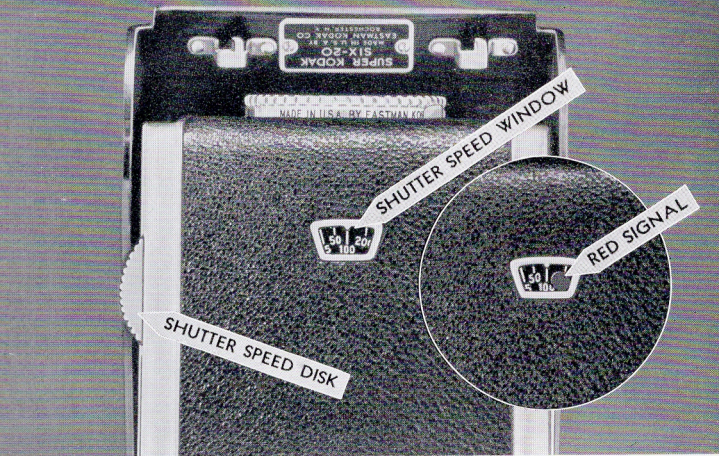
Pull out on the handle of the WINDING LEVER, drawing it away from the side of the camera. This action releases the metal cover under the red window to permit viewing the exposure numbers on the protective paper when the film is in the camera.

Pull out and raise the WINDING LEVER as far as it will go. *This first stroke of the WINDING LEVER sets the shutter*

To replace the WINDING LEVER lower it and pull out the knob, letting it spring back into place. *The shutter can not be released unless the WINDING LEVER is locked in place.*

The film WINDING LEVER can only be used when the front of the Super Kodak is open.



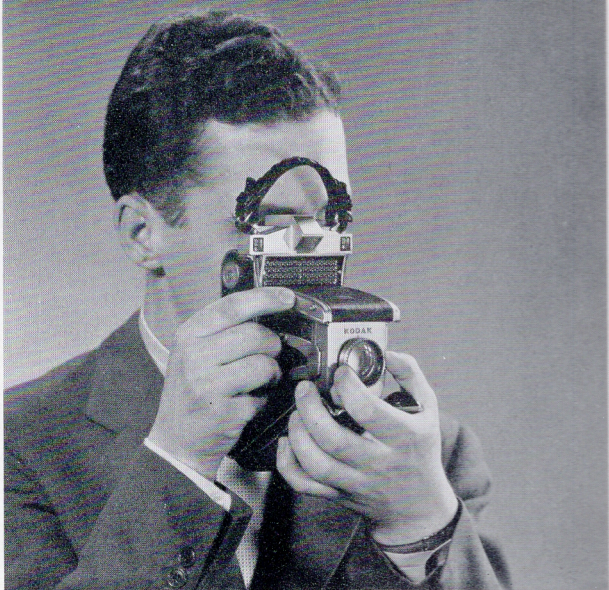


THE SHUTTER

The shutter speeds appear in the SHUTTER SPEED WINDOW on the top of the camera. These speeds are 1 second, 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, and 1/200 second. "Bulb" Exposures can also be made. A Time Exposure may be made by obtaining a T.B.I. Cable Release No. 1 (an accessory) No other cable release should be used.

To change the speed revolve the SHUTTER SPEED DISK until the exposure desired comes under the pointer

After the shutter is tripped the RED SIGNAL appears in this window This is a warning that the shutter must be reset and the WINDING LEVER must be wound a sufficient number of times to bring the next section of film in place. If you wish to make an exposure at 1/200th second, set the speed at 200 before winding the shutter



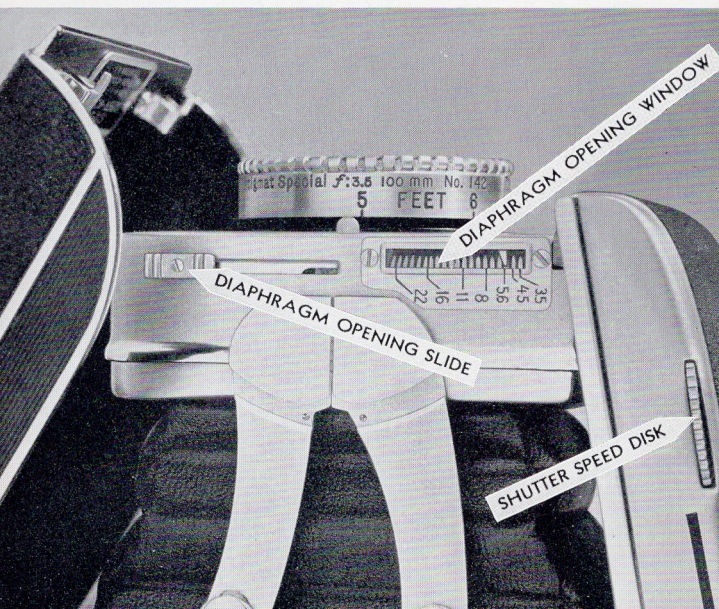
FOCUSING AND COMPOSING THE PICTURE

The split field range finder of the Super Kodak Six-20 greatly simplifies focusing. The same eyepiece is used for the View Finder and the Range Finder. To focus the Super Kodak look through the eyepiece, select a distinct line in the subject and revolve the lens until the part of the line inside the triangle is in coincidence with the line outside of the triangle. Compose the picture using the entire field seen in the eyepiece. The exposure is made by drawing back on the shutter release as shown above. *Be sure fingers are not in front of the photo cell or lens, when making the exposure.*

THE DIAPHRAGM OPENINGS AND PHOTOELECTRIC CELL

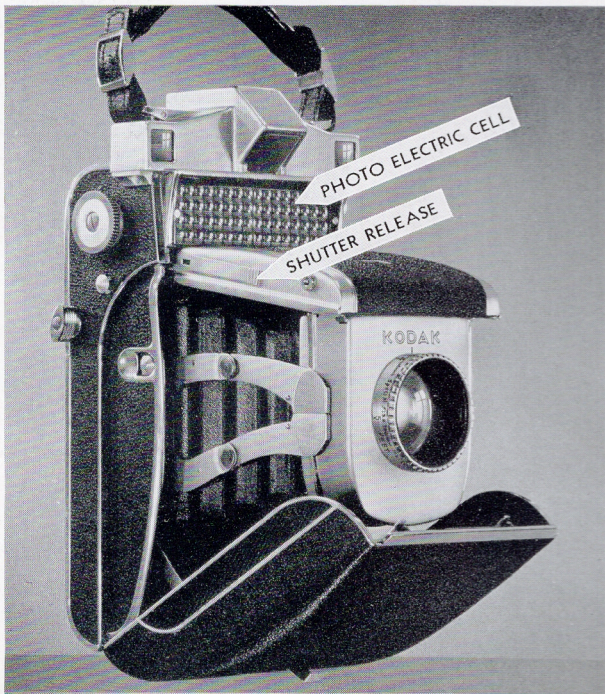
For proper exposure, it is necessary only to set the shutter speed by turning the SHUTTER SPEED DISK; the PHOTOELECTRIC CELL automatically taking care of the diaphragm opening setting. The diaphragm openings regulate the amount of light passing through the lens. When the shutter is set for any speed from 1/25 second to 1/200 second, the PHOTOELECTRIC CELL sets the pointer (which is seen in the DIAPHRAGM OPENING WINDOW) in motion. The pointer comes to rest at the proper opening for average overall exposure. *The DIAPHRAGM OPENING SLIDE must be all the way down* (see below) for

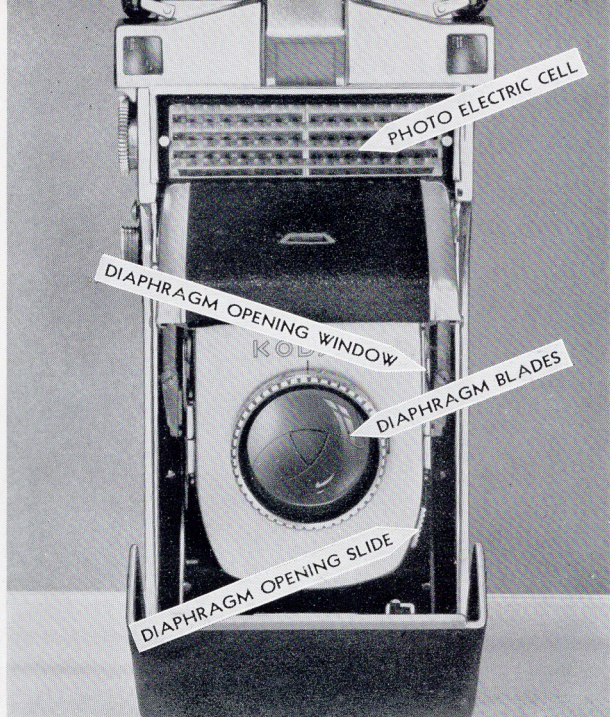
9



automatic diaphragm operation. The exposure is made by drawing all the way back on the SHUTTER RELEASE. *Before making an exposure be sure that the pointer shows in the DIAPHRAGM OPENING WINDOW* When examining the DIAPHRAGM OPENING WINDOW, to see if the pointer is at $f/3.5$ or at some other place along the scale, make sure that the camera is pointed at the subject. Should you tilt the camera so that the direct light of the sky falls on the PHOTOELECTRIC CELL the reading would be incorrect.

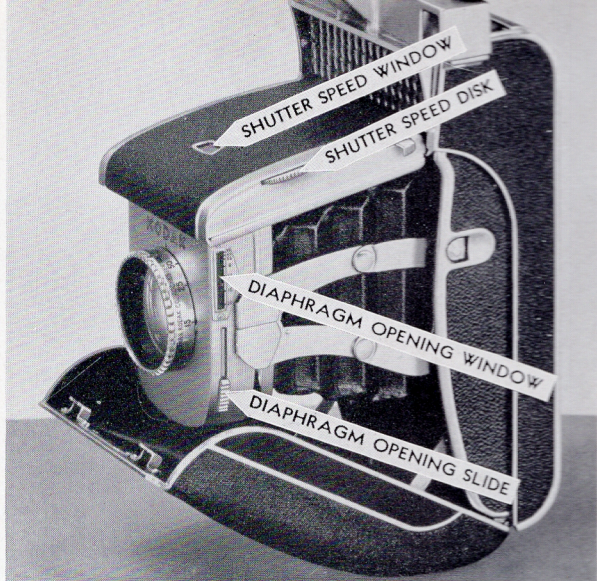
10





SETTING THE DIAPHRAGM OPENING BY HAND

With Kodak Super-XX Pan Film use the same shutter speed and move the DIAPHRAGM OPENING SLIDE to the second smaller opening than the one indicated. The DIAPHRAGM OPENING SLIDE can be moved only after the shutter is set. With Kodak Verichrome or Panatomic-X Film if the pointer does not appear in the DIAPHRAGM OPENING WINDOW, when the shutter is set for a speed of



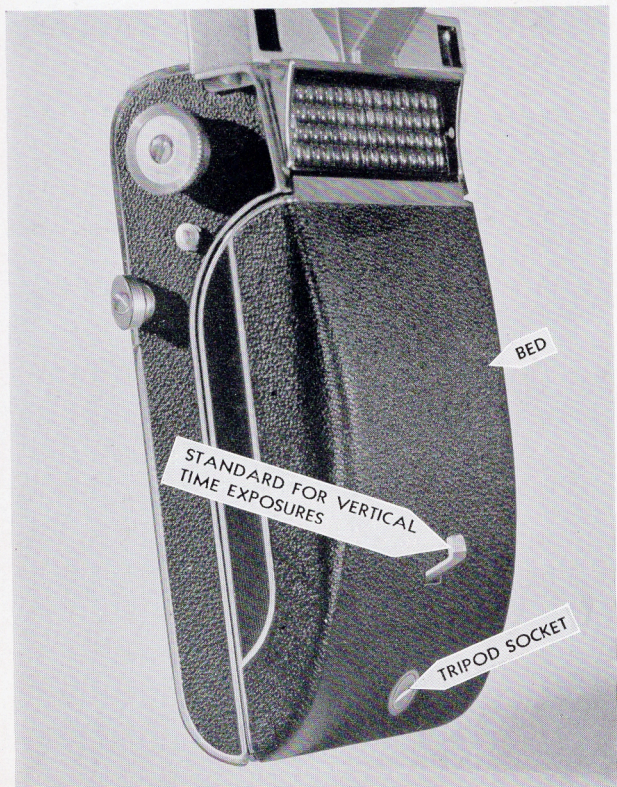
$1/25$ second, the illumination is not sufficient and a slower shutter speed must be used. Under such an extreme condition the PHOTOELECTRIC CELL does not operate and the diaphragm opening must be set by hand. After the shutter is set for a speed slower than $1/25$ second, move the DIAPHRAGM OPENING SLIDE until the end of the slide under the window is at the diaphragm opening desired.

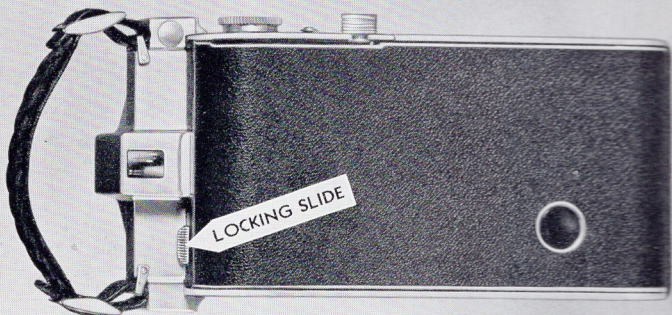
Automatic exposures of 1 second, $1/2$, $1/5$, or $1/10$ second must not be made with the camera held in the hands; a tripod or other firm support must be used for exposures slower than $1/25$ second. When using these slower shutter speeds the diaphragm opening must be

set by hand using the DIAPHRAGM OPENING SLIDE.

To close the camera, see page 22.

The camera can be set on a table or some other support using the STANDARD FOR VERTICAL TIME EXPOSURES or it can be placed on a tripod after removing the screw from the TRIPOD SOCKET. An Optipod or a Tilt-a-pod will be necessary in order to use the camera on a tripod in the horizontal position.





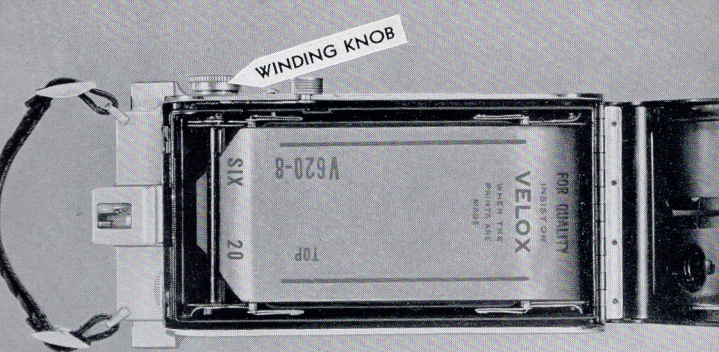
LOADING

Push the LOCKING SLIDE towards the finder, then open the hinged back.

Twist and pull out the WINDING KNOB as far as it will come. Lift the SPOOL HOLDERS as shown below and place the roll of film in the holder nearest the hinge of the back.

14





Pass the protective paper, colored side *up*, over the rollers. Thread the paper through the longer slit in the empty reel, *as far as it will go*. Press in and turn the WINDING KNOB once or twice to bind the paper on the reel. *Be sure the WINDING KNOB is in as far as possible and the paper is started straight*. Close the back, pressing it so that the lock snaps into place. After the front of the camera is opened draw the film WINDING LEVER away from the side of the camera and raise it as far as it will go. With the lever in this position, turn the WINDING KNOB until a small hand appears in the red window on the back of the camera. The first stroke of the WINDING LEVER sets the shutter and starts to wind the paper on the take-up reel. The WINDING KNOB should only be used to advance the film to the warning hand. All subsequent film winding should be done with the WINDING LEVER. Give a few short strokes to the WINDING LEVER until the figure (1) is centered in the window; then seat the WINDING LEVER.



REMOVING THE FILM

After the eighth exposure, and before closing the Kodak, keep lifting the WINDING LEVER until the end of the paper passes the red window. In a subdued light open the back of the camera, hold the end of the paper taut and finish winding the paper on the spool with the WINDING KNOB. Pull out the WINDING KNOB and lift the exposed roll of film from the camera. Fold under the end of the paper, and fasten it with the sticker

HELPFUL HINTS

THE SHUTTER

When using the slower shutter speeds (from 1 second to 1/10 second) and when setting the diaphragm opening by hand, exposures of intermediate speeds can be made with the pointer midway between the exposure numbers. For automatic diaphragm operation, when the shutter is set for any speed from 1/25 second to 1/200 second, be sure that 25, 50, 100, or 200 is exactly under the pointer

SELF-TIMER

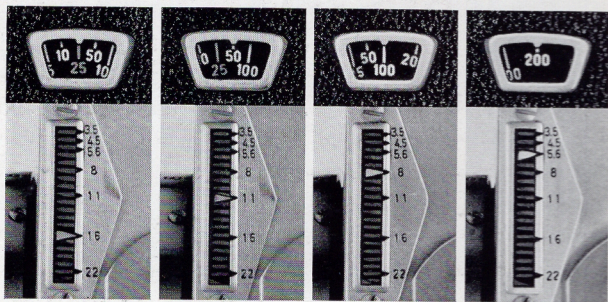
The Self-Timer permits the photographer to include himself in the picture. The Self-Timer may be used for all shutter speeds except "Bulb" and 1/200 second. Do not use the Self-Timer with 1/200 second or the shutter may be damaged.

With the camera on a solid support, and after the shutter is set, pull forward on the SELF-TIMER KNOB (see illustration on page 19) *as far as it will come*. The first half of this action is comparatively easy, the latter half of the action requires more force, now let the KNOB spring back. Draw back on the SHUTTER RELEASE and after about 12 seconds the exposure will be made.

THE PHOTOELECTRIC CELL

The PHOTOELECTRIC CELL is so placed in the camera that it receives the same light as the lens of your

camera. The cell is fully open when the shutter is set for 1/25 second and it is closed down proportionally by a kind of Venetian blind when the shutter speed is increased. In other words, as the shutter speed is

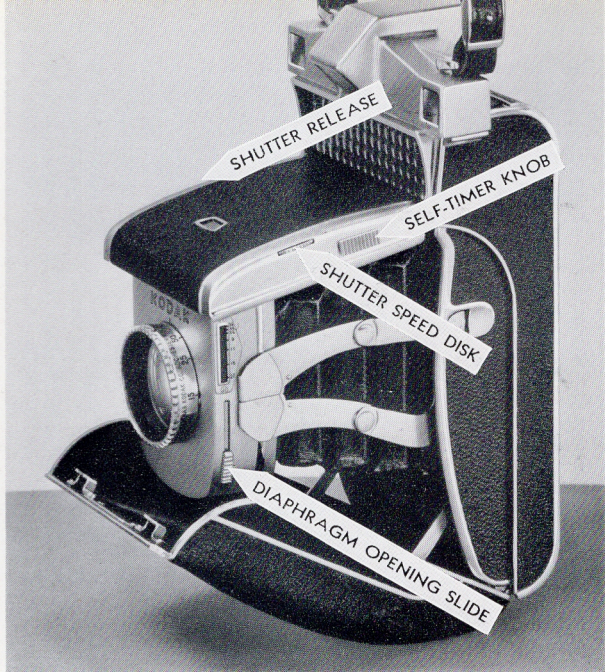


Changing from a slower to the next higher shutter speed, automatically moves the diaphragm pointer to the next larger opening.

changed from 1/25 to 1/50, 1/50 to 1/100, or 1/100 to 1/200 of a second the cell energy output is cut down, so that the diaphragm pointer comes to the next larger diaphragm opening than for the preceding shutter speed, the lighting condition being the same.

When the camera is closed this blind automatically covers the PHOTOELECTRIC CELL.

The speed of 1/200 or 1/100 second is generally recommended for portraits as the PHOTOELECTRIC CELL will then select a comparatively large diaphragm, and therefore, the background will not be too sharp. Use 1/25 or 1/50 second for landscapes, which will assure your getting both near and far objects sharp, as the



PHOTOELECTRIC CELL will then select a smaller diaphragm opening. Should you have the shutter set for an exposure of $1/200$ second and the pointer not show in the DIAPHRAGM OPENING WINDOW, change the shutter speed to $1/100$ second. If the pointer still does not appear, change the shutter speed to $1/50$ or $1/25$ second.

While the PHOTOELECTRIC CELL of the Super Kodak selects the proper diaphragm opening when the shutter

THE DEPTH OF FIELD FOR DIFFERENT STOP OPENINGS

By "depth of field" is meant the range of sharpness in front of and behind the subject focused on, within which details in the picture will be sharp and distinct.

Super Kodak Six-20 with Kodak Anastigmat Special f/3.5 Lens

Distance Focused Upon	<i>f</i> /3.5	<i>f</i> /4.5	<i>f</i> /5.6	<i>f</i> /8
INF	64 ft. to inf.	51 ft. to inf.	42 ft. to inf.	30 ft. to inf.
50 ft.	39 ft. to 155 ft.	27 ft. to inf.	24 ft. to inf.	19½ ft. to inf.
25 ft.	19 ft. to 38 ft.	17½ ft. to 44 ft.	16 ft. to inf.	14 ft. to 110 ft.
15 ft.	12½ ft. to 19 ft.	12 ft. to 20 ft.	11 ft. to 22 ft.	10 ft. to 28 ft.
10 ft.	8¾ ft. to 11½ ft.	8½ ft. to 12 ft.	8⅙ ft. to 12¾ ft.	7⅔ ft. to 14½ ft.
8 ft.	7⅙ ft. to 9 ft.	7 ft. to 9¼ ft.	6¾ ft. to 9⅔ ft.	6⅓ ft. to 10½ ft.
6 ft.	5½ ft. to 6½ ft.	5 ft. 5 in. to 6¾ ft.	5⅓ ft. to 7 ft.	5 ft. to 7½ ft.
5 ft.	4⅔ ft. to 5⅓ ft.	4 ft. 7 in. to 5½ ft.	4½ ft. to 5⅔ ft.	4⅓ ft. to 6 ft.
4 ft.	3⅝ ft. to 4¼ ft.	3¾ ft. to 4½ ft.	3⅔ ft. to 4½ ft.	3 ft. 7 in. to 4⅔ ft.
Distance Focused Upon	<i>f</i> /11	<i>f</i> /16	<i>f</i> /22	
INF	22½ ft. to inf.	15½ ft. to inf.	11½ ft. to inf.	"Inf." is the abbreviation for Infinity—meaning an unlimited distance from the lens.
50 ft.	16 ft. to inf.	12 ft. to inf.	9½ ft. to inf.	
25 ft.	12 ft. to inf.	10 ft. to inf.	8 ft. to inf.	
15 ft.	9 ft. to 42 ft.	7¾ ft. to inf.	6½ ft. to inf.	
10 ft.	7 ft. to 17 ft.	6⅙ ft. to 26 ft.	5⅓ ft. to 69 ft.	
8 ft.	6 ft. to 12 ft.	5⅓ ft. to 16 ft.	4¾ ft. to 25 ft.	
6 ft.	4¾ ft. to 8⅙ ft.	4½ ft. to 10 ft.	4 ft. to 13 ft.	
5 ft.	4⅙ ft. to 6½ ft.	3⅝ ft. to 7½ ft.	3½ ft. to 9⅙ ft.	
4 ft.	3½ ft. to 4⅝ ft.	3¼ ft. to 5½ ft.	3 ft. to 6⅓ ft.	

is set for speeds of 1/25 to 1/200 second, the photographer must still do some thinking. There are situations where the contrast between light and shadow is excessive. Should you, for example, wish to make a portrait of a subject in bright sunlight but the surroundings and background in dense shade, the PHOTO-ELECTRIC CELL would select a diaphragm opening, which would give an average exposure for the whole scene; the portrait, however, would be over-exposed. When making pictures under such conditions approach as close as three feet to your subject; then draw the SHUTTER RELEASE back a trifle, *not all the way back*. This will lock the diaphragm opening pointer in position for the portrait. Should you prefer, you can move the DIAPHRAGM OPENING SLIDE to the diaphragm pointer and not touch the SHUTTER RELEASE until you make the exposure. Retire to the proper distance from your subject, focus the camera and make the exposure.

FILTERS

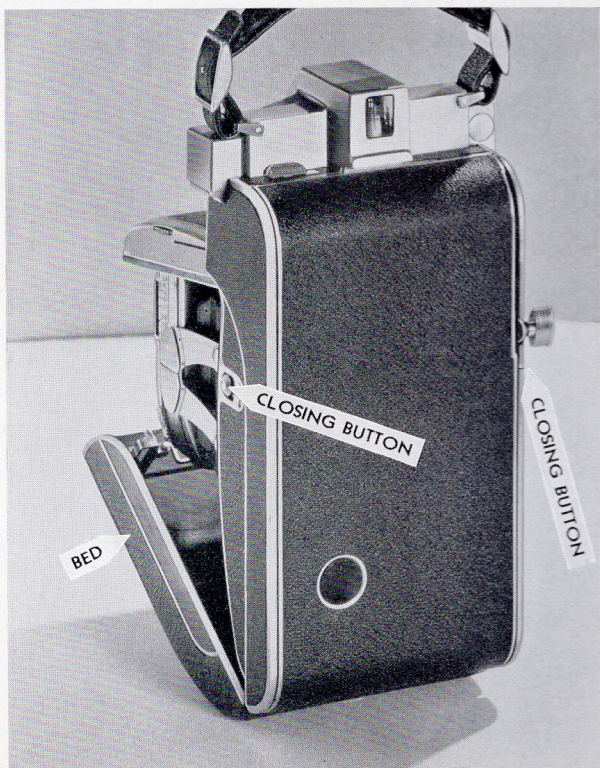
In order to use a Wratten Filter with the Super Kodak Six-20 it will be necessary to obtain a Series VI 1 $\frac{15}{32}$ -inch Adapter Ring, a 1 $\frac{5}{8}$ -inch unmounted filter cemented in "B" glass and a Filter Retaining Ring. The Adapter Ring is slipped over the lens mount on your camera and the filter placed in it; then a Lens Hood or a Retaining Ring is screwed in place. It is advisable to use a Series VI Lens Hood with your filter, which is obtainable as an accessory

When a filter is used, take the reading on the dia-

phragm scale given by the PHOTOELECTRIC CELL but do not lock the pointer; then set the diaphragm opening by hand, using the DIAPHRAGM OPENING SLIDE, taking into consideration the factor of the filter being used.

CLOSING THE KODAK

Press the two CLOSING BUTTONS on the sides of the camera and raise the BED slightly; then with *both* thumbs press the BED until it locks.



AUTOMATIC EXPOSURES WITH ARTIFICIAL LIGHT AND FILTERS IN DAYLIGHT

A set of masks is available, as an accessory for obtaining automatic exposures, when making pictures with artificial light or when using the more commonly used filters in daylight.

Masks for Artificial Light: There are two masks, to be used over the photo cell, for making automatic exposures by artificial light. When making pictures with Kodak Super-XX Panchromatic Film use the mask marked II. With either Kodak Verichrome or Kodak Panatomic-X Film, use the mask marked I.

Photoflood Lamps either No. 1 or No. 2 in Kodak Handy Reflectors or Kodaflectors are recommended for illumination.

Place the proper mask over the photoelectric cell, engaging the notches on the ends of the mask with the pins on the sides of the photoelectric cell. Most satisfactory results are obtained by measuring the incident light. Point the camera toward the light, from the position of the subject. When more than one light is used the camera should be pointed toward the brightest light. Note the position of the diaphragm pointer and lock the pointer in this position by drawing back a trifle on the SHUTTER RELEASE, *not all the way back*; or, instead of touching the SHUTTER RELEASE push the DIAPHRAGM OPENING SLIDE to the pointer. Then move back to the taking position, focus the Kodak, and snap the picture.

If there is insufficient light for the pointer to show in the DIAPHRAGM OPENING WINDOW with the shutter set for $1/25$ second, it will be necessary to set the diaphragm manually, and use slower shutter speeds. Consult the Kodak Indoor Exposure Guide included with your Kodak. When using a shutter speed slower than $1/25$ second, the camera must be placed on a tripod or some other firm support.

For more details to make pictures by artificial light, lighting diagrams, suggestions, etc., write to the Service Department, Eastman Kodak Company, Rochester, N. Y., for the book, "Picture Taking at Night."

Automatic Daylight Exposures with Filters and Kodak Verichrome or Panatomic-X Film: There are five masks to be used with filters to make automatic exposures. Since a mask can be used with different filters depending

on the kind of film, these masks are marked with the filter factors instead of with the filter designation, as follows: 1.5x, 2x, 2.5x, 3x, and 5x.

Daylight filter factors for the more commonly used filters are given below:

Filter	Kodak Verichrome Film	Kodak Panatomic-X Film
Kodak Color Filter	2	1½
K1	2	1½
K2	2½	2
G	5	3

Place the filter over the lens and the corresponding mask over the photoelectric cell.

If the light is insufficient for an automatic exposure (the shutter set for 1/25 second) the pointer will ~~not~~ show in the window. It will then be necessary to remove the mask from the photoelectric cell, take the reading in the DIAPHRAGM OPENING WINDOW using speed 1/25 second, and then use a slower shutter speed, taking the filter factor into consideration.

The filter factor represents the number of times the exposure must be increased, when using a filter as compared with the exposure required without it. A filter having a factor of 2 will thus require twice the exposure necessary without it.

EASTMAN KODAK COMPANY
ROCHESTER, N Y

KODAK FILM

KODAK VERICHROME FILM



Has great speed and is well balanced for recording tone values in a black-and-white print. It is the ideal film for daylight exposures. 8 exposures. V620.

KODAK PANATOMIC-X FILM



It records color *values* correctly in a black-and-white print. It has a very fine grain enabling the making of enlargements of great size. 8 exposures. FX620.

**AT YOUR
SERVICE**

The Service Department

THOUGH the essential directions for obtaining good pictures with the Super Kodak Six-20 are given in this manual, further information on any subject discussed, or any other subject in photography, may be obtained by writing our Service Department. Send your negatives and prints to the department for helpful, constructive criticism of your work. There is no charge—no obligation.

You are also invited to send for a free copy of "At Home with Your Kodak," and "Picture Taking at Night," two booklets containing suggestions and diagrams for taking interesting pictures both indoors and outdoors.

The Service Department

EASTMAN KODAK COMPANY

Rochester, N Y., U S. A.

