

Instructions

for use of the

Ciné-Kodak

Model B

f.1.9 Lens

EASTMAN KODAK COMPANY

ROCHESTER, N. Y.

IMPORTANT

Always hold the camera absolutely steady while taking a scene.

Keep the camera in operation for not less than eight or ten seconds on any subject.

Keep the lens clean. A soft linen or cotton cloth, free from lint, wrapped around the end of a match, may be used for this purpose. At the seashore or on ocean voyages the lens requires frequent cleaning.

When making a scenic panorama where there is no moving object to be followed, the camera should be moved very slowly and evenly.

When panoraming to secure a picture of a moving subject, such as a running horse or a speeding motor boat, the motion of the camera depends upon the rapidity with which the subject moves. The subject must not be close to the camera. The moving subject should be kept as nearly as possible in the center of the finder.

The most effective pictures are those in which not more than one-third of the picture area consists of sky, sea or very light foreground.

When making a distant view the best effects are obtained by having some nearby object in the foreground.

Follow the instructions on the exposure guide on the front of the camera, and set the focusing scale accurately.

HOLD THE CAMERA STEADY.

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Contents

Loading the Camera.....	3
Table of Parts.....	4
Footage Indicator.....	18
Operation.....	19
Positions for Operating.....	21
Focusing.....	22
Use of the Diaphragm.....	23
Panoramic Pictures.....	27
Exposure Guide.....	28
Tropical Exposures.....	29
Unloading the Camera.....	29
General Information.....	31
Care of the Lens.....	32
Care of the Gate.....	33
Titles.....	34
Making Titles with the Ciné-Kodak.....	35
Duplicates.....	36
Copies of "Still" Pictures.....	36

Instructions for use of the Ciné-Kodak

OUR experience has shown that nearly all of the troubles met with by users of hand cameras would never have occurred if the manuals furnished with them had been thoroughly read and studied before any exposures were made.

Similarly the user of the Ciné-Kodak can make good pictures at the very outset if he will read and follow the instructions in this manual. The percentage of properly exposed film that you can make will be in direct proportion to the care with which you follow these directions.

Loading the Camera

The Ciné-Kodak may be loaded or unloaded in daylight. These operations should be done in a subdued light, never in direct sunlight.

Remove the cover of the Ciné-Kodak, first unlocking it by pushing the catch in the center of the cover over to the side marked OPEN, then grasp the edges of the cover *nearest the lens*, and lift it off.

The 25-foot roll of paper supplied with the camera is a dummy roll and is furnished so that you may become thoroughly acquainted with the proper method of threading film in the camera. Try the threading directions first with the dummy roll.

PART	EXPLANATION
1 Take-up Spool	Takes up the exposed film as it comes from the sprocket.
2 Take-up Spindle	Rotates the take-up spool and winds up the exposed film.
3 Catch	Fastens door.
4 Door	Separates the supply spool and take-up spool.
5 Top of Spool Container	Covers the unexposed film, Fig. 3, page 7.
6 Bottom of Spool Container	Holds the spool of unexposed film, Fig. 3, page 7.
7 Leader	Protects unexposed film before loading, Fig. 4, page 8.
8 Knob	Used for moving footage indicator, Fig. 5, page 9.
9 Supply Spool	Holds the unexposed film, Fig. 5, page 9.
10 Supply Spool Spindle	Furnishes a bearing for supply spool, Fig. 5, page 9.
11 Roller	Guide for leader and film as it leaves supply spool.
12 Sprocket	Draws film off the supply spool and feeds it to take-up spool.
13 Upper Loop	Indicate size and shape of upper and lower loops when threading leader.
14 Lower Loop	
15 Upper Sprocket Clamp	Keep the leader and film perforations meshed with the sprocket teeth.
16 Lower Sprocket Clamp	
17 Guide	Guides leader and film upwards after leaving sprocket.
18 Guide Bar	Keeps the leader and film in proper position as it leaves the sprocket and is wound onto the take-up spool.
19 Locking Lever	Locks motor while threading leader.
20 Slot	Film passes through slot in gate to position behind lens.
21 Tension Lever	Keeps tension on film after it is wound onto take-up spool.
22 Knurled Nut	For adjusting pointer on footage indicator.
23 Pointer	Indicates how much film remains in camera, Fig. 14, page 18.
24 Winding Handle	Used for winding motor, Fig. 15, page 19.
25 Exposure Lever	Controls motor, turns it on or off, Fig. 15, page 19.
26 Shaft	Connects winding handle with motor, Fig. 15, page 19.
27 Spring	Keeps winding handle in place when not in use, Fig. 15, page 19.
28 Post 28A Screw	Hold the gate in position.
29 Focusing Scale	Focuses camera for different distances.
30 Sight Finder	Locates the subject with camera held at eye level.
31 Diaphragm Lever	Adjusts the diaphragm openings.
32 Screws	Fasten lens to camera, Fig. 18, page 24.

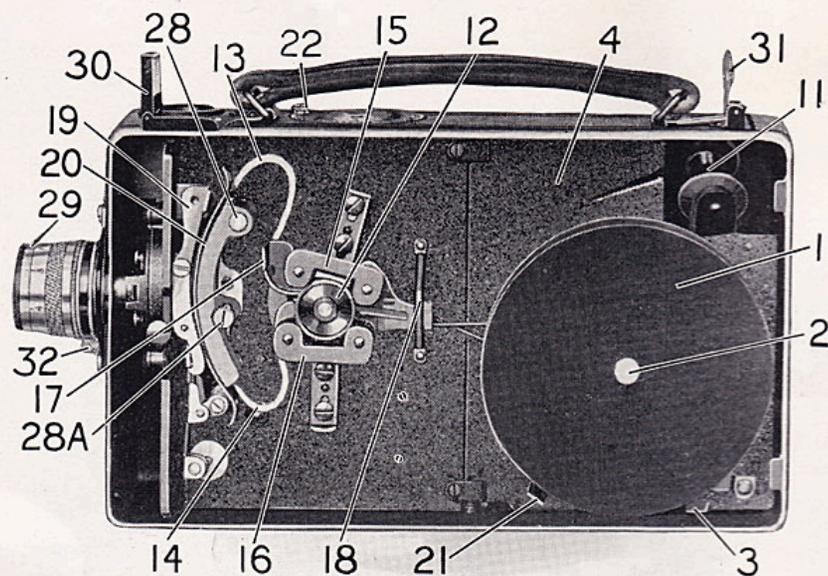


Fig. 1.

After the cover has been removed, the inside of the camera will appear as in Fig. 1.

Before loading or reloading the Ciné-Kodak, make sure that the locking lever 19 is in the position as shown in Fig. 1. This lever locks the motor.

Remove the take-up spool 1, lifting it off the spindle 2.

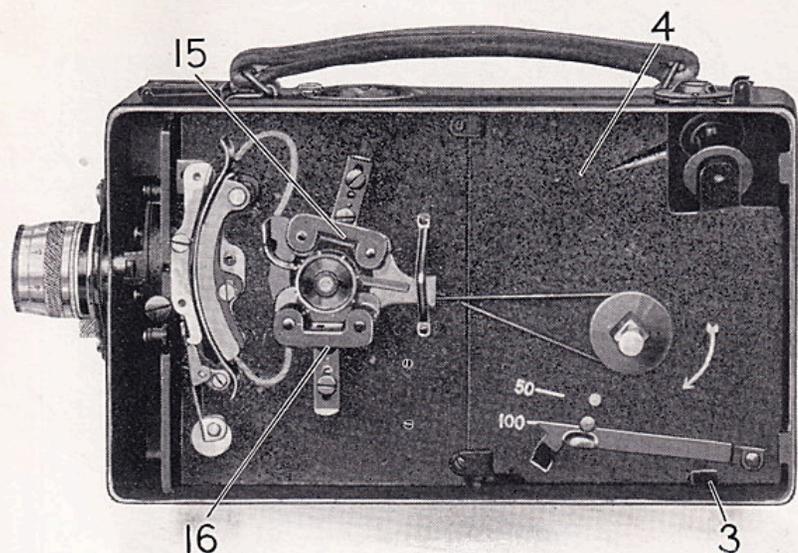


Fig. 2.

Open the upper and lower sprocket clamps, 15 and 16, as shown in Fig. 2. These are opened by pushing the turned-up ends of the handles attached to the clamps away from the sprocket.

Press the catch 3, Fig. 2, and open the door 4 to the position as shown in Fig. 5, page 9.

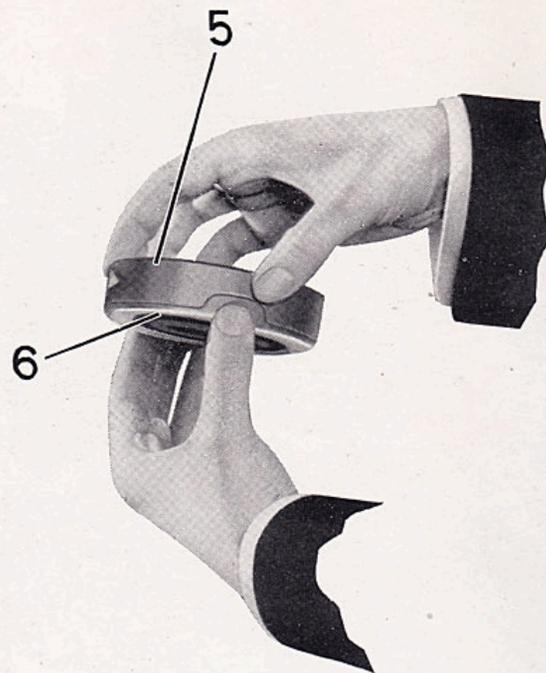


Fig. 3.

Open the film spool container by removing the top 5, as in Fig. 3. The spool should not be removed from the lower portion of the container 6 at this time.

When you use a roll of Ciné-Kodak Film save the yellow box in which it comes, for a mailing container in which to send the film for finishing. Full directions for sending the film to our nearest laboratory are given on pages 30 and 31.

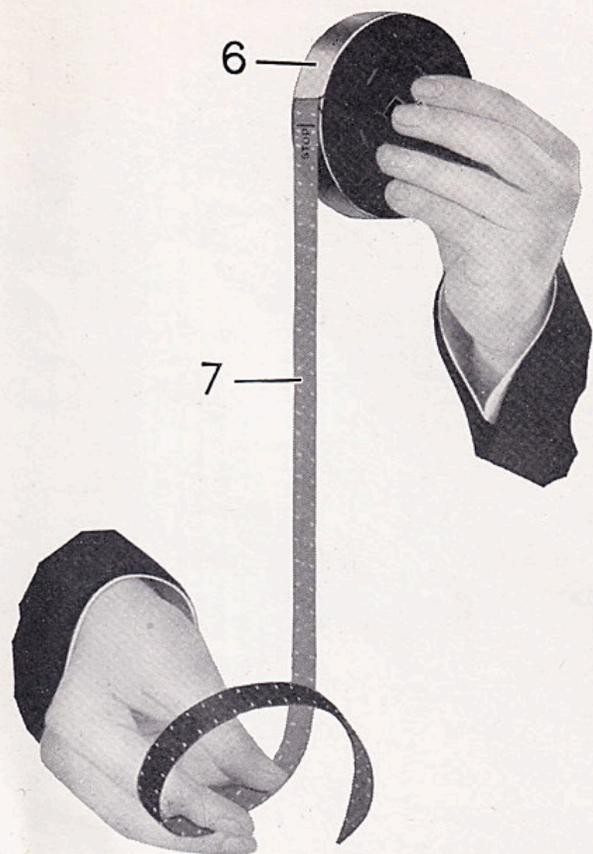


Fig. 4.

Draw out about two feet of the leader 7, tangent with the spool container 6, in the same manner as when drawing out a steel measuring tape, as in Fig. 4. It must be drawn out in this way to avoid tearing. Do not draw out more than about two feet of the leader.

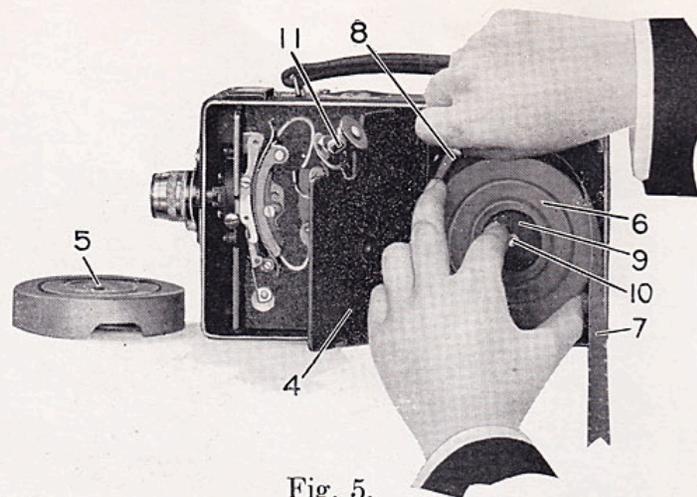


Fig. 5.

Push over the knob 8 on the lever that controls the footage indicator, and insert the spool of film 9, on spindle 10, as in Fig. 5. Be sure that the spool 9 is properly seated; the end of spindle 10 should project, slightly, through the hole in the spool. If the square opening of the spool does not fit readily over the spindle, *lift* the spool and turn it slightly. Remove the lower part of spool container 6, drawing it off the spool, carefully. Press the spool of film with the index finger, while doing this, to keep the spool on the spindle 10. The leader 7 must wind off from the top of spool as shown in Fig. 5.

Close the door 4, at the same time thread the leader across the roller 11 in the corner of the door, with the *red* side against the roller. After closing the door, make sure that the catch 3, Fig 2, page 6, is securely fastened. If the catch does not snap into position, it shows that the spool of film 9 is not properly seated.

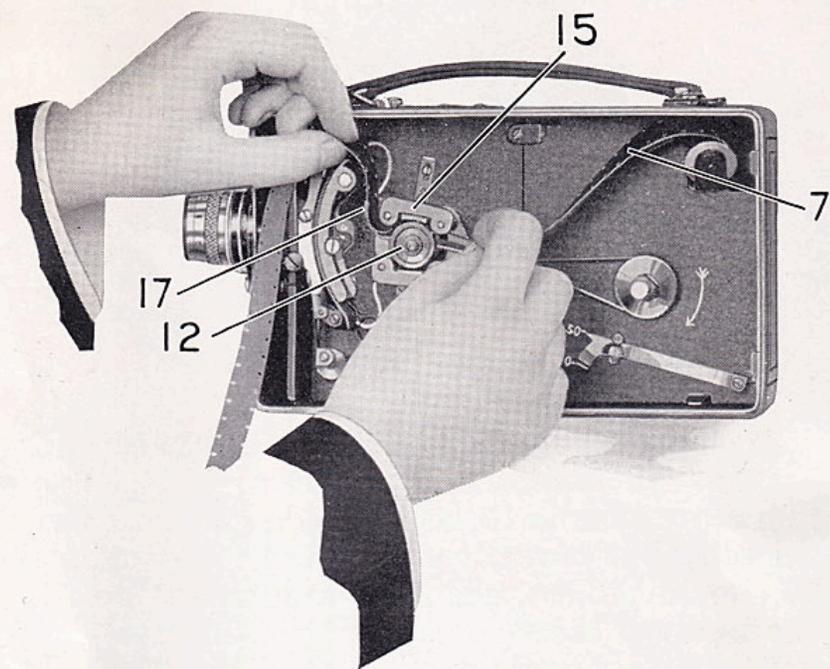


Fig. 6.

Thread the leader 7 between the top of sprocket 12 and the upper sprocket clamp 15, and follow the guide 17, as shown in Fig. 6.

The leader must be in position *over* the guide bar 18, as shown in Fig. 8, page 12. *Do not thread it under the bar.*

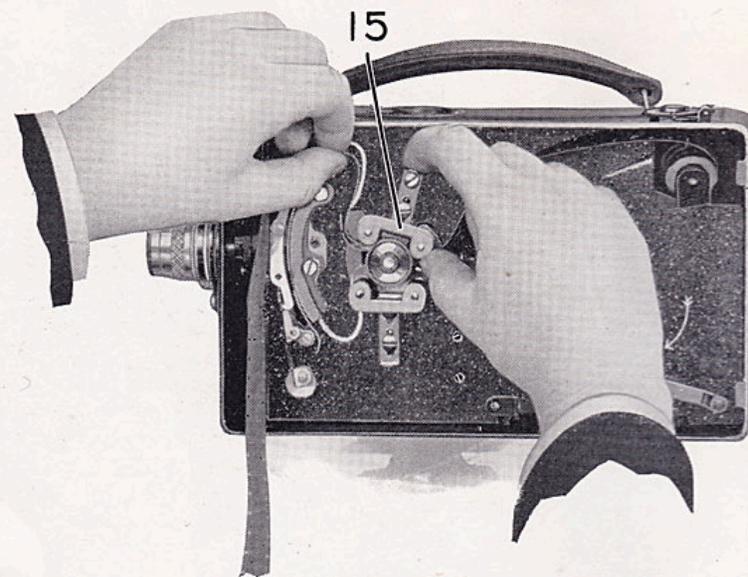


Fig. 7.

Be sure that the teeth on the sprocket engage the perforations in the leader, then close the upper sprocket clamp 15 by pushing it down, as shown in Fig. 7.

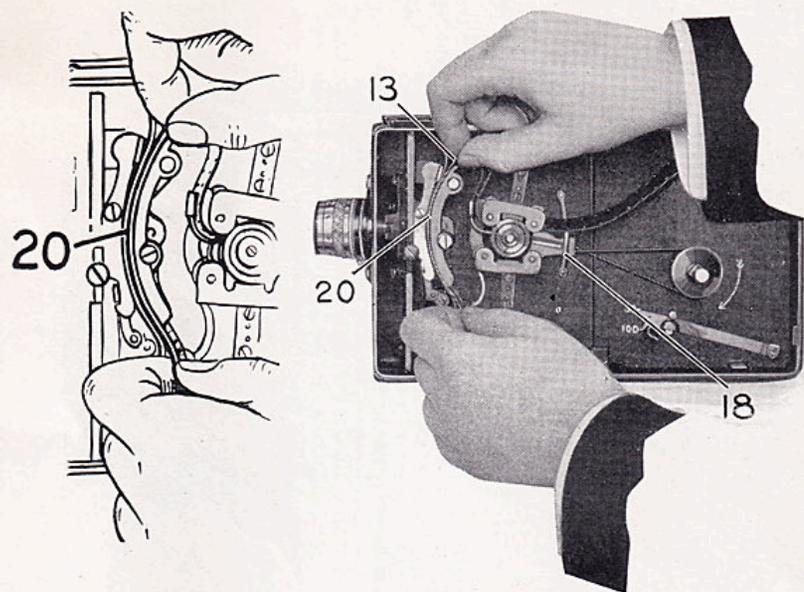


Fig. 8.

Form the upper loop 13 and at the same time slide the leader into the slot 20 as indicated in Fig. 8. *Be sure that the red side of the leader is towards the sprocket and that it is pushed all the way in, so that none of it projects above the edge of the slot.*

It is of great importance that the upper and lower loops follow the path indicated by the white lines. These loops prevent undue strain on the pull-down and tearing of the perforations.

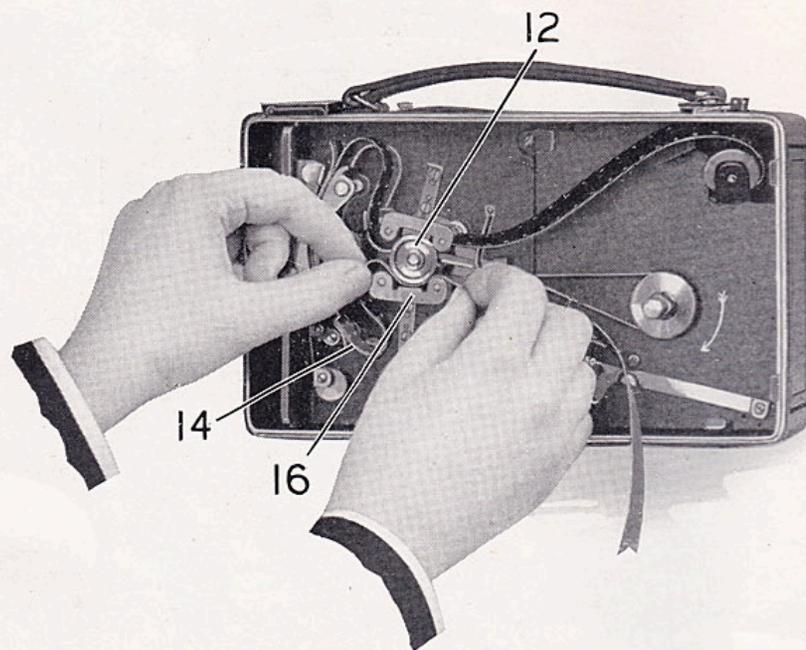


Fig. 9.

Form the lower loop 14 following the white line, and at the same time thread the leader between the sprocket 12 and the lower sprocket clamp 16, Fig. 9.

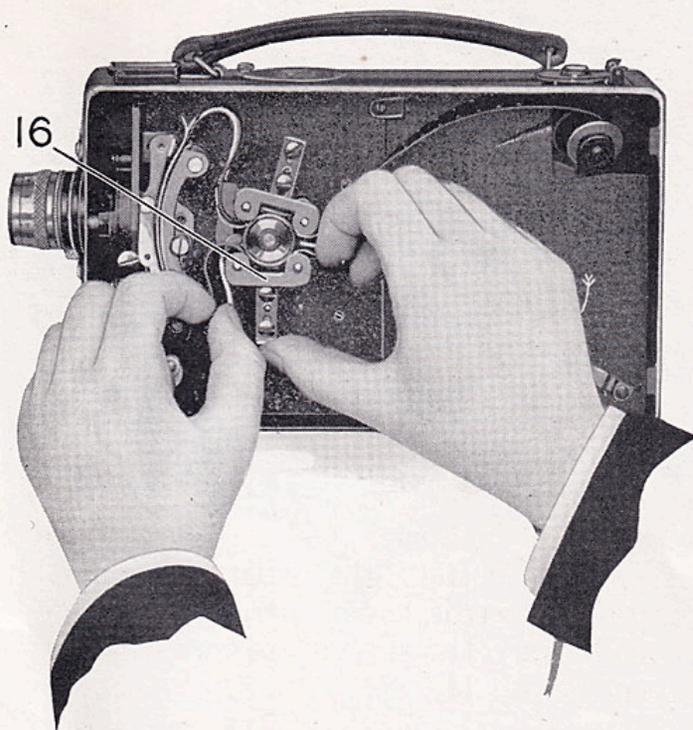


Fig. 10

Be sure that the teeth on the sprocket engage the perforations in the leader, then close the lower sprocket clamp 16 by pushing it up, as shown in Fig. 10.

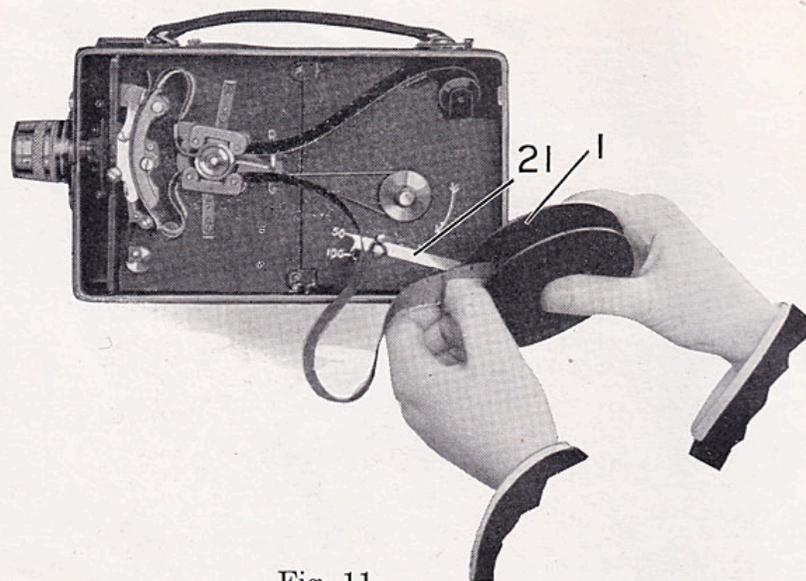


Fig. 11.

Holding the leader in the left hand and the empty spool 1 in the right, with the square hole of the spool towards the camera, thread the end of the leader into the slot in the core of the spool, as shown in Fig. 11.

When loading the camera with a fifty-foot roll of film, place the tension lever 21 against the stud marked 50, and if a hundred-foot roll is used, place lever against stud marked 100, see Fig. 11.

NOTE: A fifty-foot and a hundred-foot film spool are furnished with each Ciné-Kodak. The former should be used as the take-up spool when you load the camera with a fifty-foot roll of unexposed film. The latter should be used as the take-up spool when loading with a hundred-foot roll of film.

Always keep on hand an empty fifty-foot spool and an empty one-hundred-foot spool for use as take-up spools in this way.

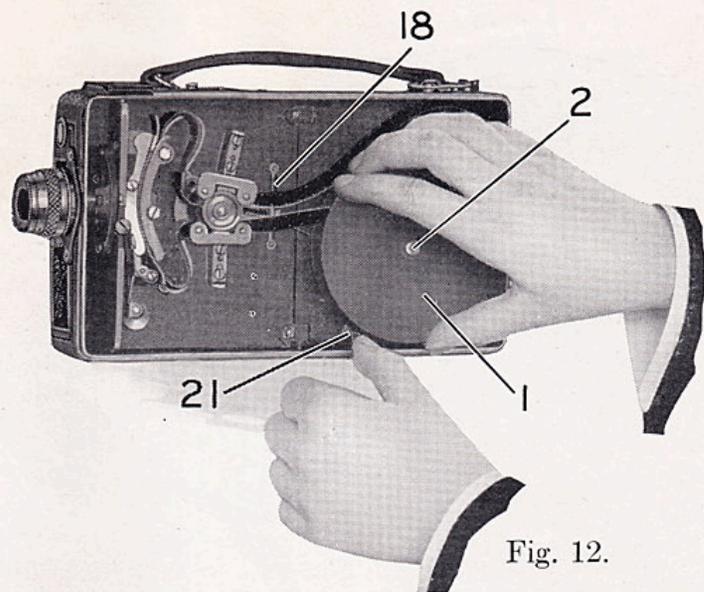


Fig. 12.

Wind up the slack of the leader by hand, turning the spool to the right, until it is just long enough to slip the spool 1 on the take-up spindle 2, see Fig. 12. The arrow, Fig. 11, page 15, shows the direction in which the take-up spool turns.

Press down the tension lever 21 when slipping the spool onto the spindle. The end of the lever 21 keeps the film from loosening after it has been exposed and wound on the take-up spool.

If the square opening of the spool does not fit readily over the spindle, *lift* the spool and turn it slightly. The spool must be properly seated.

Be sure that the leader is *over* the lower part of guide bar 18, as shown in Fig. 12. *Do not thread it under the guide bar.*

NOTE: When winding up the leader note whether or not it has a tendency to bind between the flanges of the spool. If it binds, the spool has become bent, and the flanges should be straightened by bending carefully with the fingers.

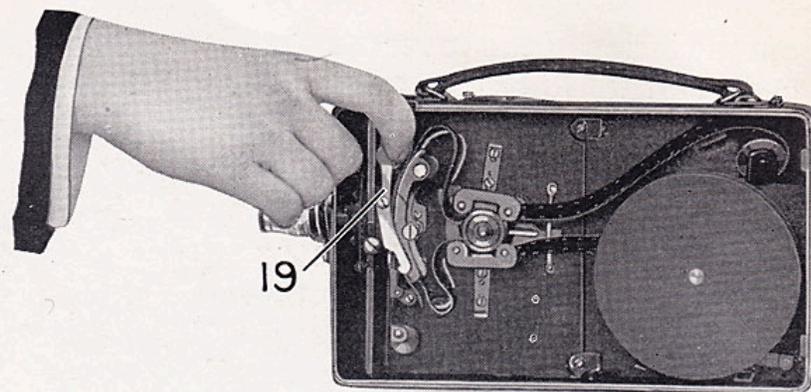


Fig. 13.

Unlock the mechanism that controls the motor by pushing over the locking lever 19, Fig. 13.

Give the winding handle 24, Fig. 15, page 19, a few turns, and press down the exposure lever 25 to operate the Ciné-Kodak, see pages 19 and 20. Allow the motor to run for only a *second or two*, and watch the leader, closely. While winding the spring and operating the camera with the cover removed, be careful to hold the camera so that the take-up spool will not come off the spindle. If the leader is running properly, stop the motor and immediately replace the cover and fasten it by pushing the catch in the center of the cover to the side marked LOCK.

If the cover does not close easily, it is because you have not closed the sprocket clamps, the locking lever has not been pushed over, or the supply spool or take-up spool is not properly seated. The studs or projections that extend

from the inside of the cover are put there to strike the parts if they are not in correct position. The clamps should be closed and the locking lever pushed over, as shown in Fig. 13, page 17. Do not try to force the cover shut.

Footage Indicator

The footage indicator, Fig. 14, automatically gives the number of feet of unexposed film there are in the camera. It must be adjusted for each roll of film.

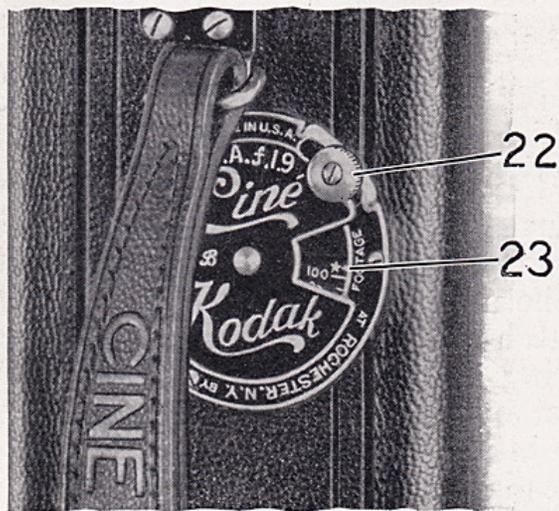


Fig. 14.

To adjust the indicator, unscrew the knurled nut 22 and move it until the pointer 23 is at the star near the figure 100, if a hundred-foot film is used; or at the star near the figure 50, if a fifty-foot film is used, then tighten the nut to hold the pointer in place.

Operation

Motion pictures are taken at the standard rate of sixteen frames or individual snapshots per second. When the finished film is drawn through the projector at the same rate, these individual



Fig. 15.

snapshots follow one another in such rapid succession that the illusion, in the case of moving objects, of continuous motion is produced.

To wind the motor of the Ciné-Kodak, first press the spring 27, this releases the winding handle 24 on the side of the camera. Fit the opening in the handle over the square end of shaft 26, as shown in Fig. 15, and wind up the spring by turning the handle 24 to the right

Give it about 30 turns. Before winding the spring, be sure that the exposure lever 25 is *up*, in the position shown in Fig. 15, page 19.

To start the motor after the spring is wound, press the exposure lever 25, Fig. 15, page 19, about half way. To stop the motor release the pressure. Let the motor run until the 100 mark on the footage indicator (50 if a fifty-foot roll of film is used) moves to the pointer 23, Fig. 14, page 18. The camera is now ready for making pictures.

While the spring will run the motor for about fifteen to twenty feet of film, when fully wound, it is advisable to give the handle a few turns after each scene, or after each five to ten feet of film have been exposed. If the motor sounds as though it was slowing down, stop it at once and rewind the spring.

If the operator wishes to be included in the picture, place the camera on a tripod (it has a socket for this purpose) or on some level, steady, firm support. Press the exposure lever 25 *as far as it will go*, when it will lock in position, and step into the picture area. To stop the motor, return to the camera and push up the lever.

When the Ciné-Kodak is empty and is not going to be used for a day or so, avoid unnecessary tension on the spring by letting the motor run down.

Positions for Operating



Fig. 16.

When using the Sight Finder, first lift up the finder 30 and the sight 31, Fig. 1, page 5, to the vertical position. Hold the camera firmly against the cheek with elbows braced against the body, then locate the subject by looking through the sight 31. The correct position for holding the Ciné-Kodak when using the Sight Finder is shown in Fig. 16. The camera must be held *very steadily*.

When the Sight Finder is used for making close-ups, with the subject six feet or nearer to the lens, be sure to allow ample margin above the head of the subject.

The correct position for holding the Ciné-Kodak when making an exposure, using the Reflecting Finder, is shown in Fig. 17, page 22. It may be found convenient to hold the camera against the hip to keep it steady. If the camera

is held against the lower part of chest the breathing of the operator will cause a movement of the camera. It should, of course, be held with the carrying handle up. The camera may also be used on any standard tripod or on a Unipod.



Fig. 17.

Focusing

Accurate focusing is very necessary in the making of good pictures. The focusing scale on the lens barrel is engraved for 2, 3, 4, 6, 8, 10, 15, 25, 50 feet and INF. (infinity). To set the focus, the collar on the lens barrel must be turned until the line at the figure that agrees nearest to the actual

The Unipod is an accessory in the form of a walking stick. It provides a convenient means to steady the Ciné-Kodak when operating it. To use, unscrew the crooked end and screw the staff into the socket in the bottom of the Ciné-Kodak.

distance from the lens to the subject, is at the line engraved on the barrel.

This instrument may be used as a *fixed focus camera* with stops $f.5.6$ or smaller by setting the focus at 25 feet. It will, with these stops, sharply cover all objects from 8 feet to infinity. For objects less than 8 feet distant the camera must be focused, even when the small stops above referred to are used.

Use of the Diaphragm

Successful motion pictures are probably more dependent on correct exposure than on any other factor.

With the Ciné-Kodak, exposures are governed by the diaphragm only. The diaphragm, located between the front and rear components of the lens, is a device which controls the amount of light passing through the lens. When we speak of "diaphragm value or opening" we mean the actual size of the aperture in the diaphragm through which light may pass and reach the film.

The term $f.1.9$ signifies the largest diaphragm opening, $f.2$ is slightly smaller than $f.1.9$, $f.2.8$ smaller than $f.2$, and so on to $f.16$ which is the smallest diaphragm opening. *The higher the number the smaller the opening.* The size of the opening to use depends upon the quantity of light on the subject—the more light the smaller the opening; the less light the larger the open-

ing. To change the size of the diaphragm opening, move the lever 32, Fig. 18, on the front of the camera, until the pointer is at the figure desired.

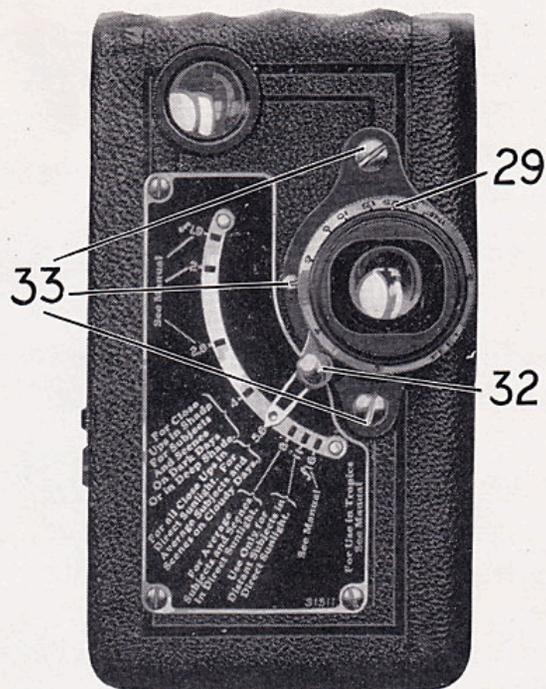


Fig. 18.

The exposure guide on the diaphragm scale, Fig. 18, and the exposure table on page 28 are given as guides to correct exposures under various conditions. The object of changing the diaphragm of the lens is to produce a film, which, when projected, shows no appreciable variation in the brightness of the picture on the screen. This is the kind you should learn to make and it is easy if you will use the exposure guide properly.

Do not forget to change the diaphragm opening before starting to take a distant view after taking a close-up. A smaller diaphragm opening is used when photographing distant views because more light reaches the film from the distant subject than from one close to you. Since you can change the diaphragm at will, it is possible to take a number of scenes under various light conditions on one roll of film.

Experience has shown that usually twelve seconds or about five feet of film are sufficient for most scenes in which the action is continuous but not changing in character: For example, a waterfall; a street with the usual traffic; close-ups of people who are not acting, etc. Some beginners make the mistake of using too much film in taking one scene with the result that, when the film is projected, the picture becomes tiresome before the scene changes.

It is not advisable to try to keep a subject in motion always in the center of the finder frame. As long as you can see the subject anywhere in the finder, do not move the camera. If you do attempt to keep the subject always in the center, the resulting film when projected will be trying to the eyes because of the unsteady background. Stop the motor before moving camera, except when making panoramic pictures, see page 27.

The most effective pictures are those in which not more than one-third of the picture area consists of sky, sea or very light foreground.

Whenever possible make your pictures against a solid background, such as trees, shrubs, a hill-

side or a building. Avoid silhouetting figures against the sky—too much sky has a tendency to fog or blur the film.

When making a distant view the best effects are obtained by having some nearby object in the foreground.

Be careful, when taking pictures near waterfalls, in the rain or where waves are splashing, not to get a drop of water on the lens. Water on the lens will cause a blurred picture.

Steady pictures on the screen can only be secured by keeping the camera steady during the exposure. The Ciné-Kodak may be held in the hands when operating it. It is essential, however, to keep the camera *steady*.

When making an exposure, hold the camera level, as shown in Figs. 16 and 17, pages 21 and 22, and frame the subject through the Sight Finder, or in the Reflecting Finder, then press the exposure lever 25, Fig. 15, page 19.

The important rules for operating the Ciné-Kodak, condensed, are as follows:

1. Hold the camera *steady*.
2. Use special care in determining the correct lens diaphragm with the aid of the exposure guide. When in doubt about an exposure, use the next larger opening.
3. Set the focusing scale accurately.
4. Twelve seconds exposure or about five feet of film are sufficient for unchanging scenes.

5. As long as the subject can be seen in the finder, do not move the camera. Stop the motor *before* you move it, except when panoraming.
6. If panoramic pictures are desired, the Ciné-Kodak must be moved *very slowly and steadily*, while the motor is running, and the subject must not be close to the camera.
7. Wind the spring of the motor a few turns after each scene or after each five to ten feet of film has been exposed.

Panoramic Pictures

It is sometimes desirable to panoram; that is, to move the Ciné-Kodak horizontally, when following races and outdoor games, or to make a landscape continuous, such as a range of mountains and seashore views; or to photograph long or wide buildings and similar subjects in their entirety.

To make panoramic pictures of races, outdoor games and the like, when the *subject* is moving and must be followed with the camera, hold the Ciné-Kodak *very steadily* and turn the body *slowly* from the waist up, following the subject as it shows in the finder. The subject must not be close to the camera. Another way to follow a moving object is to expose a few feet of film, stop the camera, turn it and then expose a few more feet of film, and so proceed until enough action has been photographed. When panoram-

Exposure Guide for Ciné-Kodak Model B with f.1.9 Lens

SUBJECT	TIME	Bright—no clouds over sun	Light clouds over sun	Cloudy Dull
A. Sea, Sky, Beach and Snow Scenes Distant Landscapes, Mountains	Apr.-Sept.	Diaphragm f.16	Diaphragm f.11	Diaphragm f.8
	Oct.-March	f.11	f.8	f.5.6
B. Close-ups* of Group A Open Landscapes, Games, etc., with no heavy shade	Apr.-Sept.	f.11	f.8	f.5.6
	Oct.-March	f.8	f.5.6	f.4
C. Close-ups* of Group B Street Scenes. Groups where houses or trees obstruct part of the light from the sky	Apr.-Sept.	f.8	f.5.6	f.4
	Oct.-March	f.5.6	f.4	f.2.8
D. Close-ups* of Group C Scenes on shady side of streets Boating scenes out of direct sunlight	Apr.-Sept.	f.5.6	f.4	f.2.8
	Oct.-March	f.4	f.2.8	f.1.9
E. Close-ups* of Group D Scenes on heavily shaded streets Scenes on heavily shaded porches	Apr.-Sept.	f.4	f.2.8	f.1.9
	Oct.-March	f.2.8	f.1.9	Too dark

*The term "close-up" means pictures taken from 2 feet to 6 feet from the lens. Figures above are for the hours from two hours after sunrise until two hours before sunset; to make pictures earlier or later use the next larger diaphragm opening than the one specified. These figures apply to the temperate zone; for exposures in the tropics, see page 29.
When the light conditions are favorable and greater depth of focus or range of sharpness is desired, use f.2 instead of f.1.9.

ing, the subject must be kept as nearly as possible in the center of the finder.

To make panoramic or continuous landscapes, or views of long or wide buildings, turn the body *very slowly and continuously*, holding the camera *steadily*.

When panoraming, *never* swing or turn the camera quickly from one side to the other. Be sure that the camera is *level*, do not tilt it. Always make the pictures slowly and deliberately, remembering to *hold the camera steady*.

Tropical Exposures

When making exposures in tropical countries, follow the guide on page 28 using the April to September exposures, if the scenes contain trees and resemble in character landscapes of the temperate zone. If the subjects are in sandy deserts or if there is not a predominance of heavy shadows, use the next smaller diaphragm opening. This, of course, cannot apply to distant subjects in very bright sunlight; such subjects require the smallest stop, f.16.

Unloading the Camera

Caution: Before removing the cover to unload the camera, after exposing the entire length of film, run the motor until the pointer 23 on the footage indicator (Fig. 14, page 18) is at the line marked with a dot, following the scale. This is necessary so that the exposed film on the take-up spool will be covered by the protecting end. This end is similar to the leader at the other end of the film and enables the camera to be unloaded

in daylight. Do not run the motor after all of the film and protecting end are on the take-up spool.

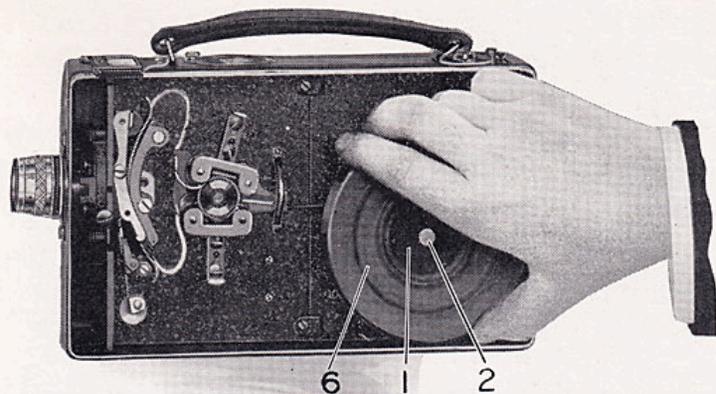


Fig. 19.

When the entire length of film has been wound on the take-up spool, and the pointer of the footage indicator is at the word **EMPTY**, open the camera and quickly slip the bottom of the metal spool container 6 (the cover with the large circular opening) over the spool of film, as in Fig. 19. Draw the covered spool off the spindle 2, Fig. 19, and put on the top of the spool container 5, Fig. 3, page 7.

The film is now ready for development. Print your name and address plainly in the space provided on the back of the yellow box. Then return the exposed roll of film to your dealer, who will send it to our nearest laboratory for finishing for which we make no additional charge. If you mail the film direct, tie a string around the box; do not seal it in any way. A list of laboratories

for processing Ciné-Kodak Film is given on the inside back cover, and a list is also packed with each spool of film.

When returning the exposed film for development, *be sure to replace it in the metal spool container* before placing it in the yellow box. If this is not done the film is liable to unwind and it will then be fogged and ruined.

We cannot emphasize too strongly the importance of placing your name and address on the yellow box. This is the only way by which we can tell to whom the film belongs.

Before reloading the Ciné-Kodak, open the door 4, Fig. 2, page 6, push over the knob 8 as far as it will go, as shown in Fig. 5, page 9, and remove the empty spool 9 from the spindle 10. Use this spool as a take-up spool.

Do not use the spool or reel that is returned with the finished pictures on it, in the Ciné-Kodak as a take-up spool.

General Information

If the film jams in the camera, it is due to one of the following causes:

1. Improper threading of the leader. The teeth on the sprocket were not meshed with the perforations when it was threaded. The leader was not pushed all the way into the slot of the gate, see page 12. Be sure that the leader follows the path of the loops 13 and 14, Fig. 1, page 5.

2. Failure of the film to wind up. This is caused either by one of the spool flanges being bent; or failure on the part of the operator to insert the end of the leader in the slot in the core of the take-up spool; or the roll of film was not properly seated on the spindle 10, Fig. 5, page 9.

If the film breaks or jams you have not wasted the entire length of film. Take the camera out of direct sunlight, take out the film on the take-up spool and that which is tangled up in the camera. Re-thread the camera with the film instead of the leader, and run the motor for a few seconds to see that the film is threaded properly. Close the camera and turn on the motor and run off about ten feet of film. You can now use the rest of the film on the supply spool, because it was not light-struck, since the ten feet you have just run through acted as a protection for it.

When going on an extended journey, it is advisable to take along the extra spring belt (supplied with the camera) that connects the sprocket with the take-up spool, as if the one in the camera should break there would likely be some delay in obtaining another from a local dealer.

Care of the Lens

The lens on the Ciné-Kodak should be cleaned whenever necessary. A dirty lens causes cloudy pictures which lack brilliancy on the screen. If there is any dust or dirt found on the front of the lens it should be cleaned before any more film is used. It is especially important to clean

the lens immediately upon landing, after making an ocean voyage.

To clean the lens, take a wooden tooth-pick or match around the end of which you have wound a small piece of soft linen or cotton cloth, free from lint. Rub the front of the lens gently with the cloth covered tooth-pick taking care that you do not scratch it by too much pressure. Do not moisten the cloth in any way. The rear element of the lens requires less frequent cleaning as the shutter remains closed when it is not in use, thus preventing dust and dirt getting on the lens. To reach the rear element of the lens, remove the three screws 33, Fig. 18, page 24, and lift off the lens. When replacing the lens, be sure to tighten the three screws.

Care of the Gate

The tracks of the gate which guide the film as it passes the lens must be frequently cleaned and polished. If the motor ceases to operate before it has run down, there are probably small pieces of emulsion or some dirt sticking to the tracks of the gate. The gate should be cleaned as follows:

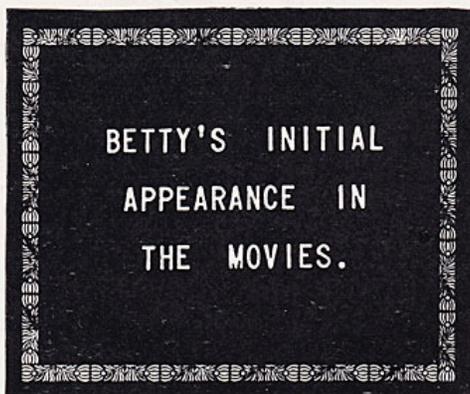
To remove the gate, push over the locking lever 19 to the position shown in Fig. 1, page 5. With a screw driver, or thin coin, remove the screw 28A, Fig. 1, page 5. Take hold of the ends of the gate and lift it up to remove it from the post 28. Separate the two parts of the gate and carefully clean and polish the tracks with a slightly moistened cloth. The gate must be *clean*. Even particles of emulsion adhering to the tracks may interfere with the operation of the camera.

To replace the gate, first fit the studs on one part into the holes in the other part. Hold the two parts of the gate firmly together and slide it over the post 28, then replace the screw 28A, as shown in Fig. 1, page 5. Be sure to tighten the screw. Before replacing the gate, it must be *dry*.

When removing or replacing the gate be careful not to bend the two small tension springs.

Titles

Probably you will want titles for the different scenes in your films when you project them. We



are prepared to make titles for you to fit your films. Simply write out the titles you wish to insert in your film and send the list to us. We will make them and send you the proper amount of film with the title printed on

it, which you can then splice into your film in the proper place. (See splicing directions given in the instruction booklet for the Kodascope.)

The title is made with a special typewriter and photographed on 16 mm. Safety Film. These titles are made at the rate of three cents a word with a minimum of twenty-five cents per title. The minimum charge for an order is \$1.00. The price includes set-up, cost of film and cost of photographing.

Making Titles with the Ciné-Kodak

If you wish to make your own titles for your Ciné-Kodak pictures, it will be found that the method described below is simple and quite satisfactory.

For each title obtain a piece of black cardboard (9 x 11 inches) and either write or print the title on it with a small brush and white ink, being careful that the letters do not come closer than one and a half inches from the edge of the card. The most satisfactory results are obtained when the capital letters are made about five-eighths of an inch high and the small letters about three-eighths of an inch.

When the ink is dry, tack the title card securely to a wall outdoors, in the direct sunlight. Place the Ciné-Kodak with the front twenty-four inches from the card, and level with the center of the title. Mark a point in ink exactly in the center of the Sight Finder lens 30, Fig. 1, page 5. Frame the title by aiming the Ciné-Kodak so that a pencil mark two and a half inches above the center of the title appears above and just touching the ink spot on the finder lens. In doing this, look as nearly as possible through the center of the sight 31, Fig. 1, page 5. Erase the pencil mark on the title before photographing, but do not move the title or the camera. The Reflecting Finder will not include exactly what will be in the picture when the subject is so close to the lens, therefore, it must not be used for framing the title. Set the focusing scale at two feet, and the lens diaphragm at *f.11*.

To make the exposure, turn on the motor of the Ciné-Kodak, allowing about one second exposure for each word in the title. In no case should the exposure be less than three seconds.

Duplicates

While in photography "an original is always better than a duplicate," Ciné-Kodak duplicates are indistinguishable in quality from originals. You may have as many duplicates made of your film as you wish.

If you want duplicates of any film which you make, send it to us as promptly as possible, and before the original has had an opportunity to become damaged from any cause. The best way to order duplicates is to send the original film to us together with your order for duplicates immediately after you have projected it the first time.

Duplicate prints from Ciné-Kodak Film will be made for \$5.00 per hundred feet, or \$3.50 for fifty feet.

Copies of "Still" Pictures

We can make copies of any pictures, drawings, maps and similar subjects on amateur standard (16 mm.) film. Length of film required for each picture is four feet, enough to run ten seconds; an additional charge will be made for greater lengths. Any picture from Vest Pocket (1 $\frac{5}{8}$ x 2 $\frac{1}{2}$ inches) to and including 11 x 14 inches is suitable for copying. The price of the copying service is 50 cents each.

EASTMAN KODAK COMPANY,
ROCHESTER, NEW YORK.

Laboratories for Finishing Ciné-Kodak Film

Chicago, Ill.—Eastman Kodak Co., 18th St. and Indiana Ave.
Jacksonville, Fla.—Ciné-Kodak Service, Inc., 315 West 8th St.
Rochester, N. Y.—Eastman Kodak Company.
San Francisco, Cal.—Eastman Kodak Company, 241 Battery St.
Toronto, Ont.—Canadian Kodak Co., Limited.
Amsterdam—Kodak Limited, Kalverstraat 126.
Barcelona—Sociedad Anónima, Fernando 3.
Berlin—Kodak Ges. m. b. H., Markgrafenstrasse 76.
Brussels—Kodak Limited, Rue Neuve 88.
Budapest—Kodak Limited, Régi Posta utca 9.
Copenhagen—Kodak Aktieselskab, Ostergade 1.
Florence—Kodak Società Anonima, Via Calzaiuoli 17.
Geneva—Kodak Société Anonyme, Rue de la Confederation 11.
Gothenburg—Hasselblads Fotogr. A. B., Ostra Hamngatan 41-43.
Lausanne—Kodak S. A., 13 Avenue du Tribunal Fédéral.
Lisbon—Kodak Limited, Rua Garrett 33.
London—Kodak Limited, Kingsway, W. C. 2.
Madrid—Kodak Sociedad Anónima, Puerta del Sol 4.
Milan—Kodak Società Anonima, Corso Vittorio Emanuele 34.
Nice—Kodak S. A. F., 13 Avenue de la Victoire.
Oslo—J. L. Nerlien, A. S., Nedre Slots gate 13.
Paris—Kodak Société Anonyme Française, Avenue Montaigne 39.
Rome—Kodak Società Anonima, Via Nazionale 25.
Vienna—Kodak Ges. m. b. H., III Beatrixgasse 25.
Buenos Aires—Kodak Argentina, Limited, Calle Paso 438.
Havana—Kodak Cubana, Limited, Zenea 236.
Mexico City—Kodak Mexicana, Limited, Independencia 37.
Montevideo—Kodak Uruguay Limited, Colonia 1222.
Rio de Janeiro—Kodak Brasileira, Limited, Rua São Pedro 270.
Valparaiso—Kodak Chilena, Limited, Salvador Donoso 344.
Batavia, Java—Kodak Limited, Noordwijk 38, Weltevreden.
Soerabaja, Java—Kodak Limited, Tempelstraat 3.
Bombay—Kodak Ltd., Kodak House, Hornby Road.
Calcutta—Kodak Limited, 17 Park St.
Cairo—Kodak (Egypt) Société Anonyme, 3 Sharia Elfy Bey.
Osaka—Ciné-Kodak Service Japan, Inc., 1 Dojima Hotel Bldg.
Shanghai—Eastman Kodak Company, 64 Kiangse Road.
Singapore—Kodak Limited, 3 Battery Road.
Cape Town—Kodak (S. A.) Limited, Shortmarket and Loop Sts.
Melbourne—Kodak Australasia Pty., Limited, 284 Collins St.
EASTMAN KODAK COMPANY,
ROCHESTER, NEW YORK, U. S. A.

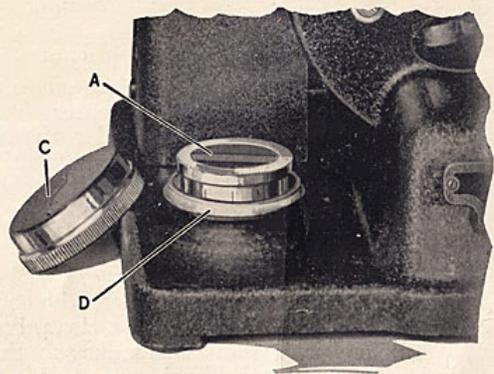


Fig. 3

Kodascope, as shown in Fig. 3. The illustration shows the Kodacolor Filter A replaced in its container, with the cover or top of the container off. Fasten the bottom D with the two screws E-E, Fig. 2, included with the Filter, using the holes in the base of the Kodascope which are provided for this purpose.

EASTMAN KODAK COMPANY,
ROCHESTER, NEW YORK.

KODACOLOR

Projecting Kodacolor Films
with the Model B Kodascope



THE Model B Kodascopes, Series "K," are perfectly adapted to the projection of Kodacolor Films when used with the Kodacolor Filter Assembly, which includes a Kodacolor Filter and a compensating lens. (Model B Kodascopes, Series "K" are identifiable by the letter "K" in front of the serial number on the spring catch, that fastens the upper reel support when folded.)

The price of the Kodacolor Filter Assembly is \$18.00.

(Model B Kodascopes not bearing a Series "K" number are not adapted to Kodacolor, but must be sent to the factory at Rochester, for modification for Kodacolor. Price of change, \$75.00 plus \$18.00 for the Kodacolor Filter Assembly.)

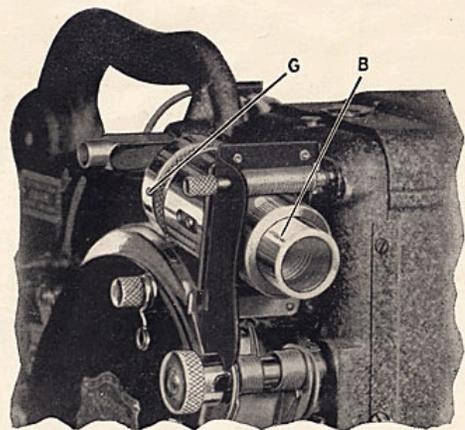


Fig. 1

Attaching Filter Assembly

With the projection lens cell raised, as in Fig. 1, screw the compensating lens B in the opening at the rear end of the projection lens cell, as shown in Fig. 1.

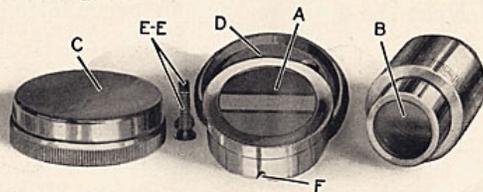


Fig. 2

Now bring the projection lens down to the usual position for projecting and slip the Kodacolor Filter A, Fig. 2, over the front end of the projection lens cell so that the notch F (Fig. 2) in the Filter will fit around the stud G (Fig. 1) near the front edge of the projection lens cell. Push the Kodacolor Filter against the lens cell, as far as it will go.

Threading

The Kodacolor Film should be threaded into the Kodascope in the same manner as the regular Ciné-Kodak Film, following the directions in the Kodascope manual, except that the *emulsion* side must be towards the center of the supply reel. The emulsion side of the film can be identified by the elliptical marks on the margin of the pictures, between the perforations. When the film is unrolled towards you from the top of the reel with the pictures upside down, and the elliptical marks on the margin are on the *left* edge of the film, the *emulsion* side is towards the center of the supply reel.

If the pictures are right side up, it will be necessary to *rewind* the film following the directions in the Kodascope manual. If Kodacolor Film is rewound incorrectly, so that the *emulsion* side is *not* towards the center of the supply reel, the pictures when projected, will be black and white.

The Screen

Only the special Kodacolor Screen, 16½ x 22 inches, should be used when projecting Koda-

color pictures. The use of any other medium or a screen of larger size will not give satisfactory projection from Kodacolor Film. Those viewing Kodacolor pictures should place themselves as nearly as possible in line with the center of the screen. The distance between the Kodascope and screen when projecting Kodacolor pictures of the above size, will be about ten feet. If the color bands show at the sides of the picture, increase the distance between the Kodascope and screen until the color bands do not show.

Important: It is necessary to keep the compensating lens *clean*. Wipe it with a clean, lintless cloth before projection. Also make sure that the Kodacolor Filter, the projection and condensing lenses, and reflector are clean.

It is advisable to check the adjustment of the lamp as described on page 36 of the Kodascope manual, to be sure of obtaining the maximum illumination.

Pictures made on Kodacolor Film and projected with a Kodascope not provided with the Kodacolor Filter, will be black and white only.

Retaining Cell for Filter

A convenient place is provided on the Kodascope for carrying the Kodacolor Filter when not in use, Fig. 3.

Unscrew the top C of the container for the Kodacolor Filter, remove the Filter and attach the bottom D of the container, to the base of the