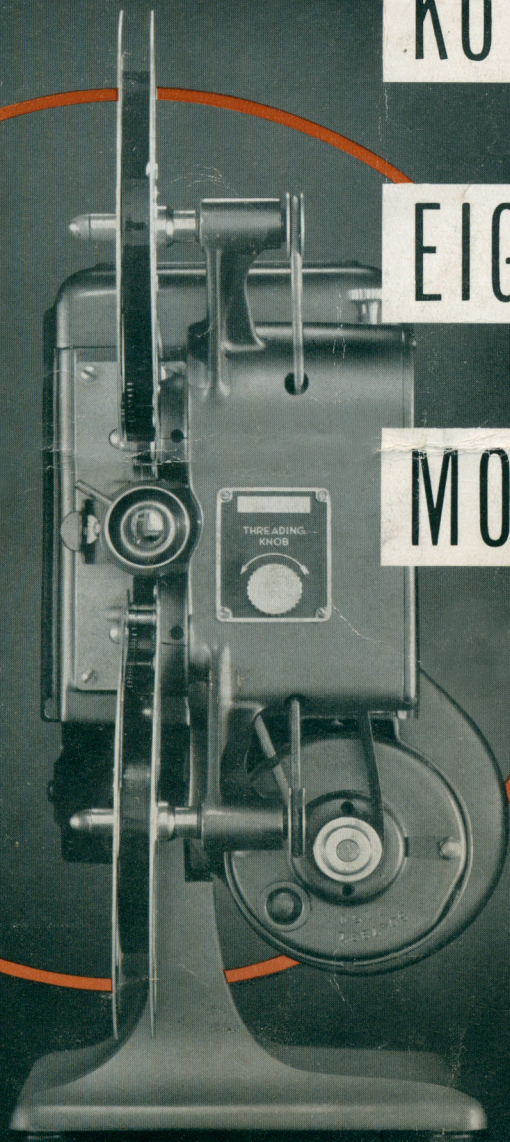


How to Use Your

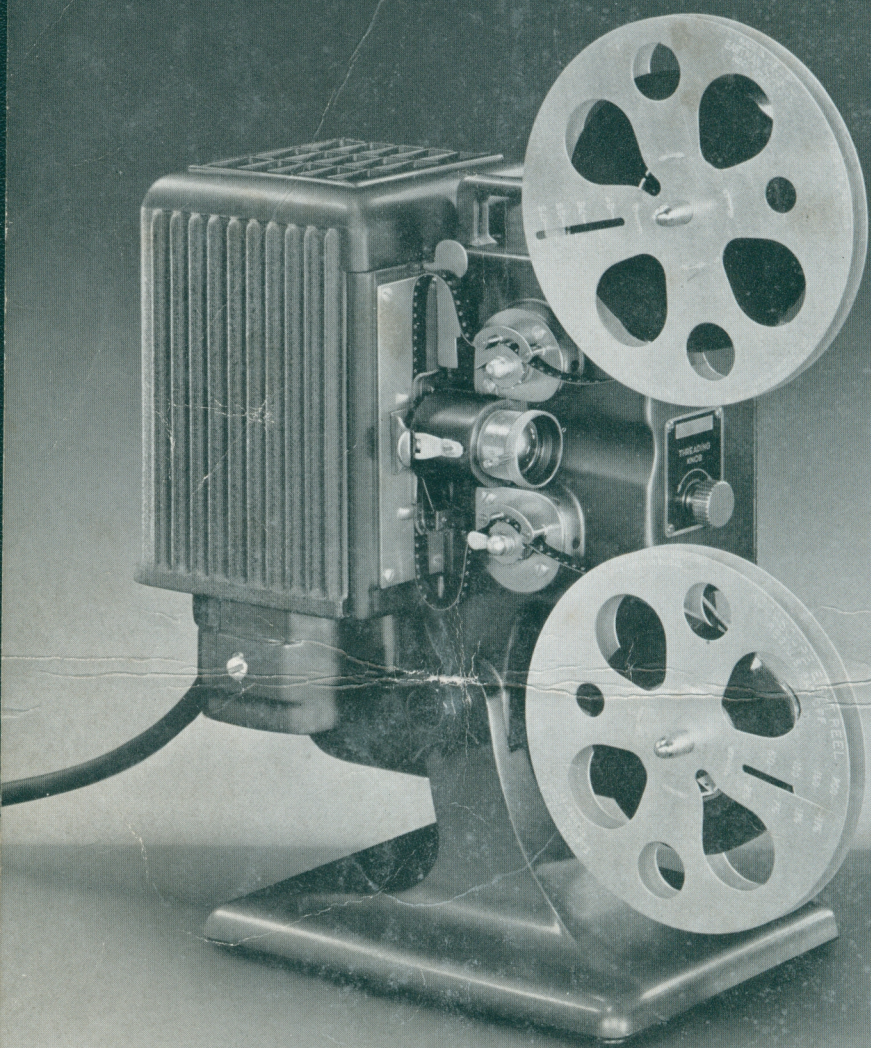
KODASCOPE

EIGHT

MODEL 70



EASTMAN KODAK COMPANY • ROCHESTER, N. Y.



THE KODASCOPE EIGHT, *Model 70*

How to Use Your

KODASCOPE

EIGHT

MODEL

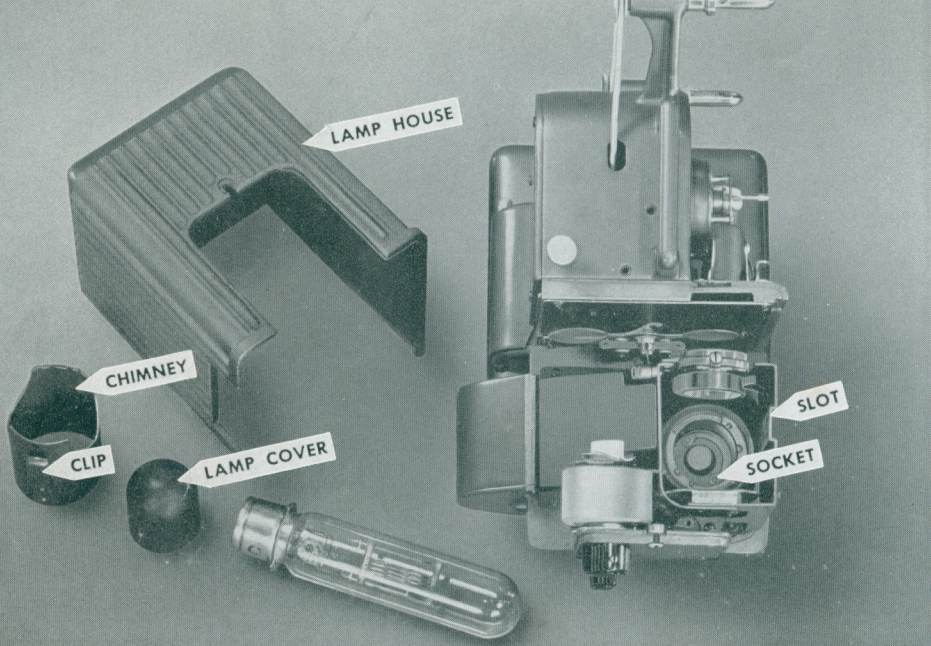
70

BEFORE operating the Kodascope, study these directions, especially the directions for threading and rewinding.

The Kodascope should be placed on a firm table or stand.

The Kodascope can be run on either alternating (25 to 60 cycle) or direct current but must not be operated on a line higher than 125 volts or lower than 100 volts, either A.C. or D.C. If the voltage on your line is not known, inquire of your local electric service company.

Lamps of 300, 400 or 500 watts and of the proper voltage can be obtained from your Ciné-Kodak dealer.



INSERTING THE LAMP . . .

Loosen the screw directly above the name-plate on the back of the Kodascope and slide the LAMP HOUSE up and off. Draw out the CHIMNEY.

Insert the lamp into the SOCKET with the larger flange over the larger opening; press it down into the SOCKET and give it a quarter-turn to the right until it snaps into position. Place the LAMP COVER on the lamp. Replace the CHIMNEY, slipping the CLIP into the SLOT; then push the CHIMNEY all the way down.

Replace the LAMP HOUSE, engaging the grooves on the front of the LAMP HOUSE with the tracks of the projector. Fasten the LAMP HOUSE with the screw.

Illumination of the Room: Before the Kodascope is used, the room in which the pictures are to be shown should be darkened sufficiently to allow the Kodascope to project a brilliant image on the screen. This does not mean that the room should be totally dark. If the lights are properly placed, the room may be sufficiently light to read in, after the eyes of the occupants have adjusted themselves to the subdued lighting. Very often the lights in rooms adjoining that in which the Kodascope is used do not impair the brilliancy of the projected pictures.

The SPEED ADJUSTING KNOB must be turned to the right (clockwise) towards the word *Fast*.

The **PLUG** on the end of the cord must be attached to the prongs of the Kodascope, behind the name-plate. Connect the plug at the other end of the cord with the electric service socket. If there is a switch in the service socket, turn it on.

The **LAMP SWITCH** should now be turned to the third position marked: *Lamp*. With the lamp turned on, adjust the distance between the screen and Kodascope.

Set up the screen so that its center is on a line with or a little higher than the lens of the Kodascope.

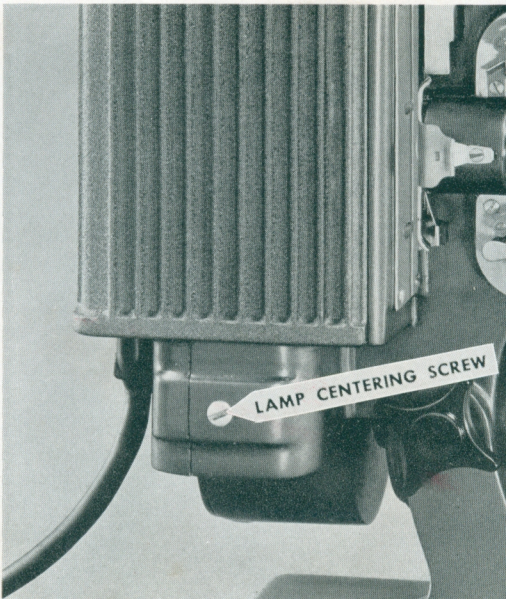
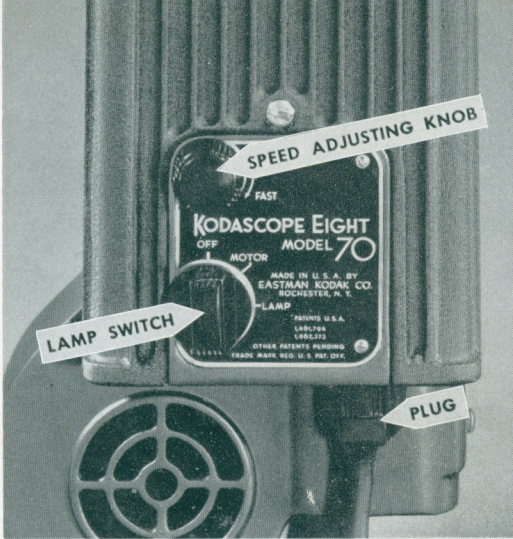
On account of the different sizes of the screens used, the distance between the screen and the lens of the Kodascope will vary. The correct distances are given in the table:

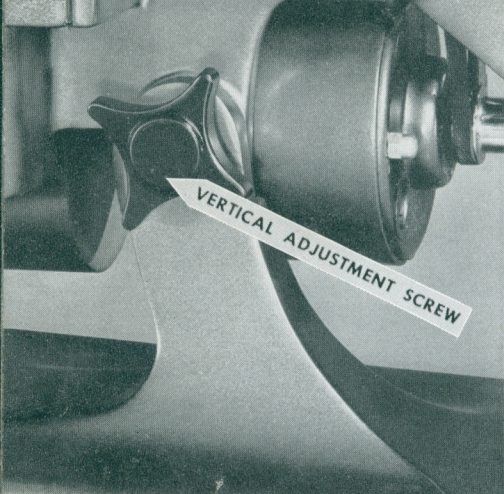
<i>Size of Screen</i>	<i>Distance</i>	<i>Size of Screen</i>	<i>Distance</i>
16½ x 22 inches	11 feet	30 x 40 inches	19½ feet
22 x 30 inches	14½ feet	39 x 52 inches	25 feet

If the light does not fill the area of the screen, change the distance between the Kodascope and screen. The closer the screen is to the Kodascope, the smaller the size of the lighted area. Turn the lens barrel until the margins of the lighted area are sharp; then increase the distance between the Kodascope and screen until the lighted area is a trifle larger than the screen.

Before using a new lamp it may be advisable to check the screen brightness. Turn the **LAMP CENTERING SCREW** a trifle either way, with a coin or screw-driver, noting the brightness and uniformity of the light on the screen.

Vertical adjustment, to center the light area on the screen, is made by loosening the **VERTICAL ADJUSTMENT**





VERTICAL ADJUSTMENT SCREW

SCREW on the base and tilting the Kodascope, then tightening SCREW.

Make sure that the belts are in the grooves of the pulleys.

Regulate the speed of the motor by turning the SPEED ADJUSTING KNOB (page 3) to the right or left. *Never stop the motor with this knob.*

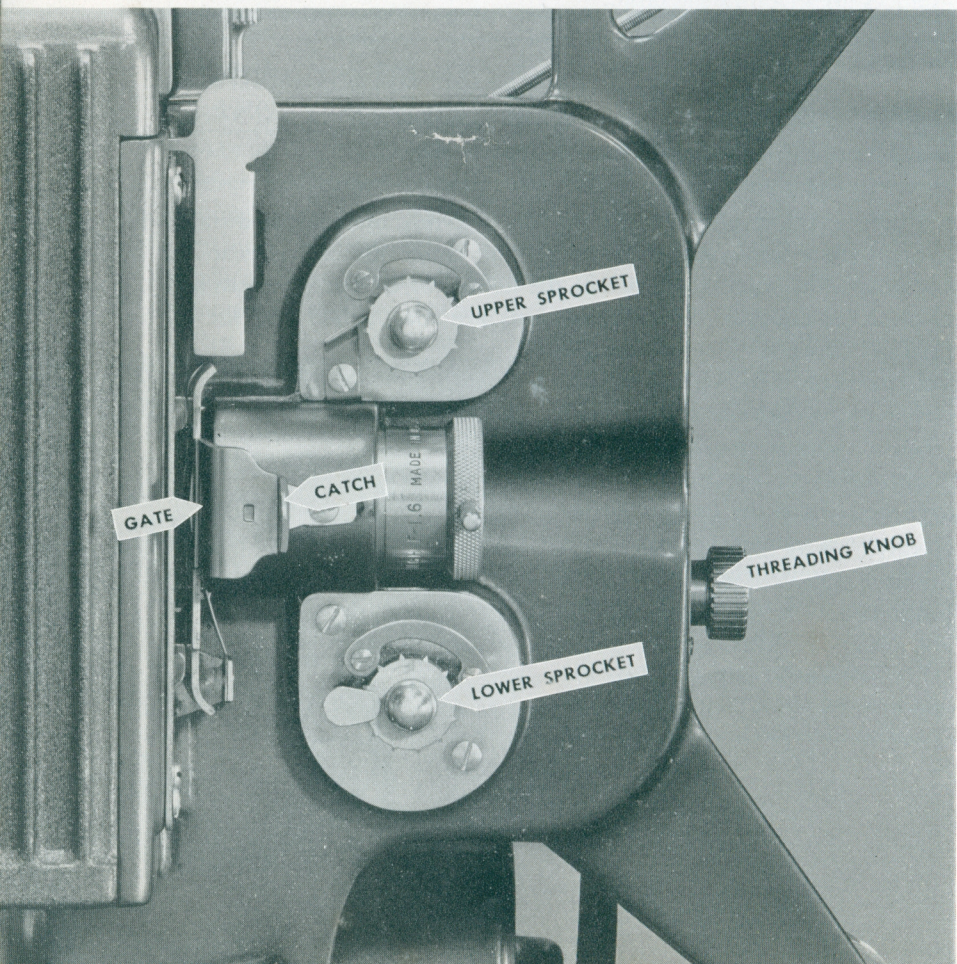
Turn the LAMP SWITCH (page 3) to *Off*, and thread the Kodascope.

THREADING . . .

Open the GATE by pushing forward on the CATCH until it latches.

Place the reel of film on the SUPPLY SPINDLE so that the film draws from the bottom of reel, with the shiny side of film towards the center of the reel. The pictures must be upside down and the perforated edge

4



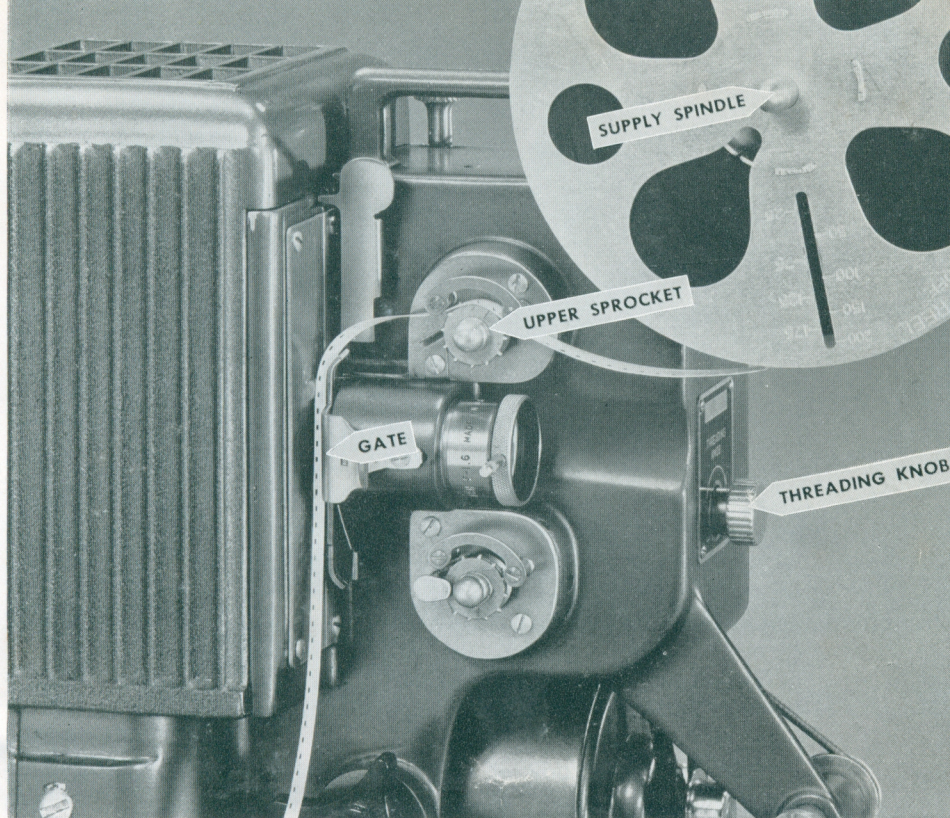
UPPER SPROCKET

CATCH

GATE

LOWER SPROCKET

THREADING KNOB



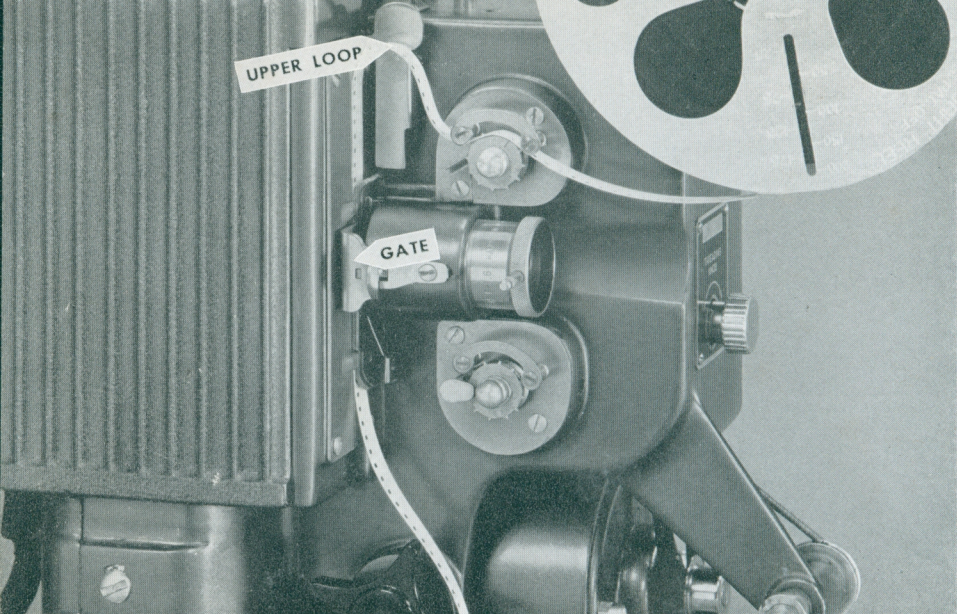
of the film towards you. (*Duplicate* films, pages 15 and 16, are made so that the *dull* side must be towards the center of the supply reel.) Push in the reel until the spring on the spindle snaps into position.

Unwind the matte leader strip (about two feet) for threading.

Insert the film between the curved guide and UPPER SPROCKET, making sure that the film perforations engage the teeth.

Look into the GATE and turn the THREADING KNOB on the front of the Kodalight until the pull-down

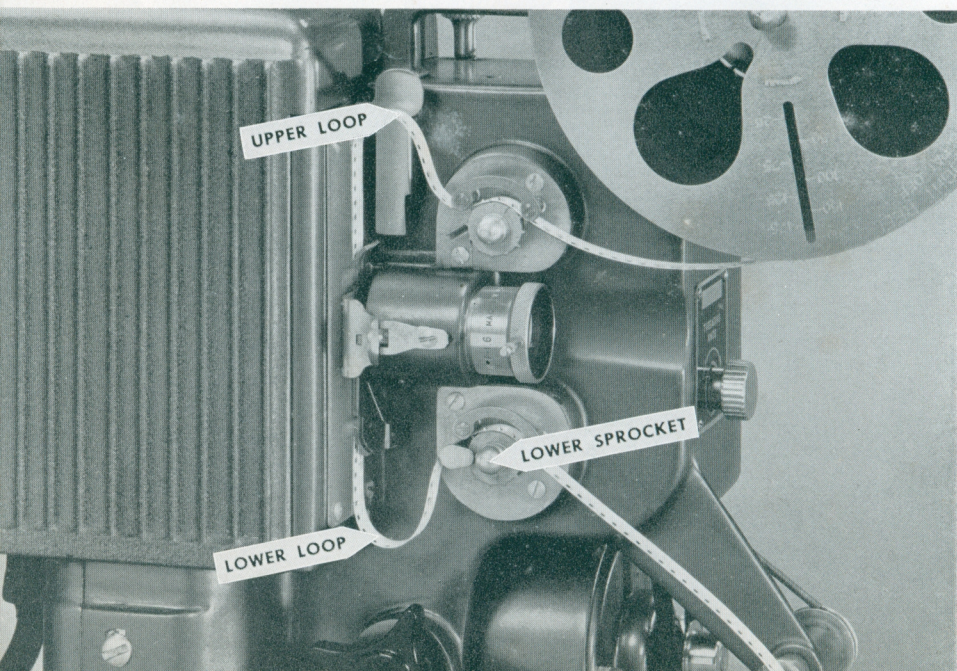
claws are withdrawn, permitting the film to slide easily into the GATE. The pull-down claws are little metal prongs which engage the film perforations and draw the film through the GATE.

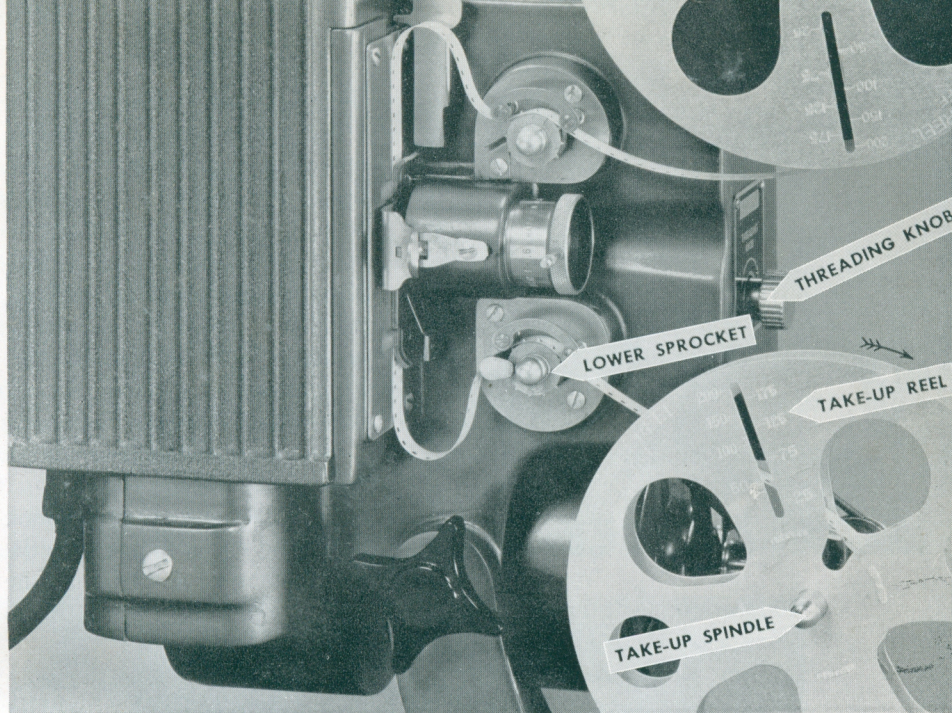


Thread the film into the GATE, making sure it is between the guides at the sides of the track. Form the UPPER LOOP the size shown above; then close the GATE.

Form the LOWER LOOP, making it the size shown below, and insert the film between the curved guide and the LOWER SPROCKET. The film perforations must engage the teeth on the sprocket.

6 Be sure that the UPPER and LOWER LOOPS are of the proper size, as shown in these two illustrations. Proper loop size is important because





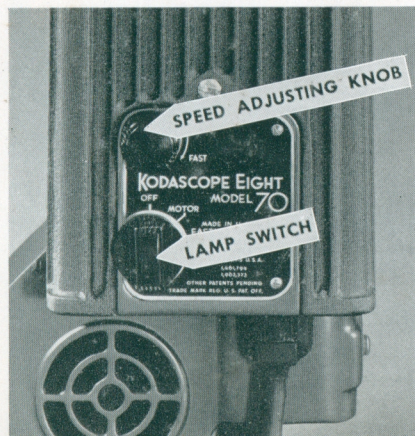
the pull-down claw works intermittently, while the sprocket runs continuously.

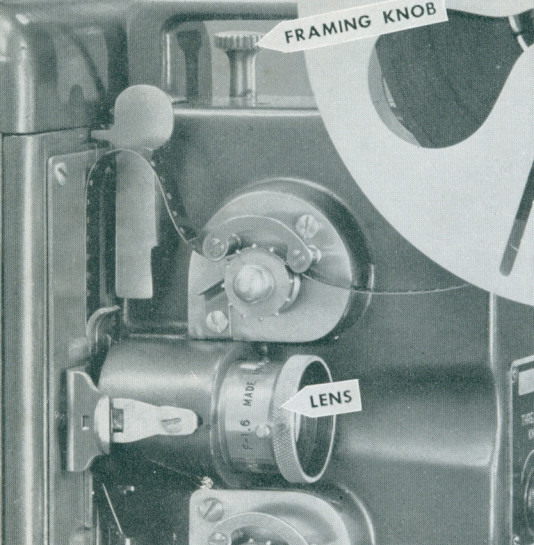
Place the empty or TAKE-UP REEL on the TAKE-UP SPINDLE. The reel must be pushed in so that the spring on the spindle snaps into position.

Thread the film on the TAKE-UP REEL by holding the *end* of film against the core and turning the reel at least one turn in a clockwise direction, as shown by the arrow in the illustration. Wind up any slack that there may be in the film between the LOWER SPROCKET and core of the TAKE-UP REEL.

When the Kodascope is completely threaded, turn the THREADING KNOB on the front of the Kodascope counter-clockwise (in the direction of the arrow) a few times, to see that the film is threaded properly, that the claws of the pull-down engage with the film perforations, and that the loop sizes are maintained.

Turn the LAMP SWITCH to *Motor*. Check the loop sizes, if they remain correct, turn the LAMP SWITCH to *Lamp*.





Regulate the speed of the motor by turning the **SPEED ADJUSTING KNOB**, page 7, to the right or left. The motor should run the Kodascope at such a speed that the action on the screen appears normal; if the motor is run too slowly, the pictures will flicker.

Important: *Never stop the motor with the **SPEED ADJUSTING KNOB**.*

Focus the Kodascope by turning the **LENS** back and forth with the pin, until the picture is sharp.

When the picture shows a blank strip at the top or bottom, or the edge of the next picture, turn the

FRAMING KNOB. If the picture on the screen is upside down, and if the action is backwards, the film has not been rewound.

If the picture on the screen is extremely unsteady, it is probably caused by the loss of either the upper or lower loop. This will sometimes happen if some of the film perforations are broken. If this should occur, stop the mechanism at once by turning the **LAMP SWITCH** (page 7) to *Off*. Open the **GATE** and turn the **THREADING KNOB** until the pull-down claws are withdrawn from the **GATE**. Adjust the sizes of the **UPPER** and **LOWER LOOPS** (page 6) by sliding the film up or down; the loops should be the size shown in the illustrations. If there are broken perforations, they should be noted when the film is rewound. The section of film that contains the broken perforations must be removed and the ends spliced together.

Projecting Kodachrome Pictures

Kodachrome pictures may be projected with the Kodascope Eight, Model 70. No filters of any kind are required. They can be projected to the same size as black-and-white pictures. Be sure to keep the **GATE** clean, see pages 10 and 11.

REWINDING . . .

To rewind the film the **REWIND LEVER** should be pulled out as far as it will go, see the illustration on the opposite page.

Attach the film onto the **UPPER REEL** by pressing the *end* of the film against the core of the reel. Give the reel a few turns by hand, in the direction of the arrow in the illustration, to make sure that the end is

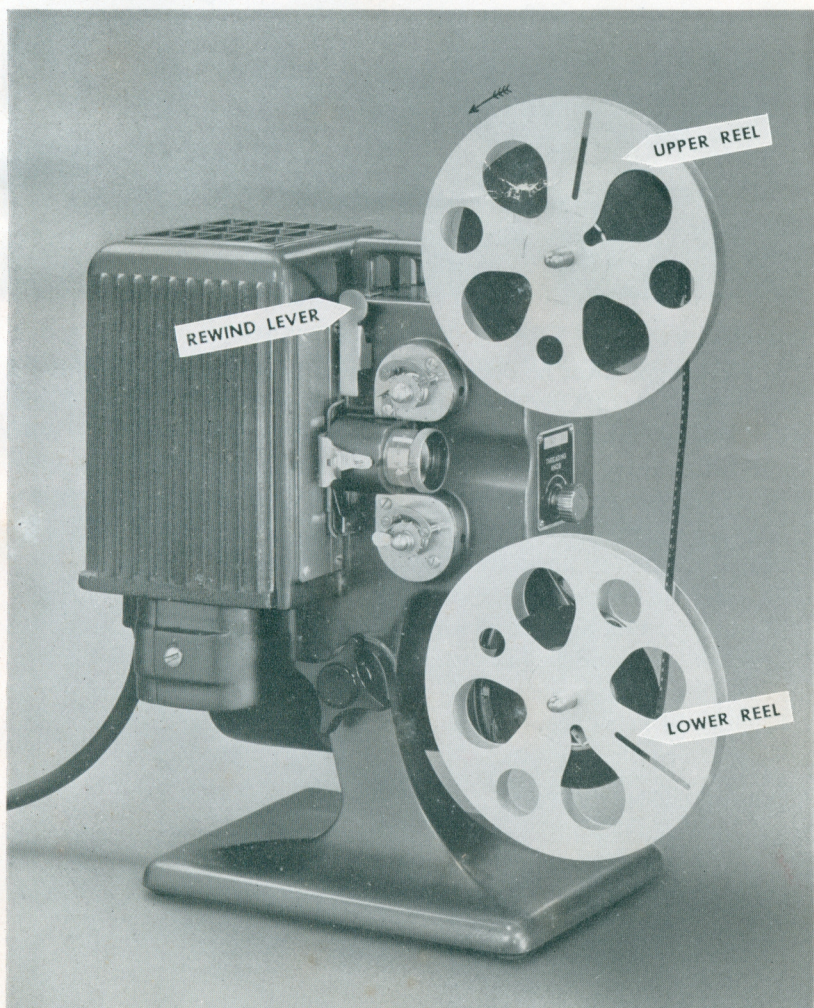
securely attached. See that the film is not twisted.

Turn the LAMP SWITCH (page 7) to *Motor*. The motor will now rapidly rewind the film. Apply a slight retarding pressure with the fingers to the LOWER REEL, to keep it steady and prevent the film from unwinding too rapidly. Allow the film to run freely enough to avoid scratching. Stop the motor by turning the LAMP SWITCH (page 7) to *Off*.

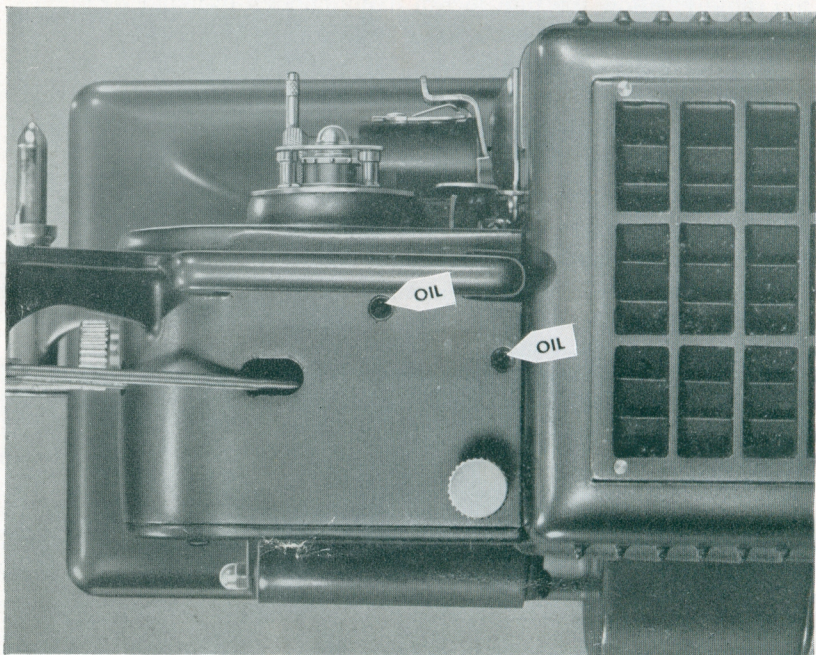
After rewinding and before projecting again, push in the REWIND LEVER.

Slack film should be taken up by *rewinding* the film onto another reel *slowly*, and then winding with an even tension and at uniform speed back onto the first reel. Never try to take up slack by holding a reel in one hand and pulling the end of the film with the other, or very bad "cinch" marks will be produced.

Films rented from your dealer should not be rewound when they are returned.



Care of the Kodascope



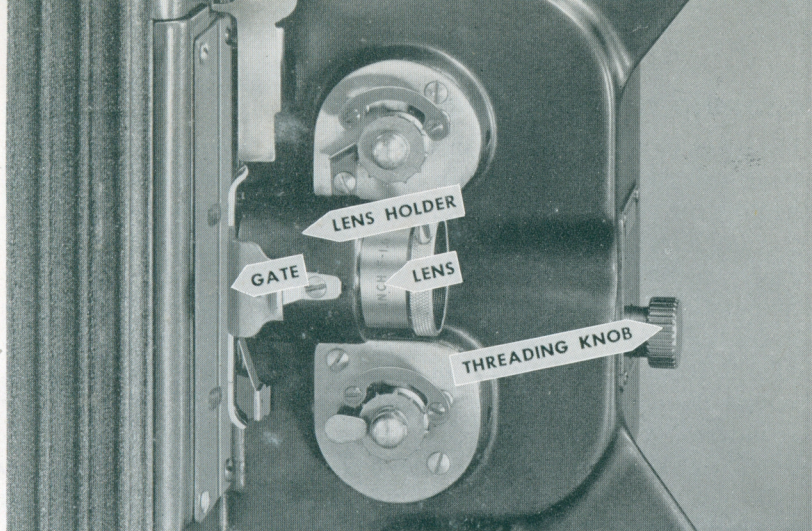
OILING . . .

The Kodascope must be oiled before using it for the first time, and it must be kept clean. Obviously all machinery needs oil and if the Kodascope should remain idle for any length of time, it should be oiled again before using. There are three places that should be lubricated; two are on the top of the Kodascope, see illustration above. A few drops of oil should be added occasionally to the safety shutter oil retainer, see lower illustration on page 11. *All other bearings are self-lubricating, and need no oiling.*

Kodascope Oil, a bottle of which is supplied with the Kodascope, is preferable to any other, but ordinary sewing machine oil may be used. In any case use only very small quantities. A few drops in each of the oil holes will be sufficient. Apply the oil with the wire fastened in the cork of the bottle.

CLEANING THE GATE . . .

The GATE which guides the film as it passes the lens, must be cleaned

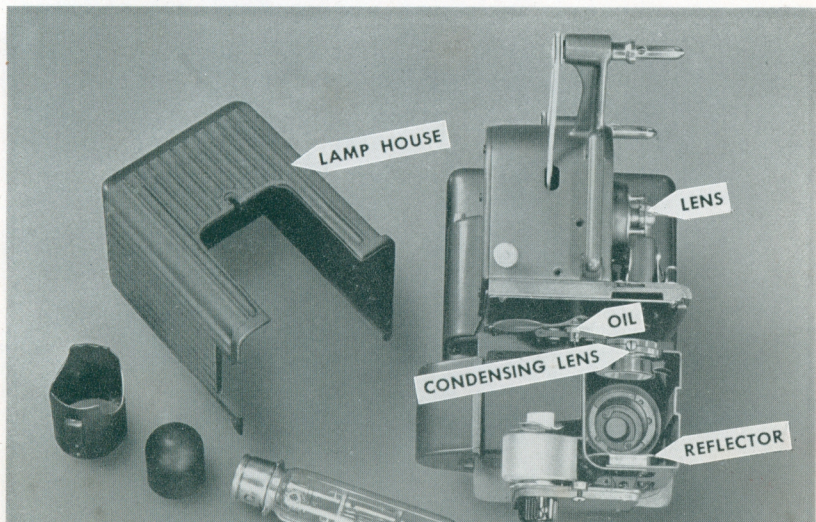


occasionally. It should be cleaned at intervals depending upon its use. Before projecting any film, especially Kodachrome, be sure the GATE is clean.

Because of the constant friction of the film, particles of the coating or emulsion are rubbed off the edges of the film and lodge on the gate. This deposit of emulsion, if allowed to remain, interferes with the smoothness with which the film runs through the gate.

Open the GATE by pressing forward on the catch; then turn the THREADING KNOB until the pull-down claws are withdrawn. The track of the GATE must be cleaned with a damp, lintless cloth wrapped on a toothpick or match. Remove the LENS by pushing the pin down as far as it will go and then drawing it forward. With a damp cloth wrapped on a stick, reach through the LENS HOLDER to clean the edges of the aperture. To give the GATE an over-all cleaning, slide a slightly moistened, clean cloth up and down in the GATE a few times to remove all remaining particles of dust or dirt.

11



CLEANING THE LENSES AND REFLECTOR . . .

The lenses of the Kodascope should be cleaned frequently. Dirt on the lenses will cause the picture on the screen to appear cloudy or flat. Remove the LENS by pushing the pin down as far as it will go and then drawing it forward. With a soft, clean, lintless cloth, or Lens Cleaning Paper, carefully wipe the two lens surfaces; also wipe both sides of the CONDENSING LENS. To reach the CONDENSING LENS, first loosen the screw on the back of the Kodascope, slide off the LAMP HOUSE as described on page 2, remove the CHIMNEY and the lamp as described below; then remove the CONDENSING LENS by pulling it out by the knurled screw on the lens. When the lamp and CONDENSING LENS are out of the Kodascope, wipe the REFLECTOR carefully with a clean cloth.

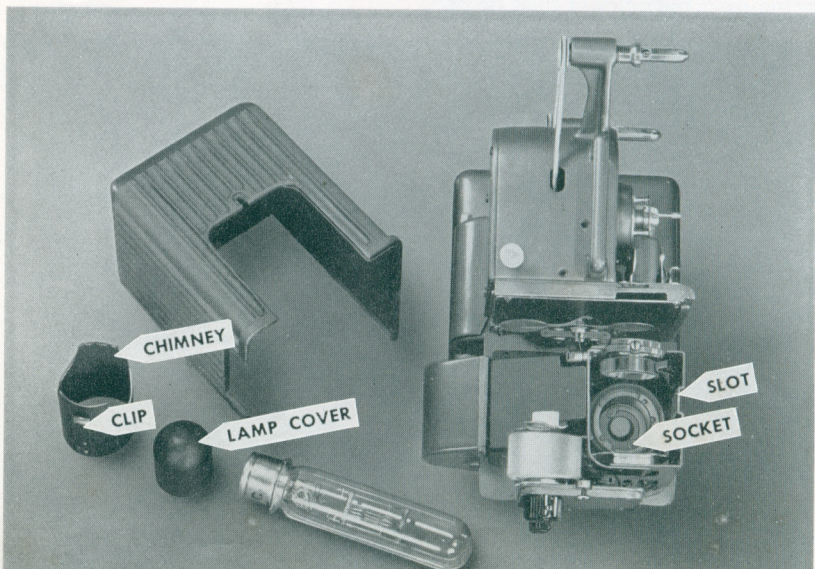
Do not moisten the cloth used for cleaning lenses. If moisture is required, breathe on the lenses or use a drop of Kodak Lens Cleaner.

REPLACING THE LAMP . . .

The Kodascope Eight, Model 70, requires a line-voltage projection lamp, according to instructions on page 1. These lamps are available in different voltages, and they can be obtained from your Ciné-Kodak dealer.

After the LAMP HOUSE is removed (see page 2) draw out the CHIMNEY, and lift off the LAMP COVER. Press down slightly on the projection lamp and give it a quarter-turn to the left; then lift it out of the SOCKET. Insert the new lamp with the larger flange over the larger opening; press it down into the SOCKET and give it a quarter-turn to the right until it snaps into position. Replace the CHIMNEY, slipping the CLIP into the SLOT; then push the CHIMNEY all the way down. Place the LAMP COVER on the top of the lamp. Replace the LAMP HOUSE and fasten it with the screw. To check the screen brightness, see page 3.

12



Care of the Film

The pictures on a motion picture film are so small and are magnified so enormously on projection that great care must be exercised at all times to prevent scratches or other markings, because they are very noticeable on the screen. It is impossible to remove these defects once they are formed.

The picture area of the film should never be handled in any way. Scratches are generally caused by careless rewinding of the film, by "cinching" it tightly on the reel, or by a dirty gate.

Slack film should be taken up by *rewinding* the film onto another reel *slowly*, and then winding with an even tension and at uniform speed back onto the first reel. Never try to take up slack by holding a reel in one hand and pulling the end of the film with the other, or very bad "cinch" marks will be produced.

The best and most convenient way to keep Ciné-Kodak Eight Film is to assemble the fifty foot rolls, as soon as received from the processing station, on 200-foot Kodascope Eight Reels, and store them in Kodascope Eight Film Cans.

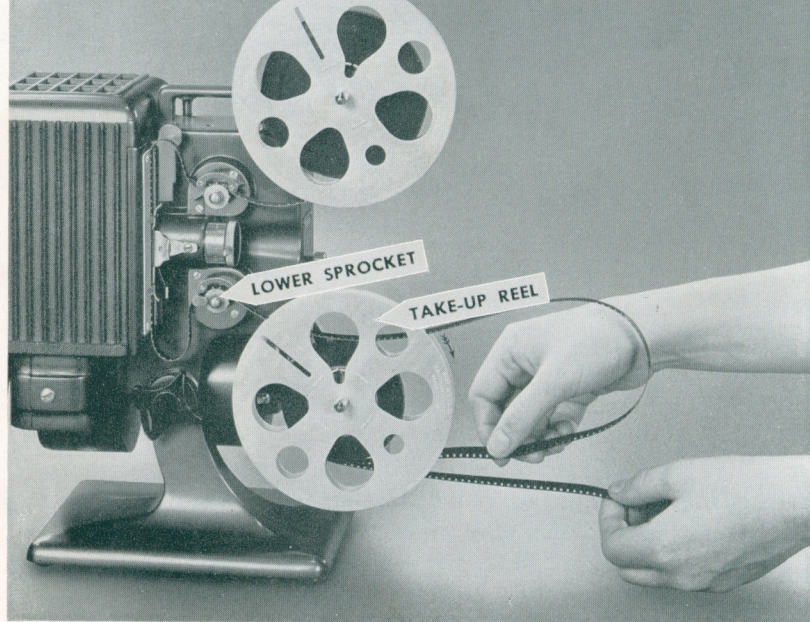
CLEANING: Sometimes the pictures on the screen will appear cloudy, flat and lack brilliancy. This is likely caused by an accumulation of oil and dirt on the film. The best way to clean Ciné-Kodak Film is to use the Ciné Film Cleaner which is prepared especially for this purpose; it should be applied with the silk plush supplied with the cleaning outfit.

Caution: When cleaning Kodachrome Film, be sure to use our Ciné Film Cleaner, as cleaners containing alcohol are liable to remove some of the color from the film.

BREAKAGE OF THE FILM . . .

If the film breaks during projection it may be caused by an imperfect splice made previously in the film; or the upper or lower loop may have been too small.

If the film breaks, stop the Kodascope immediately by turning the LAMP SWITCH on the back of the Kodascope (page 7) to *Off*. If you do not want to take the time to splice the film, projection may be continued by means of the "tuck-under" method. Unwind about a foot of film from the TAKE-UP REEL. Bring the other end of the film through the Kodascope in the same manner as when threading the film, see pages 4 to 7.



Run the KodaScope until about two feet of film hang from the LOWER SPROCKET. Insert this end on the TAKE-UP REEL at the place where the film you unwound leaves the reeled up film, as shown in the illustration. Wind up the loose film by hand, turning the TAKE-UP REEL in the direction indicated by the arrow in the illustration; then continue projection.

If it is desired to splice the film at once, proceed as follows:

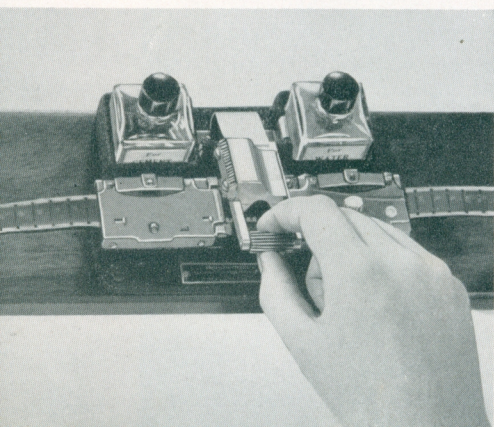
Leave the upper and lower reels in position, unthread the film from the sprockets and gate and draw the ends of the film out. Use the splicing block in the KodaScope Junior Film Splicing Outfit, or use the KodaScope Universal Splicer, and follow the splicing directions that are included with the outfit. After the splice is made, wind up the slack film on the upper reel, taking care not to strain the splice by a sudden jerk before it is set. Rethread the KodaScope and continue projection.

Perfect Splices in a Few Seconds with the . . .

KODASCOPE UNIVERSAL SPLICER

With this accessory, splicing can be done very rapidly and easily. It is a great help when editing your films.

Either 16 mm. or 8 mm. film can be spliced with this machine.



Titles

You will probably want titles describing the different scenes in your films. We can make the titles for you. Simply write out the titles you wish to insert in your film and send the list to us. We will send you film with the titles printed on it which you can then splice into your film in the proper places.

If titles are to be used with black-and-white films, specify in your order whether the films are *originals* or *duplicates*.

Card Titles are limited to about 17 words. These titles are made at the rate of $2\frac{1}{2}$ cents a word with a minimum of 20 cents per title. The minimum charge for an order is \$1.00.

The Scroll Title is ideally suited for those longer explanatory titles so often needed at the beginning of a reel. The wording moves slowly and evenly upward on the screen.

A Scroll Title may have as many words as you wish. Titles with more than 33 words are made at the rate of $2\frac{1}{2}$ cents a word, with a minimum of 80 cents per title. The minimum charge for an order is \$1.00.

Ciné-Kodak Card Titles are obtainable in the United States and Canada, at Rochester, Chicago, San Francisco and Toronto, and the Scroll Titles are obtainable at Rochester, only.

When titles are intended for use with Kodachrome Film, this should be specified. For Kodachrome Film, purple haze stock will be used for titles.

Making Titles with Your Ciné-Kodak Eight

If you wish to make your own titles for your Ciné-Kodak pictures, the use of the Ciné-Kodak Titler is recommended. The Titler is a very simple and efficient device. It permits the use of small title cards, close to the Ciné-Kodak Eight. Ordinary typewriter type makes splendid movie titles. Illustrations cut from magazines can be used for backgrounds; your subjects may autograph their own title cards.

Duplicates

While in photography "an original is always better than a duplicate," Ciné-Kodak Eight 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, send it to us promptly, and before the original has had a chance to become damaged from any cause.

Prices for black-and-white duplicates: 38 to 50 feet, \$4.00; 50 feet or more, \$.08 per foot. Orders for less than 38 feet, \$.10½ per foot; minimum charge, \$3.00. Black-and-white duplicates can be made from Kodachrome Film.

Black-and-white duplicates are obtainable from Rochester, only.

Copies of "Still" Pictures

We can make copies of any pictures, drawings, maps and similar subjects, provided they are not copyrighted, on 8 mm. film. Length of film required for each picture is two feet, enough to run ten seconds. Any picture from Vest Pocket Kodak size ($1\frac{5}{8} \times 2\frac{1}{2}$ inches) to 11 x 14 inches can be copied. The price of a black-and-white copy is \$.40; additional length, per foot \$.08. A Kodachrome copy \$.80; additional length, per foot \$.16. Minimum order \$1.00.

Copies are obtainable in the United States at Rochester only.

Carrying Case . . .

FOR YOUR KODASCOPE EIGHT MODEL 70

For greater convenience in carrying the Kodascope Eight, Model 70, we recommend the use of the carrying case, which can be obtained as an accessory.

The carrying case is made of wood, covered with imitation leather and is fitted with a strong leather handle, a spring lock with key, two spring catches, and it has reinforced corners. It has space for the projector, connecting cord, two full and one empty 200-foot reels, splicing and lubricating outfits, extra lamp.

EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

At Your Service . . .

THE SERVICE DEPARTMENT

Although we give in this manual the necessary directions for using your Kodascope Eight, Model 70, further information may be desired.

The Service Department is at *your* service. Do not hesitate to write to us for information on any photographic subject. There is no charge—no obligation.

Address all Communications

SERVICE DEPARTMENT

EASTMAN KODAK COMPANY, ROCHESTER, N. Y.