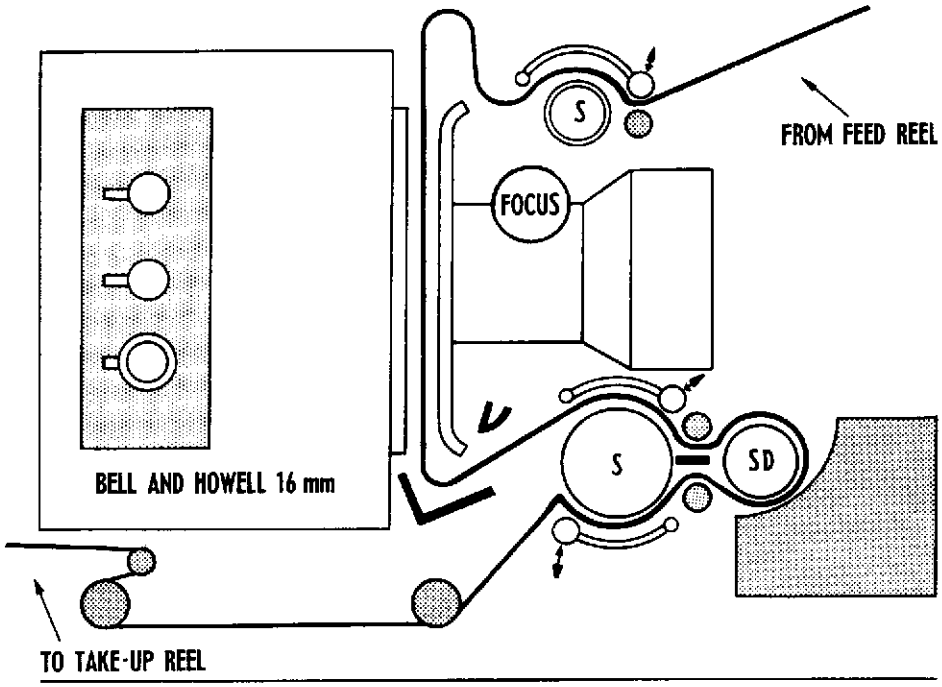

500 SERIES

SPECIFIC PROJECTORS

Bell and Howell Specialist

This is the modern Bell and Howell projector. A more sophisticated version of this model is called the *Autoload*. The *Autoload* was the first automatic-threading 16mm projector available to education. The *Specialist* described here requires manual threading.

In THREADING the projector, note the following:

1. Reel arms are mounted on the machine. The front arm swings forward and up to a half-vertical position. The rear arm located behind the control swings back and up to a *horizontal* position.
2. Three sprocket guards should be opened: one on top of the sprocket wheel above the lens; two (top and bottom) on the sprocket wheel below the lens.
3. The lens unit swings away from the face of the projector toward the rear of the machine. Open this to thread film in the channel and *leave the channel open* until you have completed threading the film around the roller in the lower center of the machine.
4. Note carefully how film passes *between* the two small angled metal plates immediately below the film channel.
5. Note the two blue gunmetal-colored rollers located behind the sound drum at the lower-right. Film passes *under the top* roller and *over the bottom* roller. The metal guide plate between the two blue rollers *separates* the film path on and off the sound drum.
6. As the film passes *under* the sprocket wheel below the lens, pull the film taut, then let it slack off *slightly* to the nearest sprocket tooth, then close the sprocket guard.
7. For the two rollers at the lower left of the machine, note carefully the reverse "S" pattern of threading. See the diagram printed on the projector immediately below these two rollers.
8. Before turning on the motor, check carefully that all *three* sprocket guards are *closed* and that the lens unit is *firmly* in place with the pressure plate *centered* in the film channel.

In REWINDING the film, note the following:

1. Place the rear reel arm in a *vertical* position. Press in the lock button at the rear reel arm to move it.
2. Connect the film to the front reel; the film passes *under* the front reel for correct rewind.
3. Set the motor control to *Reverse*.
4. Press down and hold for a few seconds the *Rewind button* located above the top sprocket wheel at the front of the projector.

For accurate use of controls, note the following:

1. Motor and Lamp are two positions on the same switch. The lamp comes on only when the control is moved to the second position. Read the labels and note the markings carefully.
2. The motor will operate only when the *separate* control above the motor switch is in the *Run* position. To obtain a still picture, the *motor* switch must be turned to the Lamp position and the *Run-Still* control must be turned to the Still position.
3. Volume and Tone controls are superimposed. The center gray-colored knob turns on the amplifier and controls the volume. The outside black ring with the orange marking is the Tone control.

Bell and Howell Autoload

This machine will thread the film automatically through built-in mechanisms. It is also possible to thread the machine manually.

In THREADING the projector, note the following:

1. Swing the reel arms into position: front arm up in a half-vertical position; rear arm back and up to a *horizontal* position.
2. Mount the film reel on the top front reel arm and inspect the first *three feet* of film. Film must be free of damaged or torn sprocket holes and free of tape.
3. Insert the film end into the hole at the lower front of the projector (#1 in diagram below) and press down the cutter bar (#2). This cuts the film to the clean, square end required for automatic threading.
4. With the motor-lamp switch (#3) set to forward position, push the threading lever (#4) forward to autoload position.
5. Insert the film under the roller and into the machine (at #5) until the sprockets begin pulling the film through the threading path.
6. When three feet of film have passed the double rollers (at #6), stop the projector and pull the film until the threading mechanism clicks open. (The lever at #4 will move to the rear position.)
7. Thread the film *under* each of *both* rollers (#6) in a reverse lazy-S loop, then fasten the film to the rear take-up reel and proceed as usual.

Note: If the film does not appear to thread satisfactorily, stop the projector immediately and remove the film. Inspect the film for conditions in steps 2 and 3 above before rethreading.

Film *can* be manually unthreaded from the machine at any time. Remove the cover door around the lens area by pulling out and lifting up the front of the door. Release the threading-mechanism roller (at #4) by pushing the roller to the rear. Pull open the lens gate and open the three sprocket clamps (one on top of the sprocket over the lens and one each at top and bottom of the sprocket below the lens). Slip the film carefully off each sprocket.

In REWINDING the film, perform the same operations indicated for the manual-threading machine on the facing page.