
AUTOMATIC ADVANCE MANUAL



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I. Parts

- #1 Wood Cloth Beam Support with Bearing Housing Assembly and Arm
- #2A Beater Leg Bracket with Connecting Rod
- #2B Overhead Beater Tilt Arm Bracket with Connecting Rod
- #3A Bottom Swing Hardware:
 - one hex bolt (3/8" x 2-1/4"), two washers, and a nut
 - one hex bolt (3/8" x 2"), two washers, and a nut
- #3B Overhead Beater Hardware:
 - two hex bolts (3/8" x 1-3/4"), two washers, and a hex nut on each

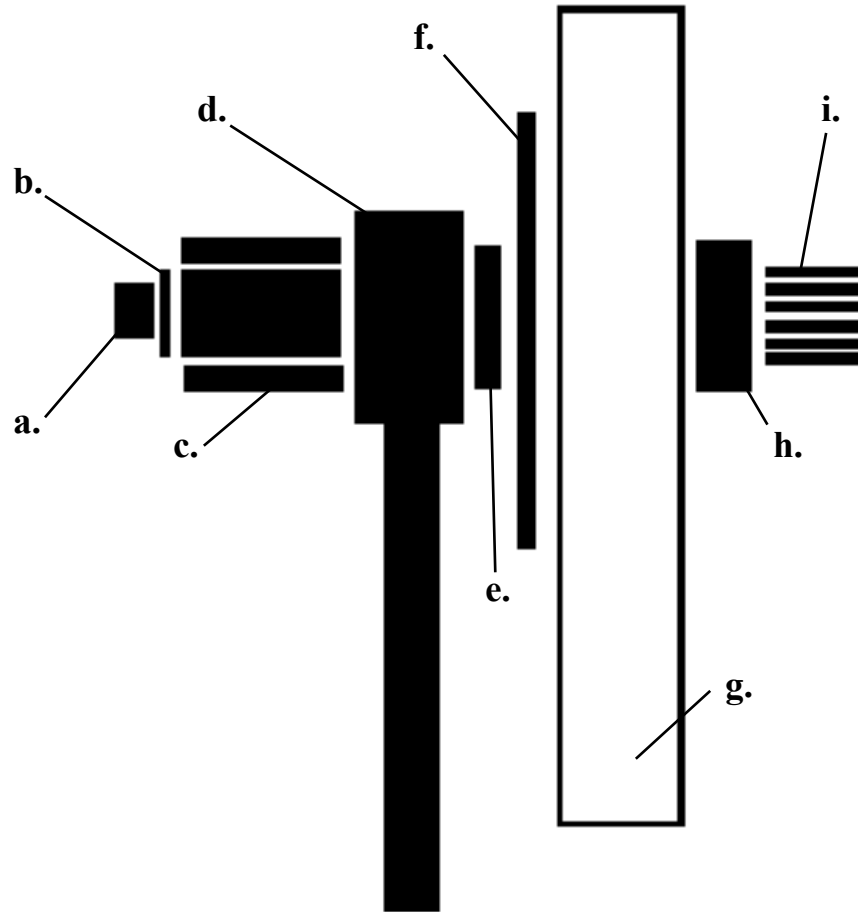
II. Tools You Will Need

9/16", 7/16", and 1/2" wrench
Phillips screwdriver
(for drilling wood cloth beams only) drill and a 13/64" drill bit
Strip of paper, 2" x 6"

III. Assembly (for looms with either bottom or overhead beaters)

- 1.) If you have the old Automatic Advance on your loom, take it off of the loom.
- 2.) Remove the existing wood cloth beam support from your loom (see Figures #2 through #4).
- 3.) If you have been using the old Automatic Advance or have an aluminum cloth beam, then your cloth beam will already have holes in it for the screws that secure the large gear. Otherwise, you will have to drill holes into your wood cloth beam.

NOTE: Axle sizes on the cloth beam may vary. Therefore, you may need to wrap a layer or two of masking tape around the axle where the gear will sit. The tape will help the gear to sit snugly on the axle, which will keep its rotation even.



- a. hex bolt
- b. washer
- c. axle with plastic snap on spacer
- d. arm
- e. narrow plastic spacer
- f. triangle bracket
- g. wood support
- h. plastic spacer
- i. small gear

To mark the spot to drill, take the large gear and slide it onto the axle of the cloth beam; hold it to the end of the cloth beam. In other words, you are using the gear as a template to mark the hole position. Drill one hole at each spot with your 13/64" drill bit.

Screw the large gear to the end of your cloth beam with your Phillips screwdriver.

- 4.) Attach the new cloth beam support with Bearing House Assembly to your loom. The arm should be placed on the outside of the loom.

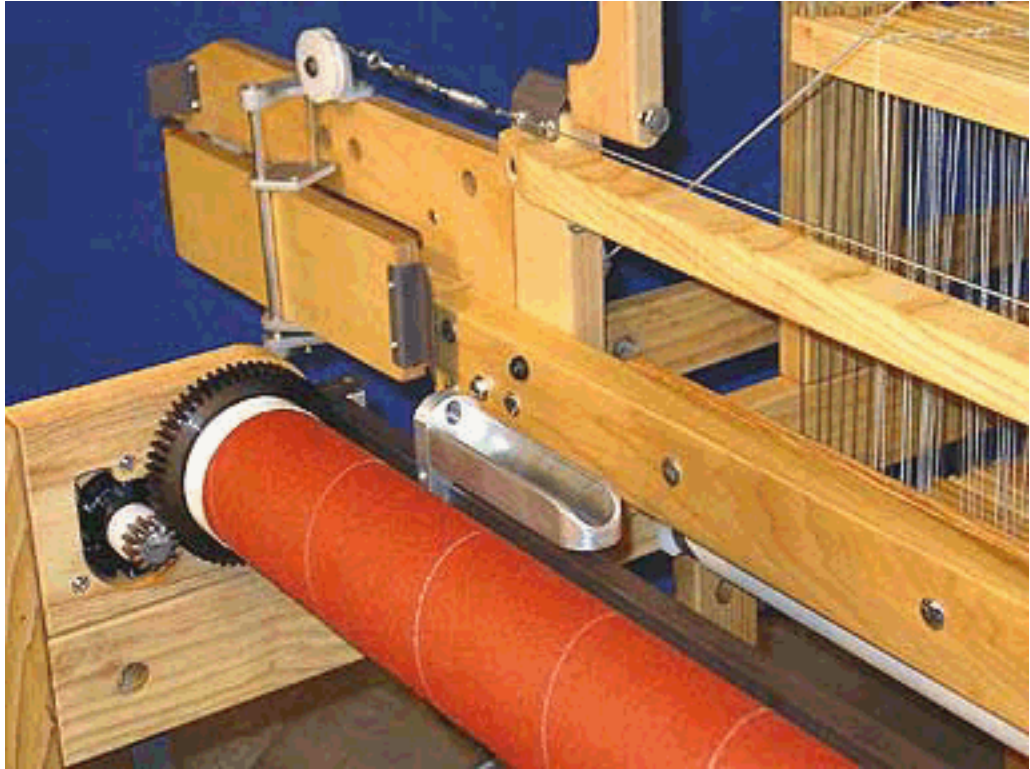
- 5.) Adjusting the gears: Using your 7/16" wrench, slightly loosen the bolt that secures the metal triangular bracket to the wood cloth support (if your loom is warped, remove the tension from the warp). Insert the strip of paper between the gears and roll the cloth beam towards you to roll the paper between the gears. The paper provides a small amount of space between the gears so that they don't bind during adjustment. Return to the triangular bracket and push the bracket part toward the beater. Tighten the bolts. Remove the paper from between the gears by gently rolling the cloth beam towards you.

To check the adjustment, disengage the gears (Bearing Housing) by snapping off the plastic spacer on the outside of the assembly. Push the gear rod in toward the inside of the loom. This will disengage the gears. Gently roll the cloth beam towards you. Re-engage the gears by sliding the small gear back under the large gear. Roll the cloth beam toward you, cycle it all the way around to make sure there are no tight spots. Redo if necessary.

- 6.) Attach the Beater Leg Bracket to the beater leg. There should be eight holes already drilled into the beater leg. Holding the Bracket with the slide adjustment opening to your right, line up the bottom hole with the first hole on the leg; the middle hole on the Bracket aligns with the top (eighth hole) on the beater leg. Put one washer on the hex bolt (3/8" x 2-1/4") and put the bolt through the top Bracket hole; then put on the second washer and secure with the nut. Repeat this process with the shorter hex bolt (3/8" x 2") and the bottom hole on the Bracket.

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- 7.) For Overhead Beaters: Attach the Tilt Arm Bracket to the Tilt Arm. There should be eight holes already drilled into the Tilt Arm. Holding the Bracket with the Side Adjustment opening to your right, line up the bottom hole with the first hole on the Tilt Arm; the middle hole on the Bracket aligns with the top hole on the Tilt Arm. Put one washer on each bolt. Put one bolt through the Top Bracket hole; then put on the second washer and secure with the nut. Repeat this process for the bottom hole on the Bracket.



Automatic Advance Gears in Place

- 8.) The Connecting Rod that is attached to the Bracket can now be connected to the Arm. Unscrew the black knob and remove the spacer, washer, and bolt. Move the Rod up toward the middle hole on the outside of the Arm. Put the washer on the bolt and put bolt through the holes on the Arm and Rod end. Put the spacer on and screw the knob back on.

On a Folding Dobby Loom

Locate the right cloth beam vertical cap. It is the wood part that the right axle of the cloth beam inserts into. There is a small black bumper in the cap. Please remove this bumper and replace it with the new black bumper and spacer. Make sure that the wooden spacer is between the cap and the rubber bumper.

With a Four-Box Beater

If your new automatic advance is going to be used with a four-box beater, you will need to modify the left back plate. You will need to cut a small piece off the bottom inside corner. This will allow the new linkage to pivot freely (see Figure #1).

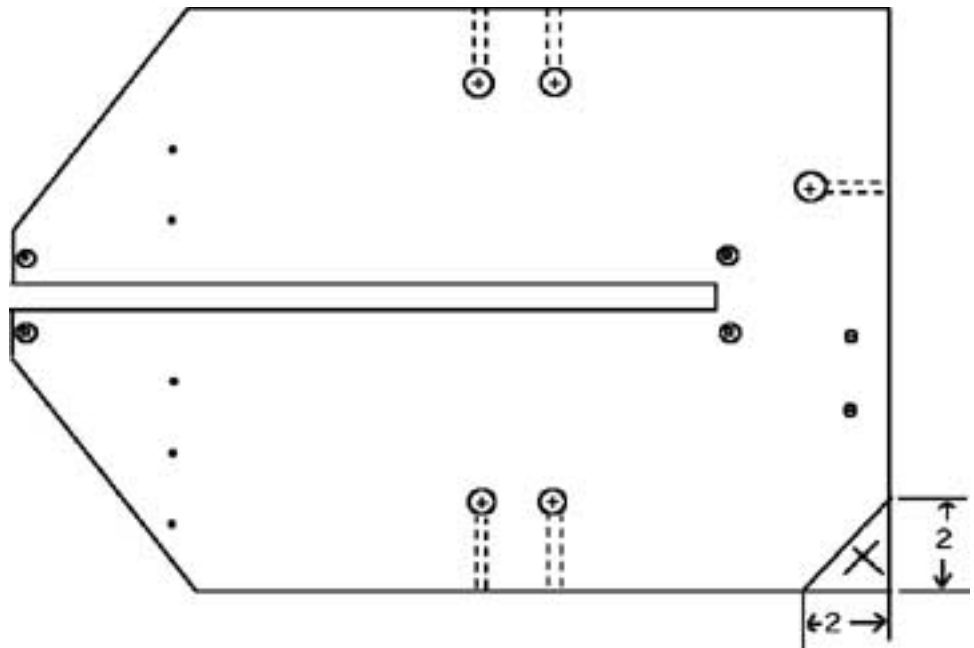
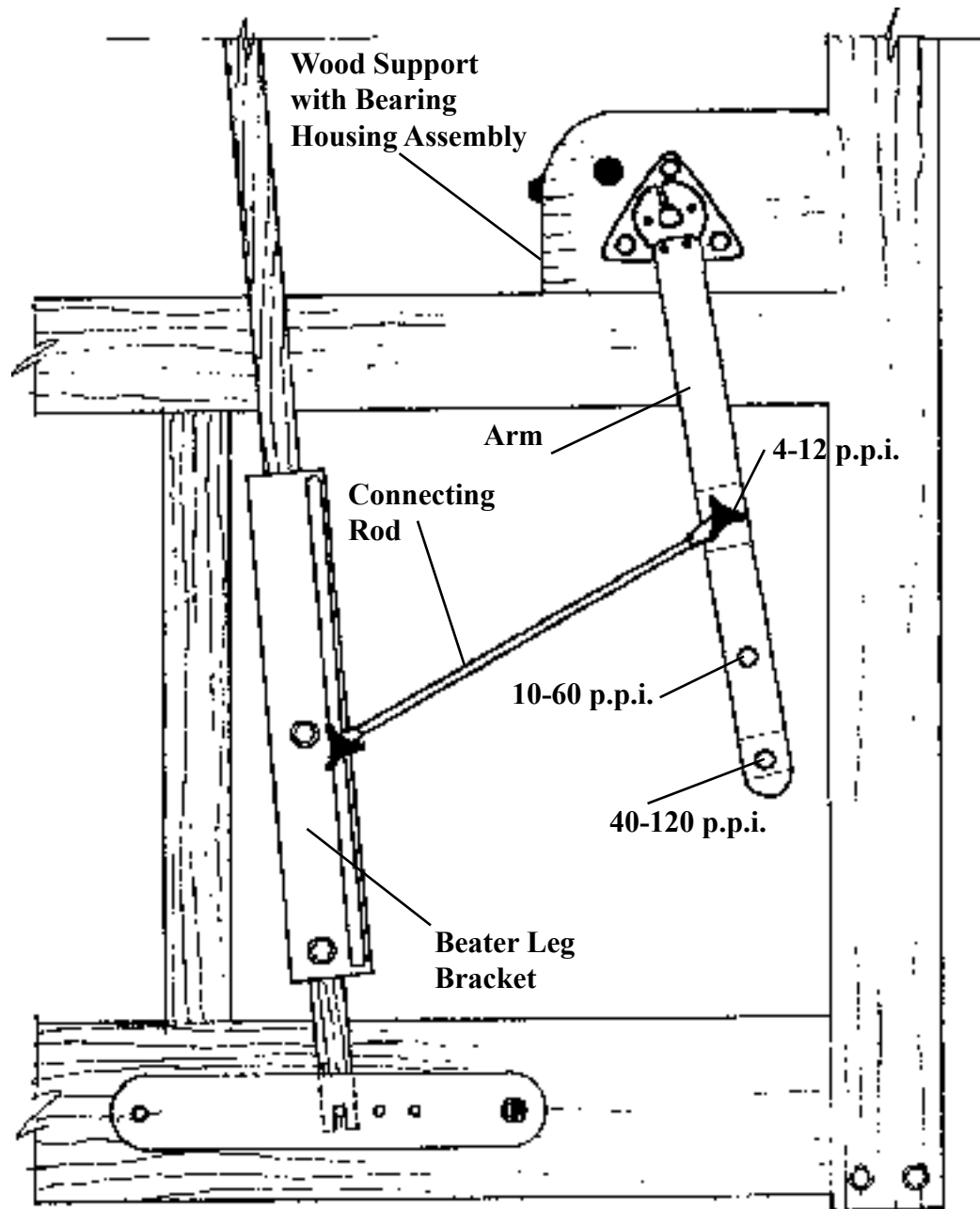
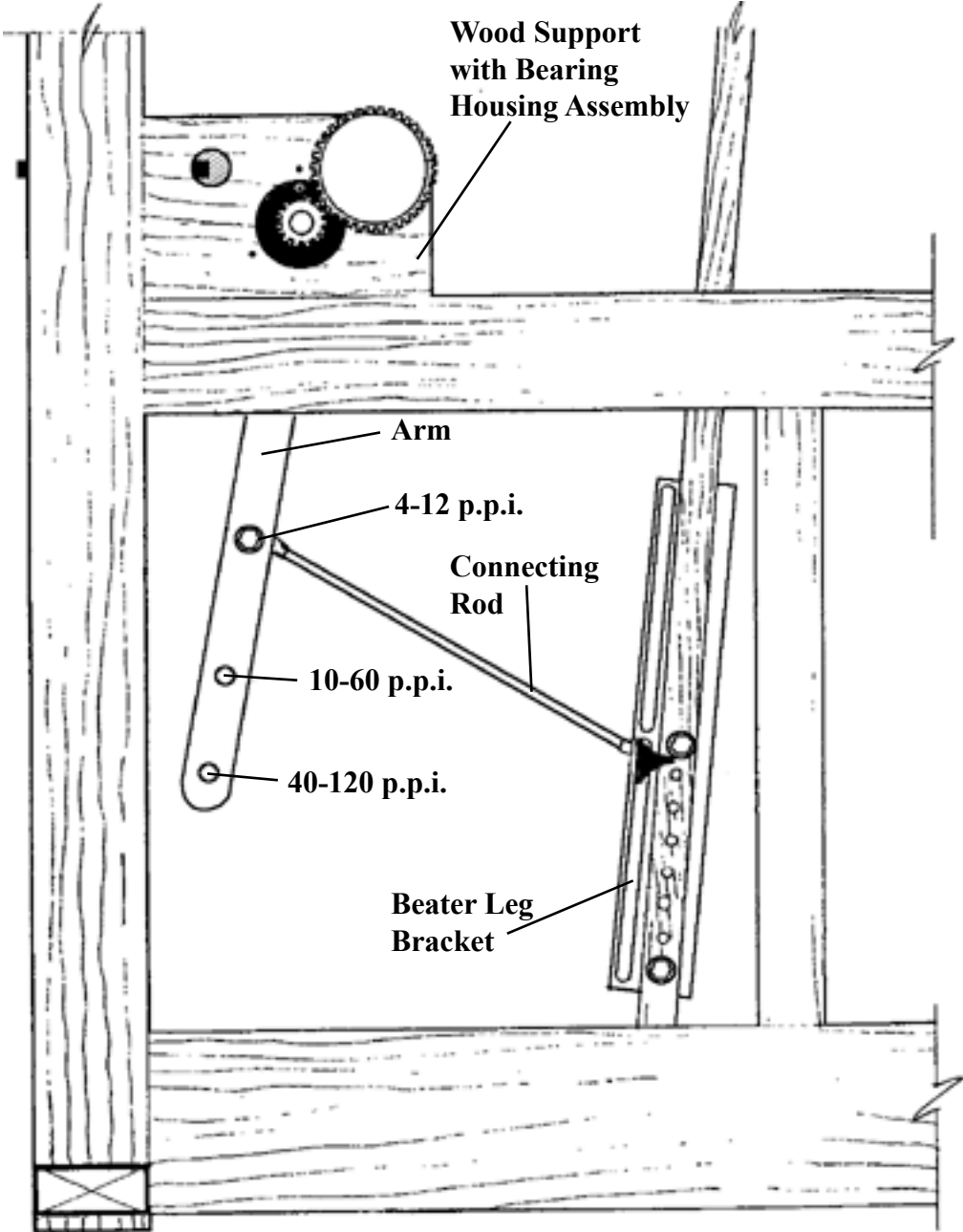


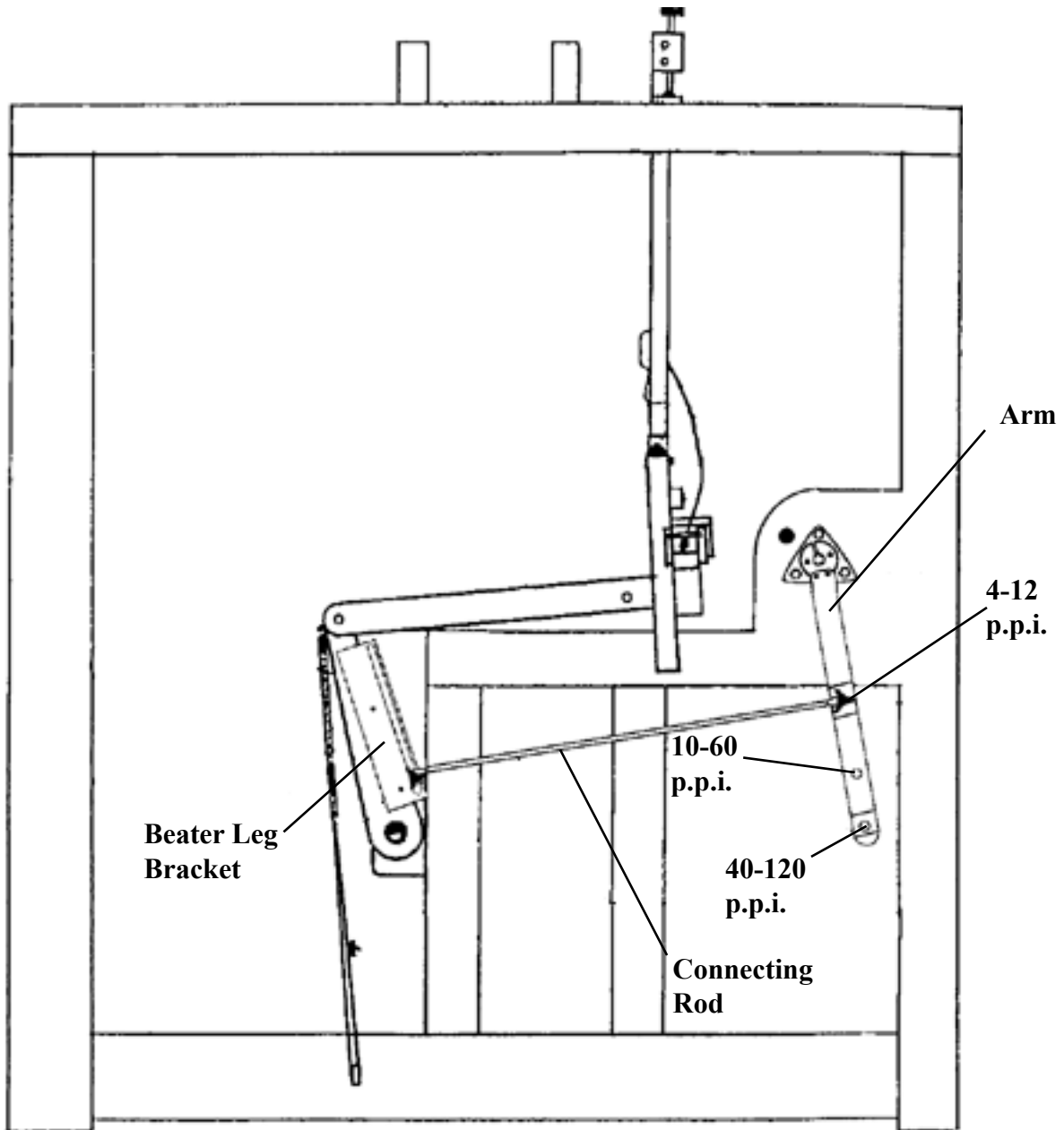
Figure #1



**Automatic Cloth Advance System
(as seen from the outside)
Figure #2**



**Automatic Cloth Advance System
(as seen from the inside)
Figure #3**



**Automatic Cloth Advance System
for Overhead Beaters
(as seen from the outside)
Figure #4**

IV. How to Use the Automatic Cloth Advance

The AVL Automatic Cloth Advance System is an efficient means by which you can automatically advance your warp as you are weaving. It allows you to maintain an absolutely consistent beat throughout your warp even after changing weft material.

NOTE: Due to the fact that the picks per inch vary according to the diameter of the front cloth beam, the Cloth Storage System is highly recommended in conjunction with the Automatic Cloth Advance System.

For this reason also, a long apron should be used so that you can start your warp directly on the rear cloth storage roller.

With your loom warped and tensioned and the Automatic Advance adjusted, pull your beater forward so that it lightly contacts the front bumpers. Now bring it back so that it contacts the rear bumpers (this full swing of the beater is crucial to the proper functioning of the Automatic Advance).



Overhead Beater with Automatic Advance

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Adjusting Picks

The top hole on the Arm is for approximately four to twelve picks per inch (p.p.i.) and relates to the top portion of the Beater Leg Bracket. The middle hole on the Arm is for 10 to 60 p.p.i. (approximately) and relates to the mid section of the Beater Leg Bracket. The bottom hole on the Arm is for 40 to 120 (approximately) p.p.i. and relates to the bottom portion of the Bracket.

For four to twelve (approximately) p.p.i., tighten the connecting rod end into the top hole of the Arm. Loosen the knob that secures the Connecting Rod to the Bracket. Slide the knob and Connecting Rod between the four and twelve range until it is at the p.p.i. that you want.

For 10 - 60 (approximately) p.p.i., tighten the Connecting Rod end into the middle hole of the arm. Loosen the knob that secures the Connecting Rod to the Bracket. Slide the knob and Connecting Rod between the 10 and 60 range until it is at the p.p.i. that you want.

For 40 - 120 (approximately) p.p.i., tighten the Connecting Rod end into the bottom hole of the arm. Loosen the knob that secures the Connecting Rod to the Bracket. Slide the knob and Connecting Rod between the 40 and 120 range until it is at the p.p.i. that you want.

NOTE: When you find your favorite p.p.i. position, mark it on the Bracket with a colored marker.

If you want to back up your cloth for any reason, here's what you'll need to do. Snap off the plastic spacer that is on the outside of the gear housing. Push the gear rod in toward the inside of the loom. This will disengage the gears. If you want to keep the Automatic Advance disengaged, you can snap the plastic spacer onto the rod next to the small gear.