

IV Shed Regulator

on counter-balanced Loom

Your counter-balanced loom will always give you a perfect opening when it is tied-up so that two harnesses are working against two. However on weaves such as double-weave, 3/1 twill, or any weave or tie-up where you have three harnesses working against one, either up or down, you may have difficulty getting a good shed.

As one harness goes up, the other three go down, averaging one third the distance of the first harness. The harness which goes up will be right at the top of the reed, and the other three will remain almost at the center of the reed, but not at equal heights.

If you have three harnesses going up against one going down, the one which goes down will go right to the bottom of the reed, but the other ones will remain in the center of the reed at unequal heights.

You can partially correct this by using a wide reed 5" outside, such as the stainless steel reed, and by keeping your harnesses about half an inch over center. This will give a reasonable but not perfect shed.

The best solution is to use a shed regulator. Once attached, it is permanent.

With the addition of the shed regulator, your counter-balanced loom has the same ability as the Jack-loom of making a perfect shed whatever the tie-up.

It has the advantage of protecting a non-elastic warp by equalizing the distance of the upper and lower warps.

It has the additional advantages, inherent in a counter-balanced loom, of much easier and smoother treadling, and almost noiseless operation.

It requires a little patience to understand and get used to this system, and to get the maximum advantage from it.

Nilus Leclerc inc., L'Islet, Qué., Can.

Installation of Shed Regulator :

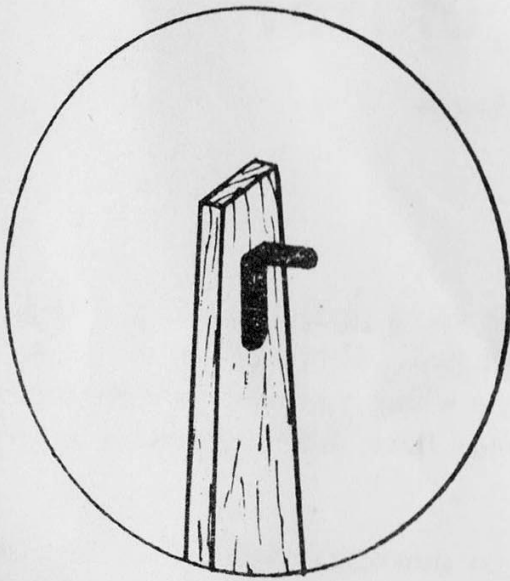


Fig. 20

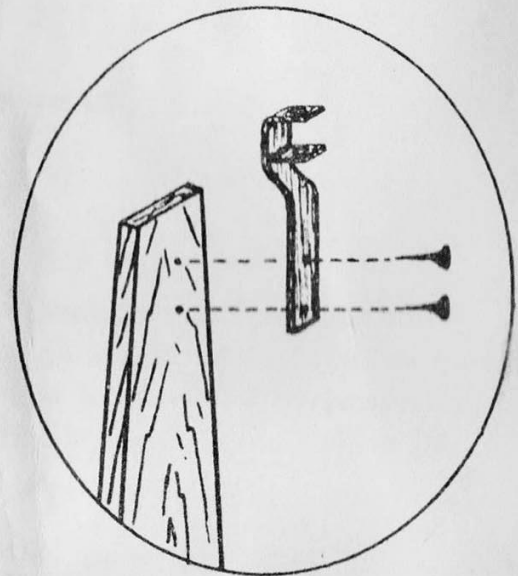


Fig. 21

Remove the harnesses and rollers from the loom. Take off the angle supports which normally hold the top roller. Put the metal extensions (No. 497) in their place, making sure the extensions point towards the rear of the loom. (Figs. 20 & 21)

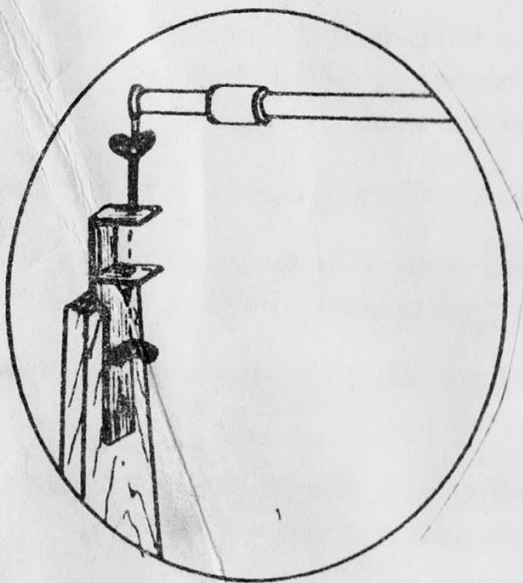


Fig-22

Place the original top roller of the loom in the new supports. (Fig. 22)

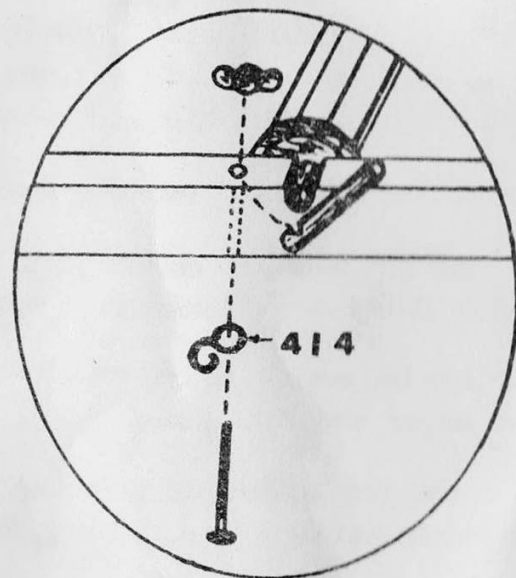
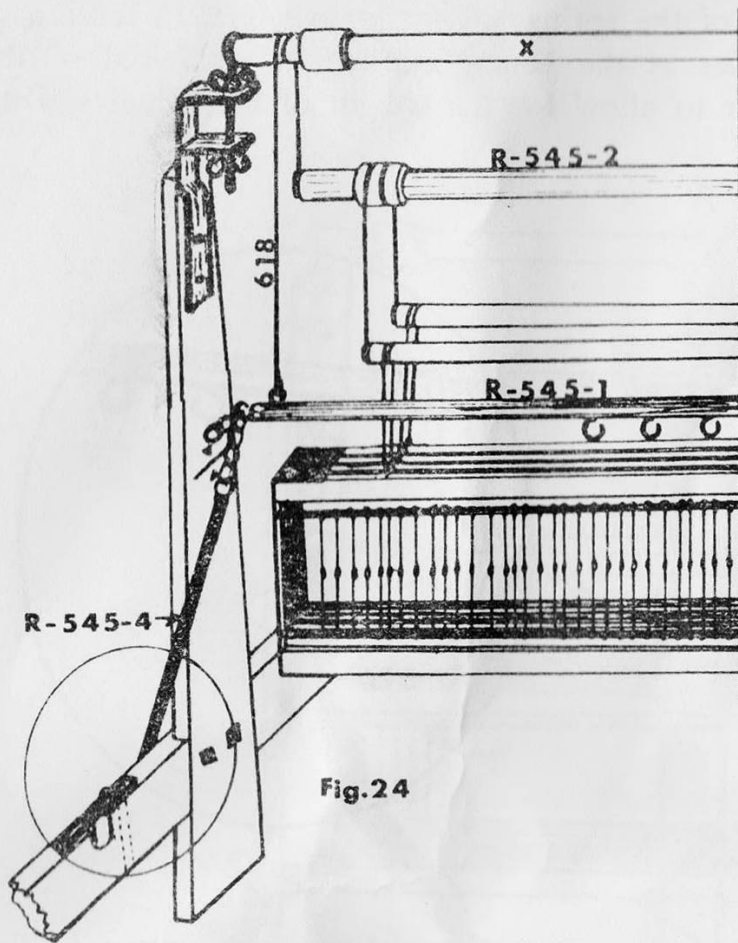


Fig. 23

Take off the bolts which hold the latch of the warp beam. Take the longer bolts supplied with the shed regulator and put the hooks (No. 414) over these bolts. Insert the bolts in the bolt holes, from the bottom. The hooks should now be between the bolt heads and the cross beam. Put on and tighten the wing nuts. (Fig. 23)



Wrap the cords (No. 618) 1 ½ times around the top roller, outside the bushings. One end of each of these cords should be fixed to the hooks near the ends of the horizontal cross bar (No. 545-1), and the other ends to the ends of the new large roller (R-545-2). (Fig. 24)

Fig. 24

Fix the springs (No. R-545-4) to the hooks (No. 414) below the warping beam. (Fig. 25)

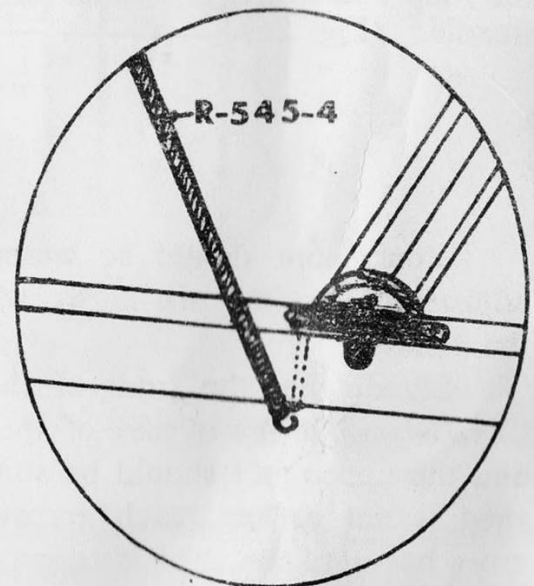


Fig. 25

Fix the chain on the ends of the springs to the ends of the horizontal cross bar. (Fig. 24)

Replace the small rollers and harnesses as indicated in Fig. 24.

Adjust the chain at the end of the springs to maintain sufficient tension to hold the complete set of harnesses at the height marked at each end of the loom, or even half an inch higher to allow for the weight of the treadles when you make your tie-up.

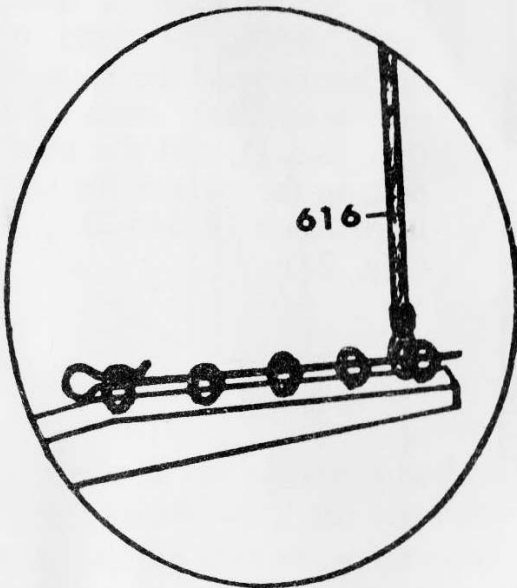


Fig. 26

Take the six Cords (No. 616) placing the loop end in the last space of each treadle. (Fig. 26)

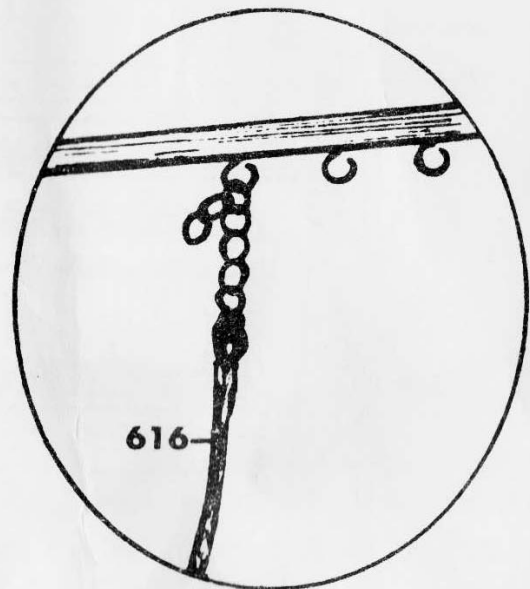


Fig. 27

Pass them through the warp in line with the hooks on the horizontal cross bar. Fix the chains on the ends of these cords to the hooks on the horizontal cross bar. (Fig. 27)

Your loom should be warped, and the tie-up made before you make the adjustments to the six cords which extend from the horizontal cross bar to the treadles.

Standing at the front of the loom, press down on the first treadle. The threads on the lower part of the opening should be at the bottom of the reed, and the upper part should be sufficiently high to throw the shuttle easily. If the shed is not perfect reach across the rollers and press down on the horizontal cross bar until the shed is correct, and adjust the cord attached to that treadle to hold the bar in that position. The chains are made with closed links which permit a very fine adjustment. This adjustment can also be made while standing at the back of the loom.

Adjust each treadle in the same way. When properly adjusted, the cord which is connected to a treadle attached to only one harness will be shorter than one connected to a treadle with three harnesses. The treadle controlling two harnesses will have a cord about halfway between the others. This is normal for a good shed.

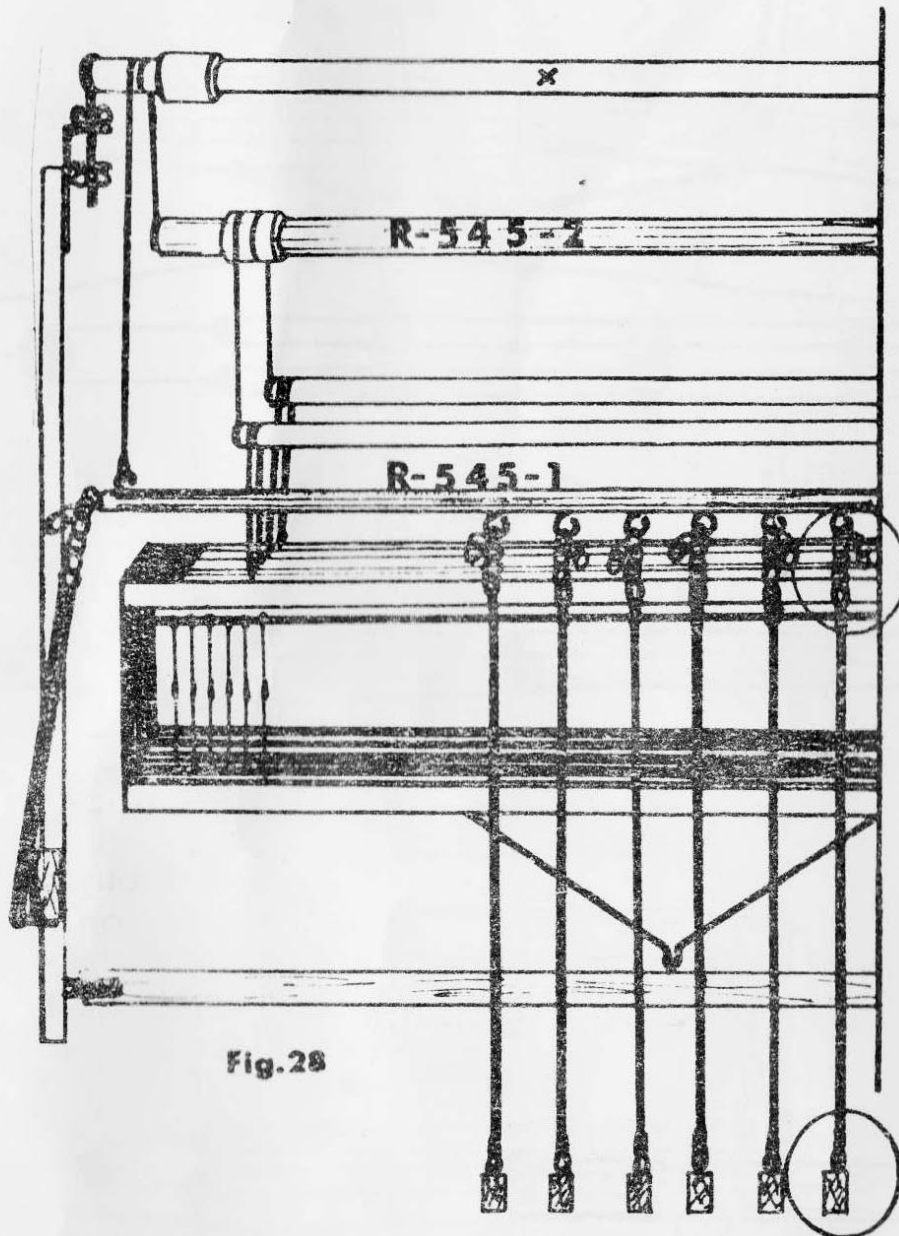


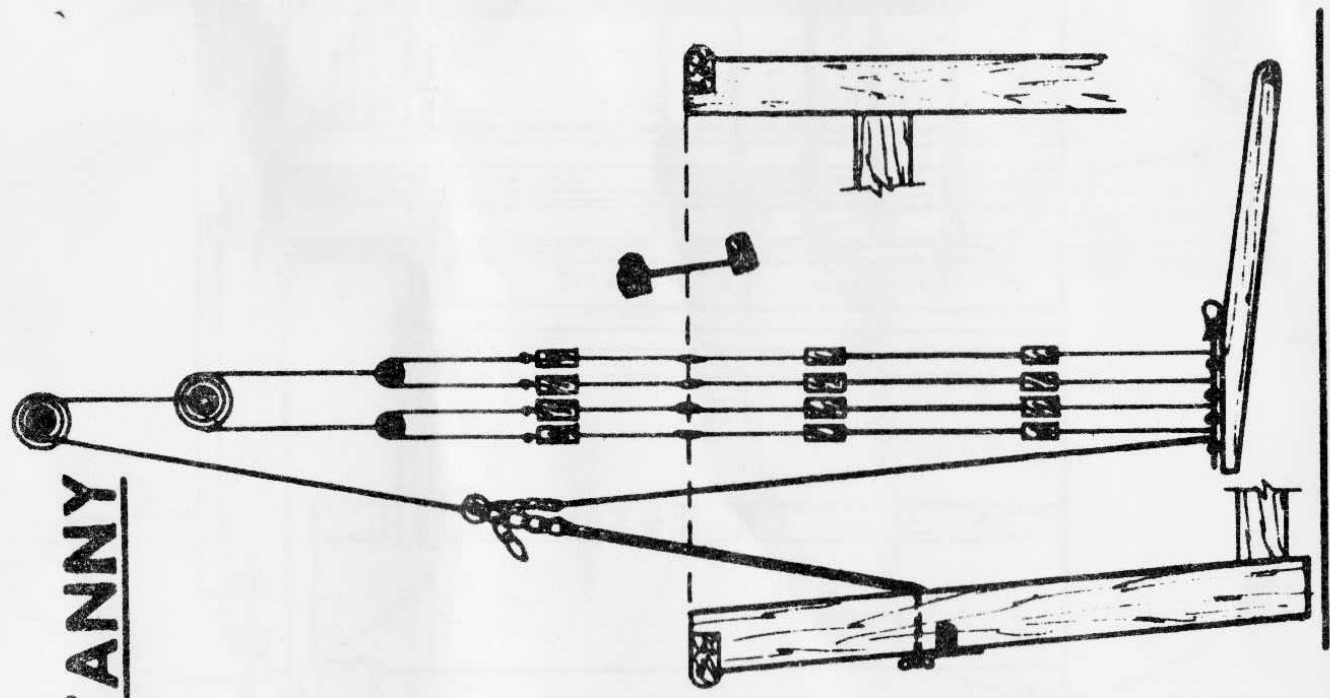
Fig. 28

This attachment is permanent. It can be used for any weave or treading by re-adjusting the cords at top.

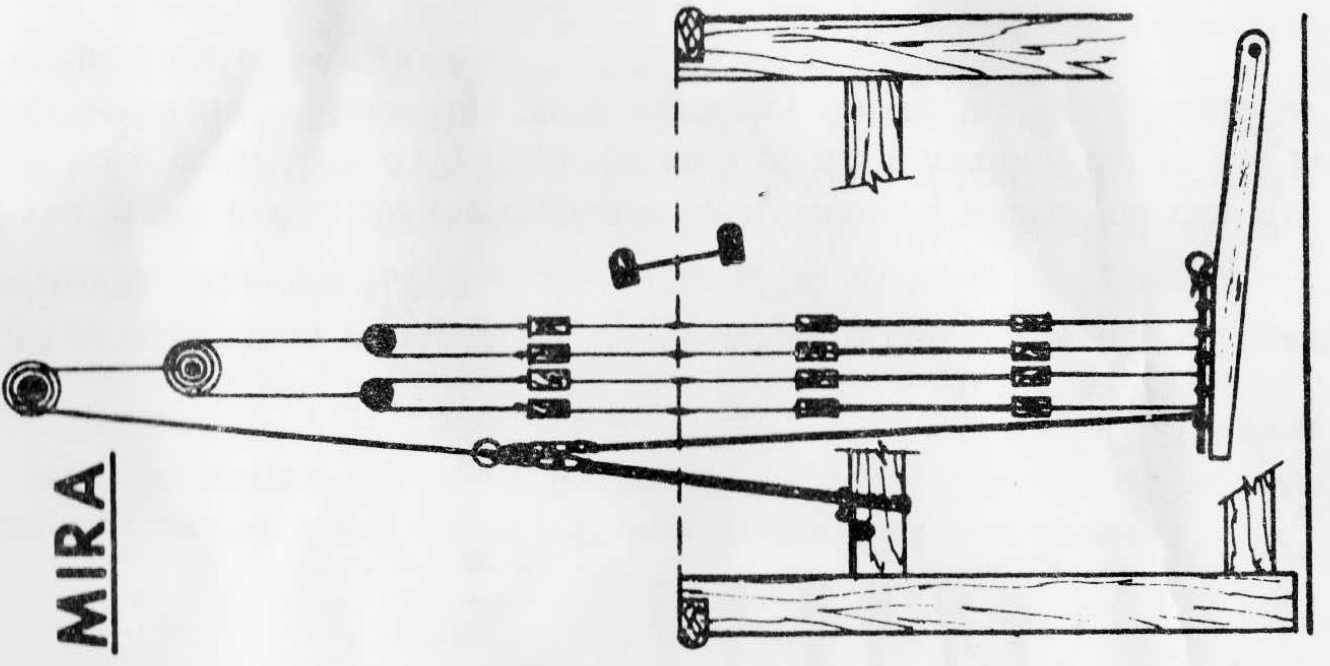
If you prefer not to use the regulator on a balanced weave you can stop it's action by tying cords (No. 617) from the ends of the horizontal bar to the hooks on the cross beams. Make sure your harnesses are at the same height as the marks at the ends of your loom.

The shed regulator is used only on counter-balanced looms such as Mira and Fanny.

FANNY



MIRA



Normal height of roller.

3 harnesses lowered, 1 harness raised, the complete harness system raised.
 3 harnesses lowered, 1 harness raised, the complete harness system lowered.

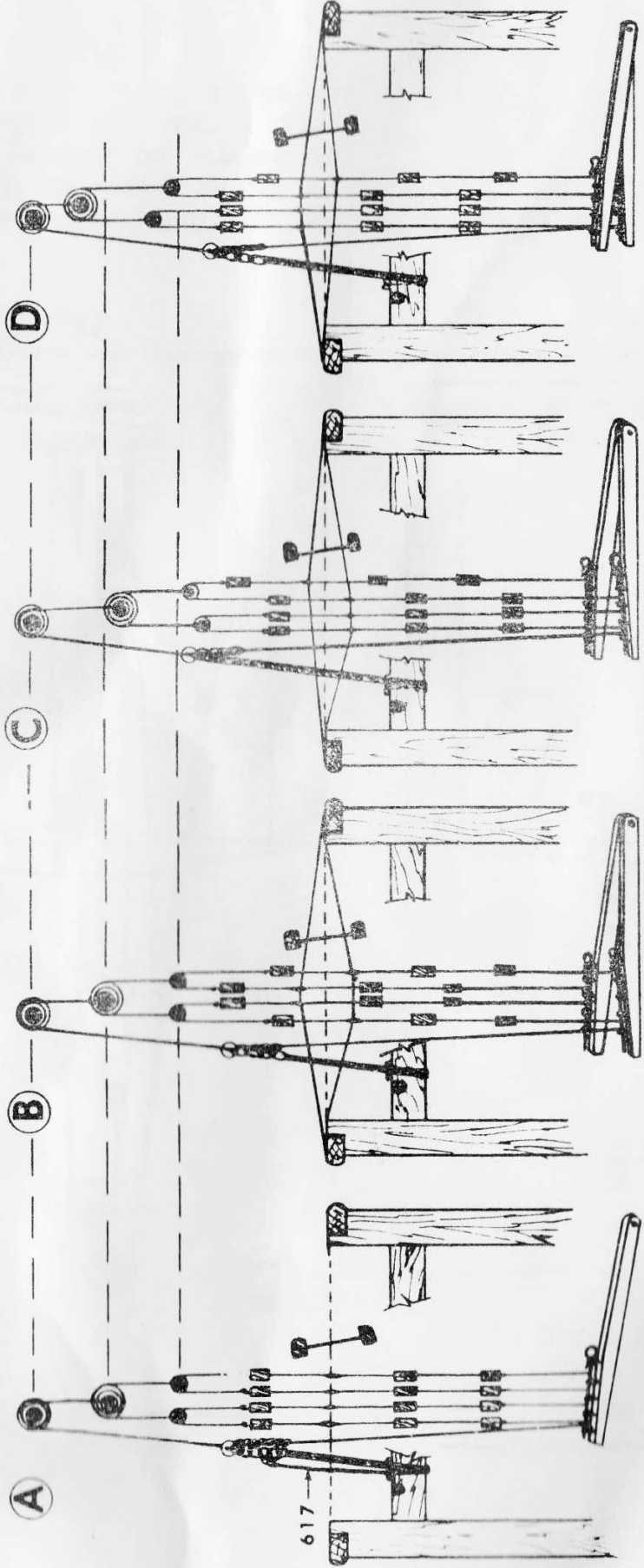


Fig.29

When shed regulator is not used, stop action of spring and keep harnesses at normal height with a cord to fix it.

Fig.30

Help the harnesses to stay at normal height with the help of a cord properly settled when treadle is pressed down.

Fig.31

Spring leaves harnesses lowered.

Fig.32

Cord should be connected to cross bar, to pull it down at the same time as the harnesses.