

# SHED REGULATORS

## FOR COUNTER-BALANCED LOOMS

We wrote already twice on this subject (MW 1/12, 10/9), but we have still demands for more information, and there is one application of shed regulators which we did not discuss so far.

A four-shaft counterbalanced loom when equipped with a shed-regulator is the most versatile, most efficient, and most universal weaving loom ever devised. By simply stopping (not removing or dismantling) the shed regulator we have the traditional counterbalanced loom, the fastest loom on earth for balanced tie-ups. When using the shed regulator in the usual way, we have a loom which can handle all possible tie-ups, as long as only six treadles are needed. It is then very much like a double-tie-up loom. The action is not as fast as with balanced tie-up, but faster than with a jack type.

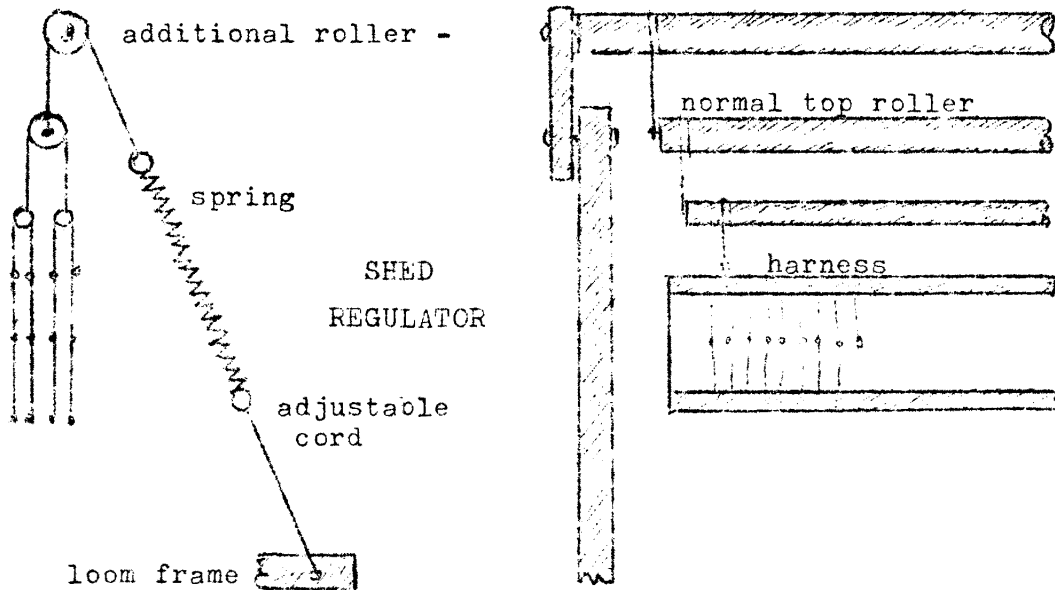
Finally when more than 6 treadles are needed, and we have to use a skeleton tie-up, that is to press more than one treadle at a time, neither of the former arrangements is satisfactory. When we press two treadles on a counterbalanced loom with or without a shed-regulator, the sheds won't open in the proper position.

But with a shed-regulator a counterbalanced loom may be turned in a matter of half a minute into a reversed jack-type: much better than the standard jack-type. Whereas in a standard jack-type all shafts are sunk, and must be raised to open a shed by the sheer force of the foot which presses the treadle, in the reversed jack-type all shafts are raised by spring action, and it requires a very slight effort to bring them down. What is more, the pressure is easily adjustable to meet all requirements such as sticky warps, when in jack-type looms it cannot be adjusted short of tying weights to shafts.

The principle of this third arrangement is actually simpler than the principle of the normal action of the shed-regulator.

The harness (all shafts and rollers) is suspended from an additional rollers at the top of the loom. The cords which support the harness are wound around the additional roller and tied to a

wooden bar, dowel, or lath. At each end of this lath a screen door spring is attached, and its other end is tied to the lower part of the loom frame. There are no additional ties to the treadles. The only adjustable parts are the two cords which tie the springs to the loom frame. The shorter they are the stronger is the raising action of the two springs.



When we do not need the shed-regulator, we use by-pass cords instead of springs. The by-pass cords are of such a length as to keep the shafts in their normal neutral position, that is half way up the reed. The by-pass cords may be also adjustable for very precise control of the shed.

When we do use the shed-regulator, we adjust the springs so as to raise all shafts to the upper position, when the warp just clears the upper part of the reed. Then we can use all treadles independently or in groups of two or three.

A shed-regulator can be made at home with very simple tools for about \$ 2, or it can be bought. As far as we know the only manufacturers of shed-regulators are: Nilus Leclerc Inc., L'Isletville, P.Q., Canada. They fit only Leclerc's looms, but can be modified.

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