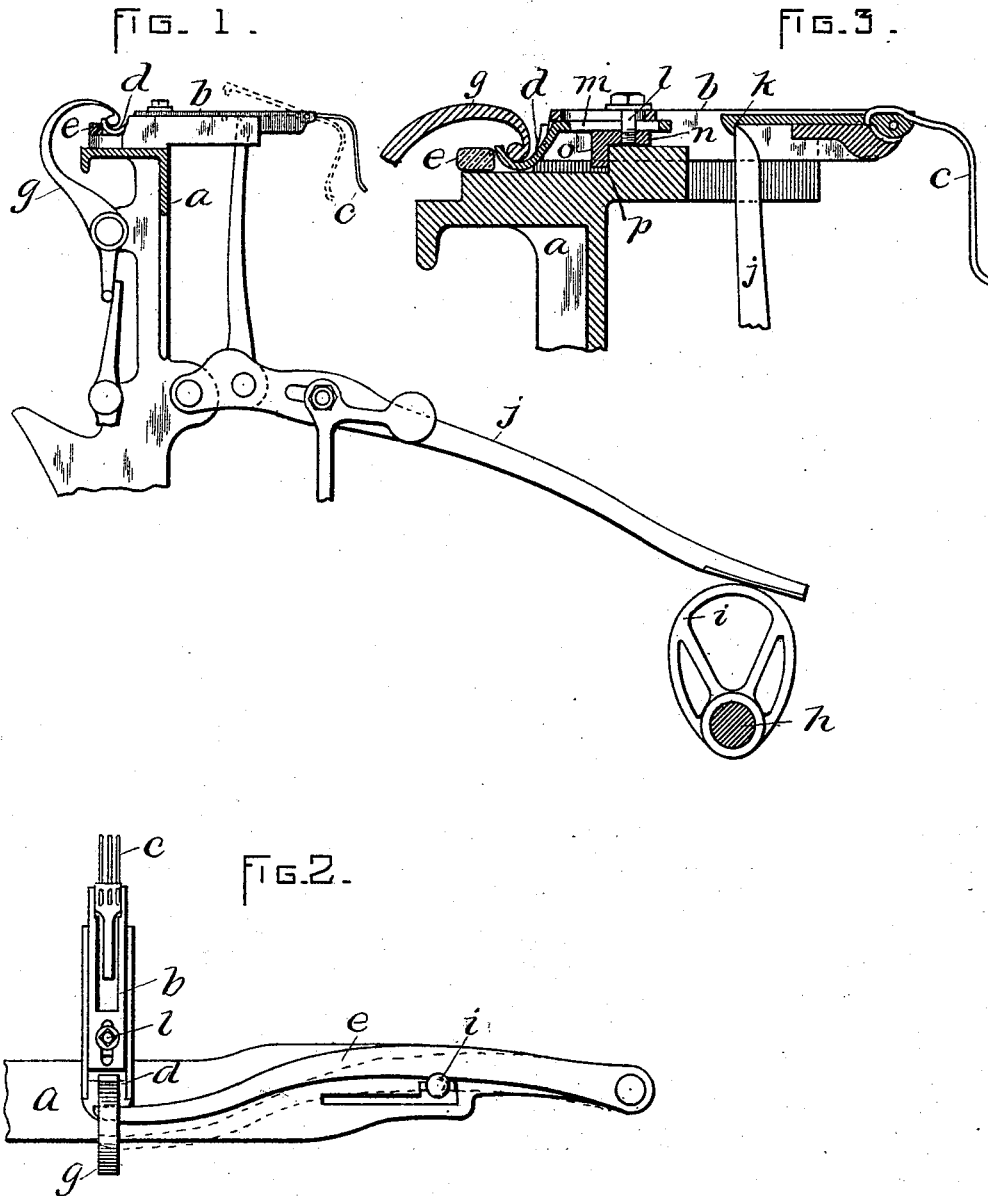


(No Model.)

T. THACKER.  
WEFT STOP MOTION FOR LOOMS.

No. 492,998.

Patented Mar. 7, 1893.



WITNESSES:

M. W. Jackson

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# UNITED STATES PATENT OFFICE.

THOMAS THACKER, OF FALL RIVER, MASSACHUSETTS.

## WEFT STOP-MOTION FOR LOOMS.<sup>3</sup>

SPECIFICATION forming part of Letters Patent No. 492,998, dated March 7, 1893.

Application filed August 8, 1892. Serial No. 442,413. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS THACKER, of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Weft Stop-Motions for Looms, of which the following is a specification.

This invention has relation to weft stop motions for looms for weaving; and it has for its object the provision of means whereby the weft-fork may be adjusted with respect to the course of the weft thread to meet requirement arising from changes in size or number of such weft-thread, and the tail piece of the slide bar may be adjusted independent of the weft fork to suit it to the position of the weft-fork lever which sets upon the shipping mechanism to "knock off" the loom.

To this end my invention consists in providing the slide-bar upon which the weft fork is pivoted with peculiar features and with adjustable means for acting upon the devices for effecting a "knocking off" of the loom, all as I will now proceed to describe and claim.

Reference is to be had to the annexed drawings and the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings—Figure 1 is a side view of so much of a loom as is necessary to show, in order to explain my improvement. Fig. 2 is a top plan view of the chief parts shown in Fig. 1, with my improvement applied thereto. Fig. 3 is a sectional side view of the invention with immediately associated parts.

In the drawings—*a* designates the loom frame.

*b* is the slide-bar upon which the weft-fork *c* is pivoted in the usual way. The slide bar *b* is provided with a tail-piece *d* which is adapted when the slide-bar is moved back to move the weft-fork lever *e* which acts upon the shipper rod *f* to effect a "knocking off" of the loom. Said tail piece may also act upon a lever *g*, which, through the medium of other devices may throw out of action the means for actuating the cloth roll.

*h* is the bottom shaft upon which there is a cam or tappet *i* which acts upon one end of an angular lever *j*, the other end of said lever being constructed and arranged to en-

gage the hooked-end *k* of the weft fork when said hooked end is not raised, and move the slide-bar *b* back. It will be understood that so long as the weft thread is not broken and lies in the shuttle-race it comes in contact with the fork *c* in the usual way at each alternate beat of the lay and turns it on its pivot, raising its hooked end *k* out of the way of the upper end of the lever *j*; but when the thread is broken or absent, the fork is not turned, and consequently its hooked end remains in the path of movement of the upper end of the lever *j* which engages it and moves the slide bar *b* back with the effect of stopping the loom, as before explained.

In the operation of weaving it is necessary to adjust the weft fork nearer to the weft laid in by the shuttle when a high number of fine weft is used, than when a low number or coarse thread is employed, in order to have the thread act with sufficient stress to raise the hooked end of the fork. Heretofore this adjustment has been most commonly effected by bending the tines of the weft fork. This was not only difficult of accomplishment, but frequently threw the tines out of proper alignment and resulted in breakages. Moreover, when the tines were bent far forward the fork would some times skip the weft by passing thereover, with the effect of stopping the loom while the weft remained intact. I accomplished the necessary adjustment of the weft-fork by adjustment of the slide bar *b*, in a manner to render the same to all intents and purposes extensible, so that the weft-fork may be adjusted toward and from the line of the weft without affecting the position of the tail piece. I also make the tail piece *d* adjustable toward and from the weft-fork lever *e* without affecting the position of the weft-fork with relation to the line of the weft. These adjustments are effected by means of a bolt *l* which passes through a slot in the slide-bar and also a slot in the shank of the tail piece, the said bolt being tapped into a nut *n* below the shank of the tail piece. In the present instance the nut *n* is constructed with an angular part *o* which abuts against an offset *p* of the frame and limits the forward movement of the slide bar, as shown in Fig. 3. In this way the slide bar is, as it were, made extensible, so that the weft fork and tail piece

can be adjusted the one independent of the other if need be to meet the requirements noted.

5 Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

10 The frame or support, a slide-bar extensibly adjustable on the said support and provided

with an adjustable angular part or stop to limit its forward movement, and a weft-fork pivoted upon the slide-bar, as set forth.

In testimony whereof I have signed my 15 name to this specification, in the presence of two subscribing witnesses, this 22d day of July, A. D. 1892.

THOMAS THACKER.

Witnesses:

ARTHUR W. CROSSLEY,  
ARBA N. LINCOLN.