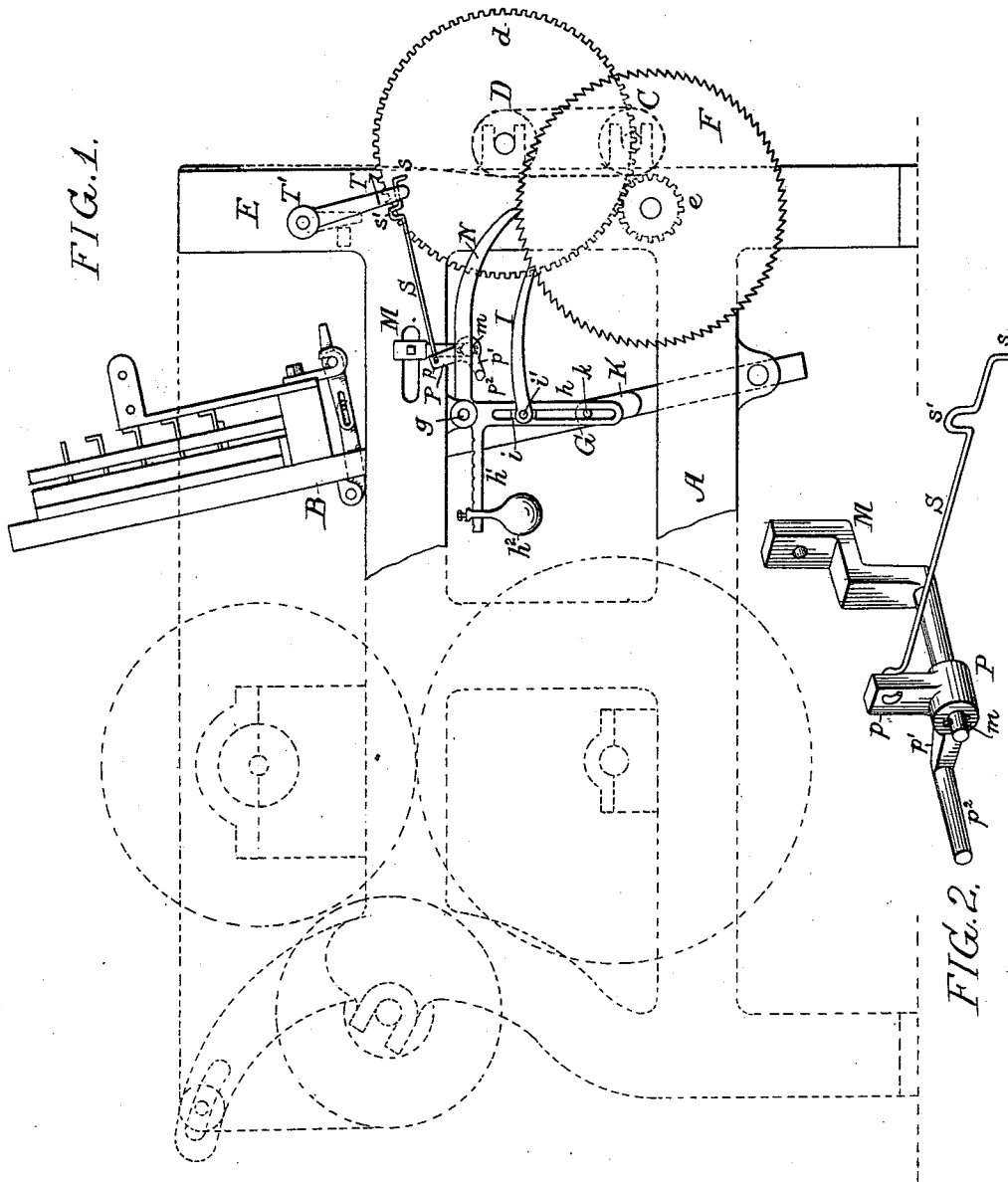


(No Model.)

G. W. WALKER.
TAKE-UP ARRESTER FOR LOOMS.

No. 470,961.

Patented Mar. 15, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE W. WALKER, OF PHILADELPHIA, PENNSYLVANIA.

TAKE-UP ARRESTER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 470,961, dated March 15, 1892.

Application filed February 26, 1891. Serial No. 383,004. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WALKER, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Take-Up Arresters for Looms, of which the following is a specification.

My invention relates to the take-up mechanism for looms, the object of my invention being to immediately stop the feed of the take-up device the moment the knock-off mechanism acts. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of sufficient of a loom to illustrate my invention. Fig. 2 is a detached perspective view of one of the parts.

In the ordinary looms for weaving, when the filling runs out or breaks the stop-motion acts on the knock-off rod to stop the loom, but the lathe usually beats up three or four times, or even more. Consequently the take-up acts to draw the woven cloth forward after the filling runs out, and when the attendant starts the loom again the weaver often has to beat up the lathe until the proper pick is found before the loom should be started again. The attendant has to turn back the take-up mechanism in order to prevent the show of loose portions in the woven fabric, and it often happens that the attendant is not careful in turning the take-up mechanism back to the proper notch. Consequently an uneven portion shows in the weave; and it is to overcome these objections that my invention has been devised.

A is the frame of the loom; B, the lay, pivoted in the usual manner to the loom-frame; C, the cloth-roll.

D is the take-up roll over, which the cloth passes from the beam E to the cloth-roll. On this take-up roll D is a gear-wheel *d*, meshing with a pinion *e*, carried by or attached to the ratchet-wheel F on a stud on the frame.

Pivoted to a stud *g* on a bracket carried by the frame is a bell-crank lever G, having arms *h* *h'*. The arm *h* is slotted, and adapted to this slot is a block *i*, adjustably secured to the arm and carrying a pivot-pin *i'*, on which is hung the feeding-pawl I, which engages with the ratchet-teeth on the wheel F. Adapted to the lower portion of the slotted arm *h* of the

lever G is a pin *k*, carried by a plate K, adjustably secured to the lay. The lever *h'* is notched, and carried by the lever is a weight *h*², which can be adjusted to different positions on the notched arm *h'*.

On the pivot-pin *g* is a detaining-pawl N, engaging with the teeth of the wheel F to prevent the cloth returning with the pawl I when it is once fed forward. The spring of the cloth, if it were not for this pawl, would carry the ratchet-wheel back with the feed-pawl, and consequently there would not be the feed required for the taking up of the woven fabric. My invention especially relates to mechanism for throwing this pawl out of engagement with the ratchet-teeth of the wheel when the loom is stopped by the knock-off device, so that, although the feed-pawl will feed the cloth forward, the ratchet-wheel will return with the pawl to its normal position, owing to the fact that the detaining-pawl is not in gear with the ratchet-wheel. Thus the feed only takes place when the filling is in, and thus an even feed is assured, and consequently an even fabric.

On the frame is secured a bracket M, having a pin *m*, on which is pivoted a bell-crank lever R, having two arms *p* *p'*. The arm *p'* has a finger *p*², which passes under the detaining-pawl N. To the arm *p* is attached a rod S, the opposite end of which passes through an orifice on the arm T on the knock-off lever T', which is actuated by the ordinary knock-off mechanism of the loom. The rod S has its end *s* turned down, and is bent at *s'* in order to lock the arm T to the rod. Other devices which will readily suggest themselves to those skilled in the art may be used. Thus it will be seen that as soon as the knock-off rod T' is moved the lever T will be moved in the direction of the arrow and the finger *p*² on the lever R will raise the detaining-pawl clear of the ratchet-teeth of the wheel F, thus preventing any further feed of the cloth. As soon as the filling is readjusted the loom is started again, the knock-off rod assumes its normal position, the detaining-pawl is released and engages with the ratchet-teeth of the wheel F, and the forward feed of the fabric is resumed.

I claim as my invention—

The combination, in a loom, of the take-up

roll, a ratchet-wheel carried thereby, a lay, a lever G, pivoted to the frame of the machine, a feed-pawl I, carried thereby and engaging with the ratchet-wheel, said lever being connected to and actuated by the lay, a pivoted
5 retaining-pawl also engaging with the ratchet-wheel, a pawl-carrying lever P, hung to the frame of the machine, one arm of said lever having a finger p^2 extending under the said
10 pawl, a rod S, adapted to the other arm of the said lever, a knock-off rod, and an arm T on the knock-off rod connected to said rod S, whereby

when the knock-off rod is moved the lever P will raise the retaining-pawl out of engagement with the ratchet-wheel, thereby stopping the feed of the take-up roll, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. WALKER.

Witnesses:

HENRY HOWSON,
H. F. REARDON.