

W. TAYLOR.

Weft-Stop Mechanisms for Looms.

No. 155,599.

Patented Oct. 6, 1874.

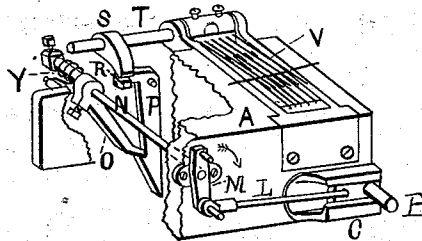


Fig. 1

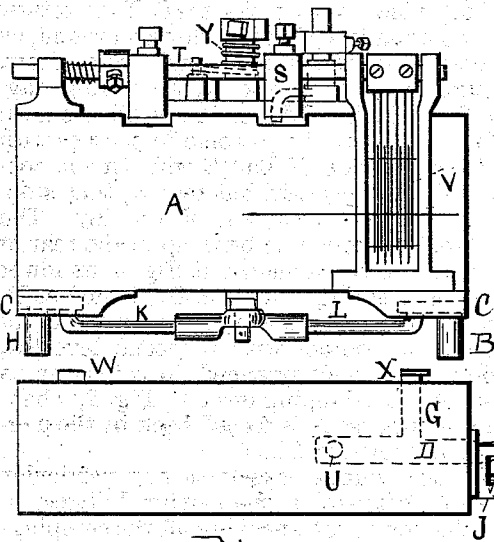


Fig. 2

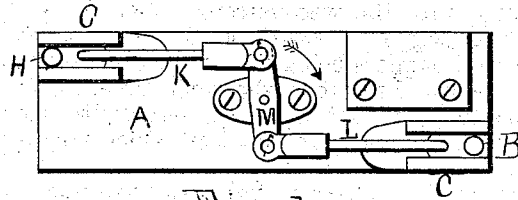


Fig. 3

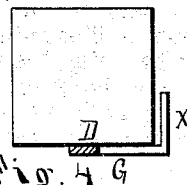


Fig. 4

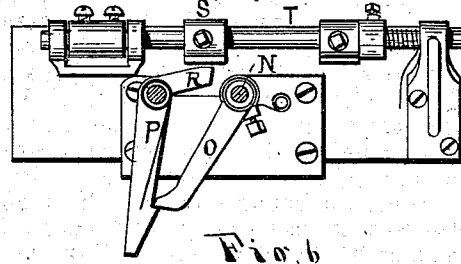


Fig. 5

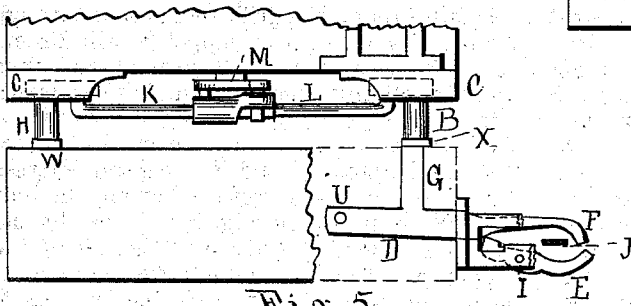


Fig. 6

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM TAYLOR, OF BOSTON, MASS., ASSIGNOR TO THE AMERICAN STOP-MOTION COMPANY, OF SAME PLACE.

IMPROVEMENT IN WEFT-STOP MECHANISMS FOR LOOMS.

Specification forming part of Letters Patent No. **155,599**, dated October 6, 1874; application filed August 24, 1874.

To all whom it may concern:

Be it known that I, WILLIAM TAYLOR, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Weft-Stop Mechanism for Looms, of which the following is a specification:

The nature of my invention consists in combining, with the weft-detector let-off device, sliding daggers, located on the face of the lay, said daggers being so arranged and made to operate that when the weft-thread is in place they will not come in contact with the shipping and stopping devices, which are attached to the breast-beam.

Figure 1 is a perspective view, showing a part of my invention. Fig. 2 is a plan of my invention. Fig. 3 is a front elevation of the lay. Fig. 4 shows an end view of the breast-beam and a part of the knock-off device. Fig. 5 is a plan to illustrate the action of the stopping device. Fig. 6 is a rear elevation of the lay, showing the let-off device.

The detector, grill, and fork V are made in the usual manner, and need not be herein described.

The let-off device is similar to the one described in the specification of the patent issued to me June 9, 1874, No. 151,729, and consists, briefly, of the cross-lever M, Figs. 1, 3, and 5, which is attached to a shaft, N, Fig. 1, which passes through the lay, and has an arm, O, attached to it. This arm O is held by a latch, P, which is provided with an arm, R, so arranged, in connection with the finger or lappet S, that when the finger or lappet S is lowered by the fall of the detector V through the grill, (in case of the absence of the weft-thread,) the arm R will be thrown down and the latch P disconnected with the arm O. This action will allow the spring Y to throw the shaft N and lever M around in the direction of the arrow, Figs. 1 and 3, and thus, acting through the rods L and K, draw the sliding daggers B and H, Figs. 2, 3, and 5, inwardly—that is, toward the center of the lay. The sliding daggers H and B, Figs. 2 and 5, are made firm and slide in the housings C, and are so placed that when held by the arm

O, Fig. 1, of the let-off device, they will pass by, at each stroke of the lay, the knock-off buttress X and the fixed buttress W, Fig. 2; but when a weft-thread is absent, then the let-off device frees the arm O, as has been described, which allows the shaft N to rotate, and the cross-lever M to be thrown around, as indicated by the arrow, and thus draw, through the rods K and L, the sliding daggers B and H inwardly to the position shown in Fig. 5, so that H will come in contact with the fixed buttress W, and B will come in contact with the knock-off buttress X, thus stopping the forward motion of the lay. The knock-off buttress X is bent up in the rear of the breast-beam, as shown at Fig. 4, its lower end G terminating in a lever, D, pivoted at U, Figs. 2 and 5. This lever D, at its outer end F, comes in contact with a second lever, E, pivoted at I, and arranged to act so as to throw off the shipping-lever J, Fig. 2, whenever the buttress X is forced back by the dagger B, as shown in Fig. 5.

I do not confine myself to any particular device for connecting the moving buttress X with the device for knocking off the shipping-lever.

The action of my invention is as follows: In starting the loom, the sliding daggers B and H are set as shown in Fig. 2, so that the lay may beat up in the usual manner. Now, if the weft-thread is absent, the detector V will fall through the grill, and, acting through the rod T and finger or lappet S, will disconnect the latch P from the arm O, and thus cause the sliding daggers B and H to be drawn into the position shown in Fig. 5—that is, to cause them (the daggers) to come in contact with the buttress W and X. As the buttress X is removable, and projects beyond the buttress W, as shown in Fig. 2, it is hit by the dagger B before the buttress W is hit by the dagger H. The first action (after contact) of the dagger B is to push back the buttress X and throw off the shipping-lever J. The continued motion brings the bent part of the buttress X (see Fig. 4) up against the breast-beam, at which point it will resist further motion of the dagger B, and consequently of the lay. At

the same time that the dagger B is stopped, as above described, the dagger H at the other end of the lay comes in contact with the fixed buttress W, and is stopped. Thus both ends of the lay are stopped abruptly immediately after the belt-shipping device has been acted upon.

I claim as my invention—

1. The combination of the sliding daggers B and H with the lay of a loom and the buttresses W and X, substantially as described, and for the purpose set forth.

2. The combination of the weft-stop let-off device, the finger S, the arm R, the latch P, the arm O, and shaft N with the cross-lever M and rods L and K, operating to move the sliding daggers H and B, substantially as described, and for the purpose set forth.

WILLIAM TAYLOR.

Witnesses:

FRANK G. PARKER,
WILLIAM EDSON.