No. 607,087. Patented July 12, 1898.

M. SAILE.

SUPPORTING MECHANISM FOR LOOM SHUTTLES.

(Application filed Oct. 12, 1897.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1.

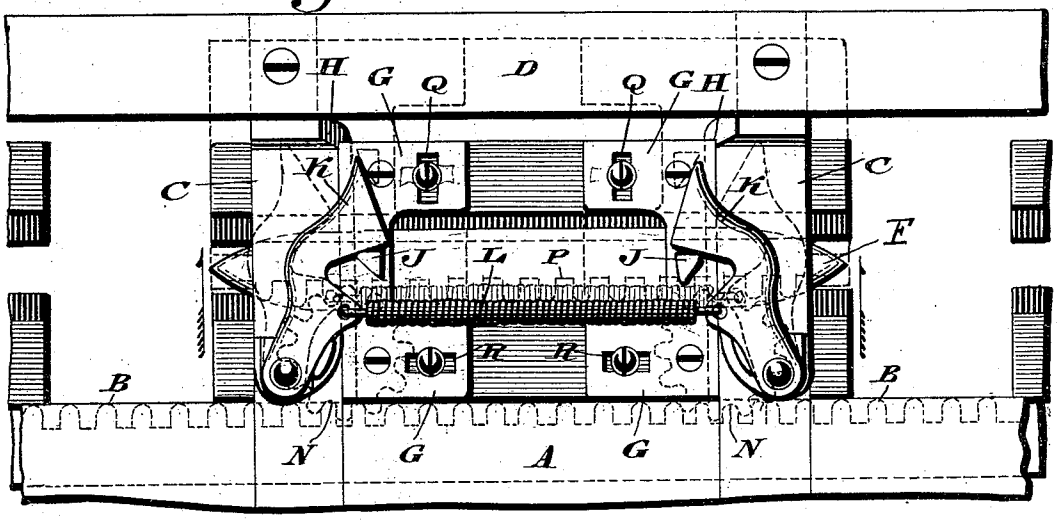


Fig. 2.

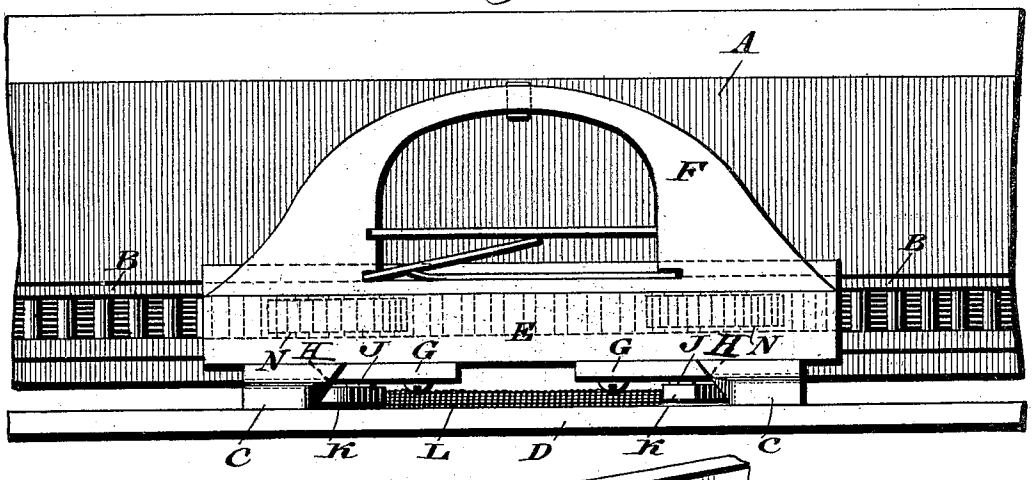
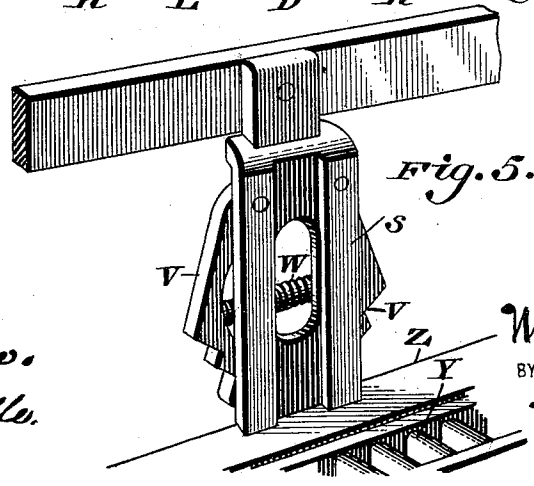


Fig. 5.



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Fig. 3.

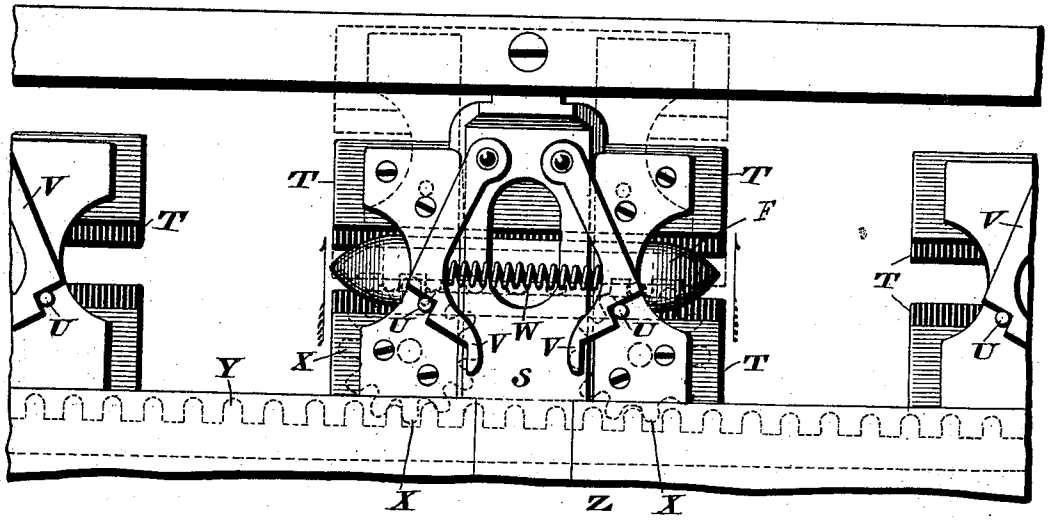
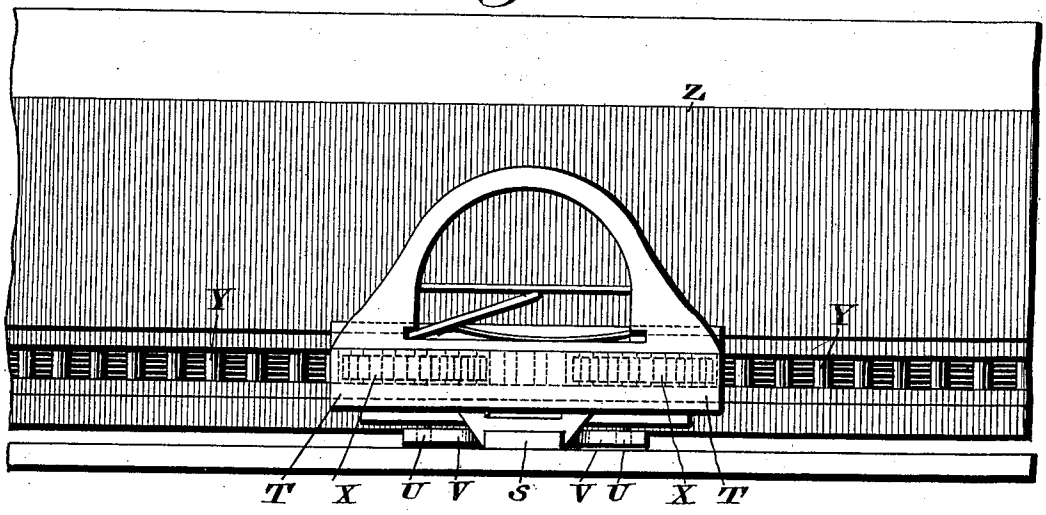


Fig. 4.



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Fig. 6.

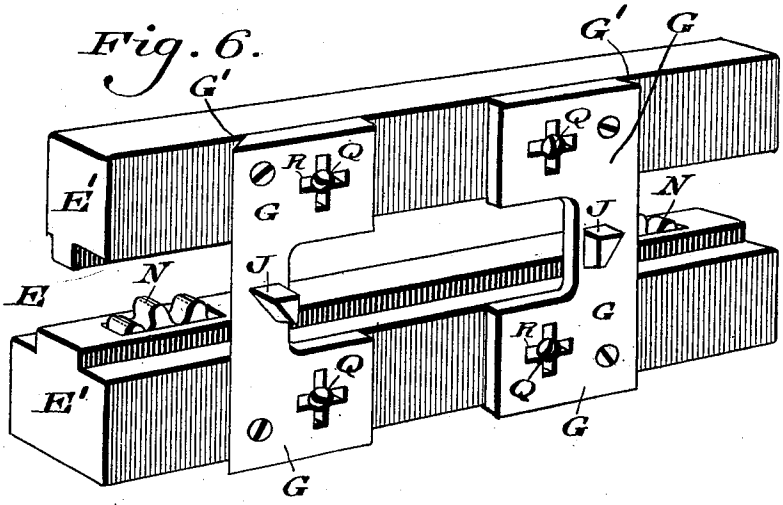
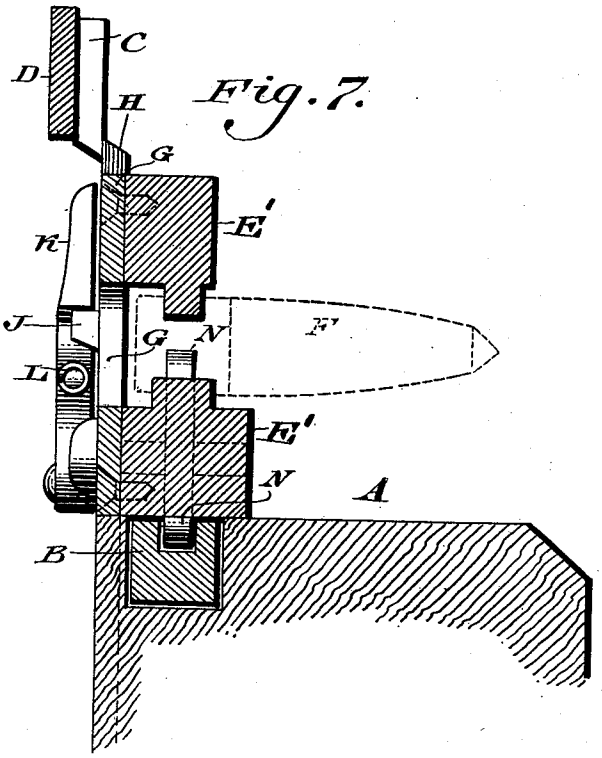


Fig. 7.



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UNITED STATES PATENT OFFICE.

MATHEW SAILE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO SPENCER D. WRIGHT, OF SAME PLACE.

SUPPORTING MECHANISM FOR LOOM-SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 607,087, dated July 12, 1898.

Application filed October 12, 1897. Serial No. 654,939. (No model.)

To all whom it may concern:

Be it known that I, MATHEW SAILE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Supporting Mechanism for Loom-Shuttles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of the novel construction of a guide or carrier of a shuttle, more particularly for a narrow-ware loom, whereby said shuttle or carrier, or both, may be readily removed without disturbing the other adjacent parts on the beam or batten, provision being also made for locking the block or carrier in position without interfering with the operation of the shuttle, as will be hereinafter set forth.

Figures 1 and 3 represent side elevations of shuttle-supporting mechanism embodying my invention, including portions of the beams or battens of the lay of a loom. Fig. 2 represents a top or plan view of the parts shown in Fig. 1. Fig. 4 represents a top or plan view of the parts shown in Fig. 3. Fig. 5 represents a perspective view of a portion detached from Figs. 2, 3, and 4. Fig. 6 represents a perspective view of one of the shuttle guides and carriers removed. Fig. 7 represents a vertical section on line $x\,x$, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the beam or batten of a lay, on which is mounted the reciprocating rack B. Rising from said beam is a frame consisting of the upright sides C and the cross-bar D, the latter connecting the upper ends of the former.

E designates a block forming a guide and carrier for the shuttle F, said block consisting of upper and lower bars E′, separated to form a race for the shuttle and having secured to them the connecting-plates G, whose inner sides G′ are inclined and freely connected with inclined sides of the uprights C after the manner of a dovetailed joint H, whereby the guide E may be raised and lowered on said uprights while being prevented from lateral displacement.

Projecting from the plates G are the studs or lugs J, which are adapted to be engaged by the dogs K, which are mounted on the uprights C and are drawn toward each other, and thus held in engagement with said studs by the spring L.

Mounted on the guides E are pinions N, which engage with the rack P on the shuttle F and with the rack B of the beam or batten, by the operation of which the shuttle receives reciprocating motion.

It will be seen that the guide E is firmly connected with the frame C D by the engagement of the dogs K with the studs J. When, however, for any purpose it is desired to remove the guide or shuttle, or both, the dogs are drawn outwardly, so as to clear the studs J, when the guide may be raised or entirely removed, the block and shuttle thus being accessible.

When the guide is returned to its normal position, the studs J ride on the noses of the dogs until they clear the shoulders of the same, when said dogs spring inwardly and engage with the studs J, thus also again controlling the guide against upward displacement, the position of parts being shown in Fig. 1.

The adjustment of the plates G is accomplished by the vertical slots Q and the horizontal slots R, respectively, in the upper and lower portion of the said plates, whereby they may be vertically separated to a greater or less extent and moved laterally, the effect of which is evident.

In Figs. 3, 4, and 5 I show a different form of frame, consisting mainly of the single upright S, to which the guide T is fitted by dovetailed joints, the connecting-plates of said guide carrying the studs U, with which engage the dogs V, which are coupled by the spring W, it being noticed that in Figs. 1 and 2 the pivots of the dogs K are at the lower ends thereof, while in Figs. 3, 4, and 5 the pivots of the dogs V are at the upper ends thereof; but the operation is the same in both

cases, it being noticed that in Figs. 3, 4, and 5 the shuttle guide or carrier T is provided with pinions X, which engage with the rack Y on the shuttle and with the beam of the lay, as in Figs. 1 and 2.

It is evident that the invention is applicable to straight, circular, and fly-shuttle lays.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A shuttle-guide formed of top and bottom horizontal bars, means for connecting said bars and holding them apart to receive a shuttle between them, a beam, a frame carried by said beam, a pinion mounted on one of said bars, a reciprocating rack-bar adapted to mesh with said pinion, dogs and engaging devices therefor on said frame and guide for locking the latter to said beam, and a spring for holding said dogs and devices in engagement.

2. The combination with a beam and a reciprocating rack-bar thereon, of a frame carried by said beam, a shuttle-guide formed of top and bottom bars held apart to receive a shuttle between them, dogs and engaging devices on said guide and frame for locking the guide to said beam, means for holding said dogs and devices in engagement, said guide and frame being removably connected by dovetailed joints.

MATHEW SAILE.

Witnesses:
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