O. S. HAZARD.

SEWING-MACHINE.

No. 188,514.

Patented March 20, 1877.

Fig. 1.

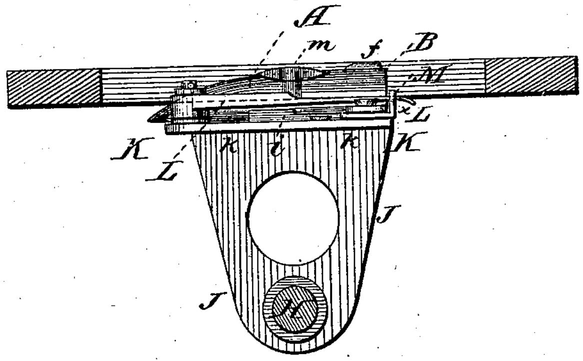


Fig. 2.

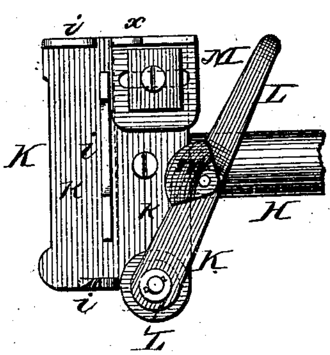


Fig. 3.

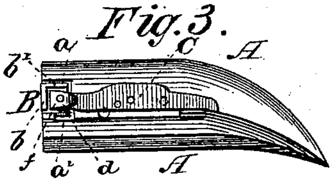


Fig. 4.

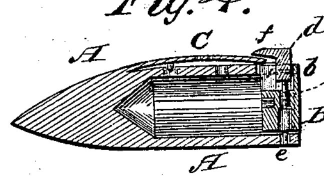
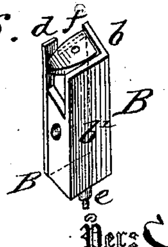


Fig. 5.

Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

OLIVER S. HAZARD, OF COVENTRY, RHODE ISLAND.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **188,514**, dated March 20, 1877; application filed November 27, 1876.

To all whom it may concern:

Be it known that I, OLIVER S. HAZARD, of Coventry, in the county of Kent and State of Rhode Island, have invented certain new and useful Improvements in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to sewing-machines; and it consists in the combination of the mechanism for carrying and holding the shuttle in place, with the shuttle, as hereinafter more fully set forth.

In the annexed drawing, the figures represent detail views of my invention.

A represents the shuttle, which is made in barrel form, and provided with the heel B made separate from the shuttle. This heel is made solid sufficient to receive the end of the bobbin or spool, and is then extended to form the back *b* and one side *b'*. This side and back extend across, and fit into, a notch, *a*, formed in the shuttle. The other side of the heel is a spring, *d*, fitting in a notch, *a'*, in the shuttle. A screw, *e*, passes up through the solid heel and connects with a latch, *f*, through which the tension C can be adjusted. By extending the solid heel to form the back *b*, and fitting the same in the notch *a* of the shuttle, the thread is kept from crawling down and catching and breaking, which it will do when this back is not formed on the heel.

The shuttle is operated by means of a pitman, D. This pitman is connected to the upper shaft E through an eccentric or crank, G, which is made adjustable by the shaft and crank being in two pieces, and fastened together by a set-screw, *h*.

K is the shuttle-holder, provided with the projections *i i*. The shuttle is held in place by means of the face-plate *k* and said projections *i*, and it is prevented from flying out by means of the stop *m*. L represents a bar pivoted at one end and in spring form at the other end. Near the center of this bar the projected stop *m* is formed, the tip of which extends over the round part of the shuttle. Under the spring end of the bar L is an adjustable plate, M, (with notch *x*,) made fast to the holder. By adjusting this plate the stop can be set so as to leave the desired space for the thread to pass under. By raising the spring end of the bar L above the notch *x* the stop can be moved back to take out and replace the shuttle.

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

The combination of the shuttle-carrying arm J, shuttle A, spring-bar L, having stop *m* and the adjustable notched plate M, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

OLIVER S. HAZARD.

Witnesses:

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EDWARD B. WILLIAMS.