J. B. SECOR.

Shuttles for Sewing-Machines.

No. 141,894. Patented August 19, 1873.

Fig. 1.

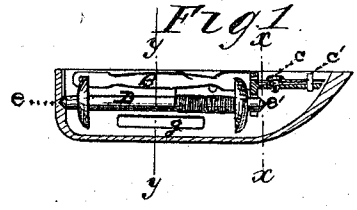


Fig. 2.

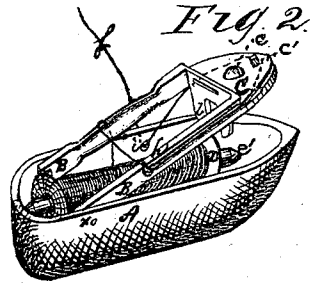
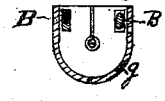


Fig. 3.

Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

JEROME B. SECOR, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **141,894**, dated August 19, 1873; application filed July 25, 1873.

To all whom it may concern:

Be it known that I, JEROME B. SECOR, of the city of Bridgeport and State of Connecticut, have made a new and useful Improvement in Shuttles for Sewing-Machines; and I do hereby declare the following to be a true and correct description of the construction and operation of the same, reference being had to the accompanying drawings, making part and parcel of this my specification.

The nature and object of my invention consist in the construction of a shuttle, containing within it a bobbin that is secured in position by means of a frame, constructed as hereinafter described, attached to the shuttle by pivots, and containing upon its lower side projections that embrace the shaft at the end of the bobbin, and upon its upper side the device for regulating the proper tension of the thread, consisting of a flat steel spring and screw.

Figure 1 is a cross longitudinal section. Fig. 2 is a perspective view; Fig. 3, a cross-section in line *x x*, Fig. 1; and Fig. 4, cross-section in line *y y*, Fig. 1, of said shuttle and its connections, &c.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

A is the shuttle, of common construction, that may be varied in shape when required for use in different machines. B is a frame attached to the rear end of the shuttle by means of pivots *x x*, as seen in Fig. 2, the left arm of which, as seen in Fig. 2, is partially rounded to allow free and smooth play to the thread as it passes over the same. The opposite arm has a hole and groove, *h*, formed in its side, through which the thread passes to and under the tension-spring C, which is pivoted to the forward end of said frame at *c'*, the tension of the thread being regulated by means of the set-screw *c*. Upon the under side of frame B, near its forward end, forked projections *b b* are formed, that embrace the shaft *e'* of the bobbin D. The bobbin D is dropped loosely into the shuttle, while the frame B is raised, and when the latter is closed the projections *b b* force the opposite end of the bobbin into the depression *e* formed in the heel of the shuttle, as seen in Fig. 1. To thread the shuttle, run the thread *f* over the rounded arm of the frame B, and into the hole or slot *h* and groove, passing around and under the tension-spring C; then down and through (from the inner side) the hole *i* in the side of the shuttle, as shown in Fig. 2. *g* is a slot formed in the shuttle.

When the machine is in operation the strain upon the thread has a tendency to raise the bobbin within the jaws or projections *b b*, so that it does not rest upon the bottom of the shuttle, and is practically suspended and free from friction. The adjustment and control of tension are caused by screwing or unscrewing the set-screw *c* upon the spring C.

What I claim as my invention, and desire to secure by Letters Patent, is—

The pivoted frame B, having its side portions constructed as described, and provided with the forked projections *b* and tension devices C *c*, when combined with a shuttle, as and for the purposes herein set forth.

JEROME B. SECOR.

Witnesses:
W. H. BOTSFORD,
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