G. W. HUNTER.

Shuttles for Sewing-Machines.

No. 145,348. Patented Dec. 9, 1873.

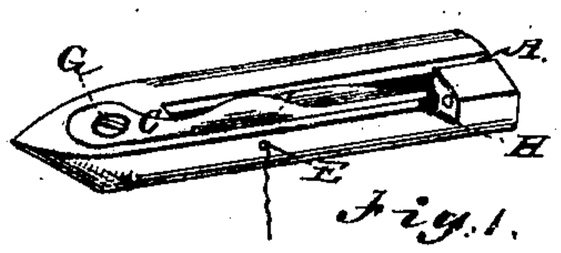

Fig. 1.

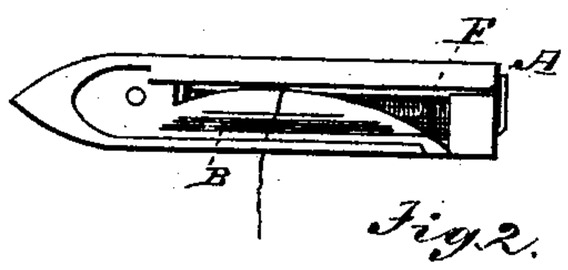

Fig. 2.

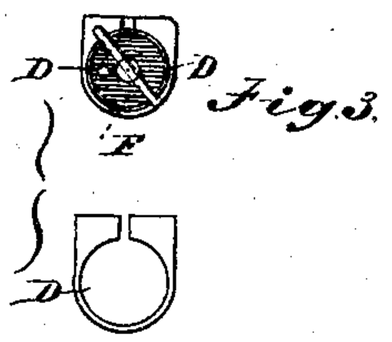

Fig. 3.

Fig. 4.

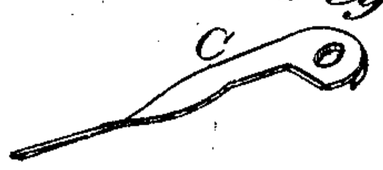

Fig. 6.

Fig. 5.

Witnesses;
Warren C. Stone
Geo. H. Platt.
Henry M. Baker

Inventor.
Geo. W. Hunter

UNITED STATES PATENT OFFICE.

GEORGE W. HUNTER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF A PART OF HIS RIGHT TO HENRY M. BAKER, WM. F. STONE, JAS. H. VERMILYA, AND GEORGE H. PLATT, OF SAME PLACE.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **145,348**, dated December 9, 1873; application filed October 27, 1873.

To all whom it may concern:

Be it known that I, GEO. W. HUNTER, of Washington, District of Columbia, have invented an Improvement in Sewing-Machine Shuttles, of which the following is a specification:

The object of my invention is to provide a sewing-machine shuttle combining with an economical arrangement for threading the same the capacity of holding or carrying a greater quantity of thread than is carried by ordinary shuttles, and which also has an adjustable tension, as well as combining cheapness of manufacture; and, to this end, my invention consists, first, of a shuttle the interior of which is cylindrical in shape for the reception of the bobbin, and the plane or face surface of which is provided with a crescent-shaped or straight slot, reaching the whole length of the bobbin, and having but one terminus, at the open end of which the thread enters, and is passed through said slot into position. My invention further consists in a shuttle the upper section of the base of which is sunk or depressed for the reception of the tension-spring, which, in combination with the sunk or depressed surface of said face, creates an adjustable tension. The object of the cylindrical opening is to admit of an extension of the flanges of the bobbin, thereby increasing its capacity, as well as to prevent the thread from becoming entangled by the needle when the bobbin is loose or without tension, and also to admit of the depressed surface forming a base for the thread to slide upon below the spring referred to, whereby the tension is produced.

In the drawing, Figure 1 is a full view of my invention. Fig. 2 is a front elevation of the same. Fig. 3 is an end view, showing a cylindrical opening for the bobbin to enter, and also a flange of the bobbin in position. Fig. 4 represents the adjustable tension-spring. Fig. 5 represents the said spring in two pieces, which may be substituted for the spring shown in Fig. 4, when desirable. Fig. 6 is a swinging strap to secure the bobbin in position.

Like letters refer to the same parts throughout the drawings.

A is a crescent or straight slot on the face of the shuttle, and through the open end of which the thread passes, and is secured between the spring C and the depressed surface B, and from thence out through the hole E in the top and near the upper edge of the shuttle, in the usual way. B represents the depression in the face of the shuttle, sunk therein for the purpose of receiving the spring C and for forming the base for the tension, and the inner surface of which forms a part of the cylinder for the reception of the bobbin F. It is obvious that an angle in the thread is produced by its passing over the edge of the rigid base B, thereby causing the thread in its shifting to be more directly paid out or delivered from the bobbin. The adjustable spring C lies on a flat or convex base and by the depression B, and on a plane, or nearly so, with the face of the shuttle. The extended or outer end of the spring C is curved outward for the easy reception of the thread, in conjunction with the notch H, cut near the rear and in the upper edge of the shuttle. D represents the opening of the cylinder for the purposes hereinbefore described, whereby a larger bobbin may be used than can be employed in any shuttle of the usual construction and of equal length. E is a single and the only hole or opening required for the passage of the thread outward from the bobbin and tension-spring. F represents the bobbin when in the shuttle ready for use, as described. G is the screw which is used for the purpose of regulating the tension on the thread, and also to secure in position the spring C. H is a notch heretofore described.

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

1. A cylindrically-bored shuttle having its face provided with a curved or straight slot for the passage of the thread, and with a tension-spring in a depression in such face, as and for the purpose described.

2. The cylindrically-bored shuttle provided in its face with an open-ended slot for the passage of the thread, as shown and described.

3. The shuttle having its face slotted, as described, when combined with a bobbin without journals or journal-receiving depressions, and with its heads resting against the shell of the shuttle.

Witnesses: GEO. W. HUNTER.

GEO. H. PLATT,

THOMAS MARRON.