

W. T. ELLIOTT.
Sewing-Machine Shuttle.

No. 205,254.

Patented June 25, 1878.

Fig: 1

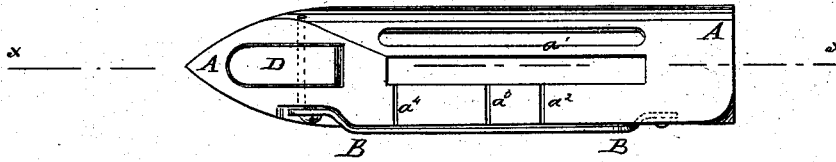


Fig: 2.

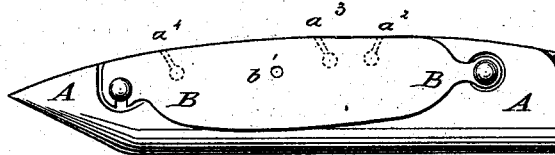


Fig: 3.

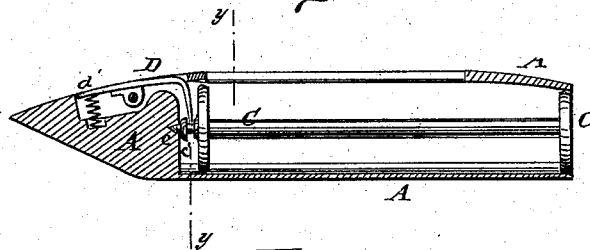
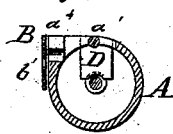


Fig: 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM T. ELLIOTT, OF ORANGE, MASSACHUSETTS.

IMPROVEMENT IN SEWING-MACHINE SHUTTLES.

Specification forming part of Letters Patent No. **205,254**, dated June 25, 1878; application filed November 2, 1877.

To all whom it may concern:

Be it known that I, WILLIAM TAYLOR ELLIOTT, of Orange, in the county of Franklin and State of Massachusetts, have invented a new and useful Improvement in Sewing-Machine Shuttles, of which the following is a specification:

Figure 1 is a side view of one of my improved shuttles. Fig. 2 is a top view of the same. Fig. 3 is a longitudinal section of the same, taken through the line *xx*, Fig. 1. Fig. 4 is a cross-section of the same, taken through the line *yy*, Fig. 3.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved sewing-machine shuttle, which shall be so constructed that the bobbin may be readily put in and taken out, that it will hold the bobbin securely, and will enable any desired tension to be given to the thread.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A is the shuttle, which is made in the general form of a cylinder, with its forward end rounded to a point. The outer side of the shuttle A is flattened, and is rounded or curved toward its ends, to adapt it to bear against the concave side of a circular race.

The upper side of the shuttle A is flattened, to receive the tension-spring B, which is pivoted at its rear end to the rear part of said side, and has a notch formed in the inner edge of its forward end to receive a catch-pin attached to the said shuttle. The body of the shuttle, between its forward and upper sides, is extended until said flattened sides meet at an angle, as shown in Fig. 4.

In the flattened outer side of the shuttle A are formed two parallel longitudinal slots, leaving a bar, *a*¹, between them, to serve as a guard-bar for the thread to pass over when running off the bobbin C.

In the angular edge of the shuttle A are formed three slits, *a*² *a*³ *a*⁴, leading down to three holes through the upper side of said shuttle, beneath the spring B. In the center of the spring B is formed a hole, *b*¹, for the thread to pass out through.

The cavity of the shuttle is made cylindrical, and open at the rear end, through which open end the bobbin is inserted.

The forward end of the axis of the bobbin C projects, and has a point, *c*, formed upon it to enter a hole formed in the shuttle at the forward end of its cavity. Around the projecting forward end of the axis of the bobbin C is formed a ring-groove, *c*¹, to receive a catch, D, pivoted in the recess in the forward side of the forward end of the shuttle C, and held in place by a spring, *d*¹, placed beneath its forward end. If desired, the ring-groove may be formed in the forward disk of the bobbin, and the catch D may be formed upon the end of the spring B, and shutting down into a slot in the forward end of the shuttle A.

In preparing the shuttle for use, the thread is passed in through the open rear end of the said shuttle, and out through the lower longitudinal slot. The bobbin is then slipped into place, and the thread is passed out through the slit *a*², in through the slit *a*³, out through the slit *a*⁴, and out through the hole *b*¹ in the spring B. The spring B is then shut down into place, and the shuttle is ready to be placed in the race.

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

1. The combination, in a sewing-machine shuttle, with the body and spring-lever, of the spindle, provided with disks, to constitute a bobbin, also with an annular groove, and with a point, *c*, that works in a hole at the forward end of said body, as shown and described, for the purpose specified.

2. The combination, with the spindle and its disks and the spring-holder therefor, of the body of the shuttle, having the parallel longitudinal slots and a flattened portion, forming one side of an angular projection or rib, having slits *a*² *a*³ *a*⁴ to receive the thread, and the flat pivoted spring B, all as shown and described.

WILLIAM TAYLOR ELLIOTT.

Witnesses:

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A. H. BATES.