J. F. HUTTON.

Shuttle for Sewing-Machine.

No. 200,305. Patented Feb. 12, 1878.

Fig. 1.

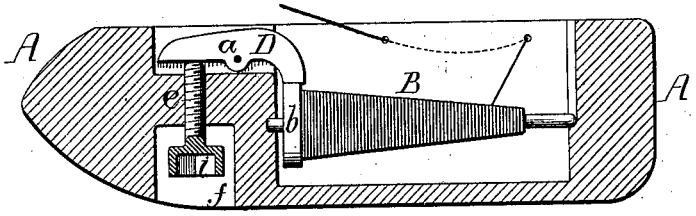


Fig. 2.

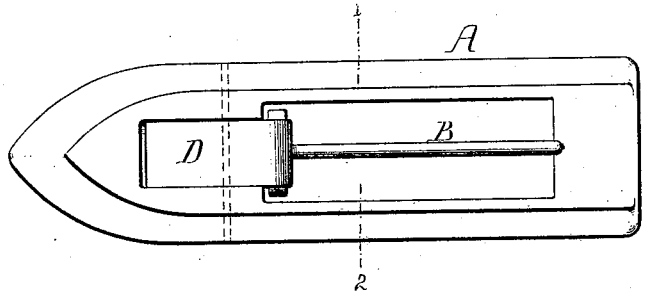
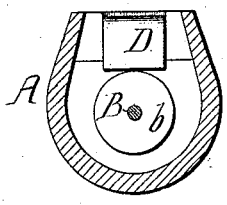


Fig. 3.



Witnesses

John M. Clemer

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UNITED STATES PATENT OFFICE.

JAMES F. HUTTON, OF BERRY STATION, KENTUCKY.

IMPROVEMENT IN SHUTTLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **200,305**, dated February 12, 1878; application filed November 26, 1877.

To all whom it may concern:

Be it known that I, JAMES F. HUTTON, of Berry Station, Harrison county, Kentucky, have invented a new and useful Improvement in Tension Devices for Shuttles, of which the following is a specification:

The object of my invention is to construct a simple and effective tension device for shuttles—an object which I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of a shuttle with my improved tension device applied thereto; Fig. 2, a plan view of the shuttle, and Fig. 3 a transverse section on the line 1 2.

A is the casing of the shuttle, and B the bobbin, the stem of the latter being adapted to suitable bearings in the casing A. The head of the shuttle is slotted at the top for the reception of a lever, D, pivoted at *a*, and having a short arm arranged to bear on the periphery of the head *b* of the bobbin. The long arm of the lever D is acted upon by the end of the stem of a set-screw, *e*, the head of which is contained within a recess, *f*, formed in the under side of the shuttle-head.

In the head of the screw-stem *e* is formed a square or angular opening, *i*, to which may be adapted the correspondingly-shaped end of a suitable tool, by which the screw-stem may be turned in either direction, so as to regulate the pressure of the short arm of the lever D upon the head *b* of the bobbin, thereby governing the tension upon the thread as it is drawn off the said bobbin. The head *b* of the bobbin and the bearing-surface of the short arm of the lever D may be made of hardened steel or chilled iron, so as to prevent undue wear.

The lever D is more certain in its action and not so liable to get out of order as the spring bars or plates usually employed as tension devices for shuttles, and the various parts may be so proportioned that the friction of the short arm of the lever D upon the head of the bobbin can be regulated with the utmost nicety.

I claim as my invention—

The combination of the shuttle-casing A, the bobbin B, adapted to bearings in the casing, and having a head, *b*, the lever D, having a short arm adapted to bear upon the periphery of the head *b*, and the screw *e*, for adjusting the lever, all substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES F. HUTTON.

Witnesses:
P. WHERRITT,
THOS. WHERRITT.