

(No Model.)

G. F. NEWELL.  
Sewing Machine Shuttle.

No. 232,142.

Patented Sept. 14, 1880.

Fig. 1.

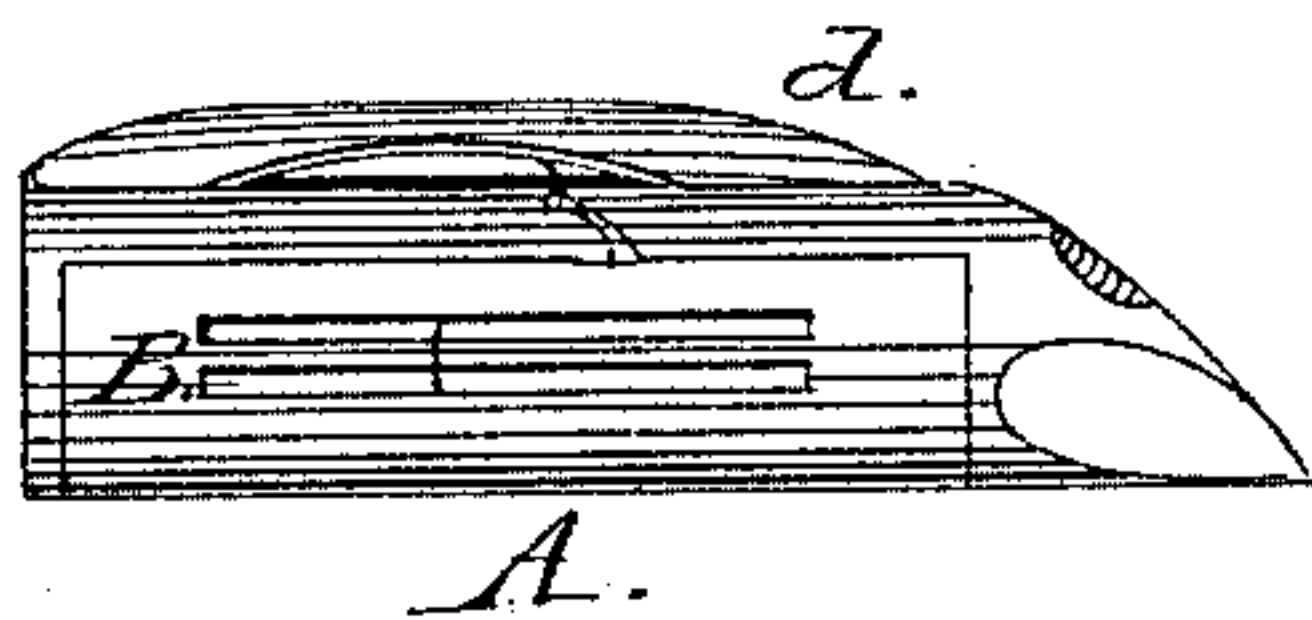


Fig. 2.

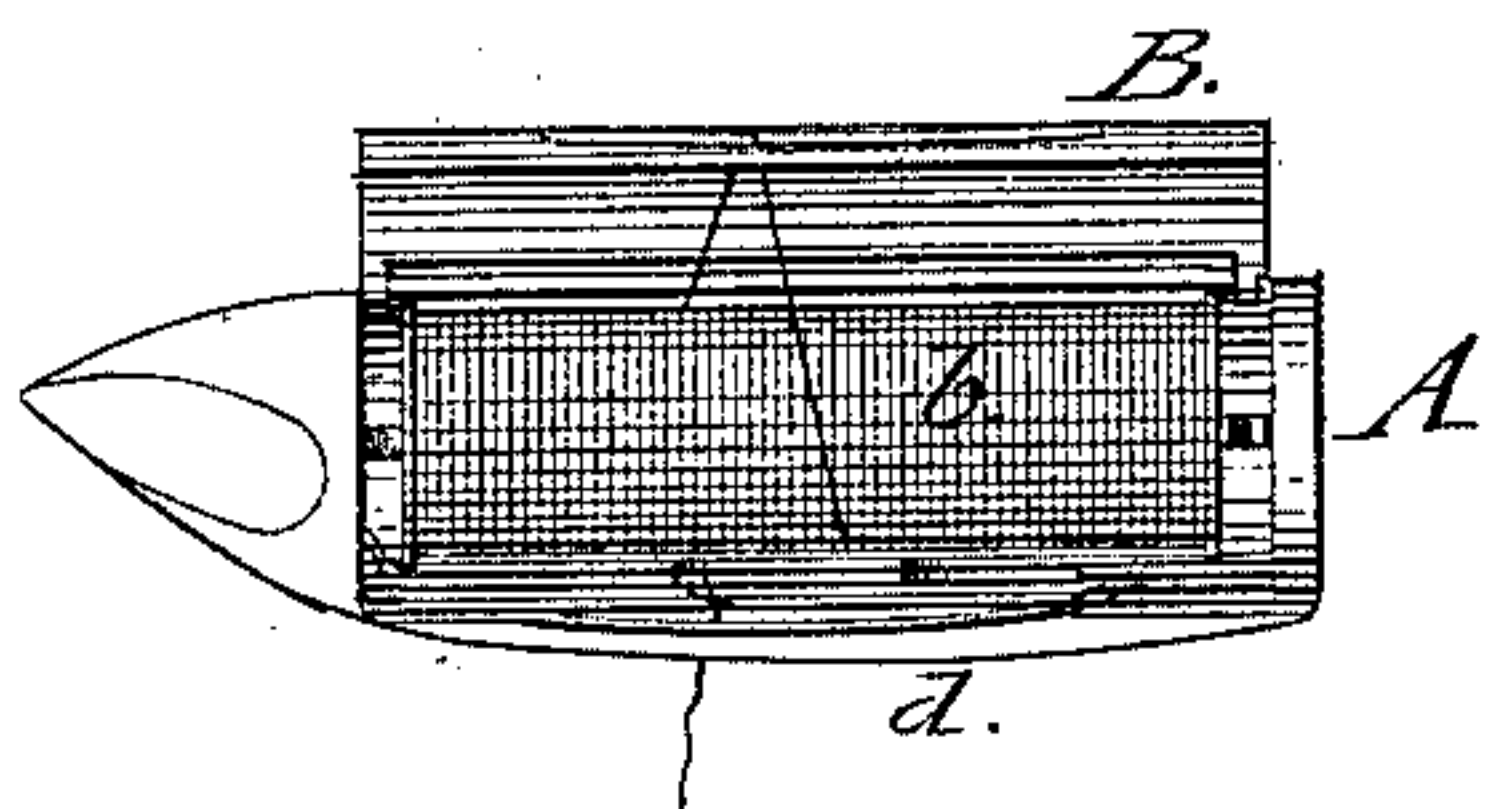


Fig. 3.

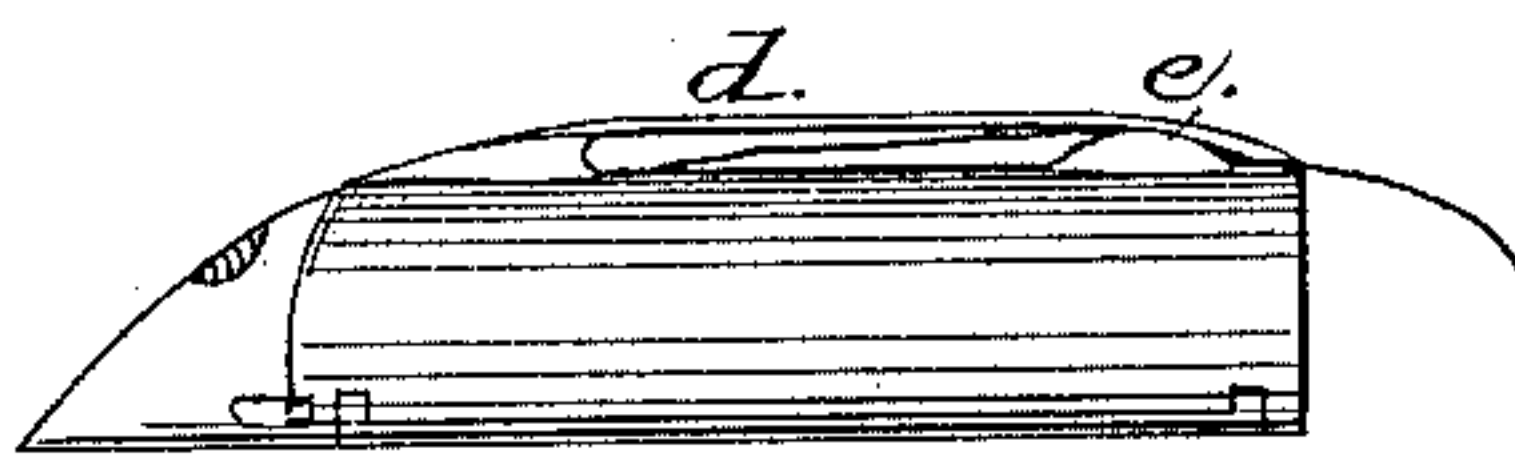


Fig. 4.

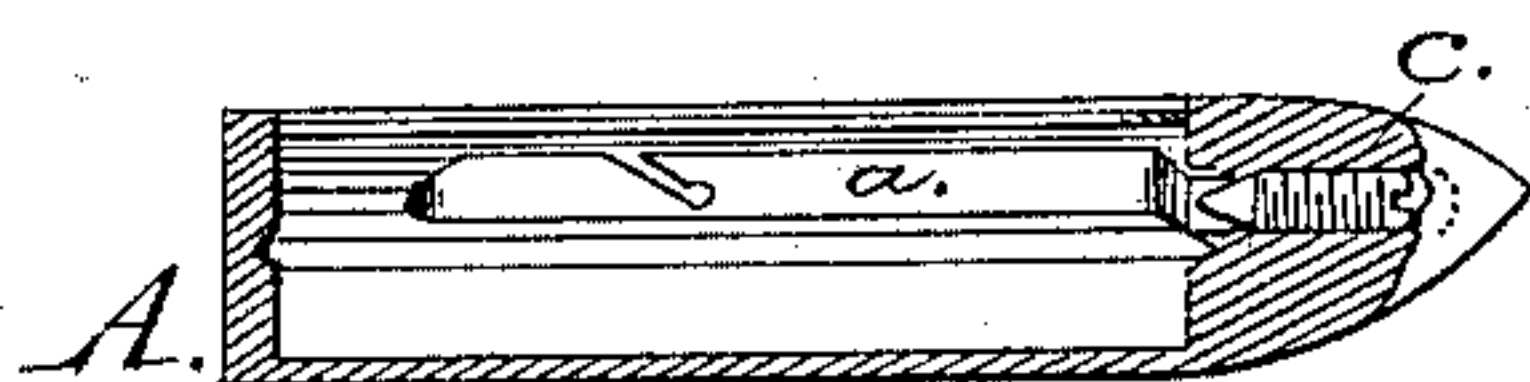
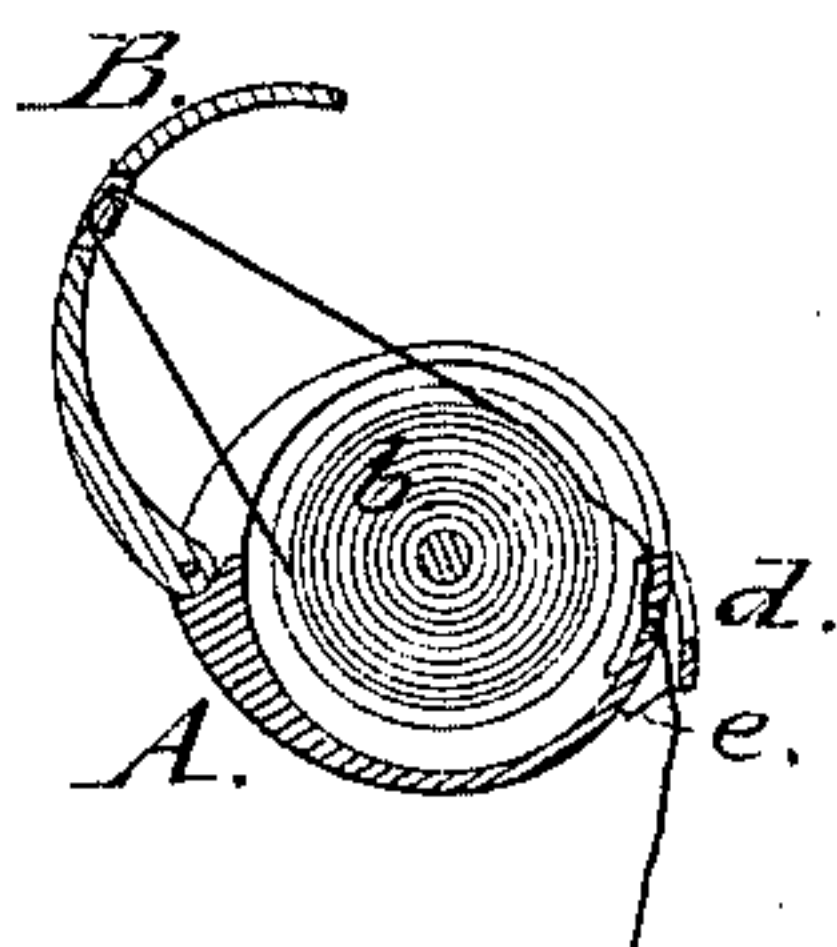


Fig. 5.



Witnesses:

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# UNITED STATES PATENT OFFICE.

GEORGE F. NEWELL, OF GREENFIELD, MASSACHUSETTS.

## SEWING-MACHINE SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 232,142, dated September 14, 1880.

Application filed June 3, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. NEWELL, of Greenfield, in the county of Franklin and Commonwealth of Massachusetts, have invented a new and useful Improvement in Sewing-Machine Shuttles, of which the following is a full and true specification.

In my drawings, Figure 1 is a plan view of my shuttle. Fig. 2 is a similar view with the cover raised. Fig. 3 is a view of the reverse side to that shown in Fig. 1. Fig. 4 is a longitudinal section of the shuttle. Fig. 5 is a transverse section thereof with the cover raised.

Similar reference-letters indicate like parts in all of the figures.

My invention relates to that class of shuttles ordinarily used in those machines of the present day using two threads, and is intended to facilitate the introduction of the bobbin to the shuttle, to facilitate threading it, to make an easy and uniform tension of the thread, and especially to enable a bobbin of larger size and carrying more thread than any other now in use to be introduced within the shuttle.

The shuttle A is a hollow metallic case with a solid pointed front end, as usual, and a closed and solid rear.

The tension-spring *a* is on the inner front side, lying longitudinally with the bobbin *b*, and secured and regulated by a screw, *c*, passing through the front end of the shuttle into the end of the spring. The thread from the bobbin is passed under the free end of this spring through a slot in the shuttle, and then under a guide-bar or guard, *d*, upon the outside of the shuttle. The guide or guard under which the thread generally passes in shuttles as usually constructed is a spring whose function is to hold the thread as the shuttle makes a backward movement, and prevent a throw or slack in the thread forming the loop, and in this form often fails to answer the purpose. Instead of the spring, I place on the side of the shuttle the thin curved bar *d*, secured at both ends, and having a long opening between it and the shuttle-case, through which the thread passes. Near and under the rear end of this bar or guide I place a small elongated stud or post, *e*, secured to the shuttle-case, and nearly touching the bar or guide *d*, so as just to allow the thread to pass be-

tween them as the shuttle is thrown forward, and by mere friction to be held till the shuttle returns. This acts with more certainty and delicacy than the spring. The great point, however, in the superiority of my shuttle is the way in which it is opened and the bobbin inserted. The shuttle is cylindrical in form, and made to open by one-half of its circumferential surface between the solid ends being hinged to the other half, and opening the whole length and breadth of the interior of the shuttle; and as the part B, which opens as a cover or lid, is within and without part of the cylindrical shuttle, it is evident that a bobbin of much larger diameter can be introduced than in those shuttles having flat covers or slides, as mine fills the largest and entire diameter of the shuttle.

The bobbin is made in the usual way. A small metal shaft projects through the heads, each end being turned off to fit in small holes countersunk in the ends of the shuttle to steady the revolution of the bearing of the bobbin.

Owing to the form of construction the bobbin is made of unusual length, and from the form of the cover or lid, of much greater diameter than for ordinary shuttles, thus receiving from fifty to one hundred per cent. more thread than is commonly carried in shuttles of the same size. A bobbin in a shuttle of my construction carries over one hundred yards of No. 70 or medium thread.

If desired, a distributing-bar may be made in the cover or lid, extending nearly its length, over which the thread is to pass from the bobbin, thereby facilitating the unwinding of the thread as it goes from one end to the other of the bobbin.

I claim—

1. A sewing-machine shuttle provided with a guide-bar, *d*, and a stud or post, *e*, near the end of the guide-bar *d*, substantially as and for the purpose specified.

2. In a sewing-machine shuttle, the shuttle A, provided with the semi-cylindrical cover B, and the guide-bar *d* and stud *e*, substantially as and for the purpose set forth.

GEO. F. NEWELL.

Witnesses:

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