

(Model.)

A. TRACY.  
SEWING MACHINE SHUTTLE.

No. 308,016.

Patented Nov. 11, 1884.

Fig. 1.

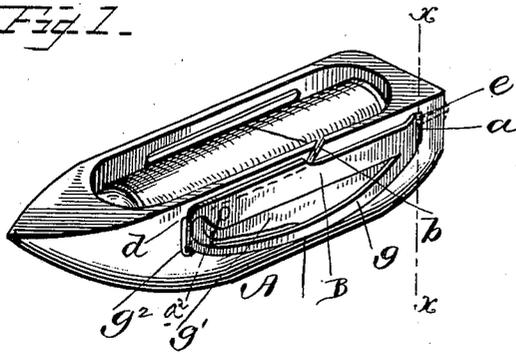


Fig. 2.

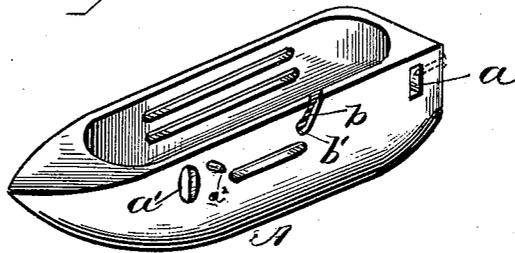


Fig. 3.

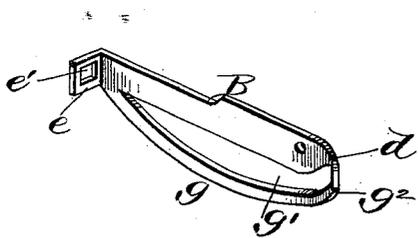


Fig. 4.

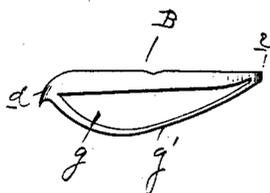
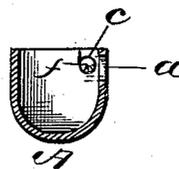


Fig. 5.

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# UNITED STATES PATENT OFFICE.

ANDREW TRACY, OF RICHLAND, IOWA, ASSIGNOR OF ONE-HALF TO G. W. SNYDER.

## SEWING-MACHINE SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 308,016, dated November 11, 1884.

Application filed January 24, 1884. (Model.)

*To all whom it may concern:*

Be it known that I, ANDREW TRACY, a citizen of the United States, residing at Richland, in the county of Keokuk and State of Iowa, have invented a new and useful Improvement in Shuttles, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to shuttles for sewing-machines; and it consists in certain improvements in the same, whereby the tension may be regulated as desired, and the necessity of passing the thread through holes in the side or wall of the shuttle and under the tension-plate and thread-guide is obviated.

The invention further consists in the improved construction and combination of the various parts, hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a shuttle, showing the bobbin in position and threaded. Fig. 2 is a perspective view of the shuttle, the tension-plate being detached. Fig. 3 is a perspective view of the tension-plate detached. Fig. 4 is a transverse section on the line *x x* of Fig. 1; and Fig. 5 is a front view of the tension-plate detached.

In the accompanying drawings, in which like letters refer to corresponding parts throughout the several figures, A represents the shuttle, which is provided upon one of its sides or walls with slots or openings *a a'*, the slot *a* being formed near the heel thereof, while the slot *a'* is formed a short distance in rear of the toe of the same. The shuttle A is also provided on the same side, and at about the center of the same, with a diagonal slot, *b*, which communicates with a thread-passage, *b'*, formed upon the said side or wall. The shuttle A is also provided at its heel, and in the upper left-hand corner of the same, with a screw-threaded opening or perforation, *c*, for a purpose to be more fully described.

B represents my improved tension-plate, the forward end of which is riveted or otherwise rigidly secured to the forward end or toe of the shuttle, and upon the side wall of the same, adjacent to the vertical slot *a'*. The forward or front end of this tension-plate B is provided

with a lip or extension, *d*, which is bent slightly downward over the slot *a'*, and provided with a hook formed upon its lower side, while the upper side is made rounding, to facilitate the passing of the thread, thus allowing the thread to be readily and easily passed over the rounded portion, and then engage the hook, which prevents its backward movement and disengagement, the rivet by which the tension-plate is secured to the shuttle acting as a post for the thread, which runs or slides thereon. The rear end of the tension-plate is bent inwardly, to form a lip, *e*, which is provided with a perforation or opening, *e'*. This lip *e* is adapted to be inserted through the slot *a* of the shuttle-wall, and the perforation or opening in said lip or extension *e* is adapted to receive the end of a set-screw, *f*, working in the screw-threaded opening *c*, formed in the upper left-hand corner of the rear wall or heel of the shuttle, whereby the tension of the said plate B may be regulated as may be desired or found necessary. Formed integral with the tension-plate B is a thread-guide, *g*, located at its forward end adjacent to the hook, while its rear end is joined to the plate B at or about the point where it is bent to form the lip *e*.

The operation of my improved shuttle is as follows: The bobbin, which has been previously threaded, is inserted in the shuttle in the usual way and the thread passed into the opening *b'* through the slot *b*. The thread is then carried forward and passed between the tension-plate and the wall of the shuttle, and then around the rivet by which the tension-plate is secured to the shuttle. The thread is then carried toward the rear or heel of the shuttle until it has passed the hooked end of the thread-guide, which action is allowed inasmuch as the slot or opening *a* is larger than the adjacent end of the tension-plate, which partially covers said opening. It will be seen that after the thread has once passed the hook *d* it will be impossible for the same to become disengaged. After the thread has passed the hooked end *d* it turns on the rivet or post *a'*.

From the foregoing description it will be seen that by the use of my improved shuttle the operation of threading is made easy, and

may be readily and quickly accomplished, and that the tension is thoroughly provided for. It will also be seen that my improvements are applicable to most shuttles with but little change or alteration in the same.

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

1. The combination, with a shuttle formed  
10 with slots, as shown, of a tension-plate, rigidly secured at its forward end to the side of the shuttle, its rear end being provided with a lip or extension bent inwardly, and provided with an opening or perforation, and a set-screw  
15 working in a screw-threaded perforation formed in the heel of the shuttle, to engage the perforation in said lip or extension, whereby the tension is regulated, substantially as set forth.

20 2. The combination, with a shuttle formed

with a threading-slot, *b*, and slots or openings *a a'* upon its side wall, of a tension-plate, B, having at its forward end a hook, *d*, said tension-plate being rigidly secured to the shuttle at its forward end, the hook *d* projecting a  
25 slight distance into the slot *a'*, the rear end of the tension-plate being bent to form a lip or extension, *e*, having an opening, *e'*, and a set-screw working in a screw-threaded opening in the end wall of the shuttle, and engaging the  
30 opening in the lip or extension *e*, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ANDREW TRACY.

Witnesses:

W. W. ALLEN,  
G. W. SNYDER.