

A. Wirth.

Sewing Machine Shuttle.

N^o 85,040.

Patented Dec. 15, 1868.

Fig. 1.

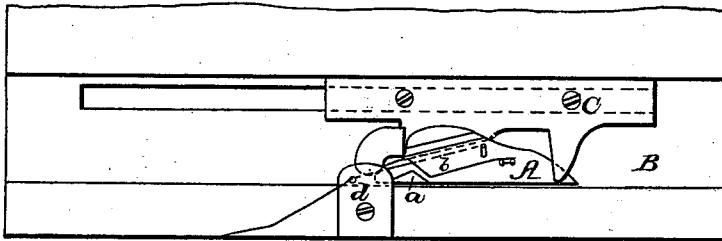


Fig. 2.

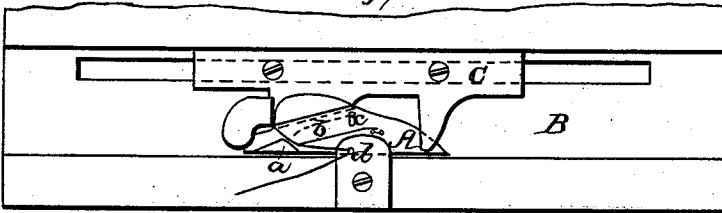


Fig. 5.



Fig. 3.

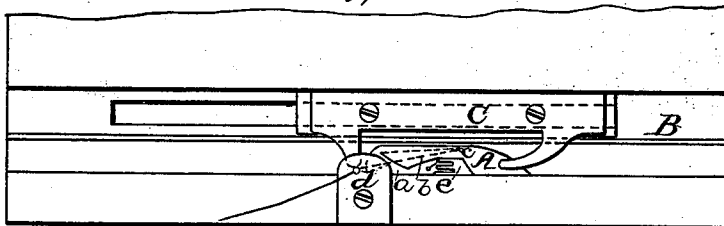
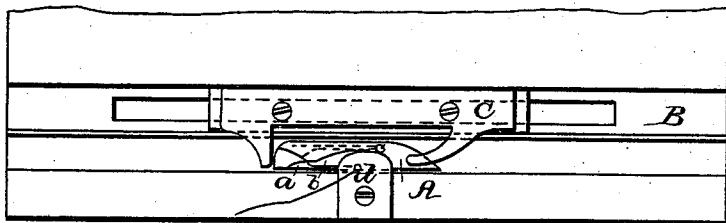


Fig. 4.



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ALBIN WARTH, OF STAPLETON, NEW YORK, ASSIGNOR TO HIMSELF AND EBERHARD FABER.

Letters Patent No. 85,040, dated December 15, 1868.

IMPROVEMENT IN SHUTTLE FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALBIN WARTH, of Stapleton, in the county of Richmond, and State of New York, have invented a new and useful Improvement in Shuttles for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figures 1 and 2 represent my improvement as applied to a shuttle, such as described in Letters Patent granted to me, May 29, 1866, the shuttle being shown in different positions.

Figures 3 and 4 are similar views, showing the application of my present improvement to a common shuttle.

Figure 5 is a transverse section of the shuttle.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of a shoulder and projecting flange on the back of a shuttle, in such a manner that when the shuttle retreats, said shoulder carries the shuttle-thread back out of the way of the descending needle, and by the flange the thread is retained in such a position that it cannot form a loop, and that the needle, on its descent, will not become entangled in the shuttle-thread, thereby avoiding the formation of knots.

A represents a sewing-machine shuttle of any desired form, either such as shown in figs. 1 and 2, or such as shown in figs. 3 and 4.

On the back of this shuttle is formed a shoulder, *a*, and also a flange, *b*, which rises from the body of the shuttle, and projects over the eye *c* thereof, towards its breast, as clearly shown in the drawing, said eye being made in the top or back of the shuttle, as shown.

The shuttle moves in the race *B*, being propelled by the driver *O* in the ordinary manner, and the needle descends through the throat *d*, as usual.

When the shuttle has arrived at the forward end of its stroke, as shown in figs. 1 and 3, the shuttle-thread extends from the eye *c* to the throat under the flange *b*, and behind the shoulder *a*, as indicated by red dotted lines.

When the shuttle retreats, the slack of the shuttle-thread is carried back by the shoulder *a*, and said thread is retained under the flange *b*, so that it is prevented from forming a loop, or from assuming such a position that the needle, in its descent, will be liable to become entangled therewith, and thereby the formation of knots is effectually prevented.

When the shuttle advances to the position shown in figs. 2 and 4, the shuttle-thread is still retained under the flange, and it is carried through the loop of the needle-thread without fail.

It will be seen that the flange *b* and shoulder *a* of my shuttle take the place of the friction-spring commonly applied to sewing-machine shuttles for the purpose of controlling the position of the shuttle-thread; and I use these devices in preference to said friction-spring, because the action of said spring is not certain; and, furthermore, people are liable to take hold of the spring, in lifting out the shuttle, and bend or break the same.

My shoulder and flange are firm, and cannot be displaced, and their action is absolutely certain.

It must be remarked that either the shoulder or flange can be dispensed with, but by using both combined, the desired effect is produced with more certainty than by using either of them alone.

In fig. 3, I have also shown a modification of the open tension-pins *e*, which I have described in Letters Patent granted to me, January 7, 1868. Instead of placing these pins in the interior of the shuttle, I can form them in the body of the shuttle, without changing the result.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the shuttle, of the projecting flange *b* and shoulder *a*, arranged and operating substantially as set forth.

ALBIN WARTH.

Witnesses:

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E. F. KASTENHUBER.