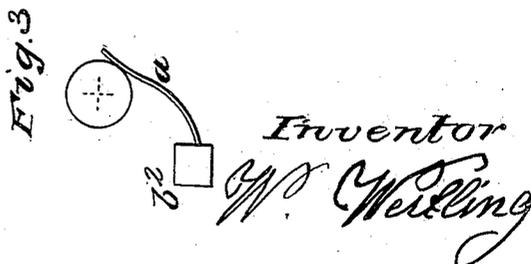
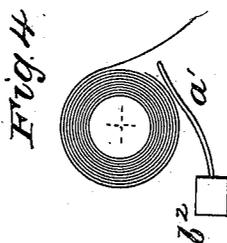
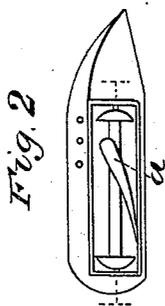
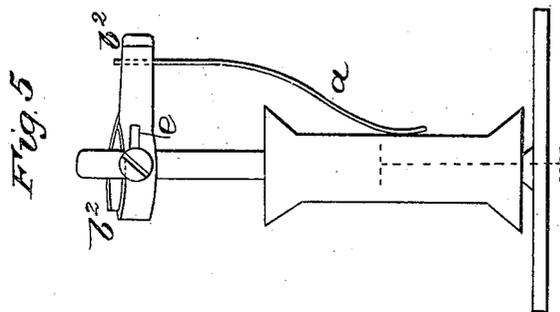


W. WEITLING.
Sewing Machine Shuttle.

No. 42,706.

Patented May 10, 1864.



UNITED STATES PATENT OFFICE.

WILLIAM WEITLING, OF NEW YORK, N. Y.

IMPROVEMENT IN TENSION DEVICES FOR SEWING-MACHINE SHUTTLES.

Specification forming part of Letters Patent No. 42,706, dated May 10, 1861.

To all whom it may concern:

Be it known that I, WILLIAM WEITLING, of New York, in the county of New York and State of New York, have invented a new and useful Mode of Regulating the Tension of the Threads in a Sewing Mechanism; and I do hereby declare that the following is a full, clear, and exact description of the construction, application, and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figures 1, 2, and 5 represent perspective views, and Figs. 3 and 4 transverse sections, of it.

My invention relates to the application to the shuttle of a sewing-machine of a frame made of thin metal, part of which is bent and shaped in such a manner as to act like a spring upon the thread of the bobbin for the purpose of imparting to said thread the proper tension.

Fig. 1 represents a perspective view of my said frame, and Fig. 2 a perspective view of a shuttle to which said frame has been applied. The ends *b'* of my said frame *A* are bent at right angles, and are provided with holes *c*, in which the points or bearings of the shuttle-bobbin are inserted, and the part *a* of said frame is bent in such a shape as to act as a tension-spring on the thread of the bobbin. The frame *A*, when inserted in the shuttle, is held therein by the bearings of the bobbin, which enter the body of the shuttle. The frame *A* is made of thin metal, and its great advantage consists in that it can be bent easily by hand

and can be applied to shuttles of various sizes and constructions, as it is a loose frame, which is not permanently secured to the shuttle, and which can be withdrawn therefrom as easily as the shuttle itself, and which is held securely in the shuttle when it has been adjusted in its proper position. Another very important advantage in the use of this frame is that springs of different tensions may be used on the same shuttle by having different sets of frames made of different thicknesses of metal, and in changing the thread of the machine the spring-frame may be changed also, so as to insert one whose tension is in accordance with the thread to be used. Thus a most perfect tension-adjustment of the shuttle-thread is obtained, which otherwise is difficult to effect.

It is evident that the particular shape of my frame may be modified. Its spring may be made of a separate piece, riveted or otherwise secured to the loose frame *A*.

Having thus fully described the nature of my invention, what I claim herein as new, and desire to secure by Letters Patent, is—

The application to the shuttle-bobbin of a sewing-machine of a tension-spring, *a*, when said spring constitutes part of or is permanently secured to the loose frame *A*, inserted within the shuttle, and constructed and operated substantially in the manner and for the purposes described.

WILLIAM WEITLING.

Witnesses:

J. MESS,
PH. ECKSTEIN.