

E. E. BEAN.

Wax-Thread Sewing-Machines.

No. 154,115.

Patented Aug. 18, 1874.

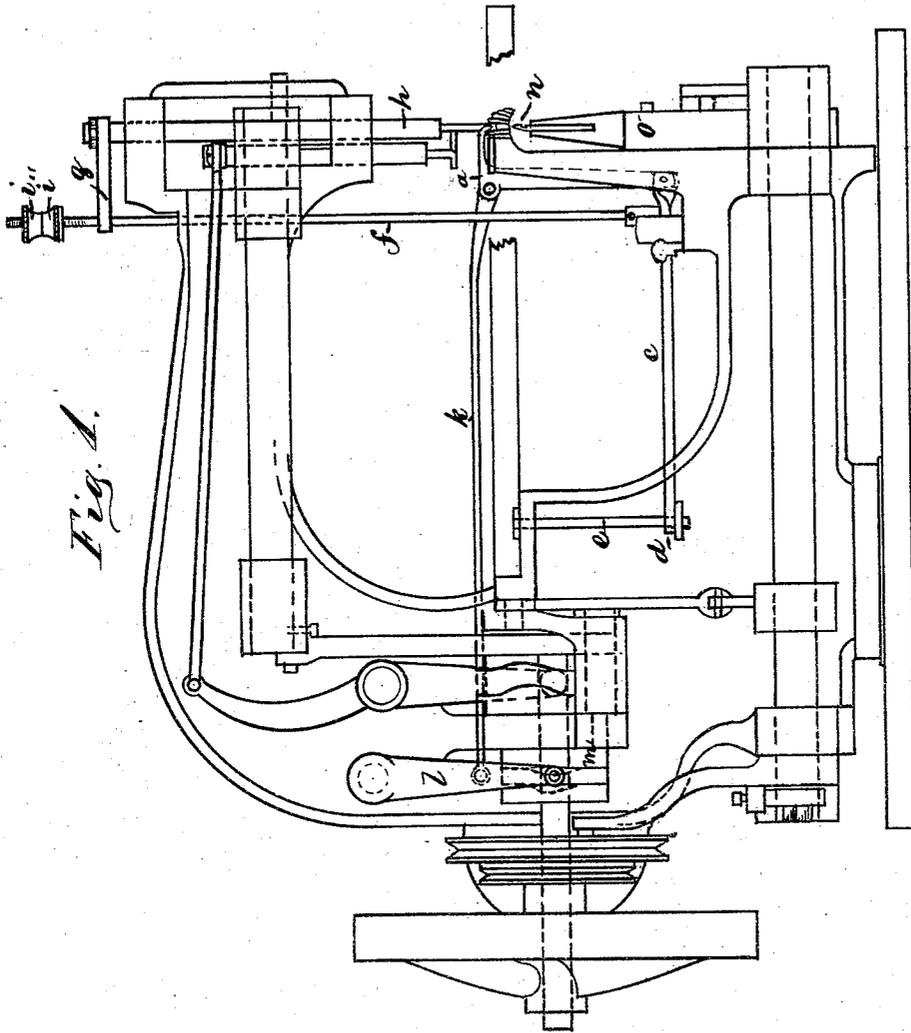


Fig. 1.

Witnesses:

John R. Heard.
S. Gardner

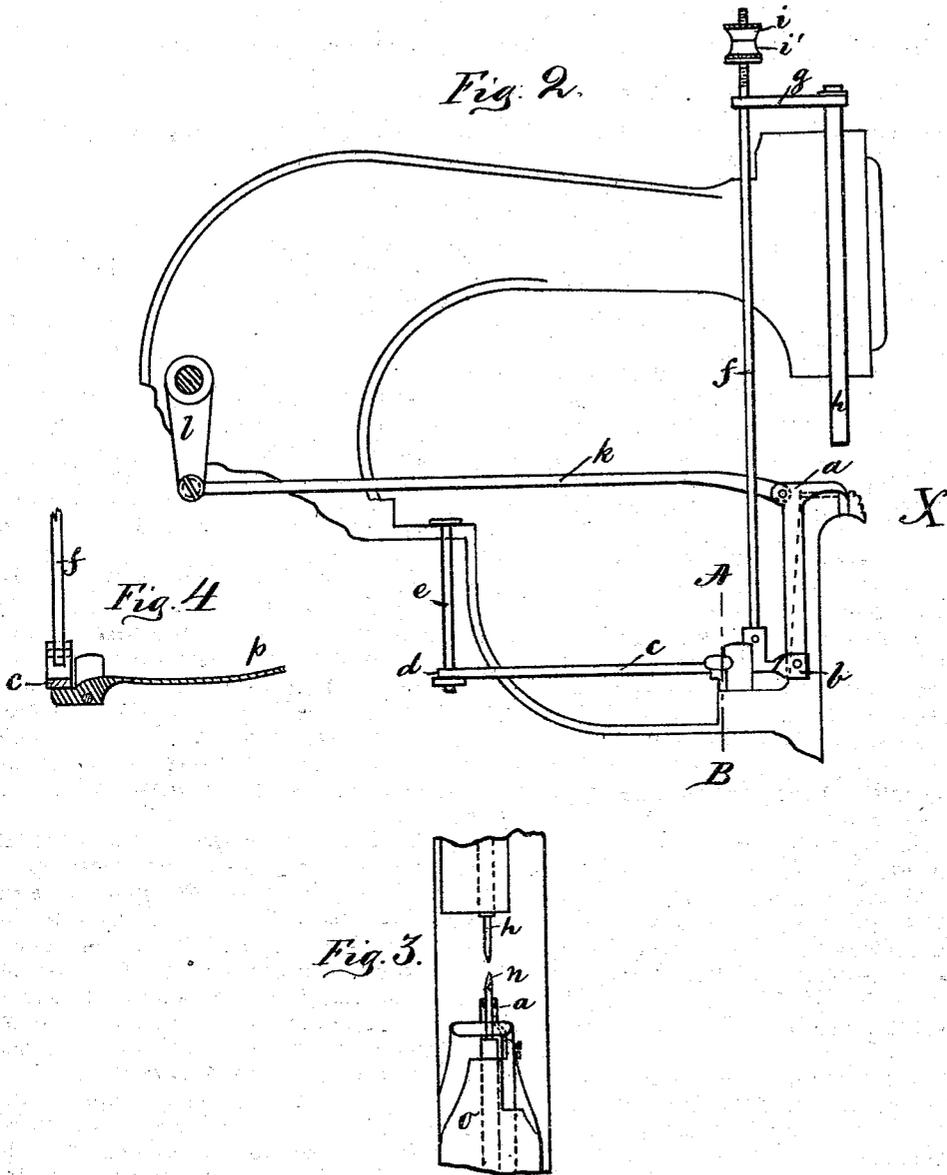
Inventor:

Edwin E. Bean.
By Alan Andren, his atty.

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UNITED STATES PATENT OFFICE.

EDWIN E. BEAN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WAX-THREAD SEWING-MACHINES.

Specification forming part of Letters Patent No. **154,115**, dated August 18, 1874; application filed May 26, 1873.

To all whom it may concern:

Be it known that I, EDWIN E. BEAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Wax-Thread Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in wax-thread sewing-machines for the purpose of sewing the uppers and soles together on turned shoes, slippers, &c., consisting in the employment of a presser-foot arranged centrally with the needle when in its central position, whereby the work is held more firmly in its place as compared with the old way of having the presser-foot arranged in front or behind the needle. During the feeding of the work the presser-foot is lifted upward, and also moved sidewise from the work, so as to allow for the advancement of the work a distance equal to the length of the stitch. By arranging and operating the presser foot in relation to the needle, as above named, I am also enabled to sew around sharp curves or angles—such as the toe and heel parts of the sole—with greater ease and without injury to the work.

On the drawing, Figure 1 represents a side elevation of a wax-thread sewing-machine having my improved presser-foot attached thereto. Fig. 2 represents a side elevation of the improved presser-foot and its intervening mechanism. Fig. 3 represents an end view, seen from X on Fig. 2; and Fig. 4 represents a cross-section on the line A B, shown on Fig. 2.

Similar letters refer to similar parts wherever they occur on the different parts of the drawing.

a represents the hooked presser-foot generally used for the purpose of sewing turned shoes by machinery. The said presser-foot *a* is hinged at *b* to a spring-bar, *c*, that is attached at its rear end *d* to a stationary post, *e*, or its equivalent. The presser-foot is provided with a suitable presser-foot bar, *f*, that is operated by means of the arm *g* attached to the reciprocating awl-bar *h*, as fully shown

in Figs. 1 and 2. The awl-bar *h* is operated in any of the ordinary ways. The upper end of the presser-foot bar *f* is screw-threaded, and provided with check-nuts *i i'*, whereby the lift of the presser-foot can be regulated.

Besides the vertical motion of the presser-foot, it has also a side motion imparted to it by means of the connecting-rod *k*, that is hinged at its forward end to the upper part of the presser-foot *a*, and at its rear end to a reciprocating lever, *l*, operated by means of a suitable grooved cam-disk, *m*, Fig. 1, or its equivalent.

The object of giving a side motion to the presser-foot is to allow the needle to move the material the length of a stitch without coming in contact with the presser-foot. The object of having the presser-foot arranged centrally with said needle, instead of on one side thereof, as formerly done, is so as to be able to operate easily around sharp curves or angles without injury to the material that is sewed.

The needle *n* is operated up and down in the ordinary rocking post *o*, and comes up on one side of the presser-foot and goes down on the other side thereof, but is central with the presser-foot when the said needle is in its central position. The presser-foot is moved upward by the rod *f* and its connecting parts, and sidewise by means of the rod *k* and its connecting parts, during which time the material is moved forward the length of a stitch.

In Fig. 4, *p* represents a lever hinged to the sewing-machine frame, and projecting under the spring-bar *c* for the purpose of raising the presser-foot up from the work-plate in the usual manner.

What I wish to secure by Letters Patent, and claim, is—

In combination with the hinged presser-foot *a*, the awl-bar, or its equivalent, and the arm *g* and rod *f*, the rocking lever *l*, or its equivalent, and rod *k*, as herein set forth, for the purpose of giving a horizontal and vertical motion to the presser-foot.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of May, 1873.

EDWIN E. BEAN.

Witnesses:

ALBAN ANDRÉN,
JOHN R. HEARD.