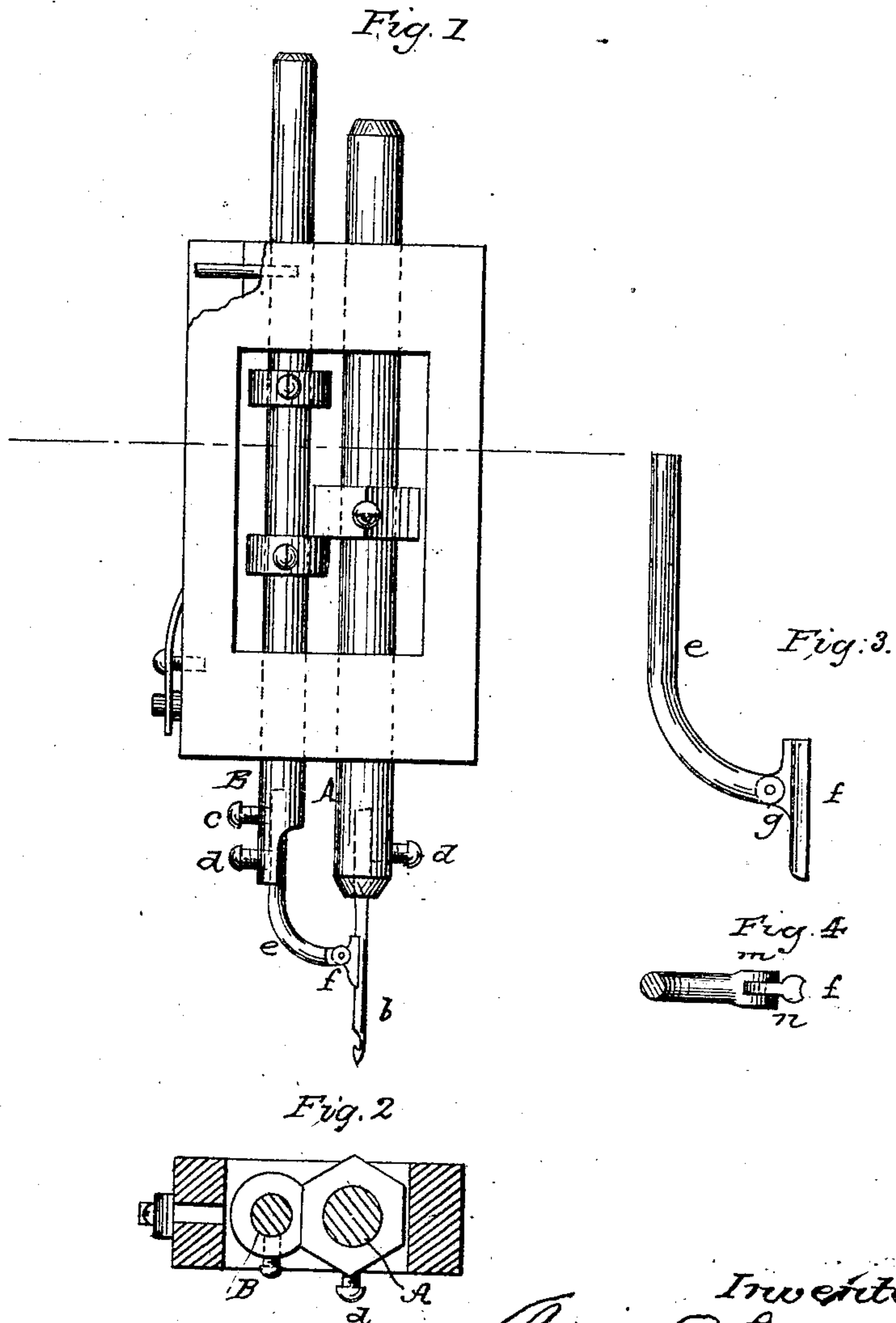


C. E. LANGMAID.

Cast-Off of Waxed Thread Sewing Machines.

No. 58,550.

Patented Oct. 2, 1866.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES E. LANGMAID, OF WOBURN, ASSIGNOR TO HIMSELF AND GEO.
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IMPROVEMENT IN THE CAST-OFF OF WAX-THREAD SEWING-MACHINES.

Specification forming part of Letters Patent No. 58,550, dated October 2, 1866.

To all whom it may concern:

Be it known that I, CHARLES E. LANGMAID, of Woburn, Middlesex county, State of Massachusetts, have invented a new and useful Improvement in Cast-Off for Wax-Thread Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of the cast-off as connected with a sewing-machine. Fig. 2 is a cross-section of connecting parts. Fig. 3 is a detached enlarged side view of the cast-off. Fig. 4 is an end view of the same.

Similar letters of reference indicate like parts.

My improvement relates to what is called the "cast-off" in wax-thread sewing-machines; and it consists in the attachment of a hinged foot on the cast-off in place of the rigid foot now in use, for the purpose of self-adjustment upon the hook, thereby curing the defect and obviating much trouble and loss of time in the working of such machines arising from the cutting of the thread at the point of the hook, which is a common and frequent occurrence caused by the unequal wearing of the rigid foot and the hook, and also the occasional springing out of true of the cast-off, which has the same bad effect, in which case filing the foot or replacing the bent cast-off with a new one are the only remedies.

My hinged cast-off foot always wears smooth and even and adjusts and adapts itself to the hook, thus completely removing the difficul-

ties in the use of the common cast-off with the rigid foot.

In Figs. 1 and 2, A represents the hook-bar, and B the cast-off bar. *a* is a set-screw to hold the hook *b* in the bar, and *c d* set-screws to hold the cast-off *e* in place, of which *d* is the adjusting-screw which presses the hinged foot *f* on the cast-off down on the side of the hook. In the enlarged view of the cast-off represented by Fig. 3 will be seen the form of the foot *f*, with a heel behind the end of the cast-off rod *e*, to which it is attached by a rivet, *g*, on which the upper part of the foot plays freely between two side pieces, *m n*, Fig. 4, forming the lower end of the cast-off rod *e*. The sole of the foot is cupped to fit the curved side of the hook, as usual.

The operation of my hinged hook is as effective as the device is simple for obviating the difficulties now constantly encountered by the wax-thread sewing-machine operator with the old rigid-foot cast-off arising from the cutting of the thread, by means of the self-adjusting and even-wearing properties it possesses.

Having described my invention, I disclaim a cast-off and its mode of connection and operation, and what I claim as new, and desire to secure by Letters Patent, is—

A hinged cast-off foot for sewing-machines, which adjusts itself to the side of the hook and wears evenly to prevent cutting the thread, constructed substantially as herein described.

CHARLES E. LANGMAID.

Witnesses:

IRA GERRY,
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