(No Model.)

Z. T. FRENCH & W. C. MEYER.

SOLE SEWING MACHINE.

No. 563,472. Patented July 7, 1896.

Fig. 4

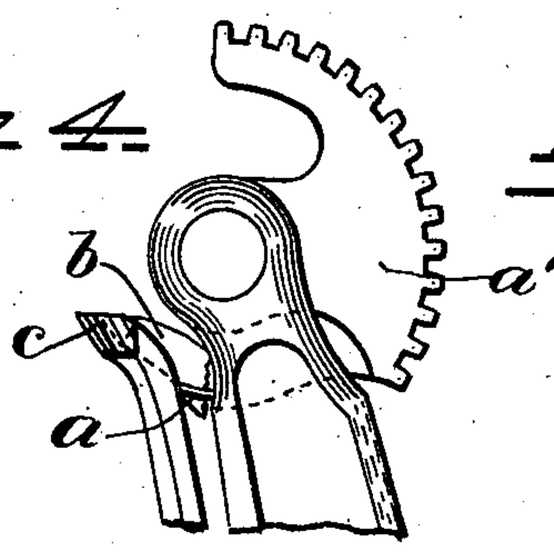


Fig. 5

Fig. 1.

Fig. 3.

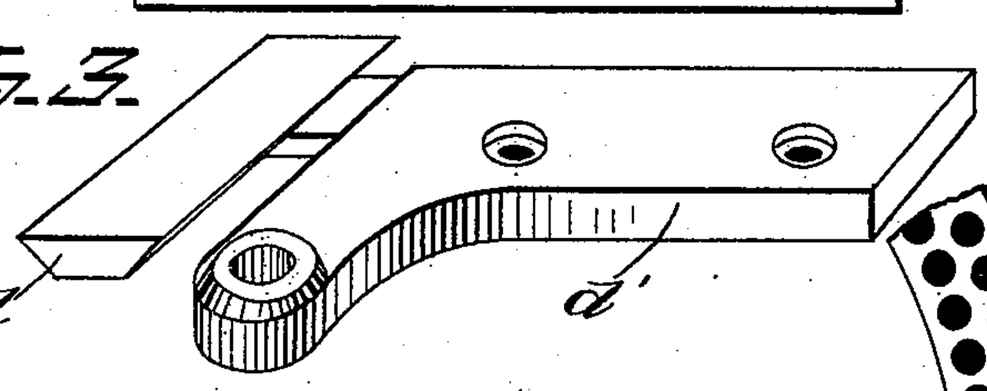
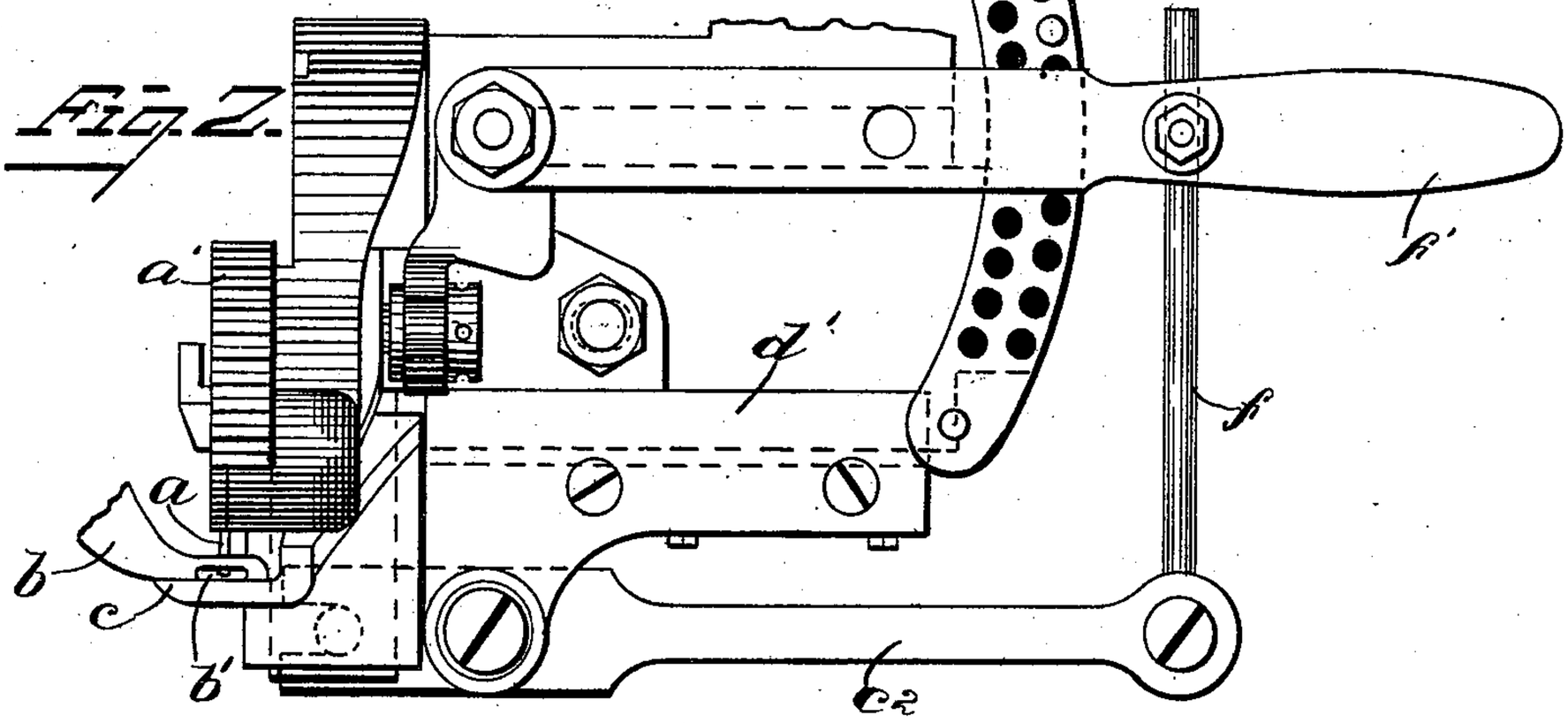


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ZACHARY T. FRENCH AND WILLIAM C. MEYER, OF BOSTON, MASSACHUSETTS.

SOLE-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 563,472, dated July 7, 1896.

Application filed July 12, 1895. Serial No. 555,762. (No model.)

To all whom it may concern:

Be it known that we, ZACHARY T. FRENCH and WILLIAM C. MEYER, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Sole-Sewing Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In some classes of boots and shoes the sole projects beyond the upper a greater distance around the fore part than along the shank portions, such boots and shoes being frequently referred to as having a Scotch edge, and in other classes of boots and shoes the sole is made to project a greater distance beyond the upper along the outside ball portion than around the toe or inside ball portion, such peculiar shape being applicable to either a Scotch-edged sole, or to a sole with an ordinary edge, although at the present time it is usually seen in boots or shoes having Scotch edges. In sewing the sole of such boots and shoes and particularly in welted work it is desirable that the stitches connecting the sole and welt shall pass through said parts at certain distances from the edge of the sole all around the fore part of the boot or shoe, regardless of the distance that the sole projects beyond the upper, while along the shank portions it is desirable that the stitches shall lie farther from the edge of the sole.

This invention has for its object to improve the construction of sole-sewing machines, whereby this result may be carried out.

Our invention consists, essentially, in the combination, with stitch-forming mechanism, of a table adapted to receive upon it the projecting edge of the welt of a lasted boot or shoe and the overlying sole, and a guide located adjacent thereto adapted to continuously engage and externally guide said boot or shoe, said guide being freely movable during the stitching operation to control the position of the boot or shoe with relation to the stitch-forming mechanism. The guide is shaped to enter the crease or bear against the upper drawn over the last.

Our invention is herein shown as applied to a sole-sewing machine such as represented in United States Patent No. 525,047, dated May 28, 1895.

Figure 1 shows in front elevation a portion of a sole-sewing machine embodying this invention; Fig. 2, a plan view of the parts shown in Fig. 1; Fig. 3, a detail of the plate which supports the movable guide; Fig. 4, a side view showing the guide, the work support or table, and a portion of the stitch-forming mechanism; and Fig. 5, a modified form of guide.

The awl *a* and its pivoted sector-carrier *a'* form a coöperative part of the stitch-forming mechanism of the sole-sewing machine represented in the patent above referred to, and as the stitch-forming mechanism itself forms no part of our present invention it is not deemed necessary to more fully illustrate it.

b represents the work support or table, which is herein represented as consisting of a bent arm the upper end of which occupies a horizontal plane and is cut away at the front side, as at *b'*, for the awl or needle. The welt or outer edge of the sole beyond the line of stitches to be formed rests upon this support.

c represents the guide, shown as an upright arm with an offset at its upper end which occupies a horizontal position and extends across the front of and close to the table *b*, the top of said guide lying substantially flush with the top of the said table.

The front edge of the offset portion of the guide *c* is formed to enter the crease or bear against the upper drawn taut over the last, as, for instance, if the front edge is made quite sharp, as shown in Figs. 1 and 4, it will enter the crease, whereas if said front edge is rounded off or made more or less blunt, as shown in Fig. 5, it will bear against the last adjacent the crease.

The guide *c*, extending across the front of the upper end of the work support or table, crosses the cut-away portion or needle-hole *b'* and serves to support the work at the front side of said needle-hole.

The guide *c* is made movable in and out with relation to the awl *a* and other members of the stitch-forming mechanism, and consequently with relation to the table *b*, and one way of carrying out this part of our invention

is herein represented, as, for instance, said guide may be mounted upon a dovetailed portion d of a stationary plate d', which is secured to the framework, the guide having a dovetailed recess at its lower end to receive and permit it to slide freely in and out on the portion d.

The lower end of the guide c is connected by screws 2 or otherwise with a plate c', which is loosely connected by a screw 3 or otherwise to one end of a lever c^2, pivoted at c^3 to the plate d', the opposite end of said lever extending toward the right for a short distance and being connected by a link f with a pivoted hand-lever f'. By swinging the lever c^2 back and forth on its pivot c^3 the guide c is moved in and out or toward and from the awl a and other members of the stitch-forming mechanism not shown, or in and out with relation to the table b.

The guide c, it will be observed, is in continuous engagement with the boot or shoe during the stitching operation, and as it is moved in and out by the hand-lever f' or otherwise the position of the boot or shoe with relation to the stitch-forming mechanism is controlled.

We claim—

1. In a sole-sewing machine, stitch-forming mechanism, stationary table b adapted to receive upon it and externally support the projecting edge of the welt of a lasted boot or shoe, guide c adapted to continuously engage and externally guide said boot or shoe, located in front of the table b and freely movable toward and from the stitch-forming mechanism, during the stitching operation, the top of said guide being in the same plane with the top of said table, substantially as described.

2. In a sole-sewing machine, the stationary table b adapted to receive upon it and externally support the projecting edge of the welt of a lasted boot or shoe, stitch-forming mechanism, the needle and awl of which work in front of said table b, and a guide c adapted to continuously engage and externally guide said boot or shoe, the end of which guide is located in front of said table b, and in the same horizontal plane with the table, and freely movable toward and from the stitch-forming mechanism during the stitching operation, substantially as described.

3. In a sole-sewing machine, a stationary table which receives upon it and externally supports the edge of the welt of a lasted boot or shoe, and a guide in front of the same, upon which the welt also rests, said guide externally guiding said boot or shoe and being freely movable in and out with relation to the table during the stitching operation, combined with stitch-forming mechanism, the needle and awl of which work between said table and movable guide, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ZACHARY T. FRENCH.
WILLIAM C. MEYER.

Witnesses:
B. J. NOYES,
C. B. CROCKER.