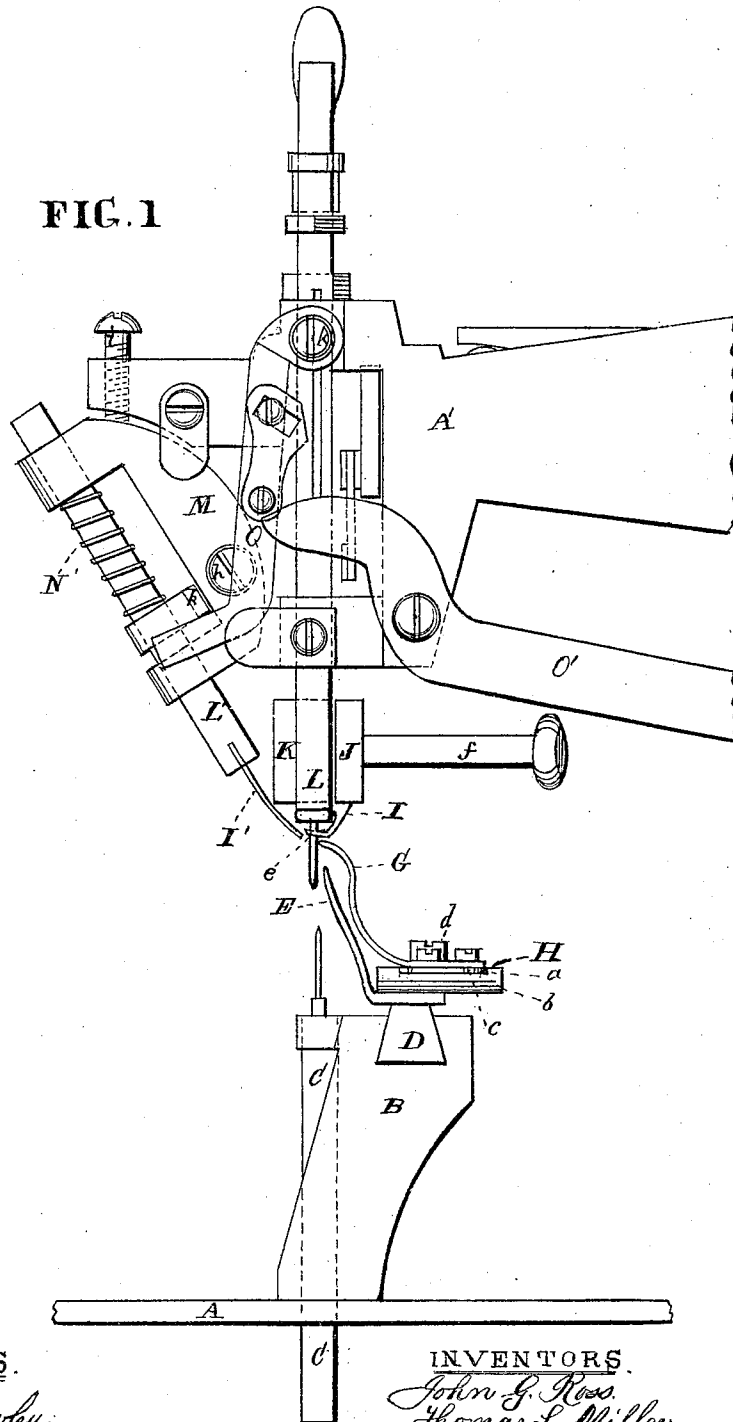


J. G. ROSS & T. L. MILLER.
Shoe Sewing-Machines.

No. 138,764.

Patented May 13, 1873.

FIG. 1



WITNESSES.

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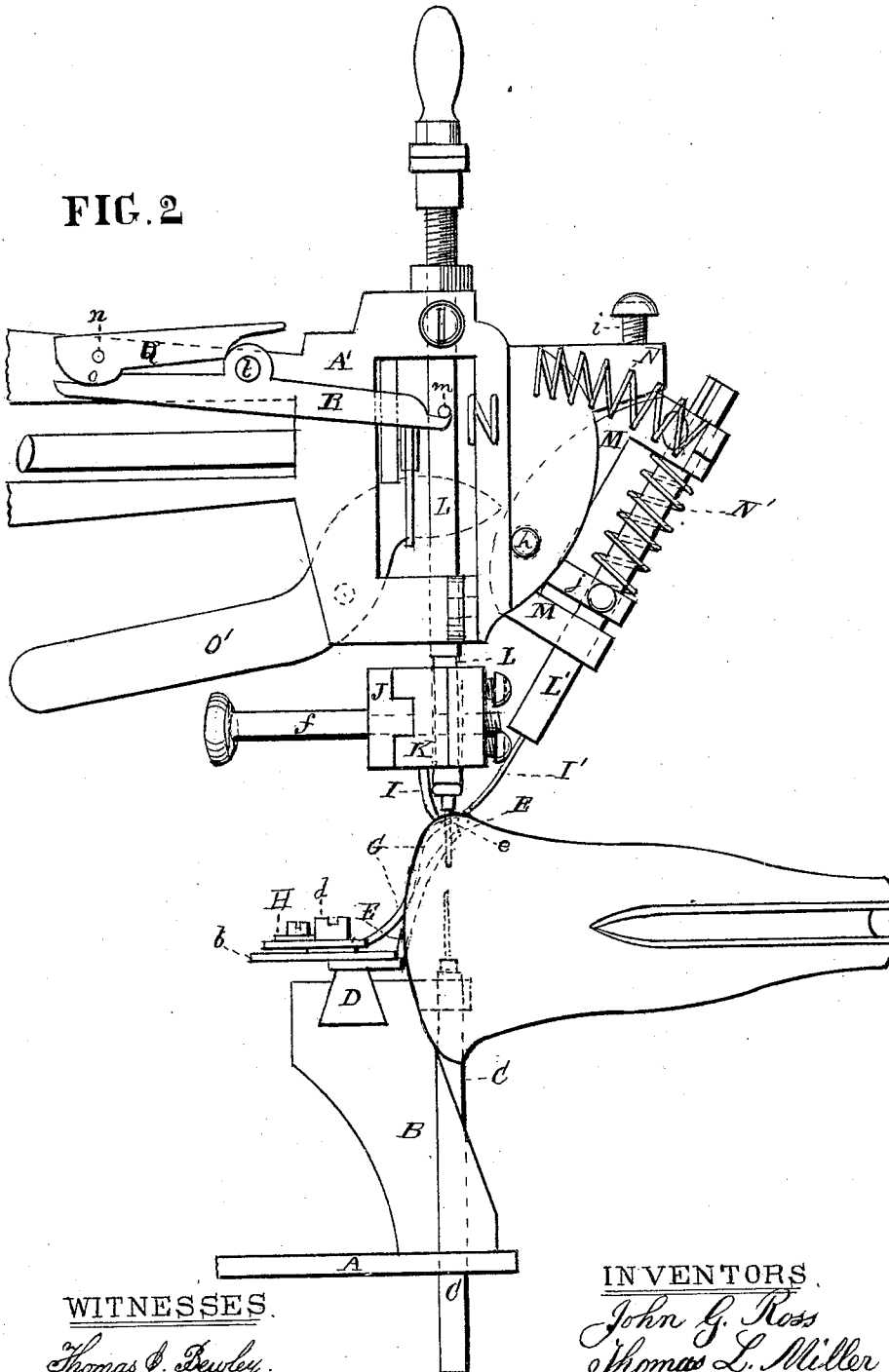
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FIG. 2



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FIG. 3

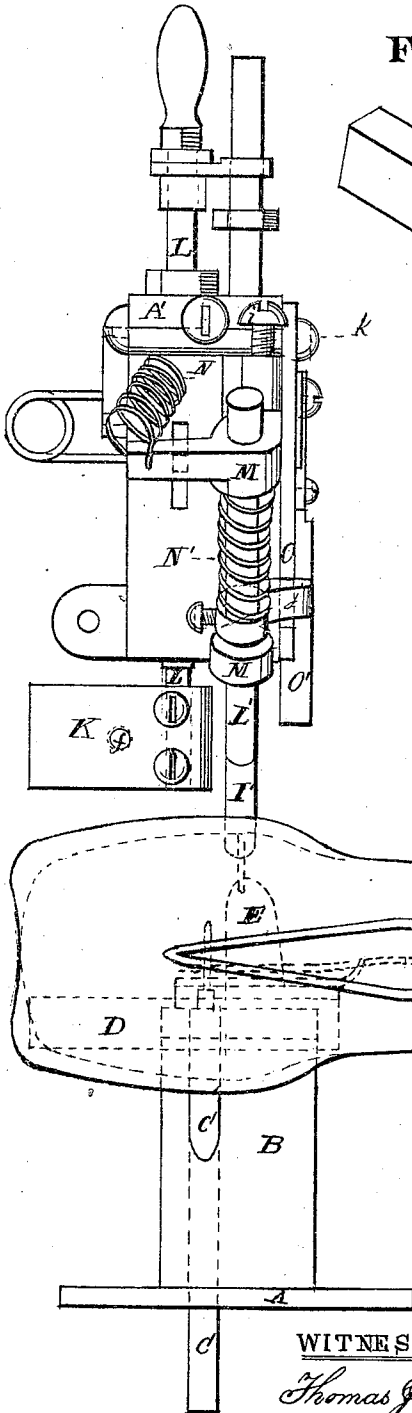


FIG. 4

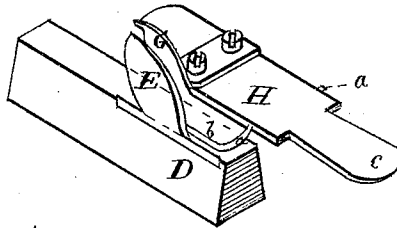


FIG. 5

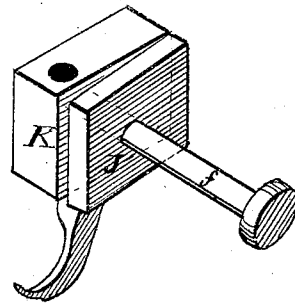
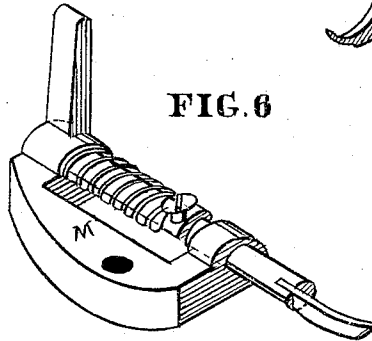


FIG. 6



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN G. ROSS AND THOMAS L. MILLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO JUSTUS W. FRENCH, VIVIAN K. SPEAR, BENJAMIN DORE, AND WILLIAM F. MORGAN, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN SHOE-SEWING MACHINES.

Specification forming part of Letters Patent No. **138,764**, dated May 13, 1873; application filed October 18, 1872.

To all whom it may concern:

Be it known that we, JOHN G. ROSS and THOMAS L. MILLER, of the city of Philadelphia, in the State of Pennsylvania, have invented certain Improvements in Machines for Sewing Turned Shoes, of which the following is a specification:

Our invention relates to the combination and arrangement of the feed-bar, foot-rest, vertical presser-foot, and an oblique presser-foot in a sewing-machine, as hereinafter fully described.

Figure 1 is a side elevation of the improved machine. Fig. 2, Sheet No. 2, is a like view taken from the opposite side of the machine. Fig. 3, Sheet No. 3, is a front elevation of the machine. Fig. 4 is an isometrical view of the feed-bar D, combined rest and channel-opener E, and the sole-guide G. Fig. 5 is a like view of the combined upper presser-foot I and auxiliary guide *e*, in combination with their stock K. Fig. 6 is a like view of the oblique presser-foot I' and stock M.

Like letters in all the figures indicate the same parts.

A is the bed-plate of the machine, and B a standard at the front of the same provided with the needle-bar C and feed-bar D, which carries the combined rest and channel-opener E, which forms a single piece, and the sole-guide G, which is attached to the lever H. The said bar and parts attached are shown in detail in Fig. 4. These improvements are connected with a wax-thread sewing-machine. The feed-bar D receives its reciprocating movements from a rock-shaft near the bed-plate of the machine, a long vertical arm at the rear end of the shaft being operated upon at its upper end by a cam on the driving-shaft of said machine; and the front end of the rock-shaft has a short vertical arm, the upper end of which has a joint-connection with the bar D. The needle remains in the shoe to prevent its backward movement after the presser-feet have been withdrawn from it, and they and the feed-bar and rest return to their back position for feeding the shoe forward, the operator steadying the shoe to re-

tain it in its normal position until the presser-feet are brought to bear upon it. The movements of the awl, needle, and presser-feet are as usual in wax-thread machines. The shoe is supported by the under rest E, which enters the channel and serves as an opener. The guide G is brought against the bevel of the shoe-sole, as represented in Fig. 2, the lever to which it is attached lying in the fork *a* of the plate *b*. When the shoe is to be removed and another placed in position for sewing, the guide G is turned away from the sole by the operator taking hold of the handle *c* of the lever and lifting it out of its fixed position, and then turning it backward, the lever swinging on the screw *d*.

The other parts of the machine which will now be described are connected with the head-piece A'. There is an upper presser-foot, I, which presses on the turned-over edge of the upper and keeps it down on the sole, while the awl passes through it, as seen in Figs. 1 and 2. The foot has a bevel, *e*, which serves as an auxiliary guide to the guide G by pressing upon the bevel of the sole while the presser-foot I bears upon the square edge, thus preventing backward movement of the edge of the sole, and holding the shoe steady during the sewing operation. The presser-foot is connected with the plate J, hinged at one end to the stock K, which has a vertical and horizontal adjustment on the bar L. The plate J has a horizontal adjustment by means of the screw *f* which passes through the stock K, whereby the presser-foot is accurately adjusted in relation to the upper. The plate is kept out from the stock by means of a spring. The stock K and parts attached are shown in detail in Fig. 5. There is an oblique presser-foot, I', which projects from the lower end of the bar L', the said bar being connected with the stock M, shown in detail in Fig. 6. The said stock is hung on the screw *h*, as seen in Figs. 1 and 2, and is capable of adjustment to bring the presser-foot to the upper and in proper position with the bevel-guide *e* by means of the vertical set-screw *i*. There is a wire-spring, N, attached to the upper end of the

stock to keep it up against the screw. The bar L' is provided with a spring, N', which bears against its adjustable arm j. O is a lever hung on the screw K, as seen in Fig. 1. The lower end of the lever is placed under the arm, and by the action of the lever O' the presser-foot is lifted for the removal of the shoe or for placing another one in position. R is a lever, seen in Fig. 2, which is hung on the fulcrum-pin l, and having its front end under the pin m which projects from one side of the upper presser-foot bar L; and Q is a lever hung on the pin n, and having a cam, o, which, as the front end of the lever is raised, actuates the lever R for elevating the upper presser-foot bar for removing the foot from the shoe when required. This foot presses upon the upper, and tends to press the channel upon the rest E and the bevel of the sole against the sole-guide G, so as to keep the shoe steady as it is fed forward and sewed.

We claim as our invention—

1. The combination of the rest and channel-opener E with the feed-bar D and presser-feet I and I' for feeding the shoe forward and holding it for the sewing operation, substantially as and for the purpose specified.

2. The combination of the upper presser-foot I, plate J, stock K, and set-screw f, substantially in the manner and for the purpose above described.

3. The oblique presser-foot I' in combination with the rest E and bevel sole-guide G, substantially in the manner and for the purpose set forth.

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THOMAS L. MILLER.

Witnesses:

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