

(No Model.)

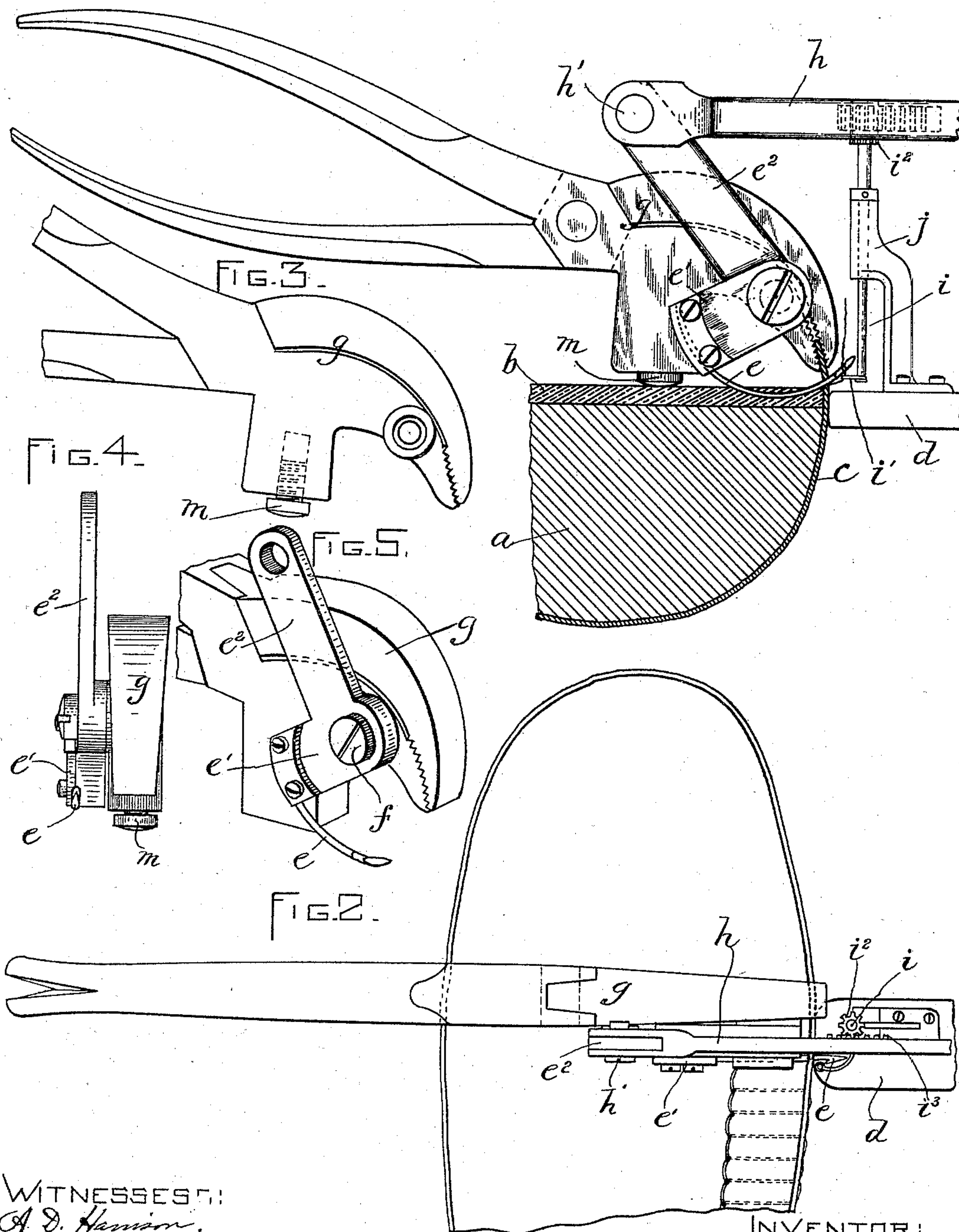
T. K. KEITH.

SEWING MACHINE FOR LASTING BOOTS OR SHOES.

No. 488,523.

Patented Dec. 20, 1892.

FIG. 1.



WITNESSES:
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UNITED STATES PATENT OFFICE.

THOMAS K. KEITH, OF BOSTON, MASSACHUSETTS.

SEWING-MACHINE FOR LASTING BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 488,523, dated December 20, 1892.

Application filed March 7, 1892. Serial No. 423,968. (No model.)

To all whom it may concern:

Be it known that I, THOMAS K. KEITH, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Sewing-Machines for Lasting Boots and Shoes, of which the following is a specification.

This invention has for its object to provide a simple machine or appliance for lasting boot and shoe uppers, comprising a stitch-forming mechanism, and a pair of lasting pinchers, both operatively connected, so that the operator can manipulate and guide both the pinchers and the needle with one hand. The invention consists in the improved appliances which I will now proceed to describe.

Of the accompanying drawings, forming part of this specification: Figure 1 represents a side elevation of a needle, pair of lasting pinchers, and means for imparting motion to the needle, said view showing in cross section a portion of a boot or shoe and the last on which it is made. Fig. 2 represents a top view of the construction shown in Fig. 1. Fig. 3 represents a side view of the pinchers, separated from the needle. Fig. 4 represents an end view of the pinchers and the needle connected. Fig. 5 represents a perspective view of the parts shown in Fig. 4.

The same letters of reference indicate the same parts in all the figures.

In the drawings: *a* represents a last, on which is an inner-sole *b*, and a boot or shoe upper *c*.

d represents a rest, against which the upper is pressed during the operation.

e represents a curved needle, having a barb to engage the thread, said needle being attached to an arm or lever *e'*, which is mounted to turn upon a screw or stud *f*. Said stud is affixed to the lower jaw of a pair of pinchers *g*, said pinchers being preferably of the general form shown in Figs. 1, 2 and 3.

h represents a reciprocating arm, to which a horizontal reciprocating movement may be given by any suitable mechanism, said arm preferably sliding in suitable guides affixed to the supporting-frame of the machine. The

outer end of the arm *h* is pivoted at *h'* to an arm *e''*, affixed to the needle-carrying arm *e'*, so that the reciprocating movements of the arm *h* give an oscillating movement to the needle and cause it to alternately penetrate the inner-sole and upper, as shown in Fig. 1, and withdraw therefrom.

i represents a shaft, journaled in bearings in a bracket *j* on the supporting-frame, and having at its lower end a looper-arm *i'* through which the thread passes. The upper end of said shaft has a pinion *i''*, meshing with a rack *i'''* on the arm *h*, hence the reciprocating movements of said arm cause the shaft *i* and the looper-arm *i'* to oscillate, the looper being thus caused to alternately present the thread to and withdraw it from the needle. The lower jaw of the pinchers is provided with a rest *m*, which is arranged to bear upon the inner-sole, as shown in Fig. 1, said rest being preferably an adjustable screw, which enables the depth of penetration of the needle into the sole to be adjusted, as will be readily seen.

Operation: The operator, grasping the handles of the pinchers, holds the latter and the needle in the desired position with one hand, and with the other guides the last and upper, the last being supported by a jack, which may be turned or otherwise manipulated by the operator's hand to bring different portions of the work to the point where the needle operates. It will be seen that, by connecting the needle and pinchers, as described, the operator is enabled with one hand to guide both the pinchers and the needle.

I claim:

1. In a sewing machine, the combination of a curved needle, an arm supporting said needle, a pair of lasting pinchers, the needle-arm being pivoted to one of the jaws of the pinchers, and means for oscillating the needle and needle-arm, as set forth.

2. The combination of the pinchers, the needle-arm pivotally connected to one of the jaws of the pinchers and provided with a curved needle, the lever secured to the needle-arm, a reciprocating slide connected with said lever, and a looper operated by the recip-

rocating movements of said slide and arranged to present the thread to the barb of the needle, as set forth.

- 5 3. The pinchers, having on the lower jaw an adjustable rest *m*, combined with the needle-arm pivoted to said lower jaw and provided with a needle, and mechanism for oscillating said arm and needle, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 2d day of March, A. D. 1892.

THOMAS K. KEITH.

Witnesses:

C. F. BROWN,

A. D. HARRISON.