L. Goddu,

Shoe Pegging Mach.

No. 97,190. Patented Nov. 23, 1869.

Fig. 1

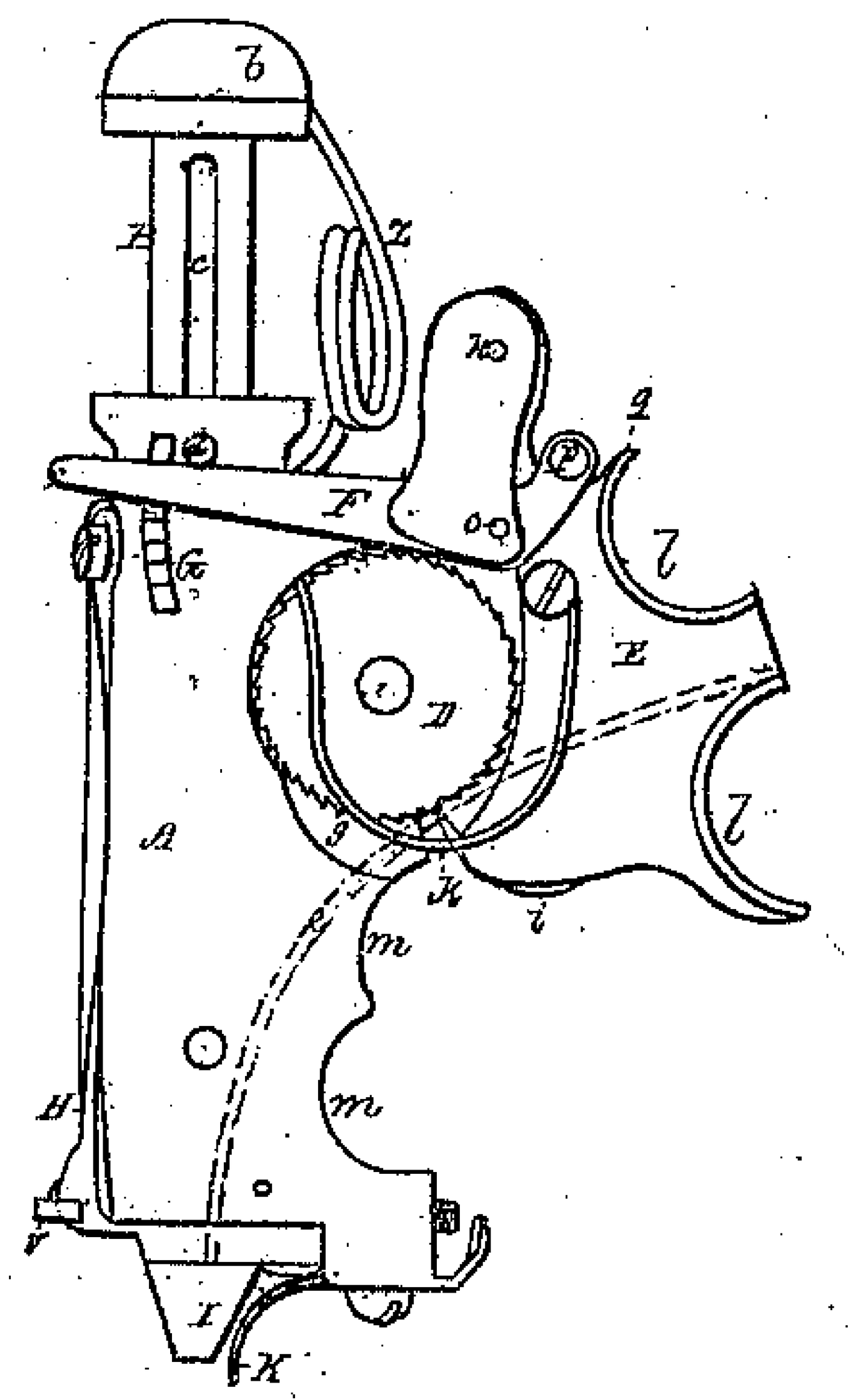


Fig. 2

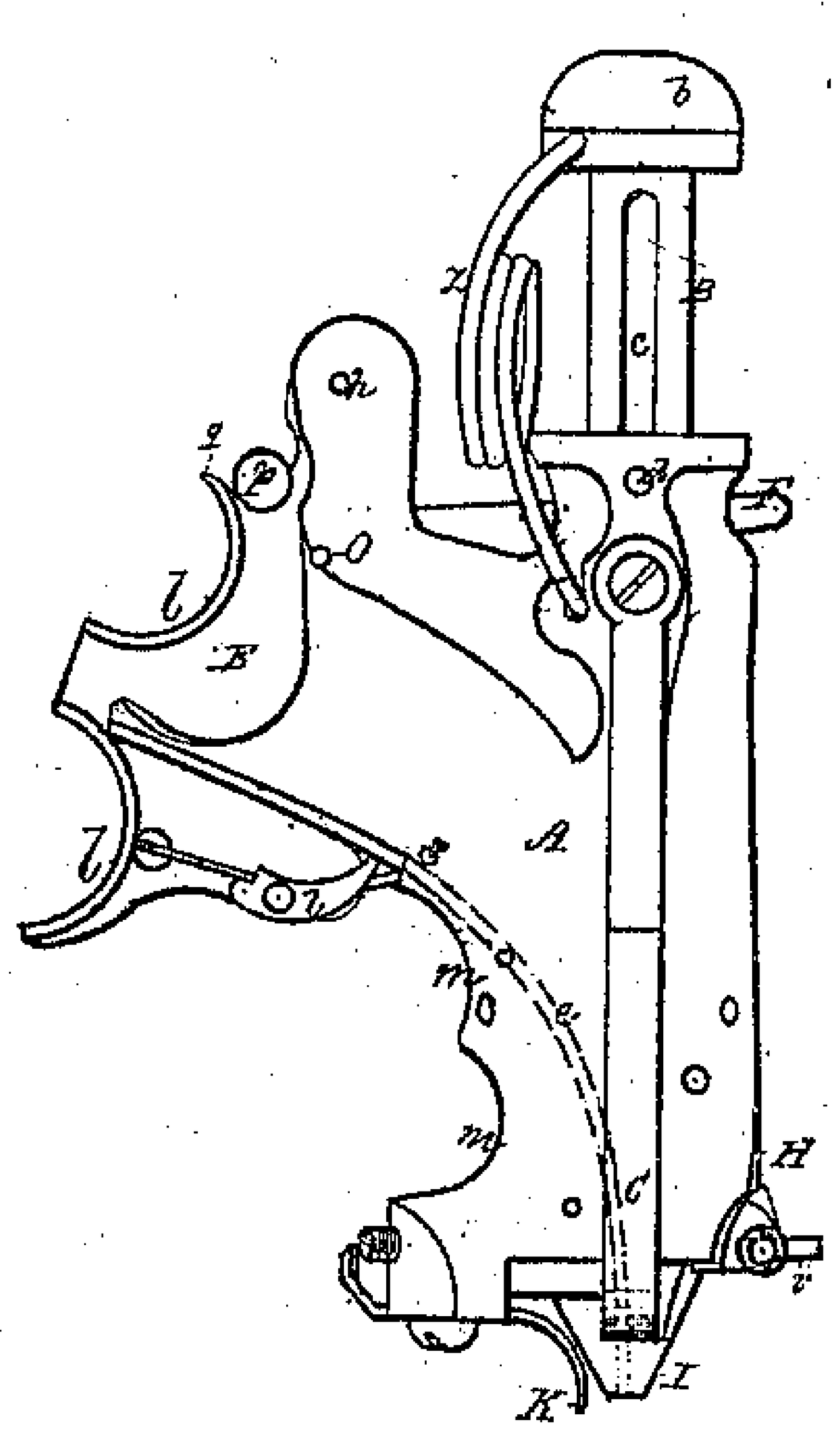


Fig. 3

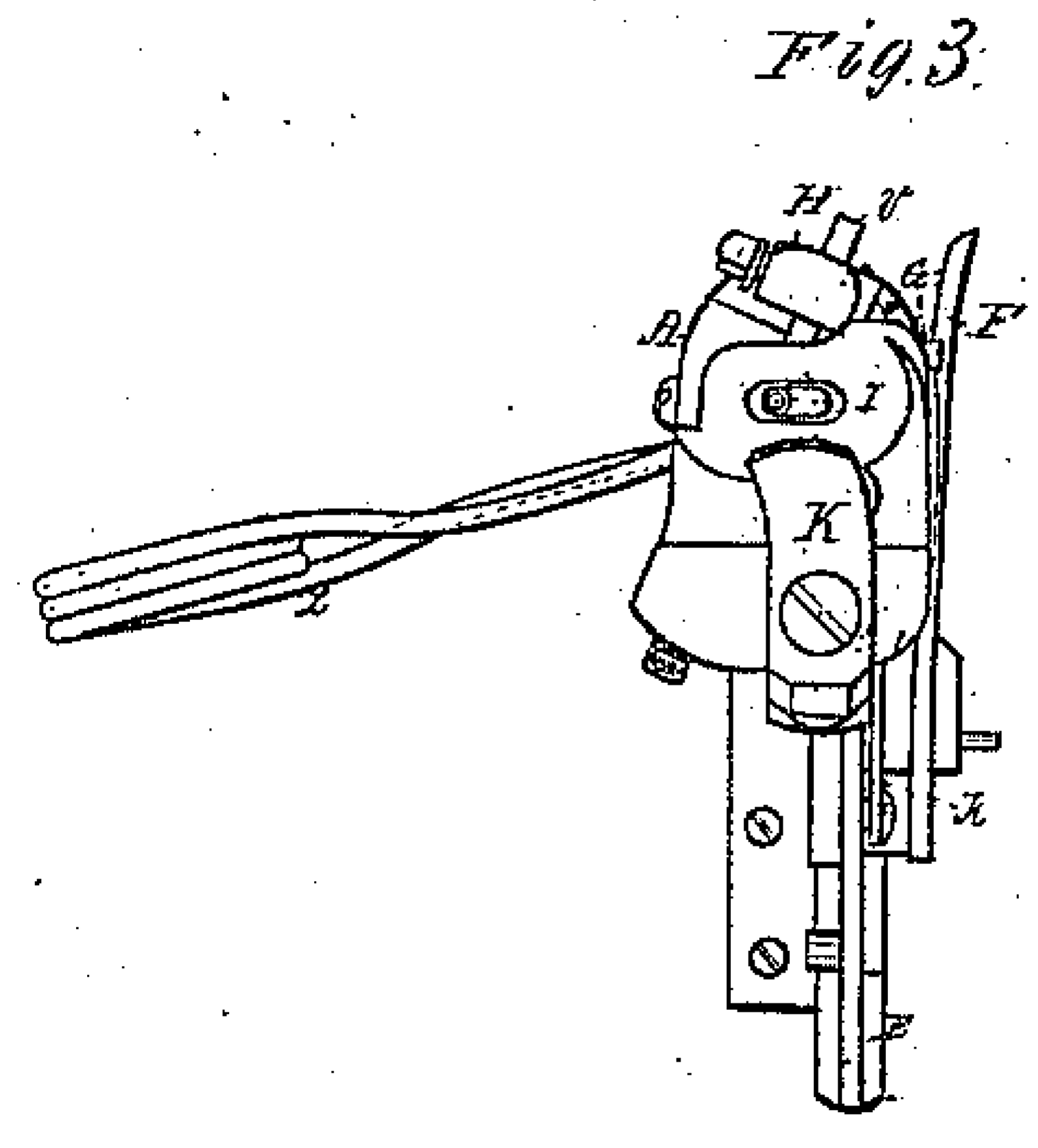


Fig. 5

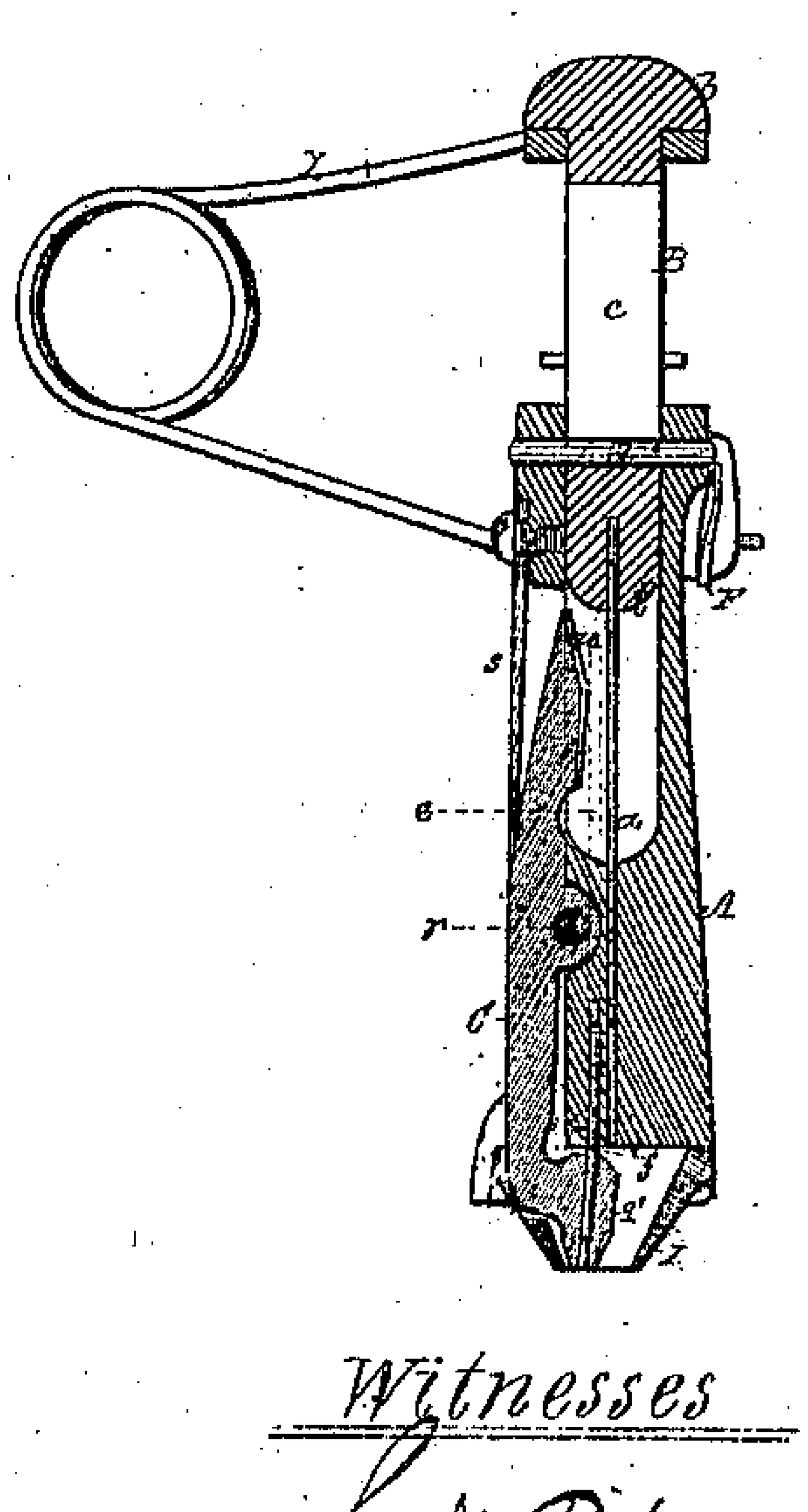
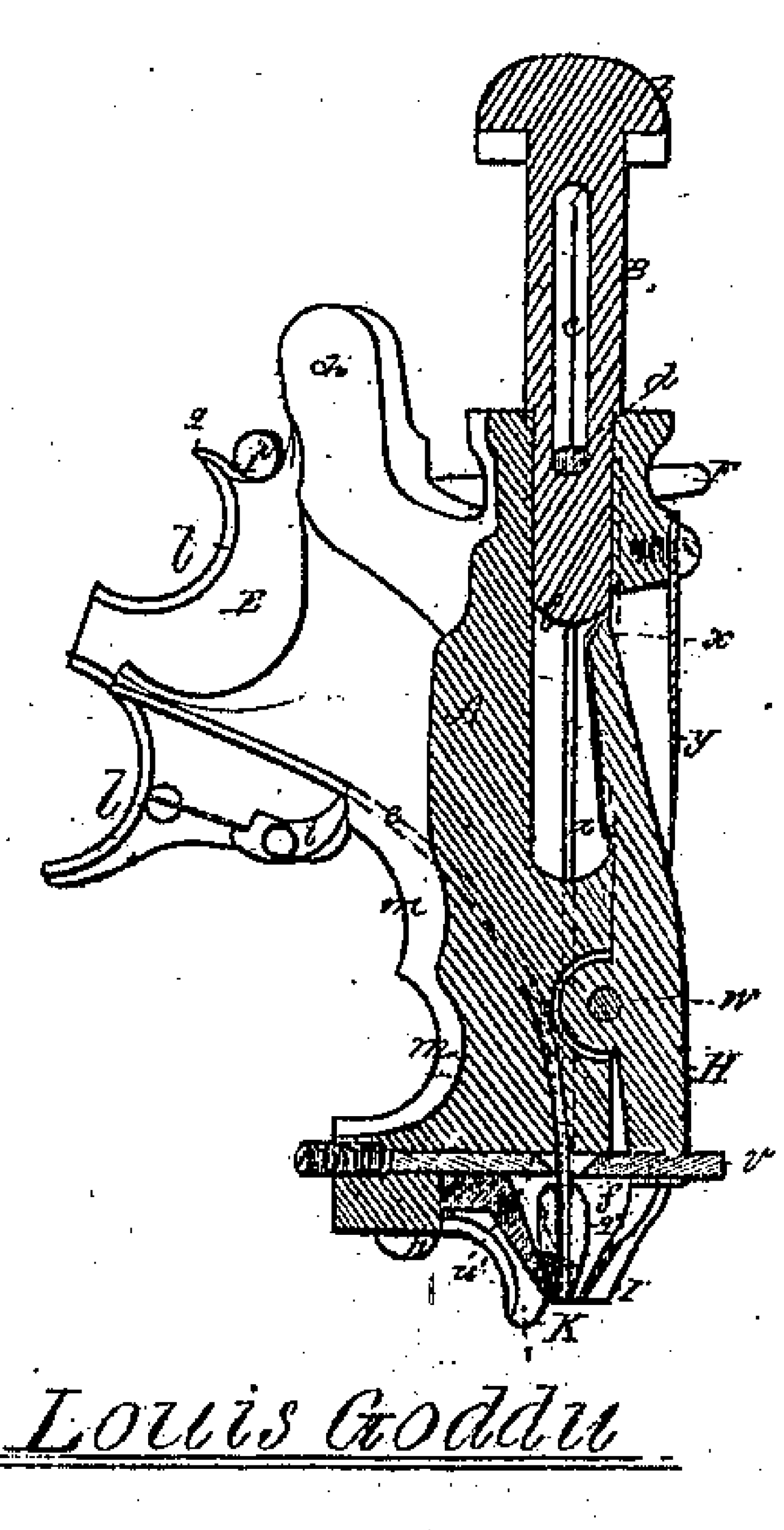


Fig. 4



Witnesses

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LOUIS GODDU, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO ELMER TOWNSEND, OF SAME PLACE.

Letters Patent No. 97,190, *dated November* 23, 1869.

IMPROVEMENT IN MACHINES FOR NAILING SHOE-SOLES WITH WIRE.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, LOUIS GODDU, a citizen of the Dominion of Canada, having resided in the United States the year preceding, and made oath of intention to become a citizen thereof, and being now a resident of Boston, of the county of Suffolk, and State of Massachusetts, have made a new and useful invention, having reference to the Nailing of Shoe-Soles, or various other Articles, with Wire; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, making part thereof.

Of such drawings—

Figure 1 is a front elevation, and

Figure 2, a rear elevation of the machine containing my invention.

Figure 3 is a bottom view of it.

Figure 4 is a transverse section and vertical section of it, taken through its movable cutter.

Figure 5 is a transverse and vertical section of it, taken through the wire-carrier or transferrer.

This machine, while in operation, is intended to be held in and actuated in part by one hand of a person, who, with a mallet or hammer in his other hand, from time to time, is to strike a blow on the head of the nail-driver.

Preparatory to each nail being driven, the hand which may have hold of the machine also, is to feed or move it along a short distance on the sole to be nailed. The said hand also, after each of such movements, is to put in operation the mechanism for feeding the wire down into the carrier or transferrer.

In the drawings—

A denotes the stock of the machine.

Within the said stock is a nail-driver, *a*, which extends down from a round shank, B, which, at top, is provided with a head, *b*. The shank and the driver are to be so applied to the stock as to be capable of being moved up and down rectilinearly therein. A slot, *c*, made through the shank, receives a pin, *d*, extended through the stock, such slot and pin serving to determine the extent of upward movement of the shank. There is a curved passage, *e*, made in the stock, for the reception and convenience of the nailing-wire *f* to the transferrer, shown at C.

There is also, within the shank, and so as to extend against the wire, when in the passage *e*, a feed-wheel, D, provided with a ratchet, *g*.

A lever, E, pivoted to the stock at *h*, carries a spring-pawl or click, *i*, which engages with the toothed periphery of the ratchet.

A bow-spring, K, applied to the lever and the stock, and arranged in manner as represented, serves to reverse the movement of the lever after any inward motion of it for the purpose of actuating the feed-wheel.

The lever is formed with two curved finger-rests, *l l*, to receive the second and third fingers of the hand of a person, while it may be grasping the stock, the latter being hollowed out, as shown at *m m*, to receive the fourth and fifth fingers while grasping it.

A bent lever, F, pivoted to the stock at *o*, and arranged thereon in manner as represented, has a stop or pin, *p*, extended at right angles from its shorter arm, and in rear of the upper part *g* of the upper finger-rest *l*. The longer arm of the said lever is a spring-catch, which may be slipped into either notch of a serrated rack, G, projected from the stock.

By means of the rack, the lever, and the stop, the extent of back movement of the lever E may be determined, for the purpose of effecting, by the forward movement of the lever, the proper advance or feeding of the wire.

As the nail-wire is moved forward, it passes into the transferrer C, whose lower part, *g'*, is tubular, to receive the wire. This transferrer is a lever, arranged within, and pivoted to the stock, its fulcrum being shown at *r*. The lever is moved in one direction by the nail-driver shank while descending, the reverse movement of the transferrer being effected by a spring, *s*, fixed to the stock, and arranged, relatively to the transferrer, in manner as exhibited in the drawings. The lower end of the shank of the nail-driver is semi-spherical, as shown at *t*, for the purpose of actuating the transferrer, whose upper arm is cam-shaped, as shown at *u*, to cause the transferrer to be actuated by the shank.

Furthermore, there is within the shank a stationary knife, *w'*, to operate with a movable cutter or knife, *v*, carried by a lever, H. This lever is arranged within and pivoted to the shank, its fulcrum being shown at *w*. The upper arm of this lever is bevelled, as shown at *x*, to cause the lever to be moved in one direction, (viz, such as to advance its knife up to the stationary knife) by the nail-driver carrier during its descent.

A spring, *y*, projected from the stock, and against the lever, serves to effect a reverse movement of the cutter-lever at the proper time or times.

To the nail-driver and the stock, a spring, *z*, is applied, its purpose being to raise the shank or carrier of the driver after each descent of it.

At the lower part of the stock, and projected therefrom, and formed in manner as represented in the drawings, is what may be termed the nose-piece, I. This, at its lower end, is to rest directly on the sole to be nailed, an adjustable gauge, K, fastened to the stock, and arranged with the nose-piece, in manner as shown in the drawings, serving, by resting against the edge of the sole, to determine the proper distance therefrom at which each of the nails is to be driven.

With this machine, the user, by moving the pawl-lever E more or less, by his hand, can vary the length of the nails to be cut from the wire, and thus, after a

little practice, he may become so expert as to cause them to be cut of various lengths, as the varying thickness of a sole may require, those for the shank of the sole being generally shorter, and of varying lengths, relatively to those of the rest of the sole. When, however, the nails to be driven in any part of the sole are to be of one uniform length, the lever E, preparatory to each severing of a nail from the wire, may be allowed to advance up to its forward stop, shown at *p*.

In the operation of this machine, the wire, after having passed into the transferrer, is next cut by the knife. Next, the piece severed will be transferred to and directly underneath the device, which, next descending upon it, will force it into the sole. The workman next tilts and moves the machine forward the proper distance for another nail to be driven, after which he, by a downward blow on the head of the driver-carrier, causes another advance of the wire, and another piece of it to be removed from the rest and driven into the sole.

In the above-described machine.

I claim, as my invention, the following, viz:

The arrangement, as well as the combination, of the hand-lever E, and its operative spring *k*, with the stock A, and the mechanism for advancing the wire, the said mechanism consisting of the pawl *i*, the ratchet *g*, and the feed-wheel D, arranged in and applied to the stock, and the wire passage thereof, as explained.

Also, the combination of the stop *p*, and its adjusting-lever F, and rack G, with the stock A, and the hand-lever E, applied to the feeding-mechanism, as set forth.

Also, the arrangement of the transferrer C with the stock A and the shank B of the nail-driver carrier, in manner so as to be moved in one direction by the said shank, while descending, as set forth, the movement of said transferrer in the opposite direction being effected by a spring, or its equivalent.

Also, the arrangement of the movable knife-carrier or lever H with the stock A and the shank B of the nail-driver carrier, in manner so as to be moved in one direction by the said shank while descending, as set forth, the movement of the said knife-lever in the opposite direction being effected by a spring, or its equivalent.

LOUIS GODDU.

Witnesses:
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L. N. MÖLLER.