

WILLIAM F. FOLEY.

Machine for Trimming the Edges of Leather, &c.

No. 125,946.

Patented April 23, 1872.

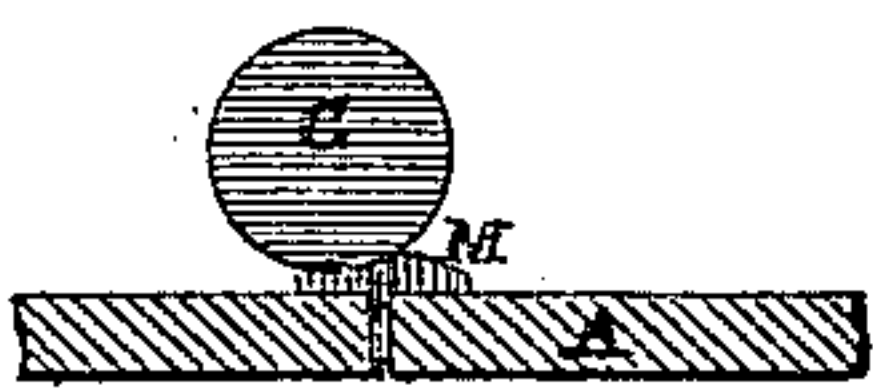
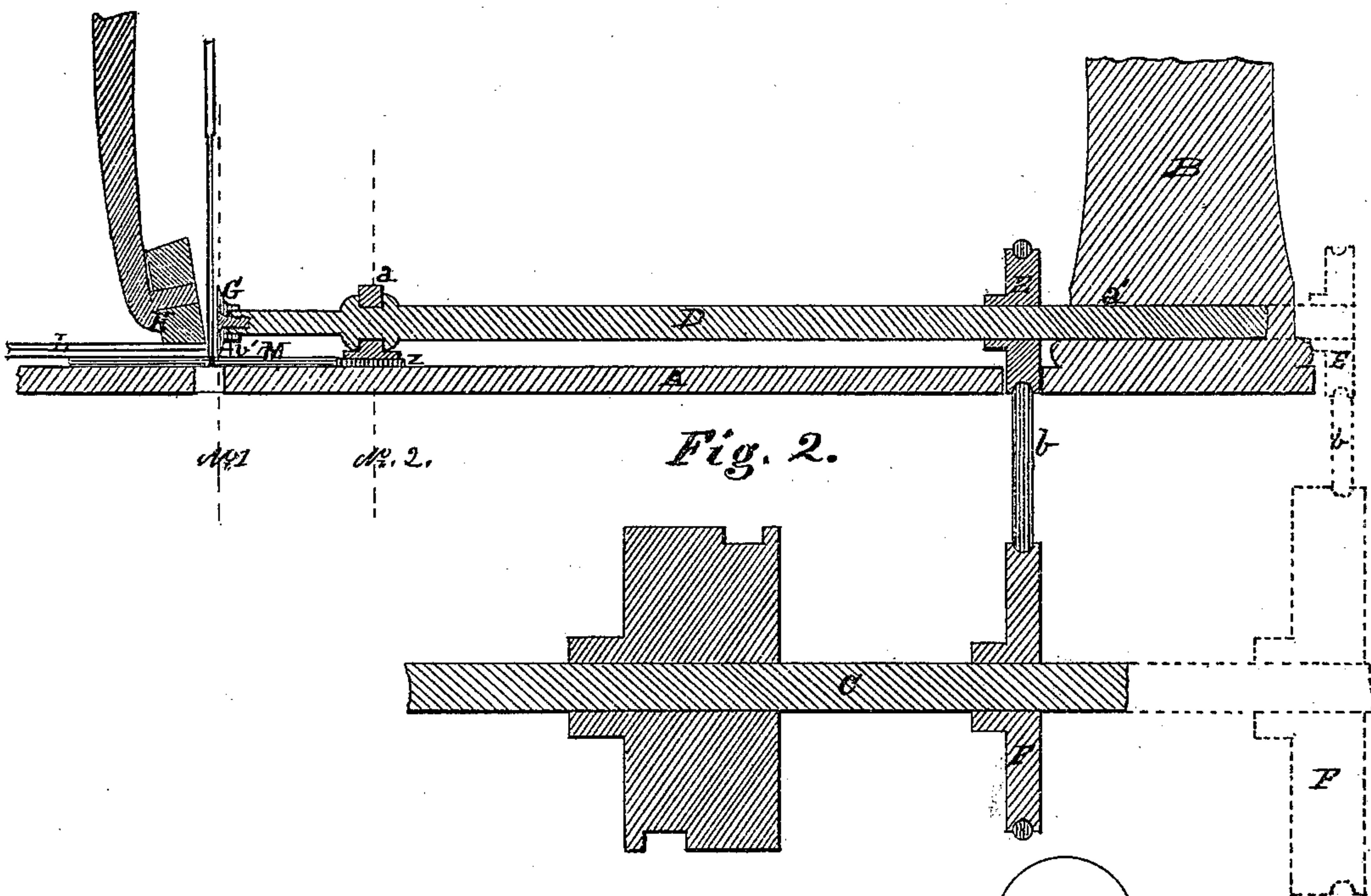
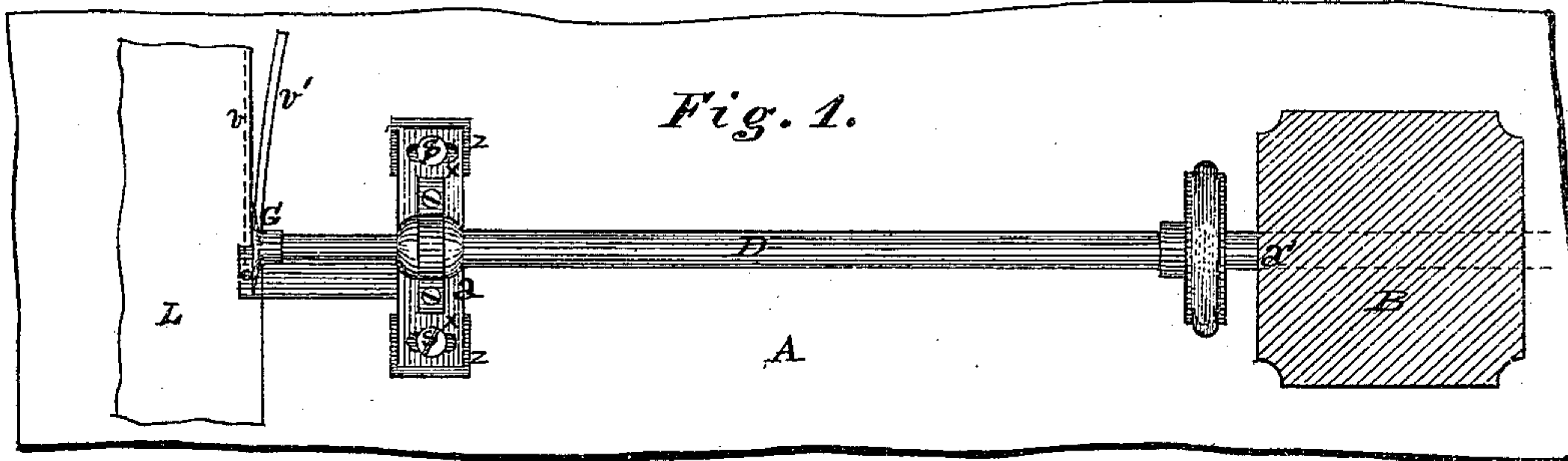


Fig. 3.

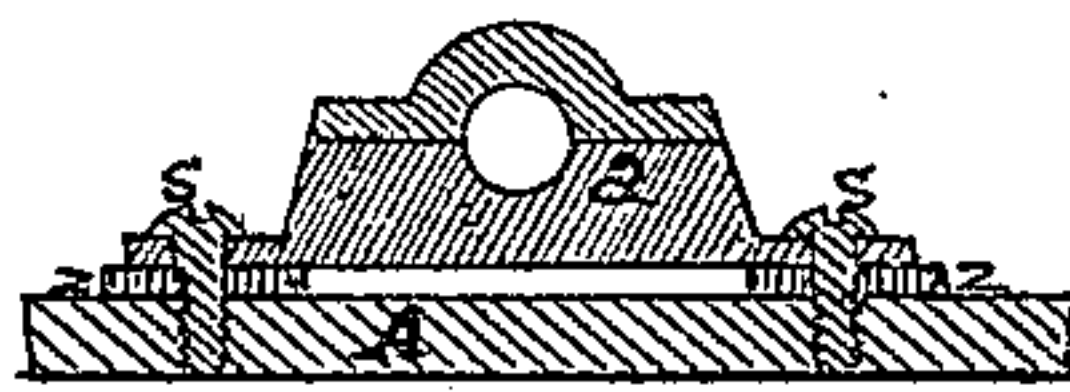


Fig. 4.

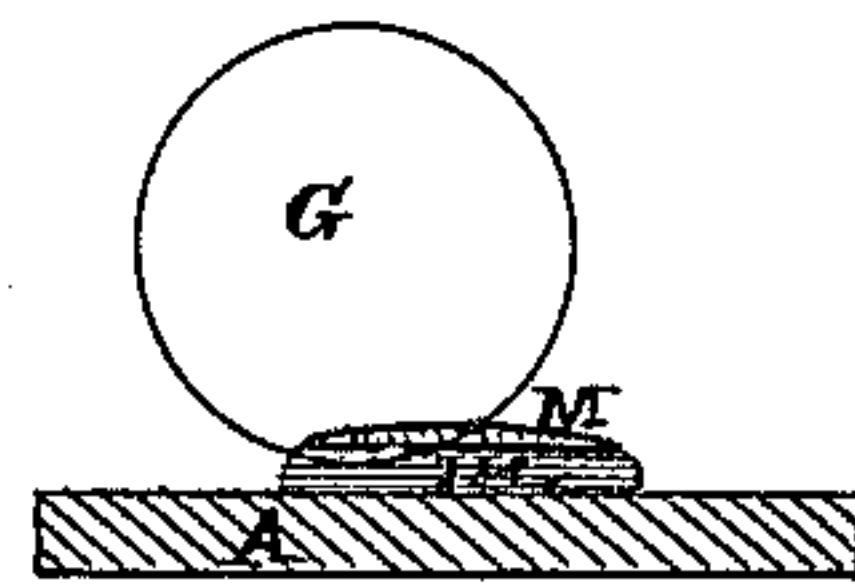


Fig. 5.

Witnesses { Lewis J. Newell.
Chas. Seckitt.

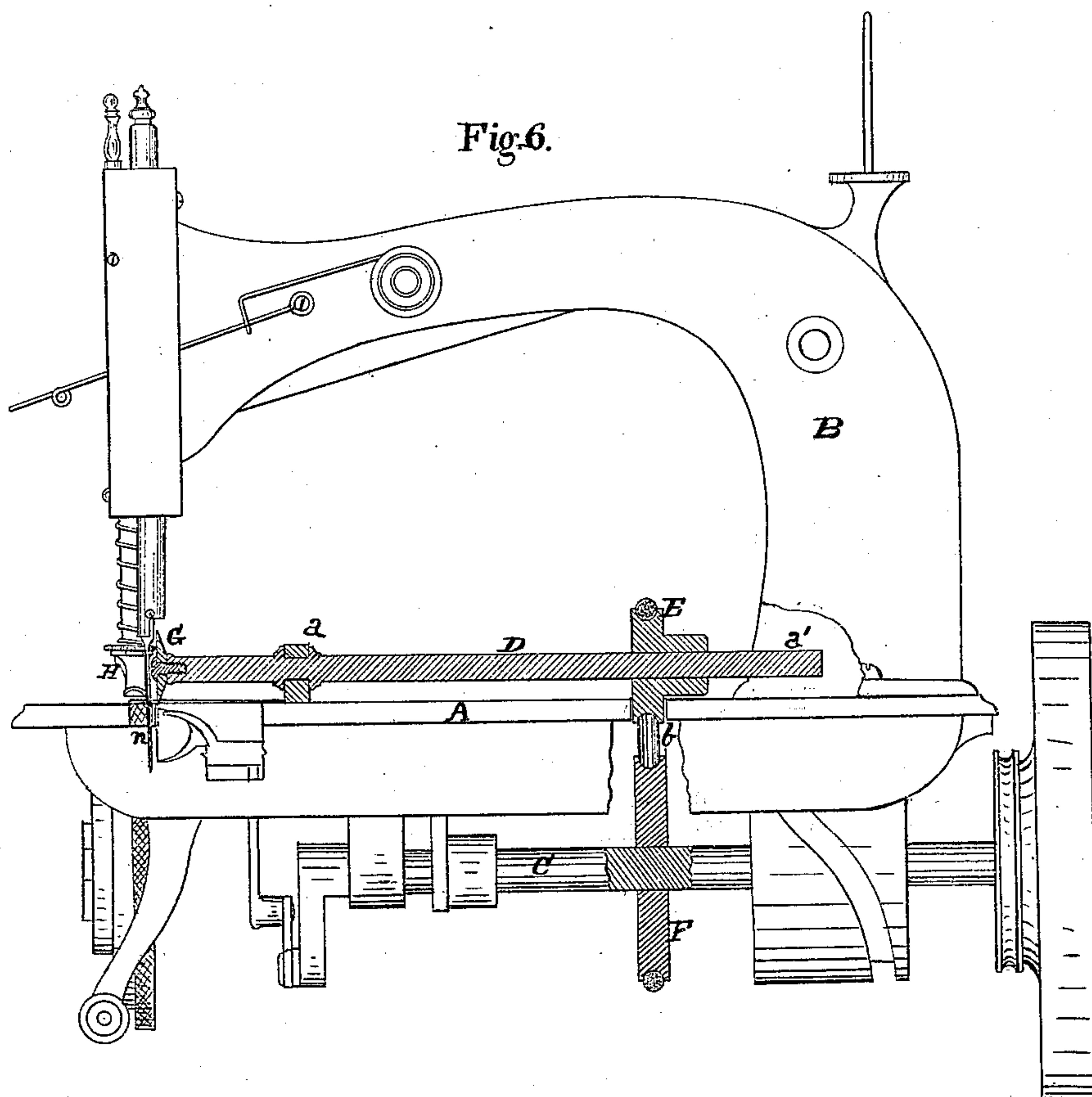
William F. Foley
Inventor.
by his Attorney
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WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM F. FOLEY, OF ALBANY, NEW YORK.

IMPROVEMENT IN MACHINES FOR TRIMMING THE EDGES OF LEATHER, &c.

Specification forming part of Letters Patent No. 125,946, dated April 23, 1872.

To all whom it may concern:

Be it known that I, WILLIAM F. FOLEY, of the city and county of Albany, State of New York, have invented a new and Improved Device for Trimming the Edges of Leather; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1, Plate I, represents a vertical view of the apparatus applied to a sewing-machine. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a cross-section of the same taken at line No. 1 in Fig. 1. Fig. 4 is a cross-section taken at line No. 2 in Fig. 1. Fig. 5 is a cross-sectional view of the throat-piece of a sewing-machine and the knife and cutting-board, on an enlarged scale. Fig. 6, Plate II, represents a side elevation of the apparatus and a sectional view of a sewing-machine to which it is applied, illustrating the invention.

My invention relates to a new apparatus for trimming leather while it is being stitched with a sewing-machine; and consists in the combination and arrangement of a circular knife with a horizontal shaft, driven by the operating-shaft of a sewing-machine, and several other elements, whereby the said circular knife will be operated simultaneously with the feed of the machine and the operation of the needle, and in such a manner that the leather being stitched will have its edge trimmed, and that, too, at any desired distance from the stitching, and in a clean manner.

To enable others skilled in the art to make and use my invention, I will proceed to describe it in reference to the drawing and the letters of reference marked thereon, the same letters indicating like parts.

In the drawing, A represents the usual table of a sewing-machine, to which the invention is to be attached for operation. B is the usual arm supporting the operating mechanism of the needle. C is the usual operating-shaft of the sewing-machine; all of which are so well known as to require no description. D is a horizontal shaft, placed above the upper surface of the table A of the sewing-machine and running in the bearings *a a'*; the said shaft is provided with a pulley, E, which is driven by a band or cord, *b*, from the pulley *F* arranged on the shaft C, beneath the table

A of the machine. The said horizontal shaft D is placed in such a position on the table A as to cause it to lie in a direction at right angles to the direction of the feed of the sewing-machine. The bearing *a* is made adjustable by means of the slotted holes *x x* in the feet of the said bearings, and the set-screws *s s*; and the journal of the shaft D, running in the said bearings *a*, is provided with a shoulder on each side, so that when the said bearings *a* are shifted in either direction, toward or from the needle, the shaft D will be carried with it longitudinally; and beneath the bearings *a* are placed the elastic cushions *z z* to govern the height of the shaft. G is a circular knife, secured in a proper manner to the end of the shaft D, next to the needle. The said circular knife should, for scallop work, be of small diameter, say about one-half of an inch, while for straight work its size can be made considerably larger. The axis of the said knife is placed a little back of a line with the needle of the sewing-machine, so that the stitching will be a little in advance of the cutting, say for a stitch or two, preferably. The said circular knife is to revolve with the shaft D in a direction with the feed of the sewing-machine, so that when the material being operated upon is fed under the needle it will be carried at its edge against the circular knife, revolving with a down-cut on the advancing material. In the throat-piece M, through which the needle *n* works, I place what I denominate the cutting-board *m*, which cutting-board is preferably made of hard wood, though soft brass, copper, or lead may be used, and is intended to operate with the circular knife G, when being revolved, to effect a smooth and clean cut and to prevent the edge of the knife being brought in contact with the metal of the throat-piece.

As this invention is intended to be used and operated with each of the several kinds of sewing-machines, I would not confine myself to the use of the pulleys E and F and their band *b*, as in some cases gear-wheels may be substituted. Neither would I confine myself to the particular location of the said pulleys, or their equivalent gears, or their respective shafts D and G, as in some cases the said pulleys may be located at the ends of their shafts, as shown by dotted lines in Fig. 2.

In operation, the circular knife G is made to

revolve continuously on its cutting-board *m* and against the material *L* with a down-cut, and in the direction of the feed of the material, the needle *n* being operated simultaneously with the revolving of the said knife to effect the desired stitching *v*, while the waste *v'* is being pared or trimmed off by the knife in a continuous and clean manner. To adjust the knife so as to trim off the waste *v'* of the material *L* at any desired distance from the stitching *v*, the set-screws *s s* are loosened and the bearing *a* is crowded toward or from the needle, as may be required to bring the circular knife *G* higher to or further from the line of the stitching, when the said screws are tightened down over the slotted holes *x x* to secure the same. When the knife has become worn by use or sharpening, and its diameter has been decreased, the elastic cushions *z z* may be compressed by the set-screws *s s* to depress the shaft *D* and the knife *G* to a

proper depth to cut perfectly on its cutting board *m*.

This invention is simple in its parts and not liable to get out of order, and can, when applied to a sewing-machine, be used to advantage in boot and shoe work, harness-making, pocket-books, or other leather work which requires stitching and trimming.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the plate *M*, constructed as described, with the circular knife *G*, shaft *D*, bearings *a*, elastic cushions *z z*, and set-screws *s s*, whereby the said knife will be capable of being adjusted in both a vertical and longitudinal direction, substantially as and for the purpose set forth.

W. F. FOLEY.

Witnesses:

LEWIS T. NEWELL,
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