

(No Model.)

W. FREEMAN.  
LEATHER CUTTING MACHINE.

No. 377,298.

Patented Jan. 31, 1888.

Fig. 1

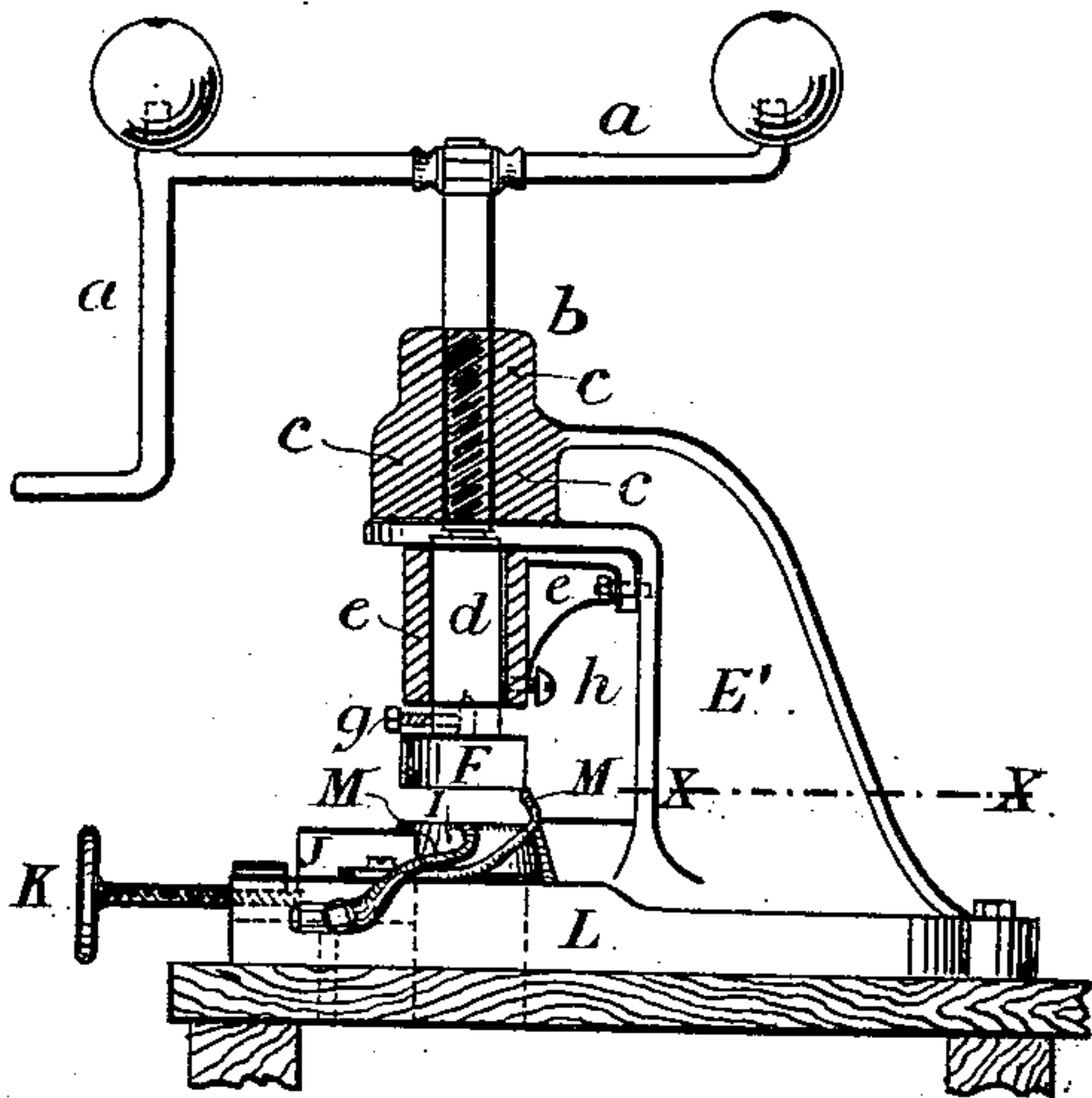


Fig. 2

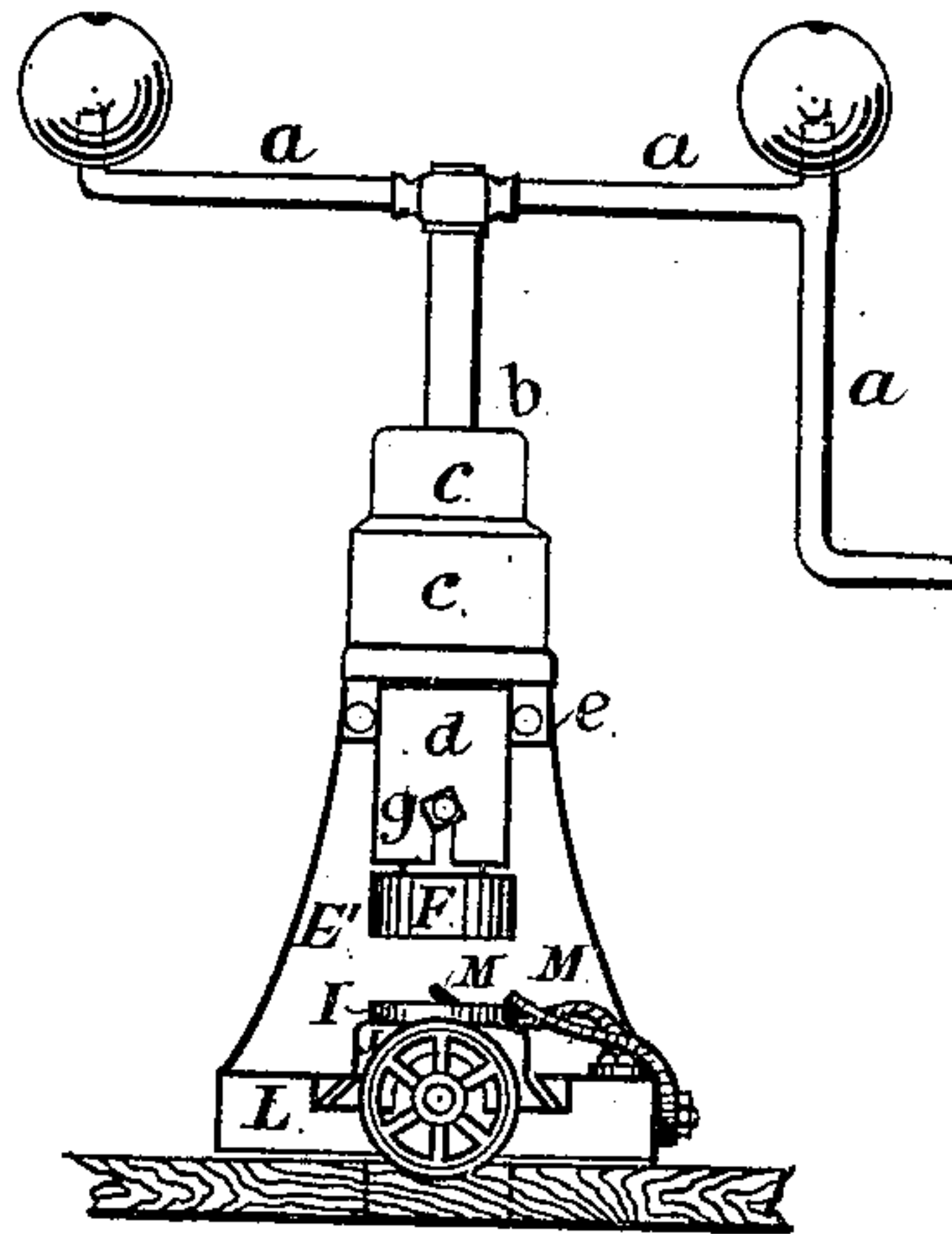


Fig. 3

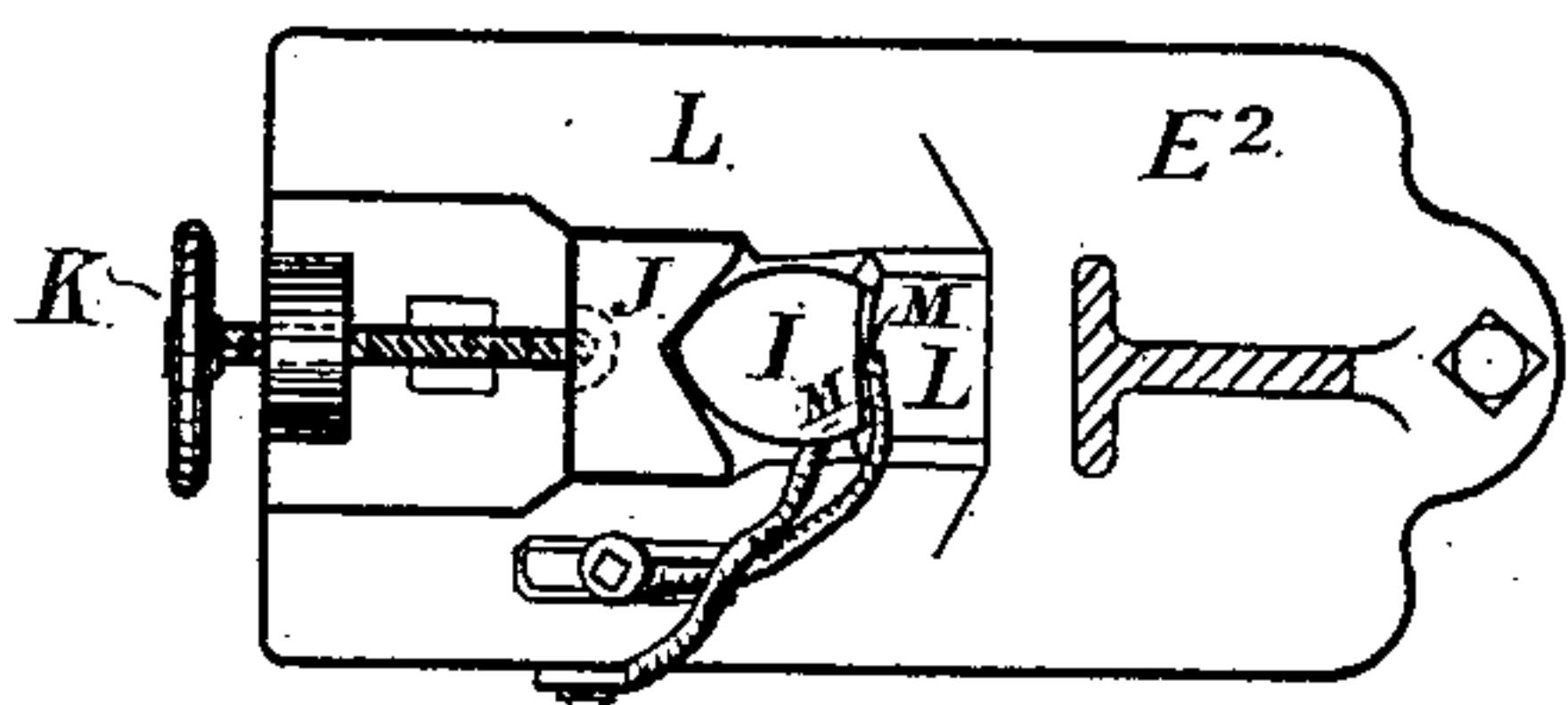


Fig. 4

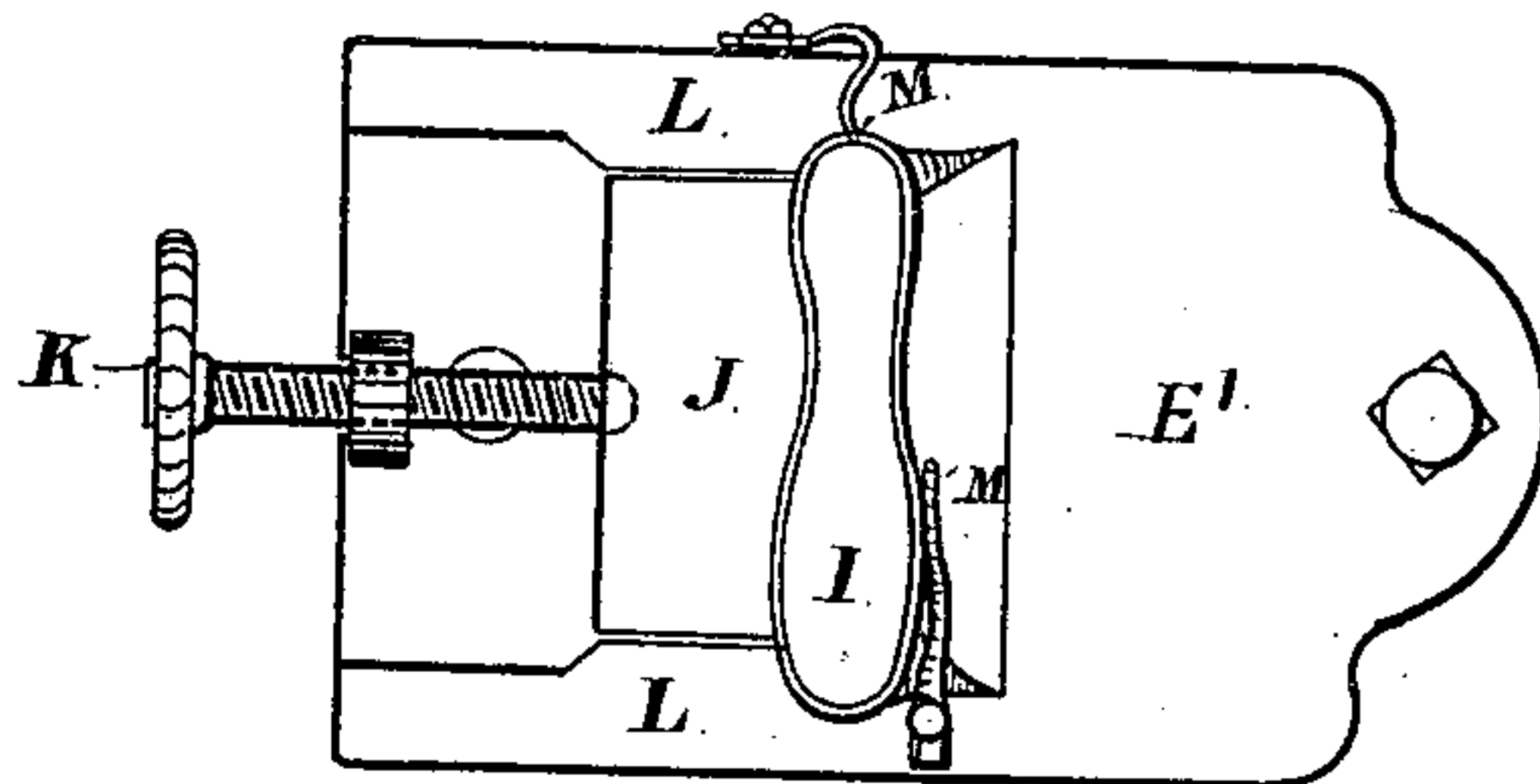
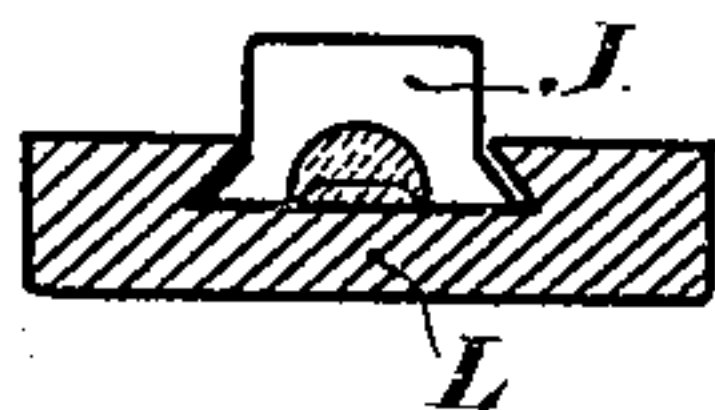


Fig. 5



Fig. 6



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM FREEMAN, OF LEICESTER, COUNTY OF LEICESTER, ENGLAND.

## LEATHER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 377,298, dated January 31, 1888.

Application filed June 23, 1887. Serial No. 242,317. (No model.) Patented in England March 16, 1886, No. 3,685.

*To all whom it may concern:*

Be it known that I, WILLIAM FREEMAN, a subject of the Queen of Great Britain, and a resident of Leicester, in the county of Leicester, England, have invented certain new and useful Improvements in the Manufacture of Lift and Sole Cutting Presses, (for which I have obtained a patent in Great Britain, No. 3,685, dated March 16, 1886,) of which the following

is a full, clear, and exact specification thereof.

My invention relates to improvements in machines or presses for cutting out leather or other suitable material into the various shapes—as lifts, soles, and other such shapes or blanks—required for use in the manufacture of boots, shoes, and the like. The means I employ for this purpose is a knife with its cutting-edge placed uppermost in a recess in the base-plate prepared for it. The material required to be cut is placed against guides on the said knife, and an upper die or plate, made of brass or other suitable material, is made to be brought down upon it by an operating arm or buffer working in a sleeve, and brought down by a screw and lever fixed immediately over and upon the said arm or buffer and in juxtaposition with the cutting-edge of the knife, thus giving the required pressure and power in the operation of cutting the material employed. The knife is held firmly in a central position by a movable grip or vise fitting in grooves in the base-plate, and so shaped on its inner side that it supports and keeps the knife from shifting, and is held firmly to the knife by a screw working from the front of the machine or press. An aperture is left in the base-plate under the knife and in the bench or other support to which the press is fixed to allow the leather when cut to fall into a receptacle underneath placed to receive it. If the lever is required to be worked by power instead of by hand, an eccentric-arm or other contrivance is fixed on the said lever to work it forward and back again, which gives a corresponding and regular motion, and executing the cutting operation by one movement forward to bring it down and back again to release it, thereby allowing the shapes to be cut with a minimum of waste and quicker than by machines or presses now in use, without risk to the operator and injury to the knife or unnecessary wear of the upper die or plate, being so simple in construction.

In the drawings, Figure 1 represents a side elevation of the device. Fig. 2 represents a

front elevation of the press. Fig. 3 is a sectional view of the base-plate taken on line *x x*. Fig. 4 is a similar view of a larger construction having a knife fixed for cutting soles. Fig. 5 is a plan view of the grip-vise. Fig. 6 is a cross-section of the same, showing how it is fitted in the grooves in the base-plate.

Similar letters refer to similar parts throughout the drawings, in which—

*a* represents the lever fitted onto the screw *b* and working in the screw-box *c* upon the square operating arm or buffer *d* in the sleeve *e*, the sleeve being fitted to the inner side of the frame *E'*, close up under the screw-box. The upper die or plate, *F*, is inserted in the bottom of the operating arm or buffer and secured by a screw at *g*. The said operating arm or buffer is made square and set straight by a screw at *h*. That the upper die or plate cannot get out of the required position, the knife *I* is held in the recess in the base-plate and against the abutment forming part of the base-plate *L*, and the grip or vise *J* is moved up to it by means of the screw *K*, and firmly held by the said screw *K* working from the front of the base-plate *L*.

The guides *M* are placed in their position to keep the material from coming over the end of the knife, thereby saving a lot in waste.

I am aware that various devices have heretofore been made for cutting lifts, soles, &c., but they were more complicated and cumbersome; but I am not aware that they were ever before made substantially like the invention herein shown and described.

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

The combination consisting of the lever *a*, rigidly fixed to the vertically-operating screw *b*, engaging with corresponding threads of the screw-box *c*, the adjustable buffer *d*, held by screw *h*, within the sleeve *e*, secured to the frame *E'*, the die *F*, secured to the lower end of the buffer *d* by the screw *g*, the knife *I*, vise *J*, screw *K*, base-plate *L*, and guides *M*, the whole forming a complete device, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of May, 1887.

WILLIAM FREEMAN.

Witnesses:

HENRY LAWRENCE,

THOMAS STURGESS FREEMAN.