

C. H. STRAFFIN.  
Machine for Cutting Heel-Lifts.

No. 214,533.

Patented April 22, 1879

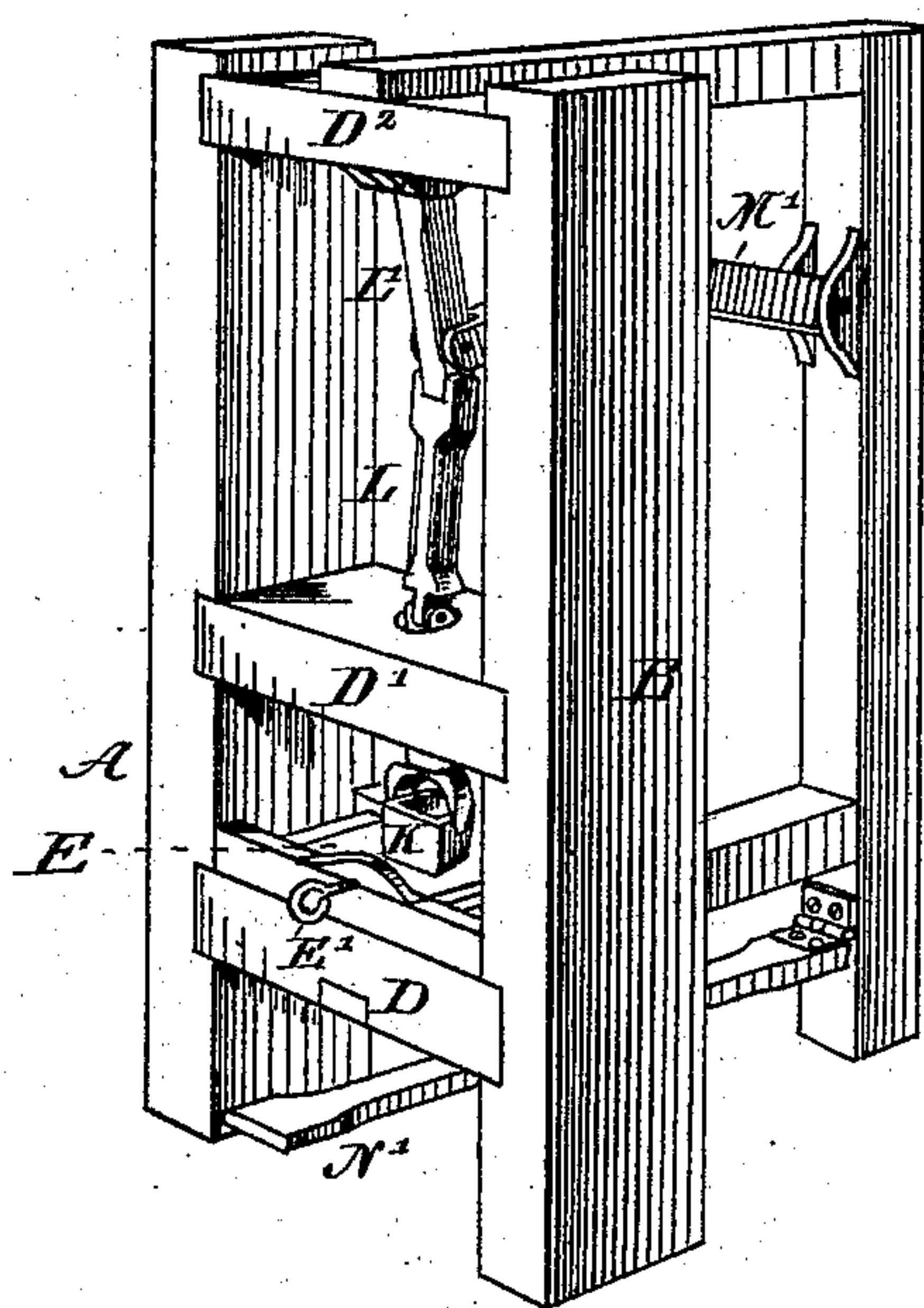


Fig. 1.

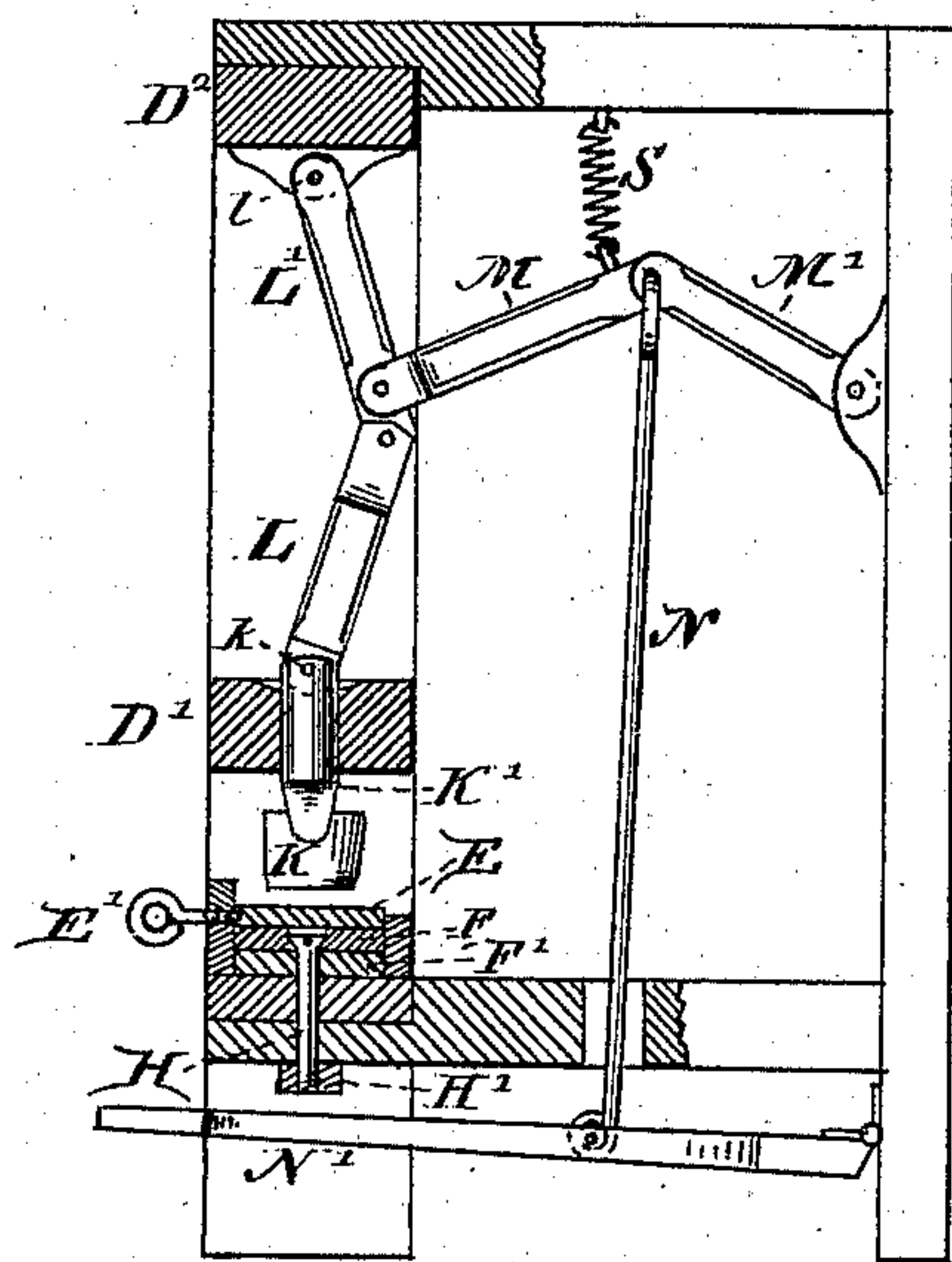


Fig. 2.

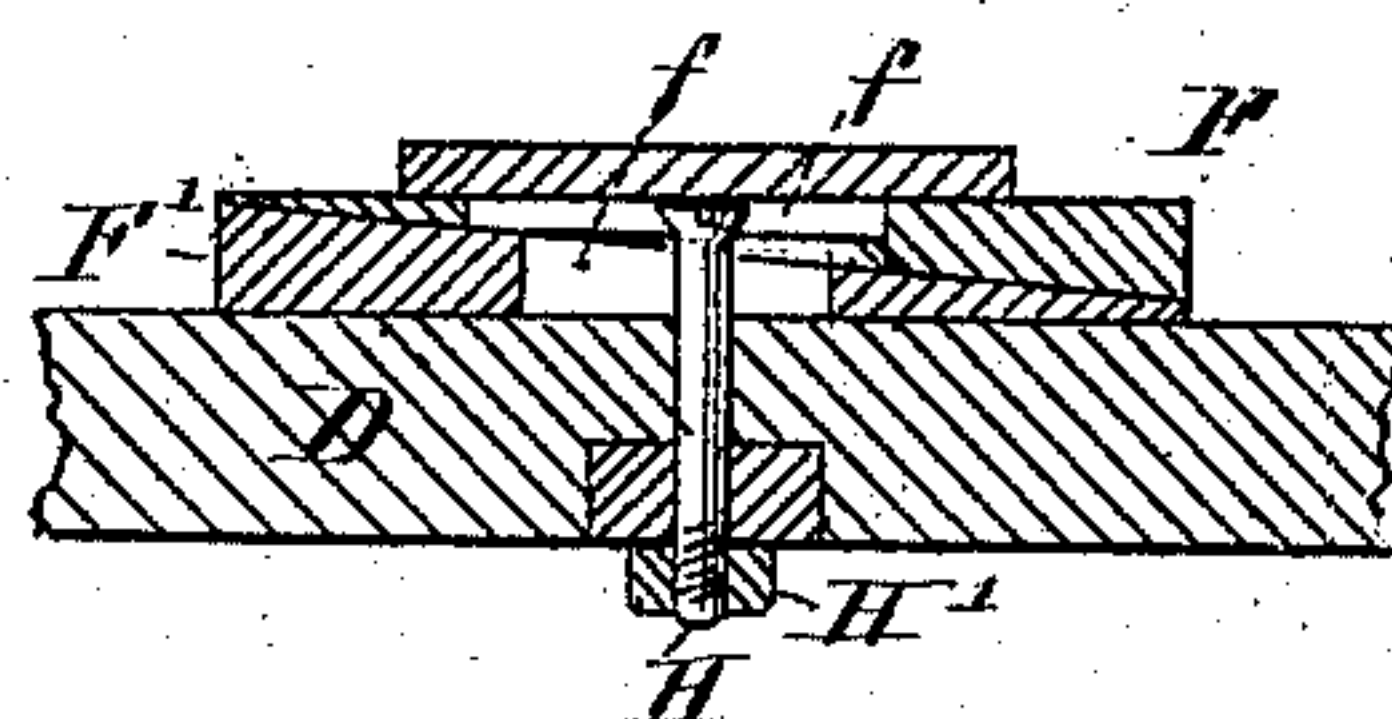


Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES H. STRAFFIN, OF ABINGTON, MASSACHUSETTS.

## IMPROVEMENT IN MACHINES FOR CUTTING HEEL-LIFTS.

Specification forming part of Letters Patent No. **214,533**, dated April 22, 1879; application filed January 6, 1879.

*To all whom it may concern:*

Be it known that I, CHARLES H. STRAFFIN, of Abington, in the county of Plymouth, State of Massachusetts, have invented a Machine for Cutting Lifts for Heels, of which the following is a specification.

My invention consists, first, in combining in a suitable frame a series of toggle-levers and a foot-lever, which act together to operate a heel-lift-cutting die; second, in combining with the same an adjusting device, by which the cutting-block can be set at any required height, and there firmly held.

The object of my invention is to furnish a machine which can be operated by the attendant, and which will enable an ordinary operator to do at least three times as much work as can be done by hand.

In the drawings, Figure 1 is a perspective view of my machine. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section illustrating the adjusting device for the cutting-bed.

A B represent a strong frame, which may be made of metal or wood, and of any desired style and form. Upon D, one of the lower cross-bars of the frame, I attach the adjusting device of the cutting-block E. This device consists of two wedges, F and F'. (See Figs. 2 and 3.) These wedges move in relation to each other on the line of their lengths, and in opposite directions—that is, if each is moved outwardly, the cutting-block E will be lowered, while if they are moved inwardly, one under and the other over, their combined height will be increased, and the cutting-block E will be raised.

For holding the wedges F and F' in position, I use the screw-bolt H, Figs. 2 and 3. This bolt passes through slots *ff* made in the wedges, the head of the bolt being too large to pass.

H is a nut, which serves to draw the bolt downward, and thus to make a clamp for the

two wedges F F', and hold them firmly in position.

The cutting-block E rests upon the upper wedge, F, and is held in place laterally by means of the set-screw E'.

The cutting-die K K' is made in the same manner that an ordinary hand-die is made, that has heretofore been used with a mallet. The shank K' is connected at *k* to a toggle-lever, L, which, in turn, is pivoted to a companion lever, L', which is connected by a pivot and housing, *l*, to the upper cross-bar, D<sup>2</sup>.

The above-described levers L L' together form what is called a "toggle-joint," which, when operated, raises or lowers the die K with great power. The levers M and M', Fig. 2, form a second toggle-joint, which operates the first set, L L', and thus indirectly the die K. The second toggle-joint is operated by the foot-lever N' and the rod N.

The spring S, Fig. 2, is attached to the toggle M M', and lifts the center when it is not acted upon by the foot-lever N. This lifting action of the spring S operates through the toggles and raises the die K.

To use my invention, the operator places the leather to be cut upon the block E, under the die, and then by placing his foot upon the lever N' brings the die down with great force.

I claim—

1. In a lift-cutting machine, the combination of the cutting-block E with the wedges F F' and clamping screw-bolt H, substantially as described, and for the purpose set forth.

2. In a lift-cutting machine, the combination of the adjustable cutting-block E, the cutting-die K, and the toggle-levers L L', the levers M M', spring S, the rod N, and the operating foot-lever N', all operating together as described, and for the purpose set forth.

CHARLES H. STRAFFIN.

Witnesses:

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FRANK G. PARKER.