

W. H. Field,

Leather Machine,

Nº 59,203.

Patented Oct. 30, 1866.

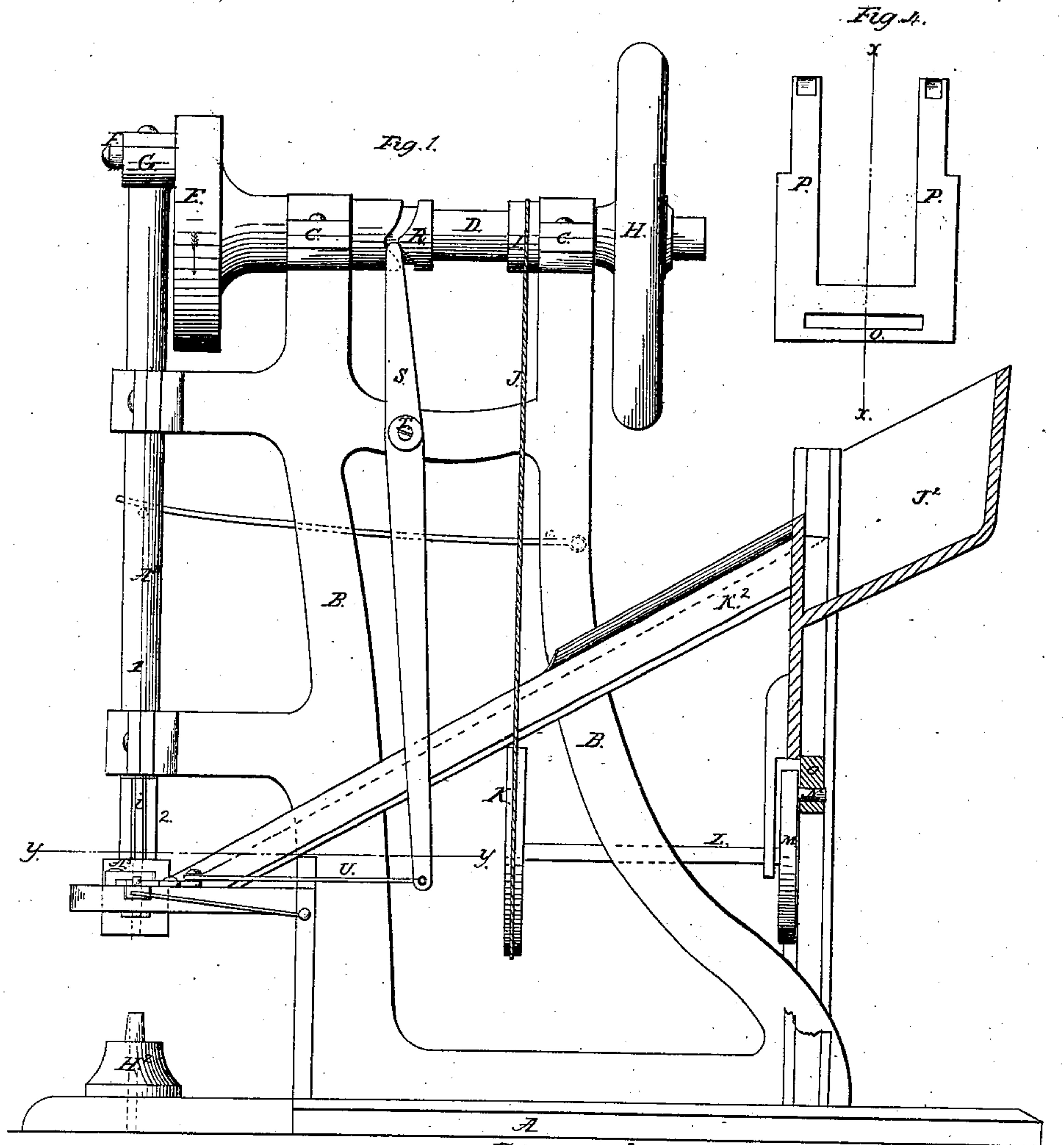


Fig. 2.

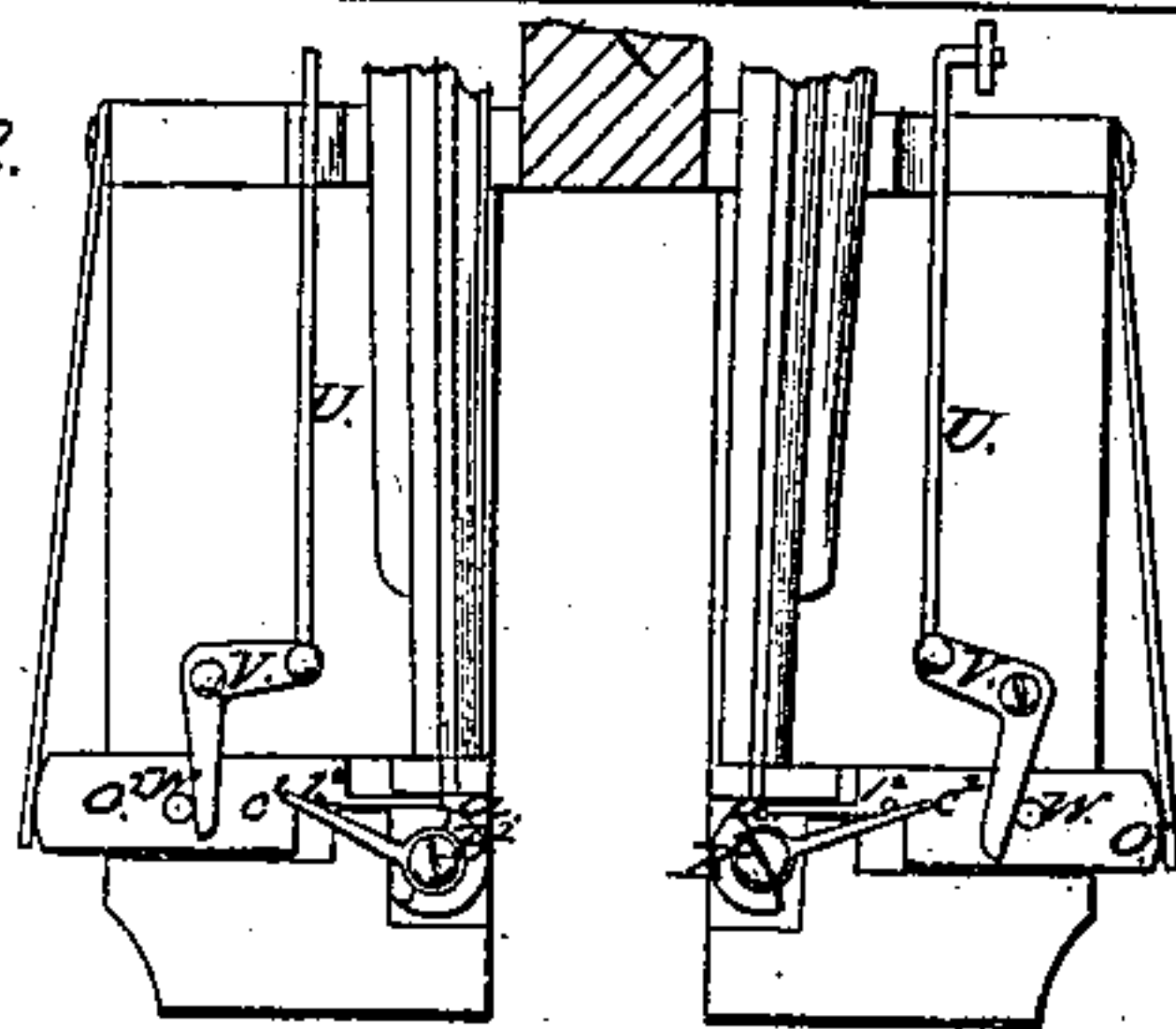
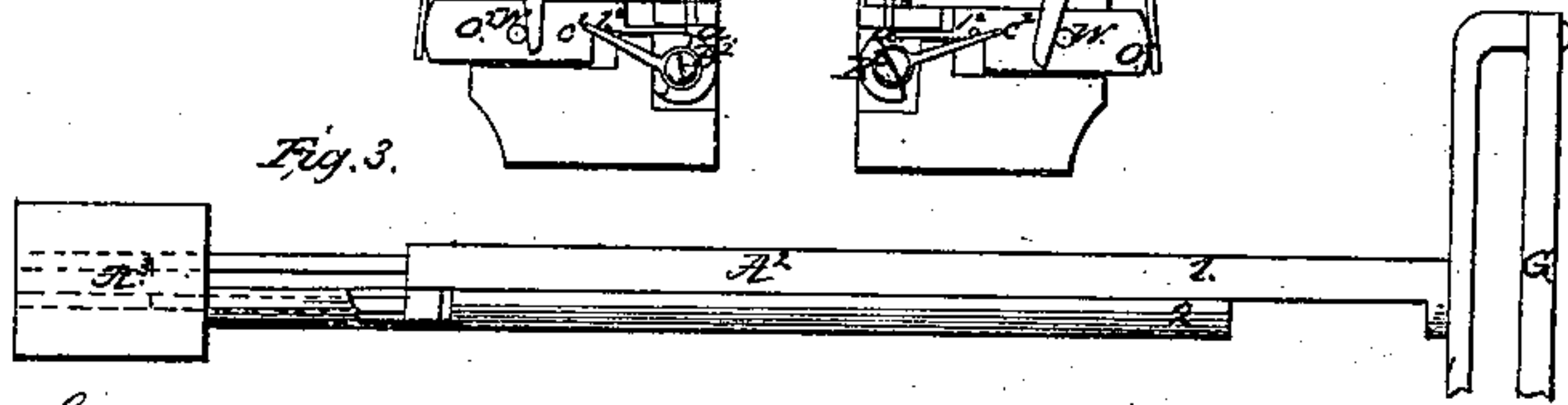


Fig. 3.



Witnesses;

Gas A. Service.

J. W. H. H. H. H.

Inventor

W. H. Field  
Per Munnell  
Cottis

# UNITED STATES PATENT OFFICE

WILLIAM H. FIELD, OF TAUNTON, MASSACHUSETTS.

## IMPROVED MACHINE FOR LEATHERING TACKS.

Specification forming part of Letters Patent No. 59,203, dated October 30, 1866.

*To all whom it may concern:*

Be it known that I, WILLIAM H. FIELD, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and Improved Machine for Leathering Tacks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention consists in so constructing a machine that small tack-nails may be leathered in a very perfect and rapid manner.

It more particularly consists in providing elevators, which extend up through a hopper, for the purpose of depositing the tacks upon or into the slides which direct them in proper shape or position to the machine.

It further consists in a machine that one or more tacks may be leathered at the same time.

It also consists of a straight heading-bar, with its end reduced to about the size of the nail, and working at right angles with the slide or runway of the nails, and a quadrant working close to the end of the heading-bar to prevent the tacks from turning the corner, so as to allow but one heading-bar to leather but one tack at each revolution.

It also consists in working two half-cylinder shafts in halves, one of which is provided with a groove, in which works a projection, for the purpose of working one of the drivers.

Figure 1 is a side elevation of my machine for leathering tacks. Fig. 2 is a top-plan view of the heading-bars and quadrant, taken from the line *y y*. Fig. 3 represents the two sections of the rod that forces the tacks through the leather. Fig. 4 is a front elevation of the elevator that raises the tacks from the hopper and deposits them in the slide.

Similar letters of reference indicate like parts.

A represents the base, which is made of any suitable material, upon which is secured the machinery of my device. B is a frame extending up from the base A. Upon the top of this frame B are suitable journal-boxes or bearings, C C, in which run corresponding journals fitted upon the shaft D. At the outer end of the shaft

D is secured a crank-wheel, E, which is provided with a crank-pin, F, which works in the slotted cross-bar G, as shown in the model. At the opposite end of the shaft D from the crank-wheel E is a fly-wheel, H, which may be used as a driving-wheel to the machine.

Upon the said shaft D is a pulley, I, over which the band J passes down around the band-wheel K, the latter of which is secured to the shaft L, upon which is also secured the crank-pin N, which works in the slotted cross-bar O, which is attached to the elevators P P. To the shaft D is also attached a cam, R, in which is a lug, which works in the cam upon the upper end of the lever S. The lever S, being pivoted upon the screw-bolt T, passes down, and the lower end is connected by a joint to the lever U, the said lever U being connected to the elbow-lever V, one end of which works against the pin W.

The rod or shaft A<sup>2</sup> is composed of two longitudinal sections, which may be represented by 1 and 2, the inside surfaces of which correspond with each other, and work together in bearings secured to the frame B, the said shaft being operated by a slotted cross-bar secured to the upper end of section 1, in which works the crank-pin that gives it an up-and-down motion. At each downward motion two tacks are driven. At the lower end of section 2 is secured the block A<sup>3</sup>, which is moved with section 2 up and down by section 1 through the medium of the crank F engaging with section 2.

B<sup>2</sup> is a quadrant, to which is attached the lever or pawl C<sup>2</sup>, both of which are operated by means of the pintle I<sup>2</sup>, Fig. 2. H<sup>2</sup> is the cutting-die, upon which the leather is placed when it is pierced by the nail and cut in proper form.

J<sup>2</sup> is a hopper, into which the nails are deposited for the purpose of being elevated and fed to the machine by means of the elevators P. At the top of these elevators are cups, which bring up the nails from the hopper and deposit them upon the slide K<sup>2</sup>. This slide is connected to the hopper, and descends upon an angle to the heading-bar O<sup>2</sup>, the object of which is to prevent more than one nail entering at a time the apartment below.

The operation consists in depositing a quan-



tity of tacks in the hopper  $J^2$ . The machine is then put in motion by any of the well-known powers. Then, by means of the band J, the pulley K is put in motion, as also the crank-wheel M, which is connected to the elevators P, thus giving the elevators an up-and-down motion. At each upward motion tacks are carried from the hopper up and deposited on the slide upon which they descend to the heading-bar. Then, by the action of the cam R upon the lever S, lever U, and the elbow-lever V, the heading-bar is drawn back, and its forward motion presses one tack forward into the opening  $a$  and past the quadrant, Fig. 2. At the same time the heading-bar and quadrant cut off the passage, thus preventing any more than one from entering at a time, as the tacks enter the opening with the points forward, by their coming immediately under the rods  $i$ , Fig. 1. At the same time the leather is placed in position upon the dies  $H^2$  and the nail is forced through the leather to the head, and at the same time the leather is cut in proper form. Both the driving the tacks and cutting the leather is performed by the downward motion of the rod or shaft  $A^2$ .

By this machine the leathering of the tack is done with the greatest precision and in the most unerring manner.

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

1. The elevators P, for the purpose of elevating tacks from the hopper  $J^2$  and depositing them upon the slide  $K^2$ , for the purposes and substantially as herein described.

2. The peculiar construction of the shaft or rod  $A^2$  in halves, so that one or more nails or tacks may be leathered at the same time.

3. The straight heading-bar, with its end reduced to about the size of the tack, and working at right angles with the slide or nail, for the purposes and substantially as described.

4. The quadrant  $B^2$ , in combination with the heading-bar, for the purposes and substantially as set forth.

WILLIAM H. FIELD.

Witnesses:

FRANKLIN K. SEARS,  
J. M. CUSHMAN.