S. MOWER.

Machine for Driving Staples in Lasting Boots and Shoes.

No. 212,861. Patented Mar. 4, 1879.

Fig:4.

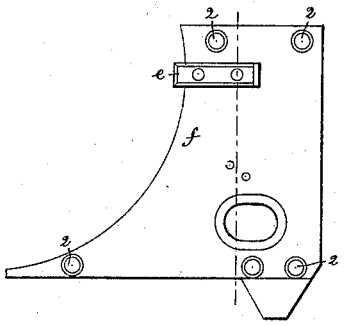


Fig:5.

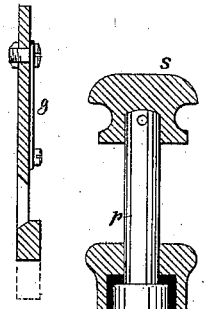


Fig:6.

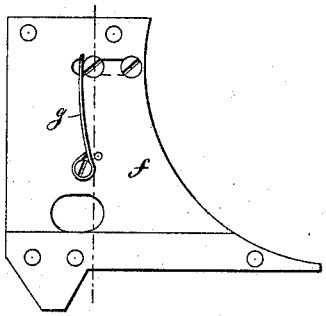


Fig:1.

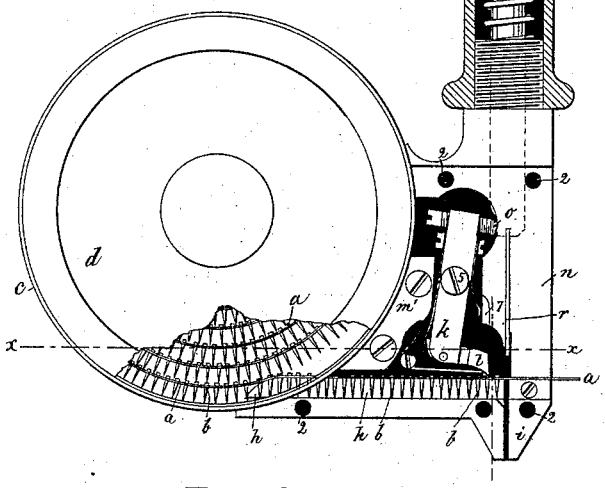


Fig:2.

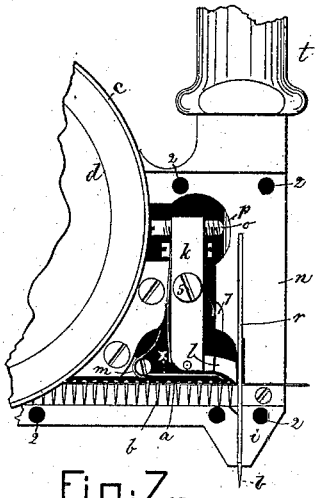


Fig:3.

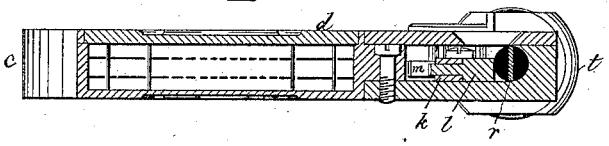
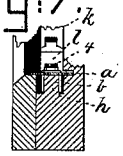


Fig:7.



Witnesses.

L. F. Connor

N. E. Whitney

Inventor.

Samuel Mower

by Crosby & Gregory Attys

UNITED STATES PATENT OFFICE.

SAMUEL MOWER, OF MILFORD, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR DRIVING STAPLES IN LASTING BOOTS AND SHOES.

Specification forming part of Letters Patent No. **212,861**, dated March 4, 1879; application filed July 1, 1878.

To all whom it may concern:

Be it known that I, SAMUEL MOWER, of Milford, county of New Haven, State of Connecticut, have invented an Improvement in Mechanism for Driving Staples to Last Boots and Shoes, of which the following is a specification:

This invention relates to mechanism for driving staples in the operation of lasting boots and shoes; and consists in a strip-receiving case and saddle for the staples of the strip, combined with a holder to retain the strip and a feeder to move it intermittingly forward to a driver.

Figure 1 represents, in side elevation, one of my improved staple-driving machines, with the handle portion in section and the plate removed; Fig. 2, a view of the feeder and driver, showing their positions at the instant a staple is driven; Fig. 3, a cross-section on the line *x x*, Fig. 1, viewing the upper portion of such figure from underneath; Figs. 4, 5, 6, front, edge, and back views of the side-plate, removed from Fig. 1 to show the feeder, holder, and driver; and Fig. 7, a detail, showing the saddle in section, the staple-strip, and front end of feeder and strip-holder.

The staple-strip is composed of a strip, *a*, of paper, of suitable length, into which are driven, at suitable intervals, staples *b*, the opposite legs of the staples resting near opposite edges of the strip, as shown in Fig. 7. This strip, preferably wound on a reel, is placed in a strip-receiver, *c*, shown as an annular box, with a cover, *d*, held in position by means of a bolt or latch, *e*, connected with the side piece *f*, (shown separately in Figs. 4, 5, and 6,) said side piece being, when the apparatus is in use, connected with the parts shown in Figs. 1 and 2 by screws in screw-holes 2 2, and the latch being operated by a spring, *g*.

A saddle, *h*, extending from the box *c* to the driver-passage, receives over it the staples *b*, connected in the strip form; and the strip led to the driver-passage in the nose or foot *i*, as shown in Fig. 1, passes under a strip-holder, 4, located between the strip and the lever *k*, pivoted at 5, which carries the pivoted feeder *l*, adapted to engage the staples and move the strip forward.

The holder is pressed down upon the strip by a spring, *m*, connected with it at one end, the upper end of the spring bearing against the block *m'*.

The lever *k* has connected at one edge of it—its left-hand edge—a spring, which acts against the head of the feeding device *l*, to retain its forward end depressed, so as to engage a staple of the strip when moved forward, and to pass the connecting top bar of the staple-legs when moved backward, as in Fig. 1; and at its right-hand edge is a second spring, which, by its action upon the portion 7 of the head *n*, turns the lever *k* into such position, as shown in Fig. 1, as to place the point of screw *o* opposite a notch at the lower end of the rod *p*, which carries the driver *r*, made as a flat bar, (see Fig. 3,) to extend across the head of the staple between its legs, so that such bar, when depressed or driven down by a blow on the top *s*, will cause the body of the rod to act upon the end of said screw, and move the lever to feed the strip and staples forward from the position shown in Fig. 1 to that in Fig. 2.

The length of the feed is regulated by the adjustment of screw *o*.

The handle portion *t* and spring *u* on the rod *p*, to lift it, are as usual.

Each descent of the rod acting upon lever *k* feeds forward the strip, places a staple in line with the driver, and the driver severs it from the strip and drives it out from below the foot, as shown in Fig. 2.

The holder bears on the strip between the staple-heads, and prevents the strip from being moved backward.

The forward end of the feeder is notched, to permit it to move backward in contact with the strip up to the end of the holder.

It is obvious, instead of paper, that the strip in which the staples are driven may be made of any other thin material which can be readily severed or broken off by the action of the driver.

I claim—

The strip-receiver and saddle, to direct the

connected staples, combined with a holder, to prevent the strip moving backward, and a feeder, to move the staple-strip forward to a driver, and a driver, and a foot, *i*, provided with an elongated narrow passage for the delivery of the staples, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL MOWER.

Witnesses:

HENRY G. THOMPSON,

FRANK L. ALLIS.