M. E. MOORE.

MACHINES FOR FITTING SIDING FOR WHIPS.

No. 189,569. Patented April 17, 1877.

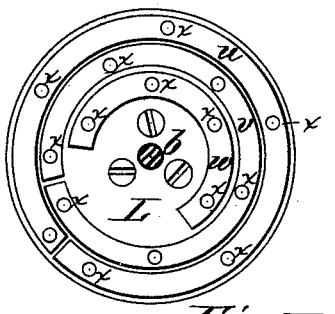


Fig. II

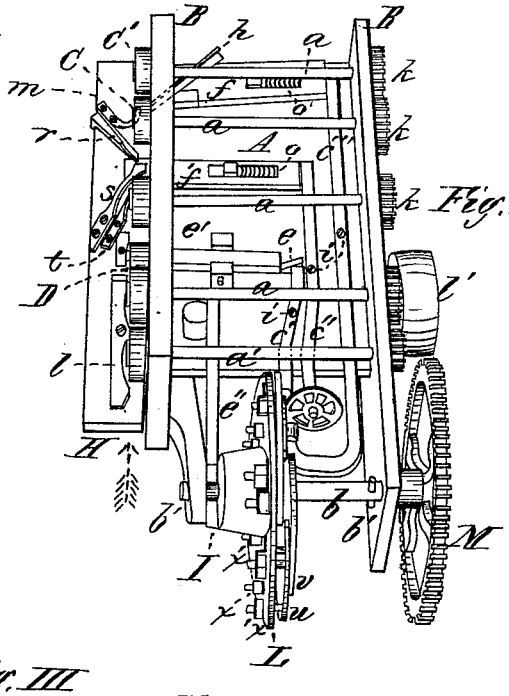
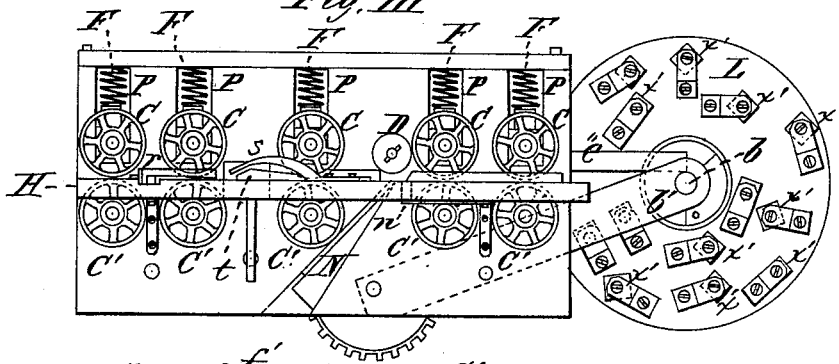


Fig. I

Fig. III



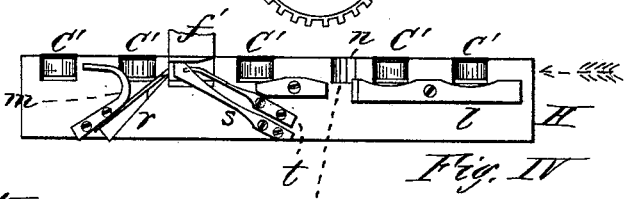


Fig. IV

Witnesses.

G. N. Blanden

James Abbe

Inventor.

Moses E. Moore

By T. Alexander,

his Atty.

UNITED STATES PATENT OFFICE.

MOSES E. MOORE, OF WESTFIELD, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR FITTING SIDINGS FOR WHIPS.

Specification forming part of Letters Patent No. **189,569**, dated April 17, 1877; application filed September 18, 1876.

To all whom it may concern:

Be it known that I, MOSES E. MOORE, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Machine for Fitting Siding for Whips; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

My invention has for its object the giving to the whip-center its taper form, and also the shaving or cutting of the siding so that when placed around the center or wedge of the whip, the pieces of siding will fit together properly, and give an approximate elongated conical form to receive the covering. To this end my invention consists of a series of levers and bars actuated by cams, and an arrangement of rollers and knives, all operating in connection, whereby the strips of siding, as they are passed along on a platform, are pressed against the knives at the proper time, and to the desired extent, to be cut, as will be more fully hereinafter described.

Figure I is a perspective view of my invention. Fig. II is a front view of the cams and the disk to which they are secured. Fig. III is a side view of the machine, and Fig. IV is a plan view of the platform or bed.

In the drawings, A represents the bed of the machine, and B the sides, in which the shafts *a*, *a*, *a*, *a*, and *a'* have their bearings, as also do corresponding shafts below the base A of the machine; and upon the ends of the shaft *a* the feed-rolls C are made to rotate—the rolls C' rotating upon the shafts beneath—the rolls C and C' being sufficiently near each other to grasp a piece of siding when placed between them, and to move it along.

A shaft, *b*, has its bearings at *b'*, upon which shaft are arranged three cams, *u v w*, which, for convenience of keeping in place and adjusting them, I attach to a disk, L, secured to said shaft. These cams consist of a metallic strip of an annular form, somewhat flexible, and provided with threaded studs extending through holes in the disk, and having nuts turned upon their ends, by means of which the different parts of each strip or cam are forced either farther from the disk or nearer to it, to give the desired throw or movement to the levers. The levers *c' c'' c'''* are pivoted at *i* to the base of the machine, and the end of the lever *c'* bears against the outer cam *u*, the end of the lever *c''* against the cam *v*, and that of the lever *c'''* against the cam *w*.

The opposite end of the lever *c'* has a wedge, *e*, attached thereto, the point of which is beneath the pivoted bar *e'*, having the small presser-roll D arranged to turn upon the other end. The corresponding end of the lever *c''* presses against a sliding bar, *f'*, whose opposite end just protrudes through the side B of the machine, and which bar is kept back against the lever *c''*, and the latter against its cam, by a spring, *o*. A sliding bar, *f*, provided with a shaving-knife, *h*, in its end, which stands just inside the outer surface of the side B, is kept back against the lever *c'''*, and the latter against the cam *w*, by a spring, *o'*.

The shafts upon which the lower feed-rolls C' rotate are firm in their bearings; but the shafts *a* and *a'*, upon which the upper rolls C rotate, move up and down, but are held down each by a spring, P, fixed in the side B of the machine above the shafts. A lever, *e''*, rests at one end upon the base of the machine, and the other end rests upon a cam, I, upon one end of the shaft *b*, the lever passing just beneath the shaft *a'*, so that as the cam I rotates it raises the lever *e''*, and also the roller end of the shaft *a'*.

The platform H is fixed to the side of the machine, with its upper surface just between the rolls C and C', and this platform is provided with a spring, *m*, the shaving-knife *r*, similar to that used in a common bench-plane, also the springs *s*, *t*, and *n*, and another shaving-knife, N, of similar form is fixed to the machine beneath the platform.

The shafts *a a a'* and the corresponding lower shafts are all geared together, and also to the wheel M, by the spur-wheels *k*, and are driven by power applied to the pulley *l'*.

As the shaft *b* rotates, the cam I upon said shaft causes the lever *e''* to rise, and lifts the shaft *a'* and feed-roll C thereon, so that the end of a strip of siding may be inserted between the two first rolls, inside the guide *l*.

The lever then rides off the cam I, and drops the shaft a' and its feed-roll, and the siding is then carried along upon the platform H by the series of feed-rolls. As the disk L rotates, the outside cam u moves against the end of the short lever c', driving the wedge e beneath the end of the bar e', and gradually forcing down the presser-roll D upon the strip passing along the platform H.

This forces the strip down harder and harder against the knife N, which cuts off a shaving, gradually increasing in thickness, along the under side of the strip as it passes along, giving it a taper form; the spring n', secured to the lower side of the platform and extending up in front of the knife, as shown in dotted lines in Fig. III, preventing the knife from entering the stock too much or too suddenly.

As the strip reaches the knife r, the springs s and t serve to hold the strip firmly in place, while the cam v on the disk moves against the end of the lever c'', and thereby forcing the bar f' against the strip and pressing it against the knife r, causing a small shaving to be taken off the lower edge of the strip, the pressure of the cam v (which may be adjusted by the nuts x' on the back of the disk L) against the lever c'' regulating the amount to be cut off.

As the strip nearly completes its passage through the machine, the small cam w moves against the end of the lever c''', which forces the bar f outward, and causes the knife h fixed therein to cut a shaving off for a short distance at the end of the strip. This last cut is made for the chink in fitting the siding to the wedge at the butt. The feed-rolls are driven at such a speed that the strip of siding just passes through between the rolls at one revolution of the cam-disk L, so that the cams thereon operate the levers c', c'', and c''' at the proper time to perform all these operations described in one length of siding.

It is evident that by turning back the nuts x', one or more of the cams may be drawn back out of use, and if it is desired to taper a wedge for the stock, it may be readily done by using only the cams u and v.

Having thus described my invention, what I claim as new is—

1. The combination of the cams u v w, the levers c' c'' c''', the feed-rolls C C', the vertically-moving presser-roll D, and the knives N r h, and platform for holding the strip to be operated upon, all substantially as herein described.

2. As a means of moving the bars f, f', and e' in a machine for shaving siding for whips, the combination of the cams u v w and the pivoted levers c' c'' c''', substantially as herein set forth.

MOSES E. MOORE.

Witnesses:
T. A. CURTIS,
G. H. BLANDEN.