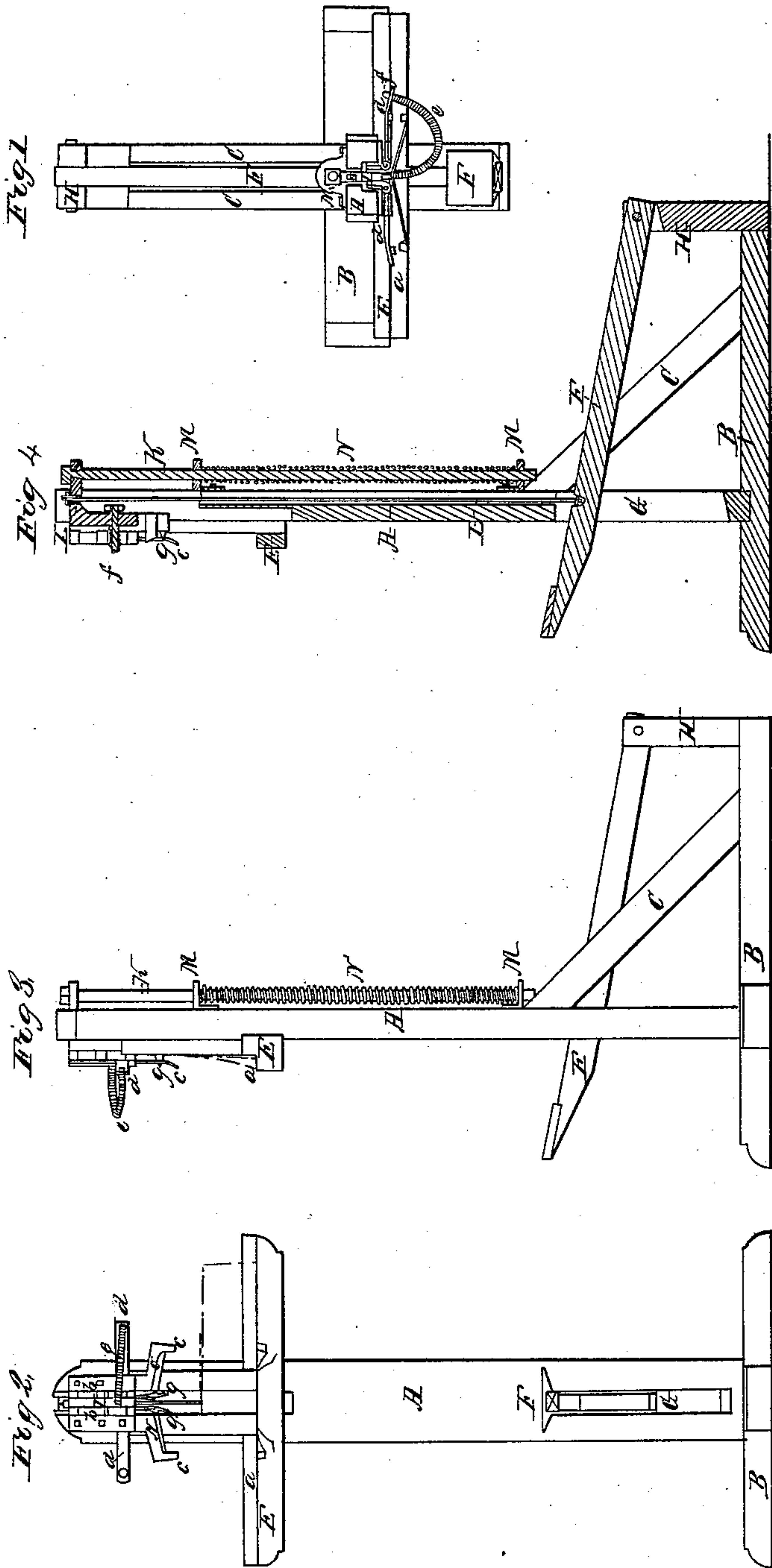


S. W. Curtis,
Clayboard Machine.
N^o 3,104. Patented May 26, 1843.



UNITED STATES PATENT OFFICE.

SAMUEL W. CURTIS, OF STOUGHTON, MASSACHUSETTS.

MACHINE FOR BEVELING THE ENDS OF CLAPBOARDS.

Specification of Letters Patent No. 3,104, dated May 26, 1843.

To all whom it may concern:

Be it known that I, SAMUEL W. CURTIS, of Stoughton, in the county of Norfolk and State of Massachusetts, have invented a certain new or Improved Machine for Beveling the Ends of Clapboards, and that the following specification, taken in connection with the accompanying drawings, constitutes a full and exact description thereof.

Figure 1, of the drawings above mentioned represents a top view of my machine. Fig. 2, is a front elevation. Fig. 3, is a side elevation and Fig. 4, is a longitudinal and vertical section of the same.

A Figs. 1, 2, 3, 4, is a strong post elevated perpendicularly upon a cross platform B, and sustained thereon by diagonal braces C, C, or other convenient and suitable means. This post has a horizontal bar or piece E secured to its front face, as seen in Figs. 2, 3, 4; the said bar having a rabbet *a* cut therein so as to serve the purpose of a shelf, for supporting the end of the clapboard, which is placed thereon, in the position as designated by the red lines in Figs. 2, 3.

A foot treadle F, playing vertically through a mortise or opening G, cut through the post A, is supported and turns, at its rear end upon a pin passed through a standard H, elevated upon the rear end of the cross platform B, or the said treadle may be jointed to the standard in any other proper manner. The foot treadle, so arranged, is connected, by means of a rod L, to a bent bar or piece of metal I Figs. 1, 2, 4, extending, as seen in Fig. 4, from the top of a vertical rod K supported in bearings M M projecting from the rear side of the post A, and which (bearings) permit a vertical movement of the rod K. A strong helical spring N', encompassing the rod K, is connected at its upper end to the rod K, and rests at its lower end upon the upper surface of the lower projection or bearing M. The central and upper part of the post A is suitably cut away, to permit of the movements of the connecting rod L and the bent arm or piece I, before mentioned, the latter of which after proceeding horizontally toward the front of the post A, is turned downward at right angles as exhibited in Fig. 4. It is to the arm I that the cutting knives, which operate upon the end of the clapboard, are attached, the same being arranged and acting as follows:

N, O, Fig. 2, are the knives, which are attached to the sides of the vertical part of the arm I by vertical hinges *b, b*, the object of the said hinges being to allow of a horizontal motion forward of the said knives, during their descent or while passing through the end of the clapboard, in order to produce the requisite chamfer or bevel of the said end. The lower or cutting edges of the knives may be inclined to a horizontal line as seen in Fig. 2, and the outward end or extremity of each knife has a curved guide *c*, extending therefrom and projecting downward and shaped as seen in Figs. 2, 3. Each knife also has a horizontal arm *d* extending from it, against which a helical spring *e* bears in order to press the guide *c* against the front surface of the clapboard, during the downward movement of the knife. This helical spring is supported upon a curved rod *f*, one of whose ends is inserted and confined in the front face or edge of the arm I, while the other is passed through a suitable aperture or hole formed through the extremity of the arm *d*. One rod *f* and spring thereon answers for both knives, for as only one of the knives is calculated to be used at a time, when cutting, the end of the rod *f*, which is inserted in the arm I, may be so arranged therein as to permit the rod being turned through an arc of one hundred and eighty degrees, and connected with either arm of one of the knives at pleasure.

A small knife *g*, for cutting or squaring the end of the clapboard is also attached to the arm I and arranged just in front of or in proximity with the side of the inner edge of the hinged knife N or O, as seen in Figs. 2, 4. The above comprehends the whole of the mechanism its operation being as follows.

The workman places the clapboard, with the thinnest edge upward, on the shelf *a*, and so that its end toward the center of the machine shall extend beyond one of the knives *g*, so that on the descent of the said knife it may pass through the end of the clapboard and square the same. He next presses his foot upon the treadle F, causing one of the knives N, O, to come into contact with the clapboard, and to pass through it and to cut it in a very perfect manner with the requisite chamfer, by means of the guide C, which passes over the plane surface of the front of the clapboard and

gradually moves the outward end of the knife forward or causes the said knife to turn on its hinge as it descends, while its inner end or that next the center of the machine moves in a vertical line. When the foot is removed from the treadle the knives are elevated by the reaction of the spring N'. The front face of one end of a clapboard being thus dressed, the opposite face of the opposite end is to be similarly shaped, and when the end of a second clapboard which corresponds to this latter end is applied upon the end first mentioned their "lap" will be found to be very complete, and much more so than is generally produced when the chamfer is effected in the ordinary manner.

The object of two knives N, O, is to enable a carpenter to form the chamfer on either face of the end of a clapboard according to the position it may be desirable to give to the laps, in order to exclude air or prevent rain from being driven into them by prevailing winds.

Having thus explained my invention and the principles thereof, by which it may be distinguished from others of like character I now proceed to point out that part thereof on which my claim to novelty is founded.

I claim—

1. The peculiar method of arranging the cutting knife which produces the chamfer or bevel, viz., by hinging the same to the arm to which it is connected, and by which it is raised and depressed, and applying a

guide to the outer end of the knife to rest and move upon the plane surface of the clapboard, and thereby regulate the path of said knife through the wood, the whole being constructed and otherwise operated substantially as above set forth.

2. I also claim the combination, with the above knife for forming the chamfer, of the knife which squares the end, the same acting therewith and being applied to the arm by which the former is operated as before described.

3. I also claim the combination, with the depressing arm, of the above two hinged knives arranged in opposite directions to each other and over the shelf which supports the clapboard as represented in Fig. 2, the same being for the objects as hereinbefore specified.

4. Also the combination, with the two knives so arranged, of one curved rod and spring *e*, the said rod being so jointed to the depressing arm as to be capable of being turned over and adapted to or connected with the arm *d* of either of the knives N, O, at pleasure.

In testimony that the foregoing is a true description of my said invention and improvements I have hereto set my signature this twenty eighth day of April in the year eighteen hundred and forty three.

SAMUEL W. CURTIS.

Witnesses:

R. H. EDDY,
CALEB EDDY.