E. C. DICEY.

Edging and Ripping Machines.

No. 129,400. Patented July 16, 1872.

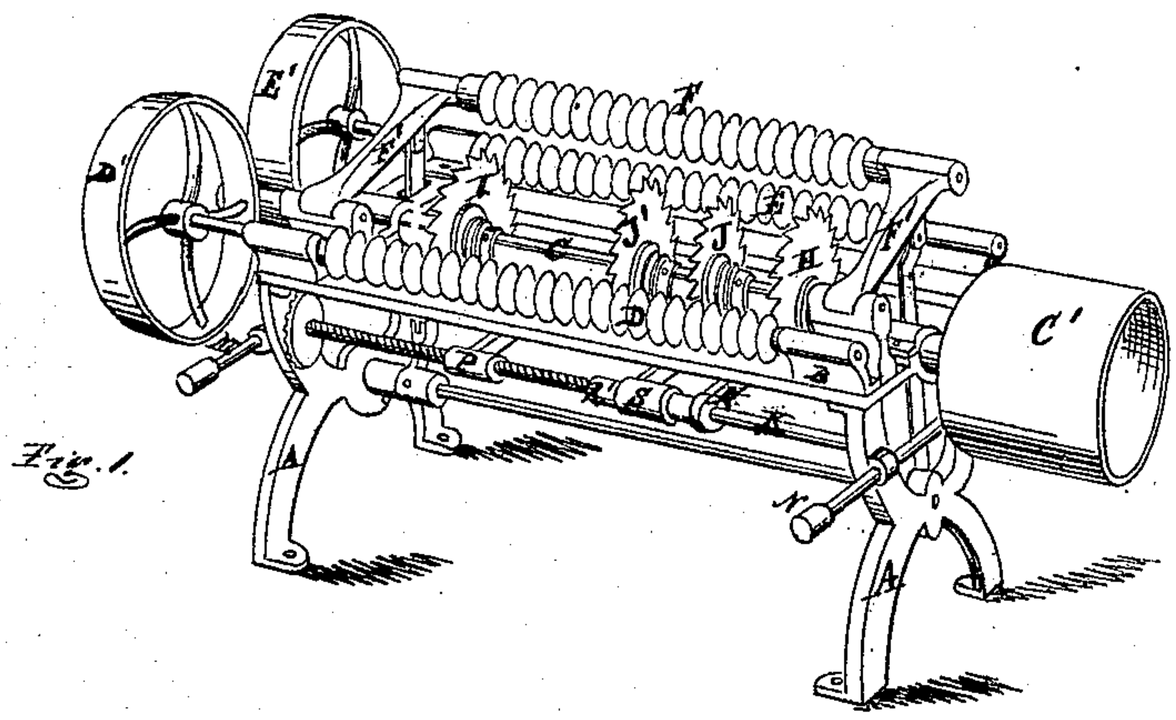


Fig. 1.

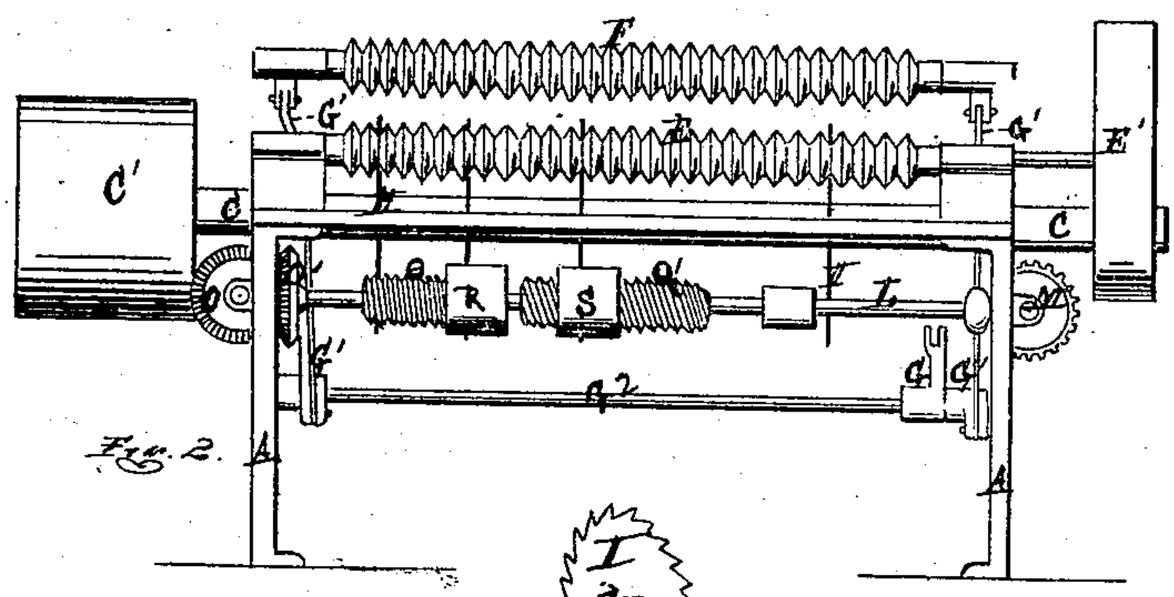


Fig. 2.

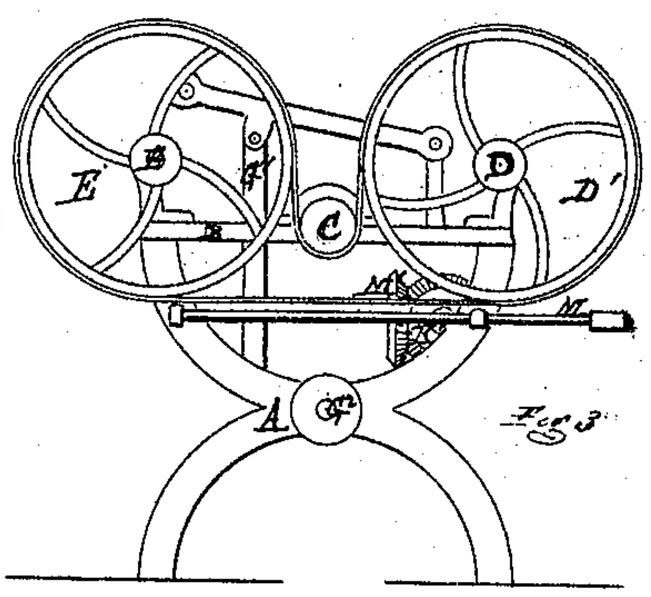


Fig. 3.

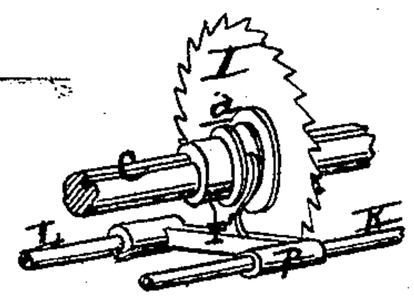


Fig. 4.

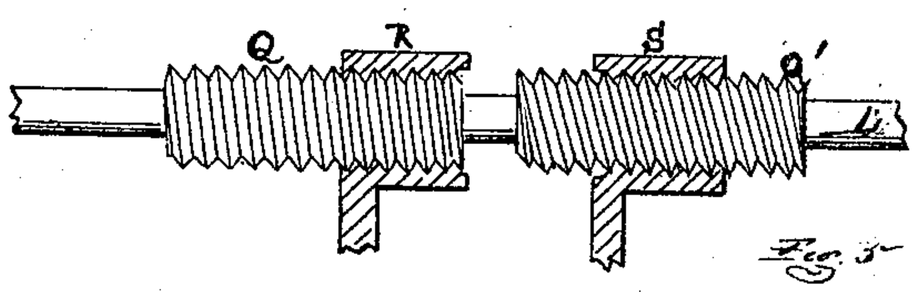
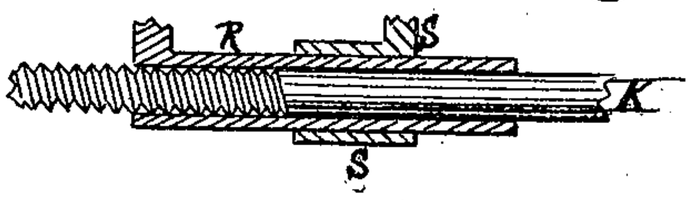


Fig. 5.



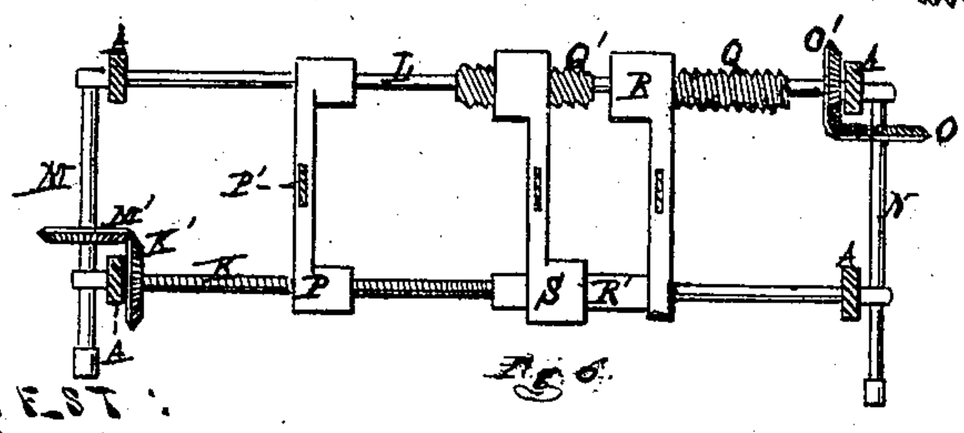


Fig. 6.

ATTEST:

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ELMER C. DICEY, OF WHITEHALL, MICHIGAN.

IMPROVEMENT IN EDGING AND RIPPING MACHINES.

Specification forming part of Letters Patent No. 129,400, dated July 16, 1872.

To whom it may concern:

Be it known that I, ELMER C. DICEY, of Whitehall, in the county of Muskegon and State of Michigan, have invented a new and useful Improvement in Edging and Ripping Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my machine looking at it in front. Fig. 2 is an elevation of the rear side. Fig. 3 is an end elevation. Fig. 4 is a perspective view of a traversing-saw and its sliding carrier. Fig. 5 is an inverted sectional plan of the differential screws which adjust the rip-saws; and Fig. 6 is a plan of the set-works, showing the frame-legs in section.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of this invention relates to an improvement in that class of edging-machines wherein one or more traversing or adjustable saws are mounted on the same mandrel with the stationary edging-saw; and has for its object to provide a pair of saws sleeved on the arbor between the stationary and traversing-saws whose set-works are arranged so that as one is moved away from the stationary edger a given distance the other will be moved away from it twice as far, so that two strips of the same width will be cut from the board, whose other edge is dressed by the movable edger to whatever width is left of the board, all at one operation. The invention consists in the employment of a pair of saws laterally adjustable on the arbor between the stationary and movable edgers, and differential screw set-works for adjusting them for the purpose above recited, and as more fully hereinafter set forth.

In the drawing, A A represent iron standards, which support a rectangular frame, B, in which is journaled the arbor C, driven by a belt through its pulley C′. D is the front feed-roll, journaled in brackets above the ends of the front side of the frame B, and to its projecting end is secured a pulley, D′. E is the lower back-feed roller, carrying a pulley, E′, and is in like manner journaled to the back part of the frame. F is the upper back-feed roller, journaled in the ends of the radius-arms F′, which are pivoted at their front ends to brackets rising from the ends of the frame. This roll acts as a weight to keep the lumber down on the lower roll as it passes from the saws, and is arranged to be lifted by means of a lever, G, and links G^1, secured to a shaft, G^2, journaled in the lower part of the standards to permit the end of an edged board to pass under said upper feed-roll. H is the stationary edging-saw, near one end of the arbor, and I is a traversing-saw at the other end, which is moved, by appropriate mechanism, toward or away from the stationary edger to edge slabs of any width.

The foregoing parts of the machine being already known and used I make no claim here to their invention, except as to the lever G, links G^1, and shaft G^2, which I have abandoned to the public, and I will now proceed to describe my improvements:

J is a saw, whose collar is feathered on the arbor next the stationary edger, and J′ is a similar saw, also feathered on the arbor toward the movable edger. K is a set-shaft, journaled on the front edges of the standards below the frames, and L is a similar shaft on the back side of the machine. The shaft K is rotated through a miter-pinion, K′, driven by a bevel-gear, M′, on the counter-shaft M, journaled across the left-hand end of the machine, and provided with a hand-wheel at its front end, by which it is rotated. A lead-screw is cut on the left half of this shaft, engaging with a nut in the front end of the traversing carrier P, whose other end is sleeved on the shaft L, so that as the shaft K is rotated either way the carrier P will approach or recede from the stationary edger. On the traversing carrier is erected a yoke, P′, which is received in a groove, *a*, in the collar of the movable edging-saw I, and thus the latter is moved on its arbor to "edge" both edges of a slab of any width. N is a countershaft, journaled across the right hand of the machine, carrying a bevel-gear, O, which meshes with a pinion, O′, on the shaft L to rotate the latter, on which, next the pinion, is a feed-screw, Q, which engages with a nut at the rear end of a traversing carrier, R, carrying a vertical yoke similar to that already described, which engages with and moves the collar of the saw J on its arbor.

The other or front end of the carrier carries a sleeve, R′, through which the shaft K passes. On this sleeve R′ is, in turn, sleeved the front end of another carrier, S, whose rear end forms a nut for a screw, Q′ which has twice the pitch of the screw Q. This carrier S has a yoke, which engages with the collar of the saw J′ to move the latter on its arbor.

The operation of this machine is summed up as follows: The movable edger, in connection with the stationary edging-saw, enables the sawyer to edge slabs of various widths, and, at the same time that the edging is done, to rip two strips from the board—say, of four or six inches in width—by means of the saws J J′. If it be desired to increase the width of the strips, by turning the hand-wheel of the counter-shaft N the screw Q moves the saw J—say, two inches further from the saw H—to make an eight-inch strip, while the screw Q′, being of twice the pitch of the other, moves its saw J′ four inches, leaving it eight inches from the saw J, making both strips of the same width, while the remaining strip is edged as wide as possible by the movable edger, to prevent waste.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction and arrangement of the traversing carriers R S, and differential screws Q Q′, mounted on the shaft L, for moving the ripping-saws J J′ on the arbor C, as described, for the purpose specified.

ELMER C. DICEY.

Witnesses:
H. S. SPRAGUE,
H. F. EBERTS.