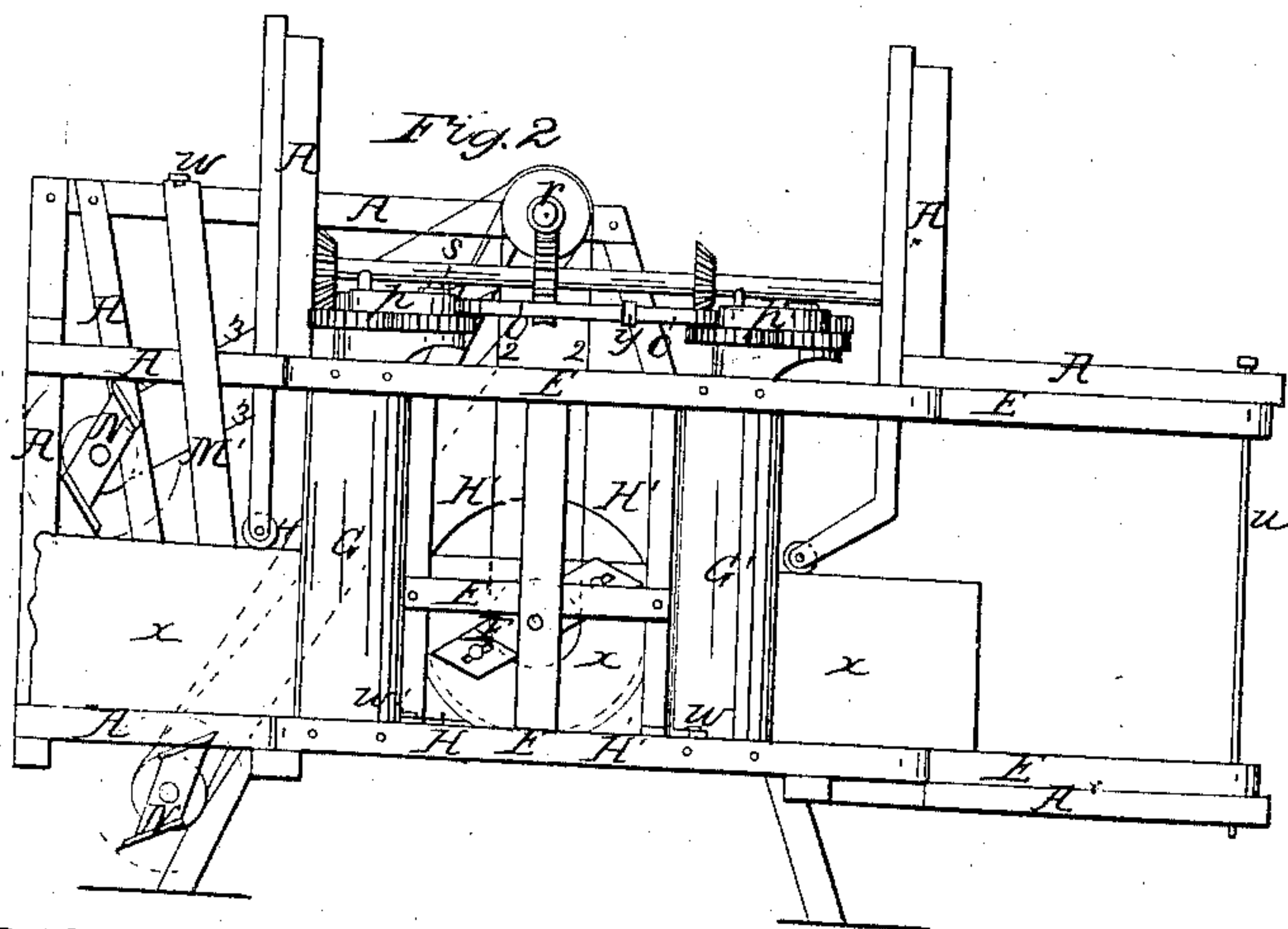
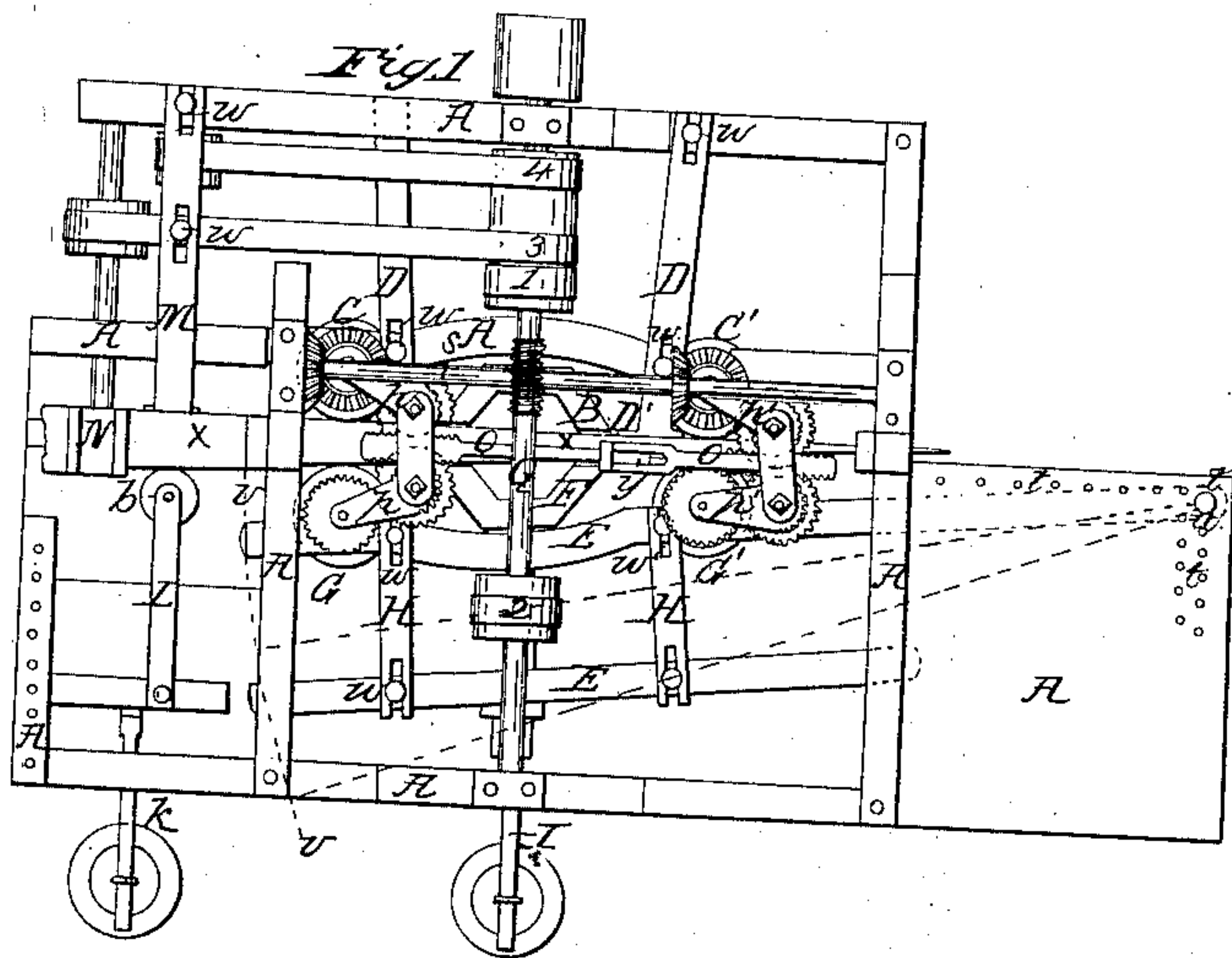


P. H. Woolsey,
Planing and Matching Machine.
N^o 31,277.
Patented Jan. 29, 1861.



Witnesses:
J. R. Olden
Wm. M. Mason

Inventor:
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UNITED STATES PATENT OFFICE.

PHILIP H. WOOLSEY, OF ANDES, NEW YORK.

SHINGLE-MACHINE.

Specification of Letters Patent No. 31,277, dated January 29, 1861.

To all whom it may concern:

Be it known that I, PHILIP H. WOOLSEY, of Andes, in the county of Delaware and State of New York, have invented a new and useful Improvement in Planing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a plan view, and Fig. 2, a sectional side elevation, of the said improved planing machine, like characters indicating the same parts when in the different figures.

My invention has for its object the production of a planing machine adapted to the purpose of simultaneously planing both sides of a sawed shingle, or other wedge-shaped body of wood, in a more expeditious and perfect manner.

It consists, substantially as hereinafter described, of an adjustable frame, turning upon a fixed point,—and carrying a revolving cutter, feed-rollers and adjustable guides, and operated by the wedge-shaped article being planed and the pressure of a weighted lever,—in combination with a cutter, feed-rollers, and guides, on a stationary frame; whereby any angle or degree of taper in the wedge or shingle, may be planed.

In the drawings, A, is the stationary portion of the frame; and B the revolving cutter, C, C' the feed-rollers, and D, D, the adjustable guides, in the said stationary portion of the machine.

E, is the adjustable moving frame, carrying its revolving cutter, F, feed rollers, G, G', and adjustable guides H, H.

I, is the weighted lever which keeps the frame (E) constantly bearing against the shingle or wedge, X, which is being planed.

K, is the weighted lever operating on the frame, L, and its friction roller, C, to keep the wedge (X) against the stationary guide (M'); and N, N, the pair of revolving edge-cutters.

O, is the two-part rack which gears with the teeth of the coupling plates p , p , and p' , p' .

Motion is given to the several cutters (B, F, N, N), by means of bands 1, 2, 3, 4, around pulleys in the usual manner, and to the feed rollers (C, C' and G, G'), by means of the screw-wheel, r , on the main shaft, Q, which drives the shaft, S—which

latter is connected, by means of a train of wheels, as seen in Fig. 1, to each pair of the said feed-rollers C, G, and C' G'.

The frame (E) is adjusted to suit the size of the shingle or wedge (X), by means of one of the holes $t-t$ and the bolt, u , upon which it turns as on a pivot, in the directions indicated by the dotted curve line v , so as to suit the particular inclination of the sides of the shingle or wedge—the said frame (E) moving outward against the pressure of the weighted lever (I), as the said shingle or wedge (X) is drawn in by the feed-rollers (C G, and C' G').

The guides D, D, and H, H, are capable of being adjusted upon their respective frames (A and E) by means of their respective slots and screw-bolts $w-w$, so as to bring their vertical faces, D' H', nearly into the same plane with the peripheries of their respective feed-rollers C C' and G G'. The guide (M) is adjusted in the same manner; and the friction roller (C) of the frame (L) is pressed against the shingle or wedge (X) by the weighted lever, K.

The rack (O) is made in two parts which are connected together at, y , so that the stem of one part will slide longitudinally within a loop in the other; and each of the said two parts has teeth, on each of its edges, which gear into connection with the teeth of both of the respective tie-plates, p p , and p' p' —as seen in Fig. 1,—thereby allowing a greater range of variation between the respective feed rollers C and G, and C' and G', without objectionably increasing the diameters of the toothed parts of the said tie plates.

In the operation of this improved machine, the shingle or wedge to be planed having been sawed or hewed into shape, is entered by pushing its thinner end, by hand, first between the cutters (N, N), the friction roller (C) and the guide plate (M'), thence between the feed-rollers, C, G, which force it along between the faces of the guide-plates D, D, and H, H, and the revolving cutters, B, and, F, into connection with the feed-rollers, C' G', which latter eventually deliver it, planed on both sides, and edged, at the rear end of the machine—the top and bottom edges having been planed parallel with each other, by the cutters N, N.

Great expedition with accuracy is afforded by this improvement, in planing sawed shingles, or wedges, of almost any required

angle between their sides; and the superior durability of planed shingles, in comparison with those used directly from the saw, renders the invention an object of important utility.

Having thus fully described my improved planing machine, and shown its utility, what I claim as new therein of my invention, and desire to secure by Letters Patent is—

The arrangement of the swinging or moving frame E, with its rollers, revolving cutter, guide-plate, and weight, in combination with those of the opposite stationary frame A, constructed and operated as described.

PHILIP H. WOOLSEY.

Witnesses:

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