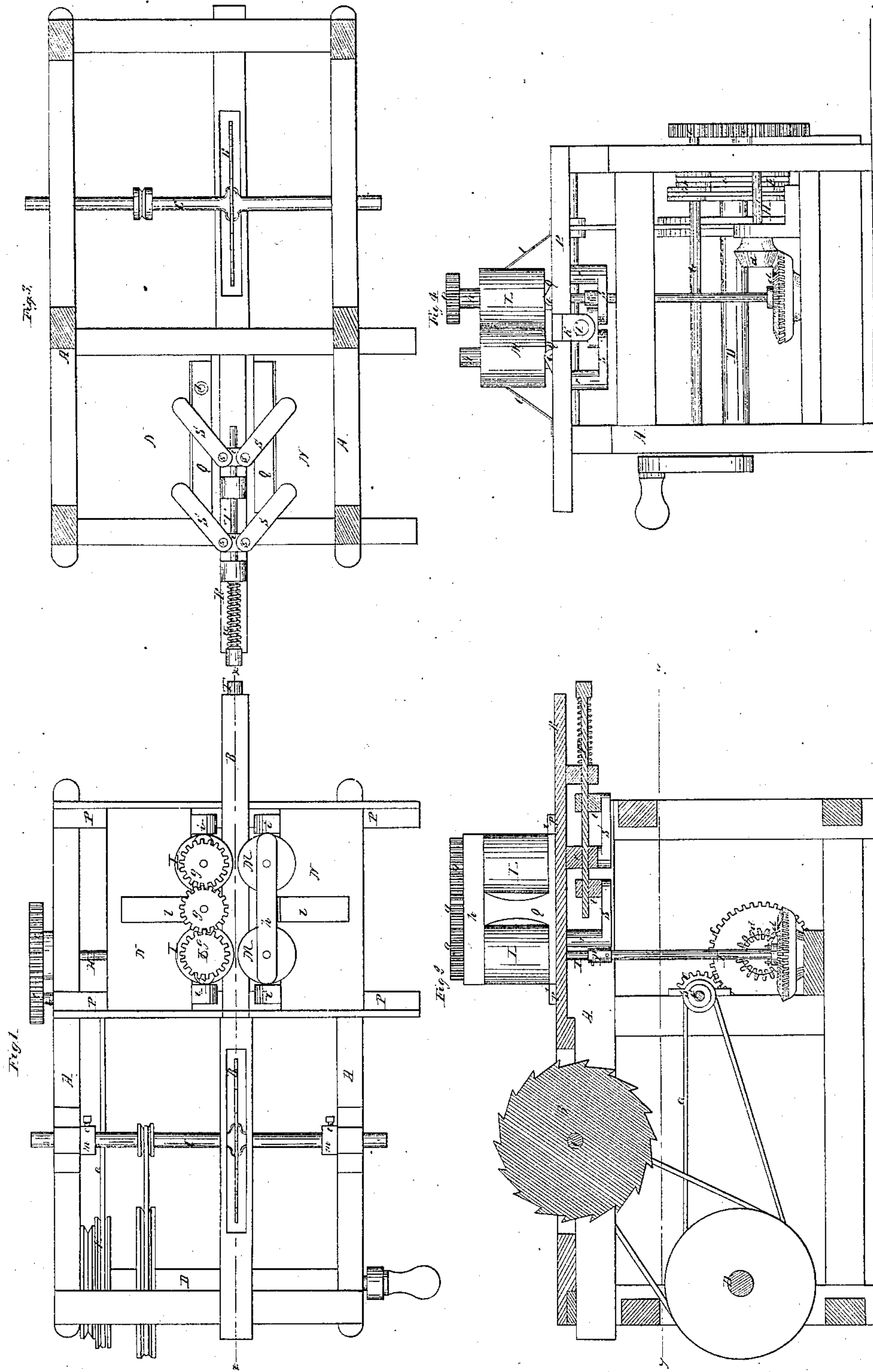


*J. B. Pomroy,  
Resawing Machine.*

*N<sup>o</sup> 16,105.*

*Patented Nov. 18, 1856.*





# UNITED STATES PATENT OFFICE.

JOSIAH B. POMROY, OF CHICAGO, ILLINOIS.

DEVICE FOR GOVERNING THE PARALLEL GUIDING OF LUMBER-FEEDING ROLLERS.

Specification of Letters Patent No. 16,105, dated November 18, 1856.

*To all whom it may concern:*

Be it known that I, JOSIAH B. POMROY, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Machine for Resawing Boards into Thin Boards, Clapboards, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, Figure 1 being a plan of the machine; Fig. 2, a vertical section thereof in the line *x x* Fig. 1; Fig. 3, a horizontal section looking upward in the line *y y*, Fig. 2; Fig. 4, an end elevation of the machine.

Like letters designate corresponding parts in all the figures.

The several parts of the machine are mounted in a suitable frame A; and the power is applied to the driving shaft D. From a pulley E, on the driving shaft, a band *a*, passes to a pulley *b*, on a shaft G. Bob-wheels *c, c*, communicate the motion at a lower speed, from said shaft G, to another shaft H, substantially as shown in the drawings. Two bevel-wheels *d, d*, change the motion from the horizontal shaft H, to a vertical shaft I, which is loosely coupled, to the axis of the horizontal wheel *d*, as shown at *f*, Fig. 2. This shaft is also jointed near the top, by means of a collar *p*, so that a free lateral motion, as well as a considerable change of angle may be allowed to the shaft, at the top, while it revolves. On the top of said shaft, one of the vertical feeding rollers, L, L, is secured; whereby the proper feeding motion is communicated thereto, and by means of cog-wheels *g, g, g*, also to the other feeding roller on the same side of the machine. The rollers M, M, on the other side, do not require any power to be applied independently to them, since they serve only for producing the proper pressure on the side of the boards, opposite to the feeding rollers L, L.

The feeding rollers L, L, and M, M, are respectively mounted on standards Q, Q, which are secured upon sliding carriages N, N, that move laterally in ways P, P. The standards are attached to the carriages N, N, by means of hinges *i, i*, in the manner represented in the drawings. Spring braces *l, l*, pass from the tops *h, h*, of the standards Q, Q, down obliquely to the carriages N, N, so that the rollers may offer a sufficiently firm pressure to the boards between them,

and, at the same time, adapt themselves to the shape of the boards, if one edge happens to be thicker than the other. The necessary pressure is communicated to the rollers in the following manner:—A pair of parallel arms S, S, is pivoted, at one end *r, r*, to the under side of each carriage N. The other ends of the arms are pivoted at *s, s*, to blocks *t, t*, attached to a sliding rod T; one arm from each carriage being pivoted to each block, substantially as shown in Fig. 3. The rod T, has a longitudinal movement lengthwise of the machine, in suitable bearings on the underside of a projecting beam R, of the frame. A coiled spring *u*, on said rod, serves to draw out the parallel arms S, S, lengthwise of the machine, and consequently tends to force the sliding carriages N, N, transversely toward each other. The force given to the spring corresponds with the degree of pressure required upon the boards, and may be adjusted at pleasure. By pressing against the projecting end of the sliding rod, the carriages N, N, are separated, and free room is thus allowed for inserting, or taking out, boards. It is obvious that if the arms S, S, are all of equal length and the saw B, is adjusted exactly to the center line between the feeding rollers, the boards, of whatever thickness, will be divided precisely in the middle, by this arrangement; an important desideratum in resawing boards. The feeding arrangement also adapts itself perfectly to boards of variable and uneven thickness, as above explained, and is in every respect a superior device.

If it is desired to resaw boards into clapboards, or other kinds of stuff having one edge thin and the other thick, by making the braces *l, l*, adjustable to different positions on the carriages N, N, or standards Q, Q, the feeding rollers may be inclined so as to feed the boards to the saw in exactly the right position to produce the stuff required. In such cases, and others when it may be desired to saw boards or planks into stuff of unequal thickness, I arrange the saw arbor C, so that it can be adjusted endwise, sufficiently to place the saw B, in the precise position desired for producing such stuff, without changing the feeding arrangement. This adjustment of the saw arbor, I accomplish by means of two sliding collars *m, m*, respectively at each end of the arbor. They are secured in any position on the arbor by

set screws *o, o*; so that by loosening them, and setting the saw to the position required, then by tightening the collars again close to the respective bearings of the arbor, the saw  
5 will be retained in the proper position.

I do not claim, in general, causing the feeding rollers to yield and adapt themselves to the shape of the board, so as to remain always in parallel position; but

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

The arrangement and combination of the

parallel arms *S, S*, central guiding rod *T*, and spring *u*, in connection with the yielding feeding rollers mounted on sliding car-  
riages, substantially in the manner and for  
the purposes specified. 15

The above specification of my improved machine for resawing boards, &c., signed by me this 26th day of September, 1856.

JOSIAH B. POMROY.

Witnesses:

J. A. HOISINGTON,  
B. HENDRICKS.