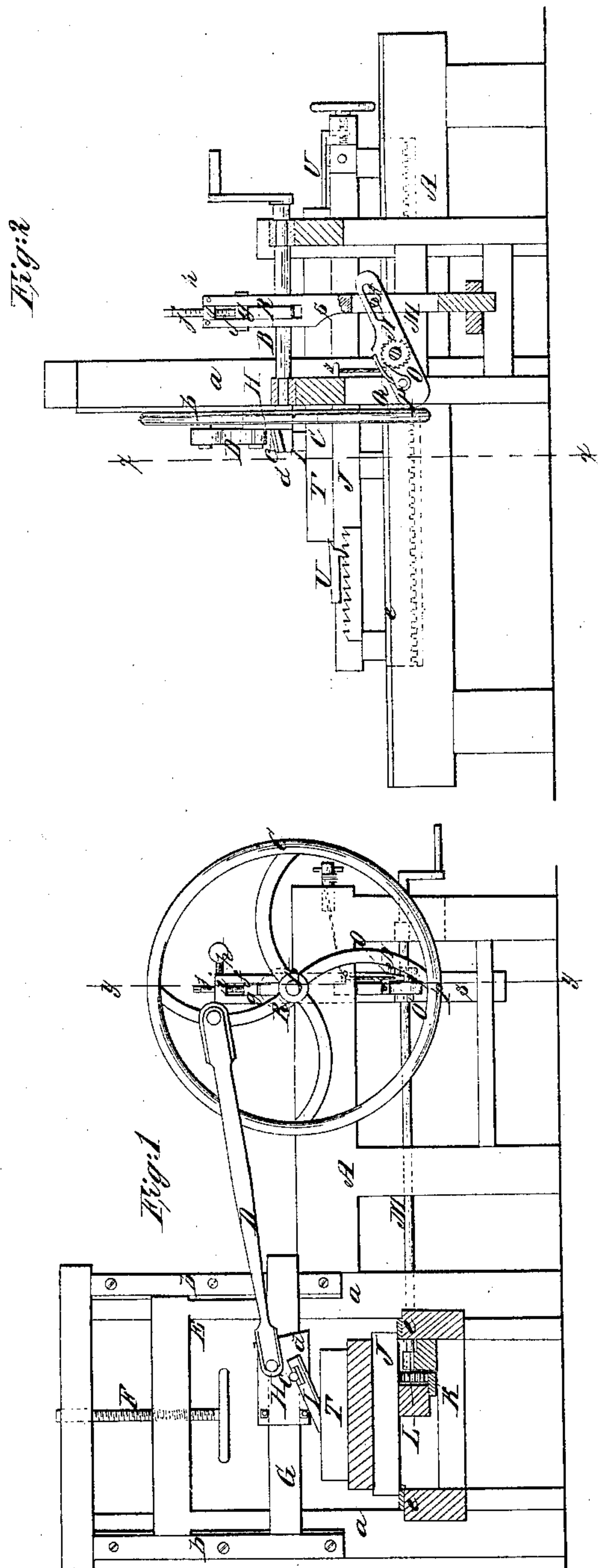


*G. Rinewalt, Jr.,*  
*Wood Planing Machine.*

*N<sup>o</sup> 32,926.*

*Patented July 30, 1861.*



*Witnesses:*

*John Smith*  
*J. H. Reed*

*Inventor:*

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# UNITED STATES PATENT OFFICE.

GEORGE RINEWALT, JR., OF PENDLETON, INDIANA.

## WOOD-PLANING MACHINE.

Specification of Letters Patent No. 32,926, dated July 30, 1861.

*To all whom it may concern:*

Be it known that I, GEORGE RINEWALT, Jr., of Pendleton, in the county of Madison and State of Indiana, have invented a new and Improved Wood-Planing Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical section of my invention, taken in the line *x, x*, of Fig. 2; and Fig. 2, a vertical section of the same, taken in the line *y, y*, of Fig. 1.

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

This invention relates to a planing machine which is more especially designed for manual operation, and consists in the employment or use of an adjustable reciprocating planer in connection with a feed-mechanism, all arranged as hereinafter described, whereby a very simple and efficient machine is obtained for the desired purpose.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents the frame of the machine, which may be constructed in any proper way to support the working parts; and B is the driving shaft of the machine, said shaft having a flywheel, C, at one end, to which wheel, near its periphery, a rod, D, is attached. To the frame A, there are attached two uprights, *a, a*, having guides, *b, b*, secured to them, between which a sliding or adjustable frame, E, is placed, said frame being adjusted by a screw, F; see Fig. 1. To the lower part of the frame E, there is secured a horizontal bar, G, and on this bar G there is placed a slide, H, to which a planer, I, is attached. The slide H is fitted loosely on the bar G, so that a little play is allowed the slide on the bar, and the planer I is attached by a bolt, *c*, to a ledge, *d*, which projects from the outer side of slide H. The cutting edge of the planer I is oblique with the line of its cut or movement so as to obtain what is commonly termed a "drawing cut". The rod D is attached to the slide H.

J, represents a carriage on which the stuff to be planed is dogged. This carriage is fitted on ways or guides, *e, e*, of the frame A, which ways or guides are at right

angles with the frame E and bar G, on which the slide works. The carriage J has a rack, K, attached to its under side longitudinally; and into this rack, a pinion, L, gears. The pinion L is on the inner end of a shaft, M, which has a ratchet, N, upon it, said ratchet being directly below the driving shaft B. On the shaft M, there is placed loosely a lever, O, to which a pawl, P, is attached; said pawl being kept engaged with the ratchet N, by means of a spring, Q, as shown in Fig. 2.

On the driving shaft B, there is placed an eccentric, R, which is fitted in a yoke, *f*, at the upper part of a vertical bar, S. Within the yoke *f*, above the eccentric R, there is placed a slide, *g*, which may be secured at any desired point by means of a set screw, *h*, which passes laterally into a cap, *i*, at the upper part of bar S, and bears against a rod, *j*, which is attached to slide *g*. The lever O passes through the lower part of the bar S; a pin, *k*, in bar S, passing through a longitudinal slot in the lever.

The operation of the machine is as follows: The board, T, to be planed is secured to the carriage J by the usual dogs, U, U, and the shaft B is then rotated, a reciprocating motion being communicated to the slide H by the rod D. The planer I is moved transversely over the board T and takes off a shaving while moving in the direction indicated by arrow 1. During this cutting movement of the planer, the rod D bears obliquely downward on the slide H, in consequence of the rod passing around over the shaft B, and the planer is kept to its work; but during the return movement of the planer, as indicated by arrow 2, the rod D passes around underneath the shaft B, and said rod pulls obliquely down on the slide and tilts up the cutting edge of the planer I, thereby avoiding friction and preserving the cutting edge of the planer. The play allowed the slide H on the bar G, admits of this operation of rod D. As the planer I passes back over the board T, the eccentric R forces down the bar S, and the lever O is actuated in consequence, and through the medium of the pawl P, and ratchet N, turns the shaft M, and the carriage J, is fed along in consequence of the pinion L, gearing into the rack K. The length of feed at each revolution of the eccentric R, may be raised to suit the width of planer employed by regulating the slide *g*,



and thereby increasing or diminishing the height of the yoke *f*, and varying the stroke of the bar *S*. By adjusting the frame *E*, through the medium of the screw *F*, the machine may be made to plane stuff of different thicknesses.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

10 The reciprocating planer *I*, placed in an adjustable frame *E*, in connection with the feed-mechanism of carriage *J*, comprised of

the eccentric *R*, fitted in a yoke *f*, of a bar *S*, and the bar connected to a lever *O*, which has a pawl *P*, that engages with the ratchet 15 *N*, of shaft *M*, the latter having a pinion *L* that gears into the rack *K*, of carriage *J*; all arranged for joint operation substantially as and for the purpose set forth.

GEORGE RINEWALT, JUNIOR.

Witnesses:

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