

D. R. WILLIAMS, Sr.
Improvement in General-Joiners.

No. 130,681.

Patented Aug. 20, 1872.

Fig. 1.

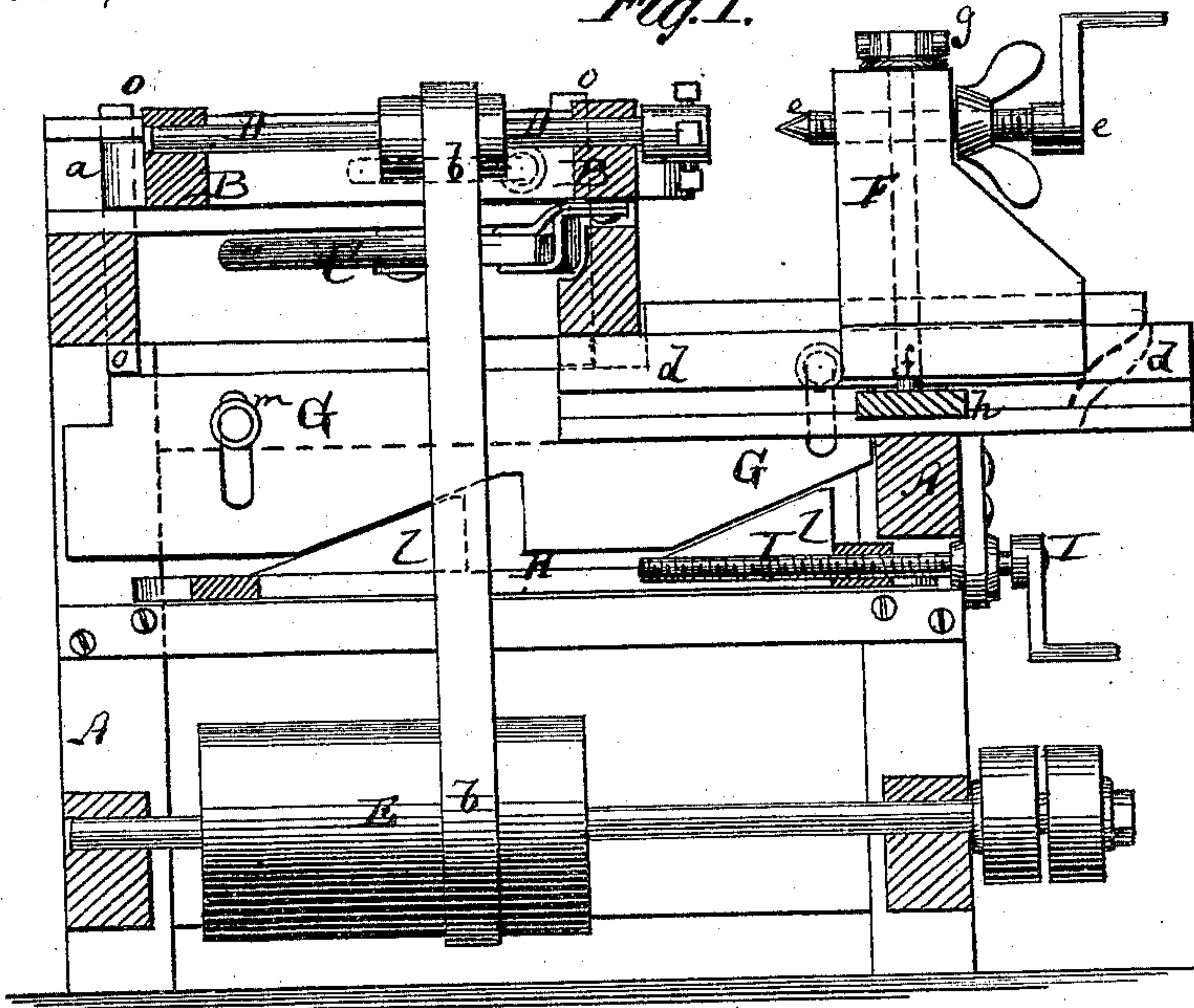
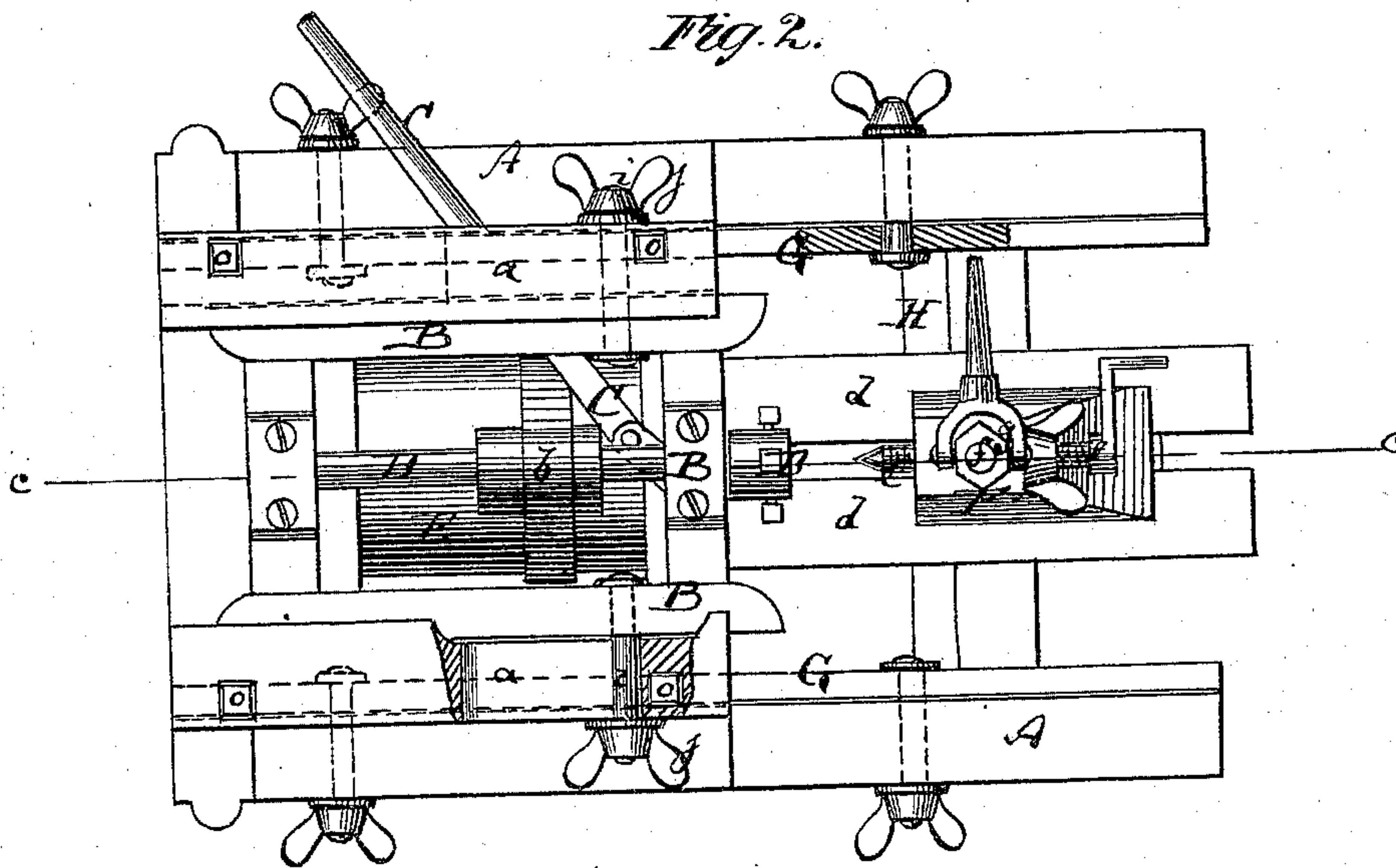


Fig. 2.



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Fig. 3.

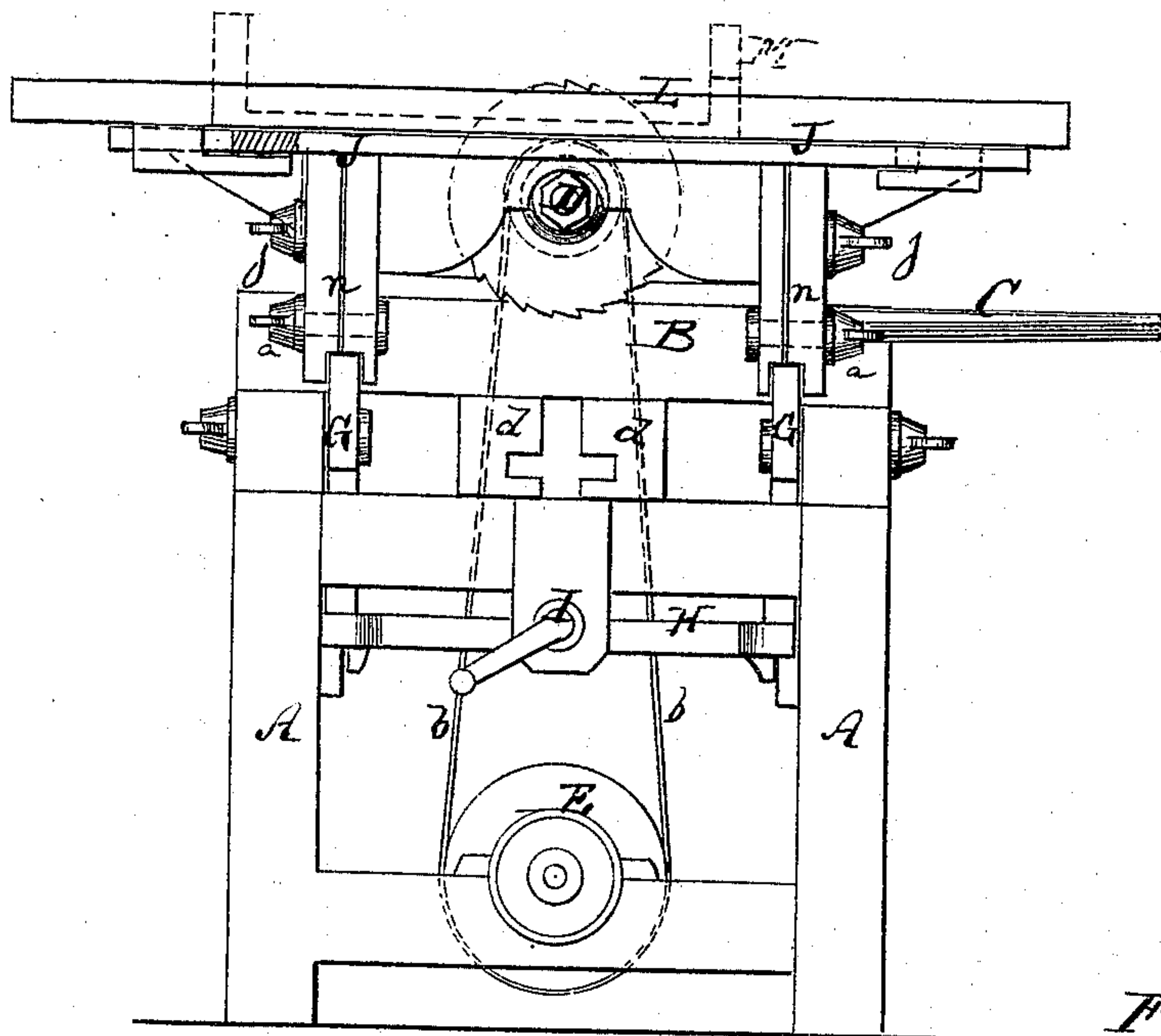
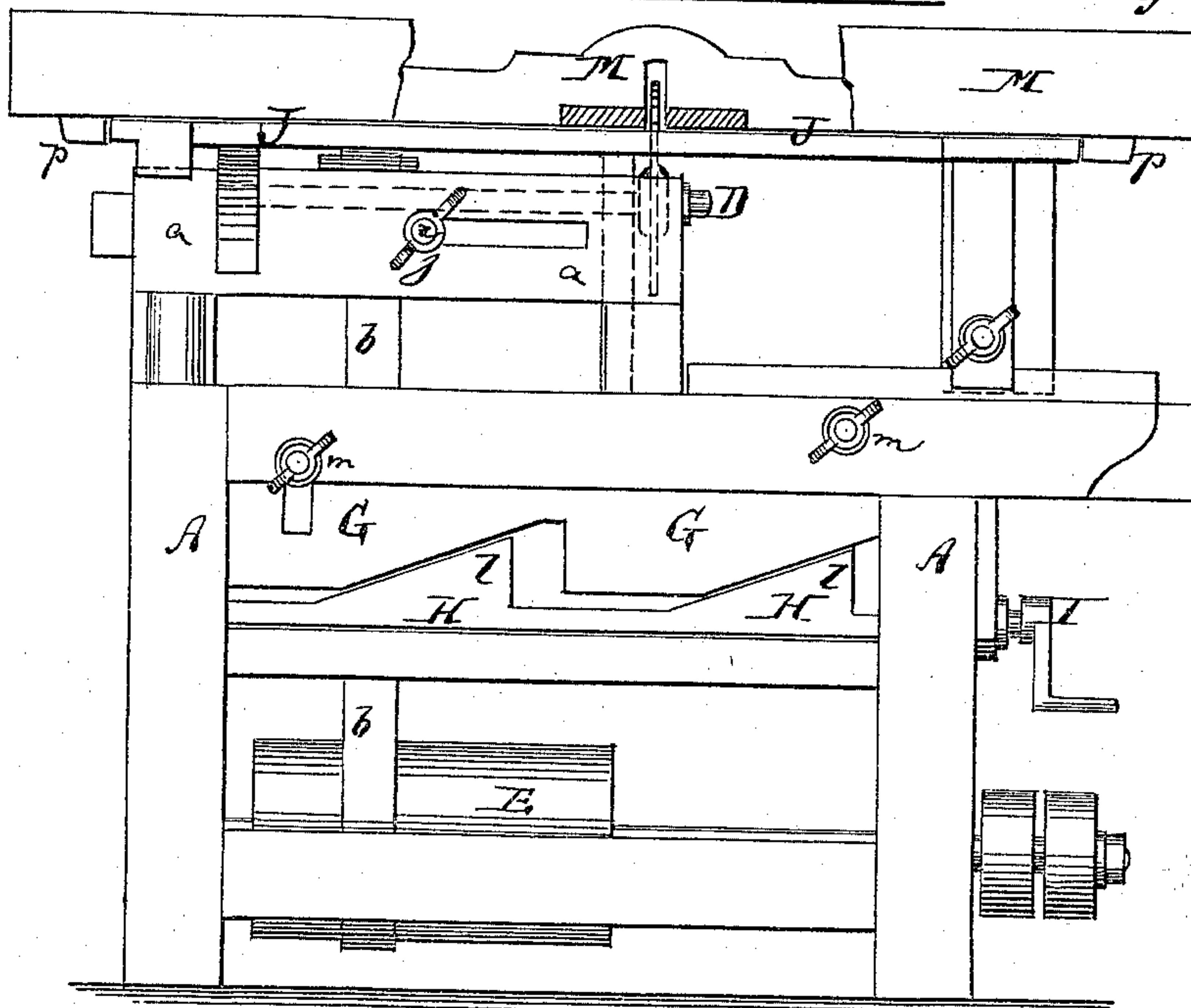


Fig. 4.



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UNITED STATES PATENT OFFICE.

DAVID R. WILLIAMS, SR., OF PARIS, KENTUCKY.

IMPROVEMENT IN GENERAL JOINERS.

Specification forming part of Letters Patent No. 130,681, dated August 20, 1872.

Specification describing a new Improvement in General Joiners, invented by DAVID R. WILLIAMS, Sr., of Paris, in the county of Bourbon and State of Kentucky.

Figure 1 represents a vertical longitudinal section of my improved wood-working machine. Fig. 2 is a top view of the same. Fig. 3 is a front elevation, and Fig. 4 a side elevation, of the same.

Similar letters of reference indicate corresponding parts.

The invention consists in working lumber across a wood-working machine, by means substantially as hereinafter described.

A in the drawing represents the supporting-frame of the machine. For ordinary purposes it does not require more than about four feet in length and three in width. It is built of substantial wood-work, sufficiently strong for the work to be done on it. B is a horizontal carriage, fitted between two horizontal guide rails, *a a*, on the upper part of the machine, and connected with a lever, C, which is pivoted to the frame A, and serves to adjust the carriage back or forward, in the manner described. D is a horizontal shaft hung lengthwise in the carriage B, to receive at its front end the lathe-chuck, circular, rip, or cross-cut-saw, or other tool to be revolved. The shaft D is, by means of a belt, *b*, connected with a drum, E, hanging in the lower part of the frame A, and receiving rotary motion by suitable mechanism, so that the shaft D will also be turned. F is a longitudinal adjustable rest placed upon two rails, *d d*, of the frame A, so that its center pin *e* will be in line with the axis of the shaft D. It can be clamped to the rails *d* by means of a screw, *f*, nut *g*, and lower plate *h*. The carriage B has at its sides projecting screws *i i*, which fit through slots in the rails *a a*, and have nuts *j*, whereby the carriage can be fastened in suitable position. G G are vertically-adjustable side plates, placed at the sides of the frame A, upon a longitudinally-adjustable frame, H, which has wedge-shaped projections *l*, fitting corresponding recesses or inclined edges of the plates G. When the frame H is, by means of a screw, I,

moved backward the plates G G will be elevated, and they will be lowered when the frame H is moved forward. The plates G G are slotted vertically, as shown, and guided on pins *m m*.

On a machine made as thus far described, nearly all ordinary turning work can be done, both regular and irregular; so also all sorts of drilling and boring. The usual or convenient rests, gages, &c., may be employed during such operations.

When the machine is to be used for sawing, a table, J, is placed over the frame B, and clamped in front by screw-clamps *n* to the plates G, while at the rear it will be supported on vertical pins *o o*, which stand on the plates G, so that such table will be adjusted up and down by and with the plates G. A shifting rail, L, may be placed over the table J to guide the planks or things to be ripped by the saw. When the machine is to be used for cross-cutting, a transversely-sliding frame, M, is placed over the table J, and supports the article to be cut. By projecting ribs *p* at the ends, the frame M is so guided on the table J as to carry the work in a straight line across the operating saw. With the aid of the vertical adjustment of the table J, this machine can be used for all kinds of sawing by circular saws.

It will be unnecessary to enumerate all the possible functions of this machine. They are almost unlimited. By applying proper cutter-heads to the shaft D and using the table J, tonguing, grooving, planing, molding, and all manner of work can be performed.

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

The carriage B, shaft D, plates G G, and frame H, combined and arranged on the frame A of a wood-working machine, as described, for the purpose of working the lumber across the machine, as set forth.

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Witnesses:

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