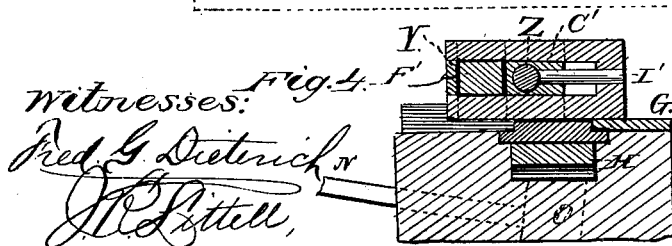
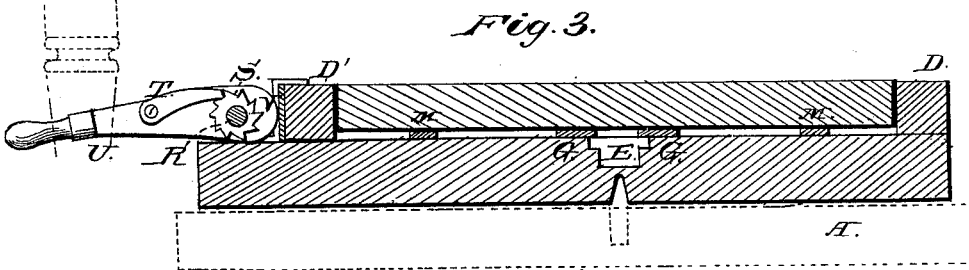
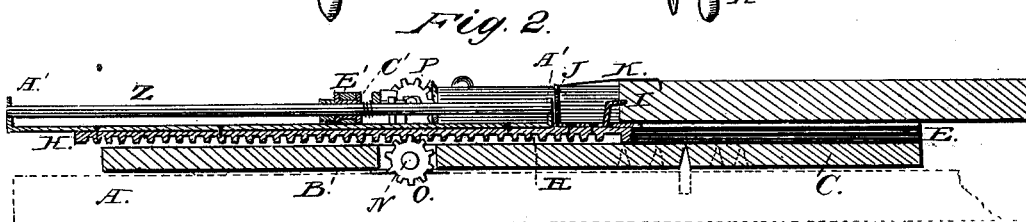
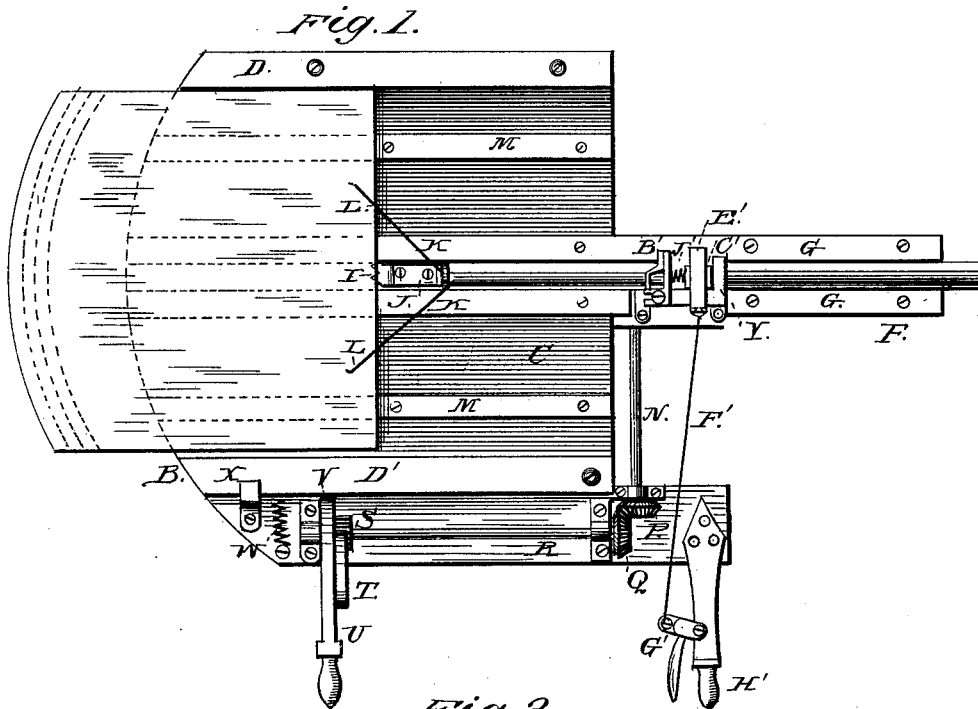


W. HATFIELD.
Clamp for Saw-Table.

No. 220,075.

Patented Sept. 30, 1879.



Witnesses:
Fred G. Dietrich
J. R. Little

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UNITED STATES PATENT OFFICE.

WILLIAM HATFIELD, OF FORT WAYNE, INDIANA.

IMPROVEMENT IN CLAMPS FOR SAW-TABLES.

Specification forming part of Letters Patent No. **220,075**, dated September 30, 1879; application filed May 23, 1879.

To all whom it may concern:

Be it known that I, WM. HATFIELD, of Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Clamps for Saw-Tables for Sawing Chair-Backs, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a plan view. Fig. 2 is a longitudinal vertical section. Fig. 3 is a cross-section on the line *x x*, and Fig. 4 is a cross section on the line *y y*.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to machines for sawing segmental strips of lumber suitable for chair-backs, &c.; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, A represents a table or platform upon which the frame B of the machine is pivoted in such a manner as to be capable of swinging in a horizontal plane. Said frame consists of a bottom piece, C, having side pieces or guides, one of which, D, is firmly secured, while the other, D', is pivoted. The bottom piece, C, has a longitudinal groove, E, extending also through an arm, F, which forms a rearward continuation of said bottom piece. Guides G G are arranged upon the sides of said groove to accommodate a rack, H, which slides therein, teeth downward. The front end of said rack is provided with teeth I, behind which is arranged an upright, J, to which are attached the rods K K, provided with sharp hooks L.

The piece of lumber which is to be sawed up is placed upon the bottom piece of the frame between the guides D D' and moved back until the teeth I enter its rear end. The sharp hooks L are then driven into it, thus securing it firmly to the sliding rack. Smooth metal strips M M are arranged upon the bottom piece, C, in order to enable the material which is to be sawed up to slide freely.

N is a shaft journaled in suitable bearings

in frame B transversely to the rack H. Its inner end is provided with a pinion, O, engaging said rack, and at its outer end it has a pinion, P, engaging a pinion, Q, upon a rear end of a shaft, R, journaled in suitable bearings alongside the pivoted guide D'.

The forward end of shaft R carries a ratchet-wheel, S, engaging a pawl, T, pivoted upon a lever, U, which is loosely arranged upon shaft R. The lower end of lever U forms, or is provided with, an eccentric or cam, V, which, when the lever-handle is lowered, bears against the free end of the pivoted guide D', thus forcing it inward toward the fixed guide D. A spring, W, suitably arranged, tends to force the free end of guide D' outward when released from the pressure of lever U, such outward movement being confined by a clamp, X.

Y is a bracket secured upon the arm F and having bearings for a longitudinal rod, Z, secured between uprights A' A' upon the rack H. One of the bearings, B', is formed by a plate adjustable upon the bracket, so that the distance between the two bearings may be increased or diminished at pleasure.

C' is a perforated block loosely arranged upon rod Z between the bearings, and embraced by a clamp, E', connected by a rod, F', to one end of a bell-crank lever, G', pivoted to a handle, H'.

I' is a pin secured to the clamp E' and passing through a perforation in the side of block C' in such a manner as to bear against the rod Z. A spring, J', is arranged to force the block and clamp away from the adjustable plate B'.

The front end of frame B is rounded, as shown, and a band-saw is arranged to work along the rounded edge when the frame is turned upon its pivot.

In operation, when the lever U is raised the pawl T will engage the ratchet-wheel S, which, through the shafts and gearing R Q P O N, operates the rack H, thus feeding forward the piece of material which has been secured to it, as above described. Previously the plate B' has been adjusted at a suitable distance from the other bearing of bracket Y. While operating the feeding mechanism with one hand the other is used to operate the bell-crank lever, by which the clamp E' is drawn to-

ward bracket Y and the pin I' forced against the rod Z. This device thus acts as a brake, which prevents the feeding mechanism from being operated after the block C' reaches the gage-plate. After feeding the material forward as far as may be desired, the frame B is swung upon its pivot, thereby causing the saw to cut off a segmental piece of the material held in the frame.

It will be observed that when the lever U is raised to feed the material forward the spring W releases the guide D' from the said material, thus enabling it to slide forward freely until the required portion has been fed; but when the lever is again lowered its cam or eccentric forces the guide D' inward, thus securely clamping and holding the material while the portion projecting beyond the end of the frame is being sawed off.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a machine for sawing wood, the combination of a frame or table having a solid and a pivoted guide, with an eccentric-lever bearing against the free end of said pivoted guide, which is thereby adapted to clamp and hold the material to be sawed, and a spring for releasing the said pivoted guide from the mate-

rial when released from the pressure of the lever, as set forth.

2. In a machine for sawing wood, the combination of the frame or table C, having guides D D' and groove E, rack H, having rod Z and teeth and hooks I K L, brake or clamp E', adjustable gage-plate B', and mechanism for operating the brake and feeding the rack forward, as set forth.

3. As an improvement in wood-sawing machines, a swinging frame having a solid and a pivoted guide and a longitudinally-sliding rack, to the front end of which the material to be sawed may be secured, mechanism for feeding said rack forward, an eccentric-lever adapted to operate said feeding mechanism and to work against the free end of the pivoted guide, a brake adapted to clamp and hold the rack, and an adjustable gage-plate adapted to arrest the progress of said rack at any desired point, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM HATFIELD.

Witnesses:

MILTON S. PHILLEY,
EDWARD DOWNEY.