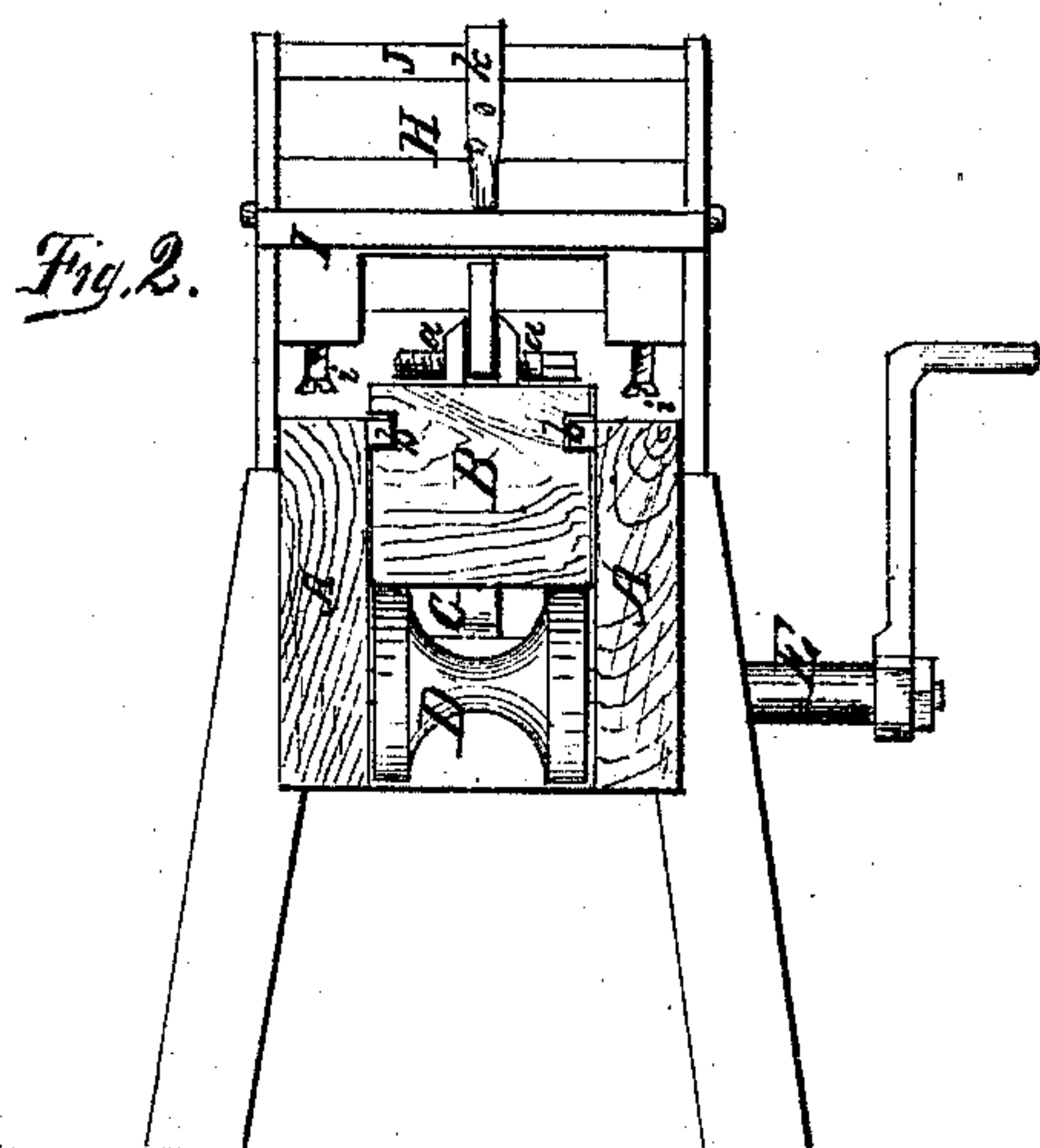
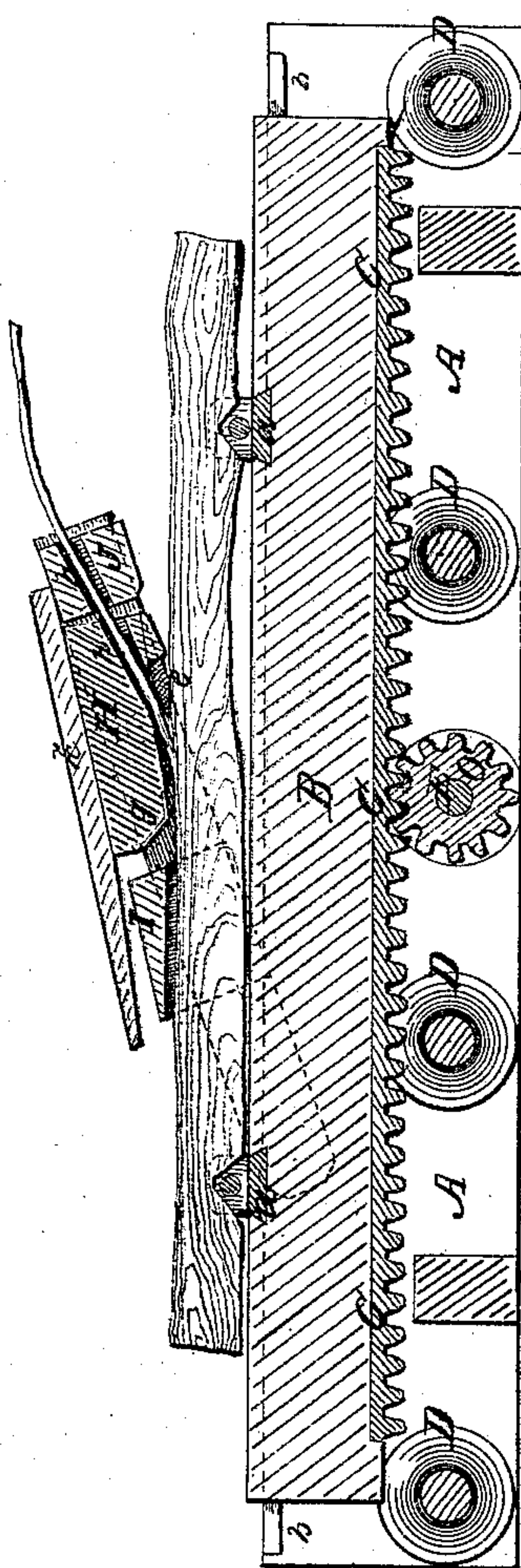
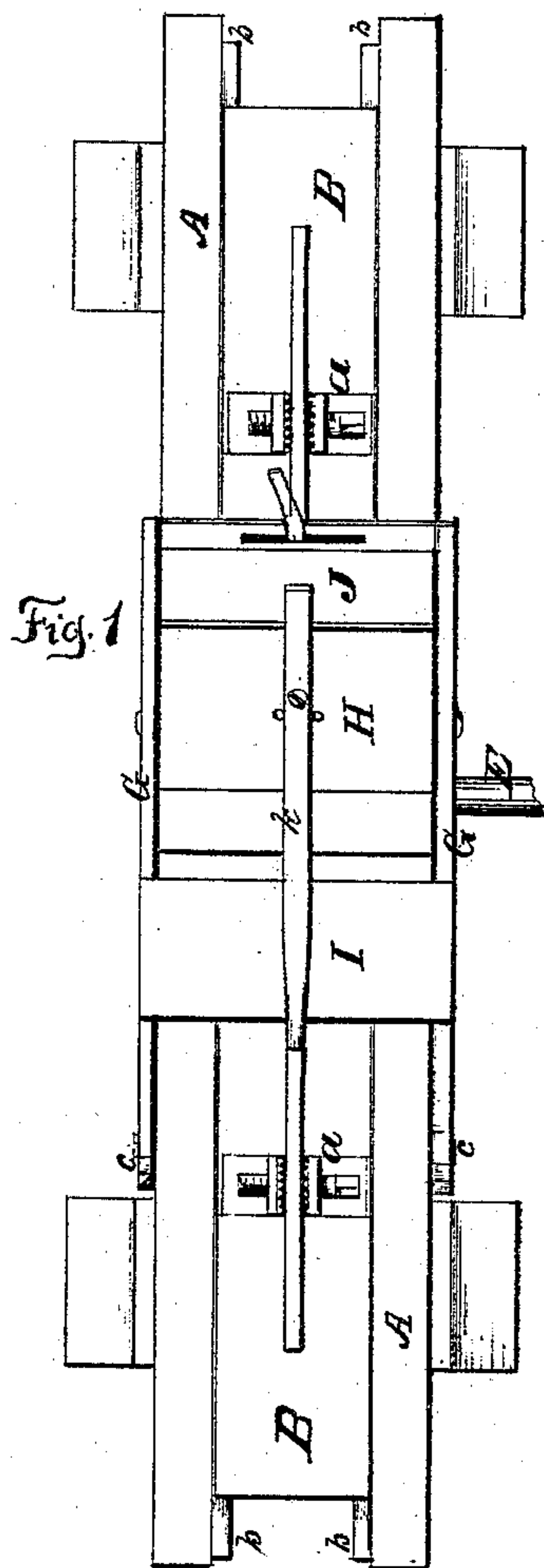


W. H. Davis,
Making Hoops.

No. 106,671.

Patented Aug. 23. 1870.



Inventor.
William H. Davis

Attest.
Henry Connett
Bart Billings

United States Patent Office.

WILLIAM H. DAVIS, OF LEXINGTON, INDIANA, ASSIGNOR TO HIMSELF
AND JOSEPH HARLAN, OF SAME PLACE.

Letters Patent No. 106,671, dated August 23, 1870.

IMPROVEMENT IN MACHINE FOR CUTTING HOOPS.

The Schedule referred to in these Letters Patent and making part of the same.

I, WILLIAM H. DAVIS, of Lexington, in the county of Scott and State of Indiana, have invented certain Improvements in Hoop-making Machines, of which the following is a specification.

The object of my invention is to rive or split from the upper surface of suitable timber thin strips of wood, to be used for hoops or other kindred purposes.

The timber is fed along by a carriage, to which it is securely attached by means of clamp-jaws.

The device by which the hoops are split or cut off contains the novel features of my invention, and consists of two knife-bearing arms, attached, by their lower and rear ends, to the sides of the main frame by pivots or other suitable articulated joints, so that the other or forward ends, which carry the knife-stock, can raise or lower, as may be desired.

The knife-stock is pivoted between the said arms, so that it can oscillate, and thus follow the curves formed by the grain of the timber, and thus preserve an even thickness in the hoop.

The knife is firmly attached to the under side of the knife-stock, which is cut away immediately beneath the blade of said knife, so as to allow the hoop to pass through.

There is a metallic plate set in front of the knife-edge, which serves to gauge the thickness of the hoop.

The knife-bearing arms are firmly tied together by two cross-pieces or ties, one before and one behind the knife-stock. These ties are beveled, so as to raise the knife-stock when the timber is starting under it.

The knife-bearing arms are jointed, or pivoted sufficiently low on the side frames to hold the knife-stock firmly down to the bolt of timber from which the hoops are being cut.

The carriage moves on rollers, journaled in the main frame, and is provided on the under side with a rack, which meshes with a pinion on the driving-shaft.

Drawing.

Figure 1 is a plan of the machine.

Figure 2 is an end elevation of the same.

Figure 3 is a longitudinal vertical section of the same through the line *x x*, figs. 1 and 2.

A is the main frame, which should be constructed in a strong and substantial manner.

B is the carriage, and *a a* are the clamps, which are shown as securing a bolt of timber to the carriage.

C is the rack on the under side of the carriage B.

D D, rollers, turning on journals in the side frames, and *b b*, guides, secured to the main frame, and working in grooves in the carriage. These guides are not

necessarily required on a full-sized machine, as the weight of the carriage is then generally sufficient to hold itself down.

E represents the main shaft, from which the motion is derived. This shaft bears the pinion *o*, which moves the carriage back and forth, and to it any motive power may be applied. Suitable reversing gear may also be provided, if desired.

G G represent the knife-bearing arms, which are pivoted to the main frame at *c c*, at which point they rest at the proper angle necessary to keep the knife-stock down to the timber. Between these arms, near the upper or forward end, is pivoted the knife-stock H, by journals, in the said arms, said stock being provided with a suitable knife, *e*, for splitting off the hoop. This knife is set so as to allow a hoop of the desired thickness to pass between it and the stock to which it is secured.

A metallic plate, *g*, is secured to the stock in front of the knife-edge, which rides upon the upper surface of the timber, and determines the thickness of the hoop. This plate may be made adjustable, so that it can be raised and lowered at pleasure. A roller may be substituted for this plate, if preferred.

A tie, I, behind the knife, secures the arms together at that point, and another, J, secures the ends.

The knife-stock and the block J are provided with mortises *h h*, (see fig. 3,) which guide the strip cut off in an oblique upward direction.

Set-screws *i i*, in the lower side of the tie I, impinge against the top of the main frame, and prevent the knife from falling low enough to come in contact with the clamps on the carriage.

On the top of the knife-stock is secured a lever, *k*, which serves to keep the stock from oscillating too much, and, being provided with a handle at the rear end, the knife may be tilted so as to run out of the timber, or, in other words, cut off the hoop at any desired point by lifting the said handle.

Having thus described my invention,

I do not claim the main frame, nor the carriage and its attachments; but

What I do claim is—

The knife-bearing arms G G and knife-stock H, when constructed and arranged to operate in conjunction with each other, substantially in the manner shown, and for the purposes set forth.

Witness my hand this 11th day of July, 1870.

WILLIAM H. DAVIS.

Witnesses:

SAMUEL S. CROWE,
HENRY M. WILSON.