

(No Model.)

2 Sheets—Sheet 1.

H. C. HUTCHINSON.
PORTABLE SAWING MACHINE.

No. 585,037.

Patented June 22, 1897.

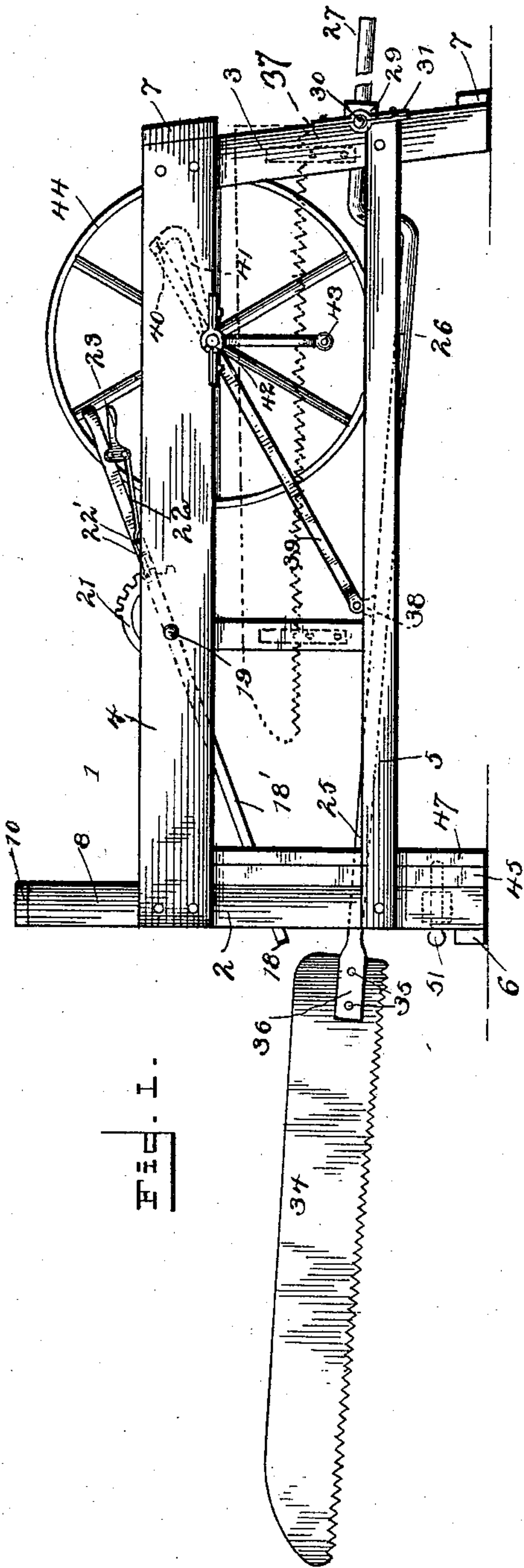


FIG. 1.

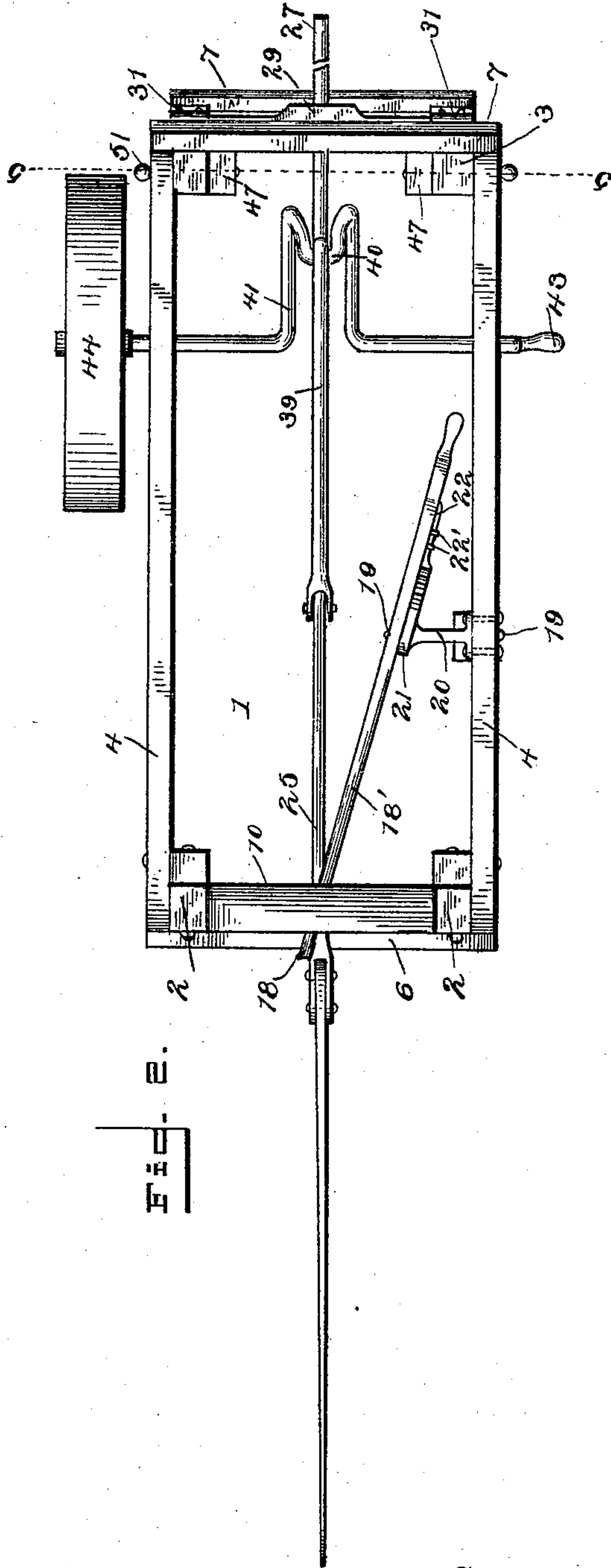


FIG. 2.

Witnesses:
Fenton S. Belt.
J. A. Willson.

Inventor:
Hardy C. Hutchinson,
by *H. B. Willson*,
Attorney.

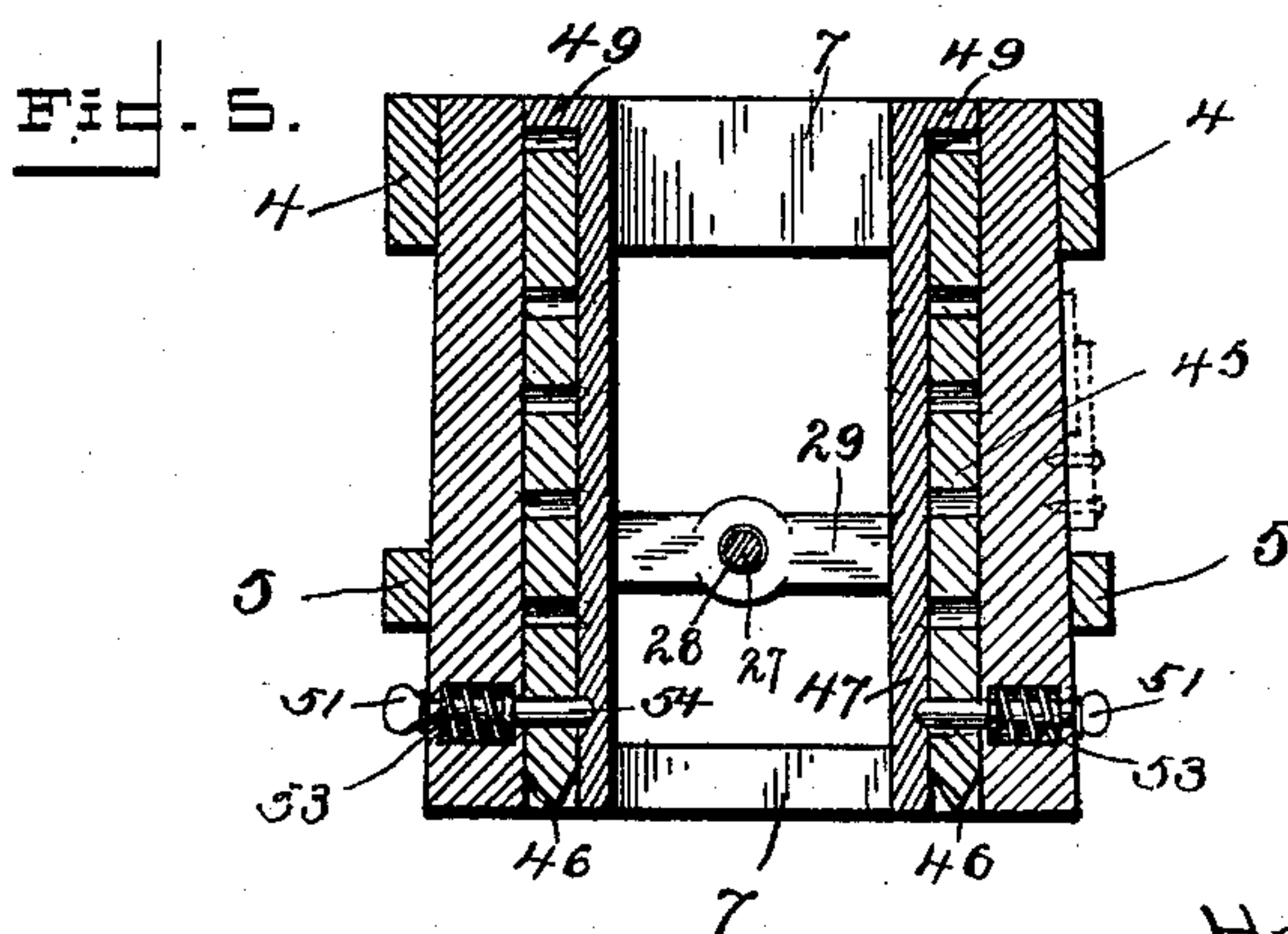
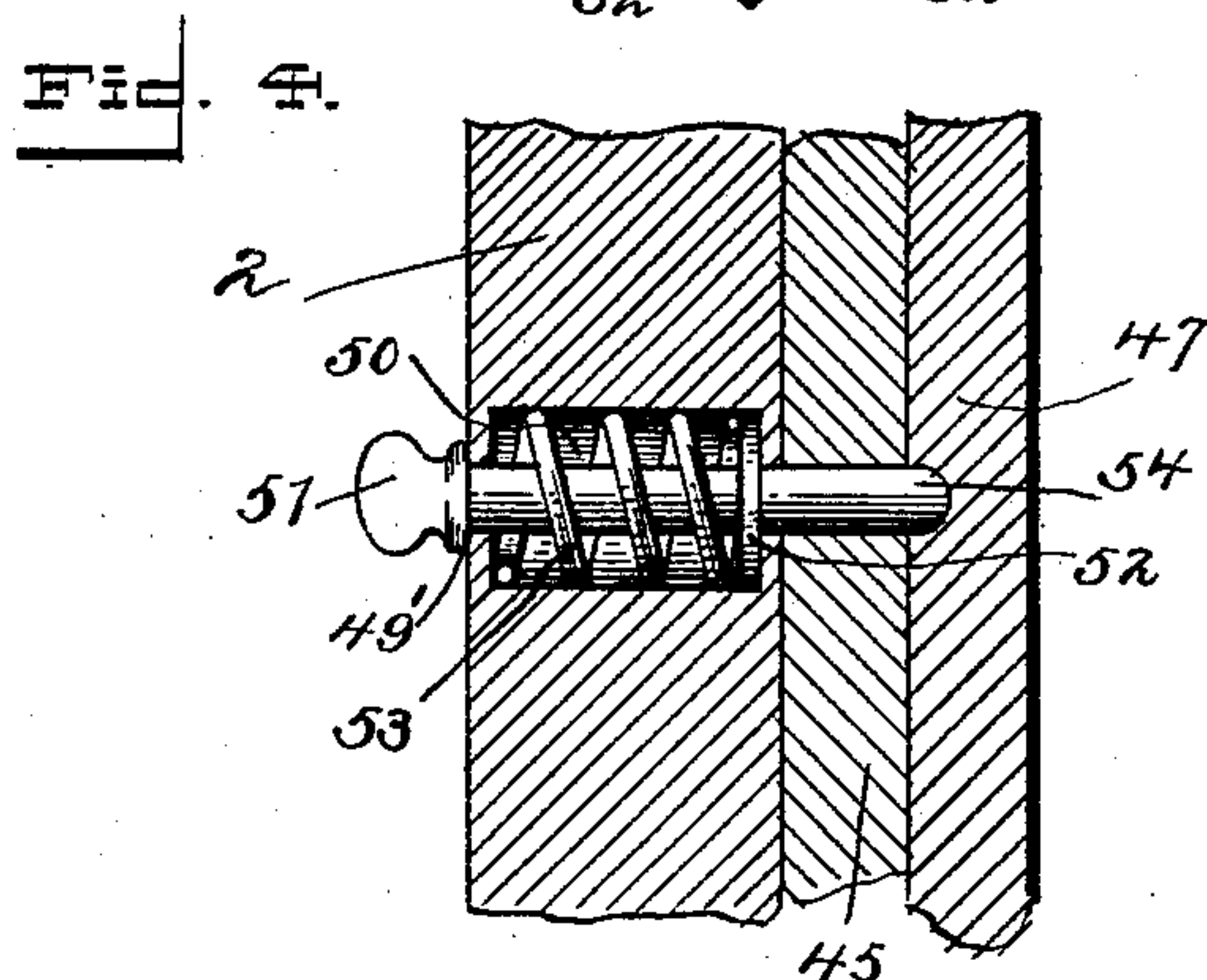
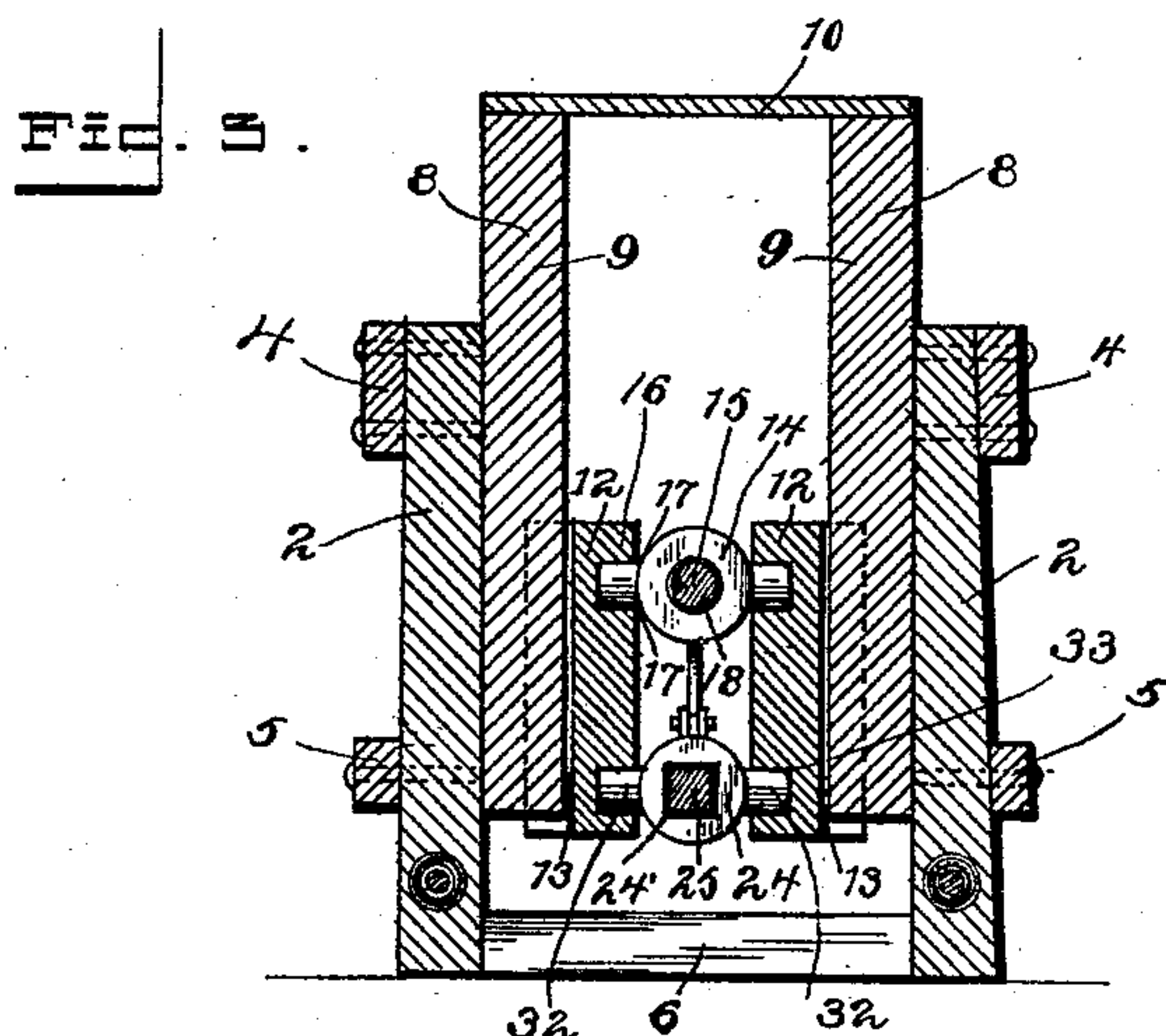
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No. 585,037.

Patented June 22, 1897.



Witnesses:

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Inventor:

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Attorney.

UNITED STATES PATENT OFFICE.

HARDY C. HUTCHINSON, OF WOODVILLE, OREGON.

PORTABLE SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 585,037, dated June 22, 1897.

Application filed April 2, 1897. Serial No. 630,398. (No model.)

To all whom it may concern:

Be it known that I, HARDY C. HUTCHINSON, a citizen of the United States, residing at Woodville, in the county of Jackson and State of Oregon, have invented certain new and useful Improvements in Portable Sawing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in portable sawing-machines; and the object is to provide a simple, effective, and durable device of this class that can be manufactured at a comparatively small cost.

To these ends the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-characters indicate the same parts of the invention.

Figure 1 is a perspective view of my improved portable sawing-machine. Fig. 2 is a plan view. Fig. 3 is a horizontal section through the front end of the machine. Fig. 4 is a detail section of one of the front posts, and Fig. 5 is a vertical section on the line 5 5 of Fig. 2.

1 represents the rectangular frame, comprising the standards 2 2 and 3 3, connected by the horizontal top rails 4 4 and the parallel braces 5 5.

6 represents the front cross-brace, and 7 7 the rear end cross-braces.

8 8 represent vertical parallel guide-bars secured to the front standards 2 2, and their contiguous faces are formed with central vertical ribs 9 9 and their upper ends connected by a transverse brace 10.

12 12 represent independent vertical guide-jaws, their outer faces being formed with vertical grooves 13 13, sliding vertically on the ribs 9 9.

14 represents a horizontal yoke provided with a transverse circular orifice 15 and lateral journals 16 16, mounted in alined circular orifices 17 17 in the upper ends of the contiguous faces of the jaws 12 12.

18 represents the cylindrical end of the adjusting hand-lever 18', extending through the orifice 15 in the yoke 14, and said lever is fulcrumed on a stud 19, fixed in the upper end of a vertical brace 20, secured on one side of the frame to the contiguous top rail 4 and brace 5.

21 represents a semicircular notched rack secured to the upper end of the brace 20, and 22 represents a slide-bar mounted in guides 22' on the side of the lever 18', its forward end adapted to engage the notches on the rack and hold said lever in any position to which it may be adjusted, while the rear end of said slide-bar is pivoted to the shorter arm of a grip-lever 23, fulcrumed on the rear end of said hand-lever, so that both the grip-lever and the hand-lever may simultaneously operate.

24 represents a cross-head provided with a transverse rectangular guide-orifice 24' to receive the rectangular shank 25 of the reciprocating saw-bar 26, the rear cylindrical end 27 of which has a reciprocating movement in an orifice 28 in the yoke 29, the cylindrical ends 30 30 of which are journaled in bearings 31 31 in the rear standards 3 3.

The cross-head 24 is formed with horizontal journals 32 32, which have a bearing in the alined orifices 33 33 in the parallel guide-jaws 12 12, so that when the latter are raised or lowered by the hand-lever the saw-bar 26 will be carried up or down with it.

The usual crosscut-saw blade 34 is secured by bolts 35 in the head 36 of the saw-bar, and when not in use the saw may be detached from said saw-bar and placed in slotted brackets 37 37, fixed on one side of the frame, as shown in dotted lines in Fig. 1.

38 represents an integral arm on the saw-bar 26, to which is pivoted the forward end of the connecting-rod 39, the rear end of which is pivoted to the crank-pin 40 of the crank-shaft 41, journaled in alined bearing-boxes 42 42, fixed in the top rails 4 4. One end of said crank-shaft is provided with a crank-handle 43 and the opposite end with a fly or band wheel 44.

45 45 represent auxiliary extensible legs, one of which is secured to each of the standards 2 2 and 3 3, and as all four of said legs

are the same in construction the description of one will answer for the others.

The leg 45 consists of a flat bar pointed at its lower end 46 and mounted between one side of the standard 3 and a parallel guide-plate 47, secured to said standard by the cross-braces 7 and the short braces 48.

49' represents a horizontal orifice in the standard, its inner end terminating in an enlarged annular chamber 50, and 51 represents a horizontal bolt sliding in said orifice and provided with a collar 52, located in said chamber, a spiral spring 53 encompassing said bolt, one end of which rests against the inner face of the collar and the other end abuts against the bottom of the chamber, the tension of the spring being exerted to press the projecting end 54 of said bolt into one of a vertical series of orifices 55 in the extensible leg 45, whereby the entire machine may be adjusted horizontally, or by adjusting the front or rear end independently the machine may be adjusted at an inclination to conform to the work in hand.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

A portable sawing-machine comprising the rectangular standards, the vertical parallel guide-bars 8 8, provided with the integral ribs 9 9, the independent sliding jaws provided with the grooves 13 13, and the aligned orifices 17 and 33, the yoke 14, journaled in said orifices 17 17 and provided with the transverse guide-orifices 15, and the cross-head 24, having guide-orifice 25 and horizontal journals 32 32, mounted in said orifices 33 33, in said jaws, in combination with the hand-lever 18 fulcrumed on the stud 19 and provided with a cylindrical end 18 engaging said yoke, the slide-bar 22 mounted on the rear end of said lever, its forward end adapted to engage a notched rack on the frame, the saw-bar 26, mounted in said cross-head, the yoke 29 forming a guide for the rear end of said saw-bar, the crank-shaft 41, journaled in the frame, the rod 39 connecting said crank-shaft and saw-bar, and the extensible legs 45, adjustably secured between said standards and the fixed parallel guide-plates 47, substantially as and for the purpose set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

HARDY C. HUTCHINSON.

Witnesses:

S. W. PALIN,

C. C. CLEMENTS.