

No. 689,580.

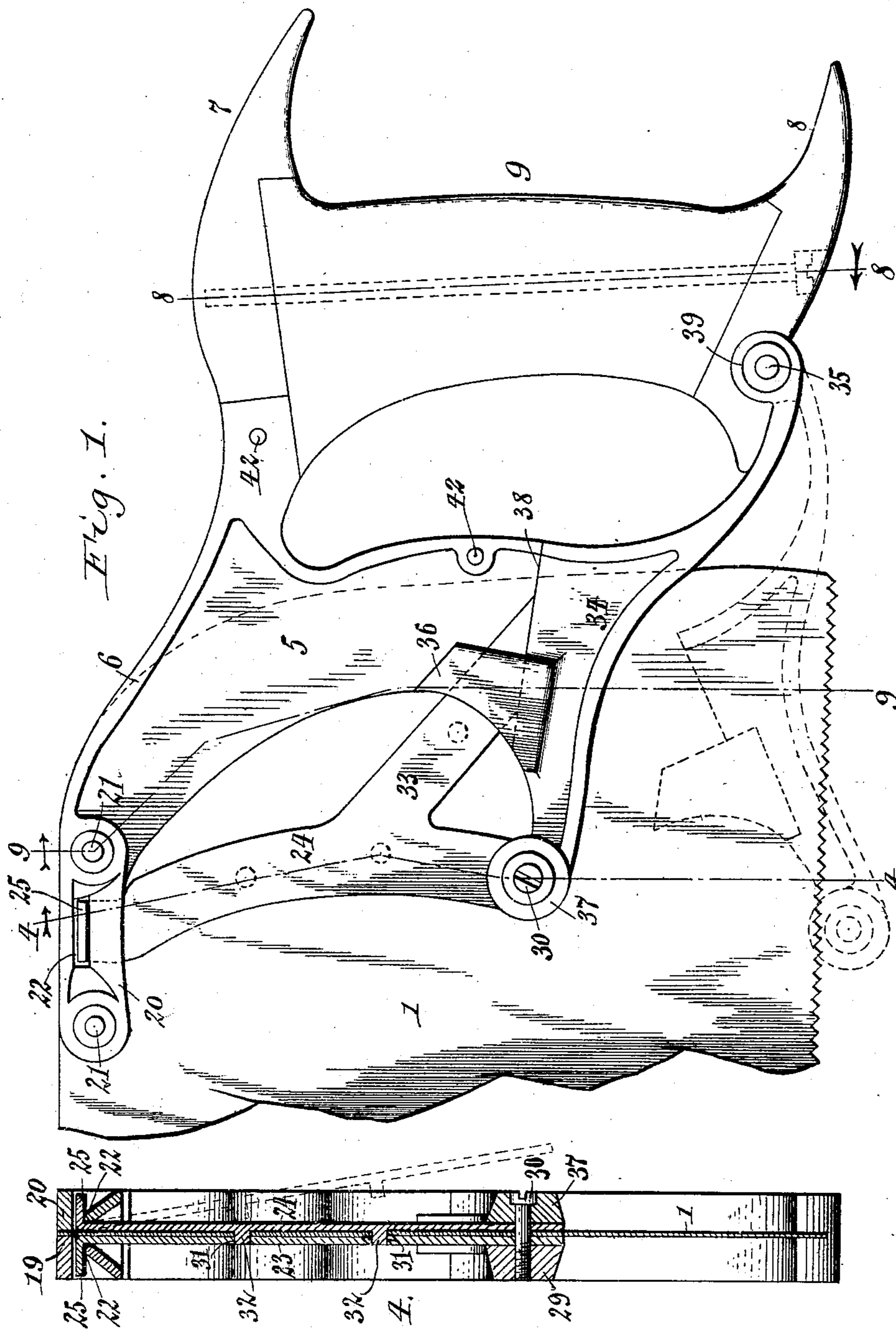
Patented Dec. 24, 1901.

H. EVANS.
DETACHABLE SAW HANDLE.

(Application filed Aug. 26, 1901.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:
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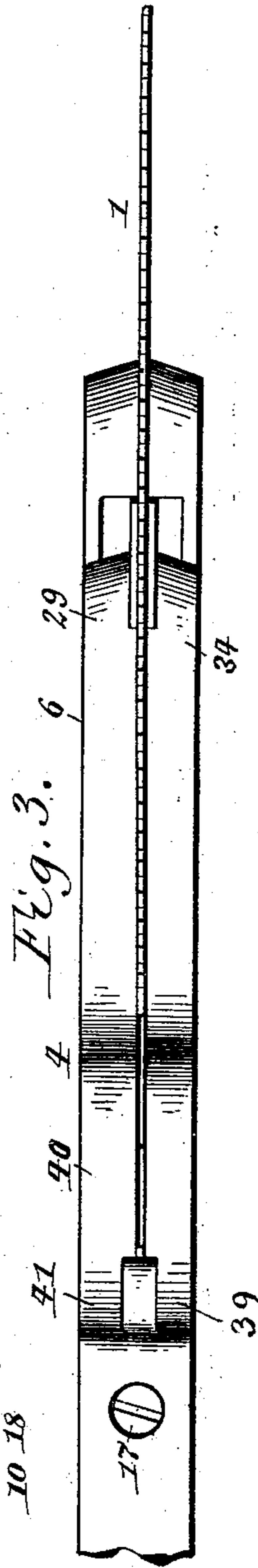
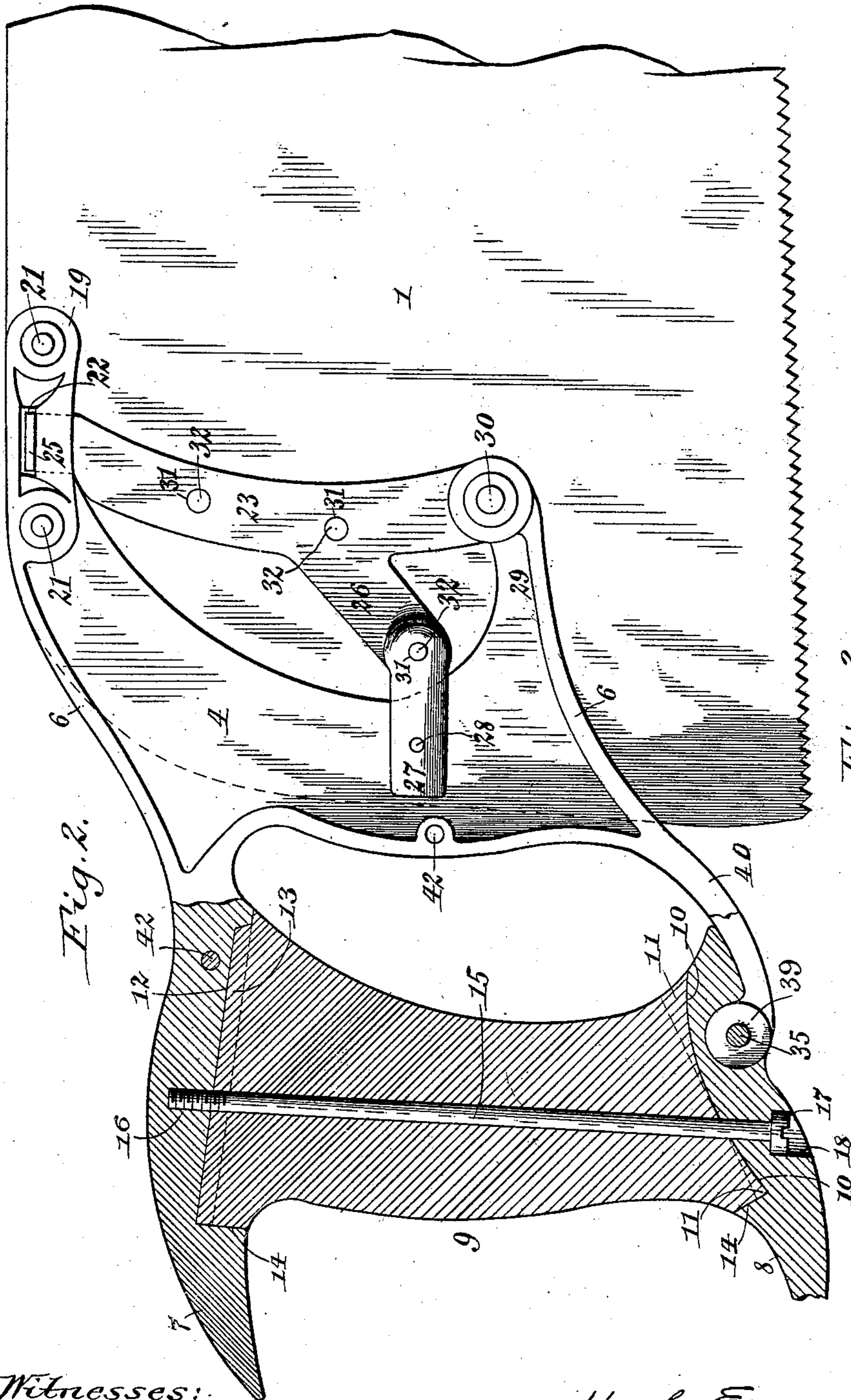
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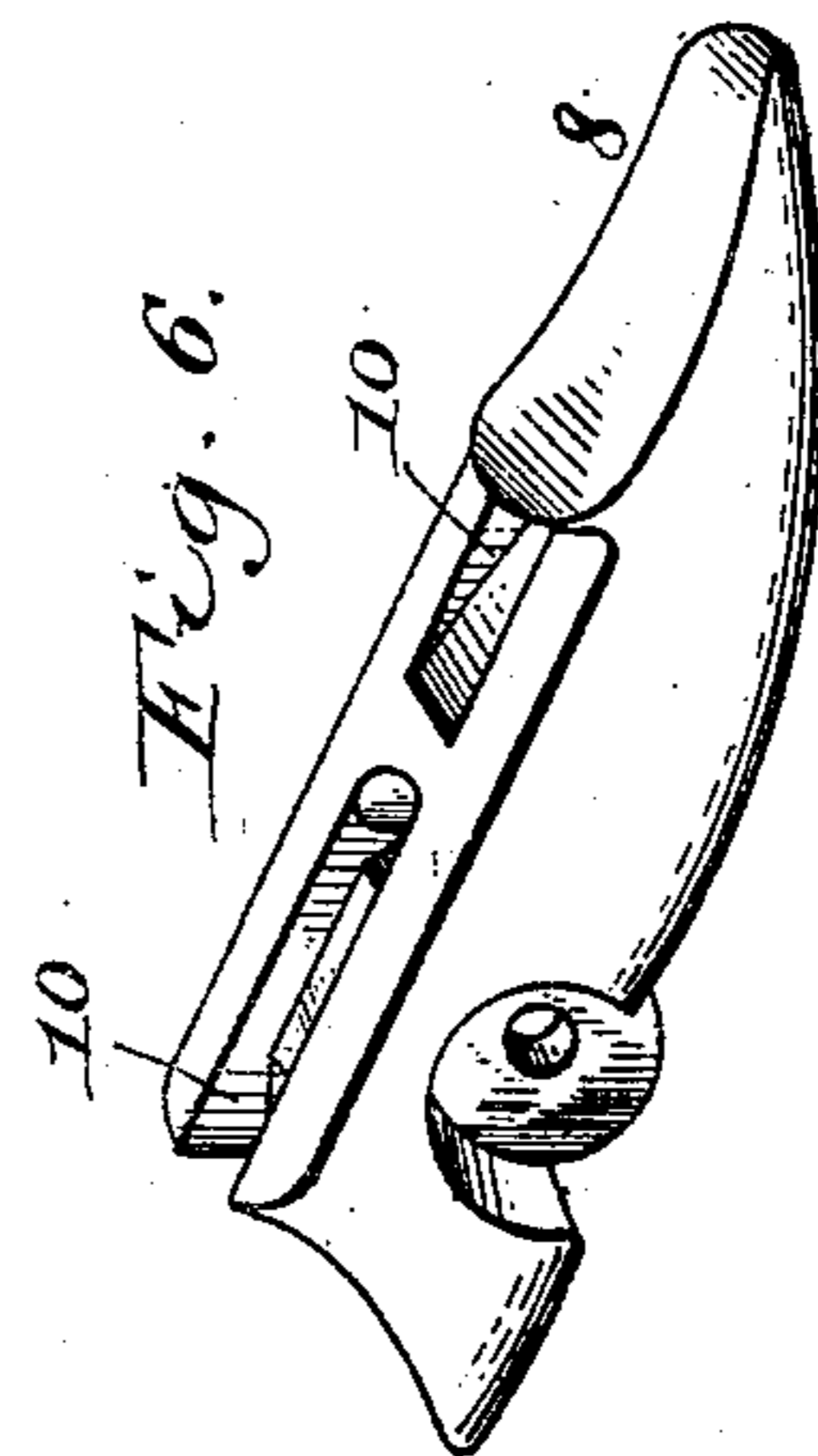
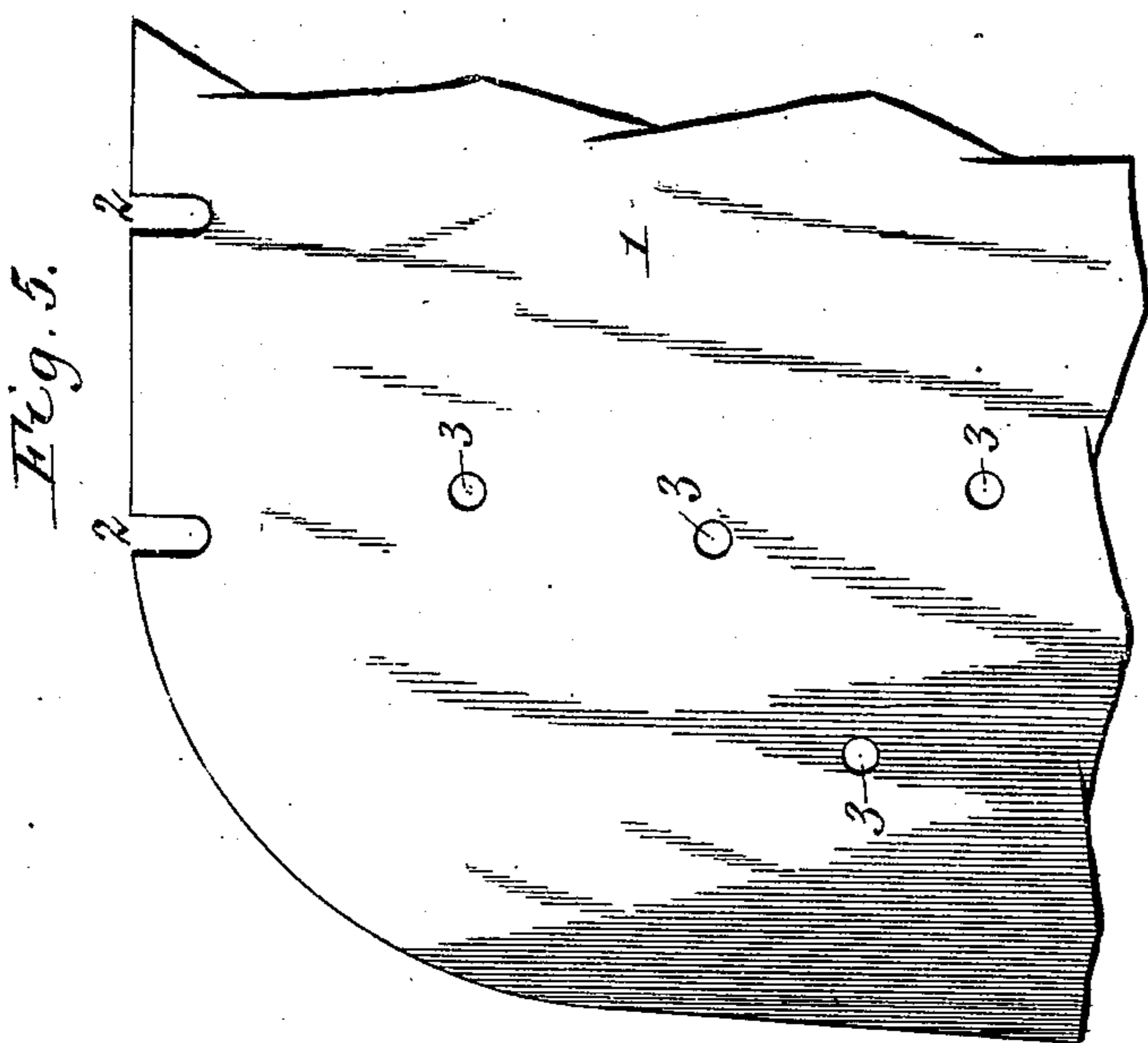
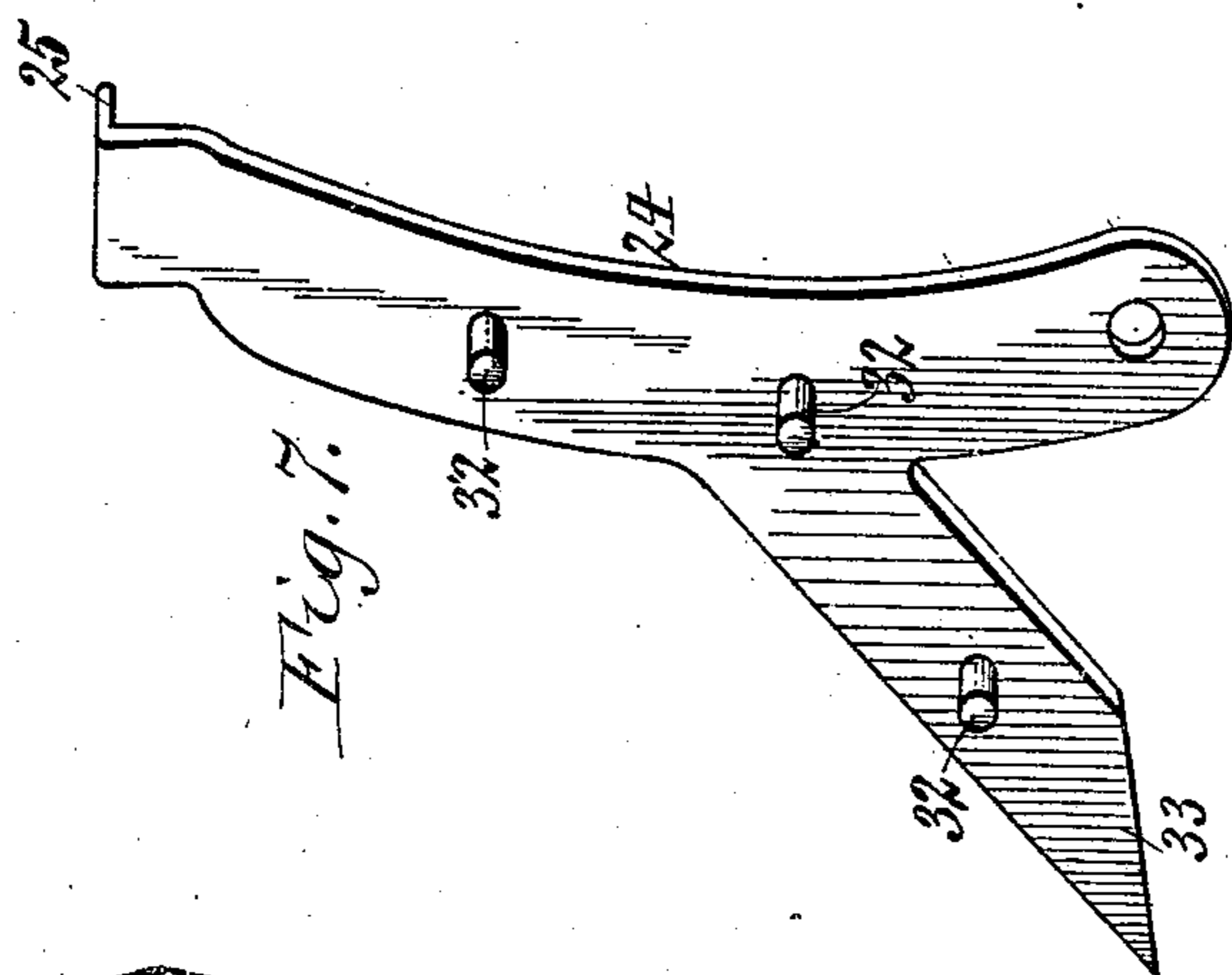
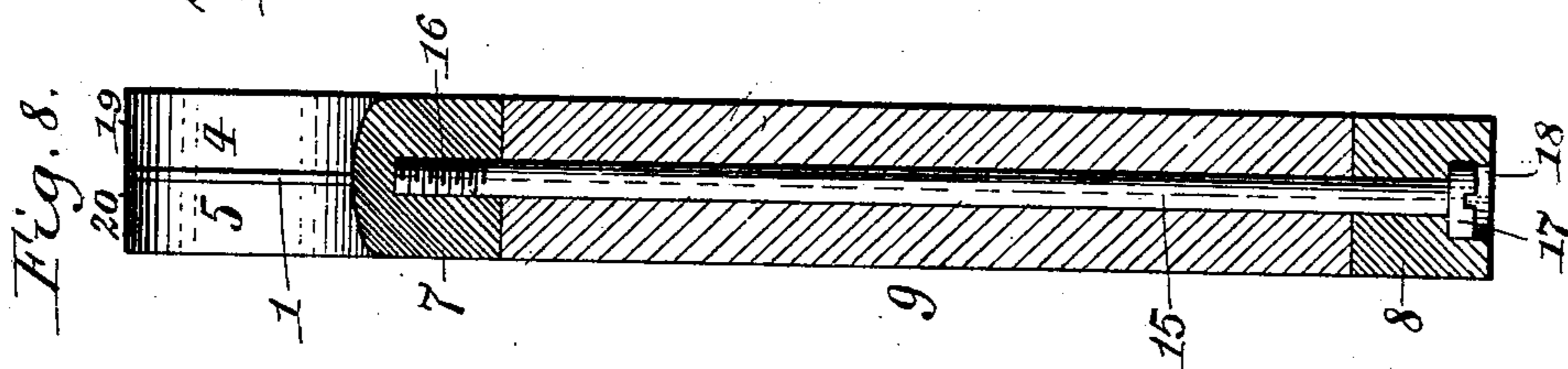
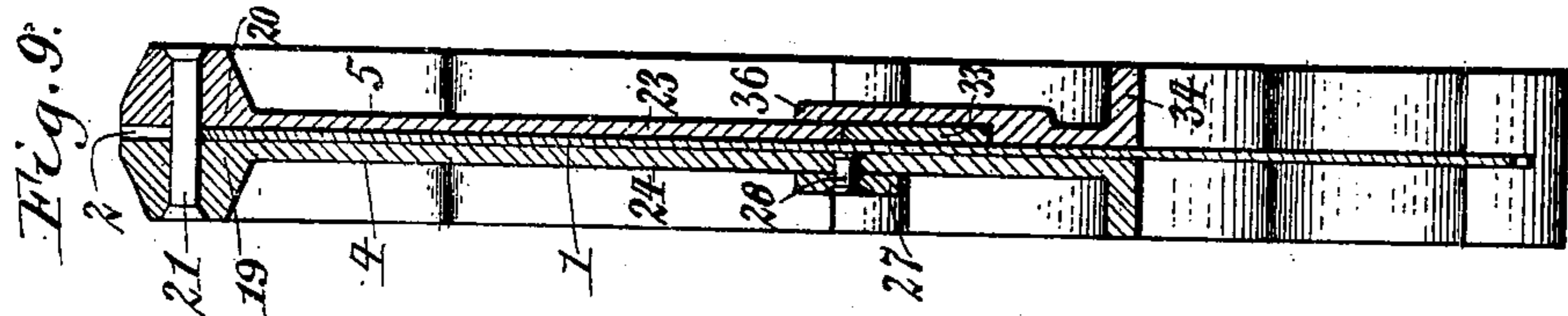
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3 Sheets—Sheet 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

HUGH EVANS, OF BUFFALO, NEW YORK.

DETACHABLE SAW-HANDLE.

SPECIFICATION forming part of Letters Patent No. 689,580, dated December 24, 1901.

Application filed August 26, 1901. Serial No. 73,285. (No model.)

To all whom it may concern:

Be it known that I, HUGH EVANS, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Detachable Saw-Handles, of which the following is a specification.

This invention relates to a detachable saw-handle designed more especially for hand or carpenters' saws, the principal object being the production of a strong and reliable handle of simple and inexpensive construction which is applicable to different saw-blades, enabling the blade of a rip-saw or a fine or coarse crosscut or other kind of saw blade to be applied to the same handle. The workman can thus keep on hand a large variety of saw-blades and quickly substitute one for another as occasion requires.

In addition to the above advantage the saw-blade may be clamped in any kind of vise for the purpose of sharpening and swaging the teeth thereof, thus overcoming the objection to saws with permanently-applied handles. Furthermore, the handle, which is constructed mainly of metal, is not subject to expansion and contraction in various kinds of weather, and therefore does not become loose and unreliable.

In the accompanying drawings, consisting of three sheets, Figure 1 is a side elevation of my improved handle applied to a saw-blade. Fig. 2 is an elevation of the handle, taken from the opposite side, the hand hold or grip and the horns being shown in section. Fig. 3 is a fragmentary bottom plan view of the handle and the saw-blade. Fig. 4 is a transverse vertical section in line 4 4, Fig. 1. Fig. 5 is a fragmentary side view of the heel of the saw-blade, showing the notches and stud-holes therein. Fig. 6 is a detached perspective view of the lower horn of the handle. Fig. 7 is a similar view of the movable fastening strap or plate. Fig. 8 is a transverse vertical section in line 8 8, Fig. 1. Fig. 9 is a similar section in line 9 9, Fig. 1.

Like numerals of reference refer to like parts in the several figures.

Referring to the drawings, 1 designates the heel or inner end portion of a saw-blade, which for the purpose of carrying out the present invention is provided in its upper

edge with open notches 2 and between its upper and lower edges with a number of holes 3.

The handle comprises a pair of main body portions or plates 4 and 5, arranged side by side and similar in their outline and general dimensions. These body-plates preferably consist of thin webs, the outer edges of which are reinforced by ribs or flanges 6.

Extending backward from the body of the handle are upper and lower horns 7 and 8, respectively, between which is fitted the handhold or grip 9, the latter being preferably of wood, while the remainder of the handle is composed of any suitable metal, such as steel or brass, but preferably aluminium for the sake of lightness. The lower horn, which is best illustrated in Fig. 6, is provided in its upper side with mortises 10, the bottoms of which preferably slope outwardly or toward opposite ends of the horn. These mortises receive correspondingly-shaped tenons 11 at the opposite lower corners of the handhold 9, as shown in Fig. 2. The upper horn 7 is provided in its lower face with a groove 12 for the reception of a tongue 13 at the upper end of the handhold. Both of the horns 7 and 8 are further provided with shoulders 14, against which the corresponding shoulders of the handhold abut, as shown in Figs. 1 and 2. The parts just described are constructed and arranged in the manner set forth in order to properly position the handhold or grip with respect to the horns 7 and 8. When the parts are assembled, the handhold 9 is rigidly held in place by means of a tie screw or bolt 15, which passes through registering openings in the lower horn, and the handhold and screws into a threaded opening or socket 16 in the upper horn. This screw-bolt is provided at its lower end with a nicked head 17, which is countersunk in a recess 18 in the lower horn, so as to offer no projection. The screw-bolt may be removed by means of an ordinary screw-driver whenever it is desired to detach the handhold.

The body members 4 and 5 are provided at the top of the handle with parallel forwardly-projecting rigid arms or jaws 19 and 20, which are spaced a sufficient distance apart to receive the saw-blade between them and are tied together by screws or rivets 21, which are adapted to enter and interlock with the

notches 2 of the saw-blade when the latter is inserted between the arms 19 and 20. These arms are provided with oppositely-located slots or openings 22.

23 and 24 indicate a pair of parallel fastening-straps, plates, or braces arranged on opposite sides of the saw-blade and bridging the space between the arms 19 20 and the forwardly-projecting lower portion of the handle located below said arms. The upper portions of these straps are arranged between the upper fixed arms 19 and 20 of the handle and provided at their upper ends with outwardly-turned lips 25, which are loosely confined in the slots 22 of said arms, thereby attaching the straps to said arms. One of these straps—preferably the right-hand one 23—is rigidly and permanently attached to the handle, and for this purpose it is provided near its lower end with a rearwardly-extending lug or tailpiece 26, having an extension 27, which is secured to the body-plate 4 of the handle by a rivet 28 or other suitable fastening. The lower end of the rigid strap 23 is secured to the integral forward extension 29 of the body-plate 4 by a transverse clamping screw or bolt 30. This rigid strap is provided with holes 31, coinciding with the holes 3 of the saw-blade, and the opposite strap 24 is provided on its inner side with laterally-projecting studs 32, which pass through the holes of the saw-blade and the rigid strap, as shown in Fig. 4, thereby firmly fastening the blade to the handle.

The strap 24, having the studs 32, is capable of swinging outwardly to the position shown by dotted lines in Fig. 4 for withdrawing its studs from the openings of the blade and releasing the latter. To permit of this swinging movement of the stud-strap 24, the inner face of the rigid arm 20 is recessed and beveled opposite said strap, as shown in Fig. 4. The opposite arm 19 may be likewise recessed, if desired, to reduce weight and facilitate the assemblage of the parts.

As shown in Fig. 1, the lower portion of the movable fastening-strap 24 has a rearwardly-extending branch or tailpiece 33, the rear end of which fits normally into a recess formed in the adjacent body-plate 5 of the handle and which is of the same thickness as said plate, so as to be flush therewith. This movable strap is locked in its normal position by a vertically-movable arm or latch 34, pivoted at its rear end to the lower horn 8 of the handle by a transverse pin 35 and provided near its front end with an upwardly-projecting lug or bridge-piece 36, which overlaps the tailpiece 33 of said strap and bears against the face of the adjacent body-plate 5. The locking-arm 34 is retained in its normal elevated position by the clamping-screw 30, which passes through an eye 37, formed at the front end of said arm, and engages with an internal screw-thread in the extension 29, as shown in Fig. 4. This clamping-bolt also

passes through the lower end of the swinging strap, as shown.

The locking-arm 34 meets the lower edge of the adjacent body plate or web 5 upon the line 38, as shown in Fig. 1, and is flush therewith. This arm is ribbed at its edges to stiffen it and made of the same contour and dimensions as the opposing lower portion of the other body-plate 4 in order to render both sides of the handle symmetrical in appearance. The pivot-eye 39 at the rear end of the locking-arm is sunk into a circular recess formed in the lower horn, as shown in Figs. 1 and 2.

The lower rearward extension 40 of the solid body member 4 of the handle terminates in an eye 41, which coincides with the pivot-eye 39 of the locking-arm 34, and this extension is attached to the horn 8 by the pivot-pin 35 of the locking-arm 34. This pivotal connection between the body-plates 4 and 5 and the lower horn 8 allows this horn to be tilted upward or downward to a limited extent and enables handholds of different lengths to be interposed between the same and the upper horn 7.

To facilitate the manufacture of the handle, the left-hand body-plate 5 is made separate from the upper horn 7 and is secured to the opposing body-plate by additional rivets 42.

In order to detach the handle from the saw-blade, the clamping-screw 30 is removed and the pivoted locking-arm 34 is swung downward to the position shown by dotted lines in Fig. 1, thereby releasing the movable fastening-strap 24. This strap is next swung outward sufficiently to withdraw its studs from the holes of the saw-blade, (see Fig. 4,) whereupon the saw-blade can be moved downwardly in the handle for disengaging its notches 2 from the rivets 21 of the handle. In reinserting the saw-blade or substituting a different one for it the above steps are performed in the reverse order. It will thus be seen that it is only necessary to remove a single screw in order to detach the handle from the saw-blade, thus enabling the blade to be removed or interchanged with another in a very short space of time.

When the saw-blade and the handle are assembled, they are firmly and securely connected together, and the blade is effectively braced adjacent to the handle. This construction also renders the handle very strong, and the same is therefore not liable to break in case the saw should be dropped accidentally. As the handle is constructed principally of metal, it is not liable to shrink or split.

I claim as my invention—

1. A detachable saw-handle, comprising a body having a saw groove or seat, a laterally-movable strap or plate pivotally attached to the body and having a stud adapted to enter a hole in the saw-blade, and a fastening device for retaining said strap in engagement

with the saw-blade, substantially as set forth.

2. A detachable saw-handle, comprising a body having a saw groove or seat, a laterally-
5 swinging strap or plate attached to the body and having a stud adapted to enter a hole in the saw-blade, and a locking-arm or latch pivoted to the body and arranged to engage with the free end of said strap, substantially
10 as set forth.

3. A detachable saw-handle, comprising a body having a saw groove or seat, a laterally-
swinging strap or plate attached to the body, constructed to interlock with the saw-blade
15 and provided in its free end with a bolt-hole, and a vertically-swinging locking-arm pivoted to the body, arranged to engage with the free end of said strap and provided at its free end with a bolt-hole which coincides
20 with the bolt-hole of said strap, substantially as set forth.

4. A detachable saw-handle, comprising a body having a saw groove or seat, a laterally-
swinging strap or plate attached to the body
25 and constructed to interlock with the saw-blade, a vertically-swinging locking-arm pivoted to the body and having a lug or bridge-piece which overlaps the free end of said strap, and means for retaining said arm in its
30 normal position, substantially as set forth.

5. A detachable saw-handle comprising oppositely-located body-plates adapted to bear against opposite sides of the saw-blade, oppositely-located straps connected with said
35 body-plates, one of said straps having a stud or studs adapted to pass through the saw-blade and enter holes in the other strap, and means for securing said straps to the body-plates of the handle, substantially as set forth.

6. A saw-handle comprising a pair of parallel body-plates separated by a saw-space, a fixed strap carried by one of said plates, a laterally-swinging strap pivotally attached to the other body-plate, one of said straps having
40 ing holes and the other having studs adapted to pass through holes in the saw-blade and enter the holes of said perforated strap, a vertically-swinging locking-arm arranged at

the same side of the saw as said swinging strap and constructed to engage with the free
50 end of said strap, and means for retaining said locking-arm in position, substantially as set forth.

7. A detachable saw-handle comprising opposing body-plates fastened together and
55 adapted to receive the saw-blade between them, rigid arms or jaws on said body portions provided with oppositely-located slots, opposing straps provided at one end with lips which are arranged in said slots, one of said
60 straps being provided with holes and the other with studs adapted to pass through holes in the saw-blade and enter the holes of said perforated strap, and fastening means for securing the opposite ends of said straps to the
65 body-plates of the handle, substantially as set forth.

8. The combination of a saw-blade, a handle comprising a pair of opposing body-
70 plates provided in their upper front portions with opposing slots, straps arranged on opposite sides of the saw-blade and provided at their upper ends with lips which engage in said slots, one of said straps having holes and the other studs which pass through the saw-
75 blade and enter the holes of said perforated strap, one of said straps being capable of swinging laterally and having a tailpiece, a vertically-swinging locking-arm arranged at the bottom of the handle and constructed to
80 overlap said tailpiece, and a removable fastening-bolt passing through the free end of said locking-arm, the saw-blade and the lower ends of said straps, substantially as set forth.

9. A saw-handle comprising a main body
85 having an upper horn, a lower horn attached to the body by a transverse pivot, and a grip or handhold detachably secured to said horns, substantially as set forth.

Witness my hand this 24th day of August, 90
1901.

HUGH EVANS.

Witnesses:

CARL F. GEYER,
THEO. L. POPP.