

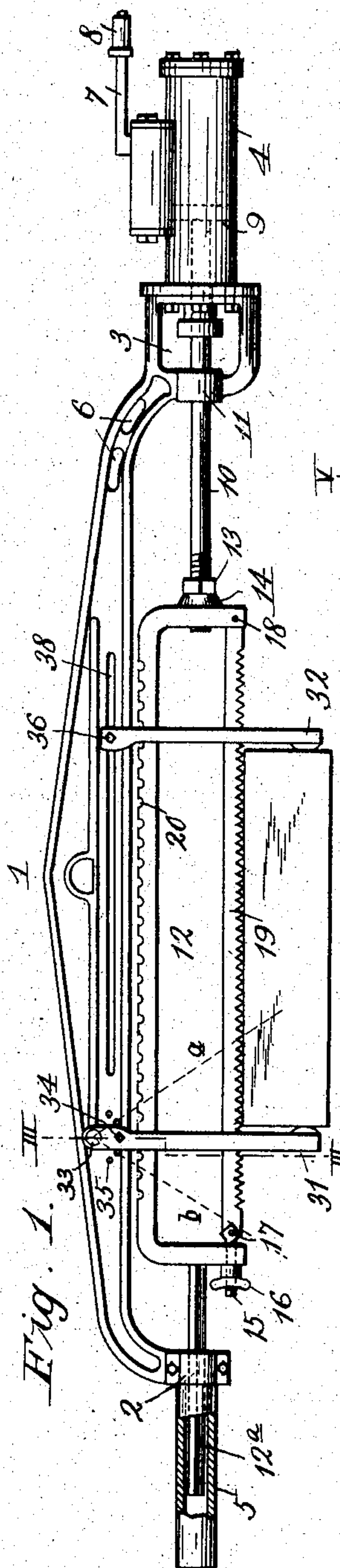
No. 781,112.

PATENTED JAN. 31, 1905.

J. F. TIPPETT & J. D. PARKER.

PNEUMATIC TOOL.

APPLICATION FILED APR. 8, 1904.



WITNESSES.

R. C. Hamilton.
W. C. Lingle.

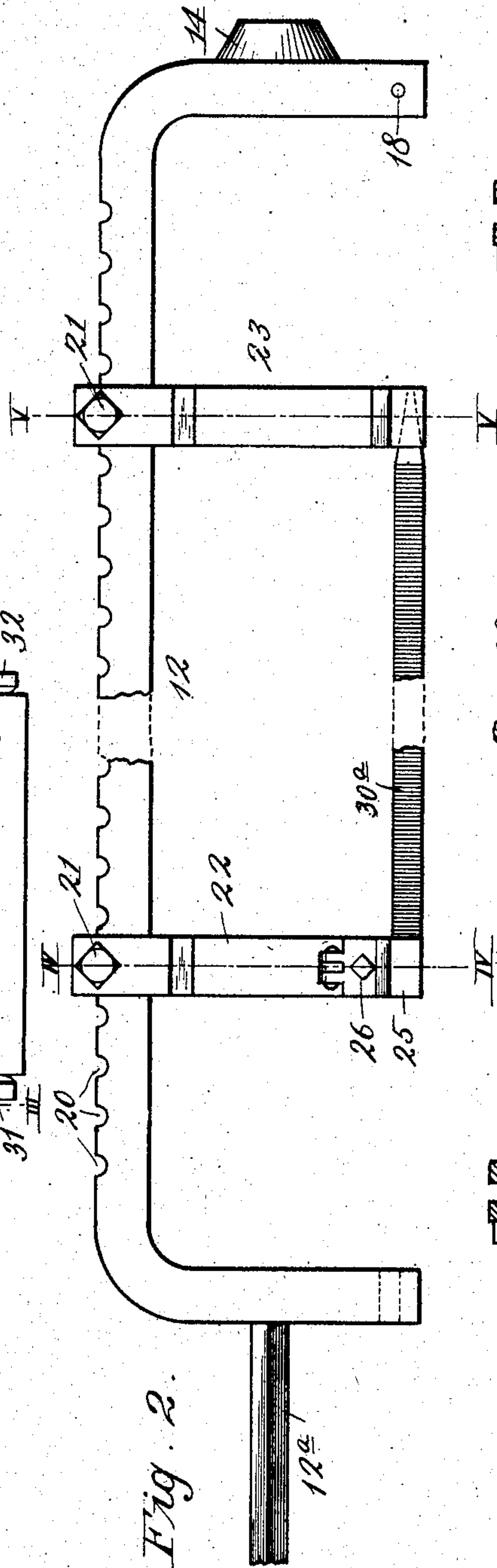


Fig. 2.

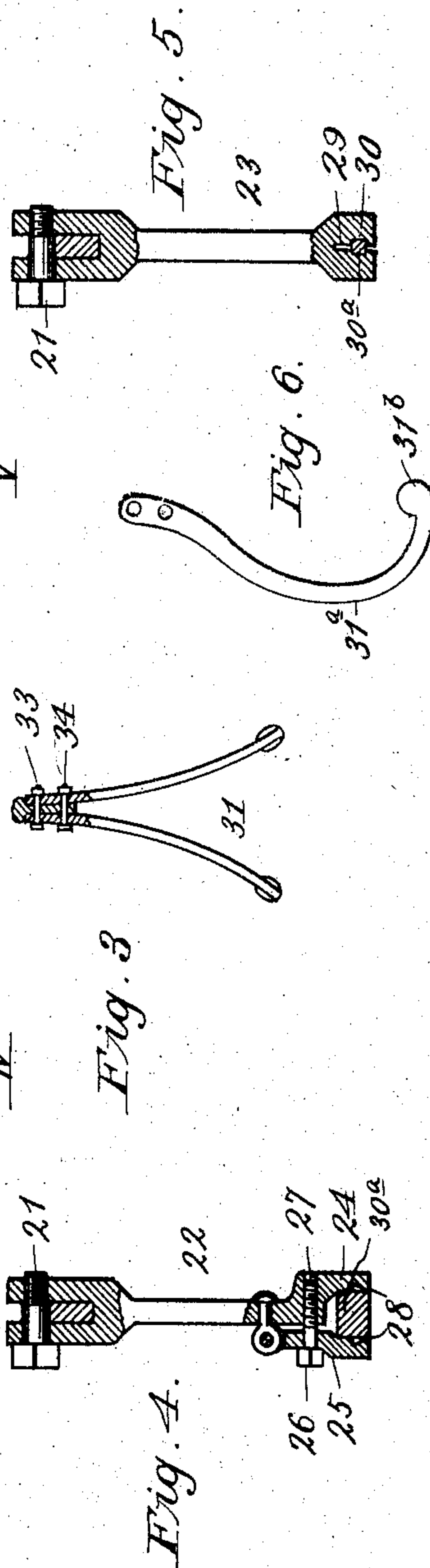


Fig. 3.

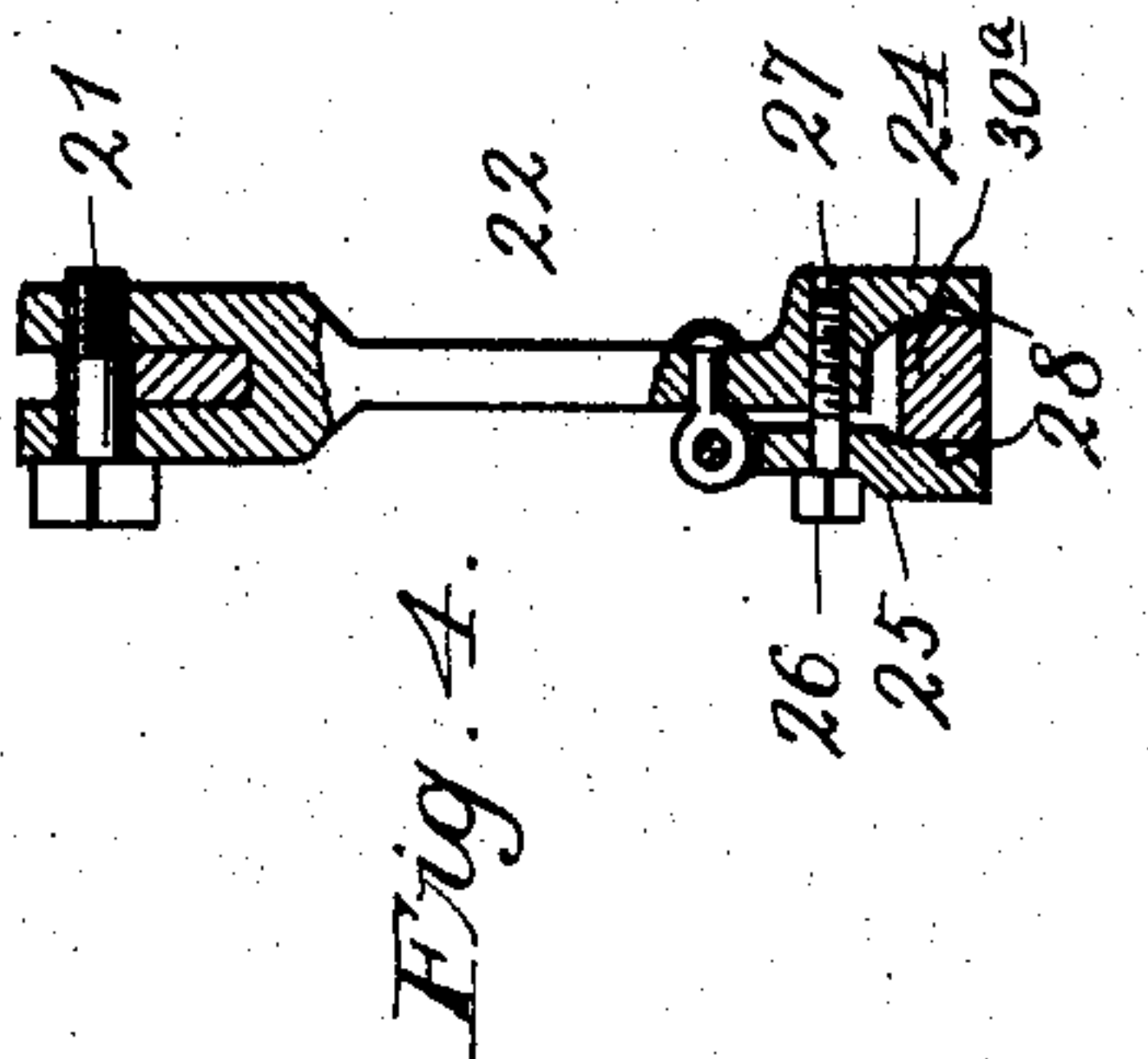


Fig. 4.

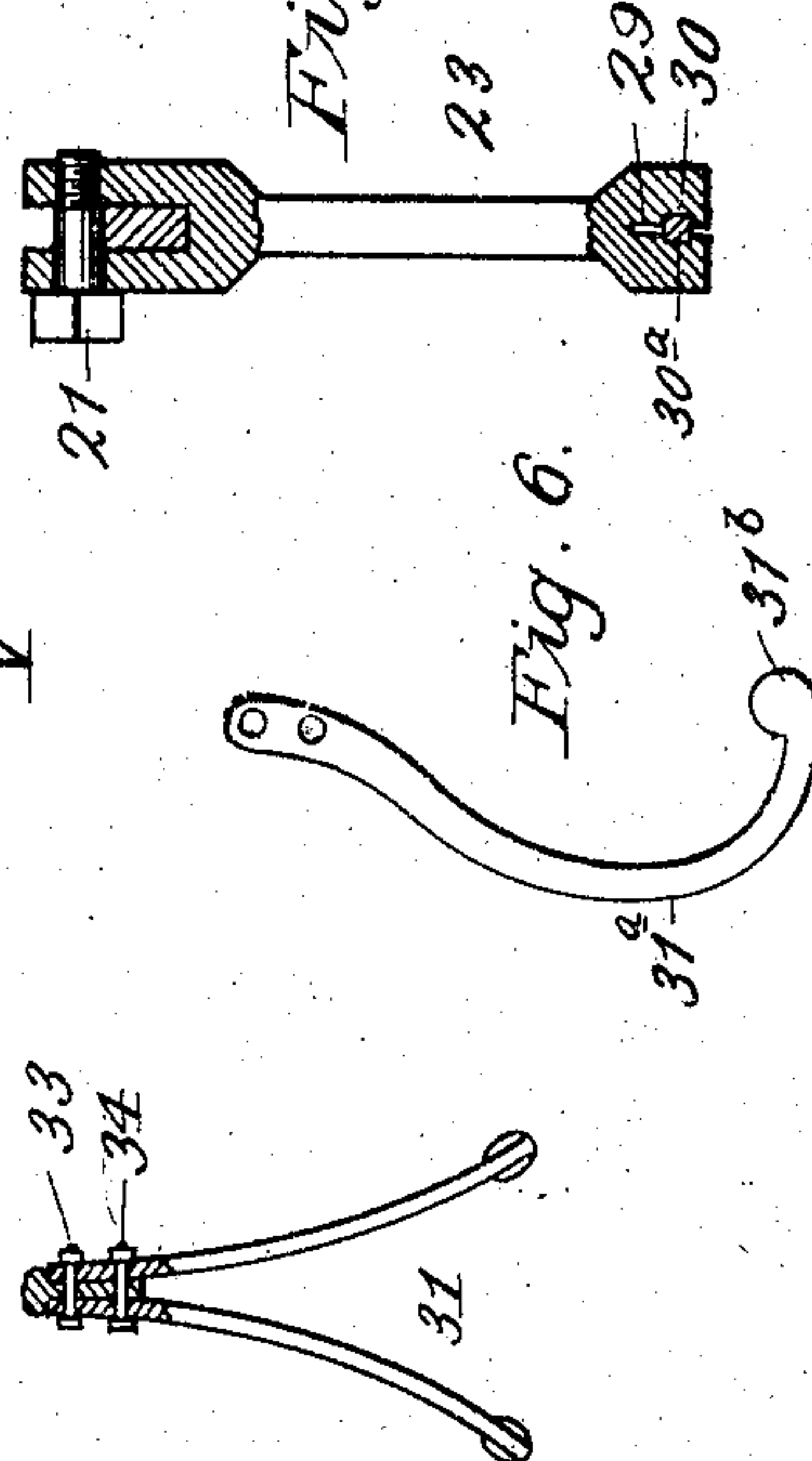


Fig. 5.

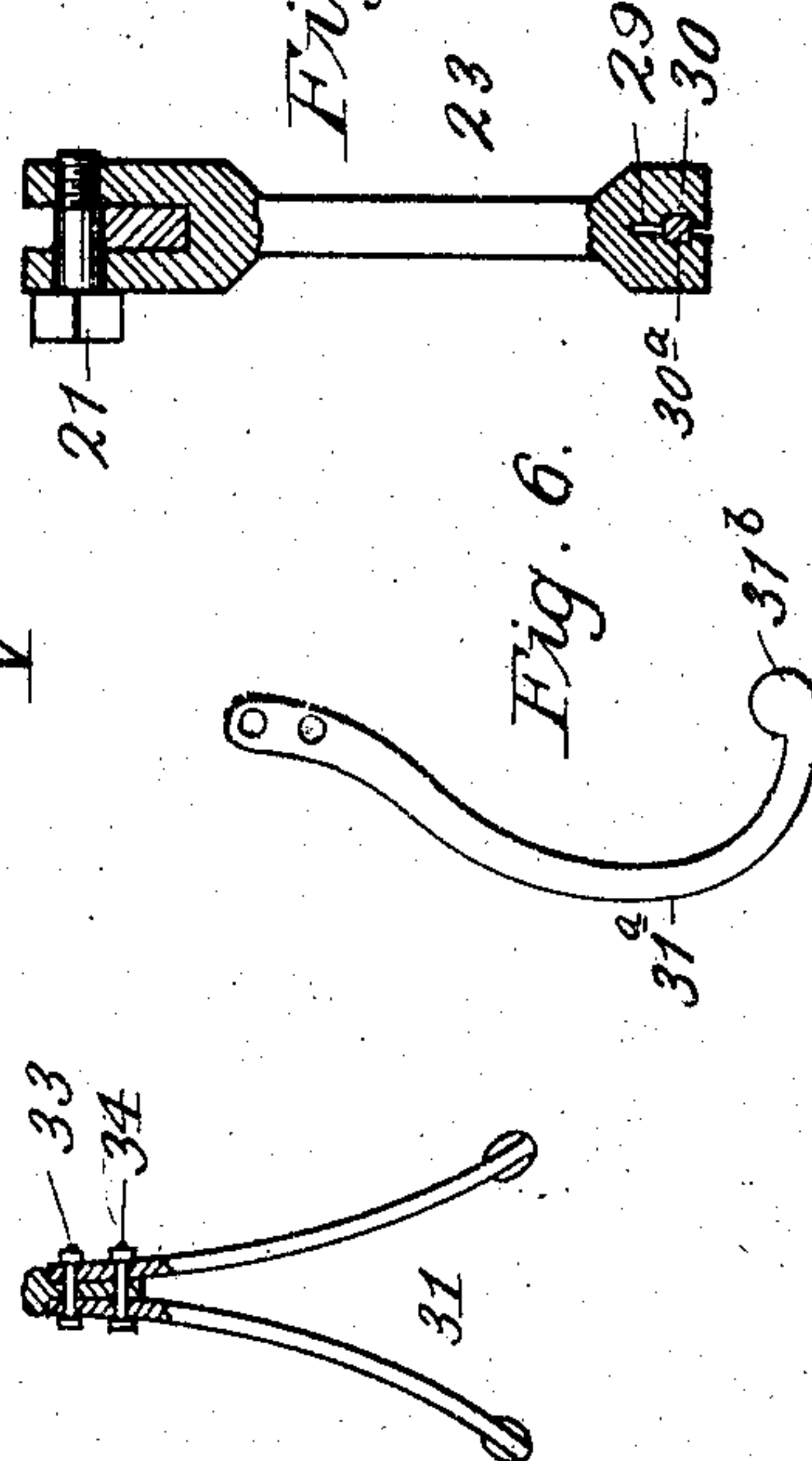


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN F. TIPPETT, OF KANSAS CITY, MISSOURI, AND JAMES D. PARKER,
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PNEUMATIC TOOL.

SPECIFICATION forming part of Letters Patent No. 781,112, dated January 31, 1905.

Application filed April 8, 1904. Serial No. 202,267.

To all whom it may concern:

Be it known that we, JOHN F. TIPPETT, residing at Kansas City, in the county of Jackson and State of Missouri, and JAMES D. PARKER, residing at Kansas City, in the county of Wyandotte and State of Kansas, citizens of the United States, have invented certain new and useful Improvements in Pneumatic Tools, of which the following is a specification.

Our invention relates to improvements in pneumatic tools; and it consists in a main frame, a cylinder secured to one end of said frame provided with a reciprocating piston operated by fluid-pressure, a frame secured at one end to the piston and adapted to operate therewith and slidingly supported at its opposite end by the main frame, attachments removably secured to the reciprocating frame for carrying saws, files, burnishers, or other tools, and clamps adjustably secured to the main frame to engage the object operated upon, and thus hold the main frame stationary while the reciprocating frame is in motion.

The object of the invention is to provide a portable tool for sawing carcasses, metal, &c., more expeditiously than this work can be performed with ordinary hand-tools.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which—

Figure 1 represents a side elevation of the improved tool in operative position upon a wooden block. Fig. 2 is a broken side elevation of a reciprocating frame forming part of the invention and provided with attachments for holding saws, files, and other tools shorter than the frame. Fig. 3 is a transverse section of the main frame, taken on line III III of Fig. 1, showing one of the clamps forming part of the invention secured thereto. Figs. 4 and 5 are vertical sections taken on lines 4 and 5, respectively, of Fig. 2, showing the adjustable attachments forming part of the invention. Fig. 6 is a modified form of one of the clamps.

In said drawings, 1 designates a bow-shaped main frame provided at one end with a rectangular bearing 2 and at its opposite end with

a loop 3, against the rear vertical side of which a cylinder 4 is bolted.

5 designates a sleeve formed integral with the forward end of the main frame, which latter is provided near its rear terminal with handholds 6.

7 designates a fluid-supply pipe provided with a valve 8 for controlling the passage of fluid therethrough.

9 designates a piston-head reciprocally arranged in the cylinder and provided with a forwardly-extending piston-rod 10, which extends through a bearing 11 on the front portion of loop 3 and is removably secured in the rear end of a reciprocating frame 12 by a lock-nut 13 engaging the threaded end of the piston-rod and which is screwed into contact with a boss 14, formed integral with the rear end of the reciprocating frame. Frame 12 is provided at its forward end with an integral stem 12^a, rectangular in cross-section for engaging rectangular bearing 2, which prevents the stem from turning, so the latter will in turn prevent frame 12 from turning independent of the main frame.

15 designates a bolt adjustably secured in position by a thumb-nut 16 and provided at its forward end with a dowel-pin 17, arranged in horizontal alinement with a dowel-pin 18, secured to the rear portion of the reciprocating frame for the reception of a saw-blade 19, provided with apertures at its opposite ends for engagement with pins 17 and 18.

The horizontal portion of frame 12 is provided with marginal semicircular recesses 20 for the reception of transverse bolts 21, which carry attachments 22 23, respectively, bifurcated at their upper ends to embrace the opposite sides of the frame. Attachment 22 is provided at its lower end with an integral clamping-jaw 24 and a hinged jaw 25, which latter is adjusted by a set-screw 26, extending therethrough and engaging an internally-threaded aperture 27 in jaw 24. The clamping-jaws are pointed at their lower inner terminals 28 in order to reliably grip the end of a tool when placed therein. The lower end of attachment 23 is rendered resilient to a certain extent by a vertical saw-cut 29 and

provided with a tapering rectangular opening 30 for the reception of the pointed end of a file 30^a or other tool.

31 32 designate depending clamps, the former of which is pivotally secured at its upper end to main frame 1 by a bolt 33. Said clamp is secured at any angle to the frame by a transverse bolt 34, adapted to engage any one of bolt-holes 35, arranged concentrically with the axes of bolt 33. Clamp 32 is slid-
 10 ingly secured to the main frame by a bolt 36, extending transversely through a longitudinal slot 38 in said frame, and after said clamp has been adjusted to the desired position it is
 15 secured from accidental movement by tightening the nut on bolt 36, and thereby binding the upper ends of the clamp against the sides of the main frame. The clamps are flared
 20 outwardly at their lower ends to give them a wide bearing-surface on the opposite sides of the object being operated upon.

In practice when sawing timber clamps 31 32 are adjusted against the opposite sides of the same, as shown in Fig. 1, so that when
 25 the piston reciprocates the main frame will be held from longitudinal vibration. When a saw is employed having teeth arranged to cut only on the forward stroke, clamp 32 may be removed as resistance on the main
 30 frame is in a backward direction, and consequently all that is necessary to overcome this resistance is to engage the object with the front clamp 31. When the main frame is held upwardly at an angle in sawing a sus-
 35 pended beef or hog carcass into halves, clamp 31 is adjusted to the position shown by dotted line *a* in order to bear squarely against the back of the carcass, and when the workman stoops in sawing the carcass into pieces the
 40 clamp is adjusted to the position shown by dotted line *b* for the same purpose.

By providing sleeve 5, which is of sufficient length to prevent the forward end of stem 12^a from projecting therethrough on complet-
 45 ing its forward stroke, the end of the stem will be prevented from contacting with objects of any kind in front of the frame.

31^a designates a modified form of clamp provided at its forward lower terminal with
 50 segmental portion 31^b for contact with the back of the carcass when frame 1 is held at an angle to the latter. Consequently said clamp need not be adjusted like clamp 31, which it is intended to substitute when clamp
 55 32 is not in use.

From the above description it is apparent that we have produced a tool well adapted for the purposes intended, and while we have shown the preferred construction of the sev-
 60 eral parts we of course reserve the right to make such changes as properly fall within the scope of the appended claims.

Having thus described our invention, what we claim, and desire to secure by Letters Pat-
 65 ent, is—

1. A tool of the character described, consist-
 ing in a main frame, a cylinder secured to one
 end thereof, a piston reciprocably arranged
 therein, a piston-rod secured to the piston and
 extending through one end of the cylinder, a
 reciprocating frame attached at one end to the
 outer end of the piston-stem, and a stem on the
 opposite end of the reciprocating frame slid-
 ingly arranged in the adjacent end of the main
 frame. 70 75

2. A tool of the character described, consist-
 ing in a main frame, a cylinder secured to one
 end thereof, a piston reciprocably arranged
 therein, a piston-rod secured to the piston and
 extending through one end of the cylinder, a
 reciprocating frame attached at one end to the
 outer end of the piston-stem, a stem on the
 opposite end of the reciprocating frame slid-
 ingly arranged in the adjacent end of the main
 frame, and a clamp pivotally secured to the
 main frame. 80 85

3. A tool of the character described, consist-
 ing in a main frame, a cylinder secured to one
 end thereof, a piston reciprocably arranged
 therein, a piston-rod secured to the piston and
 extending through one end of the cylinder, a
 reciprocating frame attached at one end to the
 outer end of the piston-stem, a stem on the
 opposite end of the reciprocating frame slid-
 ingly arranged in the adjacent end of the main
 frame, and clamps adjustably secured to the
 main frame. 90 95

4. A tool of the character described, consist-
 ing in a main frame, a cylinder secured to one
 end thereof, a piston reciprocably arranged
 therein, a piston-rod secured to the piston and
 extending through one end of the cylinder, a
 reciprocating frame attached at one end to the
 outer end of the piston-stem, a stem on the
 opposite end of the reciprocating frame and
 slidingly arranged in the adjacent end of the
 main frame, and tool-carrying attachments
 adjustably secured to the reciprocating frame. 100 105

5. A tool of the character described, consist-
 ing in a bow-shaped main frame having a rec-
 tangular bearing at one end and an integral
 loop at its opposite end, the loop also having
 a bearing, a cylinder secured to the rear end
 of the loop, a piston reciprocably arranged
 therein, a piston-rod secured to the piston and
 extending through one end of the cylinder
 and the bearing in the loop, a reciprocating
 frame attached at one end to the outer end of
 the piston-stem, and a stem, rectangular in
 cross-section, on the opposite end of the re-
 ciprocating frame slidingly arranged in the
 adjacent bearing of the main frame. 110 115 120

6. A tool of the character described, consist-
 ing in a bow-shaped main frame provided with
 bearings at its depending ends and a longitu-
 dinal slot in its longitudinal portion, a depend-
 ing clamp secured to the main frame by a bolt
 adjustably arranged in the longitudinal slot,
 a depending clamp pivotally secured to the
 main frame near one of its ends, means for
 125 130

holding said clamp at various angles, and a reciprocating frame mounted in the bearings of the main frame.

5 7. A tool of the character described, consisting in a bow-shaped main frame provided at its depending ends with horizontally-alined bearings, and a forwardly-extending sleeve formed integral with the front portion of frame in horizontal alinement with the bearings, in combination with a cylinder secured to the rear end of the main frame, a piston reciprocally arranged therein, a piston-rod secured to the piston and extending through one end of the cylinder and the adjacent bearing in the main frame, a tool-carrying reciprocating frame attached at one end to the outer end of the piston-stem, and a stem on the opposite end of the reciprocating frame slid-
15 ingly arranged in the adjacent bearing of the main frame and the sleeve.
20

8. A tool of the character described, consisting in a main frame provided at its opposite ends with bearings, a cylinder secured to one end of said frame, a piston reciprocally arranged in the cylinder, a piston-rod projecting forwardly from the piston through one end of the cylinder and the bearing in the rear end of the main frame, a reciprocating frame attached at one end to the forward end of the
25 piston-stem and provided at its opposite ends
30

with means for detachably carrying a tool, and a stem projecting from the forward end of the reciprocating frame and slidably arranged in the front bearing of the main frame.

9. A tool of the character described, consisting in a main frame, another frame reciprocally mounted thereon provided with marginal recesses in its horizontal portion, and tool-carrying attachments provided at their upper ends with means for adjustably engaging the marginal recesses. 35
40

10. A tool of the character described, consisting in a main frame, another frame reciprocally mounted thereon provided with marginal recesses in its horizontal portion, tool-carrying attachments provided at their upper ends with means for adjustably engaging said marginal recesses, adjustable clamping-jaws at the lower terminal of one of said attachments, and apertured spring-jaws
45 formed integral with the lower end of the other attachment. 50

In testimony whereof we affix our signatures in the presence of two witnesses.

JOHN F. TIPPETT.
JAMES D. PARKER.

Witnesses:

F. G. FISCHER,
J. MOORE.