

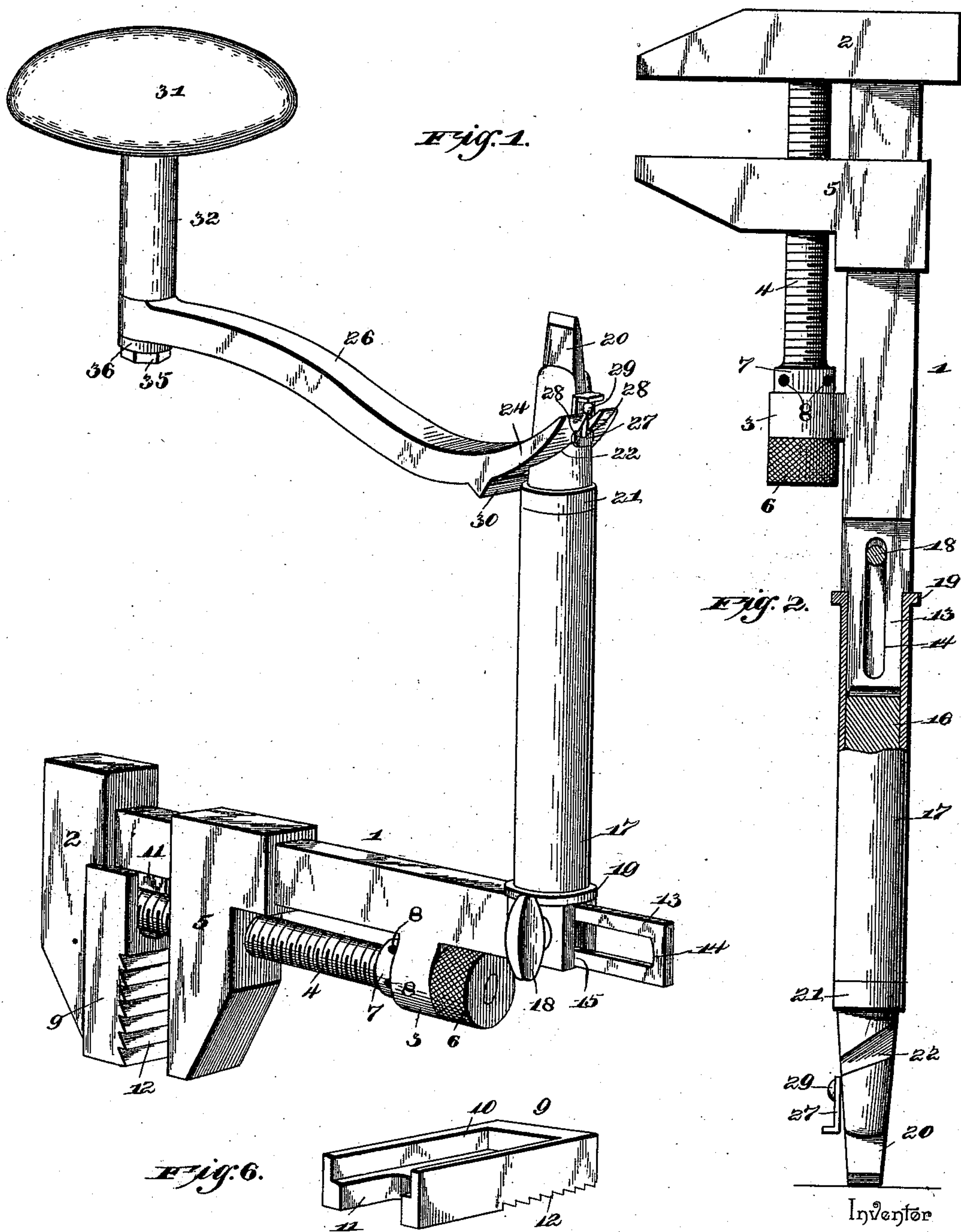
(No Model.)

2 Sheets—Sheet 1.

J. N. PARKER.
COMBINATION TOOL.

No. 534,449.

Patented Feb. 19, 1895.



Witnesses

W. F. Doyle
J. P. Riley

By *his* Attorneys.

John N. Parker.

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

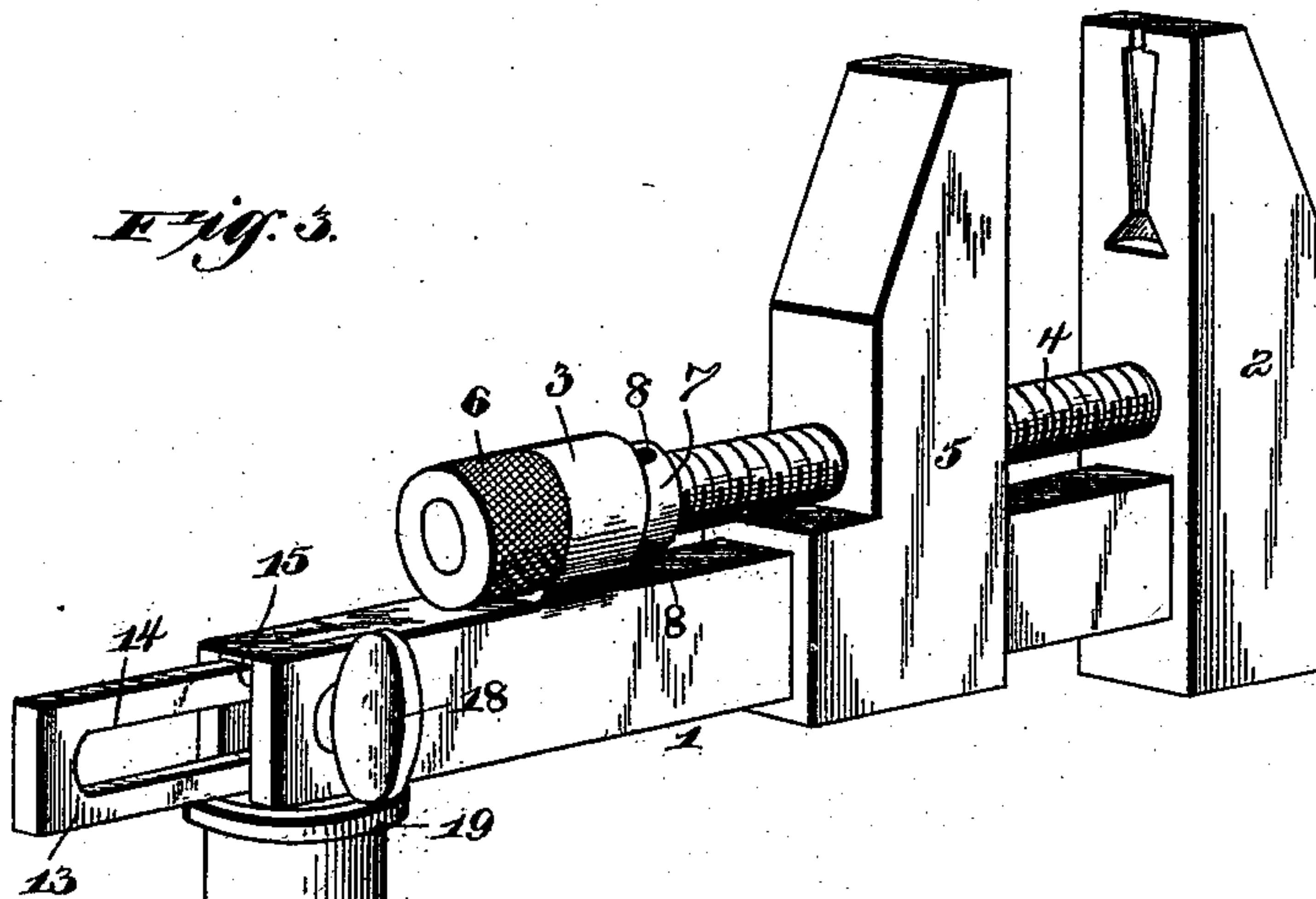


Fig. 5.

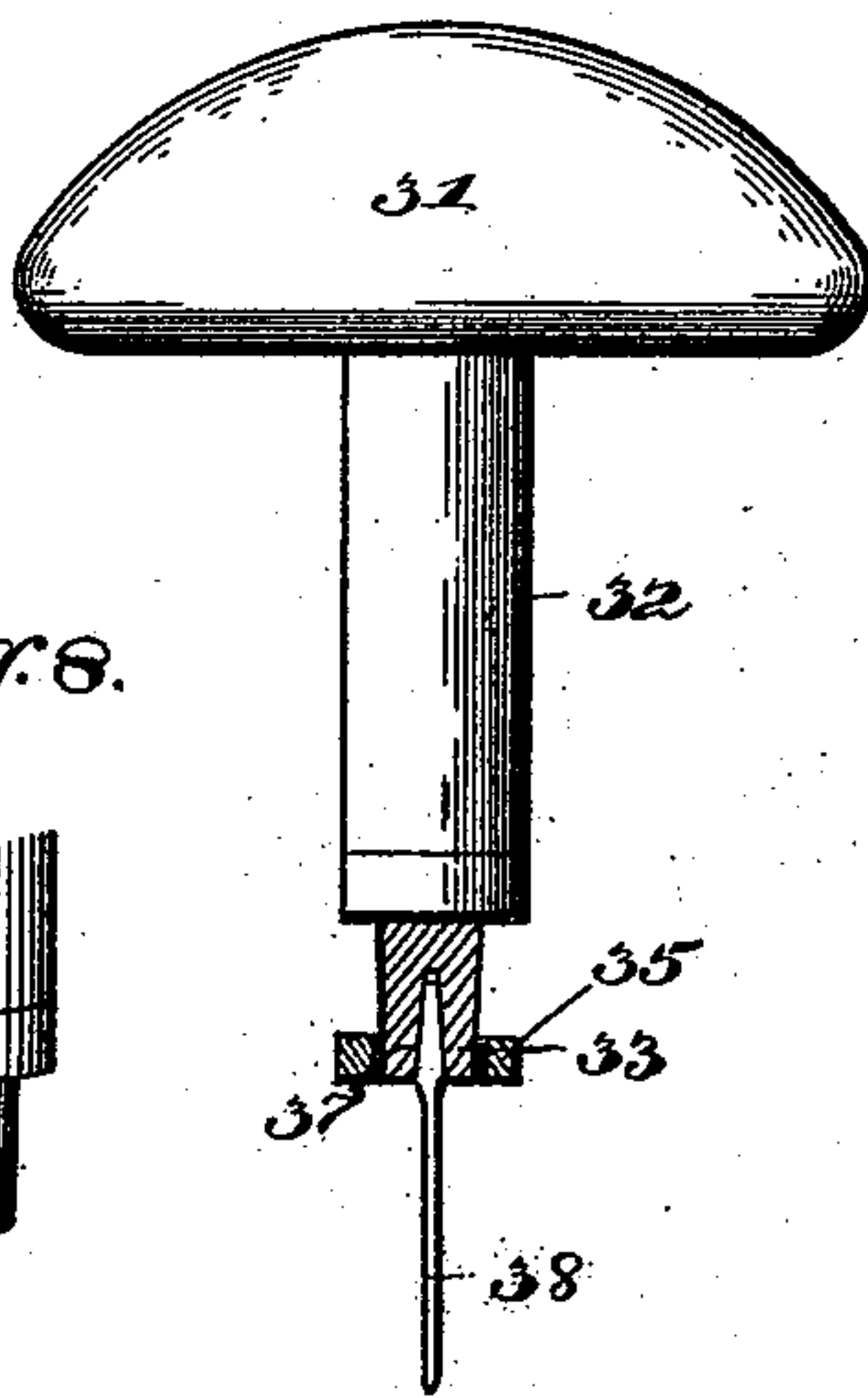


Fig. 7.

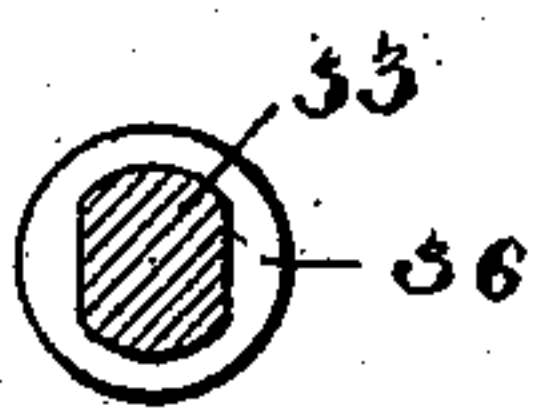


Fig. 8.

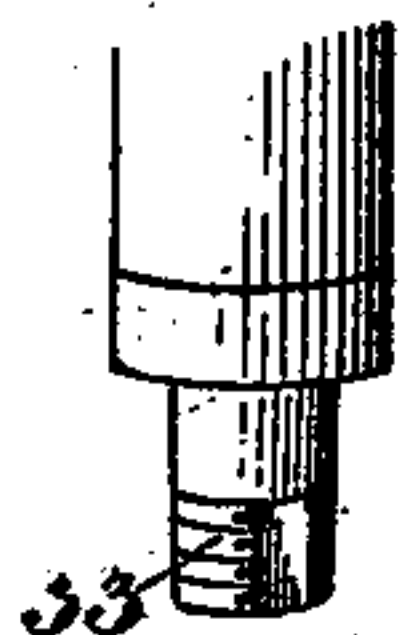
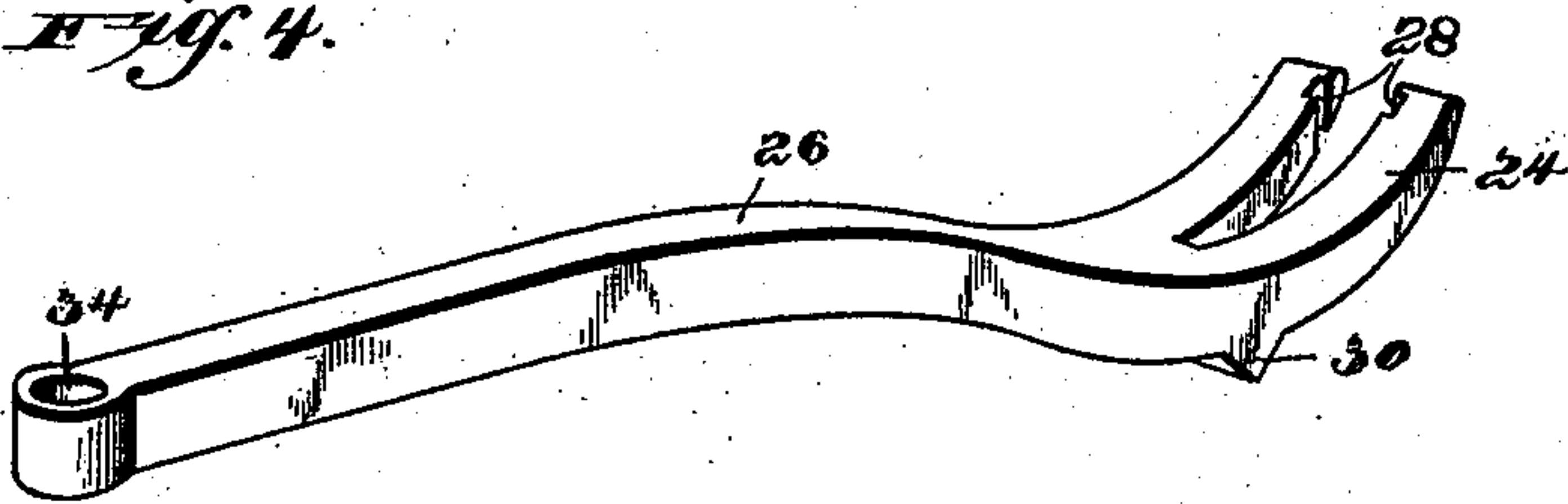


Fig. 4.



Inventor

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN N. PARKER, OF COLDWATER, MICHIGAN.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 534,449, dated February 19, 1895.

Application filed September 20, 1894. Serial No. 523,579. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. PARKER, a citizen of the United States, residing at Coldwater, in the county of Branch and State of Michigan, have invented a new and useful Combination-Tool, of which the following is a specification.

The invention relates to improvements in combination tools.

10 The object of the present invention is to improve the construction of combination tools, and to provide means for locking the brace-arm to the shank, to facilitate drawing nails and the like, and to increase the usefulness of such tools.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings: Figure 1 is a perspective view of a combination tool embodying the invention, and arranged to form a brace. Fig. 2 is a side elevation, partly in section, the parts being arranged to operate as an ordinary wrench or hand vise, and as a screw-driver. Fig. 3 is a detail perspective view, the parts being arranged to form a screw-driver. Fig. 4 is a detail perspective view of the brace-arm, showing the same arranged to operate as a tack and nail puller. Fig. 5 is a detail sectional view, showing the swiveled handle or breast-plate arranged to operate as an awl. Fig. 6 is a detail perspective view of the removable pipe-engaging jaw. Figs. 7 and 8 are detail views illustrating the construction of the lower end of the spindle.

Like numerals of reference indicate like parts in all the figures of the drawings.

40 1 designates a wrench stock provided at its upper end with a stationary jaw 2, and having, near its lower end, a bearing 3, in which is swiveled an adjusting screw 4, which engages an adjustable or movable jaw 5, slidably mounted on the wrench stock. The adjusting screw has its upper or outer end seated in a socket of the stationary jaw 2. Its inner end is provided with a milled head 6, arranged adjacent to the bearing 3, and at the opposite side thereof the adjusting screw is provided with an annular boss or shoulder

7, which is provided with perforations 8, disposed at right angles and adapted to receive a nail or suitable tool to serve as a lever for rotating the adjusting screw, whereby the jaws may be made to clamp tightly the work operated on. One or both of the jaws may be provided with a detachable pipe-engaging jaw 9, provided with a recess 10, to receive and conform to the configuration of the jaw to which it is applied; and it is provided, at its inner end, with a bifurcation 11, to straddle the screw 4. The engaging face 12 of the detachable pipe-engaging jaw is provided with shouldered teeth or serrations for firmly clamping a cylindrical or rounded body, such as a pipe or rod, and, when two jaws are employed, the teeth of one jaw will be shouldered the reverse of the other to engage a pipe or rod more effectively, as will be readily understood.

The inner end of the stock is reduced to form a tenon 13, which is provided with a slot 14, and the tenon 13 is adjustably and detachably secured in a bifurcation 15, of a shank 16, upon which is mounted a handle or grip 17. The bifurcation extends within the handle or grip 17, and the shank 16 may be secured longitudinally of, or at right angles to, the stock 1, by means of a set-screw 18; but to afford a firmer attachment when the shank is arranged at right angles to the stock, the former is provided with a collar 19 which fits against the stock and provides an increased bearing surface.

85 The shank 16 is provided with a screw-driver blade 20, and it has, between the same and a fixed collar or boss 21, oppositely-disposed angularly-arranged grooves 22, tapering in depth and adapted to receive a claw 24, which has a tapering opening or bifurcation. The claw 24 is formed at one end of a brace-arm 26, and the latter is firmly locked in engagement with the shank by a sliding catch 27, mounted on the shank and engaging oppositely-disposed notches 28, located at the inner side of the claw. The catch 27 is provided with a longitudinal slot, and is secured to the shank by a headed stud 29, and is provided at one end with a flange or lip adapted to be readily grasped to operate the catch.

The claw is adapted for extracting nails,

and is provided with an enlargement 30, forming a heel or fulcrum to facilitate such extraction.

5 The brace-arm is detachably secured to a swiveled handle or breast-plate 31. The swiveled handle or breast-plate has a spindle 32, which is threaded, at 33, and is passed through an opening in the end 34 of the brace-arm, and it is secured to the same by a nut 35, a washer being interposed between the nut and the brace-arm. This washer, 36, has a polygonal opening and is arranged on the polygonal portion of the spindle, and is fixed thereto to prevent the nut from unscrewing. The spindle is provided with a slot 37, which is centrally enlarged to form a bore or groove for the reception of an awl or similar point 38, secured to the spindle by the nut.

20 It will be seen that the effectiveness of the combination tool is increased, and that its usefulness is enlarged, that it is adapted to be used as a pipe or nut wrench, and that an awl or similar tool may be fitted in the spindle of the swiveled handle or breast-plate.

25 From the foregoing description and the accompanying drawings, the construction, operation, and the advantages of the improvements will be readily understood.

30 Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or

sacrificing any of the advantages of this invention.

What I claim is—

1. In a combination tool, the combination of 35 the shank having opposite grooves, the brace-arm provided with a claw engaging the grooved portion of the shank and provided with opposite notches, and a catch slidingly mounted on the shank and engaging said 40 notches, whereby the brace-arm is securely locked to the shank, substantially as described.

2. In a combination tool, the combination of a shank provided with opposite angularly- 45 disposed grooves tapering in depth, a brace-arm having a tapering claw conforming to the configuration of the grooved portion of the shank and provided with opposite notches, said arm being provided at the inner termi- 50 nus of the claw with an enlargement forming a heel or fulcrum, and a catch mounted on the shank and engaging the notches of the claw, substantially as described.

In testimony that I claim the foregoing as 55 my own I have hereto affixed my signature in the presence of two witnesses.

JOHN N. PARKER.

Witnesses:

CHARLES M. FISHER,
GEO. M. WHITE.