

No. 790,084.

PATENTED MAY 16, 1905.

M. A. SMITH.
WRENCH.

APPLICATION FILED DEC. 1, 1904.

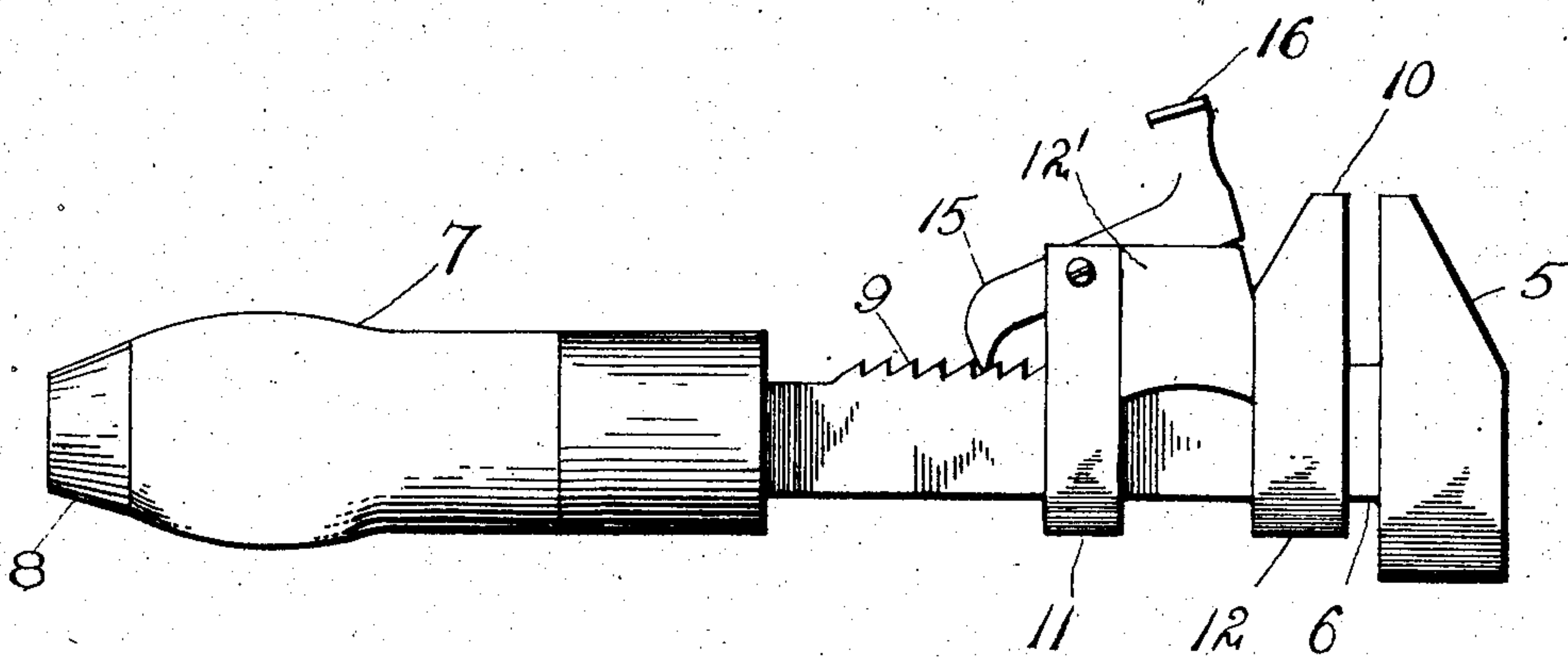


Fig. 1

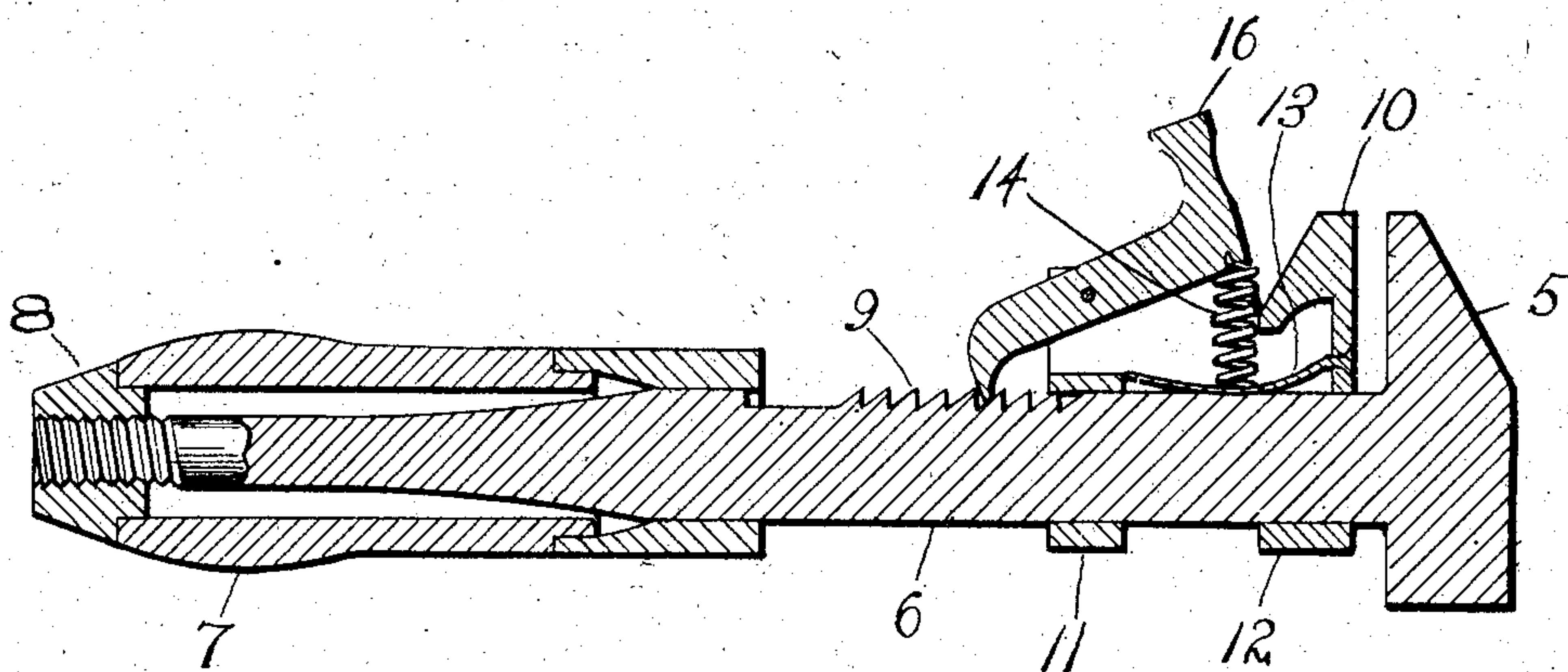


Fig. 2

Witnesses
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WRENCH.

SPECIFICATION forming part of Letters Patent No. 790,084, dated May 16, 1905.

Application filed December 1, 1904. Serial No. 235,057.

To all whom it may concern:

Be it known that I, MARVIN A. SMITH, a citizen of the United States, residing at Hatcher, in the county of Dale, State of Alabama, have
5 invented certain new and useful Improvements in Wrenches; and I do hereby 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
10 make and use the same.

This invention relates to wrenches, and more particularly to that class commonly known as "monkey-wrenches," the object of the invention being to provide a wrench wherein the
15 movable jaw may be easily and quickly shifted toward and away from the fixed jaw and in which the movable jaw will be held snugly upon the stem of the fixed jaw.

In the drawings, forming a portion of this
20 specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation showing a wrench embodying the present invention. Fig. 2 is a section taken longitudinally through
25 a wrench embodying the present invention.

Referring now to the drawings, there is shown a wrench comprising a fixed jaw 5 at the end of a stem 6, upon the opposite end of which is disposed a handle 7, held in place
30 by means of the usual nut 8. The portion of the stem between the handle and the fixed jaw has a rack 9 formed upon one face.

Upon the stem of the wrench between the fixed jaw and the handle is slidably mounted
35 the movable jaw 10, having the guide-loops 11 and 12, that surround the stem and fit it snugly, while permitting the movable jaw to be slid toward and away from the fixed jaw. Below the gripping portion of the movable
40 jaw is a boxing 12', which opens outwardly or away from the stem of the wrench and which, excepting at its extreme lower por-

tion, leads to the ratchet-face of the stem of the wrench. Bridging this last-named portion is a spring-plate 13, which is fixed at its
45 upper end, and upon this spring-plate or against it is disposed a helical spring 14. A pawl 15 is pivoted at the lower portion of the boxing, its lower end projecting below the boxing and into position to engage the rack
50 9, while its upper end rests against the helical spring and has a thumb-piece 16. The helical spring serves to hold the pawl normally and yieldably with its lower end in engagement with the rack 9, while permitting the pawl
55 to be swung out of engagement with the rack. The spring-plate by pressing against the stem of the wrench holds the sliding jaw against vibration and consequent rattling, the action of the spring-plate being augmented by that
60 of the helical spring. It will be understood that the pawl projects through the bottom of the boxing, which exposes the engaging end of the pawl, so that the condition of the pawl
65 at all times may be observed and may be manipulated other than with the thumb-piece, if necessary.

What is claimed is—

A wrench comprising a stem provided with a rack and having a fixed jaw at one end, a movable jaw slidably mounted upon the stem and
70 having a boxing opening toward and away from the stem, a pawl pivoted in the boxing and disposed to engage with one end the rack, a plate in the boxing disposed against the stem
75 and a spring resting against the plate and pawl and adapted to hold the latter yieldably in engagement with the rack.

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

MARVIN A. SMITH.

Witnesses:

C. B. POWELL,
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