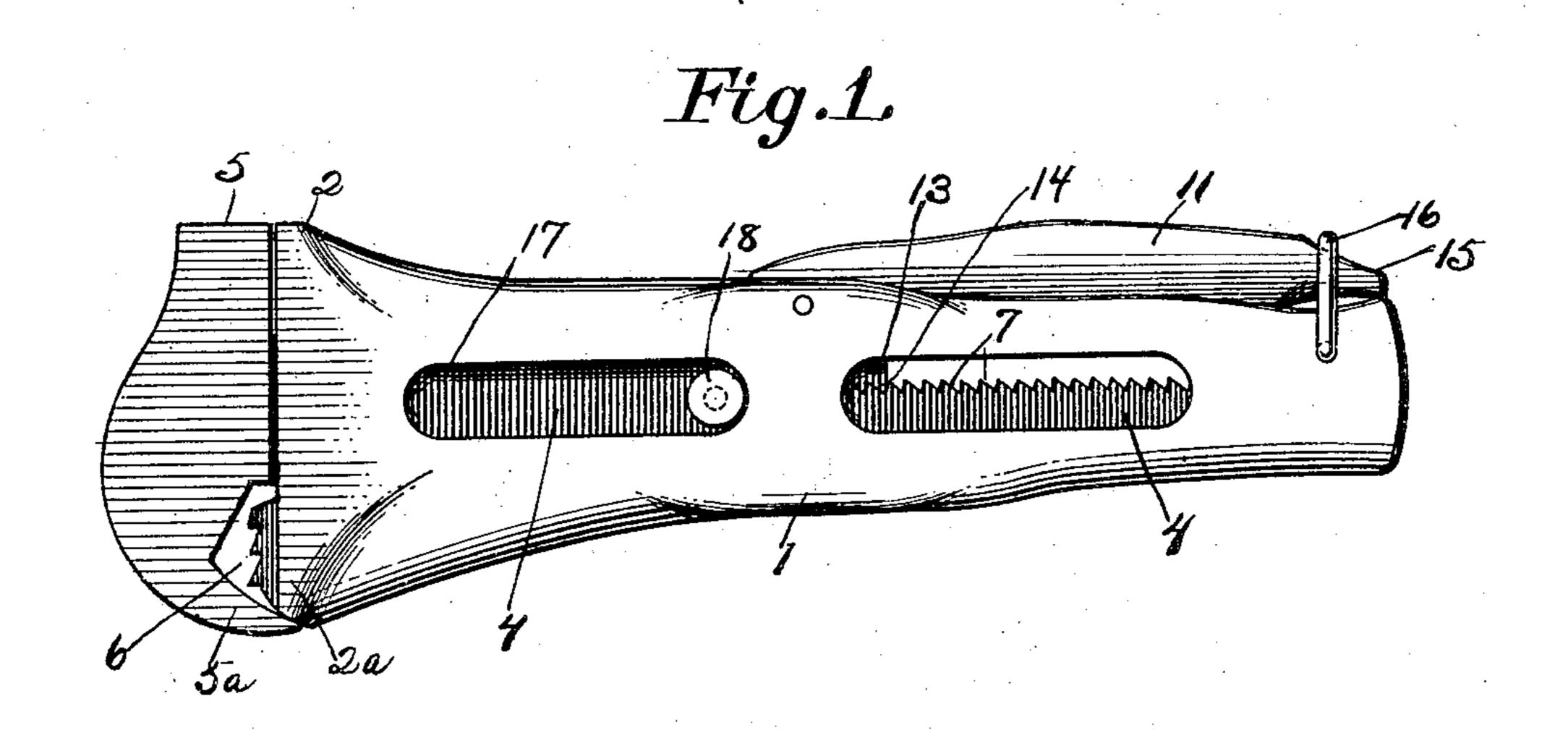
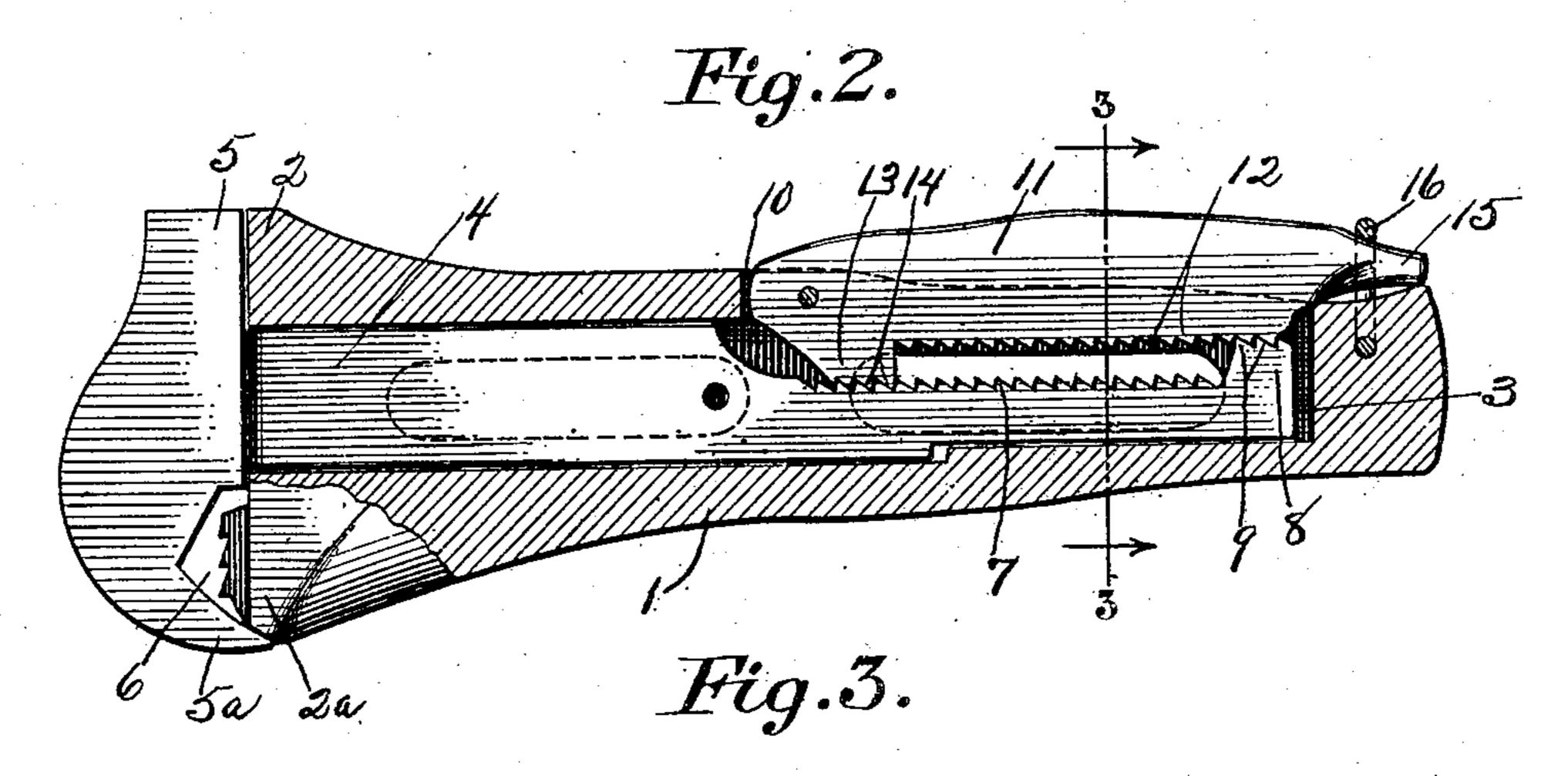
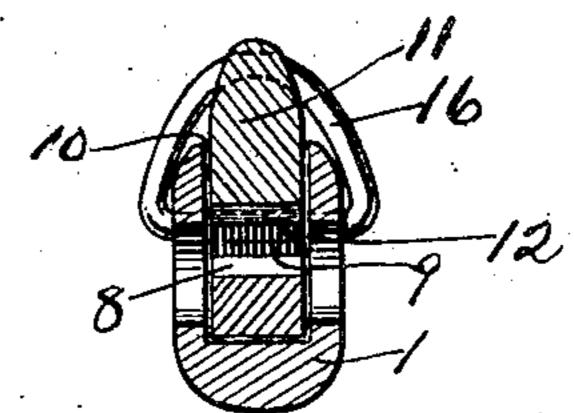
W. BRANDON.

NUT AND PIPE WRENCH.

APPLICATION FILED MAY 9, 1907.







Inventor:

Witnesses: EN. Herwich & About Hammon

William Brandon

## UNITED STATES PATENT OFFICE.

WILLIAM BRANDON, OF HILLSBORO, WISCONSIN, ASSIGNOR OF ONE-HALF TO JAMES MILLER, OF GREENWOOD, WISCONSIN.

## NUT AND PIPE WRENCH.

No. 879,810.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed May 9, 1907. Serial No. 372,837.

To all whom it may concern:

Be it known that I, William Brandon, a citizen of the United States, residing at Greenwood, in the county of Vernon and State of Wisconsin, have invented a new and useful Combination Pipe and Nut Wrench, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a wrench and particularly to a structure involving a sliding bar, with an outer jaw affixed with means for securing and holding the same in its adjusted

position.

The invention has for an object, to provide a wrench with as much leverage on a large nut or pipe as on a small one, a further object of the invention, is to provide an improved construction of the locking and unlocking device, which permits quick adjustment combined with strength and simplicity of operation.

Other and further objects and advantages of the invention, will be hereinafter set forth and the novel features thereof defined by the

appended claims.

In the drawing, Figure 1 is a side elevation of the wrench. Fig. 2 is a longitudinal section thereof. Fig. 3 is a detail sectional view through the handle of my improved wrench as seen upon line 3—3, Fig. 2.

Referring to the drawings by numerals of reference, 1 indicates the handle of my pipe wrench which is provided at one end with heads 2 and 2<sup>a</sup>, and with a longitudinal opening 3 in which a shank 4 is adapted to extend. The outer end of the shank 4 is provided with heads 5 and 5<sup>a</sup> which are adapted to coöperate with the heads 2 and 2<sup>a</sup> respectively.

40 The head 5<sup>a</sup> has a notch cut therein in which is adapted to take a toothed plate 6 carried by the head 2<sup>a</sup>, which plate is adapted to grip a pipe or other object having rounded faces placed between said plate 6 and the head 5<sup>a</sup>, whereby said object may be rotated. The

opposite end of the shank 4 is provided with teeth 7 on one side and with an extension 8 having teeth 9 thereon. The handle 1 also has an opening 10 in one side thereof in which a lever 11 is pivotally secured, said 50 lever having teeth 12 upon one edge adapted to engage the teeth 9 of the extension 8 on the shank 4, and is also provided with an extension 13 having teeth 14 thereon which are adapted to engage the teeth 7 on the 55 shank 4 when said lever is in closed position. The end of the lever 11 is tapered as shown at 15 and adapted to be engaged by a ring 16 secured in the end of the handle 1 whereby said lever may be locked in closed position. 60 The handle 1 is also provided with an opening 17 into which extends a bolt, or lug 18 secured to the shank 4 whereby the shank will be limited in its outward movement.

Having described my invention and set 65 forth its merits, what I claim and desire to

secure, by Letters Patent is:—

A combined nut and pipe wrench, comprising a handle having a longitudinal opening therein and an opening in one side, heads 70 on said handle, a shank slidably mounted in said handle, an extension thereon, teeth formed on one side of said shank and upon the extension, heads on said shank adapted to coöperate with the heads on the handle, 75 one of said heads being cut away, a toothed plate disposed in said cut-away portion adapted to engage an object having curved surfaces, a lever pivotally secured in the opening in the handle, an extension on the 80 pivoted end of said lever, teeth on one side of said lever and on said extension adapted to coöperate respectively with the teeth on the extension and side of the shank whereby said shank may be securely locked in desired 85 position.

WILLIAM BRANDON.

In presence of— HENRY KAUFFMAN, E. V. WERNICK.