

No. 752,837.

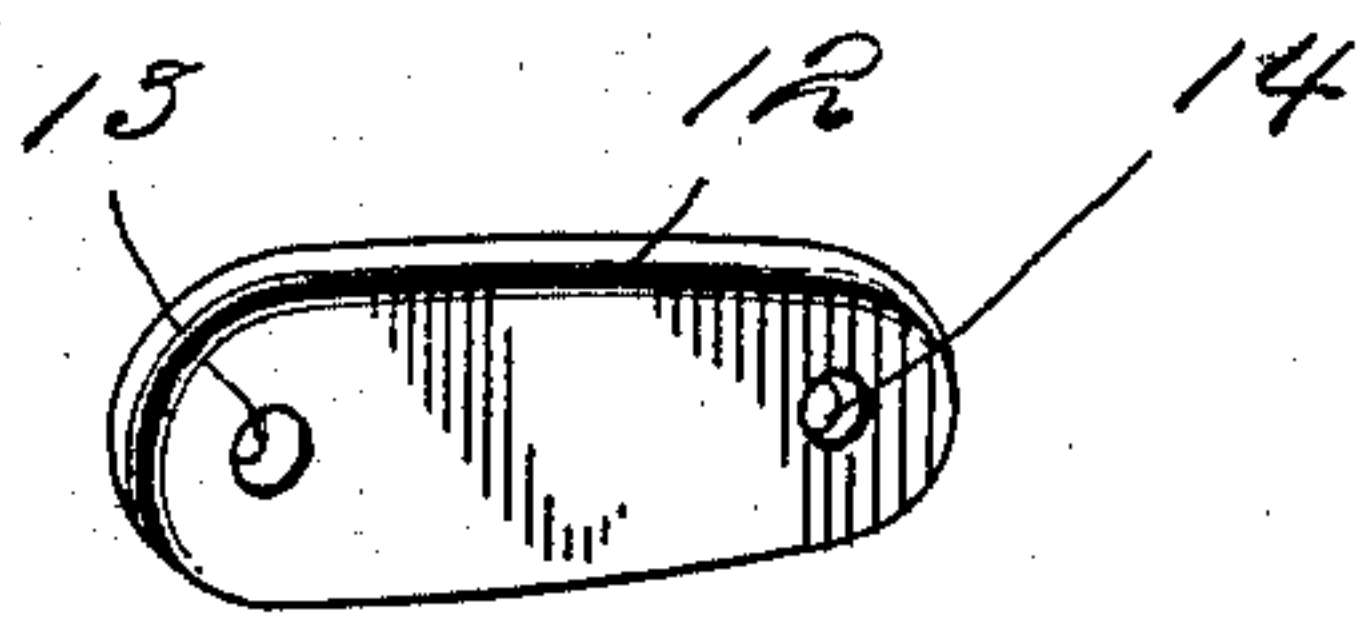
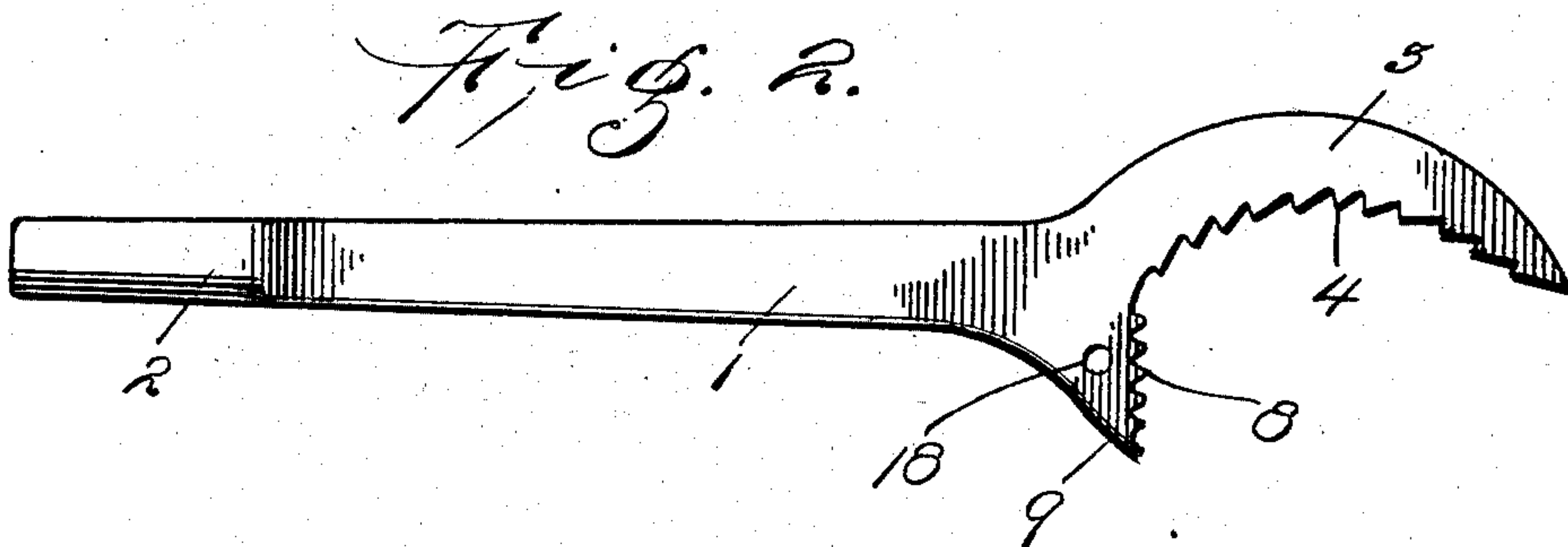
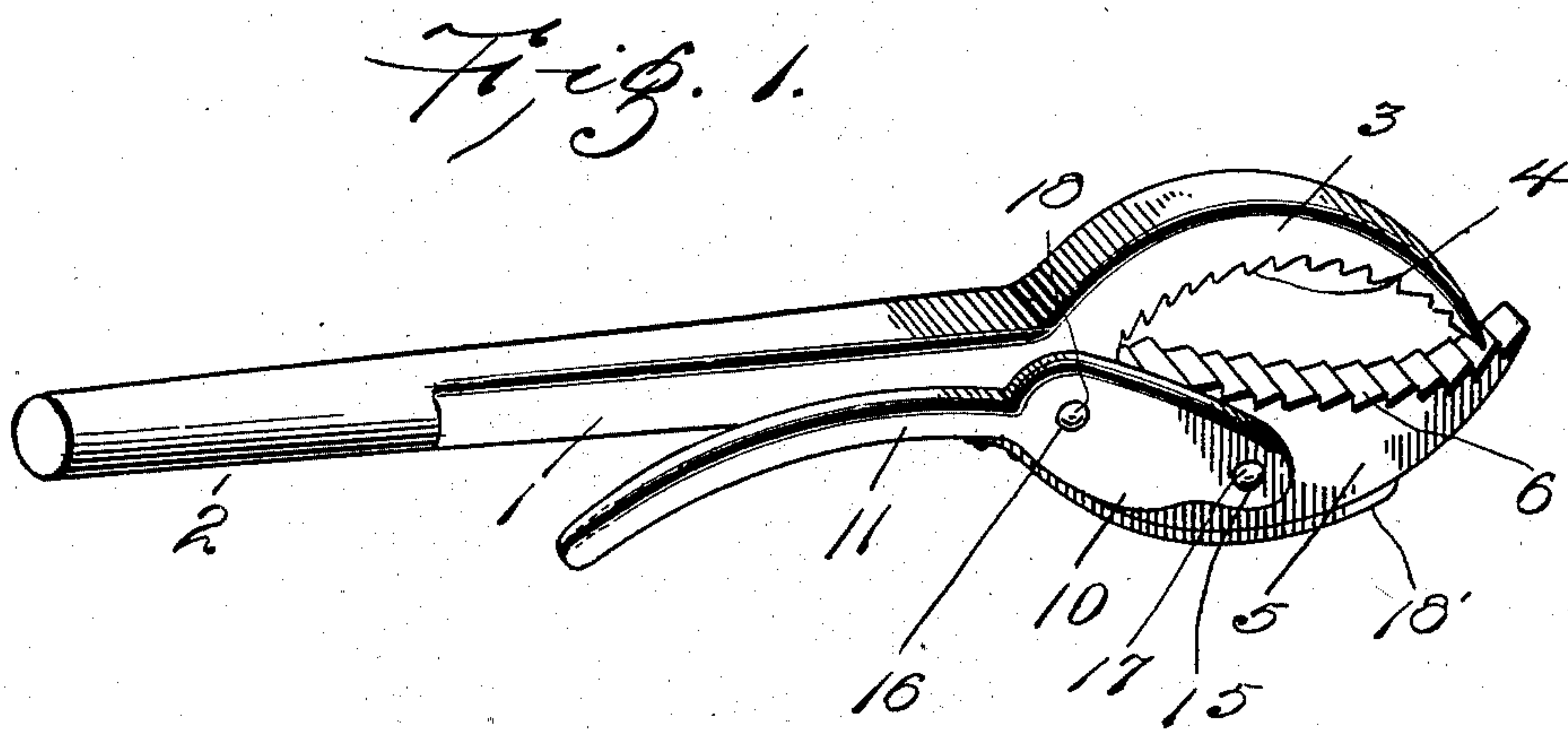
PATENTED FEB. 23, 1904.

T. W. HARDIN.
PIPE WRENCH.

APPLICATION FILED OCT. 16, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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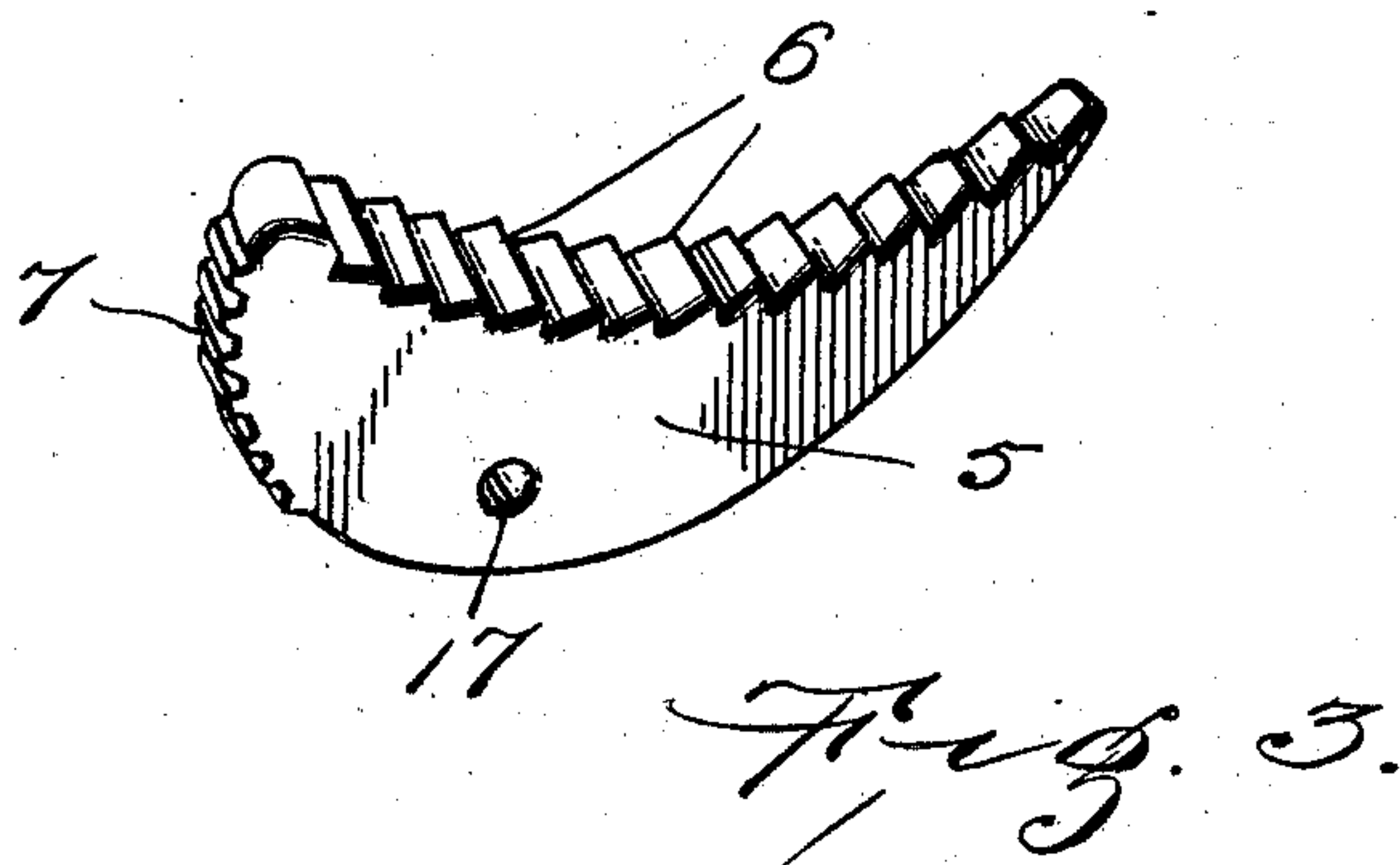
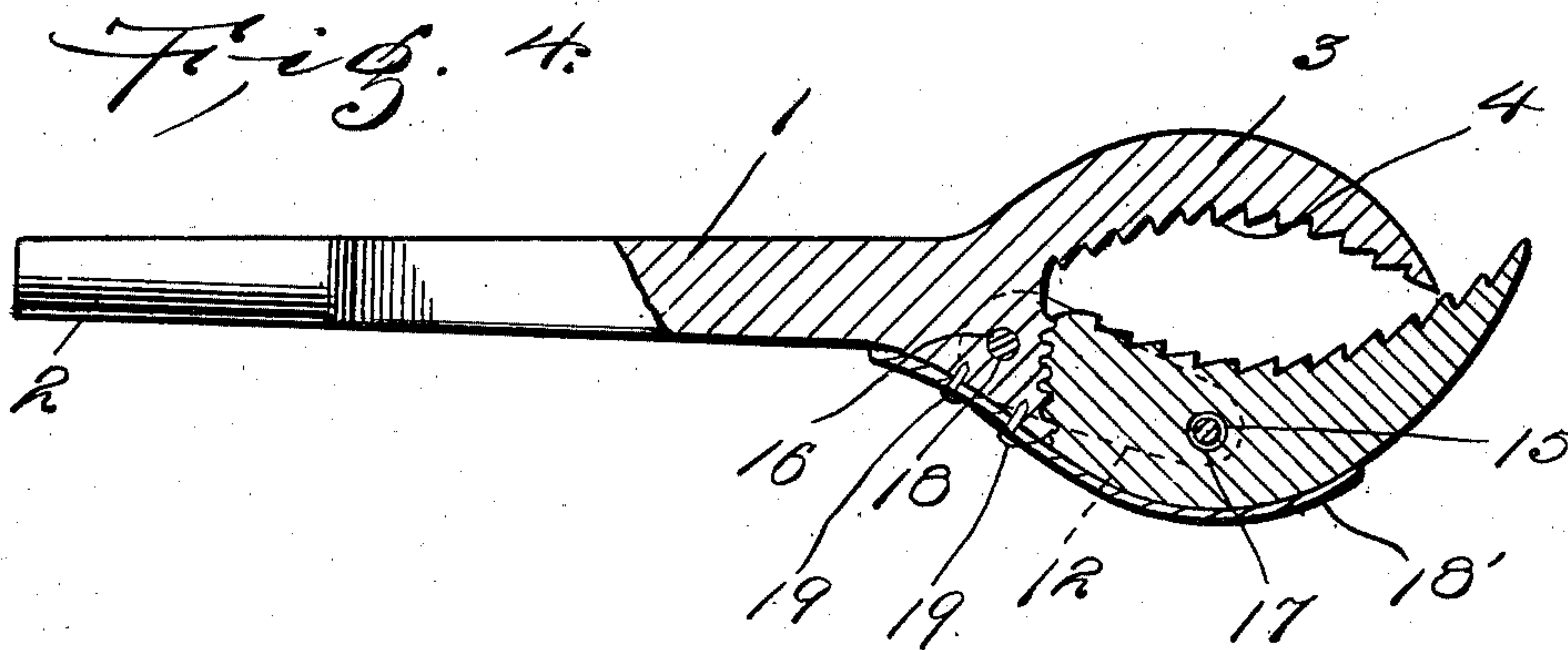
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

TRUMAN W. HARDIN, OF MASON CITY, ILLINOIS.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 752,837, dated February 23, 1904.

Application filed October 16, 1903. Serial No. 177,303. (No model.)

To all whom it may concern:

Be it known that I, TRUMAN W. HARDIN, a citizen of the United States, residing at Mason City, in the county of Mason, State of Illinois, have invented certain new and useful Improvements in Pipe-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 make and use the same.

This invention relates to pipe-wrenches, and has for one of its objects to provide a simple, inexpensive, durable, and highly satisfactory pipe-wrench capable of easy and satisfactory manipulation.

Another object of the invention resides in the provision of a pipe-wrench of such nature and parts that the use of worm-gears, set-screws, and the like is obviated.

With these and other objects in view the invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the present invention.

In the drawings, Figure 1 is a perspective view of the invention, illustrating the lower teeth of the movable jaw and the rack upon which it works in dotted lines. Fig. 2 is a face view of the stock and fixed jaw. Fig. 3 is a detail perspective view of the movable jaw, and Fig. 4 is a longitudinal vertical section. Fig. 5 is a detail perspective view of the link.

Referring now more particularly to the accompanying drawings, the reference character 1 designates a stock which at its inner or lower end is shaped to form a handle 2, while at its outer or upper end is formed a fixed jaw 3, whose inner curved surface is provided with a series of inclined serrations or teeth 4. The movable jaw 5 has its inner face curved and provided with inclined serrations or teeth 6 and its lower end or face rounded and provided with heavy cog-teeth 7, arranged to

have working fit with the rack or teeth 8, disposed upon the offset portion 9 of the stock 1, the movable jaw being pivotally mounted in working position by means of the enlarged portion 10 of the lever 11 and the link connection 12, having perforations 13 and 14, respectively, and secured upon opposite sides of the jaws by means of suitable transverse screw-bolts or pivot-pins 15 and 16, the bolt or pin 15 passing through the perforation 17 of the movable jaw and the bolt or pin 16 passing through the perforation 18 in the offset portion 9 of the stock. The perforation 17 is somewhat larger in cross-sectional diameter than the cross-sectional diameter of the pivot pin or bolt passing therethrough, for a purpose hereinafter understood.

The end of the movable jaw 5 extends beyond the end of the fixed jaw 3, and when the lever 11 is pressed inwardly toward the stock 1, raising the cogs 7 of the movable jaw out or nearly out of engagement with the cogs 8 of the offset portion of the stock, the pipe or rod will by pressure upon the extended end of the movable jaw thereagainst cause the latter to yield and receive the pipe between it and the fixed jaw, the spring 18', which has one of its ends fixedly secured by means of any suitable fastening 19 to the lever 11 and its opposite end loosely disposed against the rear face of the movable jaw, serving to exert a pressure upon the movable jaw to force it toward the fixed jaw and hold the same against the pipe or rod. Thus it will be seen that there is no possibility of the pipe or rod slipping when placed within the jaws, and it is to be understood that, while it is not essential that the lever 11 be pressed inwardly to cause the jaws to grip the pipe or rod, the spring being of very strong material and serving such purposes, the lever if pressed inwardly toward the stock will tend to create a greater binding effect upon the pipe or rod.

From the foregoing it will be seen that when the lever 11 is pressed inwardly toward the stock 1 the perforation 17 being a little larger than the bolt or pin passing there-through permits the upper end of the lever to lift the movable jaw upwardly out of engagement with the rack or teeth upon the off-

set portion 9 of the stock, the spring 18 serving to draw the movable jaw downwardly as soon as the lever is released, thereby bringing the latter jaw into locked relation with its companion jaw.

I claim—

1. In a pipe-wrench, the combination with a stock terminating at one of its ends in a fixed jaw and having an offset portion provided with a toothed upper surface, of a pivoted jaw having a toothed edge working upon the toothed surface of said offset portion, and a spring having connection with the pivoted jaw.

2. In a pipe-wrench, the combination with a stock terminating at one of its ends in a fixed jaw and having an offset portion provided with a toothed upper surface, of a pivoted jaw having a toothed edge working upon

the toothed surface of the said offset portion, a lever for operating the pivoted jaw, and a spring having connection with the last-mentioned jaw.

3. In a pipe-wrench, the combination with a stock terminating at one of its ends in a fixed jaw and having an offset portion, of a lever, a movable jaw pivotally connected with the lever and working upon the offset portion of the stock, the outer end of the movable jaw extending beyond the fixed jaw, and a spring having connection with the movable jaw.

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

TRUMAN W. HARDIN.

Witnesses:

C. W. CARGILL,
ALBERT CROSS.