

No. 778,051.

PATENTED DEC. 20, 1904.

J. J. LAYTON.
PIPE WRENCH.

APPLICATION FILED JUNE 9, 1904.

NO MODEL:

2 SHEETS—SHEET 1.

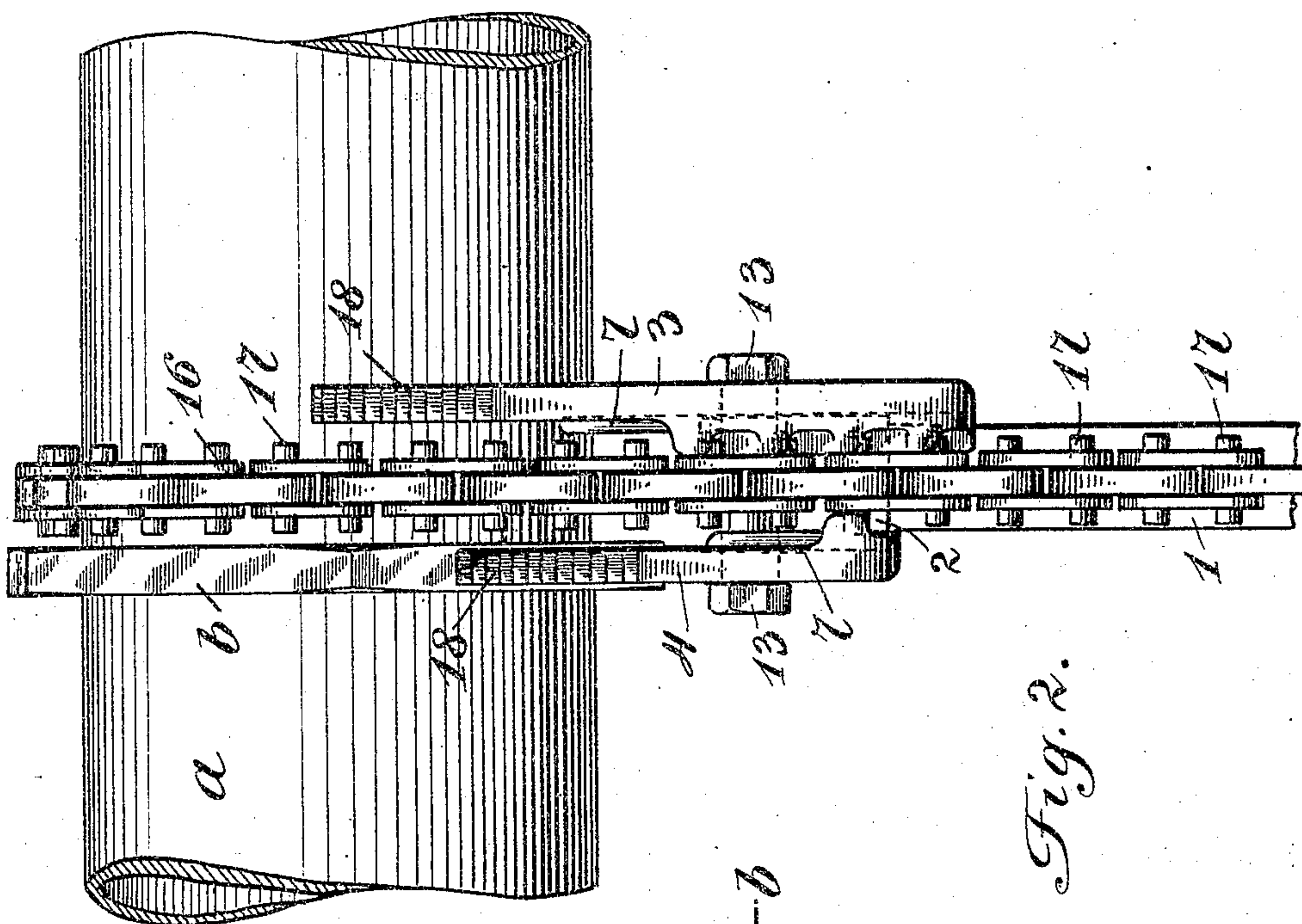


Fig. 2.

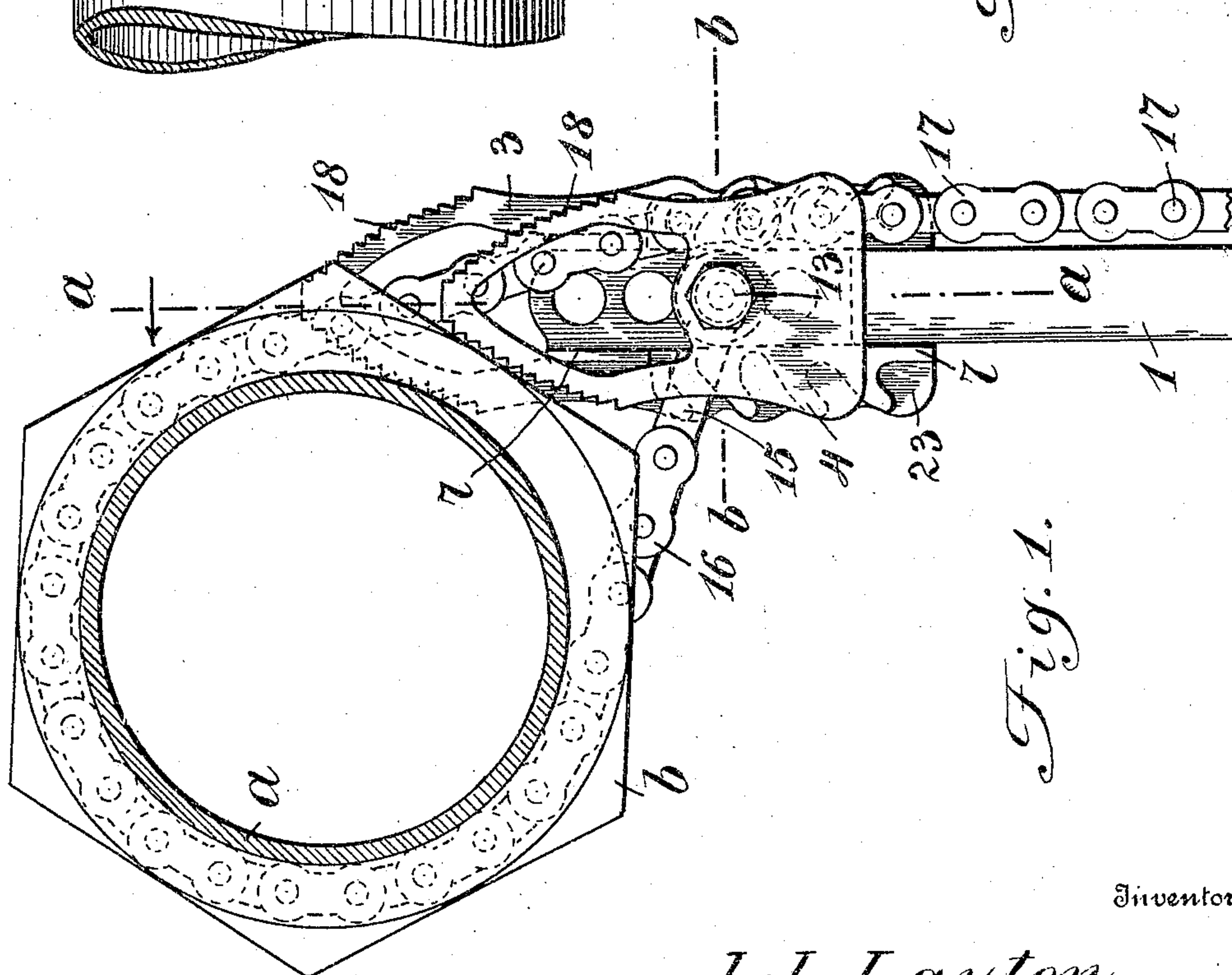


Fig. 1.

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Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

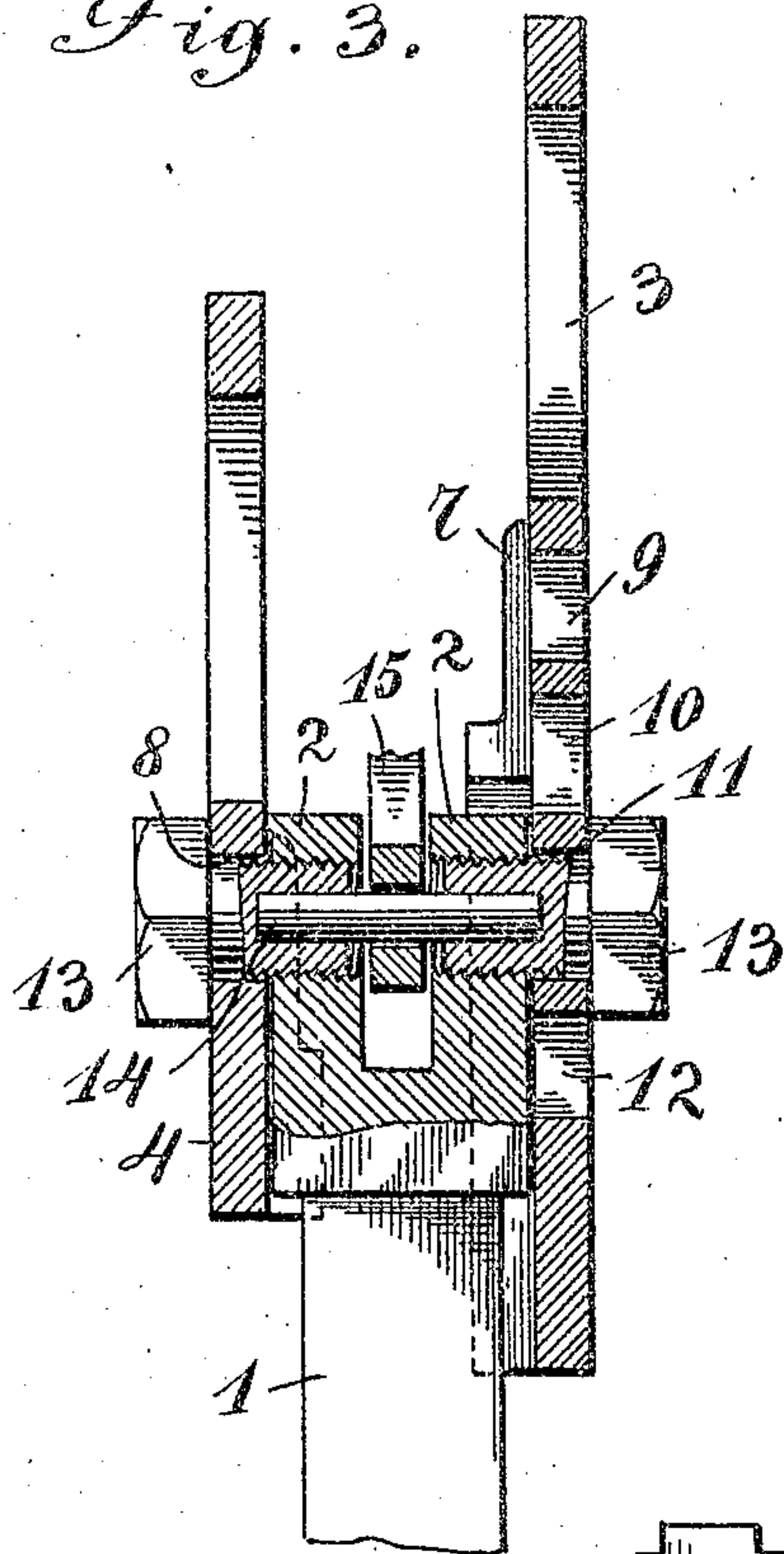


Fig. 4.

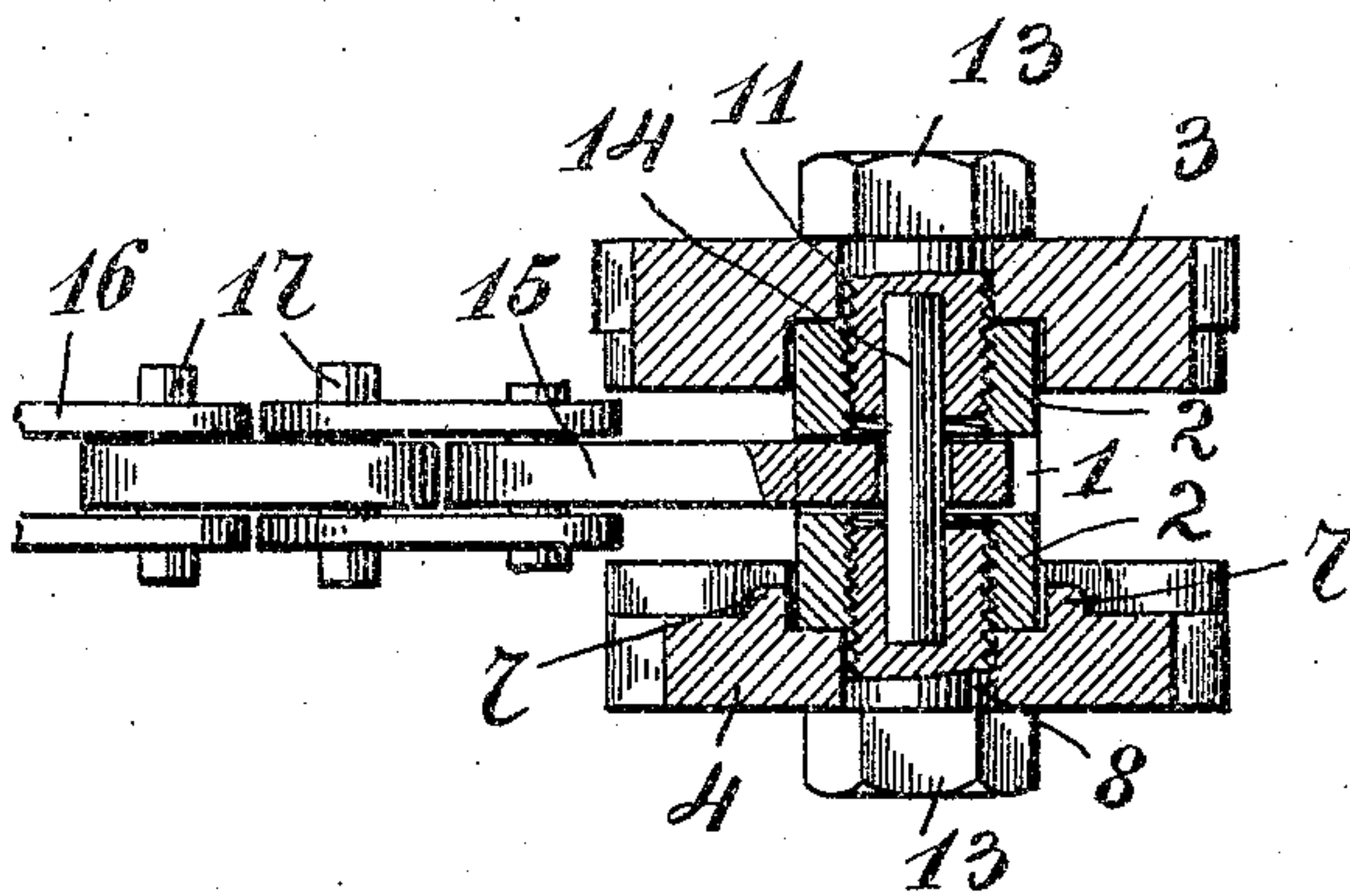
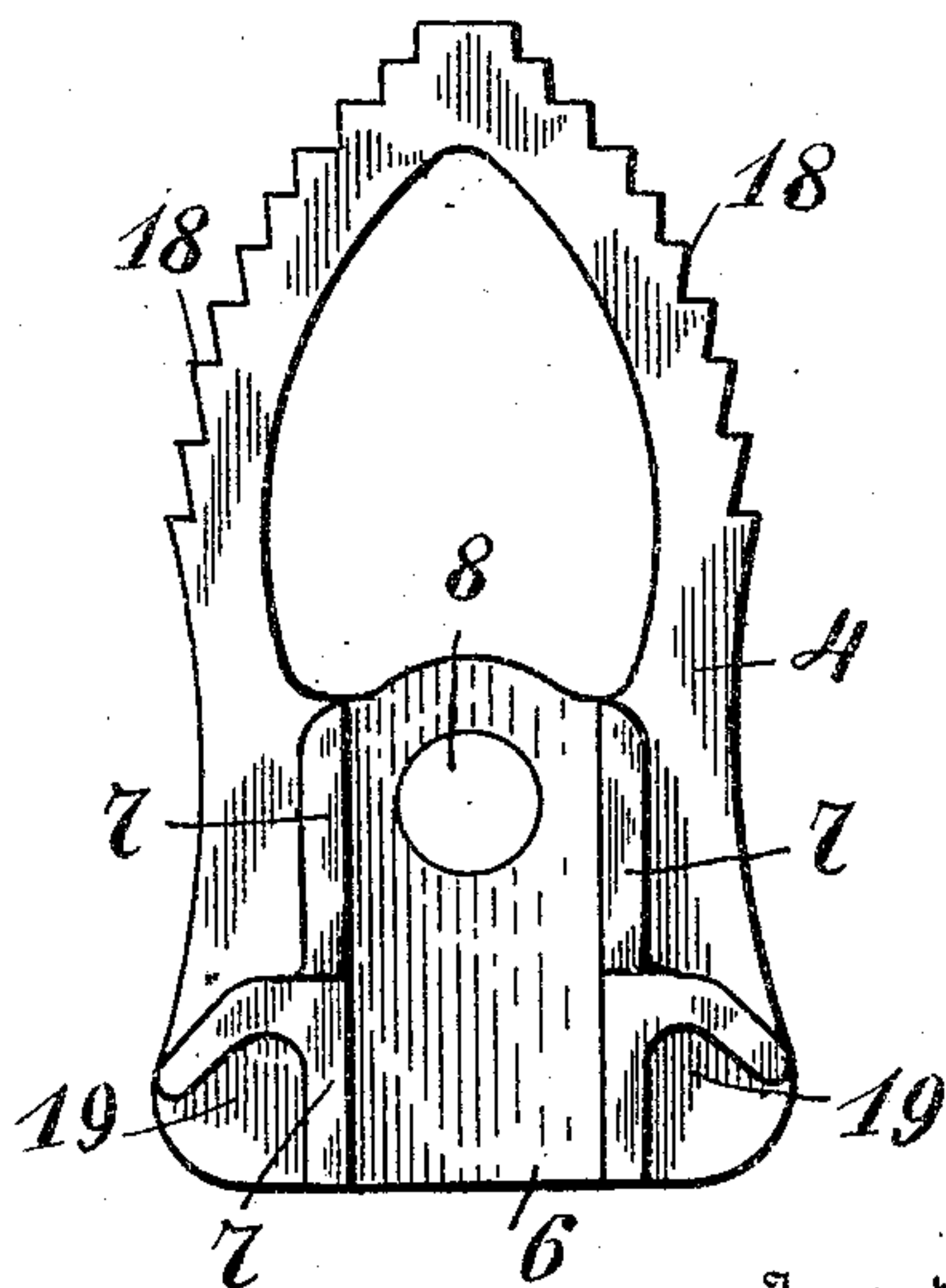
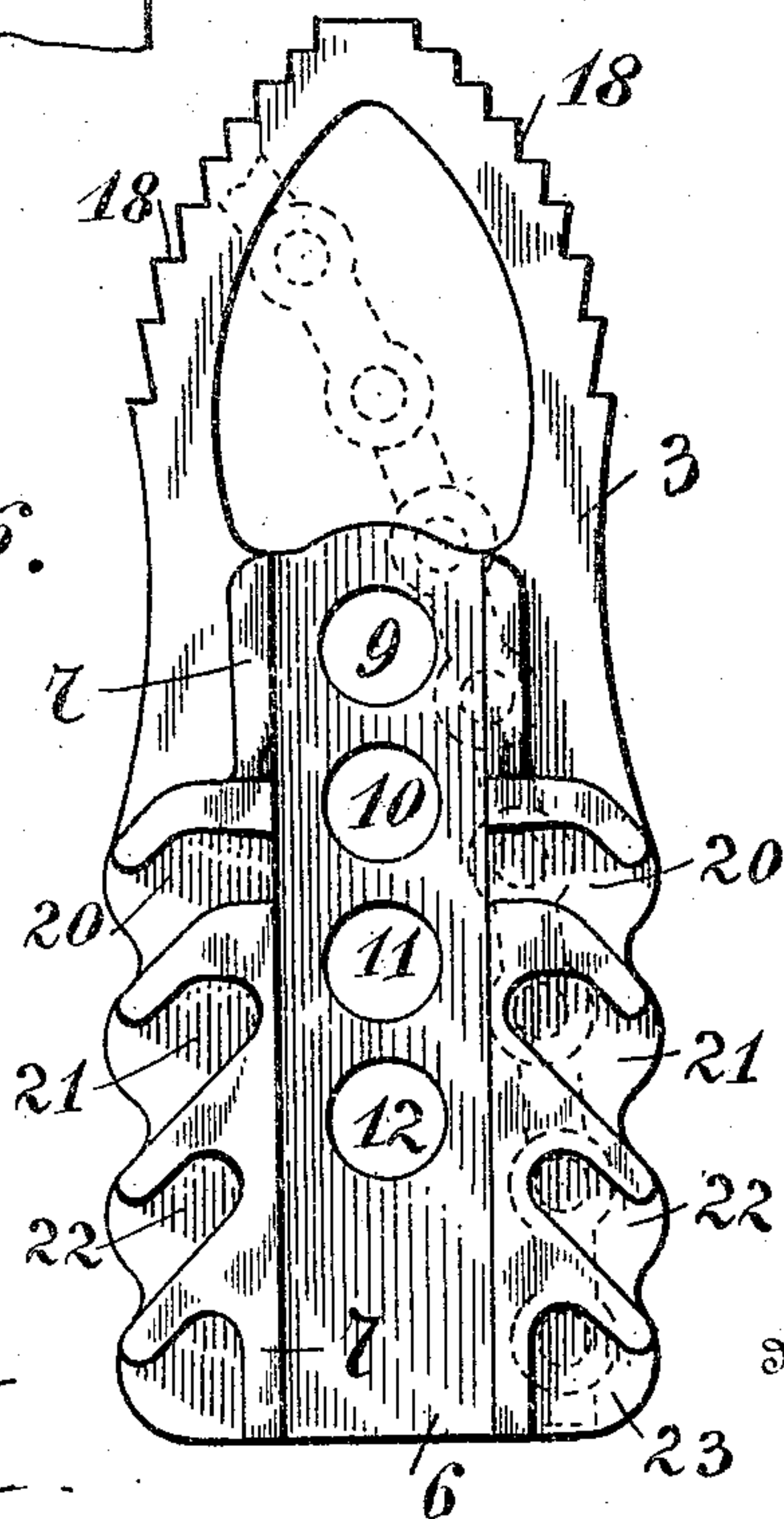


Fig. 5.

Fig. 6.



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JOHN J. LAYTON, OF BUTTE, MONTANA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 778,051, dated December 20, 1904.

Application filed June 9, 1904. Serial No. 211,812.

To all whom it may concern:

Be it known that I, JOHN J. LAYTON, a citizen of the United States, residing at Butte, in the county of Silverbow and State of Montana, have invented certain new and useful Improvements in Pipe-Wrenches; and I do 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.

My invention relates to improvements in pipe-wrenches of the kind known as "chain" wrenches; and it consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

The object of my invention is to provide a wrench of this character with an adjustable jaw as well as a relatively fixed jaw, whereby the wrench is adapted for use on fittings of irregular form and for gripping a surface no wider than the width of one of the jaws.

In the accompanying drawings, Figure 1 is an elevation of a wrench embodying my improvements, showing the same in use for turning a bushing, the pipe to which the bushing is attached being indicated in cross-section. Fig. 2 is a similar view at right angles to Fig. 1. Fig. 3 is a detail sectional view, on a larger scale, taken on the plane indicated by the line *a a* of Fig. 1. Fig. 4 is a transverse sectional view of the same, taken on the plane indicated by the line *b b* of Fig. 1; and Figs. 5 and 6 are detail elevations of the shorter and longer jaws, respectively.

The lever 1 has its inner end bifurcated to form a pair of arms 2, which are appropriately spaced apart and are each provided with a transverse screw-threaded opening. On the opposite sides of the respective arms 2 are secured the jaws of the wrench, the jaw 3 being longer than the jaw 4 and being longitudinally adjustable. Each of the said jaws is formed on its inner side with a longitudinal recess 6 to receive the outer side of the arm, the flanges 7, which form the sides of the said recesses 6, bearing against the sides of the said arm, as shown. The jaw 4 has an opening 8 to register with the threaded opening of one of the arms, and the jaw 3 has a plurality of such openings 9, 10, 11, and 12, any

one of which may be caused to register with the threaded opening of the arm, according to the extent to which the said jaw 3 is adjusted. The said jaws are secured on the said arms by means of screws 13, the shanks of which are suitably bored from their inner ends to receive a pin 14, to which is connected one end of a pivoted link 15. The inner end of the chain 16 is connected to the said link. The chain-pins 17 project from opposite sides of the chain-links for a suitable extent and are adapted to engage side notches with which the jaws are provided, so that the chain may be connected to the said jaws at any desired adjustment of the chain, according to the diameter of the object around which the chain is passed when the wrench is in use. Each jaw has its outer end serrated on opposite sides and suitably rounded, as at 18, to enable the jaws to firmly grip the smooth surface of a pipe, bushing, or other object.

It will be understood that by placing the screw 13, which secures the jaw 3 to the lever, in one of the adjusting-openings 9 10 11 12 with which the said jaw 3 is provided the latter may be secured at any desired adjustment on the lever, so that its outer end may be either in line with that of the jaw 4 or projected beyond that of the said jaw 4 to any desired extent, according to the difference in the diameters of the two objects to be grasped by the respective jaws.

In Figs. 1 and 2 of the drawings the long adjustable jaw 3 is shown as engaging a pipe *a*, around which the chain is passed, while the shorter relatively fixed jaw is shown as engaging one side of a bushing *b*, the diameter of which greatly exceeds that of the said pipe *a*. The jaw 4, which is relatively fixed, is provided with only a single pair of side notches 19 for engagement by the pin 17 of the chain, one of the said notches being on each side of the said jaw. The longitudinally-adjustable jaw 3, however, has a plurality of pairs of said side notches, one pair for each of the adjusting-openings 9 10 11 12 and respectively numbered 20, 21, 22, and 23. Hence at whatever adjustment the jaw 3 may be placed one pair of its side notches will register with the side notches 19 of the shorter relatively fixed

jaw 4 for engagement by the pins of the chain 16. The notches 21 are deeper than the notches 22 23, and the notches 20 are so deep as to extend entirely through the flanges 7 of the jaw 3. The deepened notches 20 21 clear the chain-pins 17 when the wrench is adjusted as shown in Fig. 1 to allow that portion of the chain between the work and the notches of the jaws engaged by a chain-pin to be straight.

10 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is--

1. A wrench of the class described comprising a lever having a pair of jaws, a chain having one end connected with the lever, said chain and jaws having coacting devices to adjustably connect the chain to the jaws, one of the latter being longitudinally adjustable, for the purpose set forth.

20 2. A wrench of the class described comprising

ing a lever having bifurcated arms, the latter having screw-openings, one of the jaws having a screw-opening to register with that of one of the arms and the other jaw being longer than the first-named jaw and having a plurality of such screw-openings, any one of which may be caused to register with that of the other arm, and screws to secure the said jaws to the said arms, and a chain having one end connected to the lever, said chain and said jaws having coengaging devices to adjustably secure the chain to the said jaws, substantially as described. 25

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 30

JOHN J. LAYTON.

Witnesses:

M. SOWER,

J. W. KEMPER.