

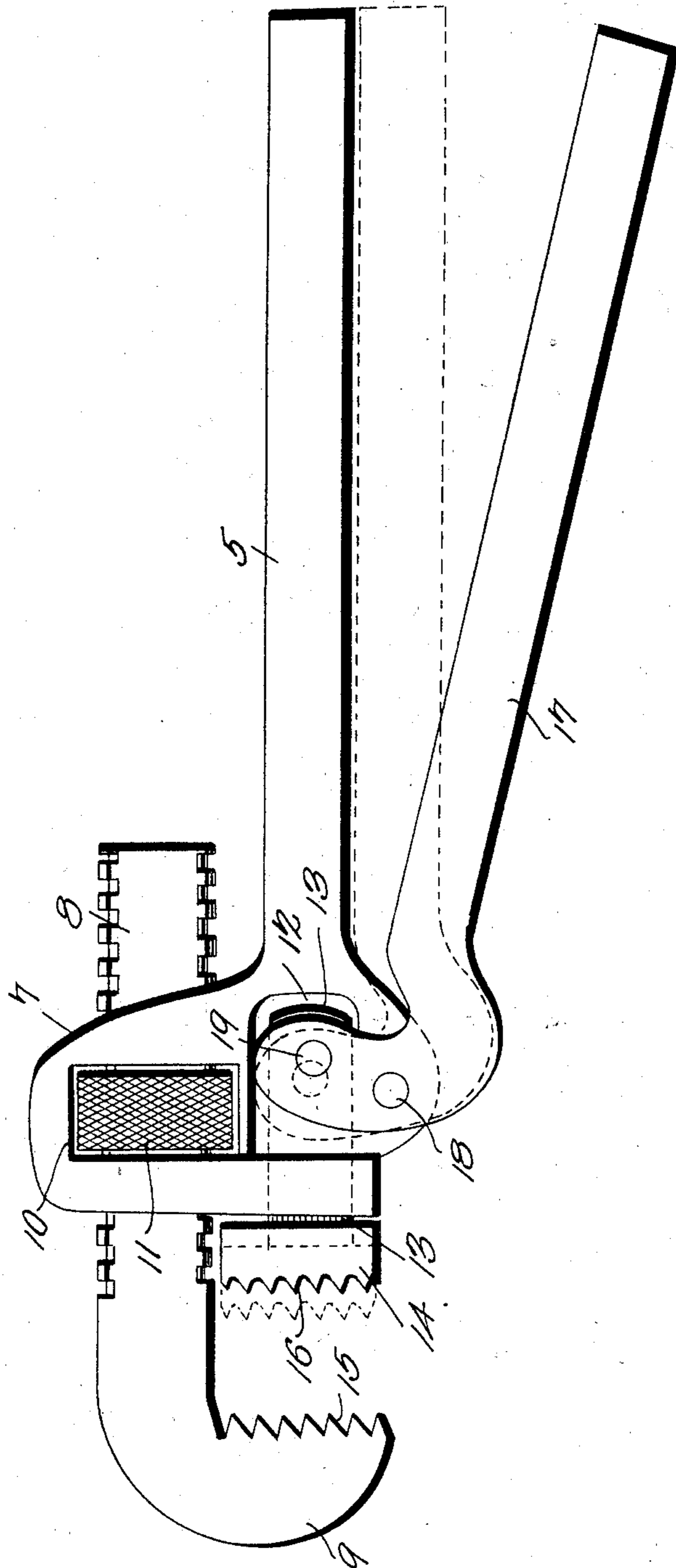
No. 706,753.

Patented Aug. 12, 1902.

W. HOLMES.  
PIPE WRENCH.

(Application filed Mar. 8, 1902.)

(No Model.)



Witnesses  
*E. J. Stewart*  
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# UNITED STATES PATENT OFFICE.

WILLIAM HOLMES, OF PARKERSBURG, WEST VIRGINIA.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 706,753, dated August 12, 1902.

Application filed March 8, 1902. Serial No. 97,331. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM HOLMES, a citizen of the United States, residing at Parkersburg, in the county of Wood and State of West Virginia, have invented a new and useful Pipe-Wrench, of which the following is a specification.

This invention relates to pipe-wrenches, and has for its object the production of an implement of this character of increased efficiency and capable of a greater scope and of wider usefulness, while at the same time being of cheaper construction and of increased durability.

In the drawing illustrative of the invention the figure represents a side view of the improved implement complete.

The implement comprises a main stock or handle 5, having a projecting portion 7 near its inner end provided with an aperture in alinement with the stock 5 and adapted to receive the threaded stock 8 of the outer jaw member 9, as shown. Within the projection 7 is formed a transverse aperture 10, in which a ring-nut 11 fits and engages the threaded stock 8 of the outer jaw member within this aperture, as shown. The outer surface of the ring-nut 11 is "milled," as shown, to provide for the finger-grip in the usual manner. By this means the outer jaw member may be moved inward and outward in the usual manner.

Formed transversely through the stock 5 near its outer end is an aperture 12, and connecting this aperture through the end of the stock is another or longitudinal aperture affording means for the stock 13 of the nether jaw member 14 of the implement. The adjacent faces of the two jaw members are provided with grip serrations 15 16 of the usual form, as shown.

The nether jaw member 13 14 is slidable in the aperture provided for it in the end of the stock 5, and means are provided for forcefully actuating this jaw, which means con-

sists of a lever 17, fulcrumed at 18 to the stock 5 and pivotally united at 19 to the inner end of the shank 13 of the nether jaw and extended rearwardly and conformed to the handle portion of the stock 5, as shown. By this means the short nip of the lever will be utilized to move the nether jaw member, and the latter is capable of being actuated with great force, so that any article with which the wrench is engaged will be "pinched" with a very strong force.

This makes a very simple and effective implement, admirably adapted to the purposes for which it is adapted to be employed.

The nether jaw at all times moves in lines in alinement with the stock and maintains its position parallel to the outer jaw 9, which is a great advantage in implements of this character, as its work is much more efficient than if the line of the jaws were constantly changing at each adjustment.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a wrench, a stock having an enlarged end provided with a longitudinal and a transverse aperture intersecting each other, a longitudinally-slidable jaw and an operating-nut for the same mounted in said apertures, a longitudinally-slidable nether jaw mounted in a longitudinal recess at the front end of and in alinement with the stock, and an operating-lever pivotally connected with the latter and having pivotal connection with the nether jaw through an opening formed transversely in the stock, substantially as set forth.

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

WILLIAM HOLMES.

Witnesses:

GEO. W. JOHNSON,  
W. E. McDOUGLE.