No. 660,963.

Patented Oct. 30, 1900.

J. P. KIBLER.

WRENCH.

(Application filed June 5, 1900.)

(No Model.)

Fig. 1.

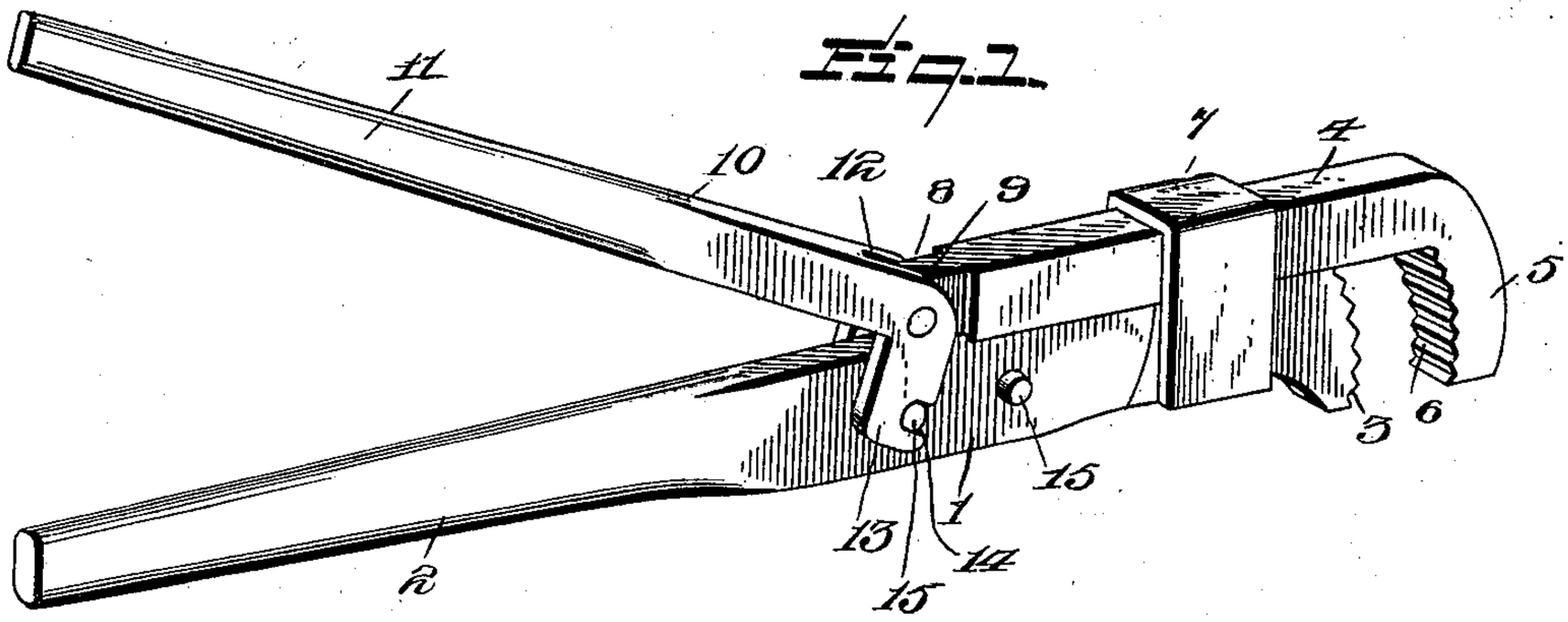


Fig. 2.

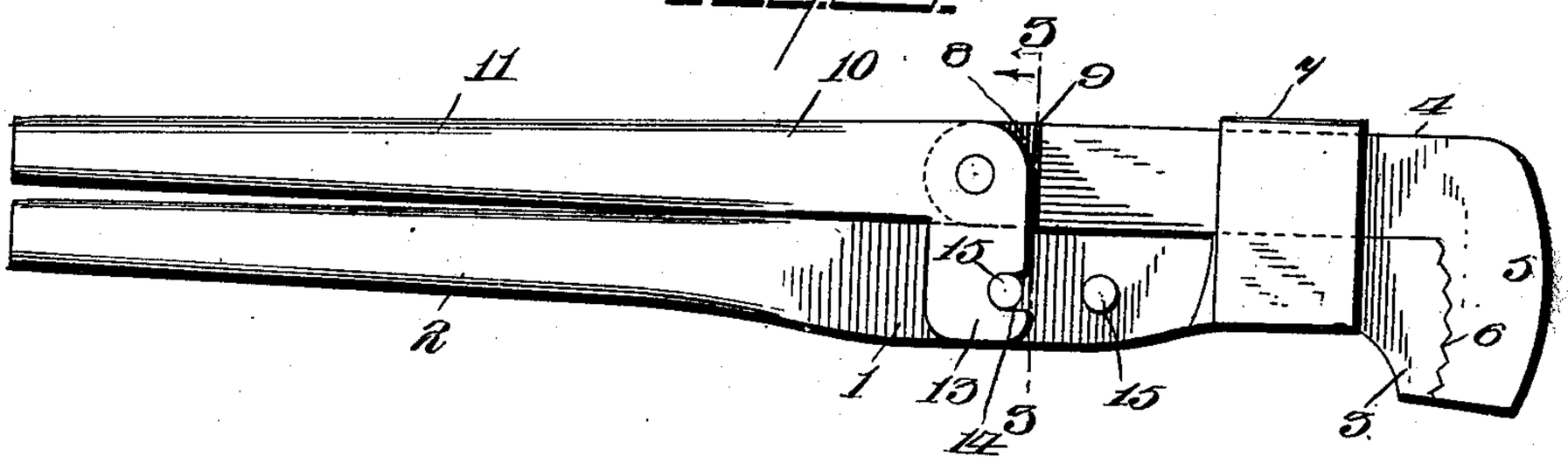
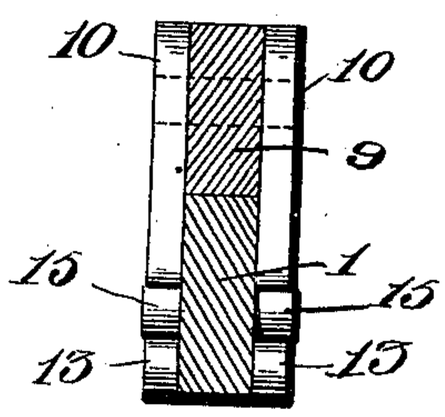


Fig. 3.



Witnesses.
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WRENCH.

SPECIFICATION forming part of Letters Patent No. 660,963, dated October 30, 1900.

Application filed June 5, 1900. Serial No. 19,152. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. KIBLER, a citizen of the United States, residing at Eura, in the county of Page and State of Virginia, have invented a new and useful Wrench, of which the following is a specification.

This invention relates to wrenches; and one object thereof is to provide a simple and inexpensive device of this character that may be used with equal advantage upon various-shaped nuts or pipes.

A further object is to provide improved means for quickly and easily adjusting the jaws to different-sized nuts or pipes.

The preferred form of invention is described in the following specification and shown in the drawings which accompany and form a part thereof, and in which—

Figure 1 is a perspective view showing the jaws in open position. Fig. 2 is a side elevation of the same, showing the jaws closed. Fig. 3 is a cross-section on the line 3 3 of Fig. 2.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

In carrying out the invention as shown a stationary shank 1 is provided, one end portion of which is rounded to form a handle 2, the other end being curved and serrated to form a stationary jaw 3.

Slidably mounted upon the stationary shank 1 is the movable shank 4, having at one end an offset curved arm which forms a movable jaw 5, the inner face of said arm being serrated, as at 6, and coacting with the stationary jaw 3. The movable shank is preferably mounted upon the stationary shank by means of a yoke or loop 7, which is fastened to the stationary jaw 1 and through which the movable shank 4 slides. The end of the movable shank 4 which is opposite to the jaw 5 is cut away, as at 8, said cut-away portion being perforated to form a hinge-eye 9, to which is pivotally connected the bell-crank-operating lever 10. The long arm of this lever is rounded to form a handle 11, and the short arm is bifurcated, as at 12, to form a pair of engaging arms 13, that embrace the stationary shank 1. These engaging arms are each provided on the side nearest the jaws with the notches 14. Projecting from both sides of the stationary shank 1 are the fulcrum-pins 15, which are adapted to engage in the notches 14 of the arms 13. For the purpose of obtaining a greater adjustment of the jaws a plurality of these pins are provided, and it will be evident that the arms 13 may be engaged over any pair of pins desired.

In operating the wrench the jaws are placed over the pipe or nut, and the arms 13 are engaged over one of the pairs of projecting fulcrum-pins. The lever 11 is then pressed toward the handle portion 2 of the stationary shank, whereupon the jaws will firmly grip the article to be operated upon.

It will thus be seen that a very simple and inexpensive wrench is provided that can be easily and quickly adjusted to the article that is to be operated upon and that can be used with equal advantage upon a pipe or nut.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what I claim, and desire to secure by Letters Patent, is—

1. In a wrench, a pair of relatively fixed and movable shanks provided with coacting jaws, one of said shanks being provided with a handle, and a lever pivotally connected with the other shank and provided with a bifurcated portion having a shiftable fulcrum connection with the first-named shank upon both sides thereof.

2. In a wrench, a pair of relatively fixed and movable shanks provided with coacting jaws, one of said shanks being provided with a handle, and a bell-crank lever pivotally connected at its angle with the other shank and provided with a bifurcated arm detachably and adjustably fulcrumed to the first-named shank upon both sides thereof.

3. In a wrench, the combination with a shank having a stationary jaw and provided with a handle portion, of a movable jaw mounted upon the stationary shank, a series

of fulcrum projections arranged on both sides of the stationary shank, and a lever pivotally connected with the movable jaw and having a bifurcated portion the arms of which embrace the stationary shank and have detachable engagement with certain of the fulcrum projections, substantially as described.

4. In a wrench, the combination with a stationary shank one end of which is provided with a jaw, of a movable shank slidably mounted upon the stationary shank and having a jaw, a series of fulcrum-pins projecting upon both sides of the stationary shank, and a bell-crank lever pivoted to the movable shank, one of the arms of said lever forming a handle, the other arm being bifurcated to embrace the stationary shank and having a detachable engagement with certain of the fulcrum-pins, substantially as described.

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

JOHN P. KIBLER.

Witnesses:
J. S. PRICE,
F. W. WEAVER.