

No. 885,322.

PATENTED APR. 21, 1908.

J. M. COCHRAN.
PIPE WRENCH.

APPLICATION FILED SEPT. 12, 1907.

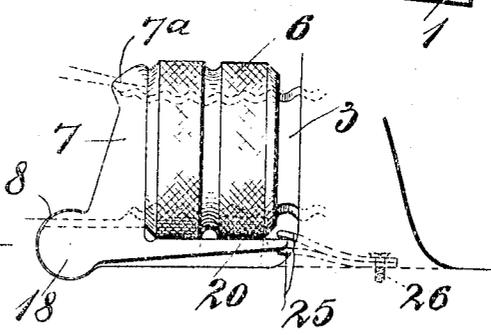
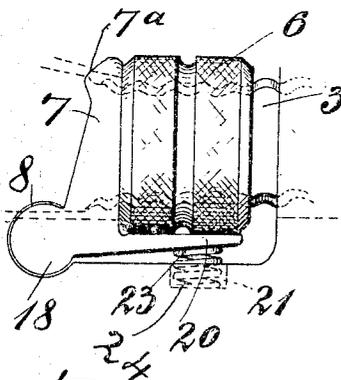
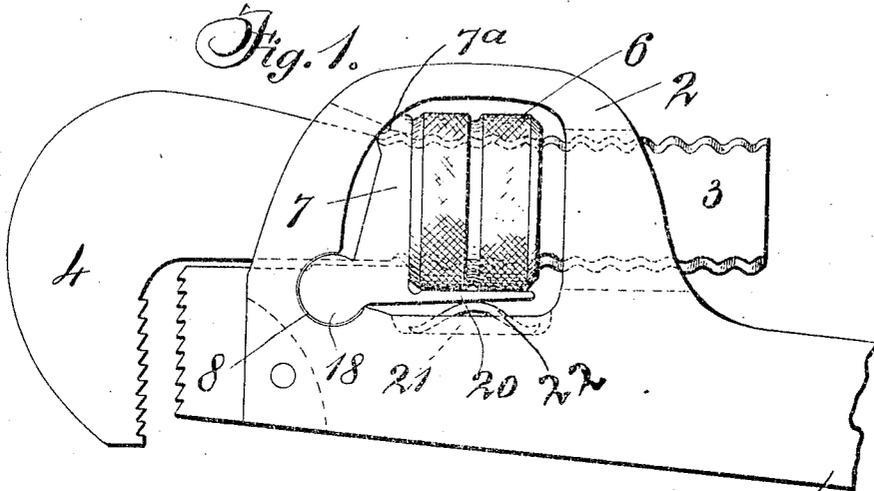


Fig. 2.

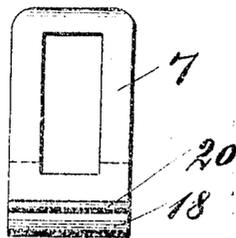


Fig. 3.

Fig. 4. James M. Cochran.
INVENTOR

WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES M. COCHRAN, OF PADUCAH, KENTUCKY.

PIPE-WRENCH.

No. 885,322.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed September 12, 1907. Serial No. 392,507.

To all whom it may concern:

Be it known that I, JAMES M. COCHRAN, a citizen of the United States, residing at Paducah, in the county of McCracken and State of Kentucky, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention relates to pipe wrenches and particularly is an improvement on a wrench shown in my Patent No. 597,762, dated January 25, 1898.

The object of the present invention is to improve the construction of the wrench with respect to the rocker which holds the movable jaw, and with respect to the spring which operates the rocker.

In my said patent there is shown a spring which bears against the threaded shank of the movable jaw and tends to close the jaws, and in order to attach such spring it is necessary to drill the same and also to drill and to tap the screw hole, and to fasten the spring in place with a screw.

In the present invention the shape of the rocker is modified so that a spring can be seated thereunder, to do the work, without boring or tapping a screw hole and without the use of a screw.

The improvement is illustrated in the accompanying drawing, in which,

Figure 1 is a side view of the wrench, showing one form of spring. Figs. 2 and 3 are similar views showing modified forms. Fig. 4 is a rear end view of the rocker or oscillating collar.

In the drawings, 1 indicates the handle, 2 the recessed eye, and 3 the threaded shank of the outer jaw 4, the same as in my said patent. Said shank 3 receives a nut 6 which is located in the recess of said eye and this nut bears against the rocking collar 7 which has a knuckle 18 held within a recess 8 formed behind the fixed jaw, also as shown in my said patent.

One of the new parts provided by the present invention is an extension 20 projecting backwardly from the inner side of the collar 7 and at a right angle to the face of said collar against which the nut bears, said nut fits within the angle between the collar 7 and the

extension 20, with said extension under the nut. Under or within said extension the handle bar is recessed or cored out as indicated at 21 to receive the leaf spring 22 which is bent and set within said recess and which bears upwardly against the under side of the extension 20 and thereby tends to turn the rocker on its pivot so as to swing the jaws to closing position. The spring 22 is held in position by its own elasticity and by the sides of the recess and the extension referred to, and consequently no drilling or screws are necessary to hold it in place. The nut 6 is also supported in proper and desired position.

Another feature of the invention is that on the face of the collar 7, where it bears against the eye 2, it is provided with a bead or raised part 7^a which gives a better fit than would otherwise be the case since it may be readily ground to fit in case of any slight imperfection of the casting; and it also provides openings at the sides of the collar, through which dirt can escape.

In the modified form shown in Fig. 2 instead of the leaf spring 22, a circular recess 23 is made and a coil spring 24 is set in this recess, and bears against the extension 20, with the same effect as the spring above described.

In the modified form shown in Fig. 3, instead of the springs above referred to, I use a double spring 25 which is attached to the shank by a screw 26 and bears at its ends on the upper and lower sides of the extension 20, the end of which projects between the ends of the spring. This double spring acts both as a closing and as an opening spring, tending normally to hold the pivoted outer jaw in intermediate position.

I consider the form shown in Fig. 1 the preferable form. The operation is the same as the patented wrench, the outer jaw being adjusted by means of the nut 6, and opening and closing, when applied to the work, by rocking on the pivot of the rocking collar 7.

I claim:—

The combination with a fixed jaw and handle, having a recessed eye in the back, of an L-shaped rocker in the eye, the outer jaw having a threaded shank extending through one branch of the rocker, a nut on the shank

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behind said branch, the rocker being pivoted
at its outside angle or corner in the front cor-
ner of the eye and having one of its branches
extending under the nut which rests upon
5 said branch and fits in the inside angle of the
rocker, and a spring between the fixed jaw
and said branch.

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

JAMES M. COCHRAN.

Witnesses:

STEPHEN FRENCH,
G. A. CURRY.