March 6, 1928. 1,661,402

J. F. ASTLEY

WRENCH

Filed April 1, 1925

Fig. 1.

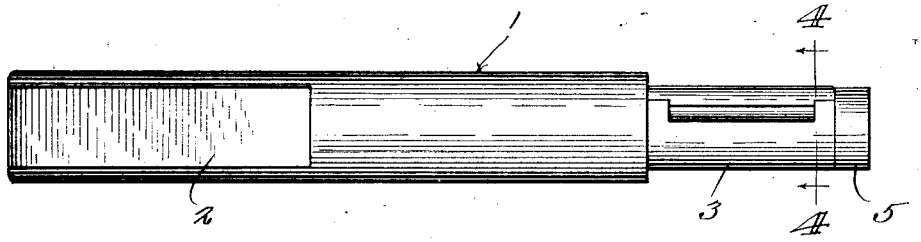


Fig. 2.

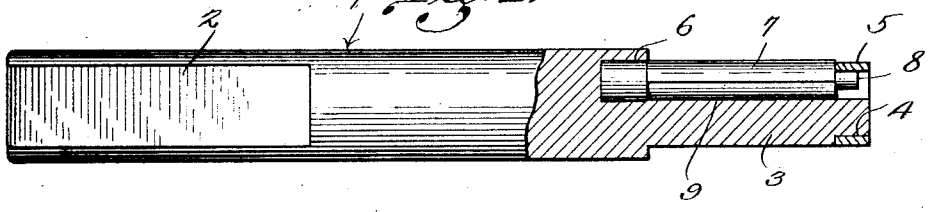


Fig. 3.

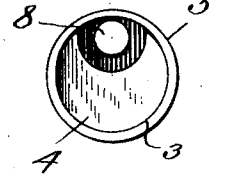


Fig. 4.

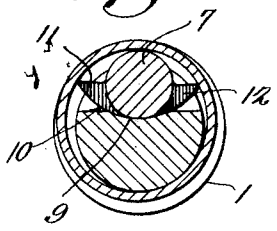
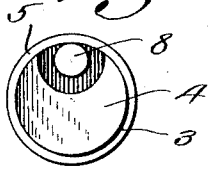


Fig. 5.



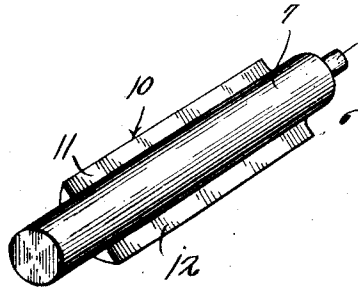


Fig. 6.

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Patented Mar. 6, 1928. 1,661,402

UNITED STATES PATENT OFFICE.

JAMES F. ASTLEY, OF CAMDEN, NEW JERSEY.

WRENCH.

Application filed April 1, 1925. Serial No. 19,942.

This invention relates to pipe wrenches which may be readily placed in the end of a pipe or nipple and caused to positively grip the same so that it may be revolved in either direction.

The object of the invention is to provide a gripping member which will be effectively engaged with the pipe in connection with which it is used by turning the handle of the wrench thus permitting the pipe to be revolved without marring the exterior surface, said wrench also being especially useful in the removal of the broken nipples where it is impossible to place the pipe wrench on it.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a side elevation of a wrench constructed in accordance with this invention;

Fig. 2 is a similar view with parts broken out and in section;

Fig. 3 is an end elevation;

Fig. 4 is a sectional view through the tool showing the same as inserted within a pipe.

Fig. 5 is a view similar to Fig. 3; and

Fig. 6 is a detail perspective view of the cam carrying member.

In the embodiment illustrated an elongated body 1 is shown equipped at one end with a flat surface 2 adapted to receive a wrench or the chuck of a bit. The other end of the body member 1 is reduced as shown at 3, the terminal of said reduced portion being reduced as shown at 4 to receive a collar 5 for a purpose presently to be described.

The member 1 is provided at the inner end of its reduced extension 3 with a socket 6 to receive one end of a cam carrying spindle 7, the other end of which is reduced to form a pintle 8 which extends into the cam locking collar 5, which collar is securely held engaged with the reduced end 4 of the body member by means of its cam-like engagement with said extension 4.

The spindle 7 is mounted to rock in a seat 9 formed in one face of the extension 3 and said spindle is equipped with a cam 10 which includes diametrically opposite wings 11 and 12 having biting edges designed to engage the interior of the pipe or nipple to be manipulated and securely grip said nipple. This is accomplished when the nipple is inserted over the smaller end of the tool and by turning the handle of said tool slightly one of these biting edges of the wings 11 and 12 will engage the interior of the nipple or pipe and securely lock it engaged with the tool. A slight turn of the tool in the opposite direction will release the cam from the nipple.

I claim:—

A pipe wrench including a body portion having a reduced end portion defining a shoulder at one end of the reduced end portion, said shoulder having an opening, said reduced end portion being cut away, a gripping member having an end disposed in the opening of the shoulder and having lateral wings formed with curved outer surfaces to rock in the cut away portion of the reduced end, said wings having substantially sharp lateral edges, said gripping member having a reduced outer end, and a collar positioned over the outer extremity of the reduced end portion, and over the reduced end of the outer gripping member to removably secure the gripping member to the body portion.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

JAMES F. ASTLEY.