

No. 705,054.

Patented July 22, 1902.

W. H. ENDERTON.

PIPE WRENCH.

(Application filed Oct. 5, 1901.)

(No Model.)

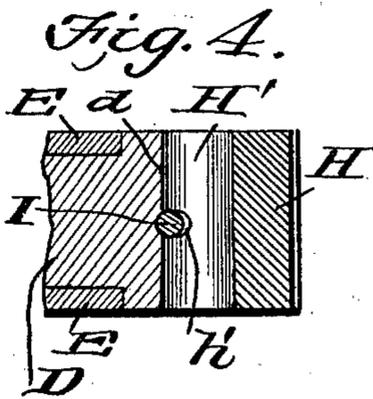
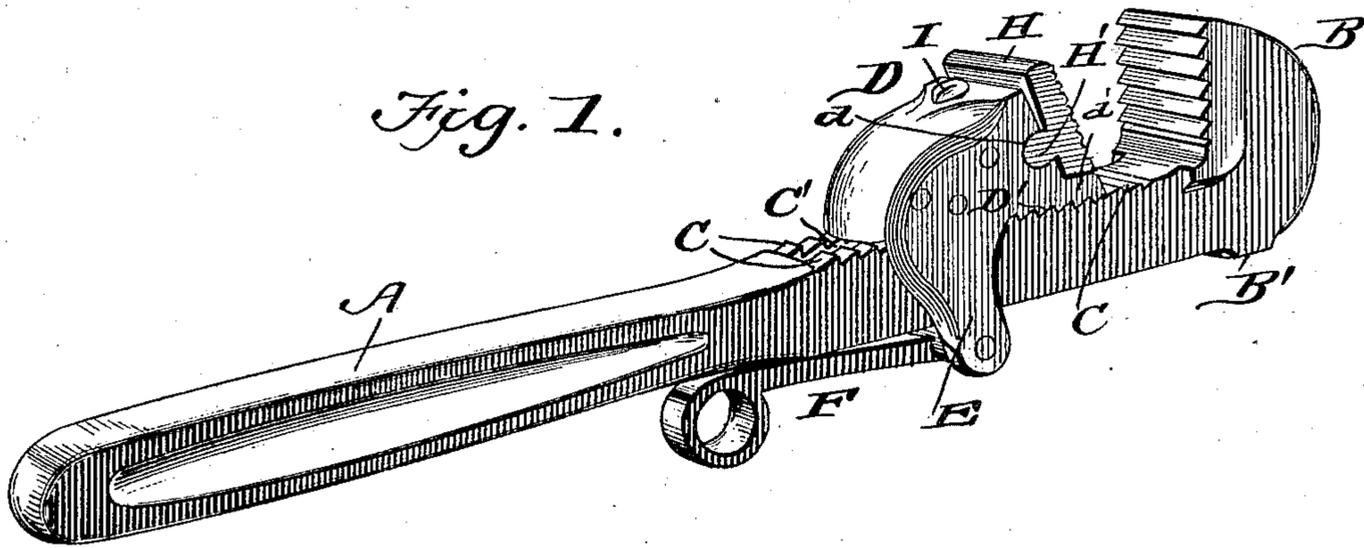


Fig. 2.

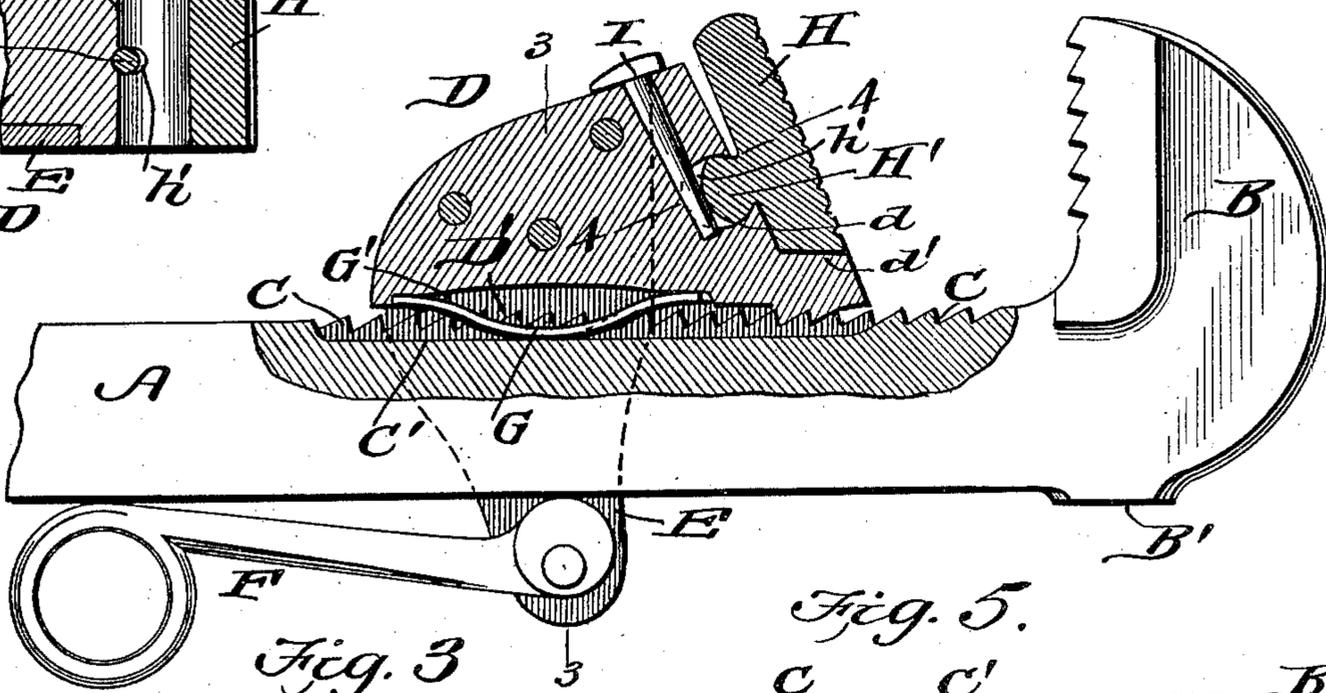


Fig. 5.

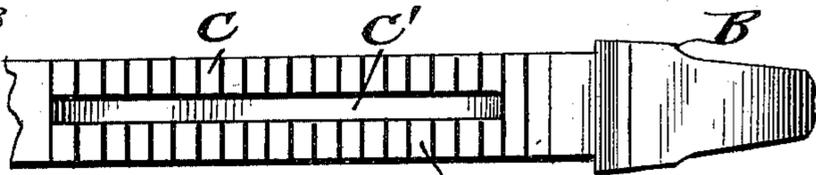
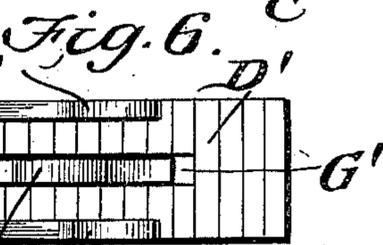
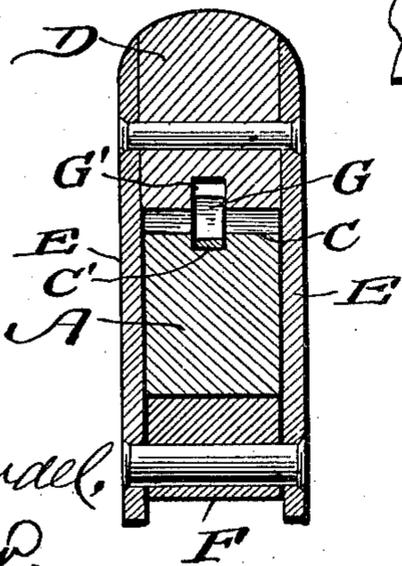


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 705,054, dated July 22, 1902.

Application filed October 5, 1901. Serial No. 77,717. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY ENDERTON, a citizen of the United States, residing at Cambridge, in the county of Guernsey and State of Ohio, have invented a new and useful Improvement in Pipe-Wrenches, of which the following is a specification.

This invention relates generally to pipe-wrenches, and more particularly to pipe-wrenches capable of a quick and accurate attachment to any and all sized pipes, the object of the invention being to provide a wrench of this kind which will avoid the use of screws, and another object is to provide a wrench in which the movable jaw will automatically accommodate itself to the pipe upon which it is to operate and from which it will become readily disengaged the moment pressure is released.

With these objects in view the invention consists in the peculiar construction of the various parts and their novel combination and arrangement, all of which will be fully described hereinafter in the specification and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view of the wrench constructed in accordance with my invention. Fig. 2 is a sectional side view. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Fig. 2. Fig. 5 is a detail plan of the forward end of the handle-section, and Fig. 6 is an inverted view of the movable head.

In carrying out my invention I employ a combined shank and handle A, which has a rigid jaw B formed integral therewith at the forward end, the lower portion of said rigid jaw being flat, as shown at B', to provide a hammer. The upper face of the shank is formed with parallel rows of ratchet-teeth C, which rows are arranged at the edge of the shank thereby forming a central groove C'. The movable headpiece D is adapted to slide upon the ratchet-faced shank, the under side of the headpiece having ratchet-teeth D', corresponding to the ratchet-teeth C upon the shank, and this sliding head is guided upon the shank by means of the depending side plates E, rigidly attached to the sliding head at each side and extending below the

lower edge of the shank, and between the extending ends of the side plates is pivoted a cam-lever F, the head thereof being adapted to bear against the under side of the shank and forcibly hold the sliding block locked upon the shank in any adjustment desired, and in order to disengage the said sliding head and shank the moment the cam-lever is thrown down I employ a spring G, located within the recess G', produced in the sliding head adjacent to the rear end, said spring traveling in the groove C' between the rows of ratchet-teeth C. A rocking gripping-jaw H is pivotally connected to the forward end of the sliding head D at the center of the same, said jaw having its forward face toothed or serrated and adapted to coact with the toothed or serrated face of the fixed jaw for the purpose of gripping the pipe. The rear face of the rocking jaw is formed with a transverse rib H', essentially circular in cross-section and tapering slightly toward one end, said rib being adapted to fit into an essentially circular groove d, produced in the forward end of the head D, said groove tapering to correspond with the taper of the rib. The rib is also notched centrally, as at h', to receive a locking-pin I, passing downwardly through the head D and entering the groove, thereby holding the rocking jaw against lateral movement. The forward end of the head is cut away, providing a shoulder d', upon which the lower end of the rocking jaw rests. In operation the cam-lever is thrown upon the sliding head, adjusted so that the locking-jaw will contact with the pipe, and by being pivoted the said jaw will readily accommodate itself to the pipe, so that a tight grip is had. The cam-lever is then thrown up against the shank, securely locking the sliding head upon the shank, and the wrench is then ready for operation. The moment the cam-lever is thrown down the spring disengages the sliding head thereon. The shank and the jaw H being pivoted centrally will readily disengage itself from the pipe the moment the sliding head is released. It will then be seen that I provide a highly efficient and exceedingly simple construction of pipe-wrench, the action of which is exceedingly quick and easily effected.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent of the United States, is—

- 5 1. The combination with the fixed jaw and shank of the movable head having a transverse groove, a rocking jaw having a rib adapted to fit in the said groove and means for locking the rocking jaw and head and means for locking the movable head and shank, substantially as described.
- 10 2. The combination with the fixed jaw and shank, of the movable head and means for locking the same, the forward end of the said

head being cut away and grooved transversely a gripping-jaw adapted to fit into the cut-away portion and provided with a transverse 15 rib having a central notch and a pin passing down through the head and engaging said notch to lock the rib in the groove, substantially as shown and described.

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