

(No Model.)

G. W. HAMMOND.  
PIPE WRENCH.

No. 440,564.

Patented Nov. 11, 1890.

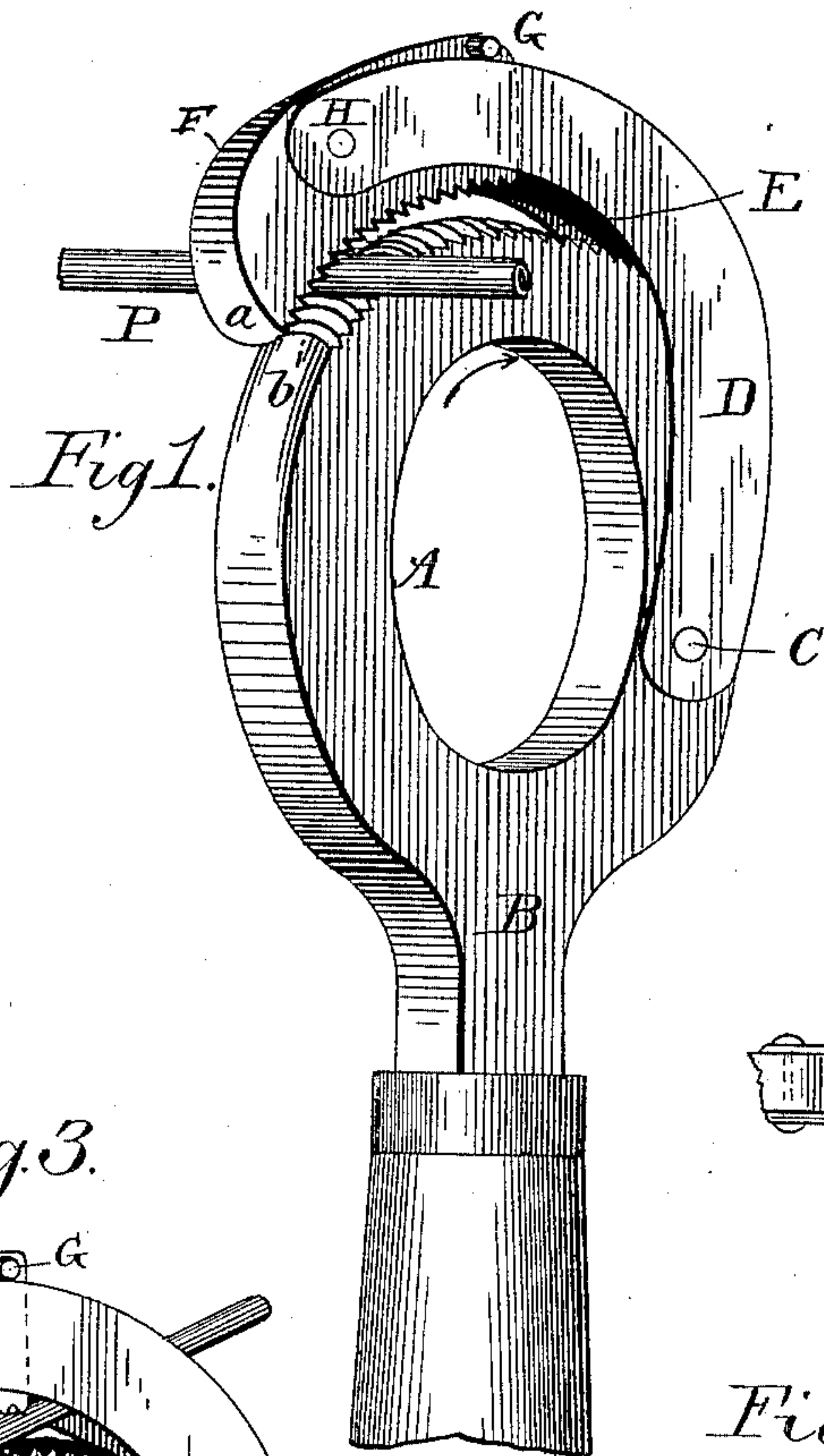


Fig. 4.

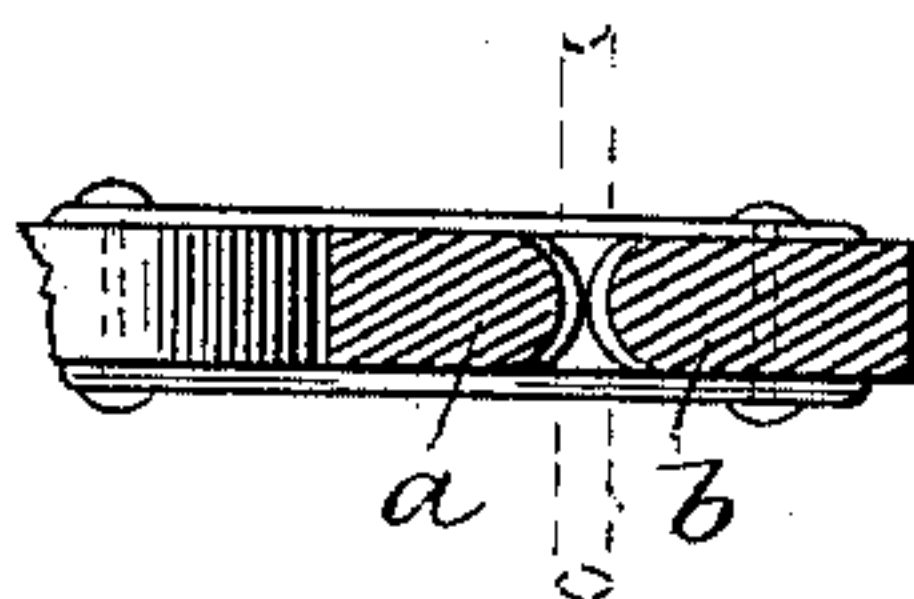


Fig. 3.

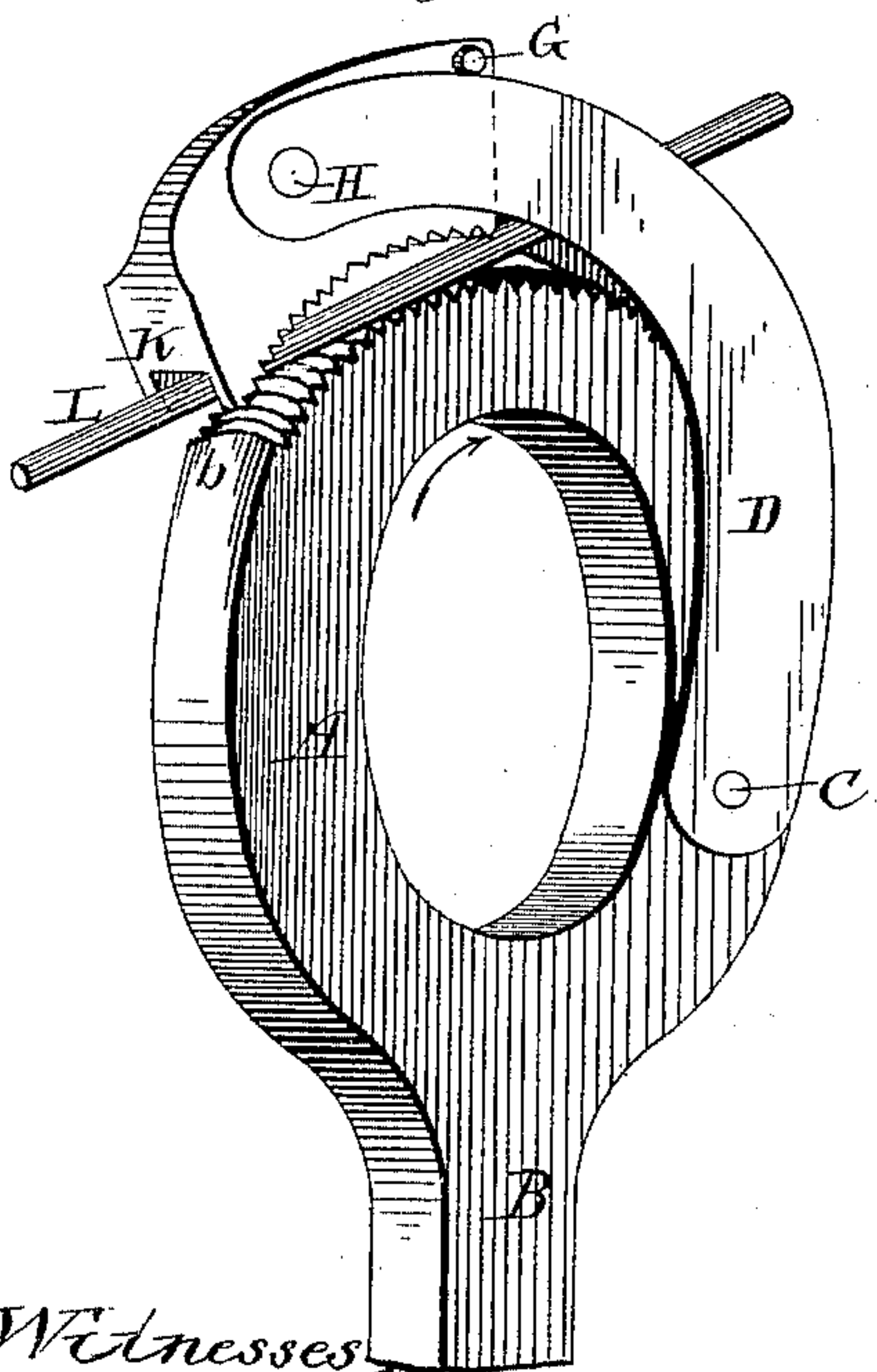
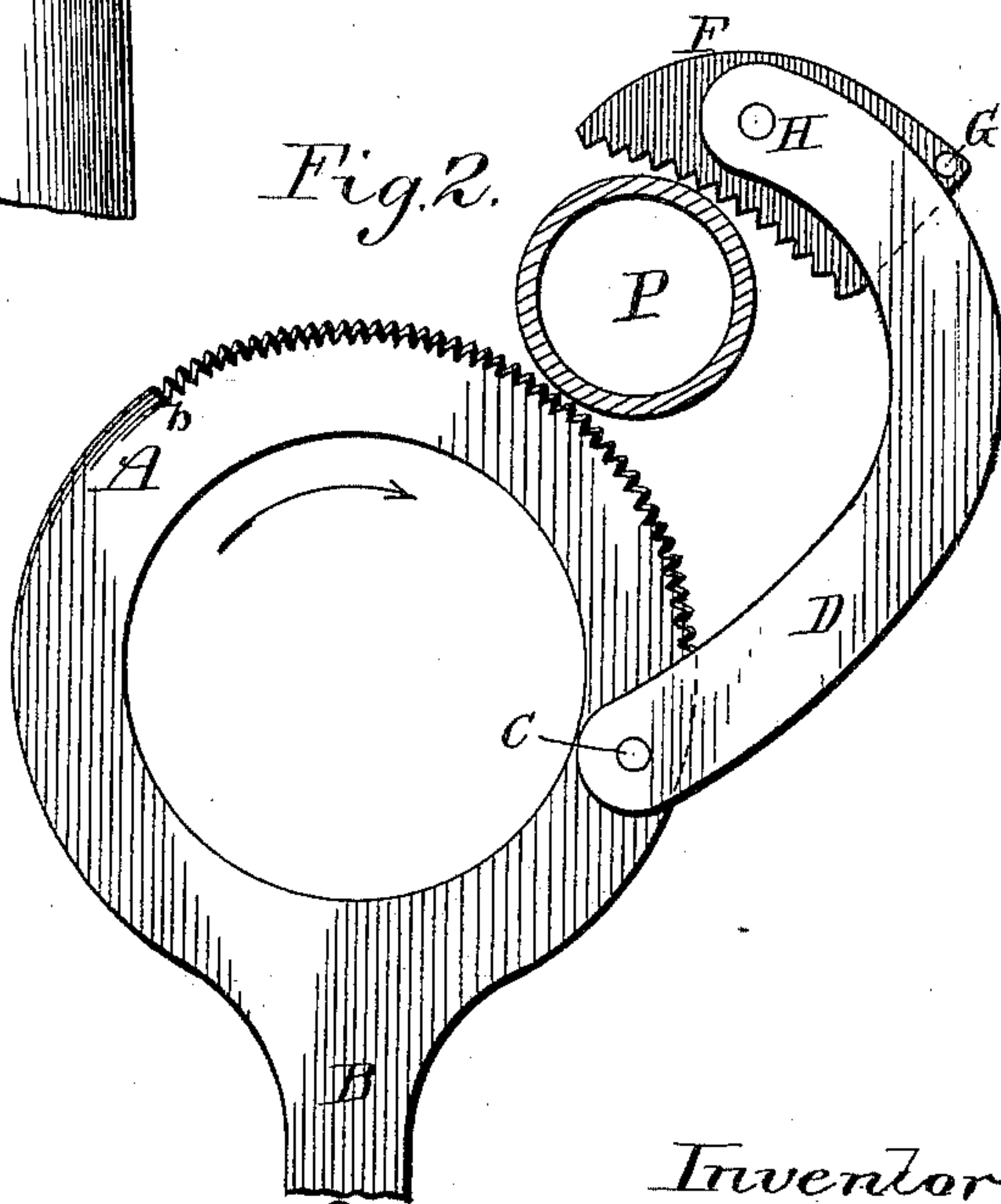


Fig. 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

GLEN W. HAMMOND, OF WELLSBOROUGH, PENNSYLVANIA.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 440,564, dated November 11, 1890.

Application filed July 20, 1888. Serial No. 280,468. (No model.)

*To all whom it may concern:*

Be it known that I, GLEN W. HAMMOND, a citizen of the United States, residing at Wellsborough, in the county of Tioga and State of Pennsylvania, have invented certain new and useful Improvements in Pipe-Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in pipe-wrenches, and has for its especial object to provide a wrench which, within reasonable limits, shall be capable of automatically adjusting itself to pipes of various diameters.

In the accompanying drawings, illustrative of my invention, Figure 1 is a perspective view of my improved wrench, and represents it as operating upon a pipe of small diameter. Fig. 2 is a front view thereof, and represents it as operating upon a pipe of comparatively large diameter. Fig. 3 is a view of one form of my invention as used in handling wire, and Fig. 4 represents in sectional detail the preferred configuration of the jaw-teeth.

Similar letters of reference indicate similar parts in all the views.

A is the annular frame or fixed jaw of my wrench, serrated on its outer periphery, as shown, and provided with a handle B. Pivoted to the frame at C is a swinging link, consisting of the arms D E, between the outer ends of which is pivoted the movable jaw F, serrated upon its inner face, as shown, and provided with the back-stop projection G for limiting its movement on the pivot H.

In the form of my invention illustrated in Fig. 3 the pivoted jaw F is bifurcated at K, so as to bestride the frame A when in operation and prevent the wire L from slipping from between it and the frame.

The parts being constructed and arranged as described, the operation of my invention is as follows: The wrench being opened sufficiently to receive the pipe P, the pipe is inserted between the jaws and the jaws are closed upon it. A movement of the handle around toward the right in the direction indicated by the arrow then causes the jaw F to close upon the pipe with a force propor-

tional to the power applied and to firmly grasp it, whereupon a further movement in the same direction will cause the pipe to turn as far as may be desired. When the wrench is opened to its widest capacity it will admit a pipe approximately of the diameter of the annular frame A, and it will operate upon any pipe of smaller diameter with the same effectiveness, no readjustment of the jaws being necessary, as they close automatically upon any pipe placed between them, without regard to size, as soon as the power is applied to the handle. It will thus be seen that the wrench may be applied to pipes varying considerably in size, one after another, without necessitating any delay for adjustment, thus effecting a considerable saving of time. In operating upon a pipe of small diameter the pipe is placed between the frame A and the jaw F, toward the outer end of the latter, as shown in Fig. 1, and the tendency of the jaw F to turn around upon the pivot H, and thus release the pipe, is prevented by the back-stop G, which comes in contact with the arms D E, and thus limits the movement of the jaw F in that direction.

The peculiar construction of my device enables me to obtain a sufficiently firm hold upon the pipe by rounding off the edges of the gripping-faces of the jaw F and frame A, as shown at *a b*, Fig. 4, thus causing the pipe less injury than it receives from the sharp outer corners of the serrated jaws of the ordinary form of pipe-wrench.

It is obvious that the use of my wrench is not confined to pipes alone, but it may be employed to turn rods or bolts or round nuts where the common wrench has no effect.

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

In a wrench, the combination, with a stationary jaw, of a pivoted jaw, the gripping-faces of both of said jaws having teeth or serrations rounded off at their sides, substantially as shown and described.

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

GLEN W. HAMMOND.

Witnesses:

HENRY SHERWOOD,  
E. H. OWLETT.