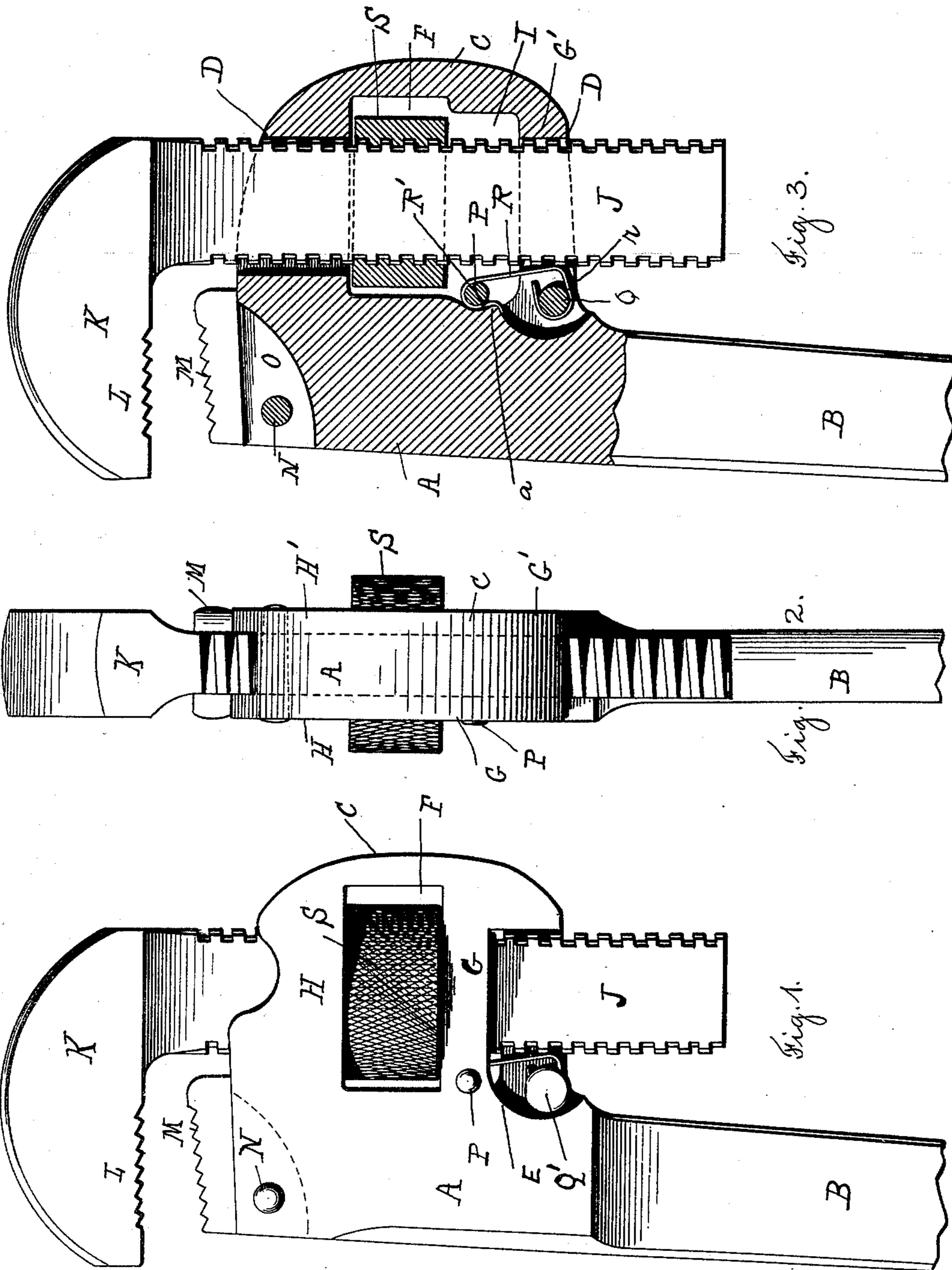


(No Model.)

R. T. TORKELSON.
PIPE WRENCH.

No. 509,408.

Patented Nov. 28, 1893.



Witnesses
Chas. F. Schuchert
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UNITED STATES PATENT OFFICE.

REINHARD T. TORKELOSON, OF WORCESTER, MASSACHUSETTS, ASSIGNOR
TO JOHN C. SPIERS, OF SAME PLACE.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 509,408, dated November 28, 1893.

Application filed March 18, 1893. Serial No. 466,731. (No model.)

To all whom it may concern:

Be it known that I, REINHARD T. TORKELOSON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Pipe-Wrenches, of which the following is a specification.

The aim of this invention is to provide a new and efficient wrench especially adapted for use as a pipe-wrench, which shall be simple, strong, and of few parts.

To this end, the invention consists of the device described and claimed in this specification, and illustrated in the accompanying sheet of drawings, in which—

Figure 1 is a side elevation of my improved wrench. Fig. 2 is a rear elevation of the same, and Fig. 3 is a view similar to Fig. 1, the operating parts of the wrench being shown in section.

Referring to the drawings, and in detail A represents the main part or body of my wrench, and this body has an extended handle B. This body portion A is extended backwardly as at C, and this backwardly extending portion has a rectangular hole D formed through the same, at a slight angle to the handle B. One side of this extended piece C is cut away as at E, and the other side is cut away as at I, whereby there will be left two bridge pieces G and G', each so placed that the inside of the same can be got at from the opposite side of the wrench, by which means, the pins hereinafter referred to, can be very easily inserted in their places. Through this extended portion C, is cut a rectangular hole F, whereby there will be formed above the same two bridge pieces H and H', which are connected together at their ends, and to the bridges G and G', which parts comprise the extension C of the wrench.

Fitting in the rectangular hole D is the extended portion J of the jaw K, which extended portion J is made rectangular in section, so as to fit loosely into the hole D, and this rectangular portion J of the jaw is screw-threaded, as shown, on its narrow sides. The jaw K has teeth L cut in the under side of the same, and the stationary jaw is grooved or cut away, as shown, and fitting into the cut-

away portion is the tang or shoulder O of the removal jaw M, and this removable jaw M may be held in place by a pin N, which is driven in through the piece A as shown in the drawings.

Inserted in the bridge G is a pin P, which is thereby in the recess I; and inserted in the bridge G' is another pin Q, which is thereby in the recess E, as shown, and has the head Q'. Fitting around these pins P and Q is a spring R, which is bent, as shown at R' to engage a small rib or projection *a* on the part A, and then to form a loop *r*, which fits around the pin Q under the head Q'. By this means, the spring R will bear on the part J, and will tend to normally force the jaws L and M together, the threaded shank J rocking in the hole D. By this construction, it will be seen that the spring and pins can be very quickly and readily set in place, and that the spring is practically housed within the body portion of the wrench, and is so located that the spring will not be deranged or injured while the wrench is being used. Loosely fitted in the slot F is a nut S, as shown, into which the part J is tapped, and by means of which, the relation of the jaw L to the jaw M can be adjusted, as the part J of the movable jaw is held from turning by the rectangular hole D. By this means, it will be seen that I have provided a very simple and strong pipe-wrench, as the jaw L will be capable of considerable play in the piece C, and thereby can be moved so that the pipe or object, to which the wrench is applied, will be tightly nipped between the two jaws. Also, it will be seen that the spring R tends to normally force the jaws together, so that the same will tightly bite the pipe.

The details and arrangement of parts herein shown and described may be greatly varied by a skilled mechanic without departing from the scope of my invention, as expressed in the claims.

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

1. The combination in a wrench of the body portion having a stationary jaw and an integral extension, said extension having holes F and D, the movable jaw having the extended

threaded portion fitted into said hole D, the nut S fitted into said hole F and engaging the threaded portion of the movable jaw, the extension being cut away on one side, and a
5 spring R arranged below the nut in the cut away portion of the extension, and bearing against the threaded portion of the movable jaw, and tending normally to force the jaws together, the screw-threaded portion of the
10 movable jaw being loosely mounted in the hole D to permit of this movement, substantially as described.

2. The combination in a wrench of the body portion having the fixed jaw and the integral
15 extension, the movable jaw having an extended threaded shank fitted loosely in said extension, a slot or aperture in said extension, a nut fitted into said slot, and threaded on to the extended shank of the movable jaw, the
20 pins P and Q mounted in said extension below the nut, and the spring R, said spring being bent around the pin P, and bearing against the body portion of the wrench, and having a loop r fitted around the pin Q, where-
25 by the tendency of the spring is to bear on the extended threaded shank of the movable

jaw so as to normally force the jaws together, substantially as described.

3. The combination in a wrench of the body portion A having the extension C, the holes 30 D and F cut in said extension C, and the recesses E and I also cut into said extension C, whereby there are left united bridge pieces H and H', and G and G', the pin P inserted in the bridge G, and the pin Q inserted in the
35 bridge G', the spring R mounted on said pins, the movable jaw K having the extended threaded shank J fitted in said hole D, and the nut S fitted in said hole F, and engaging the threaded shank J, said shank J being 40 loosely mounted in the hole D, said spring R bearing on said shank, so as to normally force the jaws of the wrench together, substantially as described.

In testimony whereof I have hereunto set 45 my hand in the presence of two subscribing witnesses.

REINHARD T. TORKELOSON.

Witnesses:

LOUIS W. SOUTHGATE,
E. M. HEALY.