

(No Model.)

C. O. WOODS.
PIPE WRENCH.

No. 592,036.

Patented Oct. 19, 1897.

FIG. 1.

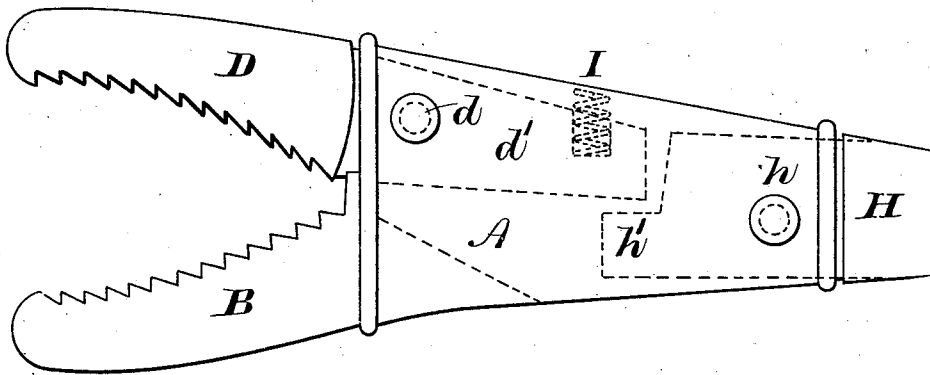
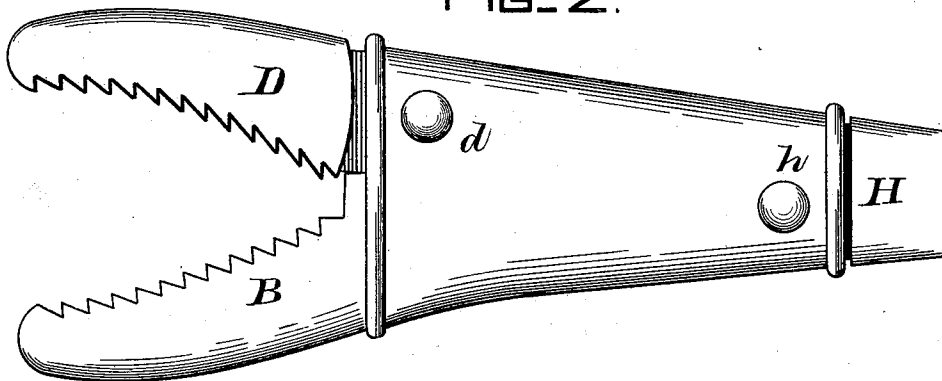


FIG. 2.



WITNESSES

A. C. Crone
A. C. Crone

INVENTOR

Charles O. Woods
By his attorneys,
Phillips & Hudson

UNITED STATES PATENT OFFICE.

CHARLES O. WOODS, OF LYNN, MASSACHUSETTS.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 592,036, dated October 19, 1897.

Application filed May 5, 1896. Serial No. 590,302. (No model.)

To all whom it may concern:

Be it known that I, CHARLES O. WOODS, a citizen of the United States, residing at Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented a new and useful Improvement in Pipe-Wrenches, of which the following, taken in connection with the accompanying drawings, is a specification.

The present invention relates to devices of the above class; and it consists of a suitable head, a fixed jaw rigidly secured to the head, a movable jaw fulcrumed upon the head, an operating-handle also fulcrumed upon the head, connections between the handle and movable jaw whereby a movement of the handle about its fulcrum closes the movable jaw upon the fixed jaw, and a suitably-placed spring for retracting the movable jaw.

The present invention further consists of the devices and combinations of devices hereinafter set forth and claimed.

The present invention is illustrated in the drawings herewith submitted, in which—

Figure 1 is a side view, and Fig. 2 a side view, of a wrench embodying the present invention.

Similar letters of reference refer to similar parts in both the views.

In the drawings, A represents the head, upon which is formed or rigidly secured the fixed jaw B.

D represents the movable jaw, which is fulcrumed at *d* upon the head A.

H represents the operating-handle, fulcrumed at *h* on the head A.

To the movable jaw D is attached a lever *d'*, made integral with or rigidly secured to said jaw, and which extends back of the fulcrum *d* of the jaw D toward the handle H. The handle H is projected in front of its fulcrum *h* toward the lever *d'*. On the handle H in front of its fulcrum *h* is formed a shoulder *h'*, or other suitable projection, adapted to come in contact with the rearward end of lever *d'*, the above-described arrangement being such that when the handle H is turned about its fulcrum *h* the shoulder *h'*, acting

upon the lever *d'*, turns the jaw D about its fulcrum *d*, and causes the jaw D to approach the jaw B to firmly grasp a section of pipe or other object between the jaws.

I represents a suitably-placed spring which bears against a fixed support, preferably the head A, and against the lever *d'*, the arrangement being such that when the handle H is released the spring I turns the lever *d'* in an opposite direction to that in which it was turned by the handle H, and turns the jaw D in an opposite direction, causing it to turn away from the jaw B to release any object between the jaws.

In using the device the jaws are pushed onto a section of pipe, as in the use of the usual "alligator wrench," and the handle is turned in the direction of the arrow-head in Fig. 1, causing, as hereinbefore described, the jaws to firmly grasp the pipe. To release the pipe the operator releases the handle H, or moves it slightly in an opposite direction, which allows the spring I to act to retract the movable jaw.

Having thus described my invention and the mode of using the same, I claim and desire to secure by Letters Patent—

A pipe-wrench comprising a flattened tubular head, a jaw extension on said head having a curved gripping-face, a movable jaw having a corresponding gripping-face, fulcrumed in said head, and extending beyond the fulcrum into said head, a spring arranged to bear on the extension of said movable jaw, to hold the jaw-faces normally at an angle, and a single operating-lever pivoted in said head and extending into the same and engaging the extension of said movable jaw in said head, substantially as described.

In testimony whereof I have hereunto set my hand, in the presence of two attesting witnesses, this 1st day of May, 1896.

CHARLES O. WOODS.

Witnesses:

WILLIAM D. PAXTON,
GEORGE S. WHITE.