

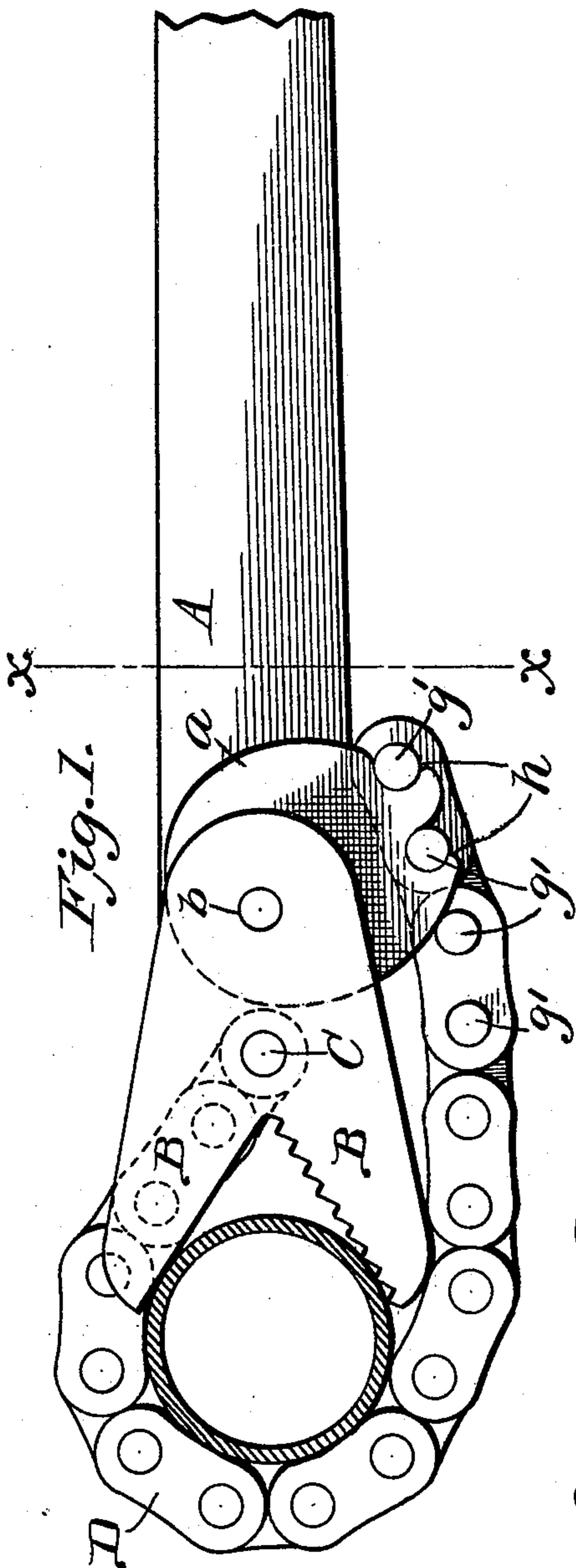
No. 636,561.

Patented Nov. 7, 1899.

B. ROSS.  
WRENCH.

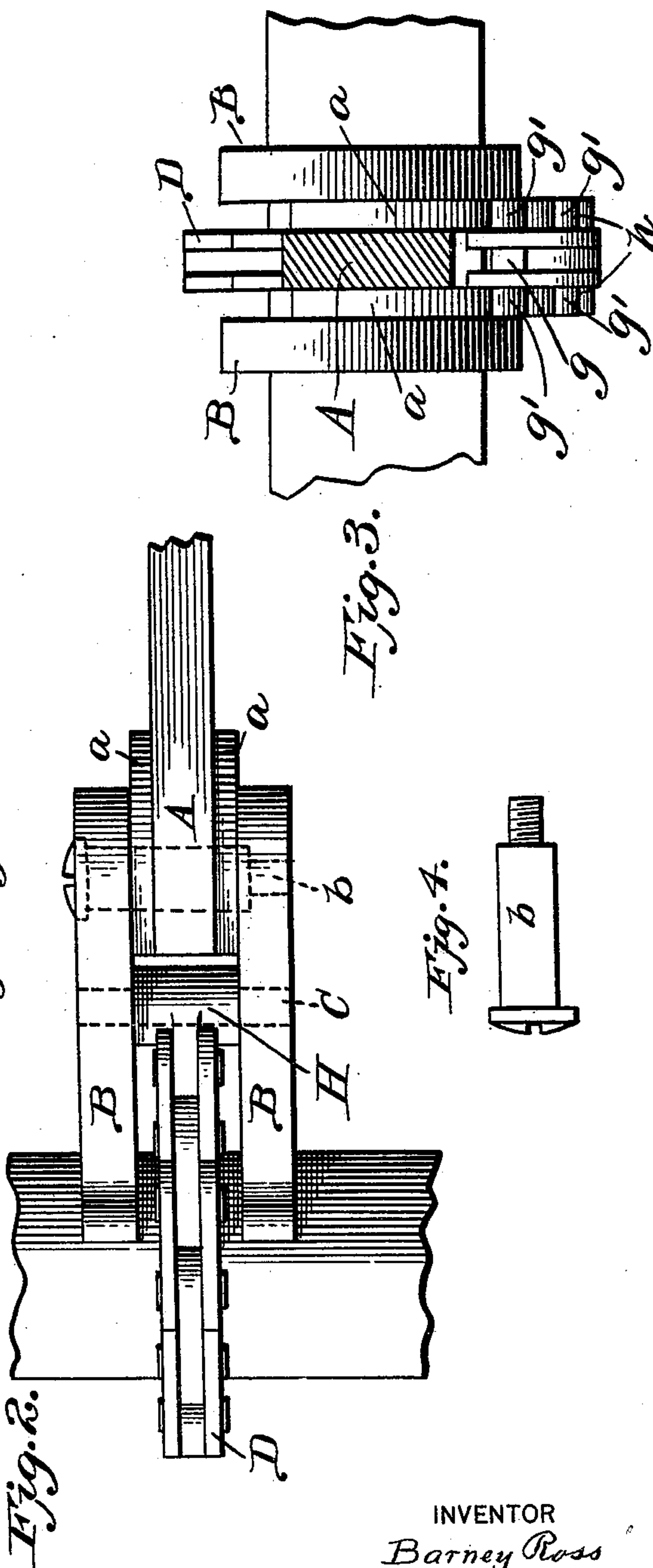
(Application filed Mar. 23, 1899.)

(No Model.)



WITNESSES:

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INVENTOR

*Barney Ross*

BY

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# UNITED STATES PATENT OFFICE.

BARNEY ROSS, OF PAINESVILLE, OHIO.

## WRENCH.

SPECIFICATION forming part of Letters Patent No. 636,561, dated November 7, 1899.

Application filed March 23, 1899. Serial No. 710,240. (No model.)

*To all whom it may concern:*

Be it known that I, BARNEY ROSS, a citizen of the United States, and a resident of Painesville, in the county of Lake and State of Ohio, have invented certain new and useful Improvements in Wrenches; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation of the invention as in operation. Fig. 2 is a plan view of same. Fig. 3 is a section on the line *x x*, Fig. 1.

This invention is designed to provide an improvement upon the pipe-wrench shown and described in my Patent No. 599,673; and the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates the bar or lever, whose forward end portion is formed with lateral bosses *a*.

B B designate the two jaws, which are pivotally connected to the bar or lever by a pin or bolt *k*, which passes therethrough, and the lever and its bosses. Each of said jaws is formed with a V-shaped recess in its front end, whose walls may be either plain or serrated or plain on one side and serrated on the other, as shown.

C is a pin or rivet which connects the two jaws in front of the end of the lever and whose axis is preferably in the same plane as that of the pin or bolt *b*.

D designates the chain, one end of which is connected to the pin C between the jaws B and the other end portion of which is designed to be adjustably and detachably connected to the lever at a point below and slightly to the rear of the pin or bolt *b*. To provide for this connection, the lateral bosses *a* are extended downwardly and rearwardly, as shown, and their lower edge portions are formed with hook-like seats *h*, which are designed to engage laterally-projected end portions *g'* of the pins or rivets *g* of the chain-links, the space

between the two boss extensions forming a recess to admit the chain.

To facilitate the connection and disconnection of the chain from the pin or rivet C, I provide the latter with a T-link H.

The bosses *a* serve to spread the jaws sufficiently to allow the chain to pass between them, thus avoiding the necessity for offsetting or laterally bending the jaws.

It will be readily understood that the wrench is adapted for use with pipe varying greatly in diameter, and that a secure grip and powerful leverage may be obtained.

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

1. In a pipe-wrench, the combination of the bar or lever having the lateral bosses at its forward end portion, the parallel jaws pivotally connected thereto, the pin or rivet connecting said jaws in front of said lever, the chain connected to said pin or rivet at one end, and means whereby the opposite end portion of said chain may be adjustably and detachably connected to the said lever, substantially as specified.

2. In a pipe-wrench, the combination of the bar or lever having the lateral bosses at its forward end portion, the parallel jaws pivotally connected thereto, the pin or rivet connecting said jaws in front of said lever, the chain connected to said pin or rivet at one end, and having the laterally-extended rivets or pins and seats formed in extensions of the said bosses, and adapted to be engaged by the extended portions of said rivets or pins, substantially as specified.

3. In a pipe-wrench, the combination of the bar or lever having the lateral downwardly and rearwardly extended bosses formed with hook-like seats at their lower portions, the parallel straight, recessed jaws pivoted to said lever and separated by said bosses, the transverse pin or rivet which connects the jaws in front of the lever, the T-link which engages said pin or rivet between the jaws, and the chain adapted for connection at one end with said pin or rivet, and at the opposite end portion having laterally-extended pins or rivets adapted to be engaged with said hook-like seats, substantially as specified.

4. In a pipe-wrench, the combination with



the bar or lever having the opposite lateral  
downwardly-extended bosses at its forward  
end portion, the parallel twin jaws pivoted to  
said bar or lever upon said bosses and hori-  
5 zontally separated thereby, the single pivotal  
bolt for said jaws passing therethrough and  
through said bosses, the chain, and means for  
securing the end portions of said chain re-  
spectively to the downward extensions of

said bosses, and to the jaws, the connection to  
thereof at one end being detachable and ad-  
justable, substantially as specified.

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

BARNEY ROSS.

Witnesses:

GEO. W. ALVORD,

J. C. WARD.