

No. 627,075.

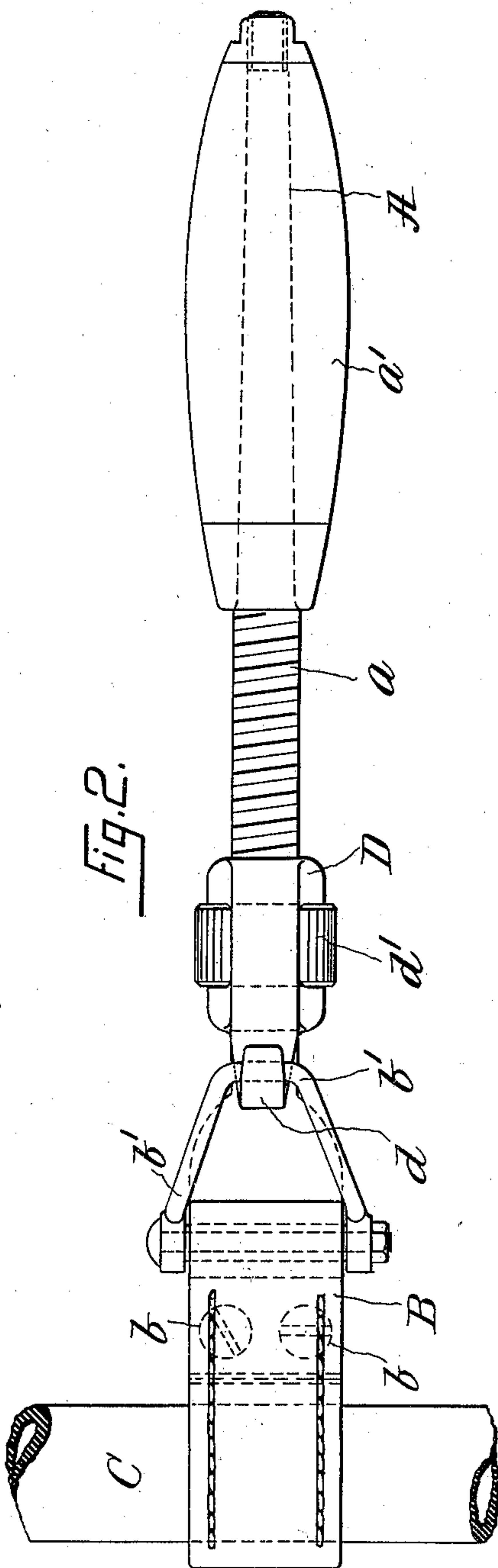
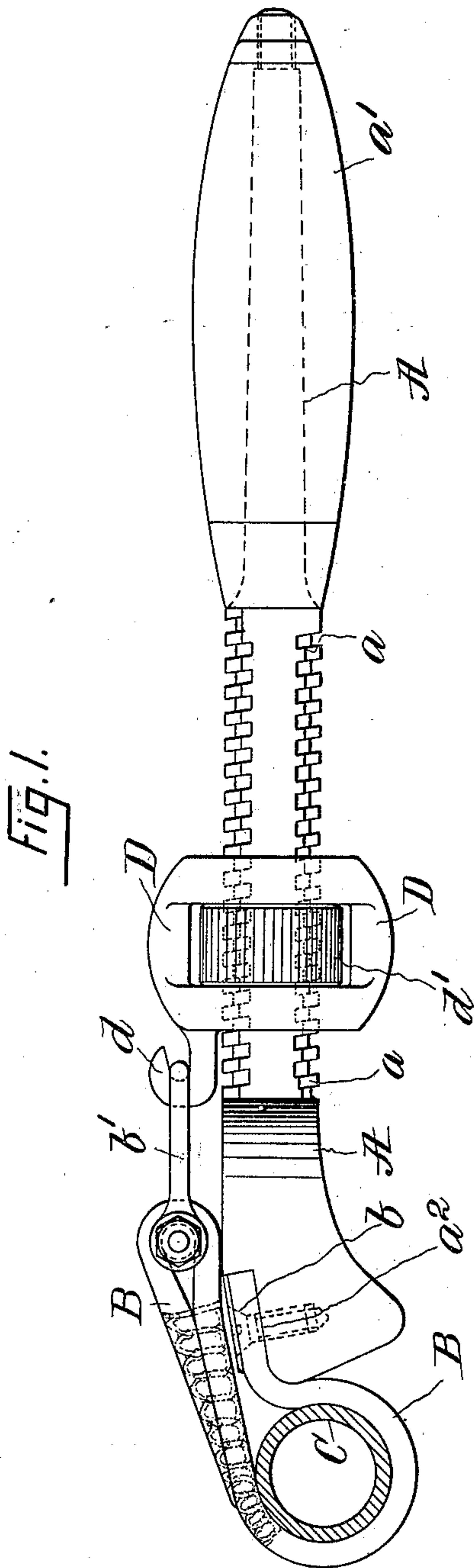
Patented June 13, 1899.

J. C. GIFFORD.

PIPE WRENCH.

(Application filed Mar. 15, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JIREH C. GIFFORD, OF CAMBRIDGE, MASSACHUSETTS.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 627,075, dated June 13, 1899.

Application filed March 15, 1899. Serial No. 709,191. (No model.)

To all whom it may concern:

Be it known that I, JIREH C. GIFFORD, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Pipe-Wrench, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of my wrench, and Fig. 2 is a plan.

10 My invention is a pipe-wrench made up of a frame with a handle and a head having a flat end surface extending crosswise of the frame and a strap one end of which is secured to the head of the frame above the upper end of the flat end surface of the head and whose other end is detachably secured to the frame in such wise that when the strap is about the pipe one portion of the strap is between the flat end surface of the head and the pipe, the rest of the strap passing around the pipe, and to the means for detachably securing it to the frame.

20 In the drawings, A is the frame, screw-threaded at a and provided with the handle a' . One end of strap B is secured to frame A at a^2 by screws b b and the other end of the strap is provided with a metal loop b' , which engages a hook d on the saddle D.

30 The operation is as follows: The strap B is passed around the pipe C and the loop b' put into hook d . The wrench is then moved toward the pipe until the end of the frame binds the strap between it and the pipe. The handle is then moved in the desired direction, and when the slack in the strap is taken up the pipe will be turned, as will be clear without further description.

40 The saddle D is carried by nut d' and is adjustable on the frame, and the slack of the strap is easily taken up, thus providing adjustment for different sizes of pipes, and this is a second feature of my invention.

My new wrench is particularly adapted for use in places where the pipes to be set up are exposed, as in open plumbing, for it will now be clear that no portion of the pipe comes

into contact with the metal of the wrench and that the pipe will not be scratched or otherwise marred by the use of my wrench.

Another advantage of my wrench is that it can be used when the pipe to be set up is near a wall, as only a distance between the wall and the pipe equal to a little more than the thickness of the strap is necessary to enable my wrench to be used.

50 I am aware of Provand's English patent, No. 10,674, of 1891, and disclaim everything shown therein, for none of the various forms of wrenches shown in that patent are at all like mine, unless it be the form shown in Figs. 1 and 2; but that form is on a wholly different principle from mine, for the head of the wrench is simply one part of a three-armed lever, the upper and lower rounded portions of the head making two short arms and the handle the third long arm, and it is impossible with that form of wrench to pinch the strap between the flat end surface of the head of the wrench and the pipe, while this pinching of the strap between the flat end surface of the head of the wrench and the pipe is the distinguishing feature of my invention, and this mode of operation, wholly new with me, is made possible by securing one end of the strap above the upper end of that flat end surface, as fully described above.

What I claim as my invention is—

55 In combination the frame A with a flat end surface extending crosswise of the frame and screw-threaded at a ; saddle D provided with hook d ; nut d' carrying saddle D; strap B one end of which is connected to the head of frame A above the upper end of its flat end surface; and loop b' fast to the other end of strap B and adapted to engage hub d ; all arranged to operate substantially as shown and described.

JIREH C. GIFFORD.

Witnesses:

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