

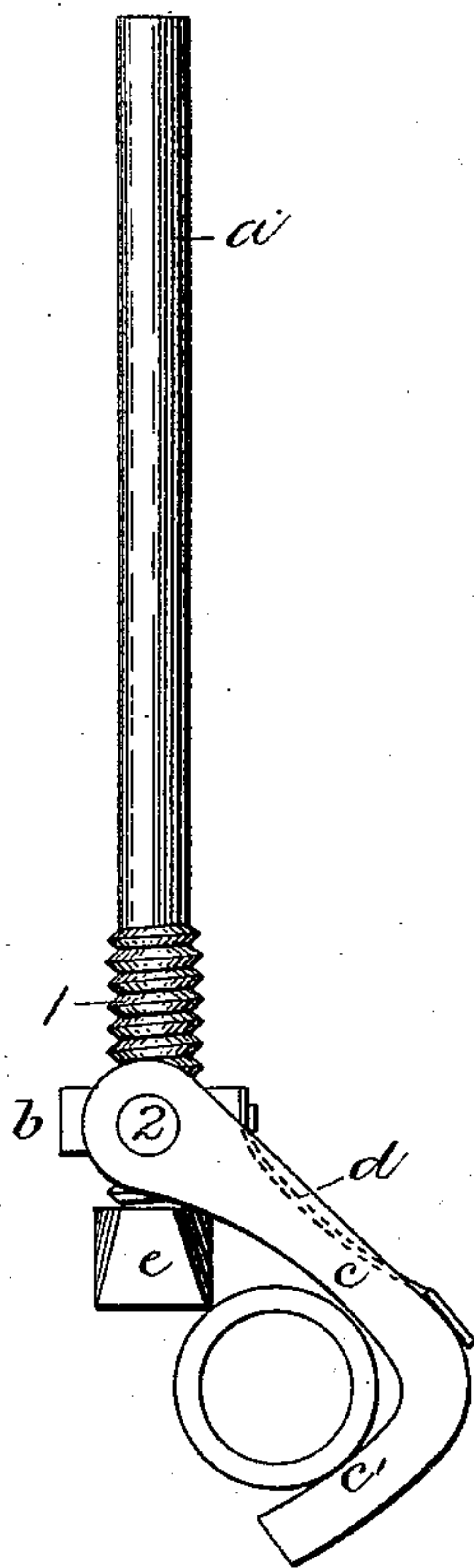
(No Model.)

G. W. PORTER.  
PIPE WRENCH.

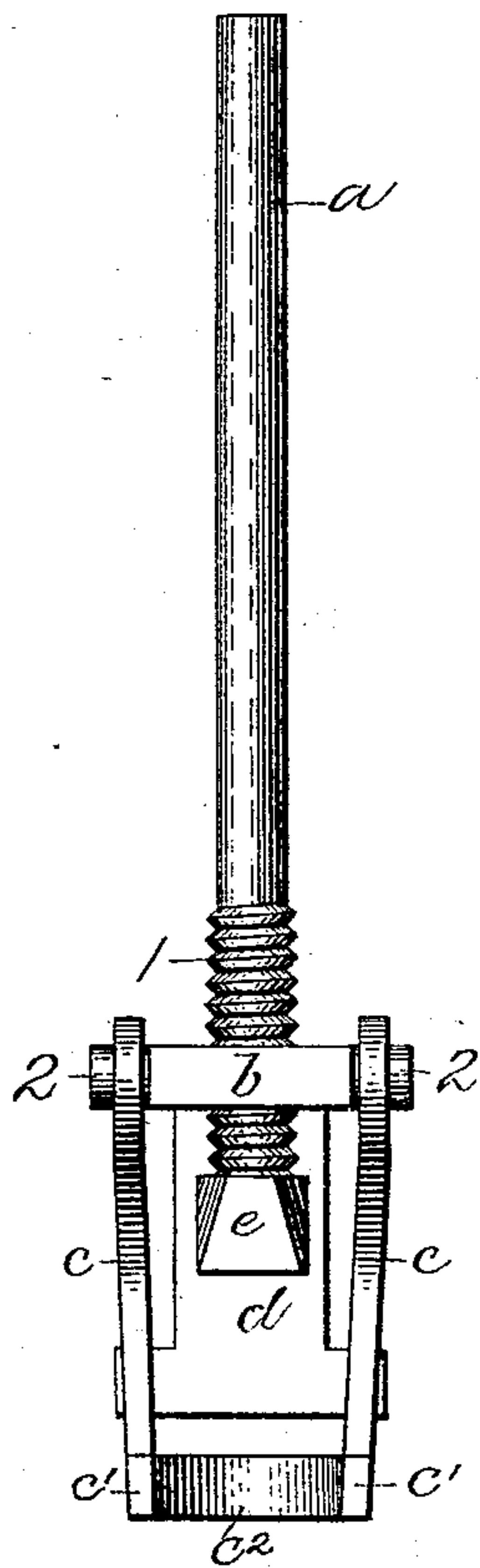
No. 492,834.

Patented Mar. 7, 1893.

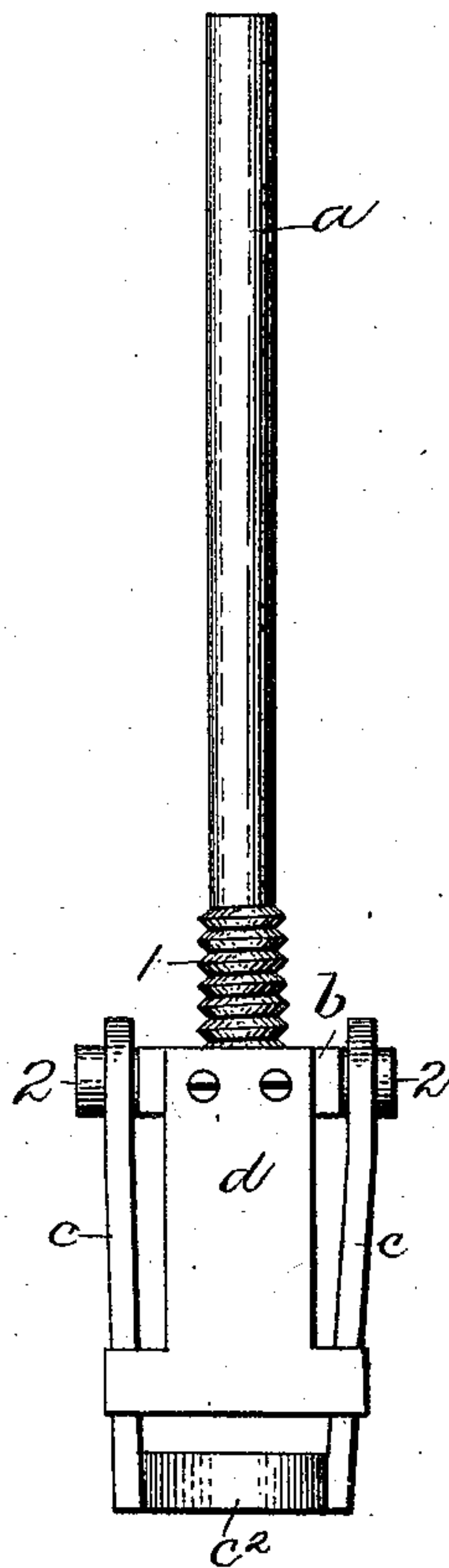
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Inventor

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By his Attorney *H. G. Heyman*

Witnesses  
*Albert B. Blackwood*  
*John Blackwood*

# UNITED STATES PATENT OFFICE.

GEORGE W. PORTER, OF PARKERSBURG, WEST VIRGINIA.

## PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 492,834, dated March 7, 1893.

Application filed November 9, 1891. Renewed January 17, 1893. Serial No. 458,737. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. PORTER, a citizen of the United States of America, residing at Parkersburg, in the county of Wood, in the State of West Virginia, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

My invention relates to improvements in pipe-wrenches of that kind or construction having a pivoted jaw adjustably supported on a handle, the end of which handle engages with the pipe when the implement is operated.

My invention consists in certain details of construction and the combination of the parts, as hereinbelow specified and particularly pointed out in the claim.

In the accompanying drawings: Figure 1 is a view in elevation of the complete implement, in operative connection with a pipe. Fig. 2 is a view in elevation taken at right angles to the illustration in Fig. 1, and Fig. 3 is a similar view taken with the implement turned in reverse position to the illustration shown in Fig. 2.

*a* designates the handle of the implement, provided with screw-threads 1, at its lower portion. The lower end of the handle is formed with a square-faced head *e*, integral with the handle; the bottom edge of one of the four sides of which engages the pipe *f*, when the implement is arranged on the pipe, as shown in Fig. 1 of the drawings. On the threaded portion of the handle is arranged a cross-piece *b*, the hole through this piece being threaded to engage the threads of the handle. The outer ends of this cross-piece *b* are rounded to form bearings 2, 3, on which is pivoted or hung the jaw *c*. The jaw *c* consists of a single piece of metal having the arms substantially parallel with each other, with

the ends pivoted or hung on the bearings of the cross-piece on the handle; and having its outer end struck or bent down at an angle to the arms, as seen at *c'*, in Fig. 1 of the drawings, forming the grip-piece of the jaw and a bridge *c<sup>2</sup>*, integral with the arms.

On the face of the cross-piece *b* on the handle is secured the stem of a T-shaped spring *d*, the arms of which bear on the arms of the pivoted jaw and tend to always insure the engagement of the jaw with the pipe.

It will be perceived that by making the head *e* of the handle four sided, four gripping-edges are provided whereby the adjustment is made at every quarter turn of the handle through the cross-piece; and that by making the jaw in the shape of a yoke, the grip on the pipe is broadened and the head *e* comes centrally between the bars or arms of the jaw.

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

In a pipe-wrench, the handle *a* provided with screw-threads at its lower portion and formed with a square-faced head *e* at the end, an adjustable cross-piece *b* on the threaded portion of the handle having journals on its ends, a gripping-jaw hung on said journals, said jaw having its arms parallel to each other and their outer portion bent down and connected by an integral bridge-piece, and a T-shaped spring having the stem secured to the cross-piece on the handle and the arms bearing on the arms of the pivoted-jaw, all arranged and combined to operate substantially as specified.

GEORGE W. PORTER.

Witnesses:

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