No. 639,785. Patented Dec. 26, 1899.

J. C. SPEIRS.

PIPE WRENCH.

(Application filed Mar. 14, 1898.)

(No Model.)

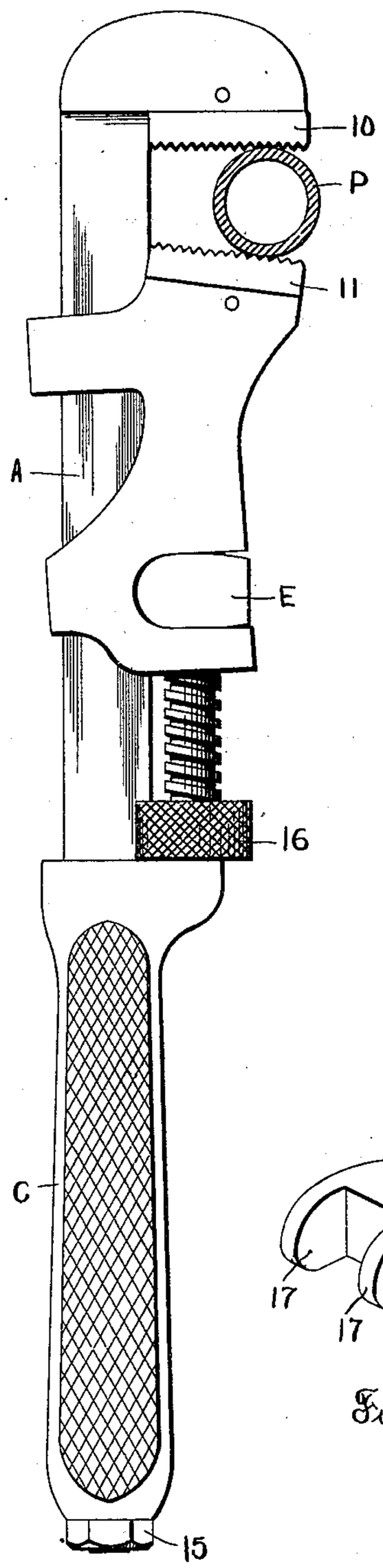

Fig. 1.

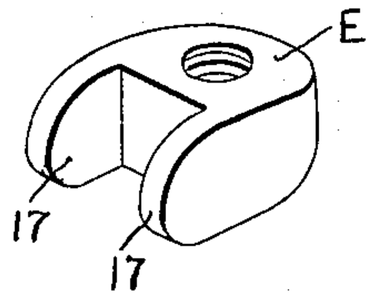

Fig. 3.

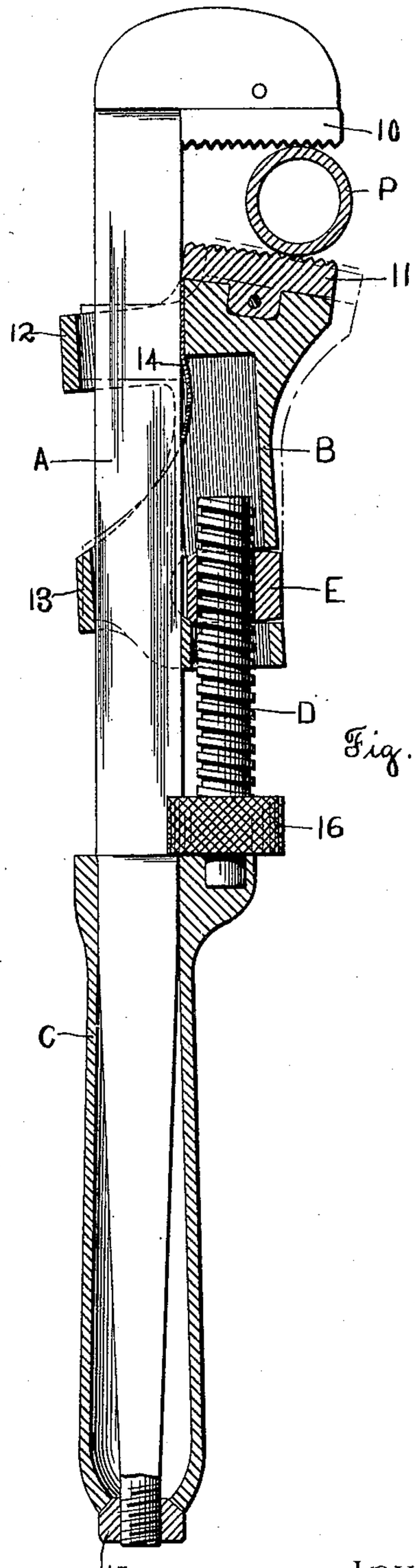

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

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PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 639,785, dated December 26, 1899.

Application filed March 14, 1898. Serial No. 673,704. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. SPEIRS, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Pipe-Wrench, of which the following is a specification.

The object of my invention is to provide a simple, efficient, and inexpensive form of pipe-wrench which can be readily adjusted for use in connection with different sizes of pipe and which will always be ready to be applied to the work in connection with which it is to be used.

To these ends my invention consists of the combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view of a pipe-wrench constructed according to my invention. Fig. 2 is a similar view, parts thereof being shown in section; and Fig. 3 is a detail perspective view to be hereinafter referred to.

A pipe-wrench constructed according to my invention comprises a shank or body portion which is preferably square in cross-section and is provided with a fixed jaw. A slide is mounted on the shank, so that it is free to pivot or turn thereon. A small spring is arranged inside the slide to normally tip the upper end thereof away from the shank. The adjusting-screw for moving the slide to the desired position on the shank is threaded into a nut having its upper and lower surfaces rounded. The nut is preferably provided with extending ears engaging the sides of the shank to hold the nut from turning, and the nut is mounted in a socket in the slide, so that the slide can pivot or turn upon the nut as a center when the wrench is in use.

Referring to the drawings and in detail, A designates a square shank or body portion which carries the fixed jaw 10.

The slide B is mounted on the shank A and is provided with integral straps or sections 12 and 13, which engage the sides of the square shank A, but leave the upper end of the slide B free to turn or tip through a slight angle. Secured in the slide B is a flat spring 14, which normally forces the upper end of the slide B away from the shank A. Fixed in the upper part of the slide B is an inclined jaw 11.

A handle C is fitted onto the lower part of the shank A and is secured in place in the ordinary manner, as by means of the nut 15. Journaled in the handle C is the adjusting-screw D, which has a head 16 engaging a notch in the shank A.

Fitting loosely into a socket in the slide B and threaded onto the adjusting-screw D is a nut E. The upper and lower surfaces of the nut E are rounded, and the nut is provided with extending ears 17, as shown most clearly in Fig. 3, for engaging the sides of the shank A to hold the nut from turning. By means of this construction the slide B will be left free to pivot or turn about the nut E as as a center, as shown by the dotted lines in Fig. 2.

In using a wrench as thus constructed the upper end of the slide B will be normally forced away from the shank A by its spring 14 to the position illustrated by the dotted lines in Fig. 2. By turning the adjusting-screw D the slide can be moved up and down to bring the movable jaw into position to properly engage the pipe P. When the wrench is applied to the pipe and pressure is exerted on the handle C, the slide B will pivot or turn about the nut E to the position shown by the full lines in Figs. 1 and 2, forcing the teeth on the jaws 10 and 11 firmly into engagement with the pipe, so that the pipe will be firmly gripped and may be turned as desired.

I am aware that changes may be made in the construction and relative proportion of the parts without departing from the scope of my invention as expressed in the claims. I do not wish therefore to be limited to the form which I have shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a pipe-wrench, the combination of a square shank having a fixed jaw, an adjusting-screw, a slide mounted to pivot or turn on the shank, a jaw carried by the slide, a spring normally tipping the upper part of the slide away from the shank, and a rounded nut mounted in a socket in the slide, and threaded onto the adjusting-screw, said nut

having side pieces engaging the sides of the shank to hold the same from turning, substantially as described.

2. In a pipe-wrench, the combination of a square shank A having a fixed jaw 10 at its upper end, a handle C secured on its lower end, an adjusting-screw D journaled in the handle, with its head engaging a notch in the shank, a slide B having straps 12 and 13 loosely engaging the shank A so as to leave said slide B free to tip or turn thereon, a spring 14 normally forcing the upper end of the slide away from the shaft, a jaw 11 carried by said slide B, and a nut E threaded onto the screw D, and mounted in a socket in the slide B, said nut having its upper and lower surfaces rounded so that it will act as a center for the slide B, and having side pieces 17 for engaging the shank A to hold said nut from turning, substantially as described.

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

JOHN C. SPEIRS.

Witnesses:
PHILIP W. SOUTHGATE,
LOUIS W. SOUTHGATE.