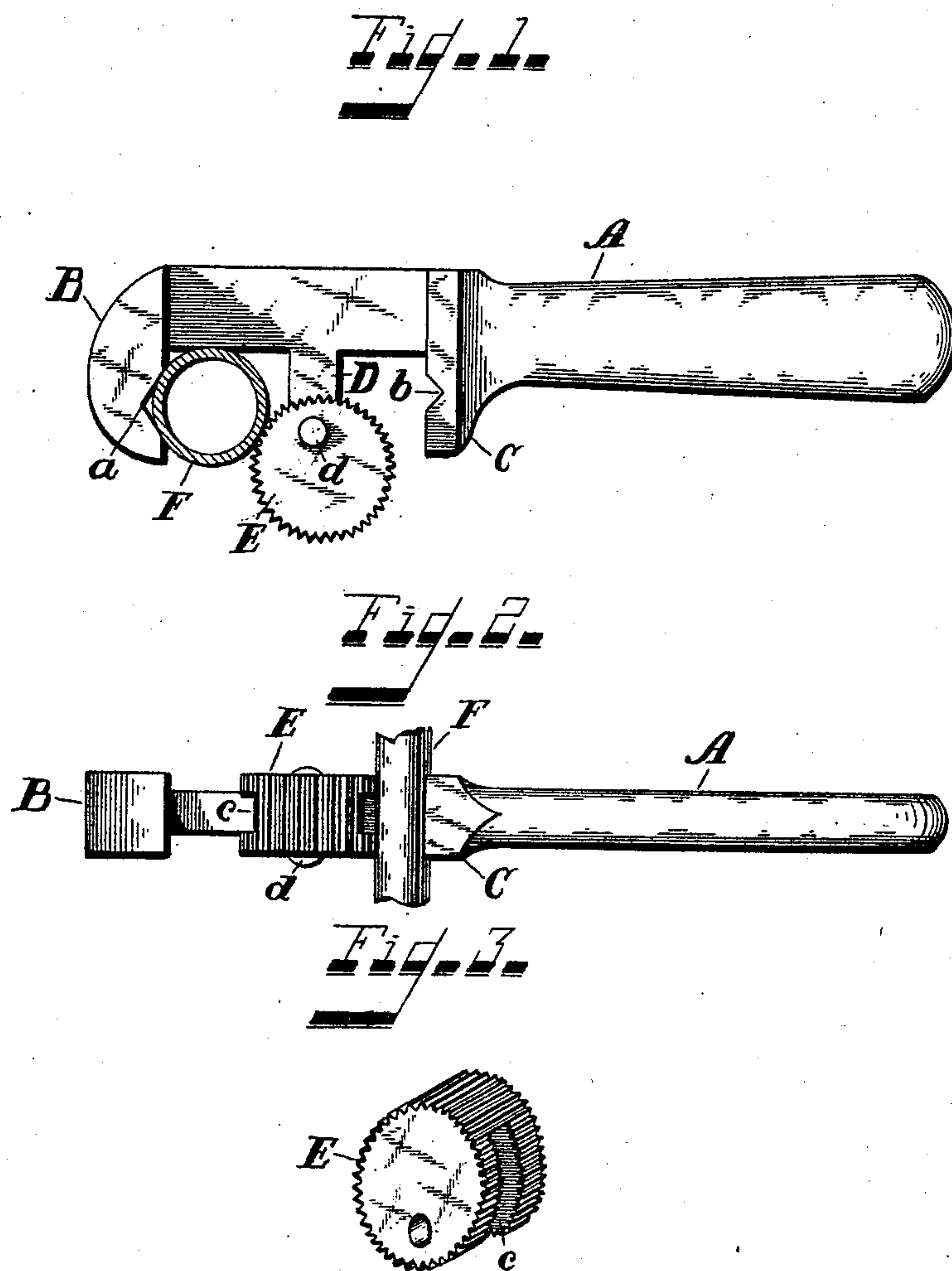


(No Model.)

P. H. CAMPBELL.
WRENCH.

No. 582,341.

Patented May 11, 1897.



WITNESSES:

Bernard J. Hausfeld
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PETER H. CAMPBELL, OF CINCINNATI, OHIO, ASSIGNOR TO NEIL P. ROGERS,
OF SAME PLACE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 582,341, dated May 11, 1897.

Application filed December 16, 1896. Serial No. 615,842. (No model.)

To all whom it may concern:

Be it known that I, PETER H. CAMPBELL, a citizen of the United States, residing at Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Wrenches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of tools known as "wrenches," and more particularly to those for use in grasping and turning pipes, rods, and other cylindrical objects, although it can be used also, like the ordinary monkey-wrench, for nuts, bolts, and the like.

The purpose of my invention is to provide a simple, cheap, and effective tool which will automatically adjust itself to all sizes of pipes and nuts within the limits of the strength of the wrench. This I accomplish by a pair of fixed jaws in connection with a serrated cylindrical jaw pivoted eccentrically between the fixed jaws, so that the adjustment of the tool will be automatic.

In the drawings, Figure 1 is a side view of my improved wrench. Fig. 2 is a front view of same. Fig. 3 is a perspective view of the cylindrical jaw.

A is the body of the wrench, provided with a fixed upper jaw B and a fixed lower jaw C. Between these jaws on a suitable lug D is pivoted, eccentrically, a cylindrical rotatable jaw E. The inner surfaces of the fixed jaws B and C are provided with notches *a* and *b* to receive the pipe F or nut to be operated upon, and the cylindrical jaw E is serrated, as shown, more effectually to grasp the object to be turned.

For simplicity and strength of construction I form a slot *c* in the cylindrical jaw and pivot the same to the lug D by the pin *d*, which passes through the lug and both sides of the slotted portion of the jaw E and is then riveted in place.

The wrench I have illustrated is the size suitable for rods of the smallest diameter—say, down to one-sixteenth of an inch or less—and by using first the lower and then the upper jaw in connection with the cylindrical jaw E the tool will automatically adjust itself to any-sized rod or pipe within the limits of the distance between the lug D and the inner surface of the upper fixed jaw B. The pivot-point of the eccentric jaw is slightly beyond the position occupied by the pipes to be grasped, so that a slight turn of the tool in the proper direction brings the serrations of the eccentric jaw firmly against the pipe or rod, and thus a secure hold is obtained.

For larger-sized pipes and rods of course the tool is made in larger proportions, and by reason of the upper and lower fixed jaws the range of adjustment of the wrench is as great as in the ordinary adjustable pipe or monkey wrenches, while it is evident the cost of manufacture is far below that of the ordinary tool, as no screw-threads have to be cut to adjust the jaws. Moreover, in my wrench there is nothing to get out of order or wear loose. As the serrations of the eccentric jaw wear down they may be readily sharpened, and the tool is as good as new.

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

In a wrench, the combination, with a pair of relatively-fixed jaws, of a cylindrical jaw pivoted eccentrically to the tool-body between the fixed jaws, whereby the varying adjustments for the wrench may be automatically obtained, substantially as shown and described.

PETER H. CAMPBELL.

Witnesses:

HARVEY EDWARDS,
GEORGE HEIDMAN.