

(Model.)

P. S. MEABON.
HAND VISE AND WRENCH.

No. 260,404.

Patented July 4, 1882.

Fig. 1.

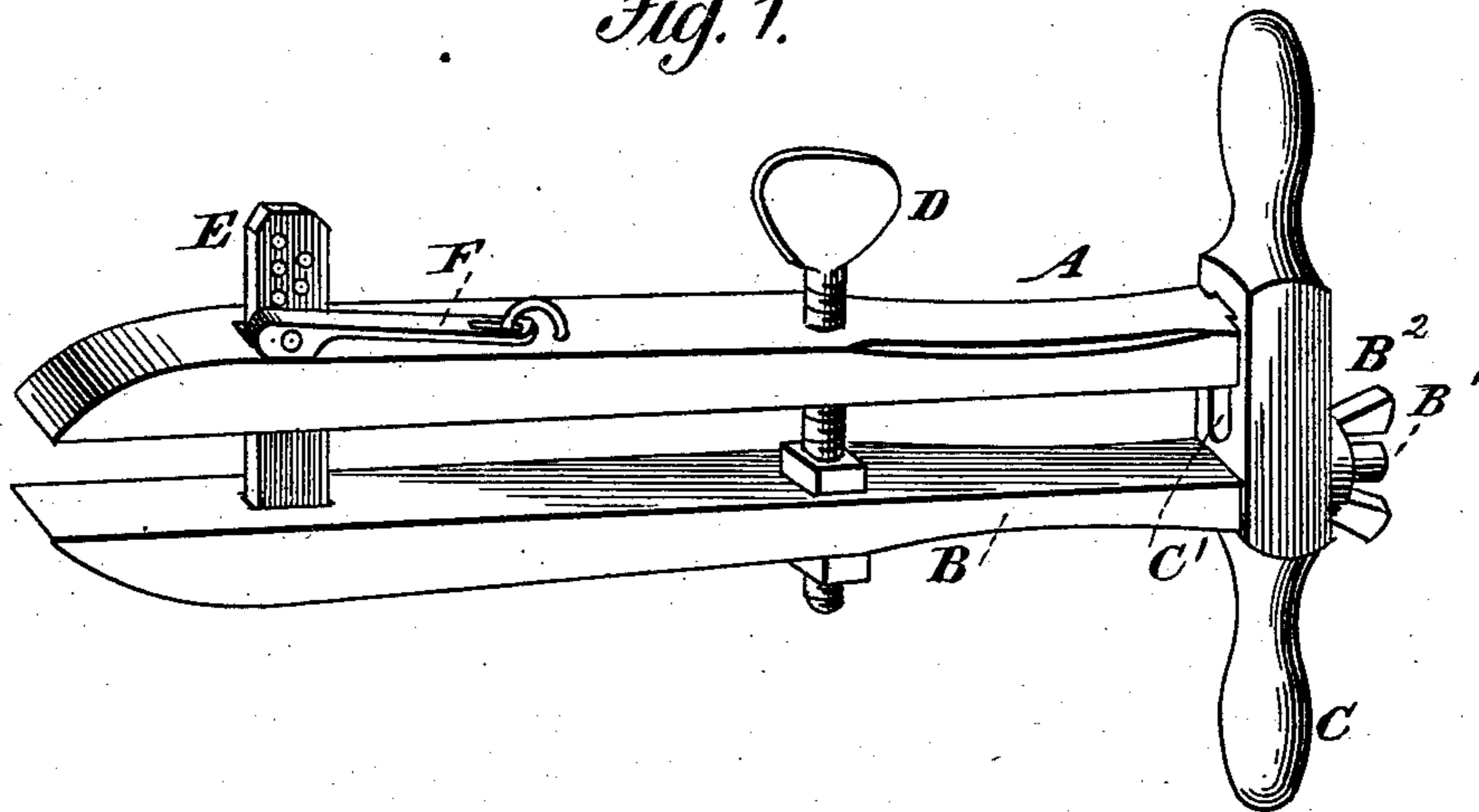
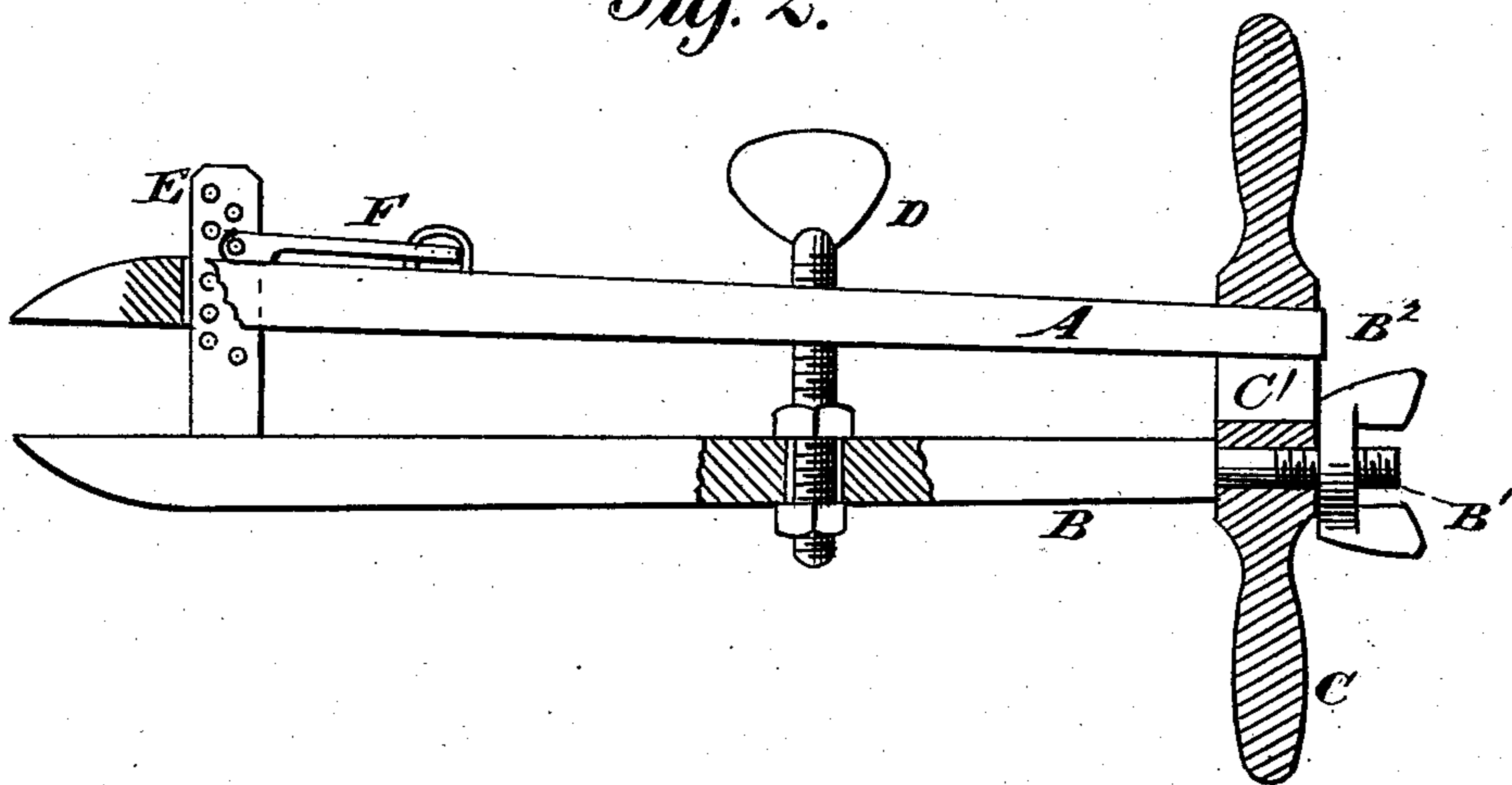


Fig. 2.



Witnesses.
A. Ruppert.
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UNITED STATES PATENT OFFICE.

PETER S. MEABON, OF FRANKFORT, ASSIGNOR OF ONE-HALF TO CHARLES E. BAILEY, OF BENZONIA, MICHIGAN.

HAND VISE AND WRENCH.

SPECIFICATION forming part of Letters Patent No. 260,404, dated July 4, 1882.

Application filed May 26, 1882. (Model.)

To all whom it may concern:

Be it known that I, PETER S. MEABON, a citizen of the United States of America, residing at Frankfort, in the county of Benzie and State of Michigan, have invented certain new and useful Improvements in Hand Vises and Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in hand vises and wrenches; and the objects of my invention are to so combine the parts of which the implement is made as to bring into requisition a screw and a lever for clamping whatever is to be held between the jaws thereof, and at the same time render the implement capable of being used as a wrench for turning nuts placed upon bolts. I attain these objects by the devices and combinations thereof illustrated in the accompanying drawings, in which—

Figure 1 is a perspective, and Fig. 2 a partial section and elevation, showing the jaws of a hand-vise, a handle in which said jaws are secured, a screw for pressing the jaws together, a transverse bar, which has in it a series of holes, and a cam-shaped lever to be used as a means of giving additional clamping force when the implement is used as a vise and as a means of clamping the jaws upon a nut when it is to be used as a wrench.

Similar letters refer to similar parts in both of the views.

It is well known that it is desirable to have vises of this type possess great clamping power, and also to have them so constructed that they can be readily and conveniently used as a wrench under certain circumstances.

In constructing an implement possessing the above-recited features I provide two jaws, A and B, of any desired length, the latter being provided with a round portion, B', upon which there is formed a screw-thread for the reception of the nut, B², which holds the jaw fast in a handle, C, as shown in the drawings. The jaw A is similar to the one above described, but instead of having the shank B' for attaching it to the handle its corresponding end is of about the same size as the other portions

thereof, and is passed through a slot, C', formed in the handle in which it is held, the object of said slot being to allow the jaw A to preserve its parallelism with reference to B as the former is moved nearer to or is carried farther from the latter.

The handle C, I prefer to make of the form shown in the drawings; but it may be of any other form that will hold the jaws in position and afford proper facility for turning the implement when used as a wrench.

At any desired point between the handle and the opposite ends of the jaws a clamping-screw, D, is passed through them, it being secured in jaw B by means of nuts, as shown, or in any other suitable manner, while the threaded outer portion thereof passes through a threaded aperture in jaw A.

The arrangement of the parts above described is such that any article placed between the outer ends of the jaws can be clamped therein by turning the screw D in such a manner as to cause said outer ends of the jaws to approach each other. It frequently happens, however, that the clamping force thus applied is not sufficient to hold the substance firmly while being filed or otherwise treated, and for the purpose of remedying this difficulty there is secured to the jaw B, at some distance from its outer or clamping end, a bar of metal, E, which is provided with a series of holes, as shown, for the reception of a pin. The bar E passes through a slot formed in the jaw A, as shown in Fig. 1, the fulcrum-pin just alluded to passing through the bar outside of said jaw and carrying a cam-shaped lever, F, the pivoted end of which may be bifurcated, so as to rest upon the jaws on each side of the bar E, if preferred. The lever turns upon the pin which passes through the bar E, which may be placed in any one of the holes formed therein, so as to make the lever applicable for giving additional clamping force to the jaws, whatever may be the size of the substance or thing to be held.

The arrangement of the lever and bar with reference to the jaws is clearly shown in the drawings, where it will be seen that when not in use the lever F lies upon the jaw A, in which position it may be held by a staple, as shown,

or in any other suitable manner, the object of said staple or other device being simply to hold the lever upon the jaws where it is not required for giving additional clamping force.

5 It will also be seen by referring to the drawings that owing to the form of the pivoted end of said lever when its free end is moved outward it will cause its pivoted or cam-shaped end to bear upon said jaw, the effect of which
10 will be to force the jaws toward each other, so as to give the additional clamping force required.

When the implement is used as a wrench the screw D may be used to adjust the space
15 between the outer ends of the jaws, if desired, or the nuts upon it may be turned into such a position as to permit the adjustment to be made by the bar E and its pin. Under the last-named arrangement the implement may
20 be readily adjusted to fit different sizes of nuts, when, by turning it by the use of the handle C, the nut may be turned on the bolt.

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

A hand-vise which may also be used as a wrench, combining in its construction two clamping-jaws, a clamping-screw provided with nuts for holding it in one of the jaws, a transverse bar of metal passing through one
25 of the jaws and provided with a series of holes, 30 a cam-shaped lever for giving additional clamping force to the jaws and for providing for the adjustment and retention of said jaws when the implement is used as a wrench, and 35 a handle for turning the same, substantially as described.

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

PETER S. MEABON.

Witnesses:

A. T. CASE,
H. L. CASE.