

L. Chapman,

Wrench.

No. 100,978.

Patented Mar. 22. 1870.

Fig 1.

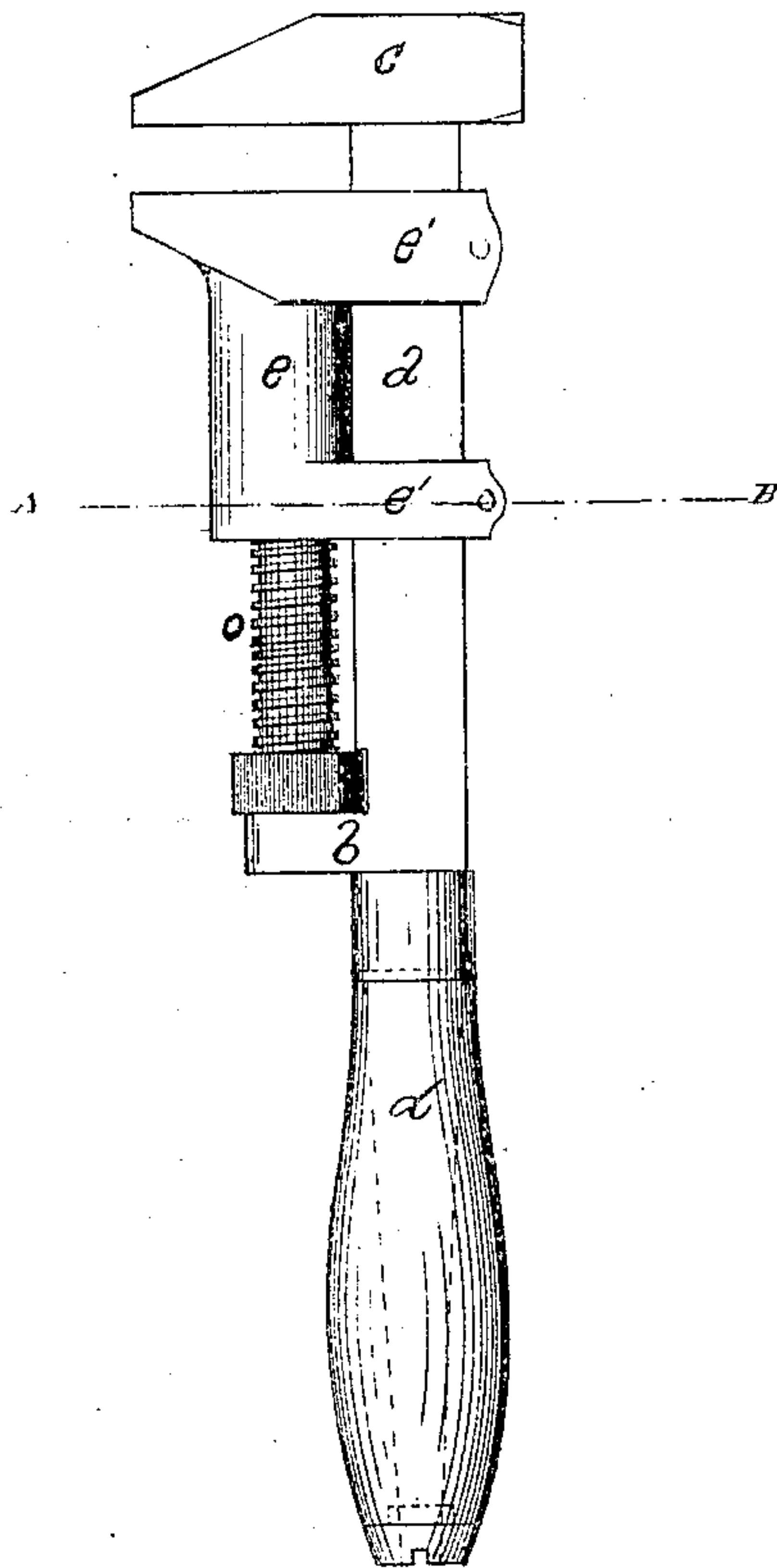


Fig 2.

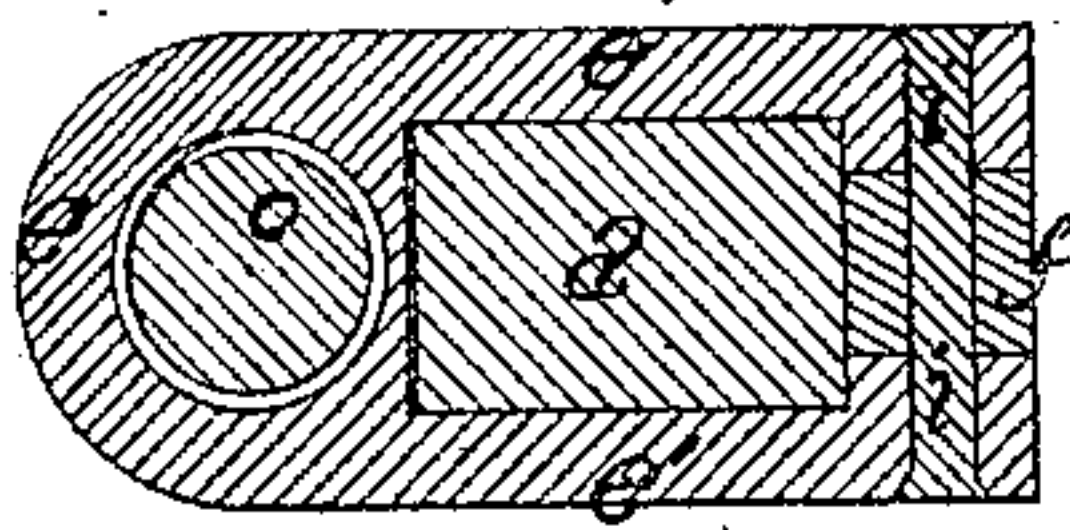
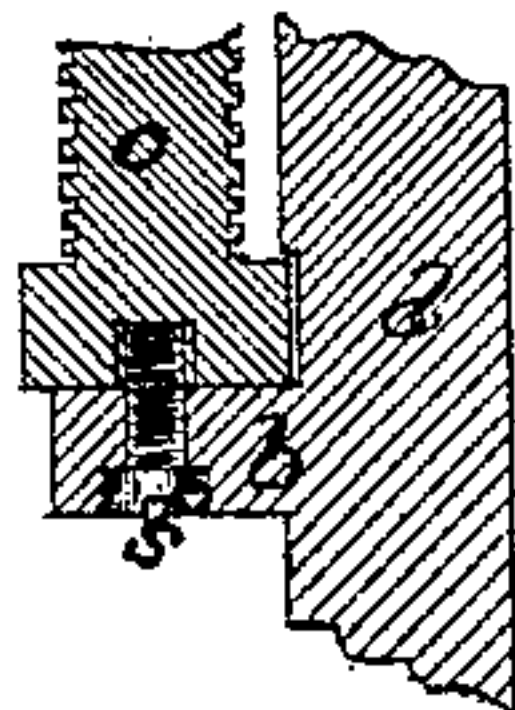


Fig 3.



Witnesses.

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LUKE CHAPMAN, OF COLLINSVILLE, CONNECTICUT.

Letters Patent No. 100,978, dated March 22, 1870.

IMPROVEMENT IN WRENCHES.

The Schedule referred to in these Letters Patent and making part of the same

I, LUKE CHAPMAN, of Collinsville, in the county of Hartford, and State of Connecticut, have invented an Improvement in Wrenches, of which the following is a specification.

Nature and Objects of the Invention.

My improvement applies to that class of wrenches commonly known as "monkey-wrenches," which has a movable jaw, operated by a screw, provided with a nut or rasette, by which to turn it, the lower end of which screw bears against what is commonly known as a "step." This step, if in a separate piece from the wrench-bar, as it usually is, tends to work loose.

My improvement consists in constructing a monkey-wrench so as to have this step and also the head of the wrench a part of and in one piece with the wrench-bar.

Description of the Accompanying Drawings.

Figure 1 is a side view of my wrench.

Figure 2 is a cross section, made in the horizontal plane indicated by the dotted line A B.

Figure 3 is a detached sectional view, showing how the lower end of the operating screw is pivoted to the step.

Like letters indicate like parts in all the figures.

General Description.

The letter *a* indicates the wrench-bar, the step *b* and head *c* are both of one piece with it.

d is the wooden handle.

The movable jaw *e* is made of some metal which admits of the two straps *e' e'* being bent so as to ad-

mit the bar *a* within their embrace, when they are again bent into the position shown in fig. 2, the small solid filling piece *f* put in place, a hole drilled through the whole, and the rivet *i* fastened in.

It will be observed that the end of the straps *e' e'* hook over what may be called the back side of the wrench-bar, in the size of wrench of which fig. 2 is a cross-section, about one-eighth of an inch on each side, making this method of arrangement a very strong one.

The jaw *e* is moved up and down as desired by means of the screw-rod *o*. This screw-rod is pivoted to the step by a screw, *s*, driven up through the step into the end of the screw-rod. This screw may be made fast in the step, or to turn with the screw-rod, as is desired.

It will be readily understood that by this method of manufacture, I secure both a solid step, *b*, and solid head *c*, and at the same time do not diminish the strength of the movable jaw.

Claims.

I claim as my invention—

The movable wrench-jaw *e*, constructed substantially as described.

Also, the combination of the movable wrench-jaw *e*, constructed as described, with a wrench-bar, having the bar proper *a*, step *b*, and head *c* all in one piece.

LUKE CHAPMAN.

Witnesses:

OLIVER F. PERRY,
J. H. BIDWELL.