

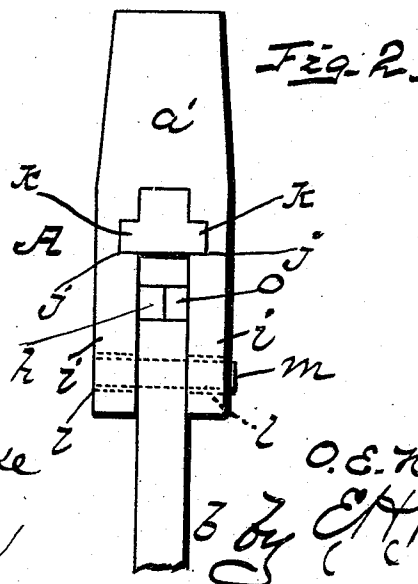
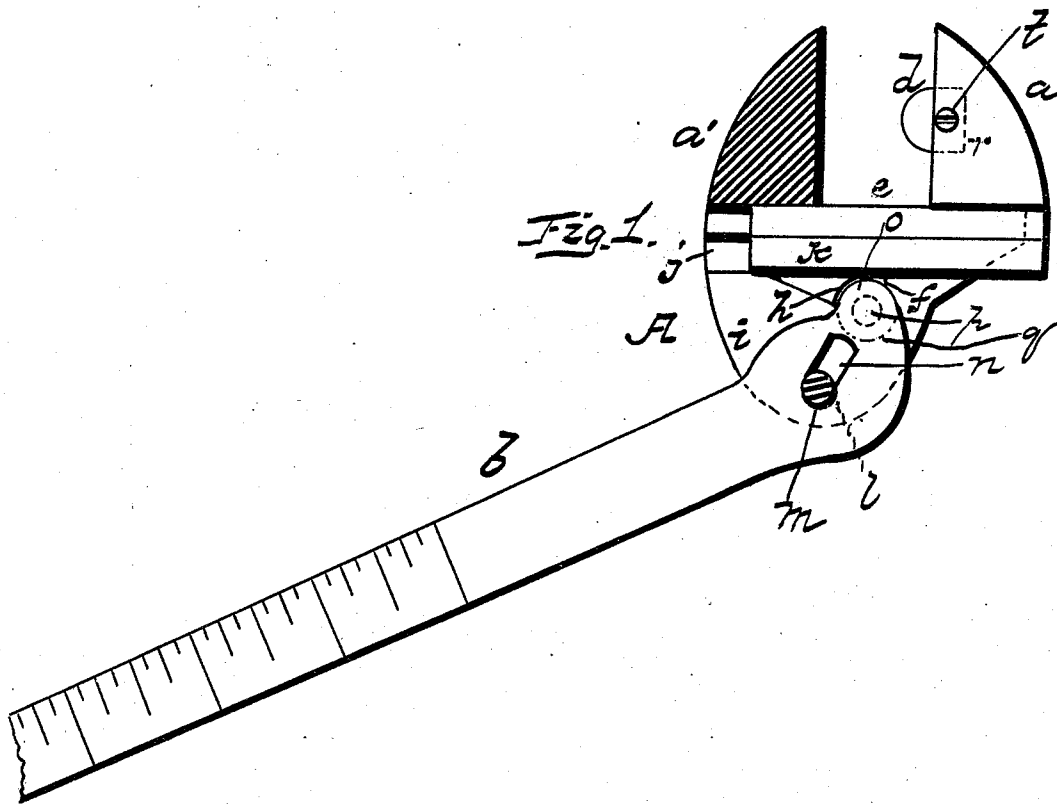
(No Model.)

2 Sheets—Sheet 1

O. E. H. N. REICHLING.
WRENCH.

No. 485,657.

Patented Nov. 8, 1892.



WITNESSES

Jas. B. Clarke
M. M. Mason

INVENTOR

O. E. H. N. Reichling

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Attorney

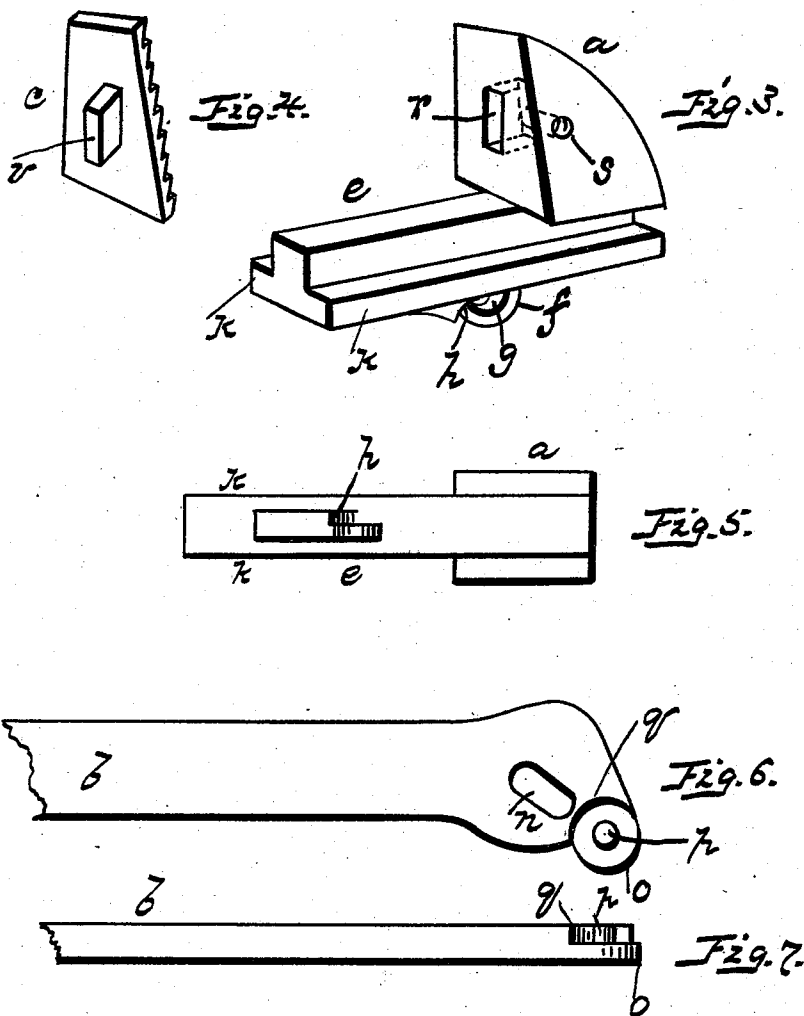
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By C. H. Bates
Attorney

UNITED STATES PATENT OFFICE.

OSCAR E. H. N. REICHLING, OF MARION, INDIANA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 485,657, dated November 8, 1892.

Application filed February 2, 1892. Serial No. 420,111. (No model.)

To all whom it may concern:

Be it known that I, OSCAR E. H. N. REICHLING, a citizen of the United States, residing at Marion, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Convertible Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to improvements in wrenches of the class in which the sliding jaw is employed; and it consists in the novel construction, arrangement, and combination of parts of which it is composed, all as will be hereinafter more fully explained, and particularly pointed out in the appended claim.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a side view, part sectional, of my improved wrench. Fig. 2 is an edge view of the same, and Fig. 3 is a perspective detail view of the sliding jaw. Fig. 4 is a perspective view of the gripping-plate. Fig. 5 is a bottom view of the sliding jaw. Fig. 6 is a side view of the handle, and Fig. 7 is an edge view of the same.

Referring by letter to the accompanying drawings, A designates the wrench, which is composed of two jaws *a a'*, a handle *b*, a gripping-plate *c*, and a pipe-cutter *d*. The jaw *a* is a horizontally-sliding jaw, and the same is constructed with a sliding bar *e*, in cross-section representing an inverted-T-shaped sliding bar. On the under side of this bar is a lug *f*, which has an eye *g* and a shoulder *h*, for a purpose presently explained. The jaw *a'* is constructed with downwardly-projecting side plates or flanges *i i*, between which the sliding jaw *a* and the handle *b* operate. On the inner face of each of these side plates are grooves *j j*, in which the lateral flanges *k k* of the jaw-bar *e* slide, and the plates are provided with perforations *l l* to admit a transverse pin *m*, that also passes through an oblique slot *n* in the handle. This handle is provided with a rounded projection *o*, having a pin *p* and an inner shoulder *q* adjacent to the oblique slot aforesaid, and said handle is also provided with gradu-

ating-marks, presenting a rule by which said handle may be used for measuring.

The sliding jaw *a* is constructed with a slot *r*, the face-opening of which is opposite to the face of the opposite jaw *a'*, and communicating with this slot *r* and at right angles thereto is a perforation *s*, which is female-screw-threaded to admit a screw *t*. A pipe-cutter *d* is removably secured to the sliding jaw and in the slot aforesaid. This screw also removably secures the gripping-plate *c* to the jaw *a* when the lug or projection *v* on the rear face thereof is inserted into said slot after the pipe-cutter has been removed. Thus it will be seen that the pipe-cutter and pipe-gripping plate can be readily substituted one for the other, thereby providing in the one tool a pipe-turner or tongs and a pipe-cutter, and when the cutter and plate are both removed from the jaws said jaws can be used as a wrench.

It will be seen that by the peculiar arrangement of the slot in the handle and the shouldered construction of the projection on said handle and under side of the sliding bar of the jaw *a* the pin on the shouldered projection of the handle is relieved from strain and all pressure in operating the tool is brought to bear upon the two shouldered projections on the handle and sliding bar of the jaw *a*, while the pin *m* has its play freely in the oblique slot in the handle, and by such construction a powerful pressure is brought to bear on the jaws of the tool. A tool as herein described is simple in operation, durable, and at the same time cheap to manufacture.

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

The convertible wrench described, consisting of the movable jaw *a*, having the slot *r*, the inverted-T-shaped sliding bar *e*, and a shouldered transversely-perforated lug or projection *f*, and a female-screw-threaded perforation *s*, intersecting the slot in the sliding jaw, and a tightening-screw *t*, the jaw *a'*, having the side flanges transversely perforated and pin therefor and provided with the horizontal slideways or grooves *j j*, the handle constructed with the oblique slot and with the shouldered extension or lug projection *o*, pro-

vided with the pin *p* for engagement with the
perforation in the shouldered lug of the slid-
ing bar *e* of the jaw *a*, and the graduating-
marks on the handle, whereby the tool may
5 be used as a pipe-cutter, a pipe-turner, or
tongs, a wrench, and a rule for measuring, all
as shown and for the purposes set forth.

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

OSCAR E. H. N. REICHLING.

Witnesses:

N. W. HIATT,
C. S. BONNEY.