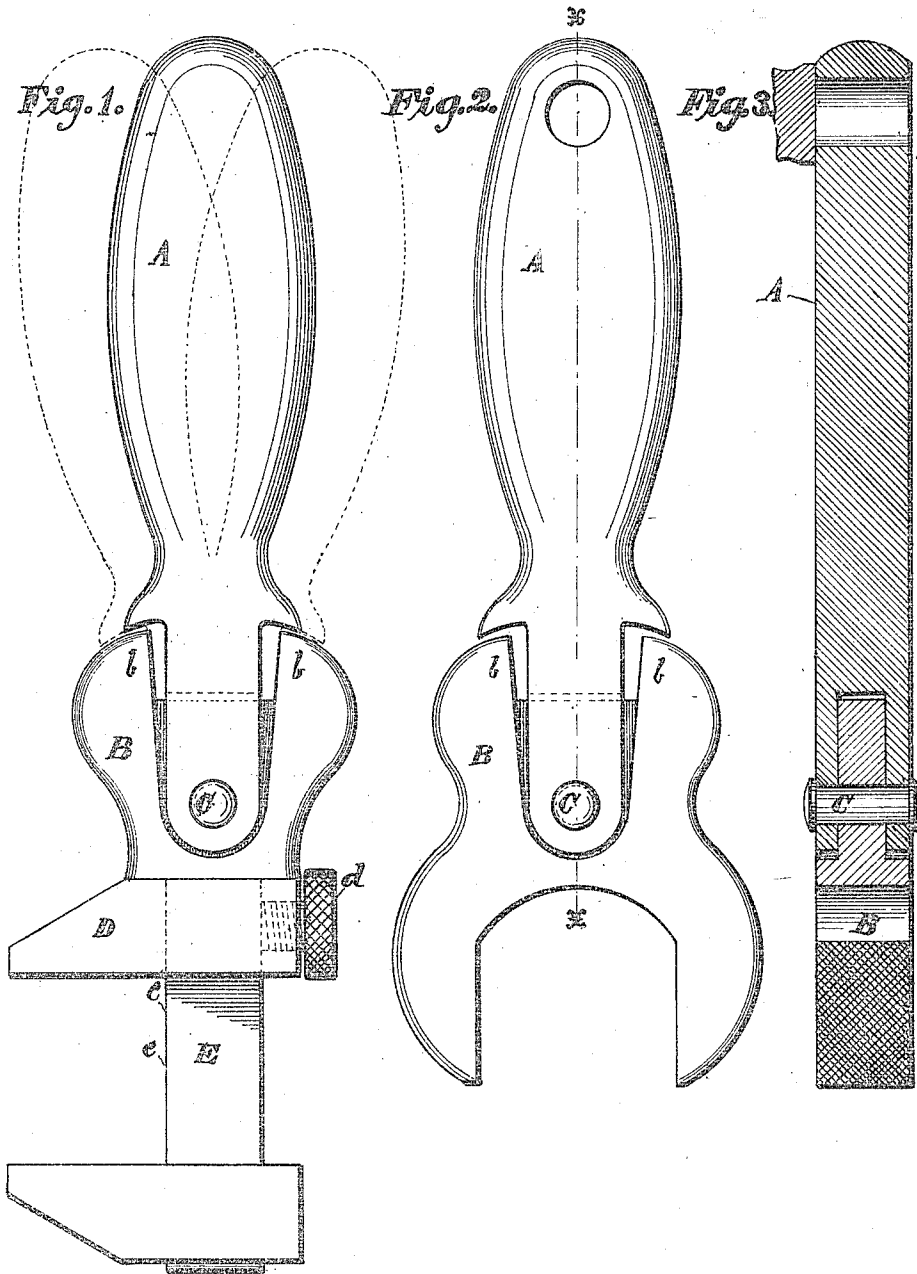


C. H. DOUGLAS.
WRENCH.

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1,038,539.

Patented Sept. 17, 1912.



Inventor

Witnesses
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WRENCH.

1,038,539.

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To all whom it may concern:

Be it known that I, CHARLES H. DOUGLAS, a citizen of the United States, and resident of Quincy, in the county of Branch and State of Michigan, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to an improvement in wrenches; and the objects of my improvement are, first, to provide a means for giving a jar or percussion to the body of the wrench when tightening up a bolt or nut, or for loosening the same; and second, to provide a simple and quick acting device for adjusting and securing the movable jaw. I attain these objects by the mechanism illustrated in the accompanying drawing, in which—

Figure 1, is an elevation of a wrench that embraces these improvements; Fig. 2, is an elevation of a solid jawed wrench with the same percussion device; and Fig. 3, is a vertical section of Fig. 2, taken on the line *x, x*.

Similar letters refer to similar parts throughout the several views.

A is a movable or jointed handle which is secured to the body of the wrench B with a bolt C, on which it is pivoted so as to oscillate freely between the solid projections on the body B, as shown by the dotted lines in Fig. 1; and by swinging handle A with force against the projection *b*, on B, a powerful

percussion is given to the wrench, by which a nut or bolt may be more firmly set home than by a steady pull. Fig. 2 is designed more especially for setting up or removing the nuts from saw-arbors. By the percussion device, the operator can firmly secure a saw, or remove it, without the necessity of locking the arbor.

D, Fig. 1, is a movable jaw, which can be set firmly at any desirable point on the bar E, by a thumb-screw, *d*, on the back of the jaw. The side of the mortise through the jaw D that comes in contact with the bar E at *e, e*, is roughened or gnarled to prevent the jaw from sliding or yielding from any position in which it may be set by the thumb-screw *d*.

What I claim as my invention and desire to secure by Letters Patent is,—

A wrench having a head provided with jaws and a socket, a web connecting the opposite walls of the socket, and a handle member, pivoted to and straddling the web, and having free oscillation in the socket, whereby its lateral throw may impart a hammer blow to the wrench head, as set forth.

Signed at Quincy, in the county of Branch and State of Michigan this 24th day of April, A. D. 1911.

CHARLES H. DOUGLAS.

Witnesses:

H. A. GRAVES,
N. W. WHALEY.