L. Coes,

Wrench.

No. 2,054. Patented Apr. 16, 1841.

Fig: 1

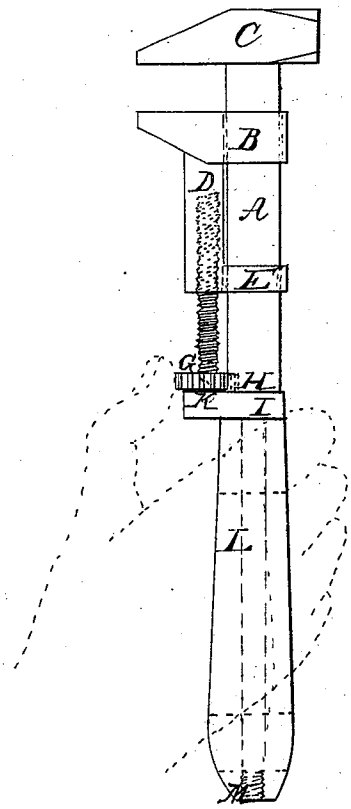
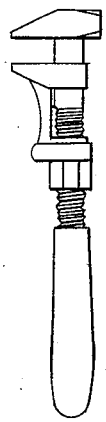


Fig 2



UNITED STATES PATENT OFFICE.

LORING COES, OF SPRINGFIELD, MASSACHUSETTS.

METHOD OF CONSTRUCTING SCREW-WRENCHES.

Specification of Letters Patent No. 2,054, dated April 16, 1841.

To all whom it may concern:

Be it known that I, LORING COES, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in the Adjusting Hand-Wrenches Used by Mechanics for Turning or Screwing Up Nuts and Screws of Different Sizes, and that the following is a full and exact description of the same.

The said description taken in connection with the accompanying drawings hereinafter referred to forms my specification setting forth and exhibiting the principles of construction of my improvement by which it may be distinguished from other inventions of a like character and such parts or combinations as I claim in the same and for which I solicit Letters Patent.

The drawing herewith presented represents a side view of a screw wrench as improved by me.

A is the shank which I construct of a rectangular square or other proper shape in cross section. The upper or hammer jaw C is attached to its extremity in the usual manner, while the lower jaw B is placed upon the shank so as to traverse or slide back and forth thereon, as it is generally applied thereto. To the underside of the jaw B a piece of metal D of convenient length is attached proceeding at right angles to the jaw or parallel to the shank A and is connected at its opposite end to a slide E through which the shank A passes. The piece D is perforated throughout its length with a female screw, into which a screw F is adapted as seen in the drawing. The screw F has a milled nut G on or near its lower end, which when the screw is placed in position passes into a small notch H represented by dotted lines formed or cut in the side of the shank. The lower side of the nut G rests upon the top of a piece of metal I which clasps or is applied to and projects from the shank A as seen in the drawing. The said piece I serving at the same time as a bearing for the end of the screw F which continues through the nut G into, and turns in a step in the piece I. This is shown at K by dotted lines. The handle L is connected to the shank by a nut M which is screwed upon the end of the shank A, where it projects beyond the extremity of the handle L. By this arrangement of the parts I am enabled to construct the shank A much stronger than when the same has a screw cut thereon as in most other kinds of screw wrenches; and furthermore, the parts serve in a better manner to support each other when the instrument is used with much of a strain on the nut, and are less liable to break than those in the ordinary wrenches. The jaw B is caused to advance toward or recede from the hammer jaw C, by revolving the screw F by the thumb applied to the milled nut G when the handle is grasped by the workman. This is shown by dotted lines in the drawing, and it will be further observed, that the peculiar position of the nut G renders the change in the distance of the two inner faces of the jaws B, C, from each other very easy, by the thumb alone, when the wrench is held in hand and the same is applied to a nut or screw.

The advantages of my improved wrench, so far as strength and convenience of parts are concerned, over those in common use will be apparent by inspection of Figure 2, which represents the ordinary wrench with the screw cut or formed on the shank.

Having thus described my invention, I shall claim—

Combining the screw, which operates the sliding jaw (and which is placed on one side of the shank upon which the said jaw moves and to the extremity of which the hammer jaw is applied;) with a female screw formed through a projection from the sliding jaw situated on the same side of the shank with the adjusting screw; the said adjusting screw to be suitably supported and to have a turning or milled nut placed thereon, a portion of whose edge or periphery shall pass into a notch or other similar contrivance formed in or upon the side of the shank of the wrench, so that the said adjusting screw may be always kept in the same position, and when revolved cause the lower jaw to slide on the shank, the whole being arranged and operating substantially as hereinbefore set forth.

In testimony that the above is a true description of my said invention and improvement I have hereto set my signature this fourth day of February in the year eighteen hundred and forty-one.

LORING COES.

Witnesses:
R. H. EDDY,
EZRA LINCOLN, Jr.