

(No Model.)

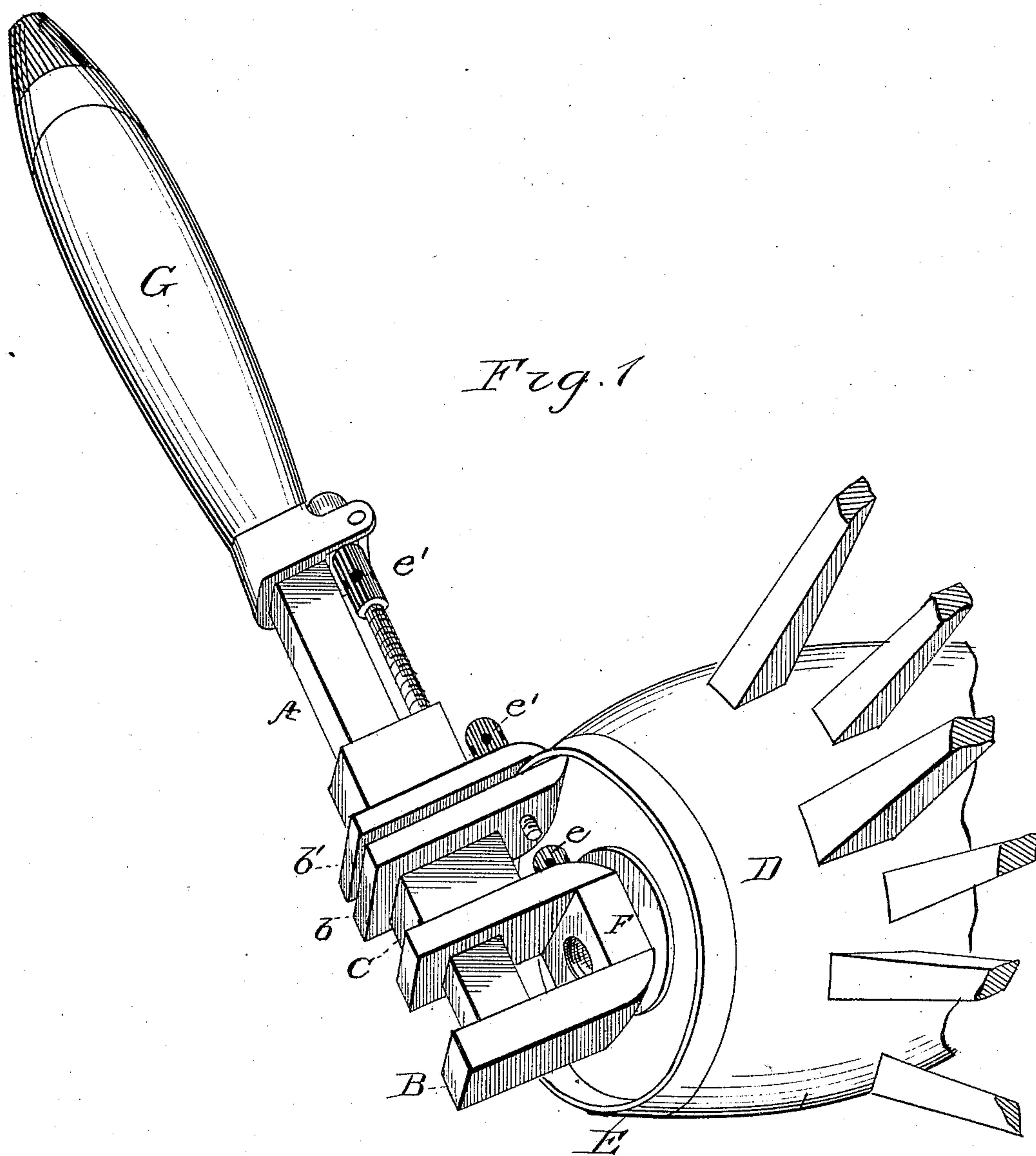
2 Sheets—Sheet 1.

I. Q. HOLMES.

WRENCH.

No. 284,015.

Patented Aug. 28, 1883.



Witnesses
W. Reynolds
Edward E. Ellis

Inventor
Isaac Q. Holmes
per O. E. Duffy
att'y

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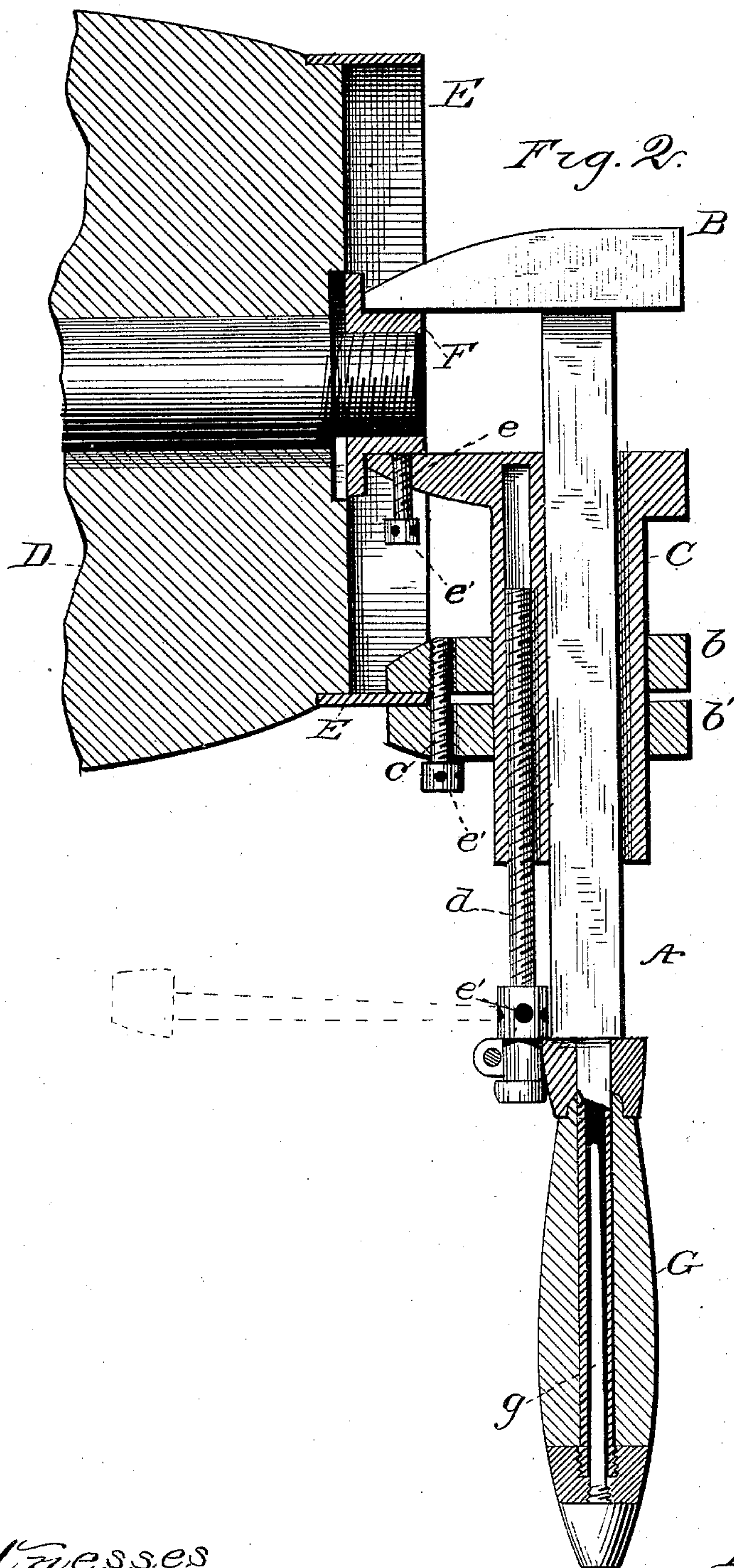
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UNITED STATES PATENT OFFICE.

ISAAC Q. HOLMES, OF CLARKSVILLE, ARKANSAS.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 284,015, dated August 28, 1883.

Application filed May 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC Q. HOLMES, of Clarksville, in the county of Johnson and State of Arkansas, have invented certain new and useful Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This improvement has relation to that class of inventions known as "wrenches;" and to this end it consists in the combination of the several parts herein shown, of which a more clear and exact description will be given hereinafter, and pointed out in the claims.

Referring to the drawings hereunto annexed, Figure I is a perspective view of my improved wrench, showing its application in one of the many uses to which it may be applied—that is, of unscrewing a nut from a wheel-axle. Fig. II is a view, partly in section, showing the construction somewhat more clearly.

Referring to the parts by reference-letters marked thereon, A represents the wrench, having the stationary head B and the sliding and adjustable jaw C, said parts being of ordinary construction.

D represents a portion of a wheel-hub; E, the band, and F the axle-nut, the use of my invention in connection therewith being hereinafter explained.

Sliding on the adjustable jaw C are two supplemental jaws, *b b'*, connected by screw *c*, the hole in the upper jaw, *b*, for the passage of the screw being screw-threaded, while that of the other or lower jaw, *b'*, being of smooth bore, (see Fig. 2,) by which they are adapted to be also adjusted.

d is the screw by which the sliding jaw C is adjusted, and *e* a screw working through the head of the said sliding jaw. (See Fig. 2.)

G is the handle, which is made hollow for a portion or the whole of its length, to serve for holding a rod or pin, *g*, said rod designed to be fitted in the holes *e'* in the screw-heads, whereby the jaws can be adjusted to grasp or clamp a nut more tightly.

One of the uses to which my improved wrench is especially adapted is that of screwing and unscrewing a nut from a wheel-axle, as illustrated in the drawings. In this particular adaptation the operation is as follows: When a nut is to be unscrewed, which oftentimes requires considerable strength, the sliding jaw C is adjusted to grasp the nut F, while the jaws *b b'* are adjusted to tightly hold between them the hub-band E, as shown. Now, all that has to be done is to rapidly turn the wheel, when the nut will be unscrewed, and when it is again to be screwed on the turning of the wheel is simply reversed. It will be obvious that an increase of power is thus obtained, and much labor in its use avoided—such as, for instance, the twisting and turning of the wrist in performing by hand the same operation with an ordinary wrench. Should not the operator be able to adjust the jaws sufficiently tight by the screws, the rod *g* is to be inserted in the holes *e'*, whereby more strength can be exerted to tighten them. (See dotted lines, Fig. 2.) Should a nut-lock be employed—such as, for instance, the one shown in my application filed herewith, Serial No. 93,782—the screw *e* performs the function, when properly adjusted, of releasing the locking mechanism. It will be evident how this is accomplished. The sliding jaw C is adjusted to grasp the nut, while the screw *e* compresses the spring in said nut-lock, thus releasing and enabling it to be screwed off.

Having thus described my invention, what I claim is—

1. In a nut-wrench, the combination of the shank having stationary head with the sliding jaw and supplemental jaws sliding thereon, the whole to be operated substantially in the manner shown and described.

2. In a nut-wrench, the combination herein described of the shank having stationary head with the sliding jaw C and adjustable pressure-screw *e*, said screw adapted for the purpose set forth.

3. In a nut-wrench, the combination of the shank and stationary head with the sliding jaw C and supplemental jaws *b b'*, sliding thereon, said jaws adapted to be adjusted by set-screws whose heads are bored or slotted for

the insertion therein of the rod *g*, substantially in the manner and for the purpose set forth.

4. As an article of manufacture, a wrench
5 or tool consisting of the shank having stationary head, the sliding jaw having screw *e*, and on which work the supplemental jaws *b b'*, the adjusting-screws having peripherally-slotted heads, the hollow handle, and rod designed to
10 be screwed therein.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ISAAC Q. HOLMES.

Witnesses:

FRANK O. MCCLEARY,
EDWARD E. ELLIS.