

No. 624,211.

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J. N. HILL.

WRENCH.

(Application filed Apr. 1, 1898.)

(No Model.)

Fig. 1.

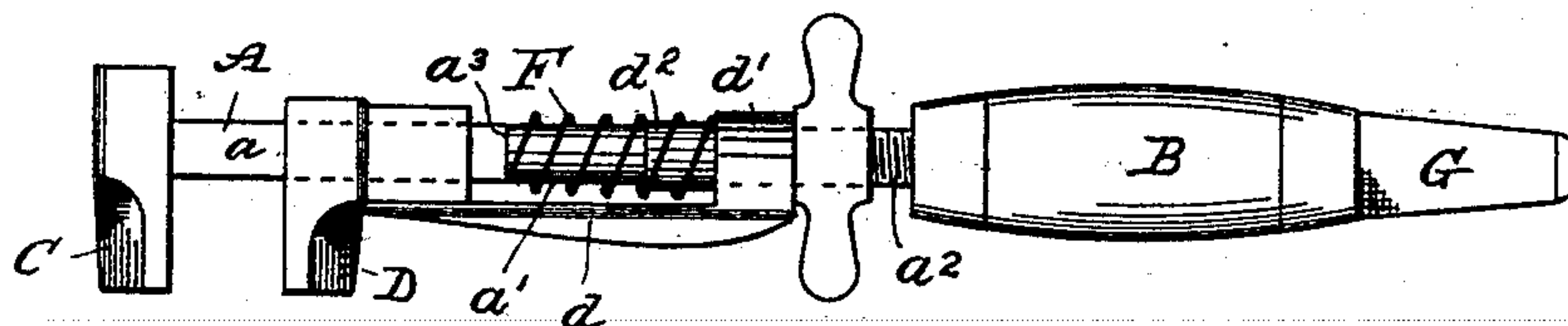


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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WRENCH.

SPECIFICATION forming part of Letters Patent No. 624,211, dated May 2, 1899.

Application filed April 1, 1898. Serial No. 676,046. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. HILL, a citizen of the United States, residing at Franklin Falls, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Wagon-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 relates to adjustable axlenut wrenches adapted to fit any ordinary size of nut used on wagon-axles and to hold it while being turned off or on, so that one need not find it necessary to handle a nut when taking off a wheel to oil the axle.

The object of the invention is to provide a wrench which shall be at all times easy to adjust and not likely to stick or retain its grasp upon a nut when one wishes to suddenly release or drop it out of the jaws of the wrench.

The invention will be fully set forth in the following specification and claim and clearly illustrated in the drawings accompanying and forming a part of the same, of which—

Figure 1 is a side elevation of my improved wrench. Fig. 2 is a cross-section showing the spindle on which the adjustable jaw is mounted.

Similar reference-letters designate corresponding parts in both the views.

A spindle A is provided at one end with a handle B and at the opposite end with a jaw C. Near the said jaw the spindle is square in cross-section, as at a , and upon this square portion is mounted an adjustable jaw D, having an extension d , running parallel with the spindle and provided at its end with an ear, through which the round portion of the spindle passes. This round portion a' of the spindle is threaded, as at a^2 , for a short distance, the threads commencing at the handle B and extending toward the jaws, carrying a suitable nut E of proper form to be readily turned by the fingers for closing the jaws, and to insure a smooth and easy movement of the jaw D when it is desired to release the grip I provide a helical spring F, which is mounted upon

the round portion a' of the spindle and operates expansively between the ear d' of the extension of the jaw D and the shoulder a^3 of the spindle, the said shoulder being formed by the union of the square and round portions a a' .

In addition to the features enumerated I have devised means for preventing the spring F from coming into contact with the threads a^2 of the spindle. This is accomplished by a sleeve d^2 , which may be formed of some thin metal and attached to the ear d' and of sufficient length to cover the threads a^2 even when the jaws C D are wide open.

A screw-driver G may be secured to the handle B, as shown, which will often serve a useful purpose, if for nothing more than to dig out a horse's hoof.

Having described my invention, what I claim is—

In a wrench, the combination with a spindle provided with a fixed head and a handle upon its opposite extremity, said spindle being squared adjacent to the fixed jaw and rounded intermediate of the handle and said squared portion and threaded immediately adjacent to the handle, of an adjustable jaw mounted upon the squared portion of the spindle and provided with an extension integral therewith and extending parallel to the spindle in the direction of the handle, a bearing-ear projecting from the extremity of the extension and surrounding the rounded portion of the spindle, a sleeve encircling the spindle and projecting from the bearing-ear toward the jaws, a spring encircling the spindle and sleeve and bearing at its opposite ends against the extremity of the squared portion of the spindle and against the bearing-ear, and an internally-threaded thumb-nut mounted upon the threaded portion of the spindle intermediate of the handle and bearing-ear, substantially as specified.

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

JOHN N. HILL.

Witnesses:

J. B. THURSTON,

WILLIAM H. DRURY.