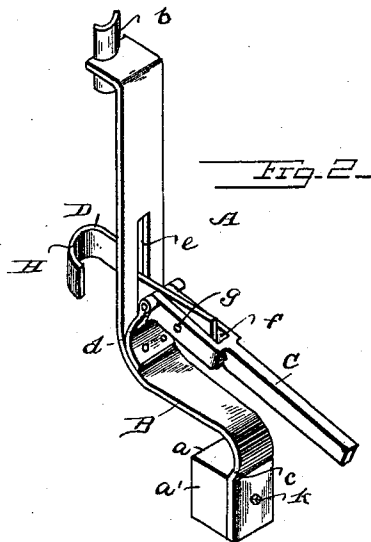
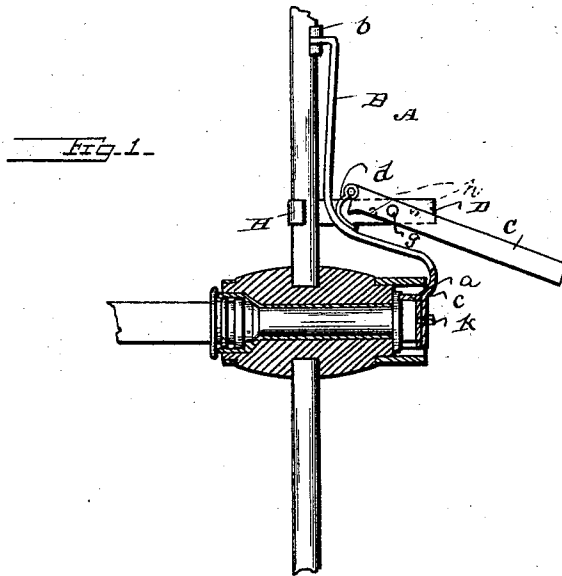


(No Model.)

G. W. EAST.
WRENCH.

No. 498,157.

Patented May 23, 1893.



WITNESSES

Jesse Heller

Philip C. Masi

INVENTOR

Geo. W. East

by C. W. Anderson

his

Attorney

UNITED STATES PATENT OFFICE.

GEORGE W. EAST, OF HELTONVILLE, INDIANA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 498,157, dated May 23, 1893.

Application filed March 11, 1893. Serial No. 465,544. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. EAST, a citizen of the United States, and a resident of Heltonville, in the county of Lawrence and State of Indiana, have invented certain new and useful Improvements in Wrenches; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical section through the wheel and hub showing the wrench applied and Fig. 2 is a perspective view of the wrench.

This invention has relation to certain new and useful improvements in wrenches, the object being to provide a simple and efficient device for removing and replacing the axle-nuts or taps of wagons, buggies, carts, &c., and for holding said nuts or taps while the spindle is being oiled, without the necessity for touching them with the hands; and the invention consists in the novel construction and combination of parts, all as hereinafter described and pointed out in the claims.

Referring to the accompanying drawings illustrating the invention, and the manner of its application, the letter A designates my improved wrench, which comprises the nut clasp and clamp arm B, a lever C, and a spoke clasp D. The nut clasp and clamp B consists of an arm or bar formed of spring metal, and carrying at one end a three-sided socket piece or clasp *a*, which is designed to engage or fit over a nut or tap. The sides *a'*, *a'* of said socket are preferably parallel with the arm or bar, as illustrated, in order to form a better side support for the nut or tap. The opposite end portion of said arm or bar is bent inwardly and carries a concave bearing piece or plate *b* for contact with a wheel spoke, as will be more fully hereinafter set forth. That portion of said arm or bar which carries the socket *a* is bent outwardly, as shown at *c*, in order that it may extend over the outer end of the hub to permit the socket to engage with the tap or nut. The lever C is fulcrumed

at one end to the outer face of the arm or bar B, or to a spring lug *d* thereon, in such a manner as to allow it to oscillate freely in the plane of the length of said arm or bar. The spoke clasp D passes loosely through an elongated slot *e* in the central portion of the arm or bar B, and at its outer end is received between the bifurcations *f*, *f*, of the lever C, where it is pivoted at *g*. The opposite portion of said clasp is bent as shown at *h*, to partially engage or encircle a spoke. The outer portion of said clasp should have a series of holes *h*, through any one of which the pivot pin *g* may be passed, in order to provide for the adjustment of the device to wheels with long or short hubs. The socket piece *a* is usually secured to the arm or bar B by a short removable bolt *k*, in order that said piece may be detached, and another substituted when it is desired to use the device with a nut of different form or size.

The use and operation of the device are as follows:—The socket piece is fitted to the nut or tap to be removed and the arm or bar B turned so that the bearing piece or plate *b* shall contact with the front portion of one of the spokes, as shown in the illustration, with the spoke clasp D in engagement with the rear portion of said spoke. The lever C is turned up against the arm or bar, which allows the clasp to slide downwardly upon the spoke, until its length from its pivot is taken up, so that when said lever is brought downwardly it will begin at once to tighten the device to the wheel. The downward movement of the lever is continued until the pivot or pin *h* passes the center, or below the fulcrum of the lever (which it readily may do, owing to the spring character of the arm or bar B), which forms a lock for the pivots and securely clamps the device to the wheel and tap. The wheel is now turned or spun backward, which will run the tap off from the thread of the spindle, said tap when removed being prevented from dropping by its engagement with the socket. When the spindle has been oiled, the wheel is placed thereon, and is spun forwardly, which runs the tap or nut to its seat. The lever C is then raised, and the device unclamped from the wheel and tap. It will be

apparent that when the device is locked and ready for operation, the lever C, being turned downward and outward forms a very convenient crank or handle for turning the wheel on or off.

By the use of this device, not only may taps be removed and replaced in much less time than with the ordinary wrench, but the danger of mashing or hurting the fingers or hand when the taps are hard set and difficult to start, is obviated. The hands also are prevented from becoming soiled from contact with the dirt and spent lubricant from the spindle, and the tap is held against liability to fall into the sand or grit.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein described tool, comprising a spring arm or bar having a socket or clasp at one end portion, and a bearing piece at the opposite portion, a lever pivoted to said arm or bar and a spoke clasp projecting through a slot in said arm or bar, and a loose connection

between said lever and spoke clasp, substantially as specified.

2. The herein described tool comprising the nut clasp and spring clamp arm B, the lever C fulcrumed to said arm and the spoke clasp D, fulcrumed to said lever substantially as specified.

3. The herein described tool, the combination with the spring bar or arm having a socket or clasp at one end portion thereof, and a spoke bearing at the opposite portion, of the lever having a pivotal connection with its inner end portion bent to engage a spoke, and its opposite portion projecting through an elongated slot in said arm or bar and having a loose and adjustable connection with said lever, substantially as specified.

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

GEORGE W. EAST.

Witnesses:

JESSE M. BUTCHER,
JOSEPH H. EAST.