

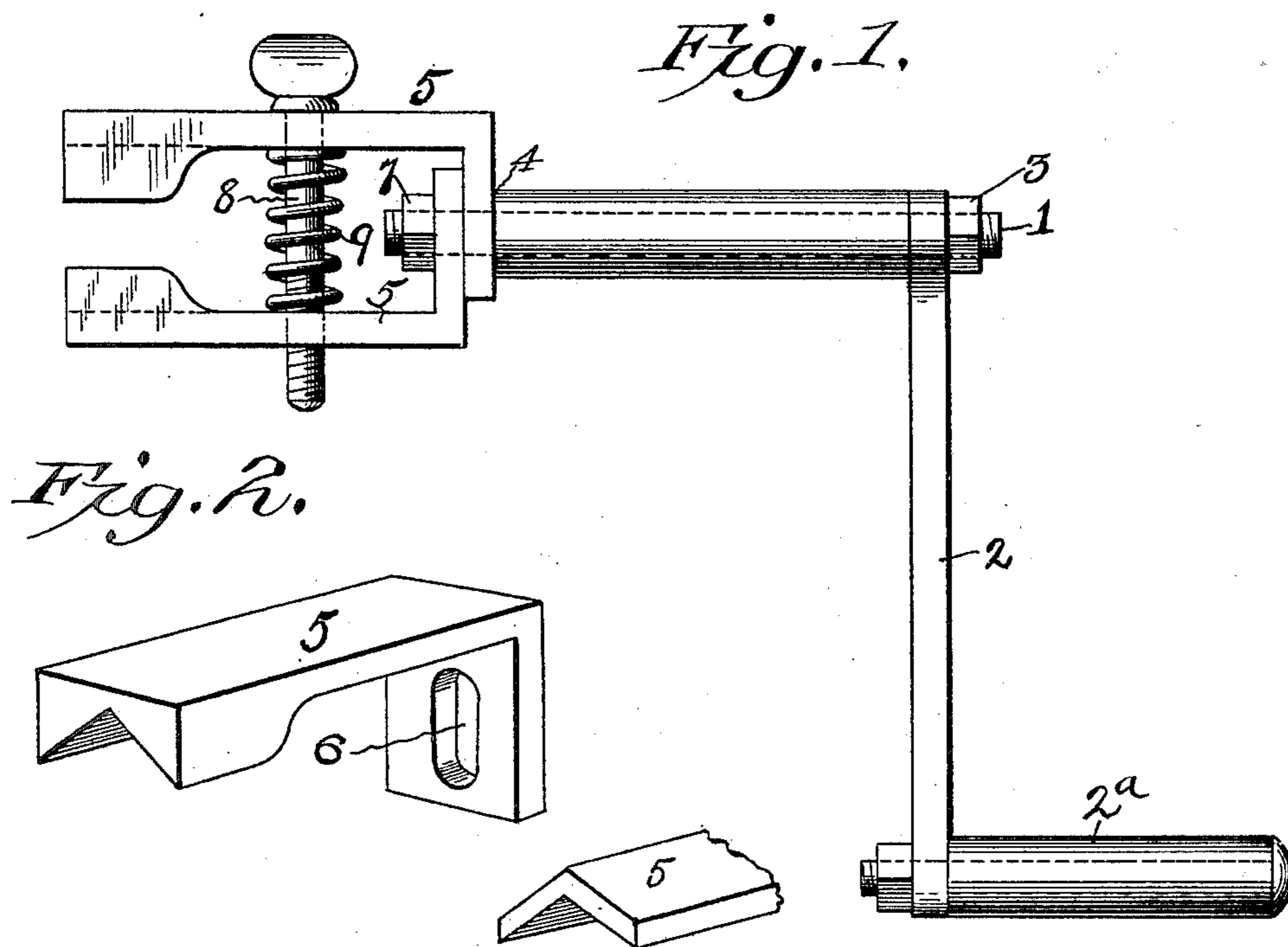
No. 674,914.

Patented May 28, 1901.

J. GANSLEY.  
NUT WRENCH.

(Application filed Dec. 5, 1900.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

JACOB GANSLEY, OF VICTOR, IOWA.

## NUT-WRENCH.

SPECIFICATION forming part of Letters Patent No. 674,914, dated May 28, 1901.

Application filed December 5, 1900. Serial No. 38,763. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB GANSLEY, a citizen of the United States of America, residing at Victor, in the county of Iowa and State of Iowa, have invented certain new and useful Improvements in Nut-Wrenches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to wrenches, and particularly to that class known as "adjustable-jaw nut-wrenches."

One object of the invention is to produce a nut-wrench designed particularly for use in removing nuts from vehicle-axles without liability to soil the hands of the user.

Furthermore, the object of the invention is to produce a wrench which can be employed in varied capacities about the carriage-house and farm or elsewhere where a wrench of this character can be used, and this wrench has been found of special value for applying or removing the nuts of cylinder-teeth for threshing-machines, the latter use being cited to disclose the utility of the invention.

Furthermore, the object of the invention is to produce a nut-wrench which will possess advantages in points of durability and efficiency, proving at the same time simple in construction and comparatively inexpensive to produce and sustain.

In describing the invention in detail reference will be had to the accompanying drawings, forming a part of this specification, wherein like characters denote corresponding parts in both views, and in which—

Figure 1 is a view in elevation, partly in section, of a wrench embodying the invention. Fig. 2 is a view in perspective of one of the jaws.

In the drawings, 1 indicates a crank-shaft having a sleeve; 2, the crank applied to the squared end of the crank-shaft and secured thereon by the nut 3. The crank-handle 2<sup>a</sup> is secured on the crank in any desired manner. The crank-shaft near its forward end is angular in cross-section, preferably square, and a shoulder 4 is formed at the junction of the rounded and square portions.

The jaws 5 of the wrench are each approximately L-shaped in side elevation, and, as shown in Fig. 1 of the drawings, the verti-

cally-disposed legs are provided with slots 6 to receive the angular portion of the forward end of the crank-shaft, and the slots are of such length as to permit the jaws to slide on the crank-shaft, or, if preferred, one of the jaws may be stationary. The nut 7, threaded on the end of the crank-shaft, retains the jaws in place, as shown. The forward ends of the jaws are bent to form a V-shaped socket, or the ends may be made of increased thickness compared with the remaining portions and provided with V-shaped recesses to conform to and embrace the angles of nuts operated upon.

The screw 8 is swiveled in the jaw near its upper end and is threaded in the jaw at its lower end, whereby the said jaws are adjusted. The spring 9 encircling the screw bears against the surfaces of the jaws to hold them distended as far as the screw will permit.

In the modification shown in Fig. 3 the crank-shaft is dispensed with and a bolt A, having a square shank, is inserted in the slots of the jaws and the crank carrying the handle is applied to the shank of the bolt.

A further use of the modified form is found by employing the cross-arm b, having an aperture to receive the shank of the bolt. In this use the cross-arm is applied to the bolt and the hooks c on the ends of the cross-arm are made to engage spokes of a wheel, (not shown,) and by turning the wheel one way or the other while the jaws are in engagement with the nut the said nut is turned either on or off the threaded end of the spindle, and the wheel would be either fastened on or freed to be removed from said spindle.

The construction, operation, and advantages will, it is thought, be understood from the foregoing description, it being noted that changes in the proportions and other details of construction may be resorted to without departing from the scope of the claims.

Having fully described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wrench, a crank-shaft having an angular portion near its forward end, approximately L-shaped jaws, vertically-disposed legs which are provided with slots to receive the said portion of the forward end;

said slots being of such length as to permit the jaws or one of them to slide on the crank-shaft, and means for adjusting the jaws.

2. In a wrench, a crank-shaft having an angular portion near its forward end, approximately L-shaped jaws, the vertically-disposed jaws of which are provided with slots to receive the said angular portion of the forward end of the crank-shaft and means for adjusting and rotating the jaws.

3. In a wrench, a crank-shaft having an angular-shaped portion near its forward end, approximately L-shaped jaws; the inner surface of the ends being provided with V-shaped recesses to conform to and embrace the angles of the nuts operated upon, and means whereby said jaws are adjusted and rotated.

4. In a wrench, a crank-shaft having an angular-shaped portion near its forward end, approximately L-shaped jaws the forward ends of which are V-shaped in cross-section, a screw swiveled in the jaw near its upper end and threaded in the jaw at its lower end

whereby said jaws are adjusted, and a spring encircling the screw, bearing against the surfaces of the jaws to hold them distended.

5. In a wrench, a crank-shaft having a sleeve; said crank-shaft having squared portions near its ends, said ends being threaded; jaws adjustably secured on the squared portion at the forward end and a nut on the end to retain said jaws in place, a bolt swiveled in one of the jaws and threaded in the opposite jaw, a spring encircling the bolt and bearing against the jaws; the ends of said jaws having V-shaped recesses in their facing surfaces, and means for rotating the crank-shaft secured on the squared portion thereof.

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

JACOB GANSLEY.

Witnesses:

H. H. SHELDON,  
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