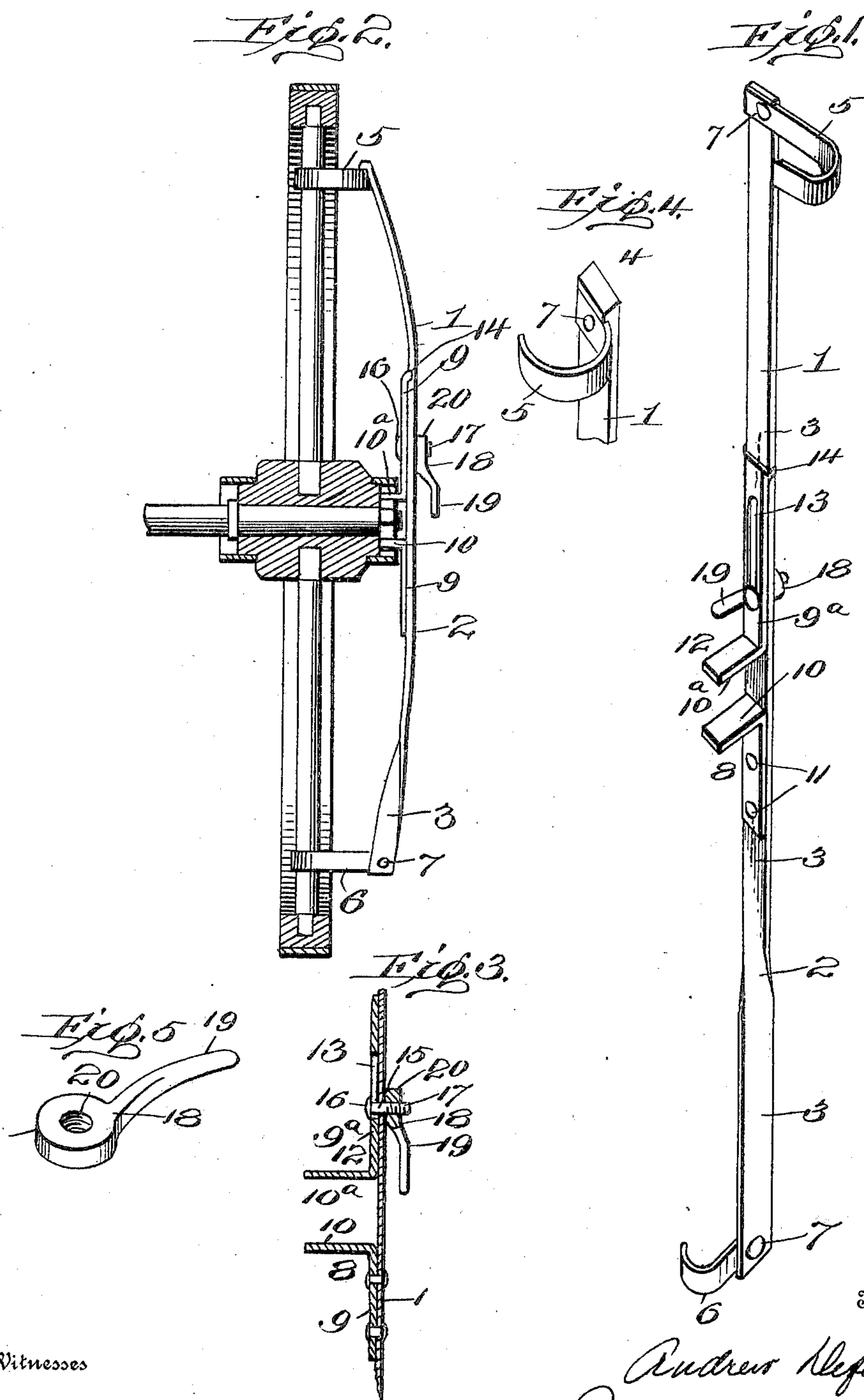


No. 811,549.

PATENTED FEB. 6, 1906.

A. DEFENBAUGH.  
VEHICLE WRENCH.

APPLICATION FILED JUNE 2, 1905.



Witnesses

Jesse C. Miller.  
Edwin C. Krooman.

Inventor

Andrew Defenbaugh,  
By William Flacker  
Attorney S.

# UNITED STATES PATENT OFFICE.

ANDREW DEFENBAUGH, OF LAURELVILLE, OHIO.

## VEHICLE-WRENCH.

No. 811,549.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed June 2, 1905. Serial No. 263,465.

*To all whom it may concern:*

Be it known that I, ANDREW DEFENBAUGH, a citizen of the United States, residing at Laurelville, in the county of Hocking and State of Ohio, have invented new and useful Improvements in Vehicle-Wrenches, of which the following is a specification.

This invention relates to certain new and useful improvements in wrenches, and more particularly to a wrench designed to hold a nut or bur to its place against the outer end of the hub of a wheel during and after the removal of the wheel from an axle at the time when the axle is being lubricated.

One of the objects of the invention is the peculiar positioning of the clamping-hooks upon the body of the wrench.

Another object of the invention is the improvement of the structure of the jaws of the wrench, as well as the locking means therefor.

A still further object of the invention is the improvement of the construction of the body of the wrench, the jaws carried thereby, locking means for said jaws, and spoke-engaging means carried by the body.

With these and other objects in view the invention consists of certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a wrench constructed in accordance with the present invention. Fig. 2 is a view in side elevation of my improved wrench positioned upon a vehicle-wheel, said wheel being shown in section. Fig. 3 is a section taken on line 3-3, Fig. 1. Fig. 4 is a perspective view of one of the ends of the wrench. Fig. 5 is a perspective view of the locking-lever.

Referring to the drawings by reference-numerals, 1 designates a resilient bar constituting the body of the wrench, said bar being bent at 2 for providing an end 3, which extends at right angles to the body portion of the wrench. Each end of the bar or shank 1 is provided with an integral hooked end 4, as clearly seen in Fig. 4. Secured upon the resilient bar or shank 1 and engaging the hooked ends 4 are hooks 5 and 6. The hooks 5 and 6 are secured to the bar or shank 1 by any suitable means, as rivets 7. The hooked integral ends 4 of the bar or shank 1 constitute locking means for preventing of rotary

movement of the hooks 5 and 6, as it is obvious that if only one rivet 7 was used to secure the hooks to the bar or shank 1 said hooks would likely move from their original position after the wrench had been in use some time. The hooked structure of the bar or shank 1 obviates the necessity of weakening the rivet-engaging portion of the hooks by employing a number of said rivets. Owing to the peculiar structure of the bar or shank 1, the hooks 5 and 6 are secured to the same at right angles to each other. Owing to the peculiar positioning of the hooks, different structures are involved. It will be seen that the hook 5 is considerably larger than hook 6 and that the hooked structure of member 5 is more radical than that of 6. In other words, the structure of the hooks vary by reason of the arrangement of the same upon the body portion.

A stationary jaw 8 is secured to the bar or shank 1. The jaw 8 comprises a flat base 9, which is provided with a right-angled extension 10. Fastening means, as rivets 11, pass through the base 9 of the jaw 8 and bar or shank 1. The jaw 8 is preferably secured centrally of the bar or shank 1. A movable jaw 12 is positioned upon the bar or shank 1. The movable jaw comprises a base 9<sup>a</sup>, which is provided with a right-angled extension 10<sup>a</sup>. The base portion of the movable jaw is provided with an elongated slot 13 and with parallel ribs 14, formed upon one end thereof. The lips 14 engage the longitudinal edges of the bar or shank 1 and constitute guides for preventing of rotary movement of the slidable jaw 12 upon the removable stud or bolt 15. The stud or bolt 15 is provided with a head 16, formed integrally upon one end, and with a screw-threaded surface 17, which is formed thereon for receiving the adjustable-jaw-locking member. The head 16 is of sufficient dimension to overlap the sides of the elongated slotted portion 13 of the slidable jaw and prevent said jaw being removed from the bar or shank 1 until the stud or bolt 15 is removed therefrom. The locking-lever 18 comprises a comparatively thick apertured body portion 20 and an integral lever-arm 19. The arm 19 of the apertured body 20 is bent upwardly from the body 20, so as to prevent the same from engaging the bar 1 when swung parallel to the same. The locking-lever 18 and the stud or bolt 15 provide means whereby the adjustable jaw 12 may be retained in a fixed position.

Owing to the resiliency of the bar or shank 1, the same can be bent sufficiently for permitting of the hooks 5 and 6 to be positioned upon the spokes of a wheel, as shown in Fig. 2. When the wrench is positioned upon a wheel as depicted in Fig. 2, the jaws 10 and 10<sup>a</sup> will be held against the hub of a wheel, owing to the spring action of the body of the wrench. Owing to the peculiar structure of the bar 1 and the positioning of the hooks 5 and 6, the adjustment of the wrench upon a wheel is easily accomplished, for the reason that the hook 6 is first positioned upon the spoke, and then the hook 5, owing to its peculiar construction, can be easily "snapped" over a spoke.

What I claim is—

1. A device of the character described, comprising a body portion, hooks secured to said body portion at right angles to each other, and nut-clamping means carried by said body portion.

2. A device of the character described, comprising a resilient bar twisted intermediate its ends, hooks secured to said bar at right angles to each other, a fixed jaw carried by said bar, an adjustable jaw secured to said bar, and means for securing said adjustable jaw in a stationary position.

3. In a device of the character described, the combination of a resilient bar, said bar provided near one end with a portion extending at right angles to the body of the same, the ends of said bar bent over at right angles to the body, hooks secured to said bar and engaging the right-angled bent-over portions thereof, said hooks positioned at right

angles to each other, a jaw fixedly secured to said bar, a removable threaded bolt secured in a stationary position upon said bar, said bolt provided with a head, an adjustable jaw provided with an elongated slot positioned upon said bar, said bolt engaging the slotted portion of said jaw, said adjustable jaw provided with parallel lips, constituting guides, and an adjustable locking-lever positioned upon the threaded portion of the bolt, said locking-lever comprising an apertured body portion, and an angular, integral arm extending therefrom.

4. A wrench, comprising a body portion, said body portion provided with angular, integral end portions, hooks secured to said bar and engaging said angular end portions, said hooks positioned at right angles to each other, a fixed and an adjustable jaw secured to said body portion, and stationary locking means engaging said adjustable jaw for securing the same in a fixed position.

5. A wrench comprising a body provided with a portion positioned at right angles to the main portion of said body, hooks carried by said body at substantially right angles to each other, one of said hooks carried by said portion of the body positioned at right angles to the main part thereof, and clamping means carried by said body.

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

ANDREW DEFENBAUGH.

Witnesses:

W. D. CAIN,

WM. M. TAYLOR.