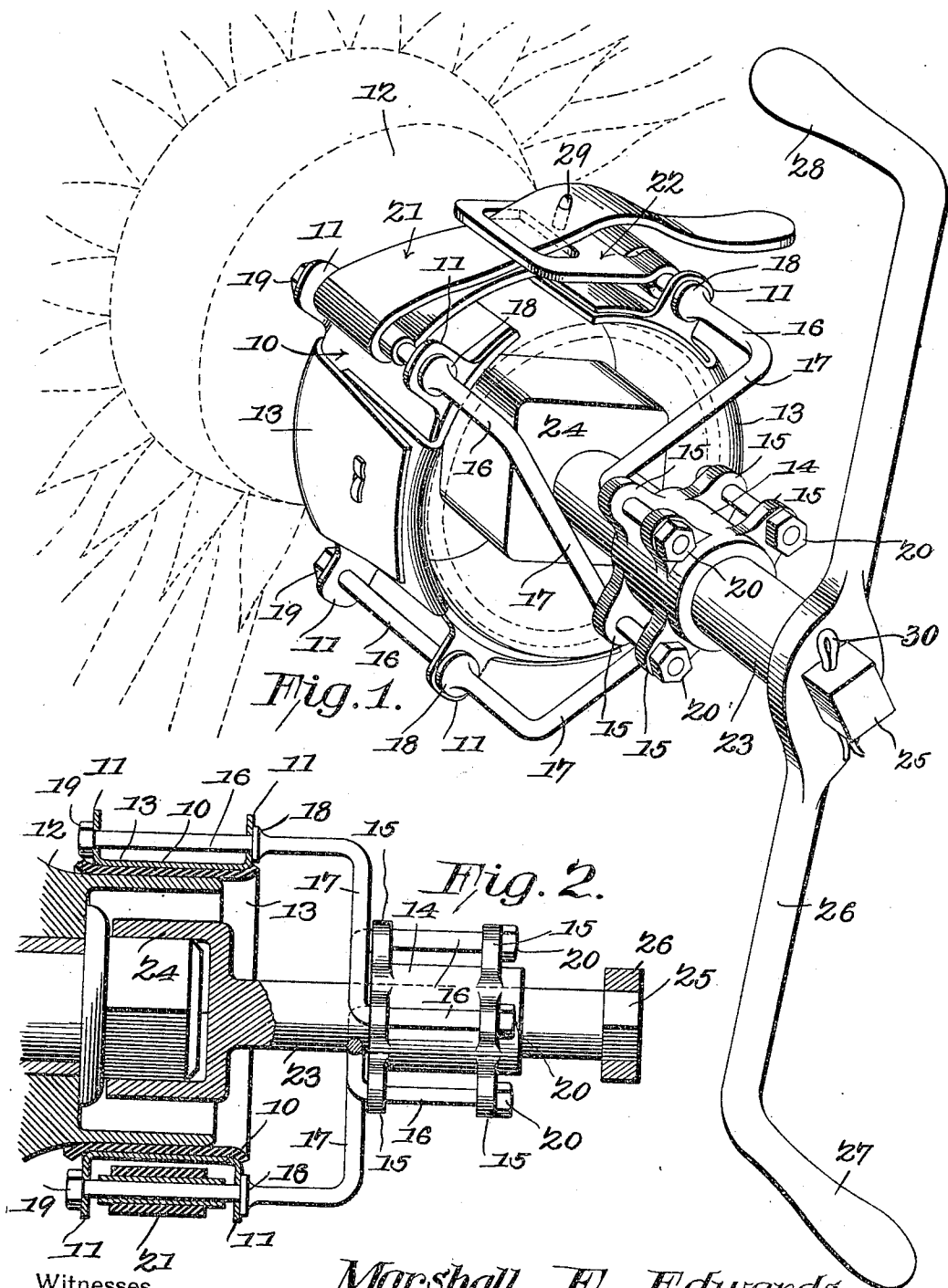


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M. F. EDWARDS.
HUB WRENCH.

APPLICATION FILED MAR. 9, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

MARSHALL F. EDWARDS, OF STILLWATER, OKLAHOMA TERRITORY.

HUB-WRENCH.

No. 812,334.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed March 9, 1905. Serial No. 249,289.

To all whom it may concern:

Be it known that I, MARSHALL F. EDWARDS, a citizen of the United States, residing at Stillwater, in the county of Payne and Territory of Oklahoma, have invented a new and useful Hub-Wrench, of which the following is a specification.

This invention relates to wrench devices for attaching and detaching axle-nuts of vehicle-wheels, and has for its object to provide a simply-constructed and efficient implement of this class whereby the nuts will be removed and remain associated with the wheel during the time the latter is disconnected from the axle while the lubricant is being applied.

With these and other objects in view, which will appear as the nature of the invention is better understood; the same consists in certain novel features of construction, as herein-after fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings, Figure 1 is a perspective view of the improved device. Fig. 2 is a longitudinal sectional elevation of the same.

The improved device comprises a divided band 10, preferably of resilient metal, such as steel, and formed with spaced radial ears 11 on its ends and having transverse apertures. The band is designed for enclaspings the hub 12 of a vehicle-wheel and will preferably be lined with relatively soft leather or like material 13 to prevent abrasion of the varnish or paint on the hub. Disposed centrally of the band 10 is a sleeve 14, having spaced radial ears 15 at the ends provided with transverse apertures. Spaced rods 16 are disposed for rotation through the ears 11 of the band 10 and also through the ears 15 of the sleeve 14, each rod having a lateral offset 17 between the band and sleeve. Each of the rods 16 is also provided with a shoulder 18 for bearing against the outer series of the ears 11 of the band 10, while the offset portions bear against the adjacent ears 15 of the sleeve, the rods

having nuts 19 20 upon their respective ends bearing upon the outer series of the ears upon the members 10 and 14. By this means the band 10 and sleeve 14 are yieldably coupled, 60 so that the band may be readily clamped upon hubs of various sizes without affecting the position of the sleeve 14 relative to the band.

The band 10 is provided with means, such 65 as a strap 21 and buckle 22, for applying the band tightly to the hub 12, the buckle preferably of the pin form, as shown at 29, to facilitate the operation of fastening and unfastening. Mounted for rotation in the sleeve 70 14 and also slidable therethrough is a wrench-stock 23, having a socket-wrench 24 on the inner end and a square portion 25 at the outer end, the latter for receiving a lever-handle 26, which is secured detachably thereto, as 75 by a key-pin 30. The ends of the handle member are provided with laterally-disposed arms 27 28, extending in opposite directions and parallel to the stock to assist in operating the handle. With this simple device it is 80 obvious that the band 10 may be readily and quickly clamped upon the outer end of the vehicle-hub, the wrench member being placed over the axle-nut and rotated by the handle to remove the nut, which remains associated 85 with the wheel when the latter is removed for applying the lubricant to the axle-journal, and then as readily replaced by a few turns of the wrench when the wheel is restored to the axle. The releasing of the 90 strap 21 then permits the device to be removed for use on the next wheel, and so on as often as required.

The device is simple in construction, can be inexpensively manufactured and sold at a 95 small price, and will effectually operate for the purposes described.

Having thus described the invention, what is claimed is—

1. A hub-wrench comprising a divided 100 flexible hub-embracing band, means for binding the band upon a hub, an open-ended sleeve disposed at one side of the band and in line with the longitudinal axis thereof, connecting means between the sleeve and the 105 band to automatically maintain the former in axial alinement with the band, and a wrench having a shank portion slidable through and rotatable in the sleeve.

2. A hub-wrench comprising a divided re- 110 silient band, a strap connected to the ends of said band for binding the same on a wheel-

hub, and a wrench rotatively disposed relative to said band and movable toward and away from the same.

3. A hub-wrench comprising a divided resilient band, means for binding said band on a wheel-hub, a wrench for bearing over the binding-nut of the axle end and having a stock extending from the same, a sleeve in which said stock is slidably and rotatively disposed, and means for movably connecting said sleeve to said band.

4. In a hub-wrench, a divided band having means for binding on a wheel-hub, a sleeve disposed centrally of said band, spaced rods rotatively connected to said band and to said sleeve and with lateral offsets between the band and sleeve, and a wrench-stock rotatively and slidably engaging said sleeve for engagement with the nut of the wheel.

5. In a hub-wrench, a divided band having means for binding on a wheel-hub and with spaced ears extending laterally from the ends, a sleeve disposed centrally of said hub and having spaced lateral ears, spaced rods

mounted for rotation in said band-ears and in said sleeve-ears and each provided with a lateral offset between the band and sleeve, and a wrench member mounted for rotation in said sleeve and slidable through the same.

6. A hub-wrench comprising a divided flexible band, means to clamp the same upon a hub, an annular series of rods disposed in substantial parallelism with the axis of the band and rotatably mounted upon the exterior of the band, said rods being projected at one edge of the band and provided with crank-terminals, an open-ended sleeve located between and loosely carried by the crank-terminals of the rods, and a wrench element having a shank rotatable within and movable endwise through the sleeve.

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

MARSHALL F. EDWARDS.

Witnesses:

E. E. GOOD,

H. J. EMMERT.