

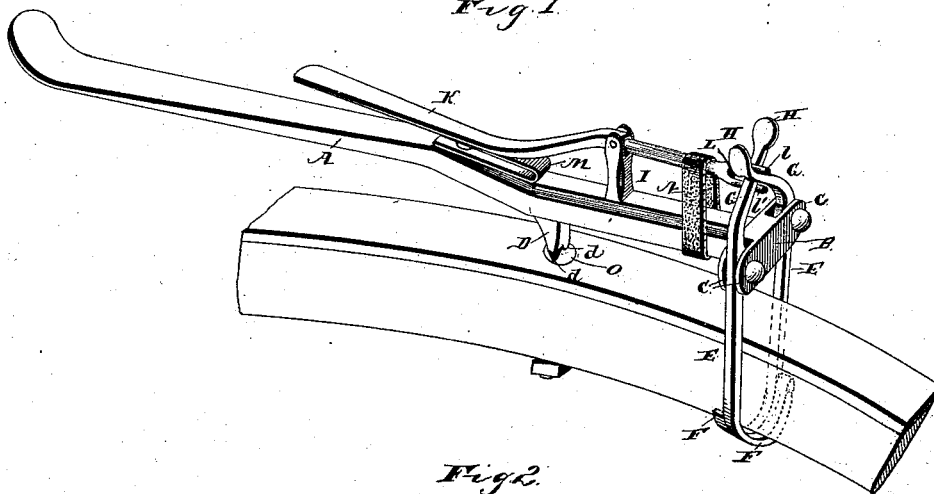
(No Model.)

T. B. CASEY.  
TIRE BOLT HOLDER.

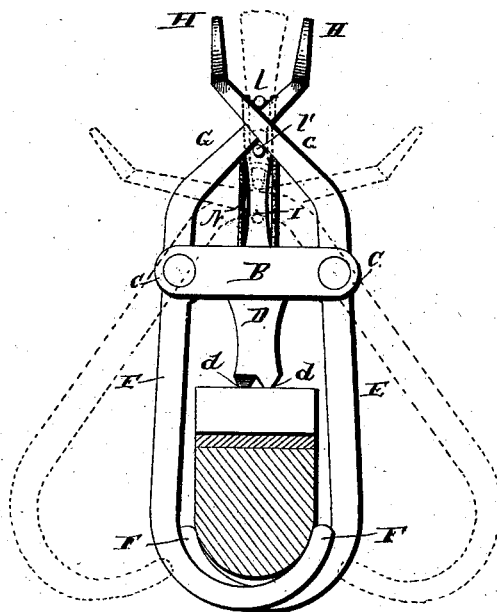
No. 382,029.

Patented May 1, 1888.

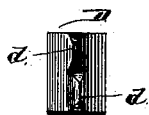
Fig. 1.



*Fig. 2.*



*Fig. 3.*



Witnesses.

Geo. Hooper.  
John W. Biggers?

Inventor.

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# UNITED STATES PATENT OFFICE.

THOMAS B. CASEY, OF CEDAR FALLS, IOWA.

## TIRE-BOLT HOLDER.

SPECIFICATION forming part of Letters Patent No. 382,029, dated May 1, 1888.

Application filed December 5, 1887. Serial No. 257,052. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS B. CASEY, a citizen of the United States, residing at Cedar Falls, in the county of Black Hawk and State of Iowa, have invented new and useful Improvements in Tire-Bolt Holders, of which the following is a specification.

My invention relates to improvements in bolt-holders, having especial reference to that class of devices which are used to engage tire-bolts and prevent them from turning while the nut is being screwed in place.

It frequently happens in screwing the nut on a tire-bolt or removing the nut therefrom that it turns with difficulty, and therefore turns the bolt also. To enable the nut to be screwed on, therefore, it is necessary to use a tool to hold the bolt from turning.

It is my object to provide a simple, cheap, effective, and easily-operated device of this character.

The invention consists in a certain novel construction, hereinafter more fully described in connection with the accompanying drawings, wherein—

Figure 1 is a side view of the holder applied in the operative position to a rim or felly. Fig. 2 is a front view of the holder. Fig. 3 is a detail view of the engaging-stud.

Referring by letter to the accompanying drawings, A designates the handle of the holder, which is provided at one end with a cross-head, B, having apertured ears C on its opposite ends, and the stud D is attached to the under side of the handle a short distance from the said cross-head. This stud is tapered toward the lower end to an edge, and the edge is provided with points *d d*, which are sharpened or beveled, respectively, upon opposite sides. Therefore when the stud is pressed downward upon a bolt-head and a nut is screwed on the bolt the rotation of the nut is in opposition to the inclination of the points on the stud.

E E represent jaws which are pivoted, respectively, to opposite ends of the cross-head between the ears C C, and the said jaws are bent inward and upward at their lower ends to form the hooks F F, for a purpose to be hereinafter explained. The upper ends of the jaws are provided with arms G G, having finger-holes H H on their free ends.

A standard, I, is attached to the upper side of the handle, and to the upper end thereof is pivoted the lever K. This lever is provided at the front end with a fork, L, which engages the arms G G, and it extends at the rear end over the portion of the handle A which is grasped by the operator. It will be seen that as the rear end of the lever is pressed down or toward the tire the fork L, sliding on the arms G, draws the jaws together. This fork L comprises the upper arm, *l*, and the lower arm, *l'*, and it will be seen that when the lever is operated the lower arm bears against the lower and inner sides of the arms G G to close the jaws, and the upper arm, *l*, bears against the upper and outer sides of the arms G G to open the jaws.

A V-shaped spring, M, is arranged under the rear end of the lever K and is secured to the handle A. Therefore it will be seen that the front end of the lever is normally depressed and the jaws are normally held open.

A rubber band, N, is shown in Fig. 1 around the front end of the lever and the handle. The object of this is to replace the steel spring if the latter should break; also, the rubber band may be preferred to the spring, in which case the latter may be omitted entirely.

It will be seen that this holder consists mainly in a handle, a stud secured to the handle and adapted to bear on the head of the bolt, and a clamping device at the end of the handle to engage the felly of the wheel, and thus form a fulcrum for the handle to enable the stud to be firmly engaged in the bolt-head.

The operation of the holder will be readily understood from the foregoing description. Fig. 1 shows a portion of a felly or rim and a portion of the tire through which are passed the bolts O O. It is desired to hold these bolts from turning while the nuts are screwed in place. Grasp the handle of the holder and place the end of the stud firmly on the head of the bolt. Then press the rear end of the lever K with the thumb of the hand which grasps the handle, thereby causing the jaws to close around the felly and engage the same, the hooked ends thereof taking a firm hold. Now press downward upon the handle A, and the thumb may be removed from the lever, as the jaws will be held in place by their peculiar shape. It will be readily seen that one hand

may be employed to operate the holder while the other is free to manipulate the wrench to screw the nut on the bolt.

To remove the holder from the wheel, simply remove the pressure on the handle and the jaws will spring apart and maintain their open position in readiness to be applied as before.

The finger-holds on the upper ends of the arms G G are to enable the jaws to be operated without the aid of the lever K.

This holder may be applied to a wheel which has been painted, and owing to the peculiar manner of engaging the felly the paint will not be marred. Further, there is no chance for the tool to slip or allow the bolt to turn, as great force may be applied to the end of the handle and the points on the stud pressed into the metal of the bolt-head. The device may also be used to hold bolts from turning in other parts of a vehicle besides the wheels, and will therefore be found of great utility to a carriage or wagon builder.

Having thus described my invention, I claim—

1. In a bolt-holder, the combination of the handle A, having the stud D on its under side, and the hook-shaped jaws E E, pivoted to the handle and having the arms G G on their upper ends provided with finger-holds H H, substantially as specified.

2. In a bolt-holder, the combination of the handle A, having the depending stud D, the jaws E E, pivoted to the handle, and the lever

K, connected at one end to the jaws, substantially as and for the purpose specified.

3. In a bolt-holder, the combination of the handle having the depending stud D, the jaws E E, having the arms G G, and the lever K, having the fork L, engaging the said arms, whereby the jaws may be operated by the hand which grasps the handle, substantially as specified.

4. In a bolt-holder, the combination of the handle A, having the depending stud D, the jaws E E, pivoted to the handle and having the arms G G, and the spring-actuated lever pivoted on the upper side of the handle and engaging the arms G G, whereby the jaws are normally held open, substantially as specified.

5. In a bolt-holder, the combination of the handle A, having the depending stud D, the jaws pivoted to the handle and having the arms G G, the standard I on the handle, the lever K, pivoted to the end of the said standard and engaging the arms G at one end, and the spring M, secured to the handle and bearing against the lever, substantially as and for the purpose specified.

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

THOMAS B. CASEY.

Witnesses:

J. J. TOLERTON,

WESLEY ALDRIDGE.