

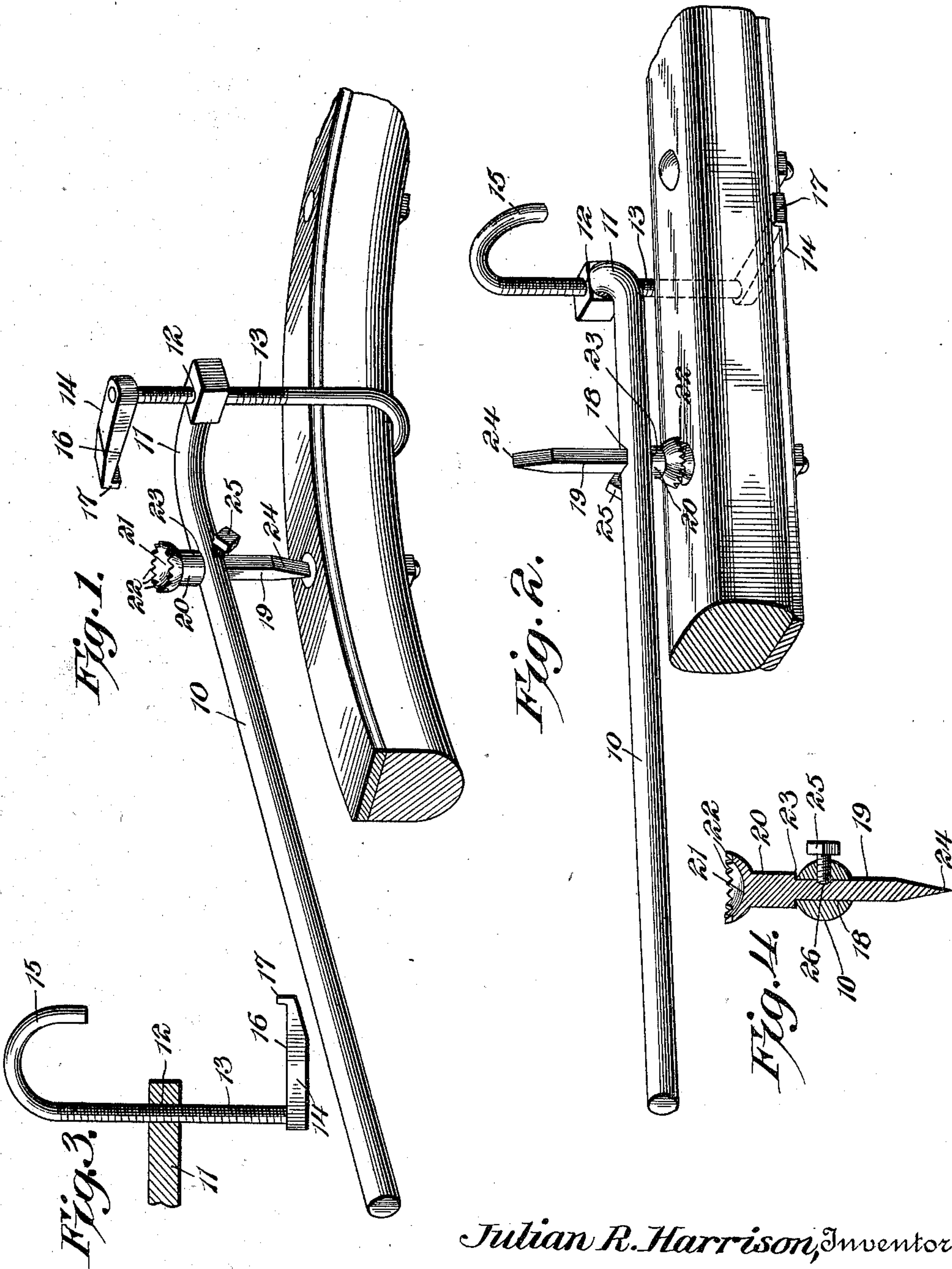
No. 735,251.

PATENTED AUG. 4, 1903.

J. R. HARRISON.  
BOLT HOLDING IMPLEMENT.

APPLICATION FILED DEC. 10, 1902.

NO MODEL.



Julian R. Harrison, Inventor

By

*E. G. Siggers*

Attorney

Witnesses

*Howard D. Orr*

*B. L. Foster*



# UNITED STATES PATENT OFFICE.

JULIAN R. HARRISON, OF BARNWELL, SOUTH CAROLINA, ASSIGNOR  
OF ONE-HALF TO JOHN M. EASTERLING, OF BARNWELL, SOUTH  
CAROLINA.

## BOLT-HOLDING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 735,251, dated August 4, 1903.

Application filed December 10, 1902. Serial No. 134,678. (No model.)

*To all whom it may concern:*

Be it known that I, JULIAN R. HARRISON, a citizen of the United States, residing at Barnwell, in the county of Barnwell and State of South Carolina, have invented a new and useful Bolt-Holding Implement, of which the following is a specification.

This invention relates to implements arranged to engage the head of a bolt to prevent the same turning during the rotation of the nut.

It is the object to provide a structure which may be applied to surfaces of different contours, is adjustable to articles of different sizes, and will hold bolts of various dimensions and diversely-shaped heads. The preferred means for obtaining these several results is shown in the accompanying drawings and is described in the following specification. The structure is, however, open to various modifications and changes.

In the drawings, Figure 1 is a perspective view showing the implement applied to a vehicle-wheel and engaged with a tire-nut. Fig. 2 is also a perspective view illustrating the invention in use upon a vehicle-thill. Fig. 3 is a transverse sectional view through one end of the lever-arm, and Fig. 4 is a sectional view through an intermediate portion of the arm.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

In the embodiment shown a lever-arm 10 is employed, which may be of any desirable form, preferably having an offset neck 11 at one end, provided with an enlarged head that has a threaded opening 12. In this opening is threaded a rotatable shank 13, on the ends of which are arranged attaching elements in the form of jaws 14 and 15. The jaw 14 is preferably formed with a flat inner face 16 and a terminal lip 17, while the jaw 15 is in the form of a hook—that is, substantially semicircular in shape. The lever-arm 10 is also provided with an intermediate angular opening 18, in which is detachably fitted a reversible holding device comprising, essentially, an angular stem 19, having article-engaging heads at its ends. One of these heads comprises an enlargement 20, having a cupped

terminal 21, the peripheral edge of which is serrated to provide the teeth 22. The inner end of the head constitutes a shoulder 23, which rests against the lever-arm and prevents the movement of the stem through the opening 18. The other end of the stem is sharpened, as shown at 24, to provide a chisel-edge. The holding device is held in place by a set-screw 25, threaded into the lever-arm and arranged to engage in a socket 26, formed in the stem.

The manner of using this implement will be apparent to those skilled in the art by reference to Figs. 1 and 2. If the article to which it is to be attached has a rounded contour—as, for instance, the felly of a wheel—the hook 15 is engaged therewith, the shank 13 being first adjusted so that the holding device will be brought into proper relation with the bolt to be held and the chisel edge will engage the same. In case a bolt having a rounded head is to be held and the face engaged by the jaw is flat the jaw 14 is employed, as shown in Fig. 2. In this instance the cupped head will center itself upon the bolt-head and the teeth will bite into the same, thus insuring the holding of the bolt. If a round-headed bolt is located in an article having a rounded surface, it will be apparent that by reversing the holding device the hook 15 and cupped head will be brought into co-acting relation.

It is desired to lay especial stress on the various adjustments of which this implement is capable. A flat or round headed bolt can be held and the implement attached without regard to the shape of the article in which the bolt is placed. The means for adjusting the jaws toward and from the lever-arm is very simple, and it, moreover, has the advantage of being a revoluble adjustment, so that said jaws may be placed at any point about the end of the arm. The angular stem of the holding device securely prevents its turning in the lever-arm and also relieves the set-screw 25 of the twisting strain.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be under-



stood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In an implement of the character described, the combination with a lever-arm, of a shank having a threaded connection with the arm and freely rotatable thereon, said shank carrying an attaching element that is adjustable toward and from the lever-arm, and an article-holding device carried by the arm.

2. In an implement of the character described, the combination with a lever-arm having a threaded opening through one end, of a shank threaded through the opening and freely rotatable thereon, said shank carrying a terminal attaching element, and an article-holding device secured to the arm intermediate its ends.

3. In an implement of the character described, the combination with a lever-arm having an offset end provided with a threaded opening, of a shank threaded through the opening and carrying an attaching-jaw, and an article-holding device secured to the arm at one side of the offset end.

4. In an implement of the class described, the combination with a lever-arm, of attaching-jaws carried by the arm and located on different sides thereof, and article-holding devices also carried by the arm and coacting respectively with the jaws.

5. In an implement of the character described, the combination with a lever-arm, of attaching-jaws carried by the arm and located on different sides thereof, and article-holding

devices also carried by the arm and coacting respectively with the jaws, said devices being reversible, so that they may be placed in coacting relation with different jaws.

6. In an implement of the character described, the combination with a lever-arm, of spaced attaching-jaws carried by the arm and arranged on different sides thereof, and an article-holding device secured to the arm.

7. In an implement of the character described, the combination with a lever-arm, of spaced differently-shaped attaching-jaws carried by the arm, and an article-holding device also carried by the arm.

8. In an implement of the character described, the combination with a lever-arm, of spaced attaching-jaws revolvably connected to the arm, and an article-holding device carried by the arm.

9. In an implement of the character described, the combination with a lever-arm, of a shank having a threaded engagement with the arm, differently-shaped jaws secured to the shank on opposite sides of the arm, and an article-holding device secured to the lever-arm.

10. In an implement of the character described, the combination with a lever-arm, of a shank having a threaded engagement with the arm, differently-shaped jaws secured to the shank on opposite sides of the arms, and a holding device secured to the lever-arm and having oppositely-projecting article-engaging heads.

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

JULIAN R. HARRISON.

Witnesses:

E. V. HAGOOD,  
E. D. TREE.