(No Model.)

D. TRUE.

CARRIAGE WRENCH.

No. 305,767. Patented Sept. 30, 1884.

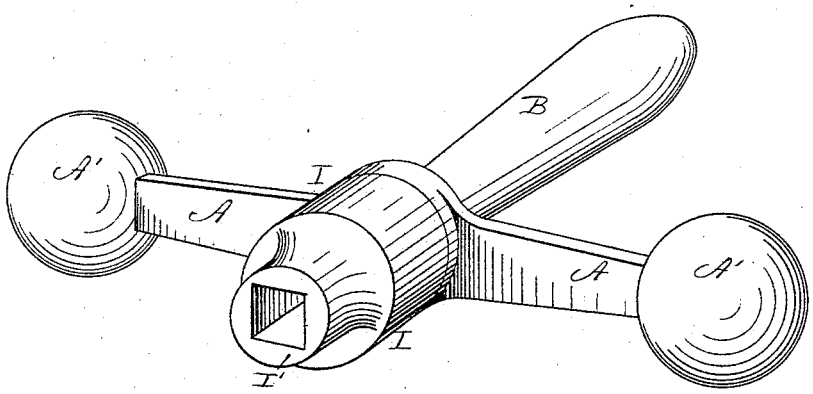

Fig-1-

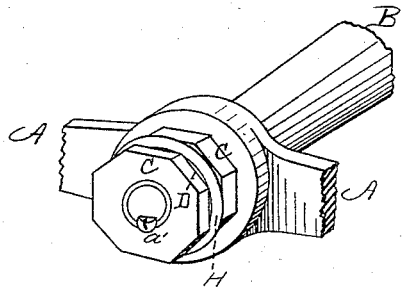

Fig-2-

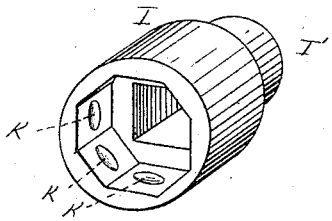

Fig-3-

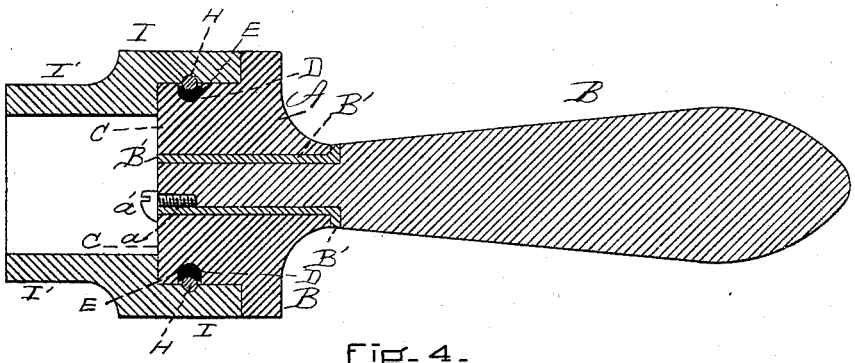

Fig-4-

WITNESSES

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CARRIAGE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 305,767, dated September 30, 1884.

Application filed February 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, DAVID TRUE, of Salisbury, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Carriage-Wrenches, of which the following is a specification.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a perspective view of a wrench embodying my invention. Fig. 2 is a view of the central portion with the socket or box removed. Fig. 3 is a rear perspective view of the socket detached. Fig. 4 is a longitudinal vertical section of the wrench.

A is a bar, provided at its ends with the weights or balls A′, and centrally perforated to receive the handle B, provided with the ferrule B′, upon which the bar A is adapted to rotate. The bar is removably secured to the handle by means of the screw *a*, whose head or flange *a′* is broad enough to lap over an edge of the bar while the screw is inserted in the handle, and said head having been partially removed on one side the handle and bar are capable of being separated by turning the screw one-half a rotation.

Rigidly secured to or integral with the bar A is the octagonal block C, provided with the annular groove D. In this groove is placed a ring, E, of rubber or similar substance, and upon the rubber is placed a metallic spring, H.

I is the socket or box, made octagonal internally, so as to fit the block C, and provided with the part I, adapted to fit over a nut.

In operation, when a nut is to be operated upon, a socket or box, I, whose portion I′ is of the proper size to fit the nut, is pushed over upon the block C. The octagonal shape prevents relative rotation or slipping circularly, and the springs H E prevent the block from dropping the socket.

The object of combining the rubber and metallic springs, as shown, is that it is found by experiment that if a rubber spring only be used, such spring being thick enough to project slightly from the groove D, it is impossible to push the socket I onto the block C and against the face of the bar A without its springing back, while if I use the rubber spring under a metallic one I can push the socket-frame and it will remain in position, as the metallic spring H only comes in contact with the socket.

I prefer to make the groove D with a concave bottom, so that the rubber band E will project up the sides thereof, thus forming a bed for the metallic spring H and preventing lateral motion in the latter.

In order to more effectually prevent the separation of the socket and block, indentations K are made on the inner faces of the socket, so that the spring H will slip into them when the socket is placed upon the block.

The octagonal shape of the socket and block need not be adhered to if another shape be desired, provided, of course, that it be such as will hold the two from relative circular motion.

The wrench may be used in connection with carriage-nuts or elsewhere, as deemed desirable.

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

1. In a wrench, the combination of the following parts, viz: a bar or portion adapted to be rotated, provided with a projection having an annular groove, an elastic ring lying in the bottom of said groove, a metallic spring resting on said ring, and a socket or portion adapted to be applied to the nut and constructed to slip over said spring, substantially as and for the purpose set forth.

2. The combination of the bar A, provided with the octagonal block C, having the groove D, the springs E H, and the socket I I′, all substantially as and for the purpose described.

3. The combination, with the block C, provided with a suitable spring, of the socket I, provided with the depressions or indentations K, substantially as and for the purpose specified.

DAVID TRUE.

Witnesses:
JOSEPH ISHBAUGH,
HENRY W. WILLIAMS.