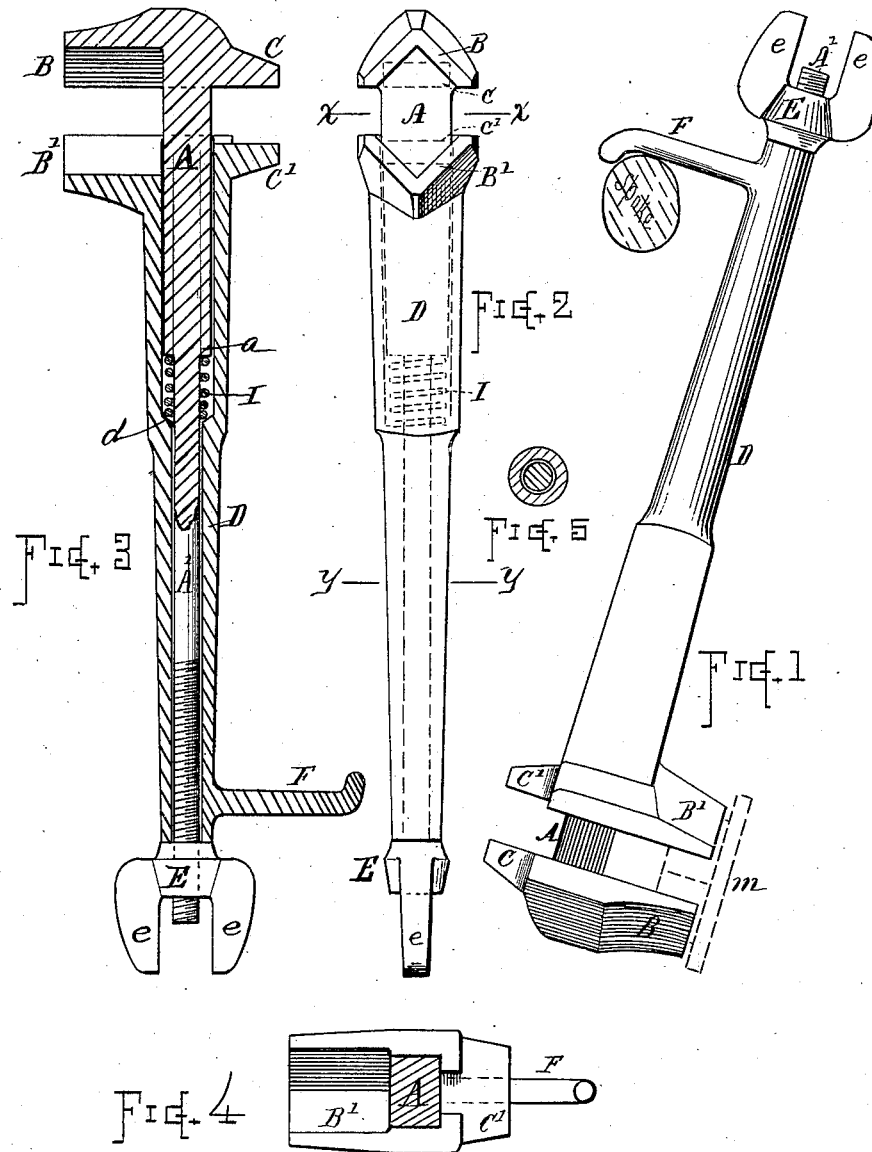


(No Model.)

T. C. RICE.
CARRIAGE WRENCH.

No. 265,704.

Patented Oct. 10, 1882.



WITNESSES

Geo. M. Rice
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INVENTOR

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UNITED STATES PATENT OFFICE.

THOMAS C. RICE, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO SHERMAN FLETCHER, OF SAME PLACE.

CARRIAGE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 265,704, dated October 10, 1882.

Application filed February 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. RICE, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain
5 new and useful Improvements in Carriage-Wrenches; and I declare the following to be a description of my said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and
10 use the same, reference being had to the accompanying drawings, which form a part of this specification.

The object of my present invention is to provide an efficient, cheap, and convenient wrench adapted for use in removing and replacing the
15 nuts on carriages—one having suitable jaws for fitting the several varieties of nuts ordinarily used on the different parts of the carriage. This object I attain by a wrench constructed in the peculiar manner herein shown and described.

In the drawings, Figure 1 is a side view of my improved carriage-wrench. Fig. 2 is a front view of the same. Fig. 3 is a longitudinal sectional view.
25 Fig. 4 is a transverse sectional view at line *x x*; and Fig. 5 is a transverse sectional view at line *y y*, Fig. 2.

In reference to the drawings, A denotes the body or bar of the wrench, cast upon a wrought-metal rod or shank, A', and provided with an
30 angular jaw, B, at its forward side and a straight jaw, C, at its rear side, as shown. The body A is of rectangular form, while the shank is of round iron, and is screw-threaded toward its outer end.

D indicates a hollow sleeve or sheath-piece of cast metal, internally cored to match the bar A A', over which it is arranged. Said
40 sheath is movable upon the bar A A', and is provided with the forward angular jaw, B', and straight rear jaw, C', to match the jaws B and C of the body A, respectively.

A thumb-nut, E, is arranged on the end of the shank-bar A' for retaining and adjusting the sheath and movable jaws B' C'. The two
45 sides *e e* of the nut E are made parallel on their inner edges, so as to form a fork-wrench adapted for the bow-nuts of the carriage-top.

A prong, F, projects from the rear outer end
50 of the sheath D, which prong serves as a crank when turning off axle-nuts and as a means for hanging the wrench and nut upon the side of the carriage, spoke of a wheel, or other con-

venient object while wiping and oiling the axles. It also serves as a convenient instru-
55 ment for clearing stones, balls, or other obstructions from the hoofs of horses. This prong may be cast integral with the sheath D, or be of a separate piece screwed into or otherwise attached to a suitable boss formed near the
60 end of said sheath-piece, as preferred.

A spring, I, may be arranged within the sheath D, between the shoulders *a* and *d*, for pressing open the jaws B B' C C' when the
65 nut E is turned back.

The angular jaws B are adapted for the large nuts on the axle ends, while the parallel jaws C are for fitting the small nuts on the various braces and clip-irons, and the fork *e e* for the bow-nuts, which are inaccessible to an ordi-
70 nary jaw-wrench.

In using the wrench the jaws B B' are placed over the nut *m* and the thumb-nut E turned to press forward the sheath, causing the jaws to take a firm grip on the nut, which is then
75 started by pressure on the lever and turned off quickly and conveniently by using the prong as a crank, and when off the wrench and nut are hung up thereby, as in Fig. 1, thus keeping it out of the way of dirt and grit until it is re-
80 placed.

This wrench is simple in construction, very convenient for use, and can be manufactured and sold at a comparatively small price.

I am aware that wrenches having angular
85 jaws and adapted for gripping the nut have heretofore been made, and I do not herein make claim broadly to such features.

What I claim as of my invention, and desire to secure by Letters Patent, is—
90

The combination, with the body or bar A, cast or formed upon the screw-threaded wrought-iron shank-rod A', and provided with jaws B C, of the hollow sheath D, surrounding
95 said body and shank and carrying the jaws B' C', and having the projecting prong F near its outer end, and the adjusting-nut E, with its sides *e e* or thumb-pieces shaped into a forked wrench, substantially as and for the purposes set forth.
100

Witness my hand this 25th day of January, A. D. 1882.

THOMAS C. RICE.

Witnesses:

CHAS. H. BURLEIGH,
WALTER B. ALLEN.