(No Model.)

E. A. ROBBINS.

CARRIAGE WRENCH.

No. 257,072. Patented Apr. 25, 1882.

Fig. 1.

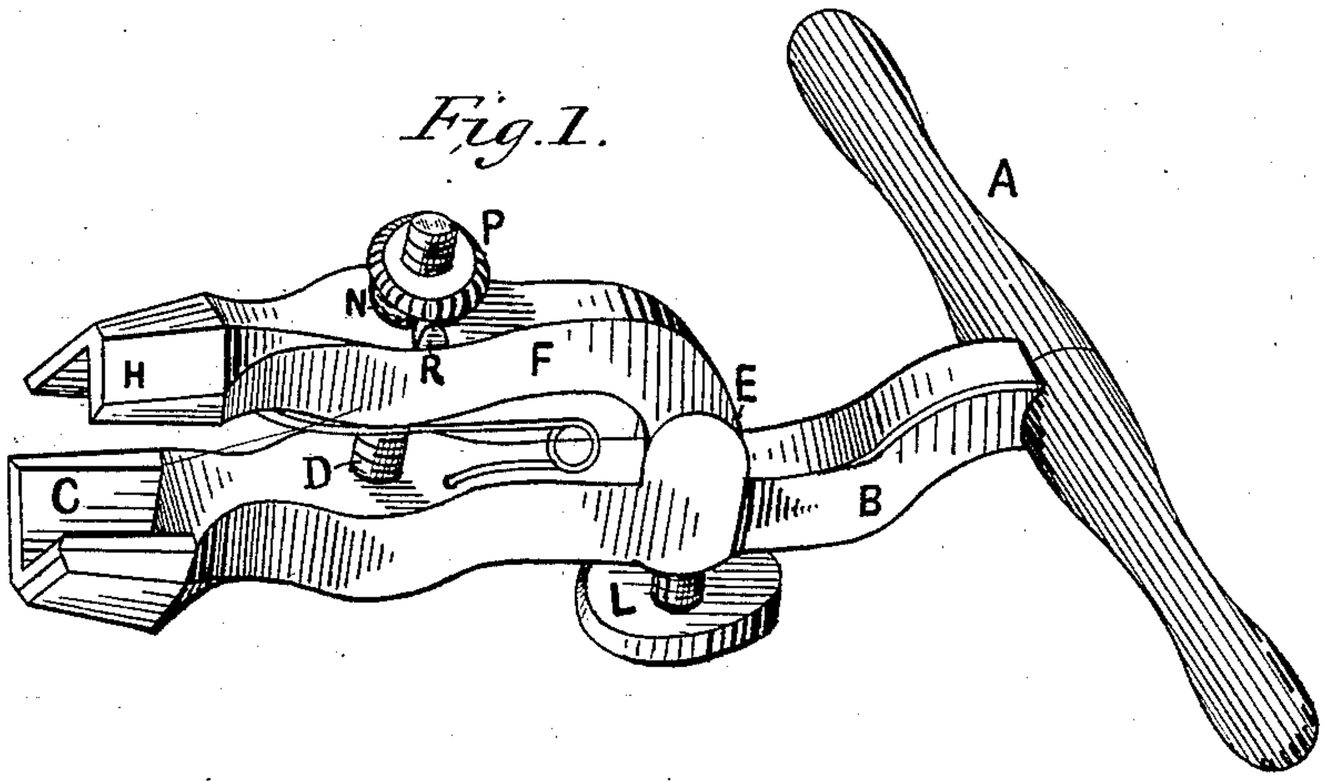
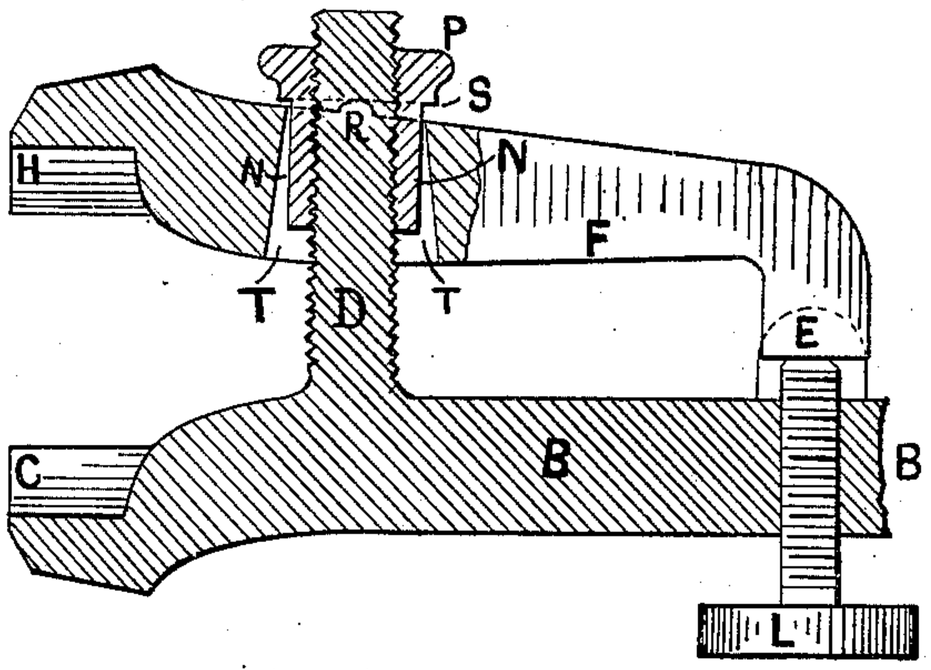


Fig. 2.



Witnesses:

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EDWIN A. ROBBINS, OF BOSTON, MASSACHUSETTS.

CARRIAGE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 257,072, dated April 25, 1882.

Application filed March 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. ROBBINS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Carriage-Wrenches, of which the following is a specification.

The object of my invention is to provide a cheap, simple, durable, and convenient carriage-wrench, adapted more especially for use in removing and applying carriage-axle nuts; and it consists in the construction, combination, and arrangement of the several parts, as hereinafter more fully described, and set forth in the claim.

Figure 1 represents a perspective view of a carriage-wrench constructed according to my invention. Fig. 2 represents a vertical longitudinal section of the main features of the same.

A represents the handle for operating the implement, formed at right angles to the main portion or shank B, having at its opposite end a stationary double-faced right-angle jaw, C, and provided with a rigidly-connected screw-bolt, D, extending or projecting at a right angle from the inner face of the said shank B near the said jaw C, said shank being also provided, near its handle end, with a screw-threaded hole, and having fitted therein a screw-threaded thumb-bolt, L, having a milled head adapted to be turned with the thumb and fingers, so as to project its opposite end against the rear end, E, of the movable or adjustable bar F, so as to increase the grip or hold of the right-angle double-faced jaw H, provided at the outer end of said bar F, which is provided also with a conical or incline-faced hole, T, adapted to receive therein the tubular projection N of the thumb-nut P, which is provided with an external circumferential shoulder, S, adapted to bear and have a seat upon the lateral projections or ribs R, formed at each side of the said incline-faced hole T, and at a point in line with said hole extending through the center of the same laterally, so as to permit the adjustable jaw H and its bar F to be adjusted on an incline or slight angle to the stationary jaw C and its shank B. This incline-faced hole T is formed round or circular at the outer face of said bar or adjustable jaw portion, and on an incline at the sides of the hole toward the ends, or elongated longitudinally at its inner portion, being oval or oblong, so that the said tubular inwardly-projected portion N of said thumb-nut P may have longitudinal play or free movement lengthwise the said bar, and yet contact or have bearings at right angles thereto or laterally within said hole of the bar, so as to present a rigid or fixed position against the force tending to displace it when the jaws C H are placed in contact with an axle-nut and power is applied to the cross-handle A to remove it. The ribs or projections R not only serve as a fulcrum, but materially reduce the friction of the thumb-nut P with the said shank or bar F, thereby permitting a firmer grip to be had upon an oily or greasy carriage-axle nut, so as to securely retain the same within the jaws of the wrench after its removal and in position to be applied to the axle again when desired.

Having thus described my invention, what I claim is—

The combination, with the shank B, having the rigid screw-bolt D, adjustable thumb-bolt L, jaw C, and cross-handle A, of the adjustable jaw H, having a shank-bar, F, provided with an incline-faced hole, T, and projections or ribs R, and the thumb nut P, provided with a shoulder, S, and tubular projection N, all being constructed and arranged substantially as shown and described, as and for the purposes set forth.

EDWIN A. ROBBINS.

Witnesses:

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