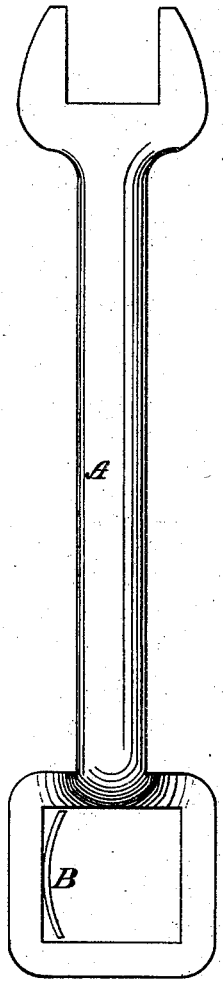
A. S. BUNKER.

WRENCH.

No. 187,703. Patented Feb. 27, 1877.



Witnesses;
Joseph Bonney
Chas. D. Moore,

Inventor;
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UNITED STATES PATENT OFFICE.

AUGUSTUS S. BUNKER, OF LAWRENCE, ASSIGNOR OF ONE-HALF HIS RIGHT TO WOODBURY SANBORN, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN WRENCHES.

Specification forming part of Letters Patent No. 187,703, dated February 27, 1877; application filed April 10, 1876.

To all whom it may concern:

Be it known that I, AUGUSTUS S. BUNKER, of Lawrence, in the county of Essex and Commonwealth of Massachusetts, have invented an Improved Wrench.

The object of my invention is to so construct a wrench by applying a spring to one of its sides that it will securely hold a nut when placed in the same, not allowing the same to fall or slip from the wrench.

My invention is very convenient in removing nuts from the axles of a wagon; and I do declare that the following is such a true, perfect, and exact description thereof that others skilled in the art to which it appertains can make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, for a more complete description thereof.

The drawing represents an ordinary carriage-wrench having my invention applied thereto.

A represents a carriage-wrench, having a flat elliptic spring, B, riveted to one of the working-faces of the wrench. The spring is preferably secured by means of one or more oval rivets, thus effectually preventing the spring from twisting or becoming displaced in the wrench.

To apply the wrench to a carriage-nut, the side provided with the spring is placed in contact with the side of the nut, and then, by exerting slight lateral pressure, the ends of the spring are forced backwardly until the wrench-head slips over the nut. When the nut has been removed from the carriage or other structure, the free ends of the spring B press firmly against the side of the nut, and hold the latter securely between the spring and opposite side of the wrench-head.

A carriage-wrench constructed as above set forth obviates the necessity of handling a carriage-nut while oiling the axles of carriages, and thus prevents the soiling of apparel, and renders such process more agreeable and expeditious than when the ordinary wrenches are used for such purpose.

I am aware that a flat spring has been placed between the jaws of a monkey-wrench to retain the nut within the wrench, and a device of such construction is shown in the patent of J. Burt, No. 85,276, dated December 29, 1868. In the wrench above referred to one end of the spring rests against the lower portion of the working-face of the movable jaw, while the opposite end of the spring is bent backwardly to slide on the nose of the jaw, thereby causing the nut to bear only on the apex of the spring.

In my improved wrench the spring is completely protected by the head of the wrench against breakage or displacement; and, again, the nut is firmly held within the wrench by the sharp ends of the spring, which serve to grasp the extreme ends of one edge of the nut and force the latter squarely against the opposite side of the wrench-head, thereby preventing any displacement of the nut from the wrench.

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

A carriage-wrench provided with a flat elliptic spring, secured at its middle portion to one of the faces of the wrench-head, substantially as and for the purpose specified.

A. S. BUNKER. [L. S.]

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