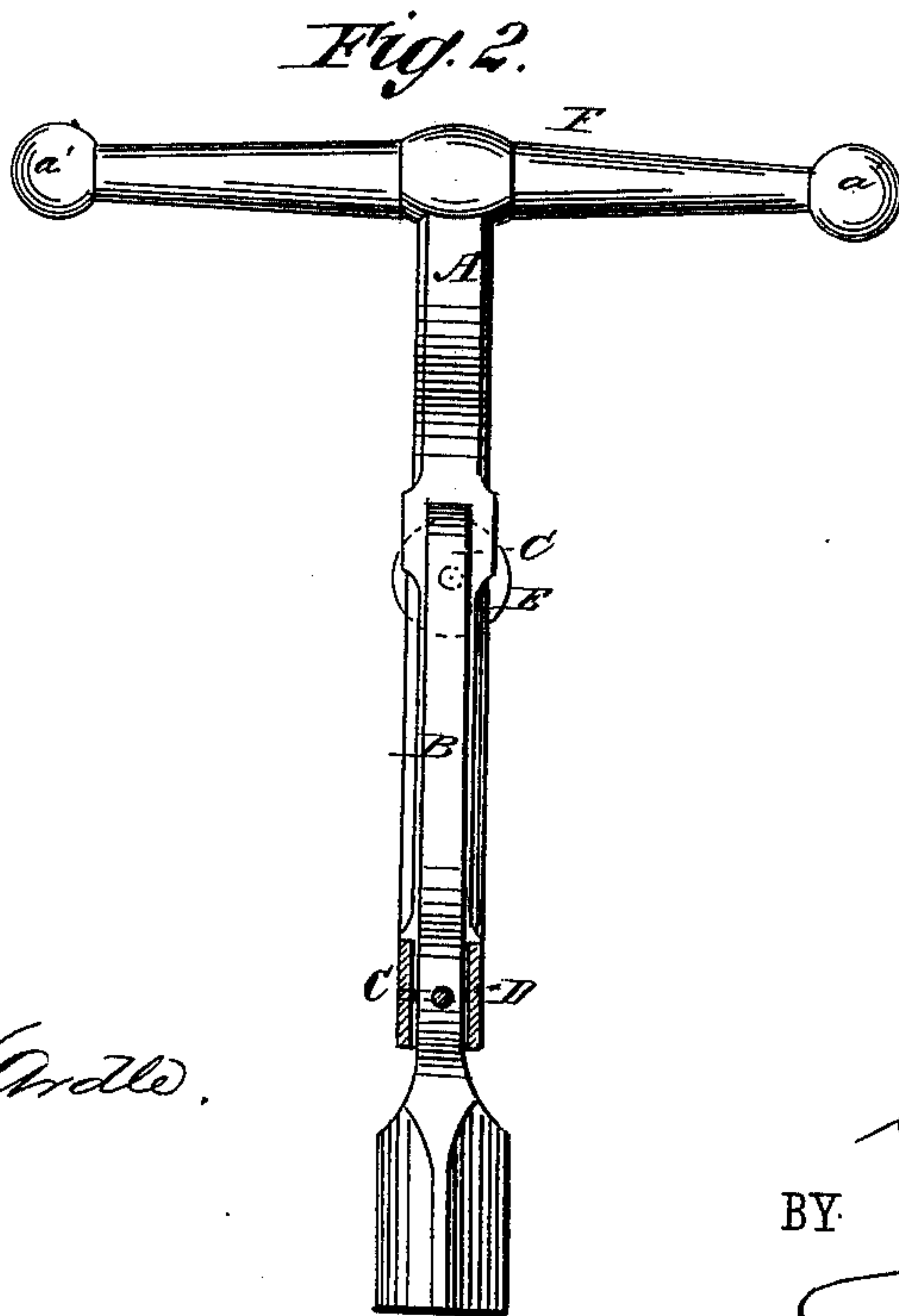
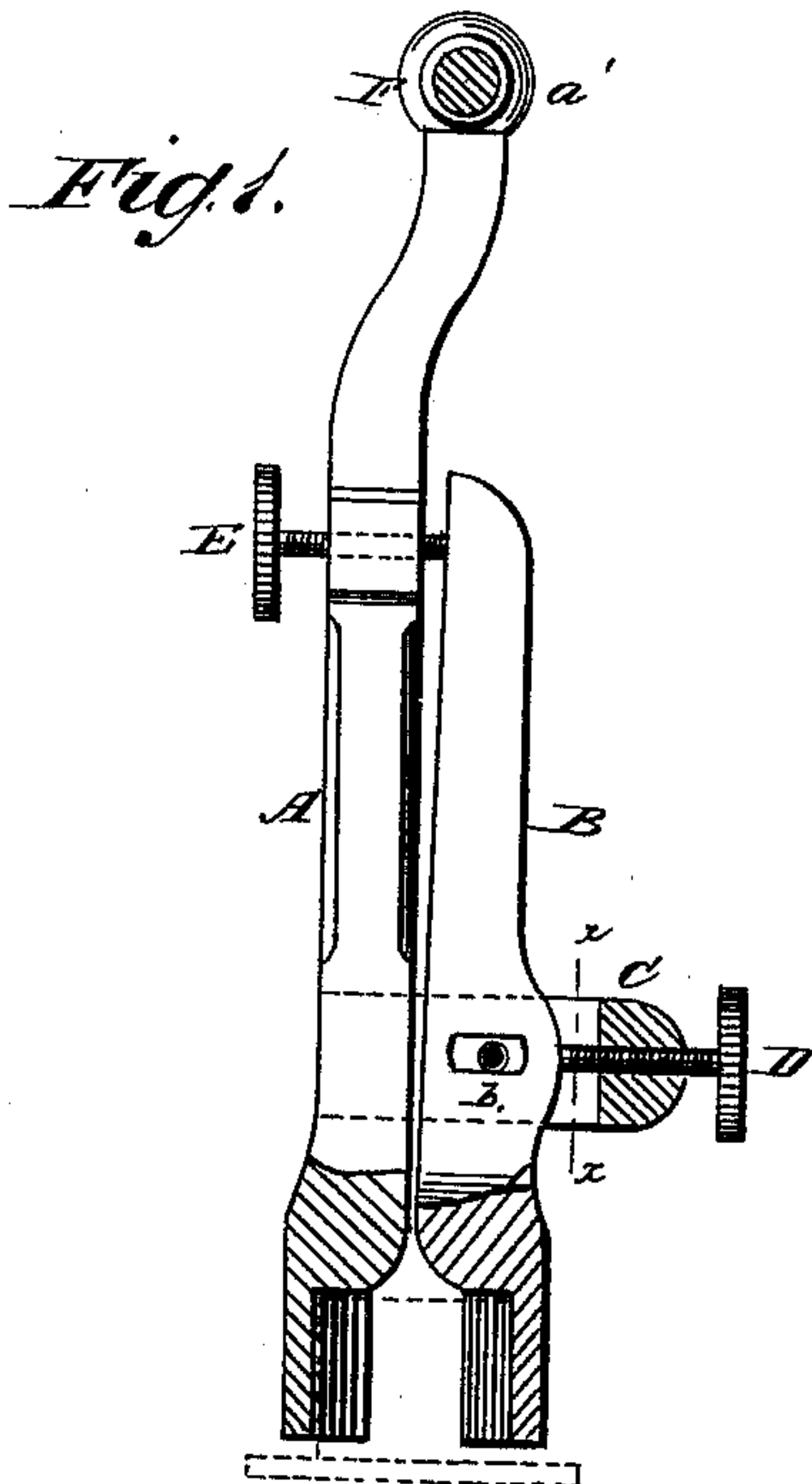


E. A. ROBBINS.
Carriage-Wrench.

No. 214,455.

Patented April 15, 1879.



WITNESSES:

Francis McCall.
C. Sedgwick

INVENTOR:

E. A. Robbins

BY

Mum & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDWIN A. ROBBINS, OF FAIRFIELD, MAINE.

IMPROVEMENT IN CARRIAGE-WRENCHES.

Specification forming part of Letters Patent No. **214,455**, dated April 15, 1879; application filed February 17, 1879.

To all whom it may concern:

Be it known that I, EDWIN A. ROBBINS, of Fairfield, in the county of Somerset and State of Maine, have invented a new and Improved Carriage-Wrench, of which the following is a specification.

Figure 1 is a side view of the wrench, partly in section. Fig. 2 is a front elevation, partly in section.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a cheap and efficient wrench designed more particularly for carriage-work, yet applicable to any other that shall do the work quickly, and enable one to put on or remove oily or greasy nuts from bolts without soiling the fingers or hands.

It consists, essentially, of a socket-wrench divided longitudinally in two parts, the part A constituting the handle, shank, and fixed jaw, and the part B the movable jaw.

The movable jaw B is provided with the slot *b*, and is pivoted in the housing C, attached to the stationary jaw A. The slot *b* permits the wrench to be adjusted to different-sized nuts. The screw D serves to press and fit B against the nut that may be grasped by the jaws, and also serves as a fulcrum on which it may be tilted by the action of the screw E, that passes through the shank of A, and bears with its end against the inward end of B.

When the jaws are put about a nut they may be made to grasp it tightly by turning down the screw D and turning up the screw E against the end of B.

According to the size of the nut and the dimensions of the jaws either or both of these movements may be effectual, or with very large nuts the screw E may be completely retracted.

The simplicity and efficiency of this arrangement must be obvious to every one, and it is plain that by it nuts may be placed on bolts or removed therefrom without soiling the hands. The wrench is manufactured of various sizes for different kinds of work, and can be made at less cost than any with which I am acquainted.

The balls *a' a'* on the ends of the cross-arm F are to give momentum to and continue the screwing or unscrewing motion of the wrench.

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

The combination, in a wrench, of the stationary jaw A, provided with the cross-arm F, having weighted ends *a'*, and the housing C, the pivoted jaw B, provided with the slot *b*, and the screws D E with each other, substantially as and for the purpose set forth.

EDWIN AUGUSTUS ROBBINS.

Witnesses:

CHARLES P. WOODSUM,
F. E. McFADDEN.

Edw. Robbins