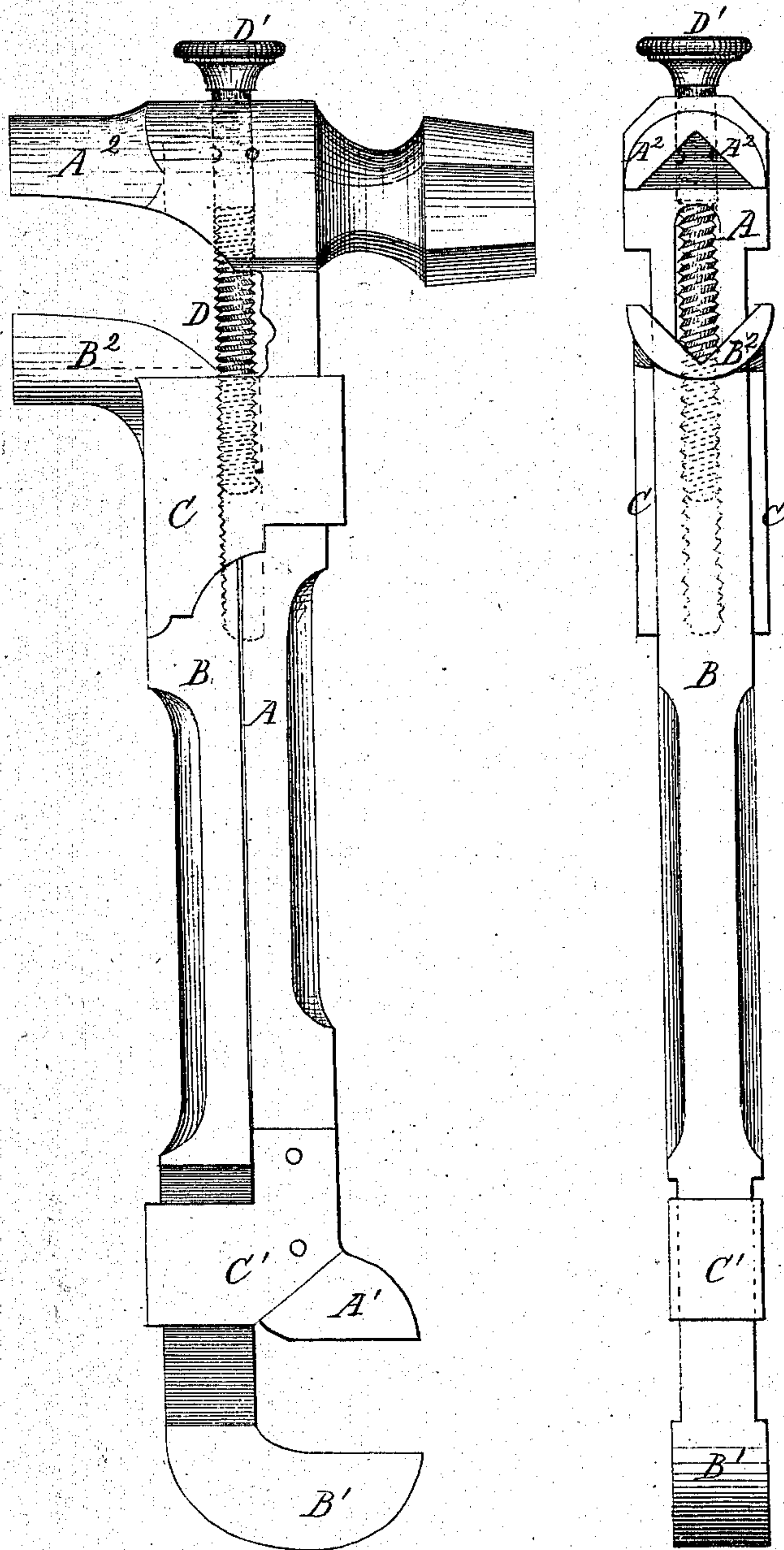


J. F. Ronan Jr.

Wrench. PATENTED JUL 12 1870

105372



Attest
C. F. Clausen
A. Ruppert.

Inventor.
J. F. Ronan Jr.
per Edson Bros
Attorneys

United States Patent Office.

JEREMIAH F. RONAN, JR., OF BOSTON, MASSACHUSETTS.

Letters Patent No. 105,372, dated July 12, 1870.

IMPROVEMENT IN WRENCH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JEREMIAH F. RONAN, JR., of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 is a side view of my improved wrench.

Figure 2 is an edge view thereof.

The same letters are used in both figures to designate like parts.

This invention relates to adjustable wrenches of the S-type; and

My improvement consists in the construction and arrangement of the parts constituting such a wrench, as will be more specifically set forth hereinafter.

In the annexed drawing—

A and B represent the two parts constituting the stem or handle of the wrench, the surfaces coming in contact being dressed so that the parts may slide smoothly upon each other.

The portion A terminates at one end in an ordinary flat jaw, A¹, turned at a right angle from its stem, and away from the part B, while its other end is constructed with a jaw, A², extending from it in a direction opposite to that of the jaw A¹, and having a triangular recess cut lengthwise in its interior face, to form the outer jaw of an adjustable socket. This end is also provided with a hammer-head, A³, as shown.

The portion B of the wrench is constructed with similar jaws, B¹ and B², which, however, are turned from their stem in directions reverse to those in which the jaws A¹ and A² are turned from their stem, so that, on attaching the parts together, the double wrench shown in fig. 1 may be formed, one orifice or opening of which will be in the form of a square socket, more especially adapted to act upon the axle-nuts of vehicles.

The sides of the recesses in the jaws A² and B² should be roughened, so that the wrench may not so easily slip off when used to turn greasy nuts.

The parts A and B are attached together by metallic straps C C', secured to one and embracing the other part. One of the straps, C', embraces a recessed portion of the part B, whereby the adjustability of the mouths of the wrench is limited.

The parts A and B are made to slide longitudinally upon each other, for the purpose of adjusting the size of the mouths of the wrench, by means of a bolt, D, screw-threaded for a portion of its length. Its smooth portion turns in a bearing formed in the end of the part A, so that its axis is nearly in line with the inner surface thereof, while its screw-threaded portion is partly imbedded in a semicircular groove cut in the inner surface of such part A.

The upper or projecting half of the screw-threaded portion of the bolt extends into a semicircular screw-threaded groove in the part B, adapted to receive the bolt, on turning which such part will be made to slide upon the part A.

The bolt is provided with a knob, D', for turning it, and is prevented from moving longitudinally in its bearing by means of a pin passed through the part A and taking into a groove cut around the bolt, or in some other convenient manner.

The form of the recesses in the jaws A² and B² may be changed, to adapt the wrench to be used on nuts, &c., other than square.

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

The adjustable wrench herein described, consisting of the parts A and B, constructed, respectively, with the jaws A¹ A² and B¹ B², and the adjusting screw D, all arranged relatively to each other, substantially as set forth.

In testimony whereof I have signed my name to the above specification in presence of two subscribing witnesses.

J. F. RONAN, JR.

Witnesses:

JOHN SCHOFIELD,
JOHN F. RONAN.