W. WEIDEMANN.

WRENCH.

APPLICATION FILED FEB. 27, 1906. RENEWED APR. 29, 1908.

898,708.

Patented Sept. 15, 1908.

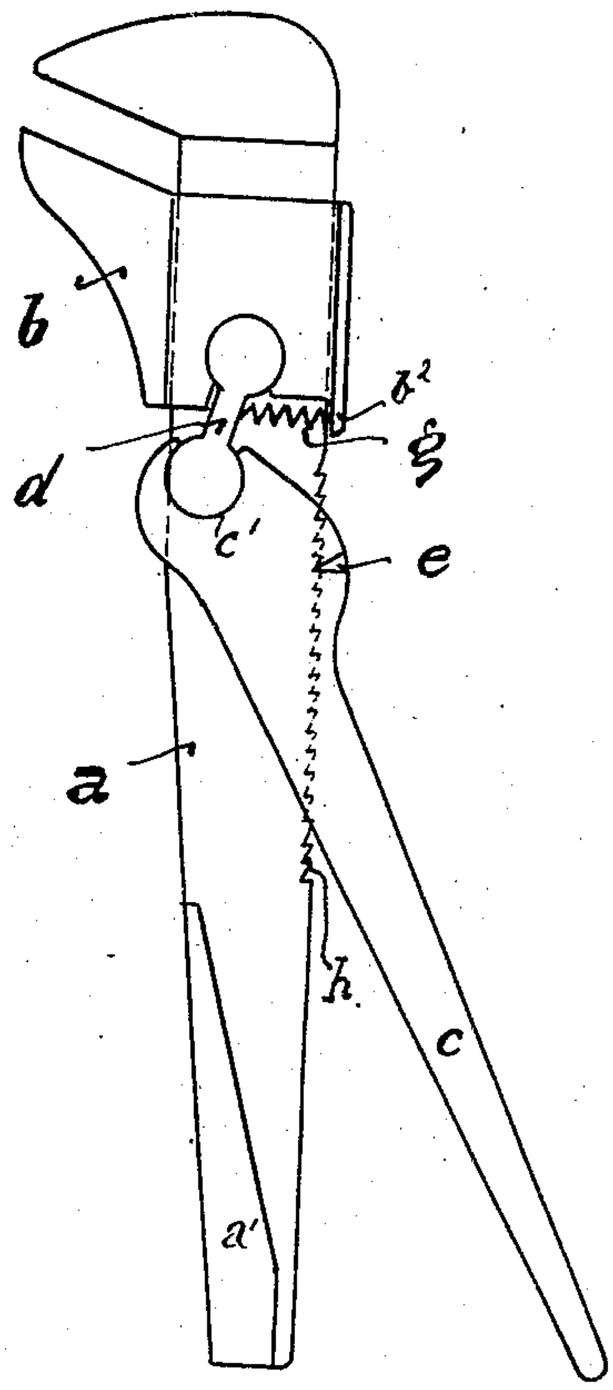

Fig. 1.

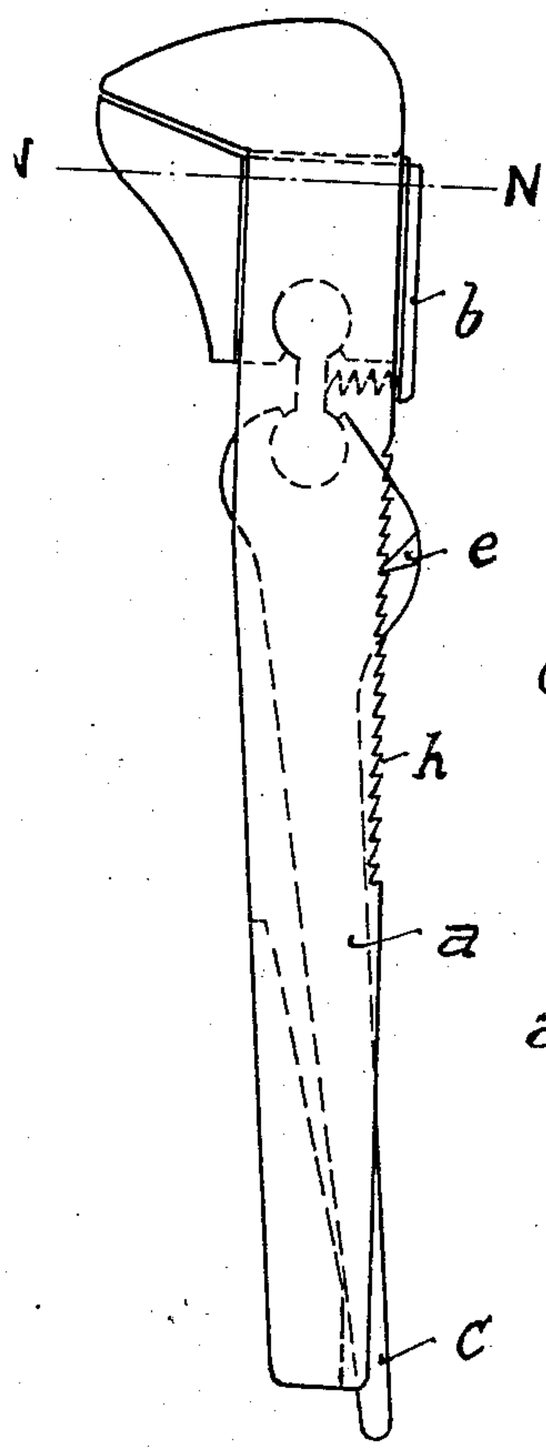

Fig. 2.

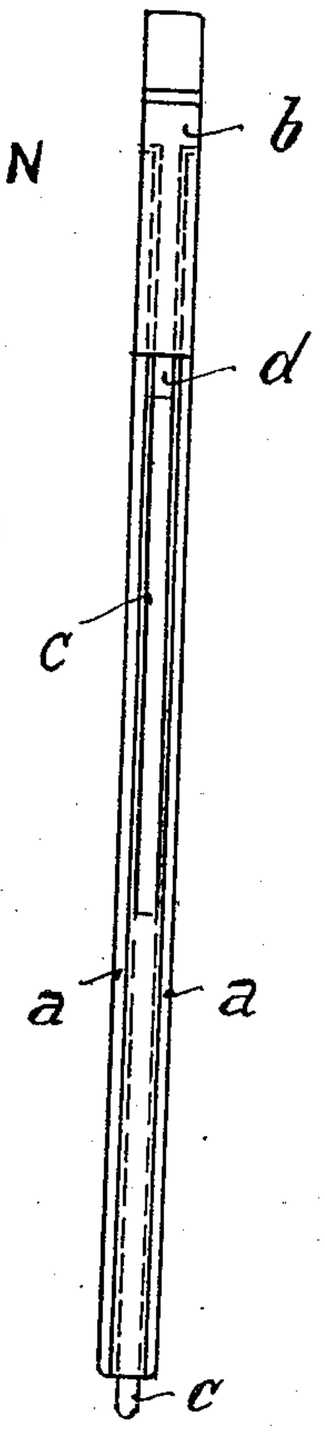

Fig. 3.

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UNITED STATES PATENT OFFICE.

WILHELM WEIDEMANN, OF DUSSELDORF, GERMANY.

WRENCH.

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Application filed February 27, 1906, Serial No. 303,317. Renewed April 29, 1908. Serial No. 429,944.

To all whom it may concern:

Be it known that I, WILHELM WEIDEMANN, a subject of the Emperor of Germany, residing at Dusseldorf, Germany, have invented certain new and useful Improvements in Wrenches, of which the following is a full, clear, and exact description.

The present invention relates to wrenches in which the movable jaw can be adjusted easily and quickly to come in contact with the object to be gripped and in which a consecutive turning of a lever tightens that object firmly between the jaws.

In the accompanying drawing a wrench embodying my invention is shown by Figure 1 in side elevation, one blade of the shank being taken away. Fig. 2 is a side elevation of the wrench in a closed position. Fig. 3 is an edge view and Fig. 4 is a cross-section on line N—N Fig. 2.

The body of the wrench is formed by two blades a, spaced at a suitable distance by an intermediate head piece to form the stationary jaw and by an intermediate tail piece a' similar to pocket knives.

The head piece can be welded, brazed, or simply riveted together with the lateral blades forming the shank of the wrench. The movable jaw b has a shape as shown in cross-section in Fig. 4. The front end and the rear has the full width of the wrench which is offset between the two as shown at b' so as to be guided between the blades of the shank. The rear is preferably projected downwardly as at b^2 to receive the end of a coil spring as explained below. c is a lever equal in thickness to b' and is provided at the rear edge with a tooth e, which laterally projects at both sides reaching beyond the thickness of the side blades of the shank which are provided with ratchet teeth h as shown.

c' is a circular notch in the upper end of the lever and a similar notch is cut into the neck b' of the movable jaw, both notches serving to receive a toggle link d. A coil spring is adapted to bear with one end against the toggle link and with the other end against a projection b^2 above mentioned.

In assembling the wrench the link d is placed into the notches of the movable jaw b and the lever c and is slipped from below between the blades a of the shank before the intermediate piece a' is riveted in place.

The spring g can be secured in any convenient manner for instance on studs projecting from the link d and from b^2.

When the piece a' is secured in place, the wrench is ready for use. By disengaging the tooth e from the ratchet teeth, the jaw b can be brought in contact with an object of more or less diameter and then by turning the lever c against the piece a' the grip upon the object is tightened.

Having thus described my invention, what I claim is:

1. A wrench comprising a fixed jaw with a double blade shank, a movable jaw sliding between the blades of the shank, a lever being loose between the blades of the shank, a tooth on the edge of the lever and projecting on both sides for about the thickness of the blades, ratchet teeth on the rear edge of the blades adapted to be engaged by the tooth and a toggle link, connecting the lever and the movable jaw substantially as described.

2. A wrench comprising a fixed jaw with a double blade shank, a movable jaw sliding between the blades of the shank, a lever being loose between the blades of the shank, a tooth on the edge of the lever and projecting on both sides for about the thickness of the blades, ratchet teeth on the rear edge of the blades adapted to be engaged by the tooth and a toggle link connecting the lever and the movable jaw and a spring pressing the toggle link outwardly as described and for the purpose set forth.

In testimony whereof I affix my signature.

WILHELM WEIDEMANN.

In the presence of—

OSKAR KÜNZELL,

PETER LIEBER.