No. 701,462. Patented June 3, 1902.

C. F. BETTMANN & S. TALKINGTON.

WRENCH.

(Application filed Dec. 18, 1901.)

(No Model.)

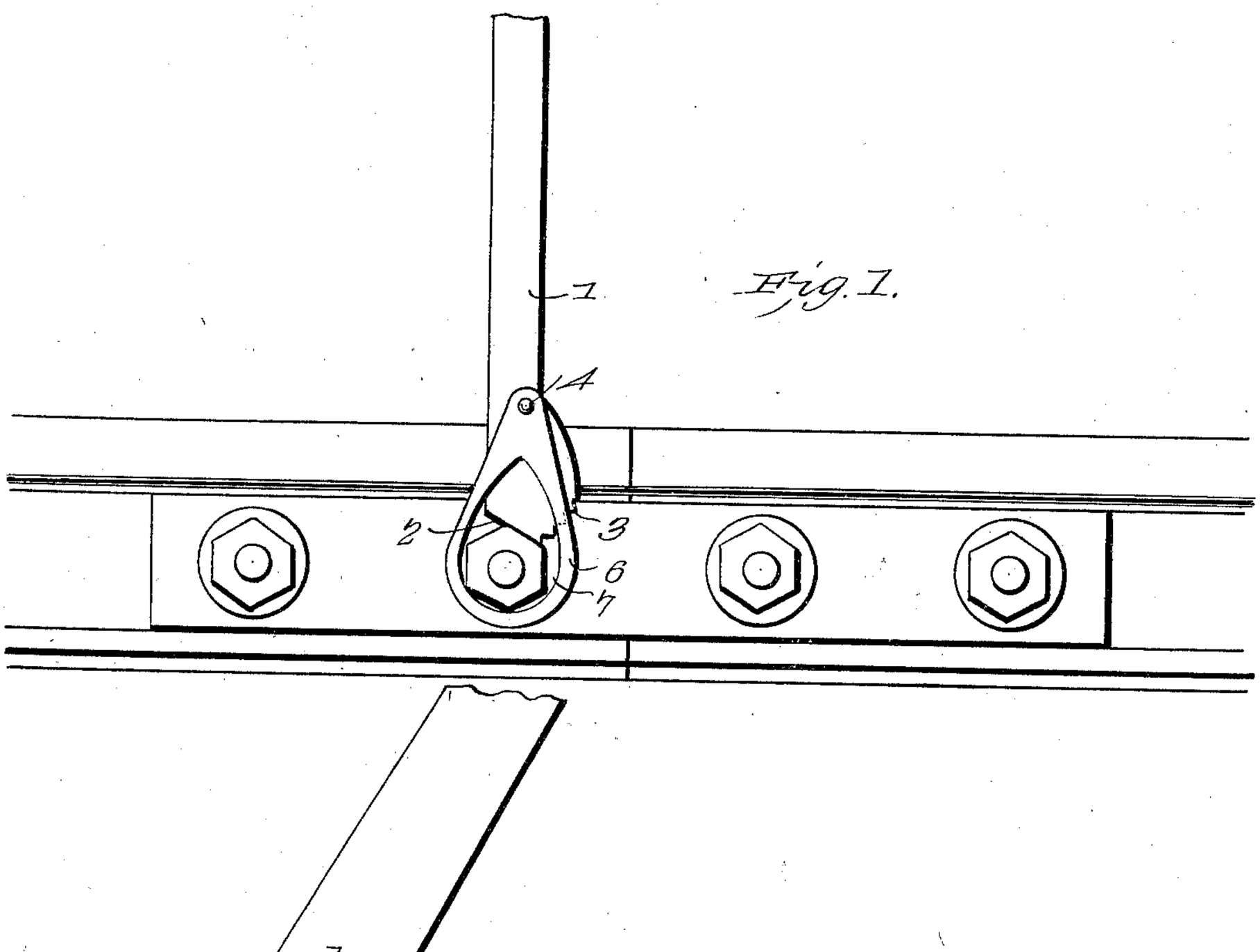

Fig. 1.

Fig. 2.

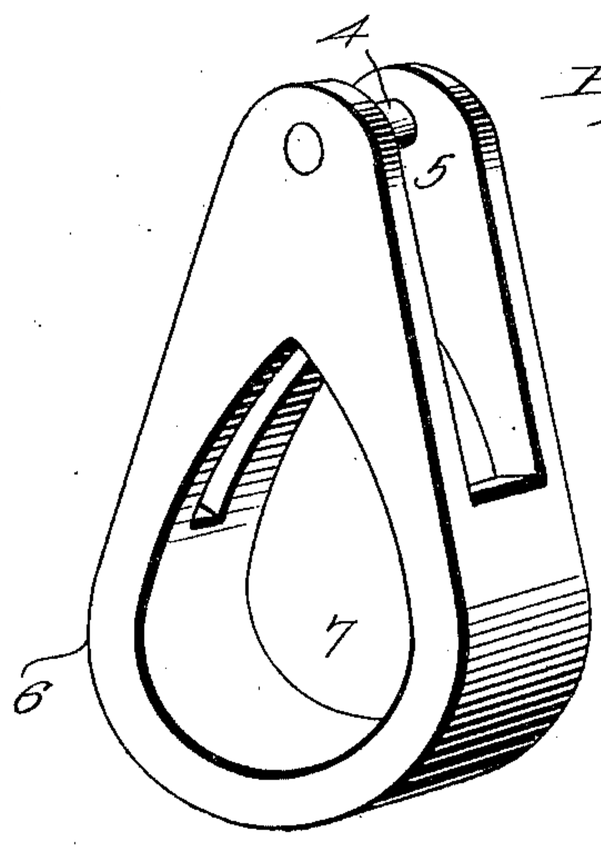

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES FREDRICK BETTMANN AND SAMUEL TALKINGTON, OF NEW ALBANY, INDIANA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 701,462, dated June 3, 1902.

Application filed December 18, 1901. Serial No. 86,423. (No model.)

To all whom it may concern:

Be it known that we, CHARLES FREDRICK BETTMANN and SAMUEL TALKINGTON, citizens of the United States, residing at New Albany, in the county of Floyd and State of Indiana, have invented a new and useful Wrench, of which the following is a specification.

The invention relates to improvements in wrenches.

The object of the present invention is to improve the construction of wrenches and to provide a simple, inexpensive, and efficient one designed particularly for removing nuts from the bolts of rail-joints and adapted to be readily applied to the same and capable of being oscillated to screw the nuts on or off.

A further object of the invention is to provide a wrench of this character which will be provided with means for engaging smooth or approximately round nuts and which will also be capable of presenting a smooth flat face to new nuts to avoid injuring the latter and to enable the same to last much longer than they can when operated on by toothed wrenches or other tools which cut into the nuts.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is an elevation of a wrench constructed in accordance with this invention and shown engaging one of the nuts of a rail-joint, the smooth or flat face being in engagement with the nut. Fig. 2 is a similar view, the toothed face of the wrench being in engagement with the nut. Fig. 3 is a detail perspective view of the movable jaw or member.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a bar or lever provided at one end with a jaw having a smooth or flat engaging face 2 at one side and a toothed engaging face 3 at the opposite side, the smooth or flat engaging face being adapted for engaging new nuts to avoid injuring the same, and the toothed face 3 being adapted to engage old and worn hexagonal or similar-shaped nuts which are nearly round. The bar or lever 1 is pivoted between its ends by a pin 4 or other suitable pivot in a slot or bifurcation 5 of an approximately oval movable jaw or member 6, and the latter, which is tapered, as clearly shown in Fig. 3, is provided with a tapering nut-receiving opening 7 and is adapted to be placed over a nut, as illustrated in Fig. 1 of the drawings. The bottom or outer portion of the jaw or member 6 is curved or rounded and the sides are tapered, forming an inverted-V-shaped upper portion, and the said lower-curved portion is sufficiently thin to enable it to be readily introduced between the nuts of a rail-joint and the bottom flanges of the fish-plates or rails.

The slot or bifurcation 5 intersects the upper portion of the tapered opening 7, and the lever or bar is adapted to be oscillated to swing its fixed jaw through the slot or bifurcation to either side of the opening 7 to bring either of its faces 2 and 3 into position for engaging a nut. A nut is rotated by placing the wrench in the position illustrated in Fig. 1 of the drawings and oscillating the bar or lever to the right. The bar or lever is then adapted to be oscillated independently of the jaw or member 6 to carry the fixed jaw of the said bar or member out of engagement with the nut, and the said jaw or member 6 may then be swung backward independently of the nut for arranging the wrench in position for taking a fresh hold on the nut. The wrench is then adapted to be swung to the right to advance the nut farther on the bolt. By reversing the wrench the nut may be readily unscrewed from the bolt, and the said wrench is capable of being rapidly oscillated to rotate the nut in either direction.

It will be seen that the wrench is exceedingly inexpensive in construction, that it is especially adapted for operating on the nuts of rail-joints, and that it is capable of presenting either a flat or toothed face to a nut to avoid injuring new nuts and to enable the wrench to obtain a firm hold on old nuts. It will also be apparent that the wrench is reversible to enable the parts to be arranged for screwing a nut on or off a bolt.

What is claimed is—

A wrench comprising a bar or lever pro-

vided at one end with a jaw having a smooth face at one side for engaging new nuts and provided at the opposite side with a toothed face for engaging worn nuts, and the tapering approximately oval-shaped jaw having a nut-receiving opening and bifurcated at its apex or pointed end to receive the lever or bar and pivoted to the same beyond the jaw thereof, the bifurcation being of sufficient length to permit the jaw to swing beyond the nut-receiving opening at either side to enable it to present either face to a nut without separating and rearranging the parts, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

CHARLES FREDRICK BETTMANN.
SAMUEL TALKINGTON.

Witnesses:
JOHN SANDS, Jr.,
TALBERT SCHECHTER.