

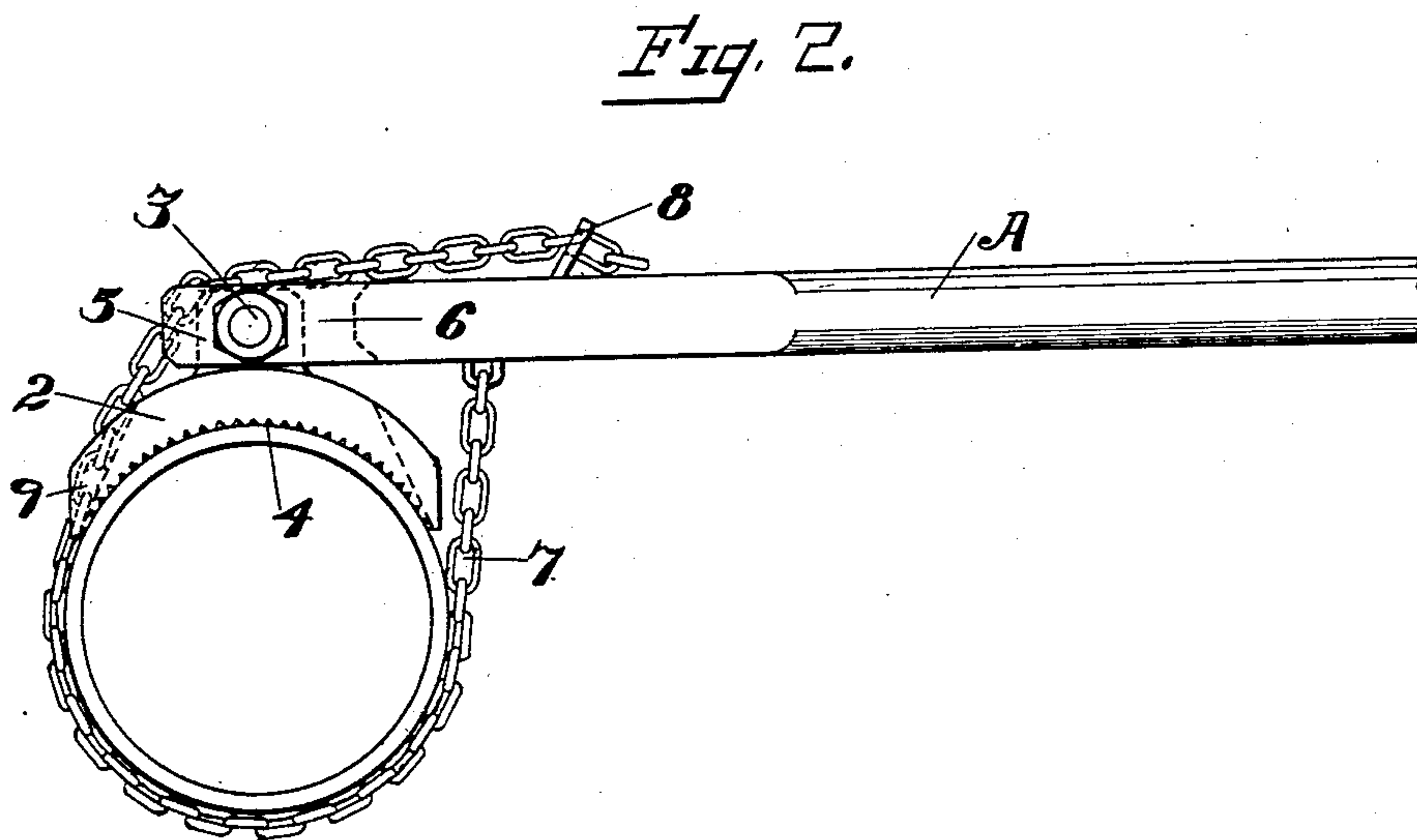
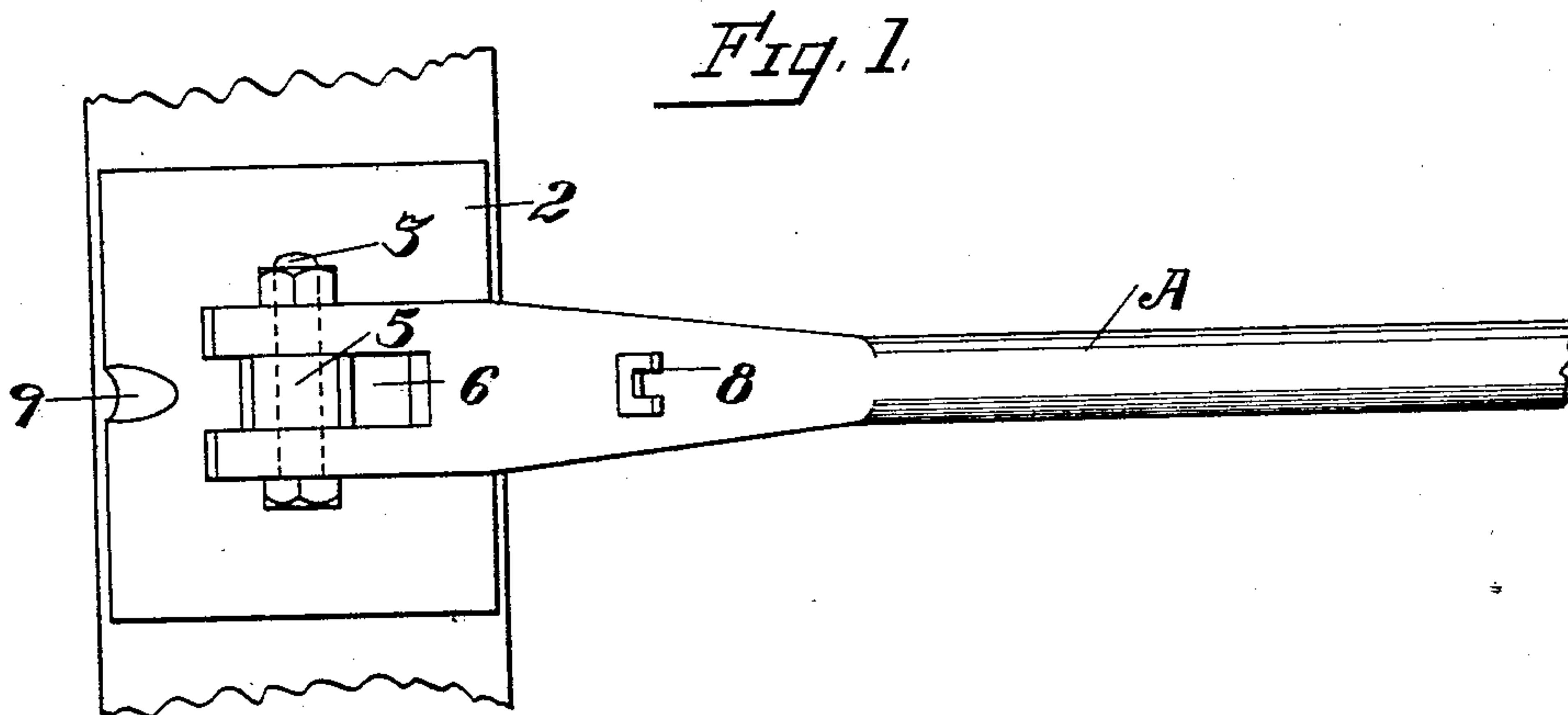
No. 750,795.

PATENTED FEB. 2, 1904.

E. J. BATES.
PIPE WRENCH.

APPLICATION FILED DEC. 2, 1902.

NO MODEL.



Witnesses,
St. Morse
Dudley Moss.

Inventor,
Eugene J. Bates
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UNITED STATES PATENT OFFICE.

EUGENE J. BATES, OF BAKERSFIELD, CALIFORNIA.

PIPE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 750,795, dated February 2, 1904.

Application filed December 2, 1902. Serial No. 133,633. (No model.)

To all whom it may concern:

Be it known that I, EUGENE J. BATES, a citizen of the United States, residing at Bakersfield, county of Kern, State of California, have
 5 invented an Improvement in Pipe-Wrenches; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in pipe-wrenches of the type known as "chain-tongs." Its object is to provide a simple device having interchangeable segmental jaws
 10 suitable for pipes of various sizes and which will so distribute strain that the pipe will not be marred or crushed however great the pressure exerted may be.

It consists of the parts and the construction and combination of parts hereinafter more fully described, having reference to the accompanying drawings, in which—

20 Figure 1 is a top plan view of my invention. Fig. 2 is a side elevation of same.

In most of the chain-tongs of which I have knowledge the chain is used in conjunction with a fixed jaw, and the tendency of such
 25 tongs is often to dent the pipe when extreme pressure is applied.

In the present invention, A represents a handle or lever, at one end of which is pivoted a segmental jaw 2. It is my purpose to have a
 30 number of these jaws suitable to pipe arcs of different radii and to have these various jaws interchangeable on the same handle or stem. To this end the pivot-bolt 3 is made removable. In construction the jaw 2 consists of a
 35 curved plate of considerable width, so as to have a broad bearing-surface longitudinally of the pipe. In length the plate should include a pipe arc of approximately ninety degrees in order to have ample circumferential
 40 bearing. The concaved engaging surface of the jaw may be serrated, if desired, as indicated at 4. The back of the plate has a cen-

tral perforated projection 5, fitting the slot 6 in the end of the handle and forming a hinge with pivot-bolt 3. The jaw is thus freely movable
 45 about the end of the handle and is therefore easily adjusted to a pipe in whatever position the handle may be held. A chain 7 has one end fastened to the under side of the handle and is adapted to be passed around beneath a
 50 pipe and engaged in a keeper 8 on the upper side of the handle. The ends of the jaw are notched, as at 9, the notches serving as guides for the chain to prevent its shifting sidewise on the jaw. When a pipe is thus gripped be-
 55 tween the chain and jaw, an equal pressure may be exerted practically on the entire circumference of the pipe and without fear of crushing or denting the pipe.

Having thus described my invention, what
 60 I claim, and desire to secure by Letters Patent, is—

An improved wrench consisting of a handle one end of which is forked said handle having, on its upper side, a keeper; a segmental jaw
 65 having a lug fitting the forked part of the handle, and a bolt passing through said lug and the fork members of the handle and pivotally mounting the jaw, said jaw having its greatest
 70 length longitudinal of the pipe to be gripped and having its long sides notched to form guides; and a chain having one end permanently attached to the under side of the handle and adapted to be passed around the pipe in the line of said guides and to enter the
 75 guides whereby the chain is prevented from shifting sidewise, said chain having its free end removably fitted to said keeper.

In witness whereof I have hereunto set my hand this 14th day of November, 1902.

EUGENE J. BATES.

Witnesses:

THOMAS L. MORAN,
 JOHN W. AHERN.