No. 834,920. PATENTED NOV. 6, 1906.

C. L. MAHNICKE.

PIPE WRENCH.

APPLICATION FILED APR. 30, 1906.

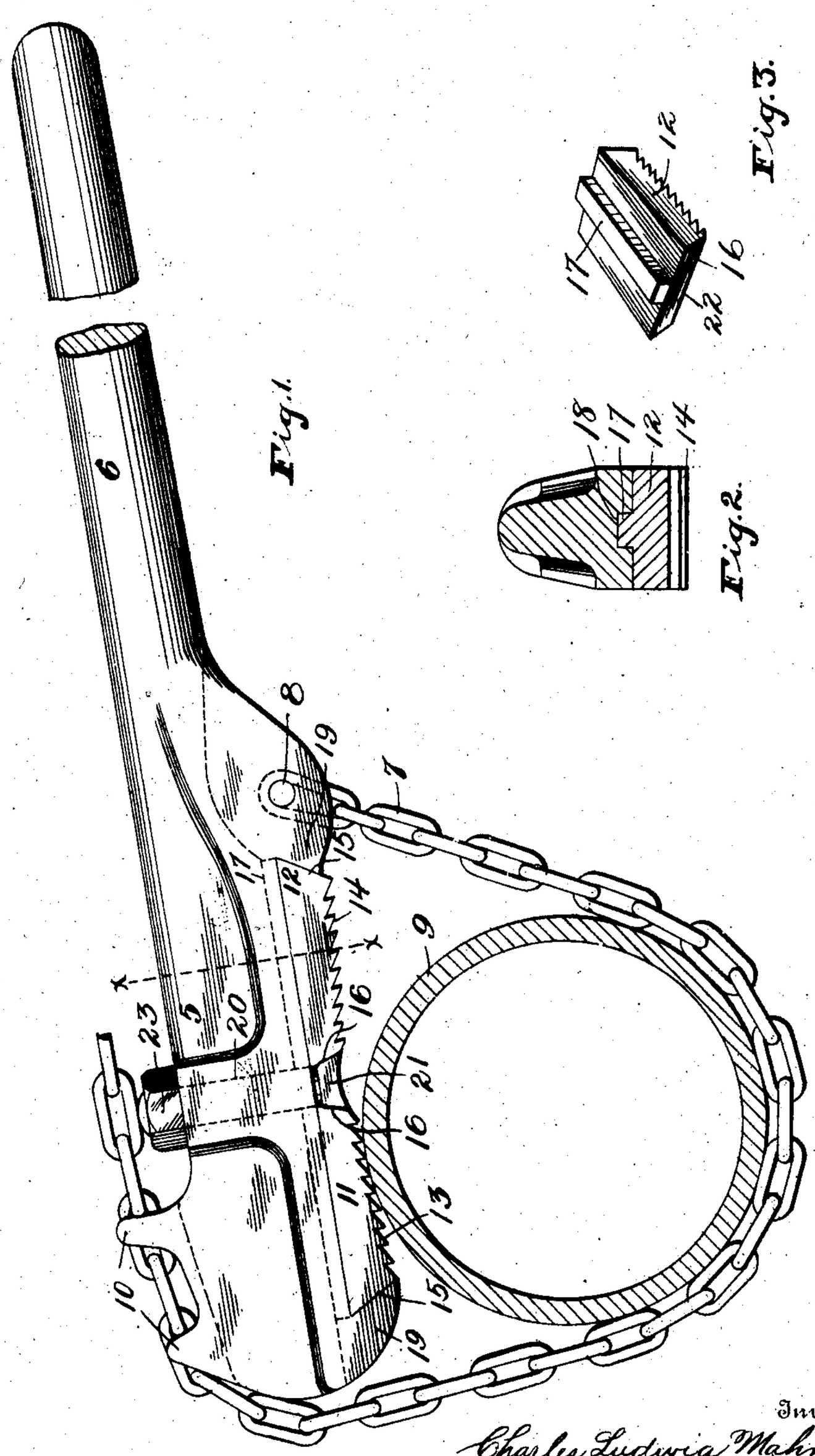


Fig. 1.




Fig. 2.




Fig. 3.

Witnesses
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# UNITED STATES PATENT OFFICE.

CHARLES LUDWIG MAHNICKE, OF COLUMBUS, OHIO.

## PIPE-WRENCH.

No. 834,920. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed April 30, 1906. Serial No. 314,360.

*To all whom it may concern:*

Be it known that I, CHARLES LUDWIG MAHNICKE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

My invention relates to a pipe-wrench, and has for its object the provision of an improved device of this character adapted to engage and turn a pipe in either direction.

A further object of the invention is the provision of a pipe-wrench, together with improved means for securing plates having oppositely-directed teeth to said wrench.

The present invention is designed as an improvement over Letters Patent No. 514,721, issued to me on February 13, 1894. The wrench shown in said Letters Patent is adapted after it has been placed in position to turn a pipe in either direction without entirely disconnecting the wrench from said pipe; but with the construction therein shown when the teeth become broken or dulled it is necessary to discard the entire wrench. It is to obviate this difficulty that the present invention is particularly designed, my improved wrench having toothed plates which are adapted to be secured to the wrench, as will be hereinafter described.

Further objects and advantages of the invention will be set forth in the detailed description, which now follows.

In the accompanying drawings, Figure 1 is a side elevation of a pipe-wrench constructed in accordance with the invention. Fig. 2 is a transverse vertical section of the wrench upon line $x$ $x$ of Fig. 1, and Fig. 3 is a detail perspective view of one of the toothed plates hereinafter described.

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

Referring to the drawings, the numeral 5 designates the body portion of the wrench, from which a handle 6 extends. A chain 7 is secured to the body portion of the wrench, as at 8, and is adapted to extend around a pipe 9, the free end of the chain being engaged by spurs 10 to bring the teeth of the wrench into engagement with the periphery of the pipe. The structure so far described is substantially shown in the patent above referred to.

Toothed plates 11 and 12 are provided with teeth 13 and 14, the teeth 13 projecting in the opposite direction from the teeth 14. These plate have beveled ends 15 and 16 and upstanding ribs 17. The body portion 5 of the wrench is channeled, as at 18, for the reception of these ribs. When it is desired to secure the toothed plates 11 and 12 in position, they are slipped into the position illustrated in Figs. 1 and 2, with the ends 15 engaging shoulders 19, after which a bolt 20, having a beveled concaved head 21, is passed through the body portion, with the beveled head 21 engaging the beveled ends 16 of the toothed plates. A nut 23 is adapted to draw the bolt firmly up against the ends 16 of these plates, at which time the ribs 17 secure said plates against lateral movement, while the bolt-head 21 prevents endwise movement of said plates.

From the foregoing description it will be seen that a very simple means has been provided for simultaneously binding the two toothed plates in position. If the teeth carried by these plates should become worn or broken, the plates carrying said teeth may be readily removed and new plates inserted in the body portion of the wrench, thus obviating the necessity of discarding the entire wrench when the teeth thereof have become damaged.

While the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claims.

What I claim is—

1. In a device of the character described, the combination with a recessed body portion, of a pair of plates, and a bolt having a beveled head which is adapted to engage and bind said plates in the body portion.

2. A pipe-wrench comprising a body portion, a pair of toothed plates, shoulders carried by the body portion with which one of the ends of each of said toothed plates is adapted to engage, and a bolt having a beveled head which is adapted to engage the other ends of said toothed plates to bind said toothed plates to the body portion of the wrench.

3. A pipe-wrench comprising a body portion, a pair of toothed plates having ribs formed thereon adapted to engage recesses formed in the body portion, shoulders car-

ried by the body portion with which one of the ends of each of the toothed plates is adapted to engage, and a bolt having a beveled head adapted to engage the other ends of said toothed plates to bind them to the body portion.

4. In a wrench of the character described, the combination with a body portion having a recess formed therein and having depending shoulders at each end of said recess, of a pair of toothed plates and a locking member having a head adapted to engage the adjacent ends of said toothed plates to force the opposite ends of said plates into engagement with the depending shoulders.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES LUDWIG MAHNICKE.

Witnesses:
FRANK G. CAMPBELL,
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