(No Model.)

J. MAGNETTE.

CHAIN WRENCH.

No. 388,568. Patented Aug. 28, 1888.

Fig. 1.

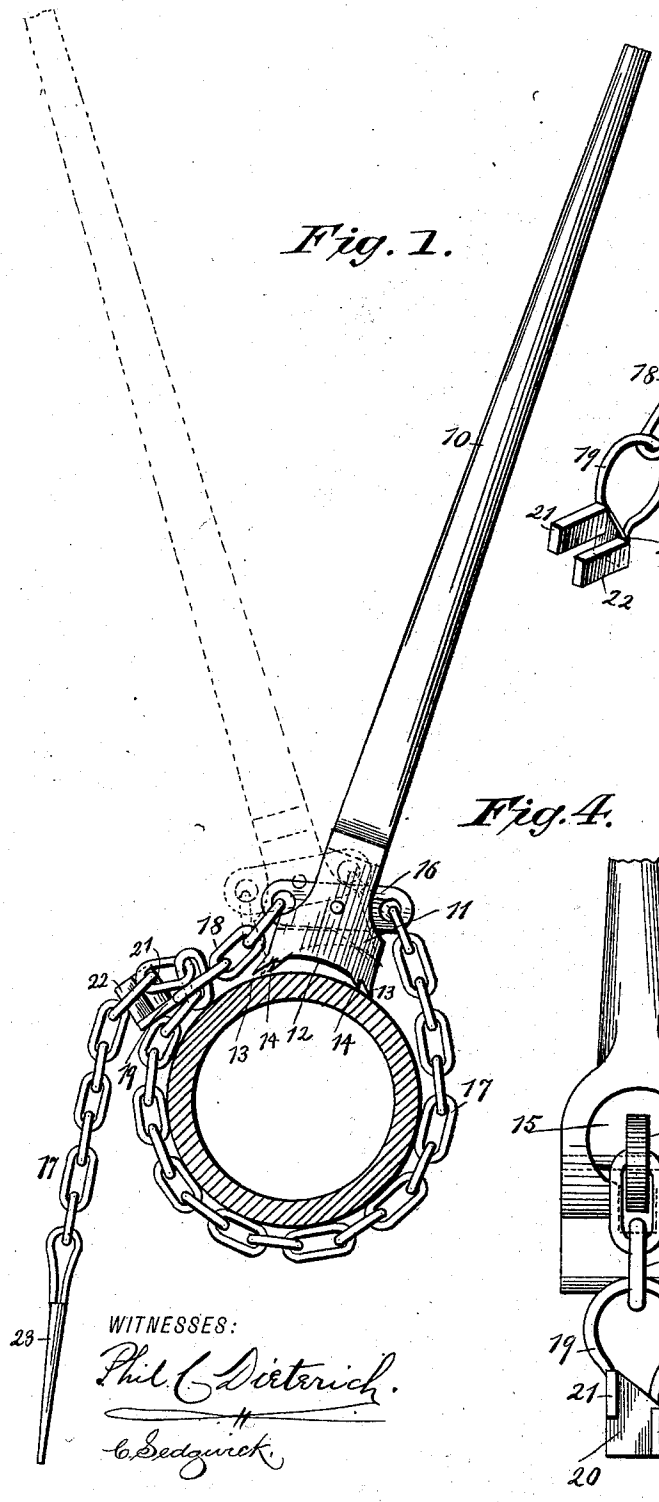


Fig. 2.

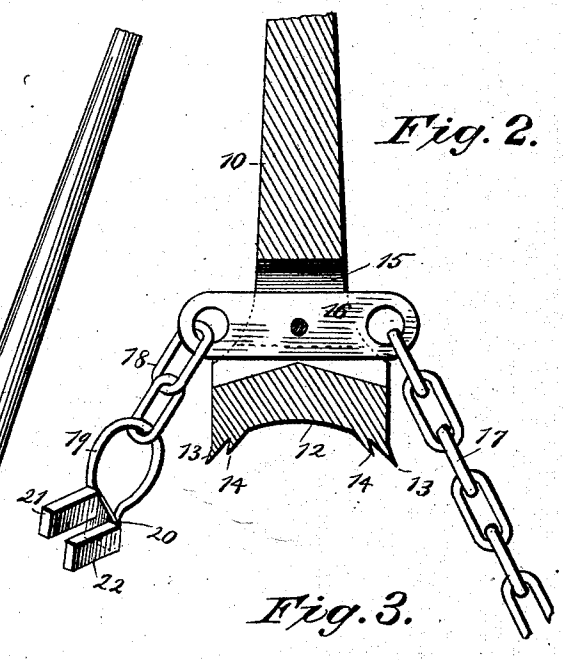


Fig. 3.

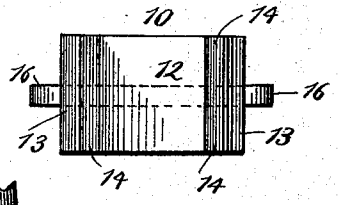
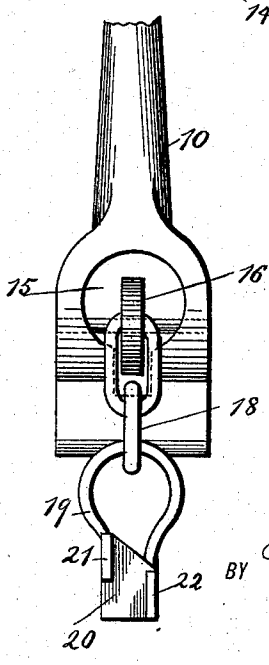


Fig. 4.



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UNITED STATES PATENT OFFICE.

JULES MAGNETTE, OF LONG ISLAND CITY, NEW YORK.

CHAIN-WRENCH.

SPECIFICATION forming part of Letters Patent No. 388,568, dated August 28, 1888.

Application filed April 19, 1888. Serial No. 271,179. (No model.)

To all whom it may concern:

Be it known that I, JULES MAGNETTE, of Long Island City, in the county of Queens and State of New York, have invented a new and useful Improvement in Chain-Wrenches, of which the following is a full, clear, and exact description.

My invention relates to an improvement in chain-wrenches, and has for its object to provide a chain-wrench especially adapted for use in connection with pipes, wherein the pipe may be turned from right to left, or vice versa, without removing the wrench, and wherein, also, the chain may be tightened less than the length of the link.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is an elevation of the wrench applied to a pipe, illustrating the several positions of the lever in dotted lines. Fig. 2 is a partial vertical section through the lever-arm of the wrench, illustrating the attachment of the chain thereto. Fig. 3 is a bottom plan view of the said lever-arm, and Fig. 4 is a partial side view of the same.

In carrying out the invention the lever 10, which also constitutes the handle, is provided with a head, 11, in the under surface of which head a recess, 12, is produced, whereby opposite outer horns or sharp bearing-surfaces, 13, are obtained. The walls of the recess 12 contiguous to the bearing-surfaces 13 are provided with a series of teeth, 14, as best shown in Fig. 2, which teeth have an inclination in the direction of the outer side.

Above the head 11 a slot, 15, is formed transversely in the lever 10, the lower walls of which slot are preferably inclined from the center outward. In the said slot 15 a flat link or plate, 16, is centrally pivoted, which plate is provided with apertures at its extremities.

The plate above referred to is adapted to receive at its end chain-sections 17 and 18, the section 18, which is preferably the shorter, being provided at its extremity with an attached keeper, 19. The keeper 19 consists of a plate, 20, having produced upon opposite edges lugs 21 and 22, which lugs project upward at right angles from the plate and are arranged one in advance of the other, as best shown in Figs. 2 and 4.

I do not confine myself to the number of lugs illustrated, but may use three or more, if in practice it be found desirable.

At the extremity of the chain-section 17 a needle or pointer, 23, is ordinarily attached, adapted, when the device is in use, to guide the said chain-section 17 through the eye of the keeper; but this pointer may be omitted without departing from the spirit of my invention.

In operation the head of the lever 10 is made to bear upon the surface of the pipe. The chain-section 17 is then carried around the pipe and the most convenient link therein made to engage either of the keeper-lugs 21 or 22. The two lugs are provided and spaced as above set forth in order that when the chain is carried around the pipe to properly tighten the same, if the proper link will not engage the lug 22, the next link may be carried over the lug 21, or vice versa, whereby the slack may be taken up in the chain a half link's length. If three lugs were employed, this result could be obtained at a minimum of a third of a link's length. Prior to attaching the link of the chain-section 17 to the keeper the end of the said chain-section is preferably passed through the eye of the said keeper, its passage being facilitated by means of the pointer 23.

By reference to Fig. 1 it will be observed that if the pipe is to be turned to the right the right-hand toothed projection, 13, will engage the same, the lever being in the position illustrated in positive lines. If for any means it should become desirable to reverse the action, the lever need only be lifted and carried over to the position shown in dotted lines—viz., to the left—whereupon the right-hand toothed projection, 13, will be disengaged and the left-hand projection engaged, this being accomplished without detaching the chain-section 17 from the section 18 or otherwise disturbing the tie of the wrench around the pipe.

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

1. The combination, with a lever having a head with a recessed under surface and teeth formed at the ends of said recess and a transverse slot above said head, of a chain provided with a keeper, and a plate centrally pivoted in said slot uniting the chain, as and for the purpose specified.

2. In a chain-wrench, the combination, with chain-sections and a uniting pivoted flat link or plate, of a keeper permanently attached to one chain-section, having lugs projected at right angles from opposite sides, one essentially in advance of the other, substantially as and for the purpose specified.

JULES MAGNETTE.

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