

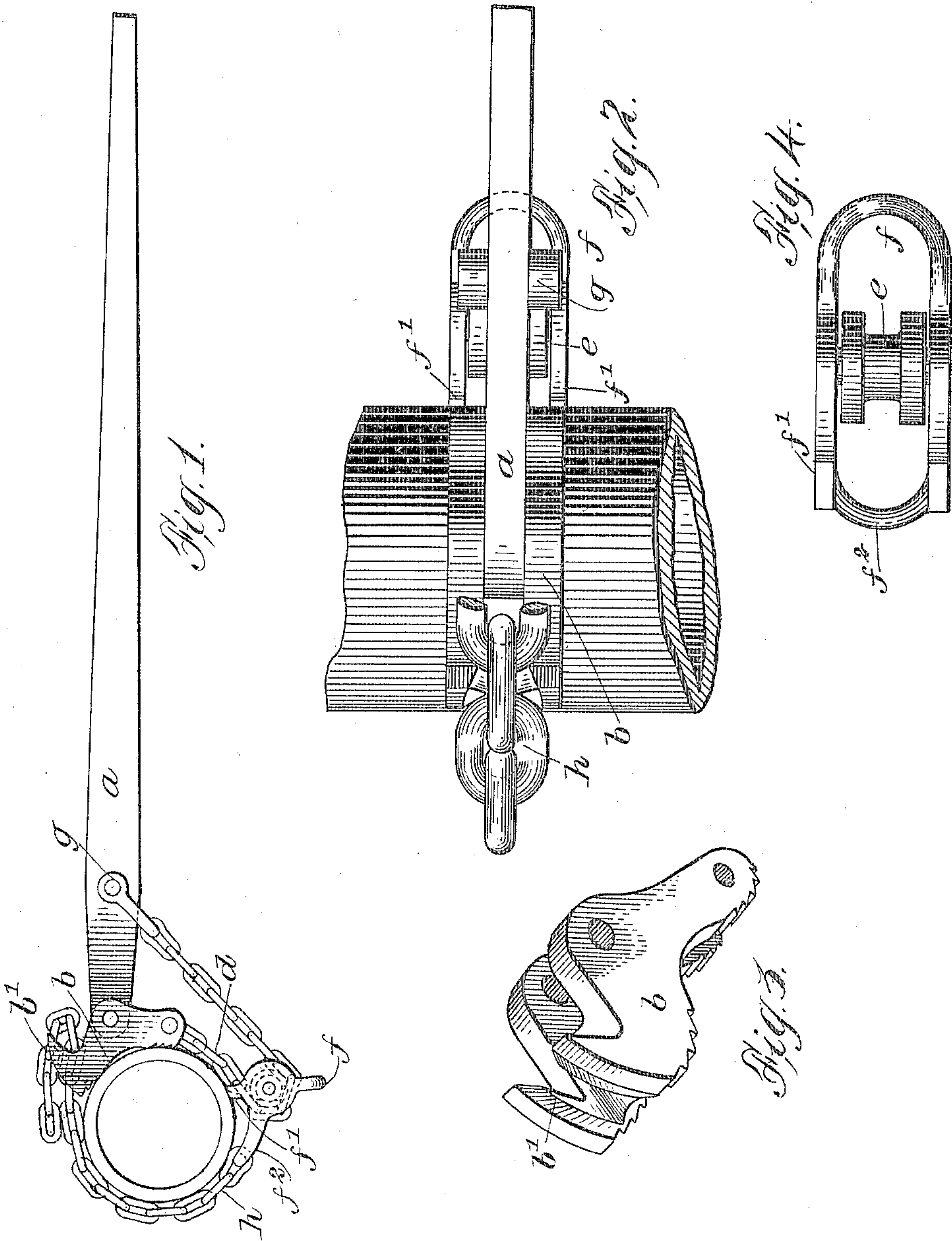
No. 817,506.

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M. J. MCGINN.

WRENCH.

APPLICATION FILED JULY 29, 1905.



WITNESSES:
C. A. Jarvis.

Isaac B. Owens.

INVENTOR
Michael J. McGinn

BY *Mumford*
ATTORNEYS

UNITED STATES PATENT OFFICE.

MICHAEL JOSEPH MCGINN, OF PROCTOR, MINNESOTA.

WRENCH.

No. 817,506.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MICHAEL JOSEPH MCGINN, a citizen of the United States, and a resident of Proctor, in the county of St. Louis and State of Minnesota, have invented a new and Improved Wrench, of which the following is a full, clear, and exact description.

The invention relates to a wrench for handling pipes and other round objects.

The purpose of the invention is to provide a means by which the pipe may be firmly gripped with an equal strain on all parts of the same, thus preventing crushing the pipe by extreme pressure applied to one point only. I attain this end by fitting an intermediately-pivoted jaw on the end of the lever or handle of the wrench. To this jaw is joined a chain also joined to the lever and engaging intermediate the ends of the chain with a block, to which a second chain is joined, the jaw being adapted to removably engage said second chain, so that after adjusting the parts on the pipe by swinging the lever the first chain is caused to exert a tension on the second chain, forcing the same against the pipe and gripping it firmly.

The invention resides in certain features of construction and arrangement of parts, which will be fully set forth hereinafter, and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, which illustrate, as an example, the preferred embodiment of my invention, in which drawings—

Figure 1 is a view showing the invention in operative position. Fig. 2 is an enlarged view looking down on the jaw or adjacent part of the lever and the block which one of the chains engages. Fig. 3 is a detail perspective view of the jaw, and Fig. 4 is a detail view of the block.

a indicates the hand-lever, one end of which is pivoted to a jaw *b*, the pivot being intermediate the ends of the jaw and the jaw having a serrated under face adapted to engage the pipe, as shown. At one end the jaw is provided with a claw *b'*, and at the other end it carries a pin *c*, to which a chain *d* is engaged. This chain runs over a sheave *e*, held on the frame *f*, and from the sheave the chain passes up into connection with a clevis *g* on the lever *a* at a point slightly removed from the fulcrum thereof. The frame *f* is preferably of metal and has studs *f'*, adapted to engage the pipe. It also has a

shackle *f''* with which a chain *h* is connected. This chain is adapted to pass around the pipe to be removably engaged with the claw *b'* of the jaw *b*, as shown in Figs. 1 and 2. Now it is clear that upon swinging the lever upward from the position shown in Fig. 1 said lever will, through the chain *d*, move upward the block formed of the sheave *e* and frame *f*, thus causing the chain *h* to be tightened around the pipe. This action in turn will pin the jaw *b*, a part of the chain *d*, and studs *f'* against the pipe. Since, therefore, all of these parts distributed around the pipe are uniformly engaged therewith, any strain exerted on the pipe will be equally distributed. This enables the pipe to bear great strains and allows the full power of the wrench to be employed without the fear of injury to the pipe. The device is adjustable to pipes of various sizes by adjusting the engagement between the frame *f* and jaw *b*.

While I prefer to employ chains, as shown in the drawings, nevertheless I do not desire to limit myself to their use, since cables or flexible connections of other sorts may be employed with equally good results, and in the following claims I use the term "chain" as covering such equivalent devices.

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

1. The combination of a handle, a jaw pivoted thereto, a chain connected to the jaw and to the handle, a block through which the chain runs, and a second chain connected to the block and adapted to be connected with the jaw.

2. The combination of a handle, a jaw, one end of the handle being pivoted to the jaw intermediate its ends, a chain connected to one end of the jaw and to the handle at a point removed from the pivoted end thereof, a block through which the chain runs, and a second chain connected to the block and adapted to be connected with the jaw.

3. The combination of a handle, a jaw, one end of the handle being pivoted to the jaw intermediate its ends, a chain connected to one end of the jaw and to the handle at a point removed from the pivoted end thereof, a block through which the chain runs, and a second chain connected to the block and adapted to engage the jaw, the jaw having a claw removably to hold the second chain.

4. The combination of a handle, a jaw pivoted thereto, a chain connected to the jaw

and to the handle a block through which the chain runs, and a second chain connected to the block and adapted to engage the jaw, the jaw having a claw adapted removably to hold the second-named chain.

5 5. In a pipe-wrench, the combination of a handle, a jaw pivoted thereto, a chain in connection with the handle and said jaw, a block engaged by the chain, and a second
10 chain connected to the block and adapted to engage the said jaw.

6. In a pipe-wrench, the combination of a handle, a jaw pivoted thereto, a chain adapted to engage said jaw, a pulley in connection
15 with the chain, and a second chain running over the pulley and connected with and adapted to be operated by the handle, for the purpose specified.

20 7. In a pipe-wrench, the combination of a handle, a jaw pivoted thereto, a chain con-

nected to the jaw and handle, a block through which the chain runs, and a second chain in connection with the block and adapted to engage the jaw.

8. The combination of a handle, an inter- 25
mediately-pivoted jaw mounted at one end thereof, a chain in connection with one end of the jaw and with the handle, the other end of the jaw having a claw, a chain adapted to engage said claw, and a block in connection 30
with the last-named chain, the first-named chain running through the block.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MICHAEL JOSEPH MCGINN.

Witnesses:

JOHN H. EDWARDS,
GILBERT WEIMWOLD.