

L. WHITCOMB.
PIPE WRENCH.

APPLICATION FILED SEPT. 26, 1910.

1,024,167.

Patented Apr. 23, 1912.

Fig. 1.

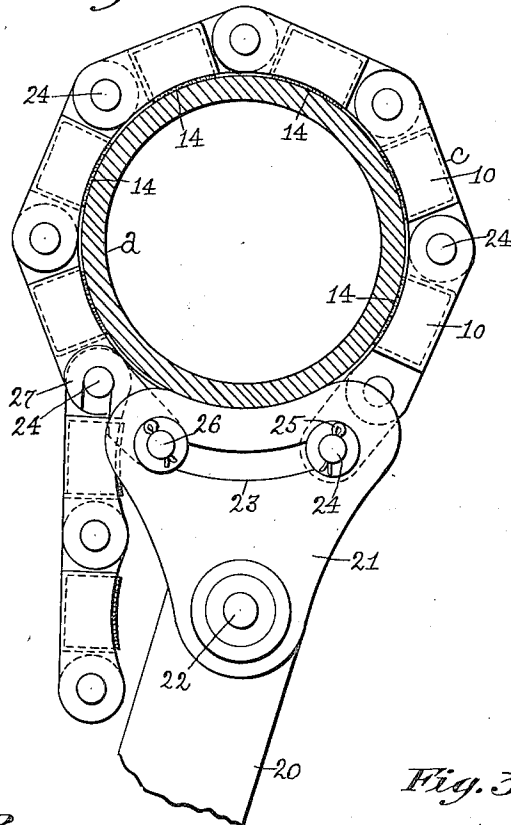


Fig. 2.

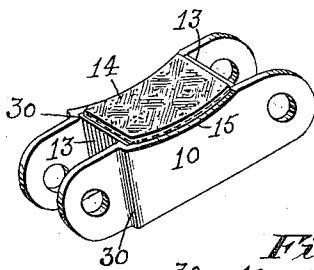


Fig. 3.

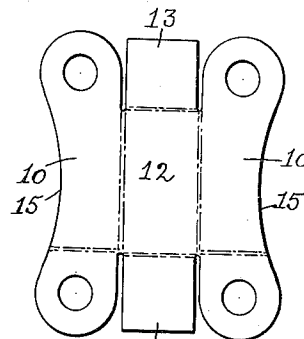
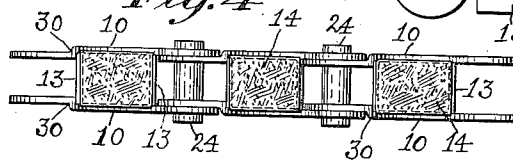


Fig. 4.



Witnesses:
M. G. Crozier.
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Inventor,
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UNITED STATES PATENT OFFICE.

LAWRENCE WHITCOMB, OF BROOKLINE, MASSACHUSETTS, ASSIGNOR TO THE CORK INSERT COMPANY, A CORPORATION OF MAINE.

PIPE-WRENCH.

1,024,167.

Specification of Letters Patent.

Patented Apr. 23, 1912.

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To all whom it may concern:

Be it known that I, LAWRENCE WHITCOMB, a citizen of the United States, residing in Brookline, county of Norfolk, and State of Massachusetts, have invented an Improvement in Pipe-Wrenches, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing

like parts. This invention relates to a pipe wrench especially designed and adapted for use on brass, nickel and other pipe whose surface it is desired not to mar.

The present invention has for its object to provide a pipe wrench of the class described with which protection for the brass or nickel pipe is obtained while providing for an increased grip of the wrench upon the pipe, whereby a superior wrench for brass, nickel and like pipe is produced. To this end, the pipe wrench is provided with a flexible member capable of being wound about the pipe and provided with a plurality of pipe contacting elements or surfaces composed of cork or other non-metallic material. The flexible member may be made as will be hereinafter described. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 represents in section a pipe and in elevation a pipe wrench applied thereto and embodying this invention. Fig. 2, a detail of one of the links shown in Fig. 1. Fig. 3, a plan of the metal blank from which the links of the flexible member shown in Fig. 1 are formed, and Fig. 4, a developed view of a portion of the flexible member shown in Fig. 1.

Referring to the drawings, *a* represents a brass, nickel or other pipe whose outer surface it is desired not to scratch or mar by the wrench with which the pipe is turned when fitted into its appropriate place in the job of piping to be done. In the present instance, I have shown one form of wrench embodying this invention, with which a firm grip upon the pipe *a* may be obtained and the latter turned without danger of scratching, marring or crushing the brass, nickel or other pipe.

The pipe wrench herein shown is provided with a flexible member capable of encircling the pipe *a*, and a handle by which said mem-

ber is turned. In the present instance, the flexible member is composed of a plurality of pivotally connected links *c*, each preferably made from a sheet metal blank, such as sheet steel, (see Fig. 3) and comprising substantially parallel side pieces 10, turned up from a bottom piece or plate 12, and end pieces 13 which are also turned up from the bottom plate 12 between the side pieces and cooperate therewith to form a receptacle or socket for the reception of a block or insert 14 of cork or other suitable non-metallic material. The side pieces 10 may and preferably will be provided with curved portions 15 at their free or upper ends, and the cork or other block or insert may and preferably will be made of sufficient thickness so as to rest upon the bottom plate 12 and project above or beyond the upper ends of the sides 10, after the manner represented in Figs. 1 and 2, so that, when the flexible member of the wrench is applied to the pipe *a*, the outer surface of the pipe *a* will be engaged by the inserts 14 and thereby protected from contact with the metal portions of the flexible member of the pipe wrench. The inserts 14 may be moved about the pipe *a* in the act of getting a new grip upon the same, without scratching or marring the surface of the brass or nickel pipe, and when the wrench is turned so as to grip the pipe and turn the same, the increased gripping efficiency of the non-metallic inserts prevents slipping and enables the pipe to be turned with a minimum power and with the least possible danger of scratching or crushing the brass or nickel pipe, the latter being usually brass pipe with a nickel coating.

The pipe wrench is provided with a suitable handle 20 to which the flexible member is connected, and in the present instance, the flexible member is pivotally connected to triangular-shaped side pieces 21 constituting a movable head for the handle 20, to which the said side pieces 21 are pivoted as at 22. The side pieces 21 are provided as herein shown with slots 23 into which the pivot 24 for one end of the flexible member is inserted and secured to said head by the cotter pin 25 or otherwise, and the slots 23 also receive the pivot 26 for hooks 27, which are designed to engage the pivots 24 of the links of the flexible member as represented in Fig. 1.

By reference to Fig. 1, it will be seen that

the exterior surface of the pipe *a* is engaged by the cork blocks or inserts 14, which firmly grip the pipe and enable the latter to be turned by the wrench with the least possible power and without danger of scratching, marring or crushing the pipe.

I have herein shown one form of pipe wrench having a flexible member, which is designed to encircle the pipe, and one form of handle to which the flexible member is connected, but it is not desired to limit the invention to the particular construction herein shown, although I may prefer the construction of flexible member herein shown as the cork inserts are solidly backed up by the bottom plate 12 of the socket and are also supported on all sides by the sides 10 and end pieces 13.

The sides 10 at the front end of each link may be offset as shown in Fig. 4 so as to extend between the side pieces at the rear of the next preceding link, the shoulders 30 formed by the offset portions of the links cooperating with one end wall of the socket to prevent it being displaced by the expansion of the compressed cork insert, the other end wall being supported by the front ends of the side pieces 10 of the next adjacent link.

30 Claims.

1. A pipe wrench of the class described, provided with a flexible member capable of encircling the pipe and composed of a plurality of connected links, each comprising a bottom plate, side pieces turned up from said bottom plate, end pieces turned up from said bottom plate and cooperating therewith and with said side pieces to form a socket closed at its bottom, and inserts of

non-metallic material fitted into said sockets, and bearing against the bottoms thereof, substantially as described.

2. A pipe wrench of the class described, provided with a flexible member capable of encircling the pipe and composed of a plurality of connected links, each comprising a bottom plate, side pieces turned up from said bottom plate, end pieces turned up from said bottom plate and cooperating therewith and with said side pieces to form a socket closed at its bottom, inserts of non-metallic material fitted into said sockets, and bearing against the bottoms thereof, and means to prevent displacement of said end pieces, substantially as described.

3. A pipe wrench of the class described, provided with a flexible member capable of encircling the pipe and composed of a plurality of connected sheet metal links, each comprising a bottom plate, end pieces turned up from said bottom plate, and side pieces turned up from said bottom plate and having an offset end portion which cooperates with the end piece to lock the latter against outward movement, and pipe engaging surfaces of cork inserted into said sockets to bear against the bottom, side and end walls thereof and to project above said side and end walls and to contact with the outer circumference of the pipe, substantially as described.

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

LAWRENCE WHITCOMB.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.