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O. PEARCE ET AL

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PIPE WRENCH

Filed March 14, 1922

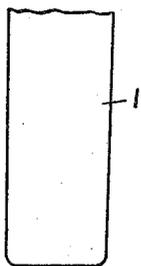
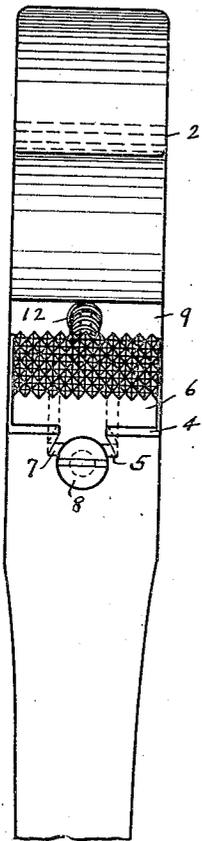


Fig. 2.

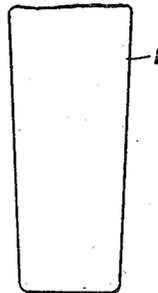
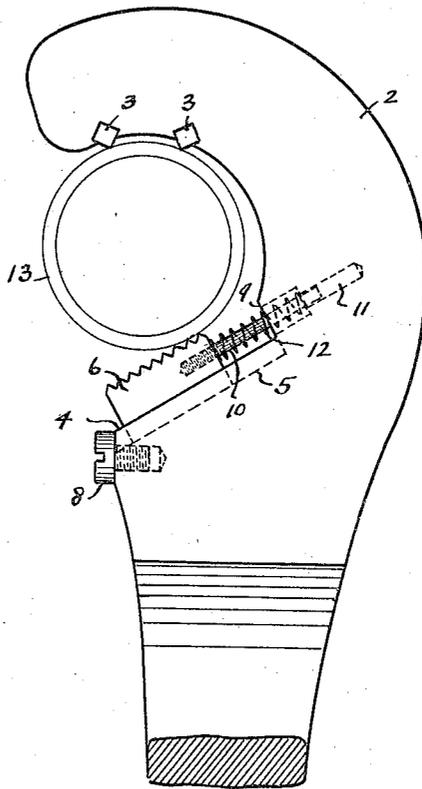


Fig. 1.

Inventor

Oscar Pearce  
Ivan Bales

By

Hardway & Cather  
Attorneys

# UNITED STATES PATENT OFFICE.

OSCAR PEARCE AND IVAN BALES, OF HOUSTON, TEXAS.

## PIPE WRENCH.

Application filed March 14, 1922. Serial No. 543,564.

*To all whom it may concern:*

Be it known that we, OSCAR PEARCE and IVAN BALES, citizens of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in a Pipe Wrench, of which the following is a specification.

This invention relates to new and useful improvements in a wrench, and has particular relation to a novel type of wrench designed for turning pipe and other similar objects.

One object of this invention is to provide a wrench which is formed for application to a pipe or other similar object and which will gradually grip the pipe as power is applied to the handle, so as to prevent the slippage of the wrench on the pipe.

Another object of the invention is to provide a wrench which may be easily released from the pipe.

A further feature of the invention resides in the provision of a wrench which is of very simple construction and which will securely grip the pipe to be turned and which is very strong and durable.

With the above and other objects in view the invention has particular relation to certain novel features of construction, operation and arrangement of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein:

Figure 1 is a side view of the wrench and, Figure 2 is a front view thereof.

Referring now more particularly to the drawings, the numeral 1 designates the wrench handle, and formed integrally therewith there is a curved jaw 2 formed to fit around the pipe to be turned and whose free end has the pipe engaging teeth 3, 3 which are dove-tailed therein so as to be removable when they become dull. Opposite these teeth the handle is formed with a flat face 4 which diverges outwardly with respect to a plane passing through said teeth. This face has a dove-tailed groove 5 therein. A slidable jaw 6 has a bearing

on this face and is formed with a dove-tailed tenon which fits in said groove. The operative face of the jaw is toothed and the jaw is held against detachment by means of a set screw 8, which is screwed into the handle and against the head of which said tenon is adapted to abut. Opposite the inner end of the jaw 6 the handle is formed with a shoulder 9. A rod 10 is screwed into the inner end of the jaw 6 and works in a deep bearing 11 in the wrench. The outer end of this bearing is enlarged to receive one end of the coil spring 12 which surrounds the rod 10 and whose other end rests against the inner end of the jaw 6. The wrench is applied to the pipe 13 as shown in Figure 1, and the handle is manipulated in the direction of the arrow. The toothed face of said jaw will engage the pipe and as the handle is manipulated the jaw will slide up the face 4 and wedge between it and the pipe and will cause the wrench to securely grip and turn said pipe. When it is desired to release the wrench it is manipulated in the opposite direction, said jaw 6 sliding in the reverse direction on the face 4 until it releases the pipe. The spring 12 operates to always hold the jaw 6 in its outer position in readiness to be applied to the pipe.

What we claim is:—

A pipe wrench including a handle having a curved jaw formed integrally with one end thereof and adapted to fit around one side of the pipe to be turned, pipe engaging teeth carried by said curved end, a flat face formed on said handle opposite said jaw, said face diverging outwardly with respect to a plane passing through said teeth, said face being formed with a dove tailed groove, a slidable jaw having a bearing on said face and formed with a dove-tailed tenon which slides in said groove, the operative face of said last mentioned jaw being toothed, a set screw threaded into the handle and against the head of which said tenon is adapted to abut, a shoulder formed on said handle opposite the inner end of the jaw, and against which said inner end of said jaw is adapted to abut said handle having

a deep socket in alignment with said slidable jaw, a rod attached to the inner end of the jaw and working in said bearing, the outer end of said bearing being enlarged, and a coil spring surrounding said rod, one end of which is seated in the enlarged outer end of the socket and the other end of which rests against the inner end of said jaw.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

OSCAR PEARCE.  
IVAN BALES.

Witnesses:

W. H. DUNLAY,  
E. V. HARDWAY.