June 12, 1951 E. M. RODDICK 2,556,945

BACKOUT OR NIPPLE WRENCH

Filed Feb. 24, 1947

Fig. 1.

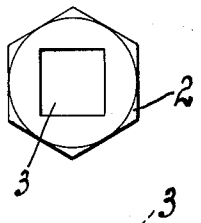


Fig. 2.

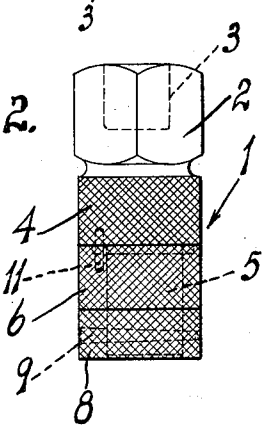


Fig. 3.

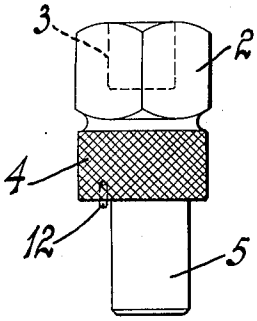


Fig. 4.

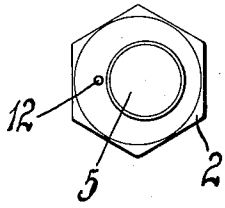


Fig. 5.

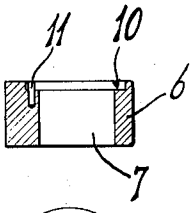


Fig. 6.

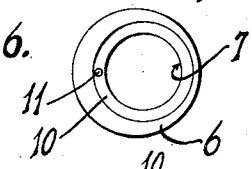


Fig. 7.

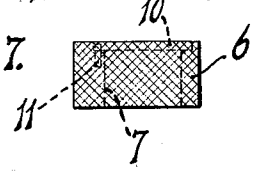


Fig. 8.

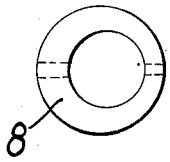
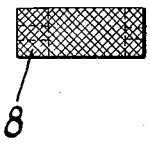


Fig. 9.



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BACKOUT OR NIPPLE WRENCH

Eric M. Roddick, Long Beach, Calif.

Application February 24, 1947, Serial No. 730,243

1 Claim. (Cl. 81—72)

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This invention relates to a backout or nipple wrench whereby a pipe, nipple or the like can be internally engaged and gripped, and either threaded or unthreaded, as desired.

An object of my invention is to provide a simple compact and inexpensive wrench of the character stated, which will effectively grip the inside of a pipe or nipple, and will rotate this object either right hand or left hand, as desired.

A feature of my invention resides in the mounting of the rotatable ring, this mounting being so arranged that the ring will grip the inside of a pipe or nipple either right hand or left hand rotation, and with a relatively short arcuate movement of the body of the tool when changing from one direction of rotation to another.

Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detailed description and the appended claim.

In the drawing:

Figure 1 is a top plan view of my wrench.

Figure 2 is a side elevation of the same.

Figure 3 is a side elevation of the tool with the rotating and assembly rings removed.

Figure 4 is a bottom plan view of the assembly shown in Figure 3.

Figure 5 is a transverse sectional view of the rotatable ring.

Figure 6 is a top plan view of the same.

Figure 7 is a side elevation of the same.

Figure 8 is a top plan view of the assembly ring.

Figure 9 is a side elevation of the same.

Referring more particularly to the drawing, my backout or nipple wrench 1 consists of a hexagonal head 2, this head being also formed with a square recess 3, which can be engaged by an internal wrench, if desired. A knurled ring 4 is integrally formed on the wrench below the head 2, and a post 5 extends below the ring 4. The post 5 is eccentric to the center line of the wrench, and a rotatable ring 6, when rotated on the post, will move outwardly to engage the inside of a pipe or nipple, as will be further described. The rotating ring 6 is journaled on the post 5 and is formed with an eccentric bore 7, which accurately fits the post 5. The rotating ring 6 is held in assembled position by a locking or assembly ring 8, which fits on the bottom of the post 5 and is nonrotatably held on the post by suitable means, such as the pin 9. It is to be noted that the rings 4 and 8 are concentric with the center line of

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the tool, and also these two rings are always in alignment.

An annular groove 10 is cut in the top surface of the ring 6, and a pin 11 extends upwardly into this groove from the body of the ring. The top of the pin 11 is substantially flush with the top of the ring 6. A stop pin 12 extends downwardly from the ring 4, and the bottom of this pin is substantially flush with the bottom of the groove 10. It will thus be evident that the pins 11, 12 will strike and stop further rotation of the ring 6 when the ring is in alignment with the upper and lower rings 4 and 8—that is, when the rings 4, 6 and 8 are all in alignment, the pins 11, 12 are engaged, thus holding the entire assembly in proper position to be inserted in a pipe or nipple.

In operation, the rings 4 and 8 will engage the inside of a pipe or nipple, and rotation of the ring 6 will then move it outwardly to engage the pipe or nipple approximately 180° from where the rings 4 and 8 are engaging. A relatively small angular adjustment is all that is necessary to enable the tool to grip the pipe or nipple for either left hand or right hand rotation.

Having described my invention, I claim:

A backout wrench comprising a head, a fixed ring, a post eccentric with respect to said fixed ring, with the head, ring and post formed integrally, a rotatable ring journaled on the post adjoining the fixed ring and provided with an annular groove, a mounting ring fixed to the post concentric with the fixed ring and holding the rotatable ring on the post, the three rings being of equal and constant diameters throughout their widths, a pin mounted in the annular groove of the rotatable ring and a second pin carried by one of the other rings projecting into said groove.

ERIC M. RODDICK.

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