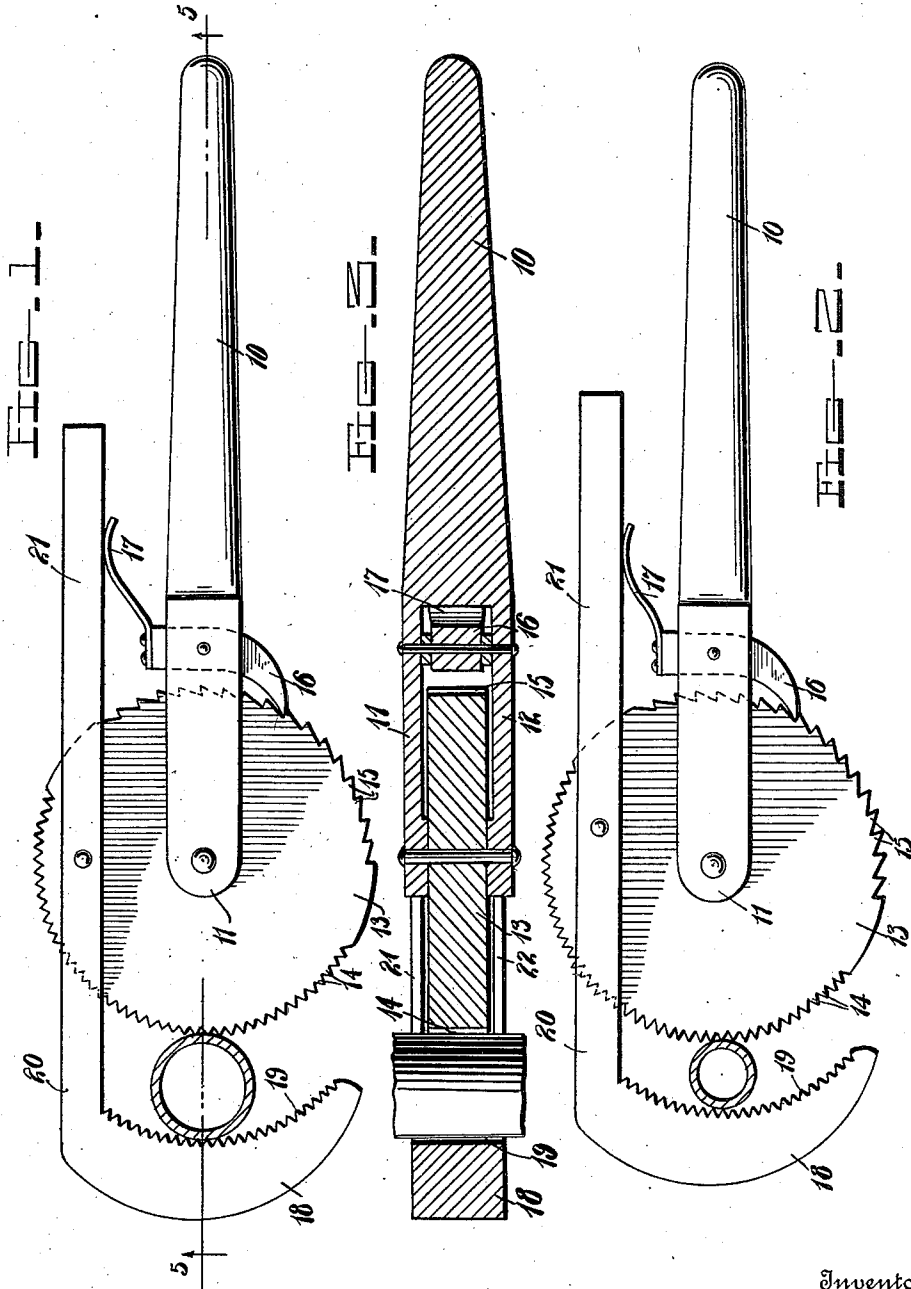


W. A. LEE.
WRENCH.

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1,034,470.

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Witnesses

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WRENCH.

1,034,470.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM A. LEE, a citizen of the United States, residing at Dubach, in the parish of Lincoln, State of Louisiana, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wrenches and particularly that type utilized in manipulating pipes and other objects having cylindrical surfaces.

The object of the invention resides in the provision of a wrench of the character named which may be utilized to grip objects having cylindrical surfaces and of different diameters.

A further object of the invention resides in the provision of a wrench of this character which can be easily and quickly adjusted so as to operatively engage pipes of different diameters.

A still further object of the invention resides in the provision of a wrench which will be simple in construction, efficient in use and which may be manufactured and sold at a comparatively small cost.

With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a side elevation of a wrench constructed in accordance with the invention and showing same in operative engagement with a pipe of a given diameter. Fig. 2, a view similar to Fig. 1 showing the wrench adjusted so as to operatively engage a pipe of less diameter than that shown in Fig. 1. Fig. 3, a section on the line 5—5 of Fig. 1.

Referring to the drawings, the wrench is shown as comprising a handle 10 one end of which is forked to form the arms 11 and 12. Journaled between the arms 11 and 12 is a disk 13 the outer portion of whose periphery is provided with a knurled surface 14 while the inner portion thereof is provided with ratchet teeth 15. These ratchet teeth are adapted to be operatively engaged by a pawl 16 pivoted between the arms 11 and 12 inwardly of the disk 13. The pawl 16 has fixed to one end thereof a leaf spring 17 for a purpose that will presently appear. The movable jaw of the wrench is indicated at 18 and is provided with a knurled inner face 19 disposed adjacent the knurled portion of the periphery of the disk 13. The movable jaw 18 is provided with a stem 20 which is forked at its free end to form arms 21 and 22 between which the disk 13 extends and is pivotally connected. The spring 17 of the pawl 16 engages at its free end with the arms 21 and 22 of the stem 20 and serve to normally force the opposite end of the pawl 16 into operative engagement with the ratchet teeth 15 on the periphery of the disk 13.

In operation it is only necessary to grip the handle 10 and the movable jaw 18, at the same time manually holding the pawl 16 out of engagement with the ratchet teeth 15. The jaw 18 is then moved away from the disk 13 which operation will rotate the disk 13 a slight distance as will be apparent. The pawl 16 is then released to the influence of the spring 17 and the wrench applied so as to receive the desired pipe between the jaw 18 and the disk 13. The jaw 18 is then moved manually toward the disk 13 until the pipe is engaged by both the jaw and disk. When in this position the handle 10 of the wrench is pushed downward which will cause the disk 13 and jaw 18 to bite firmly on the pipe so that the rotation of the latter will be effected.

What is claimed is:

A wrench comprising a handle, having one end forked and forming spaced arms, a disk journaled between said arms, a movable jaw in operative relation to the disk, a stem

on said jaw extending in substantially the same direction as the handle and pivotally connected to said disk, a plurality of ratchet teeth on the periphery of the disk, a pawl
5 pivoted between the arms at the forked end of the handle and operatively engaging said ratchet teeth, and a leaf spring carried by said pawl and engaged by the stem of the

movable jaw to force the pawl into engagement with said ratchet teeth. 10

In testimony whereof, I affix my signature, in presence of two witnesses.

WILLIAM ALLEN LEE.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."