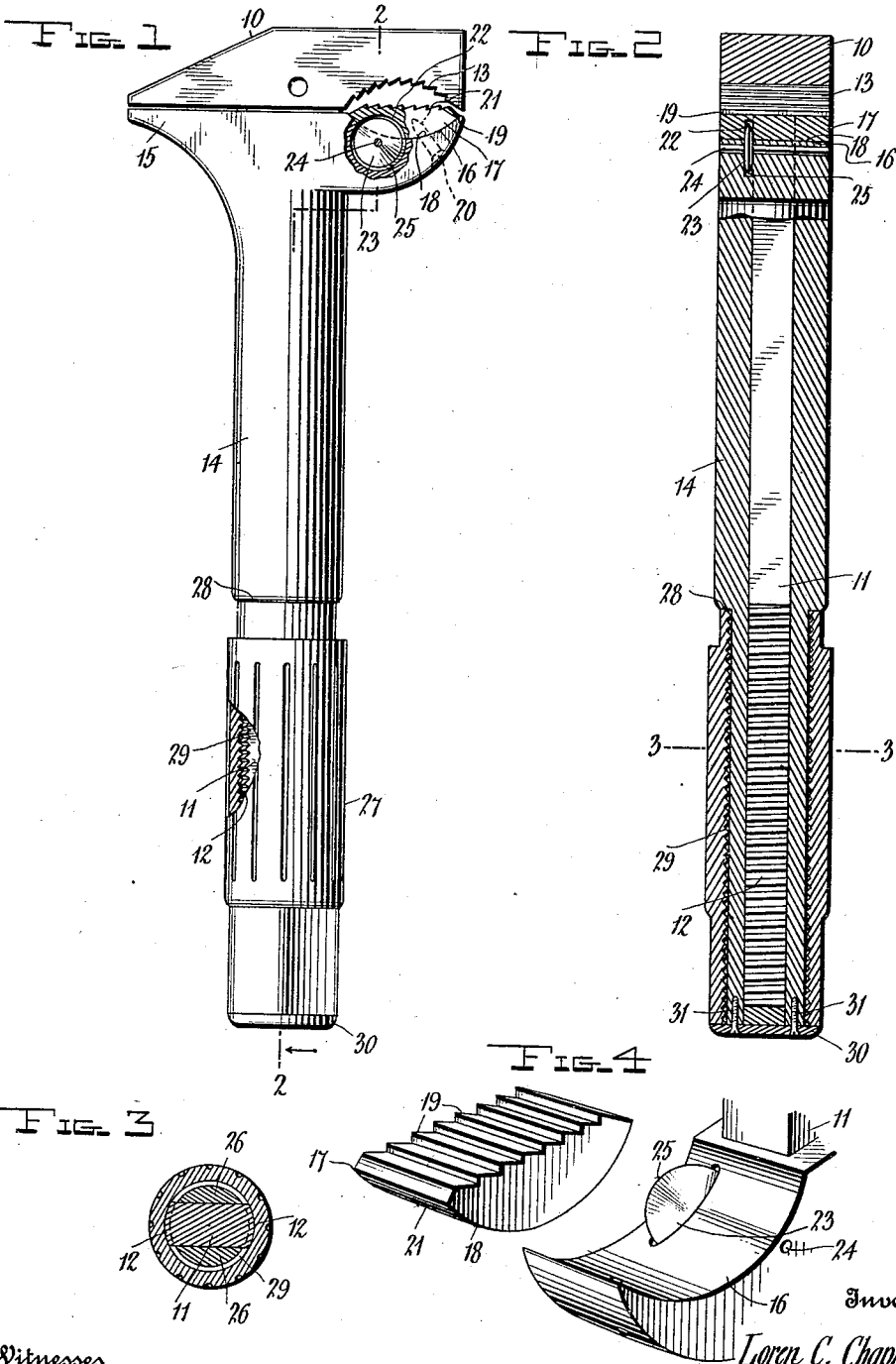


L. C. CHAPMAN.
COMBINATION WRENCH.
APPLICATION FILED JAN, 19, 1911.

1,007,020.

Patented Oct. 24, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

LOREN C. CHAPMAN, OF WEDDERBURN, OREGON, ASSIGNOR OF ONE-HALF TO WILLIAM LAUREN, OF WEDDERBURN, OREGON.

COMBINATION-WRENCH.

1,007,020.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed January 19, 1911. Serial No. 603,584.

To all whom it may concern:

Be it known that I, LOREN C. CHAPMAN, a citizen of the United States, residing at Wedderburn, in the county of Curry, State of Oregon, have invented certain new and useful Improvements in Combination-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 has for its object to provide a combination wrench that may be converted into a pipe cutter with minimum time and labor expended.

A further object of the invention is to provide a novel handle in the nature of a nut which when rotated advances and retracts the movable jaw of the wrench so that the wrench may be adjusted to engage any desired article without requiring the use of two hands in effecting this adjustment as is usual.

With the above objects in view the invention consists in the novel details of construction and combination of parts hereinafter fully described and claimed, it being understood that various modifications may be made in the minor details of construction within the scope of the appended claims.

In the accompanying drawing forming part of this specification, Figure 1 is a side elevation of a wrench embodying my improvements with parts broken away. Fig. 2 is a longitudinal sectional view taken on the line 2—2 Fig. 1. Fig. 3 is a cross sectional view taken on the line 3—3 Fig. 2. Fig. 4 is a fragmentary detail view showing the removable anvil and the pipe cutter carried by one of the tool jaws.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a jaw equipped with a shank 11 which is approximately oblong in cross section and is equipped on its end faces with screw threads 12 for a purpose which will presently appear. A recess 13 is formed in the gripping face of the jaw and the curved wall of this recess is formed with serrations or teeth as shown.

Surrounding the shank is a tube 14 the tube having an oblong bore which loosely receives the shank, and the tube is equipped

at one end with a jaw 15 which co-acts with the jaw 10, and is formed on its gripping face with a recess 16 having a curved wall, on which is situated an anvil hereinafter described. By virtue of the shank sliding within the tube 14, the jaw 10 is movable toward and away from the jaw 15.

The anvil 17 is formed from a single block of material having a curved wall 18 which snugly fits in the recess in the jaw 15 and having a serrated or toothed wall 19 which confronts the serrations of the fixed jaw 10. A securing screw or the like 20 is engaged obliquely through the jaw 15 and threads into an opening 21 formed in the curved wall of the anvil.

For preventing displacement of the anvil when under load, an oblong recess 22 is formed in the curved wall of the anvil, this recess receiving a disk 23 which is of sufficient size to snugly fit within the recess formed in the anvil and prevent lateral movement of the anvil. The disk may be secured in the jaw in any preferred manner, here being shown engaged in a suitable recess formed in the jaw 15, and a pin 24 passed transversely through the jaw and disk. The disk projects considerably above the curved wall of the recess 16 in the jaw and is sharpened as shown at 25, forming a cutting tool with which pipes and the like may be cut upon removal of the anvil which removal may be effected by simply backing out the screw 20 and lifting the anvil out of engagement with the cutting tool. This cutting tool performs the dual function of anchoring the anvil against displacement and cutting pipes and the like.

A pair of fingers 26 project in parallelism from that end of the tube 14 remote from the jaw thereon, these fingers having their confronting faces flat and loosely bearing upon the sides of the shank 11. The outer face of each finger is curved, concentrically relatively to the outer surface of the tube 14. Surrounding both fingers is a sleeve 27, the sleeve abutting against the shoulder 28 formed at the juncture of the fingers with the tube 14, and being approximately the same in length as the fingers. The sleeve is internally provided with screw threads 29 which engage the screw threads 12 formed on the shank. A circular cap piece 30 closes the open end of the sleeve, and is secured to the fingers through the in-

strumentality of screws 31 or the like. It is now clear that the sleeve 27 may rotate freely on the fingers, and during such rotation by engaging with the threads of the shank, will move the jaw 10 relatively to the fixed jaw 15.

It will be noted that by virtue of the jaws being opened and closed simply by rotating the sleeve, that the wrench may be adjusted to a nut or removed from the nut by simply rotating the sleeve with the gripping hand so that the free hand of the operator need not be utilized for this purpose as is usual in manipulating wrenches.

What is claimed, is:—

1. A wrench including relatively movable jaws, one of said jaws having a recess in its working face, an anvil removably se-

cured in said recess, and a combined pipe cutting and anvil anchoring tool projecting from the floor of said recess and interfitting with said anvil.

2. A wrench including relatively movable jaws, one of said jaws having a recess in its working face, an anvil fitting in said recess, a pin engaged through said jaw and said anvil and removably securing said anvil, and a combined pipe cutting and anvil anchoring tool projecting from the floor of said recess and interfitting with said anvil.

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

LOREN C. CHAPMAN.

Witnesses:

FRED S. CAUGHELL,
JOHN S. HUME.

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