H. D. SMITH.

WRENCH.

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979,348.

Patented Dec. 20, 1910.

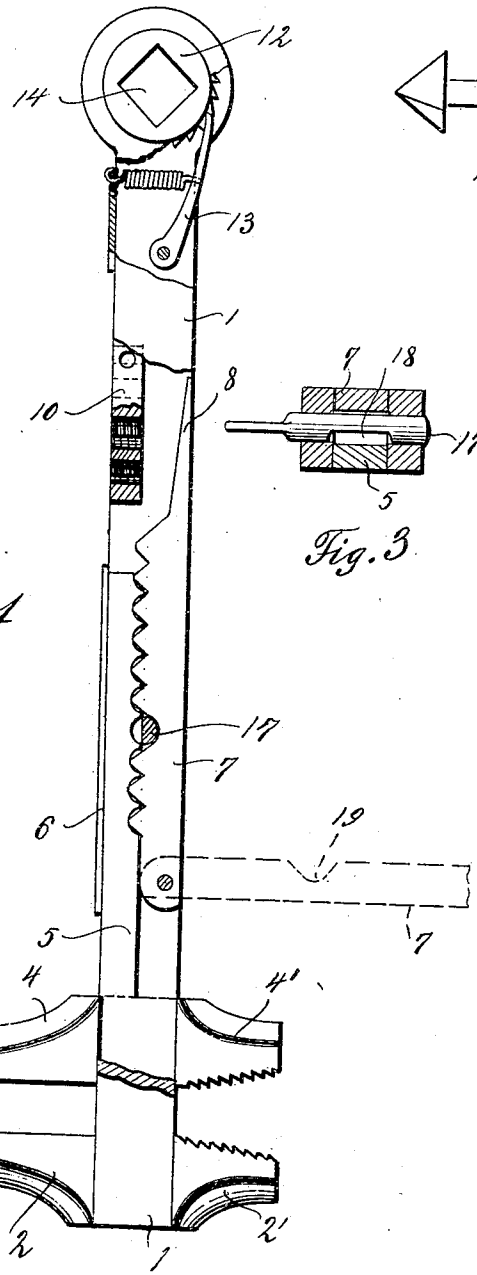

Fig. 1

Fig. 3

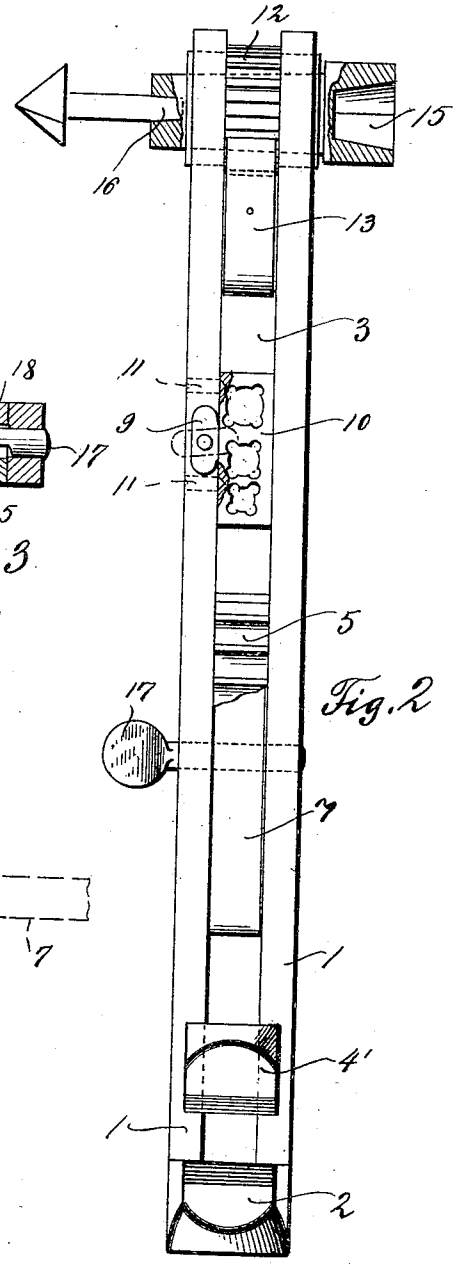

Fig. 2

Witnesses

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WRENCH.

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To all whom it may concern:

Be it known that I, HENRY D. SMITH, a citizen of the United States, residing at Brownsboro, in the county of Henderson and State of Texas, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

This invention relates to wrenches, and primarily to that type which is adapted to be associated with other tools. Due to the construction of the wrench, a screw driver may be provided on a movable part thereof whereby the device will be of a most desirable nature.

A further object of this invention is to provide a wrench which may be quickly and easily adjusted and also to provide a device which may be operated so as to retain the jaws of the wrench in fixed positions.

For a full understanding of the invention reference is to be had to the following detail description and the accompanying drawings, in which—

Figure 1 is a side elevation disclosing the present invention; Fig. 2 is a front elevation; Fig. 3 is a view illustrating a detail used in the construction of the present invention.

Referring more particularly to the drawings 1 indicates the main shank of the wrench having jaws 2 and 2′ extending laterally at one terminal, the shank being provided with a slot 3 as illustrated. Slidably mounted within the slot 3 is a jaw 4 having a shank 5 provided with a toothed portion and adapted to operate within said slot. The jaw 4 may have an extension 4′ thus forming two wrenches, one of which may be provided with teeth to form a pipe wrench as illustrated. A plate 6 may be secured to the main shank for retaining the shank 5 within the slot.

Pivotally mounted to the main shank within the slot is a toothed member 7 said toothed member being adapted to engage the toothed portion of the shank 5 for retaining the wrench at any predetermined adjustment. The free end of the member 7 is drawn out as at 8 so as to be used as a screw driver. A catch 9 is secured to the main shank and adapted to engage the member 7 for retaining the latter closed or within the slot 3.

A die plate 10 is detachably retained in the slot 3 by set screws 11 thus making it possible to change the die plate to the style needed. In the bifurcated portion of the handle is rotatably mounted a ratchet 12 which is held in rigid relation to the handle or main shank by a spring actuated pawl 13. The ratchet 12 is provided with an opening 14 in which may be inserted a socket 15 as illustrated, using the same as a ratchet wrench or drill or countersink, the drill or countersink to be carried by the socket as shown at 16 in Fig. 2.

Rotatably mounted on the main shank is a safety catch or member 17 provided with a recess 18 said recess being of sufficient depth to permit the toothed portion of the shank 5 to pass without engagement with the catch or lock 17. The toothed portion of the shank 5 is formed with semi-circular recesses between the teeth, said recesses permitting the member 17 which is circular in cross section to be turned into engagement with the shank 5. A deepened recess 19 is provided in the pivoted member 7 to receive the safety lock.

In operation, for using the wrench at random for different size nuts the lock 17 is turned to the position as illustrated in Figs. 1 and 2, the pivoted member forming a sufficient means for retaining the jaws at temporary adjustments. For using the wrench constantly on nuts of the same size the lock 17 is turned half way around thus bringing the same into engagement with the toothed portion of the shank 5, rigidly retaining the same and preventing the slipping of the jaws.

Having thus described my invention, what is claimed as new is:

1. In a wrench, a main shank provided with a slot and having a jaw at one terminal, a jaw slidably mounted in said slotted portion and having a shank provided with a toothed portion, a member pivotally mounted on said main shank and provided with a toothed portion adapted to engage the toothed portion of said shank, and a member rotatably mounted in said handle adapted to retain said slidable jaw in fixed relation to the main shank, for the purposes herein set forth.

2. In a wrench, a main shank provided with a slot and having a jaw at one terminal, a slidable jaw mounted in said slotted portion and having a shank provided with a toothed portion, a member pivotally mounted in said slot and provided with a toothed portion adapted to engage the

toothed portion of said shank and a member provided with a recess, said member being rotatably mounted in said handle and adapted to be rotated into and out of engagement with the toothed portion of the shank of said slidable jaw, for the purposes herein set forth.

3. In a wrench, a main shank provided with a slot and having a jaw at one terminal, a slidable jaw mounted in said slotted portion and having a shank provided with a toothed portion, a member pivoted in said slot and provided with an approximately semi-circular recess, said member being adapted to engage the toothed portion of said shank, and a member rotatably mounted in said handle and having a portion adapted to be rotated into and out of engagement with said toothed portion of the shank of said slidable member.

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

HENRY D. SMITH.

Witnesses:

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