

949,685.

Patented Feb. 15, 1910.

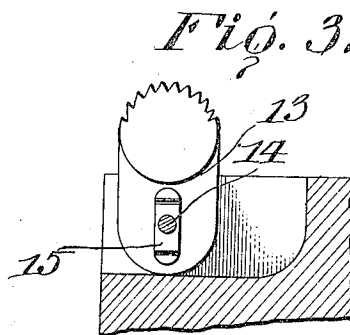
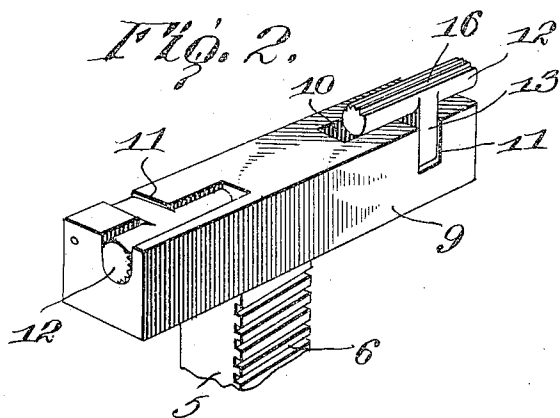
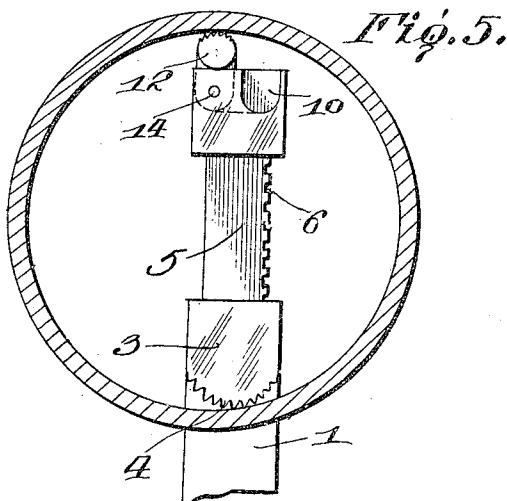
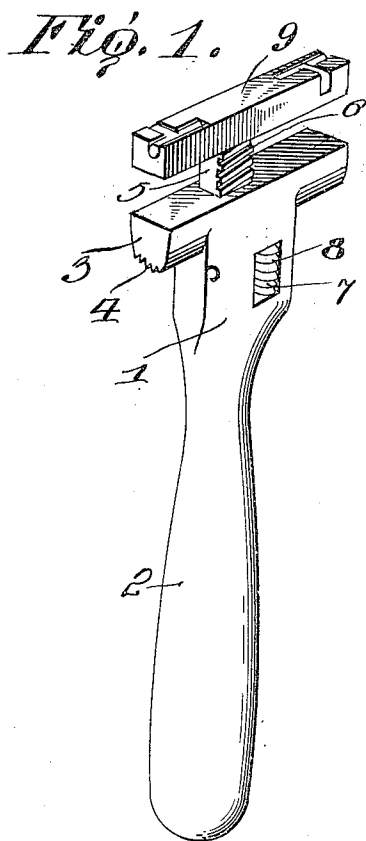
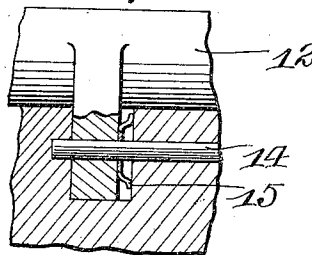


Fig. 7.



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UNITED STATES PATENT OFFICE.

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WRENCH.

949,685.

Specification of Letters Patent. Patented Feb. 15, 1910.

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To all whom it may concern:

Be it known that we, CHAUNCEY A. RAYMAN and ELMER RAYMAN, citizens of the United States, residing at Friedens and Coleman, respectively, in the county of Somerset and State of Pennsylvania, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

It is well known that difficulty is often experienced by plumbers, steam-fitters, and those engaged in kindred occupations in screwing and unscrewing nipples, unions and the like parts with exterior screw threads by means of the ordinary pipe wrenches, the jaws of which will almost invariably injure the threads and cause the parts to be unfitted for further use.

With a knowledge of these conditions, the primary object of our invention is an improved construction of wrench designed to engage the interior wall of the nipple or similar tubular part in applying or detaching the same, and the invention consists in certain constructions, arrangements and combinations of the parts that we shall hereinafter fully describe and claim.

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

Figure 1 is a perspective view of a wrench constructed in accordance with our invention; Fig. 2 is an enlarged perspective view of the movable jaw; Fig. 3 is a detail sectional view illustrating one of the work engaging devices carried by the movable jaw; Fig. 4 is a similar view, the section in Fig. 4, being taken at right angles to the section illustrated in Fig. 3; and Fig. 5 is an end or side edge view of the tool illustrating it in applied position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates the head of our improved wrench which may be formed integral with the handle 2 of any desired size, design or construction, the head being formed at one end with two oppositely extending relatively stationary jaws 3 that are preferably corrugated on one face as indicated at 4 so as to effectively engage the work. The head 1

and a sufficient portion of the handle 2 are hollowed to receive the shank 5 of the movable jaw which is toothed along one edge as indicated at 6, the teeth meshing with an adjusting nut 7, journaled in the head 1 and mounted in a laterally opening chamber 8 formed in the head.

The two ended movable jaw 9 is secured to the shank 5, the ends of said jaw coacting with the jaws 3 as manifest. The jaw 9 is formed at each end with longitudinally extending and outwardly opening sockets 10 and with slots 11 extending laterally from the respective sockets. Work engaging dogs 12 are designed to be received in the respective sockets 10 and are formed with apertured lugs 13 fitting in the slots 11. Pivot bolts 14 pass through the respective lugs 13 and pivotally connect the dogs 12 to the jaw 9, and springs 15 are mounted on the pivot pins 14 and are arranged to frictionally engage the lugs so as to properly hold the dogs, either retracted in the sockets 10 or in extended relation thereto. Preferably the outer faces of the dogs 12 are corrugated or otherwise roughened as indicated at 16. These dogs 12 are preferably so mounted that they are tilted in opposite directions in order to extend them from their sockets, as clearly illustrated in Figs. 1 and 2, so that either one or the other may be extended to engage with the interior wall of the work, as the wrench is turned in one direction or the reverse, according to the work it is intended to perform.

In the practical use of a tool constructed as hereinbefore described, and illustrated in the accompanying drawings, either jaw 3 and its complemental movable jaw are inserted in the work, the corresponding dog having been moved out into extended position as illustrated in Fig. 5, and the nipple or like device may then be easily turned after the jaws have been separated or adjusted outwardly to engage its interior wall. Having thus described the invention, what is claimed as new is:

1. A wrench embodying movable and stationary jaws, one of which is roughened on its outer face to engage the work, and a work engaging dog secured to the outer face of the other jaw.

2. A wrench, embodying movable and stationary jaws, and a pivotally mounted work engaging dog carried by one of said jaws

and arranged to be extended from the outer face thereof.

3. A wrench embodying movable and stationary jaws, one of which is formed in its outer face with a socket, and a work engaging dog pivotally mounted on the said last named jaw and arranged to be retracted in the socket.

4. A wrench embodying movable and stationary jaws, one of which is formed in its outer face with a socket and a slot opening laterally from said socket, and a work engaging dog designed to be received in said socket and provided with a lug which is pivotally mounted in said slot.

5. A wrench embodying movable and stationary jaws, one of which is formed in its outer face with a socket and a slot opening laterally from said socket, a work engaging dog adapted to be received in said socket and provided with a lug pivotally mounted

in said slot, and a spring mounted in said slot and bearing against said lug and designed to hold the dog in retracted or extended position.

6. A wrench, embodying a head, oppositely extending jaws connected to said head, a shank adjustably mounted in said head, a double ended movable jaw secured to the shank, and dogs secured to the movable jaw at the ends thereof on the outer face of said ends, the said dogs being arranged to move in opposite directions into extended relation with the outer face of said jaw.

In testimony whereof we affix our signatures in presence of two witnesses.

CHAUNCEY A. RAYMAN. [L. S.]
ELMER RAYMAN. [L. S.]

Witnesses:

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