L. VADER.

WRENCH.

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911,924. Patented Feb. 9, 1909.

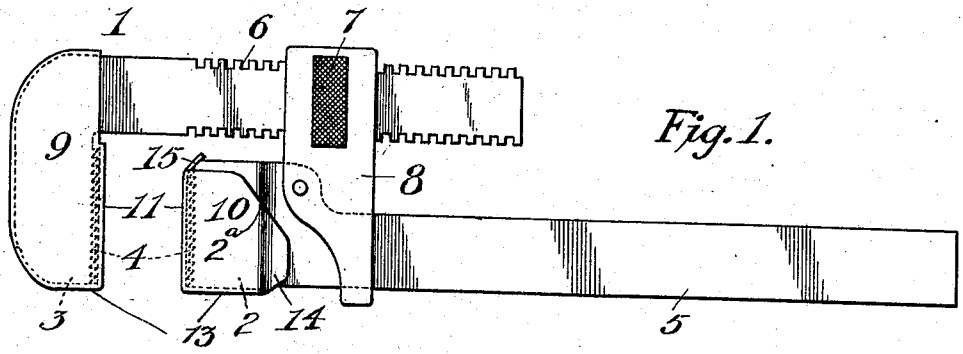


Fig. 1.

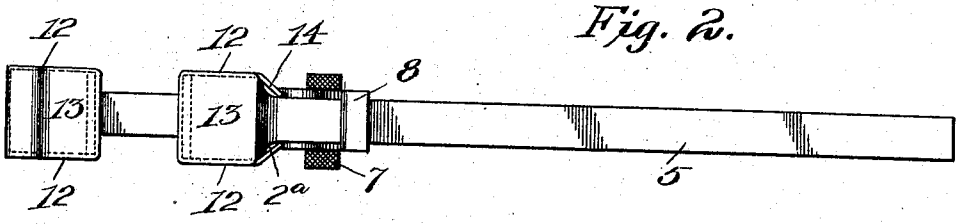


Fig. 2.

Fig. 3.

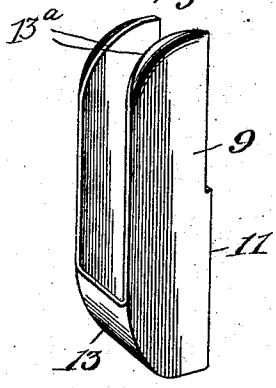
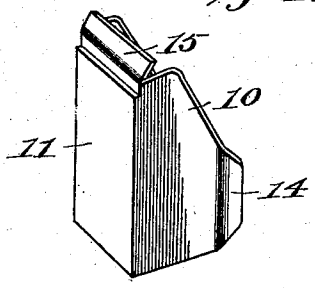


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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WRENCH.

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To all whom it may concern:

Be it known that I, LLOYD VADER, a citizen of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Wrenches, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in wrenches and more particularly to jaw attachments by means of which pipe wrenches may be used as monkey wrenches.

The object of the invention is to provide an attachment of this character which may be quickly and easily applied to or removed from the jaws of wrenches now in common use without the necessity of altering the construction of the wrench jaw or adjusting extraneous fastening devices upon the attachment, and which will enable the wrench to be used upon polished brass or plated nuts, pipes and the like without danger of scratching or marring the same.

With the above and other objects in view, the invention consists of the novel construction and the combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a well known form of pipe wrench with my improved jaw attachments applied thereto; Fig. 2 is an edge view of the same; and Figs. 3 and 4 are perspective views of the two jaw attachments.

In the drawings 1 denotes a well known type of wrench having stationary and movable jaws 2, 3, each of which latter is formed with serrations or teeth 4. The jaw 2 is formed at one end of a handle 5 and the jaw 3 is provided with a threaded shank 6 which works through an adjusting nut 7 arranged in a frame 8 carried by the handle or shank 5 of the stationary jaw.

9 and 10 denote my improved wrench jaw attachments which are in the form of guards to cover the teeth of said jaw and prevent a polished surface, engaged by the wrench, from being scratched or marred. Each of these guard attachments is preferably formed from a single piece of resilient metal and comprises a flat plate 11 to cover the teeth 4, two parallel side plates 12 and an outer end piece 13 which unites the plates 12. In the guard attachment 9 for the movable jaw 3 of the wrench, the side plates 12 are comparatively long so that their rear or inner ends cover the opposite side faces of said jaw 3 and are bent inwardly toward each other as shown at 13^a so that they spring over the back edge of the upper part of the shank 6 when the attachment is slipped upon the jaw, and thus retain said attachment upon the latter. The guard attachment 10 for the stationary wrench jaw 2 has its side plates 12 beveled at their lower rear corners and extended downwardly and then bent inwardly as at 14 to spring over the shoulders 2^a upon the wrench jaw 2, when said attachment is placed upon the latter. The plate 11 of the attachment 10 is extended at its rear and bent downwardly as shown at 15 so as to spring over the inner end of the jaw 2.

From the foregoing it will be seen that by forming the attachments of resilient metal and shaping their plates 11, 12 to provide the bent portions or detents 15, 13^a, 14, that said attachments may be quickly and easily slipped upon and removed from the wrench jaws without the necessity of altering the construction of the latter or adjusting any screws or other extraneous fastening devices. The resiliency of said plates of the attachments causes said bent portions or detents to engage the edges and shoulders upon the wrench jaws and effectually retain the attachments thereon.

Having thus described my invention what I claim is:

The combination with a wrench having a handle provided at one end with a stationary jaw, the latter being of rectangular form and provided with a toothed face, a flat inner end and the shoulders 2^a, a movable jaw to coact with the stationary one, of a guard attachment for the stationary jaw comprising the flat plate 11 to cover the teeth of the jaw, the parallel side plates united to the edges of the covering plate and constructed of resili-

ent sheet metal, said side plates having their edges bent to provide the curved detents 14 to be sprung over the shoulders 2^a of the wrench, the end plate 13 uniting the side plates and the covering plate, and the resilient detents 15 formed by bending the inner or rear end of the covering plate 11 inwardly and downwardly so as to spring over and engage the flat rear face of the wrench jaw, substantially as shown and described.

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

LLOYD VADER.

Witnesses:
WILLIAM HEBERT,
LOUIS A. JETTS.