Oct. 8, 1929. S. F. CAMPBELL 1,730,722

WRENCH

Filed March 25, 1927

Fig. 1.

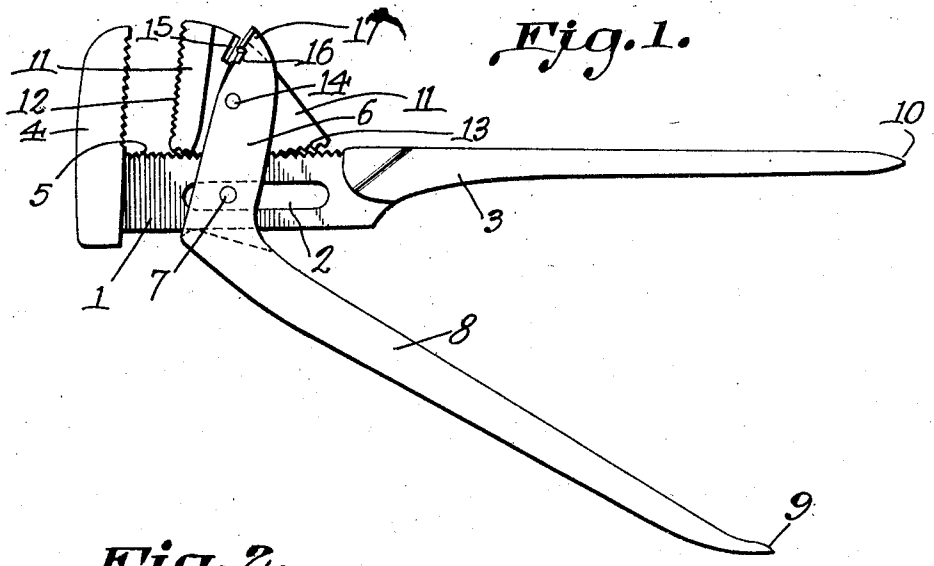


Fig. 2.

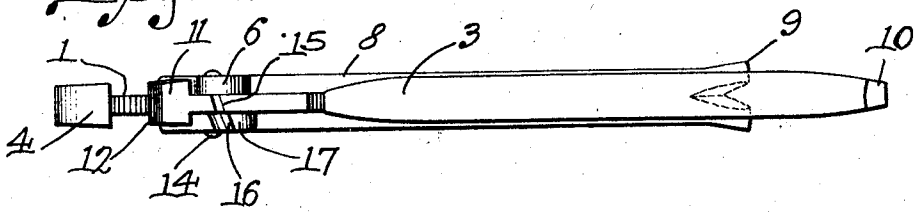


Fig. 4.

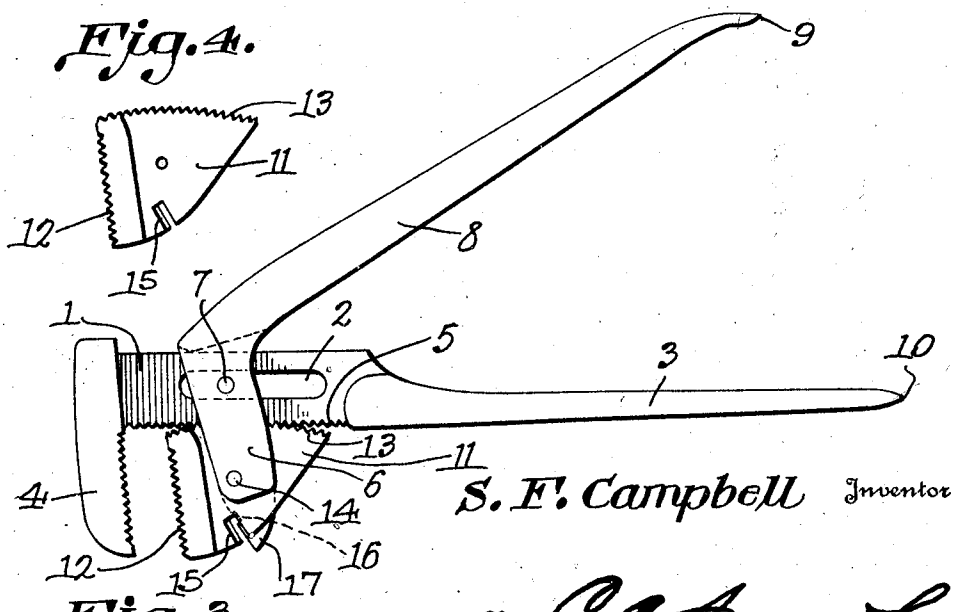


Fig. 3.

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UNITED STATES PATENT OFFICE

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WRENCH

Application filed March 25, 1927. Serial No. 178,303.

This invention relates to a wrench of the quick-adjustable type, one of the objects being to provide a tool of this character the sliding jaw of which can be quickly adjusted to a desired position relative to the fixed jaw, novel means being employed for holding the sliding jaw against movement after adjustment.

A further object is to combine with the sliding jaw and its operating means, cooperating members which can be utilized for cutting wire.

Another object is to provide a tool of this character which can be used for various purposes and which can be easily made and sold at comparatively low cost.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings,

Figure 1 is a side elevation of the tool.

Figure 2 is a plan view thereof.

Figure 3 is a side elevation showing the side opposite to that illustrated in Figure 1.

Figure 4 is a side elevation of the movable jaw.

Referring to the figures by characters of reference 1 designates a flat shank having a longitudinal slot 2 and at one end of this shank there is provided an elongated handle 3 while at the other end is located a stationary jaw 4. This jaw extends preferably at right angles beyond one edge of the shank and said edge can be provided with a longitudinal series of teeth 5. A yoke 6 straddles the shank 1 and has a pivot pin 7 extending therethrough slidable in the slot 2. A handle 8 is extended from this yoke at an angle thereto. If desired the free end of this handle can be forked to provide a nail puller 9 while the free end of the handle 3 can be shaped to provide a screw driver 10.

Arranged within the yoke 6 is the movable jaw 11 of the tool. This jaw has a gripping face 12 and an arcuate toothed face 13. The toothed face 13 is designed to engage the toothed edge 5 of the shank. The movable jaw is connected to the yoke by a transverse pivot pin 14. A slot 15 is formed in the outer edge of the movable jaw and one side of the yoke 6 is extended upwardly beyond said edge and provided with a recess 16. The wall of this recess is obliquely disposed and is adapted to cooperate with one of the walls of the slot 15 so that when a wire or the like is placed in said slot and extended into the path of the shearing portion 17 of the yoke, said wire will be cut off by the wall of recess 16 and one wall of the slot 15, as will be obvious.

In practice the jaw 11 can be quickly adjusted relative to the jaw 4 simply by swinging the handle 8 away from the handle 3. This will provide sufficient play to allow the toothed arcuate edge 13 of the movable jaw to be shifted out of engagement with the teeth 5. Said jaw can then be moved to a desired position so as to grip an object between the two jaws. Thereafter the two handles are drawn toward each other. This will cause handle 8 to fulcrum on the edge of handle 9 and the arcuate toothed edge 13 to engage the teeth 5 so that the jaws will not move apart. While the jaw 11 is released and the handles are spread apart, a wire or the like can be inserted in slot 15. Thus the tightening of the jaw by the movement of the handles toward each other will also result in the severing of the inserted wire because, during this tightening operation the shearing portion 7 of the yoke 6 will be shifted across the end of slot 15 as will be obvious.

By providing the movable jaw with an arcuate toothed edge 13, said jaw can adjust itself automatically to the object being gripped, by tilting on the pivot 14. However some of the teeth will always be in proper position for engagement with the teeth 5 after such adjustment.

What is claimed is:

A tool of the class described including a shank having a toothed edge, there being a fixed jaw at one end of the shank and a handle

at the other end thereof, a yoke straddling the shank and slidably mounted thereon, the inner end of the yoke constituting a fulcrum means for bearing against that edge of the shank opposite to the toothed edge, there being a handle extending from the yoke, a movable jaw pivotally mounted in the yoke and having a toothed arcuate edge for rolling engagement with the toothed edge of the shank, said handle being shiftable to vary the distance between the arcuate edge of the movable jaw and the fulcrum portion of the movable handle, thereby to release the movable jaw from engagement with the toothed edge of the shank and to bring the jaw into engagement with said edge the gripping face of the movable jaw being shiftable angularly to conform with the angle of the object being gripped.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

SAMUEL FLETCHER CAMPBELL.