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MONKEY WRENCH.

APPLICATION FILED MAR. 6, 1917.

1,234,422. Patented July 24, 1917.

Fig. 1

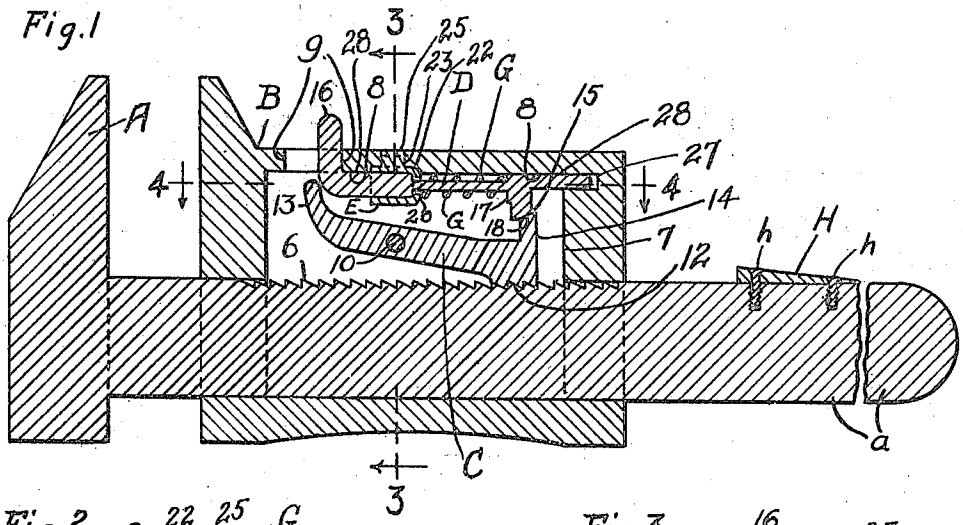


Fig. 2

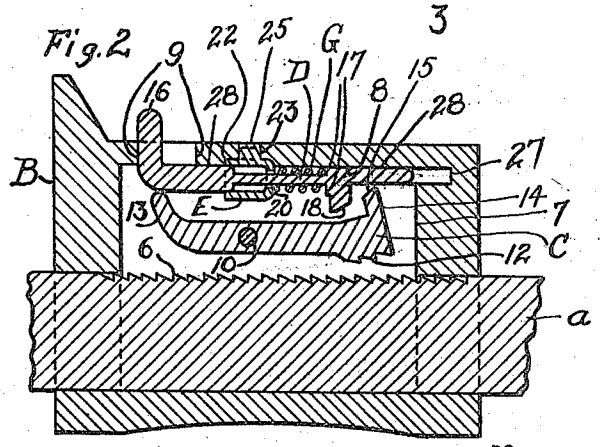


Fig. 3

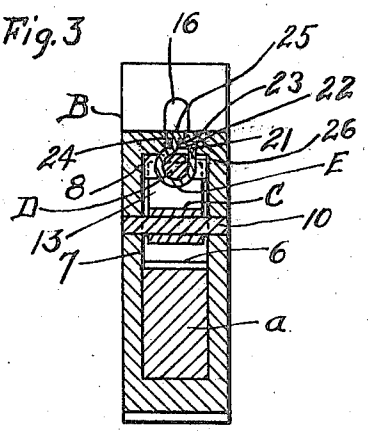
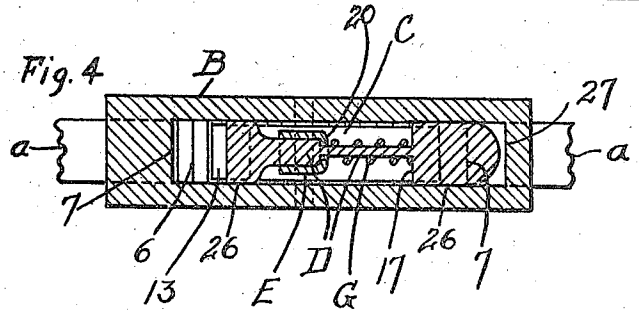


Fig. 4



Witnesses.

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UNITED STATES PATENT OFFICE.

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MONKEY-WRENCH.

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To all whom it may concern:

Be it known that we, WILLIAM TOCZEK and JAKOB RYNCARZ, citizens of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Monkey-Wrenches; and we 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 pertains to make and use the same.

This invention relates to improvements in monkey-wrenches and it pertains more especially to a wrench having its sliding jaw provided interiorly with a locking member employed in securing said jaw in the desired adjustment and having a serrated face which in the operative position of said locking member engages a serrated face on the shank.

The primary object of this invention is to produce a monkey-wrench of the character indicated which is exceedingly simple and durable in construction and not liable to get out of order.

With this object in view and to the end of attaining any other object hereinafter appearing, this invention consists in certain features of construction, and combinations and relative arrangement of parts hereinafter described in this specification, pointed out in the claims, and illustrated in the accompanying drawings.

In said drawings, Figure 1 is a central longitudinal section of a wrench embodying our invention and shows the sliding jaw of the wrench locked in the desired adjustment. Fig. 2 is a central longitudinal section showing the sliding jaw rendered free to be readjusted endwise of the shank. Fig. 3 is a transverse section taken along the line 3—3, Fig. 1. Fig. 4 is a longitudinal section taken along the line 4—4, Fig. 1. Portions are broken away in the drawings to reduce their size.

In said drawings, *a* indicates the shank of a monkey-wrench, which shank has a serrated face 6 and terminates at one end in the fixed jaw A of the wrench.

B indicates the sliding jaw of the wrench, which jaw is mounted on and shiftable endwise of the shank toward and from the relatively stationary jaw. The sliding jaw B has an interior chamber 7 which is arranged opposite and extends to the serrated face 6 of the shank and endwise of the wrench. The chamber 7 has a longitudinal wall 8 which is spaced from and arranged opposite the serrated face 6 of the shank. The wall 8 is preferably parallel with the shank. The sliding jaw B is provided at the forward end of its chamber 7 with a slot 9 extending through and longitudinally of said wall, and consequently to the exterior of said jaw, from said chamber and endwise of the wrench. A locking member C employed in locking or securing the sliding jaw B in the desired adjustment, is arranged within the chamber 7 and longitudinally of the wrench and pivoted, transversely of said jaw, as at 10, to the side walls of the chamber preferably at a point nearer to the serrated face 6 of the shank than to the wall 8. The jaw-locking member C is provided rearwardly of its axis with a serrated face 12 which, as shown in Fig. 1, engages the serrated face 6 of the shank in the operative position of said locking member. The jaw-locking member C is normally in its operative position and terminates forwardly of its axis in an arm 13 projecting in the direction of the wall 8. The jaw-locking member C is provided rearwardly of its axis with an arm 14 projecting toward the wall 8 and provided at its forward side with a sloping shoulder or surface 15 which faces forwardly and in the direction of said wall. Within the chamber 7, between the jaw-locking member C and the wall 8, is arranged an endwise shiftable bar D which is parallel with said wall and extends endwise of said wall and consequently longitudinally of the wrench. The bar D is normally in its rearward position, as shown in Figs. 1 and 4. The bar D is provided, at its forward end, with an arm 16 which extends outwardly through the slot 9 and, as shown in Fig. 1, abuts against the rear end wall of said slot in the rearward and normal position of the bar. The bar D has its rearward portion provided with a forwardly facing shoulder 17 and a sloping shoulder or surface 18 which is arranged rearwardly of said forwardly facing shoulder and spaced forwardly from the rear end wall of the chamber 7 in either extreme position of the bar. The shoulder or surface 18 faces rearwardly and in the direction of the jaw-locking member C and consequently toward the shank *a*.

A bracket E, through the medium of

which the bar D is supported from the sliding jaw B, extends transversely of the jaw-locking-member-facing surface of said bar and is spaced rearwardly from the slot 9 and forwardly from the forwardly facing shoulder 17 of the bar, and a spiral spring G is coiled around said bar and confined between the bracket and said shoulder and acts to retain the bar in its rearward and normal position, shown in Fig. 1.

The relative arrangement of the parts is such that in the normal position of the bar D the sloping shoulder or surface 18 abuts against the sloping surface 15 of the jaw-locking member, as shown in Fig. 1, and prevents swinging of said locking member out of engagement with the serrated face 6 of the shank *a*. The forward arm 13 of said locking member extends in the operative position of said locking member forwardly of and into contact with the forward end of the bar D, as shown in Fig. 1, in the rearward and normal position of the bar, and said locking member is actuated into an inoperative position, and consequently out of engagement with the serrated face of the shank, as shown in Fig. 2, by the forward end of the bar D during the forward actuation of the bar into its forward position. The arm 16 of said bar abuts against the forward end wall of the slot 9, as shown in Fig. 2, in the forward position of the bar D, and the locking member C is held in its inoperative position by said bar in the forward position of the said bar. The sliding jaw B is free to be readjusted endwise of the shank *a* in the inoperative position of the jaw-locking member C. Upon having readjusted the sliding jaw as required relatively to the fixed jaw of the wrench the bar D is freed subject to the action of the spring G. The relative arrangement of the parts is furthermore such that the jaw-locking member C has its arm 14 arranged rearwardly of and opposite the sloping shoulder or surface 18 of the bar D when said locking member is held in its inoperative position shown in Fig. 2, so that during the rearward movement of said bar from its forward position shown in Fig. 2 into its rearward and normal position shown in Fig. 1, by the spring G, said sloping surface 18 of the bar will again come into engagement with the arm 14 of the jaw-locking member and thereby insure a return of said locking member from its inoperative position shown in Fig. 2 into its operative and normal position shown in Fig. 1.

The bracket E preferably embraces and extends endwise of and forms a slideway for the bar D and is provided at its rear end with a rearwardly facing shoulder 20 against which the forward end of the spring G abuts. Said bracket has an arm or member 21 arranged adjacent one side of the bar D and extending into contact with the longitudinal wall 8 of the chamber 7, as shown in Fig. 3. Said bracket preferably extends into and snugly occupies a recess 22 with which the wall 8 is provided at its inner side, and said recess is in communication with a slot 23 formed in said wall and spaced from the member 21 of the bracket and smaller in dimensions longitudinally and transversely of said wall than said recess and extending from said recess to the exterior of the sliding jaw and enlarged somewhat laterally at its outer end, as at 24, and the bracket has an arm or member 25 extending through said slot and consequently spaced from the member 21 of the bracket and upset within and occupying the enlarged outer end 24 of said slot. By the construction hereinbefore described the bracket is firmly secured to the wall 8 of the chamber 7.

The bar D preferably has such contour and dimensions that the bar, in its rearward and normal position, has a portion forward of the bracket and a portion rearward of the spring which extend, as at 26, substantially the full width of the chamber 7, so that the side walls of the chamber form a slideway for said bar and undue strain on the bracket is avoided during the actuation of the bar. Preferably the rear end wall of the chamber 7 is provided at the longitudinal wall 8 of the chamber with a recess 27, and the relative arrangement of the parts is such that the bar D extends in its rearward and normal position into said recess, as shown in Figs. 1 and 4, and said recess and said portion of the bar substantially correspond in dimensions transversely of the bar so that said bar in said position is supported by the rear end wall of the chamber as well as by the bracket.

We would also remark that the contour, dimensions and relative arrangement of the bar D, bracket E and wall 8 of the chamber 7 are preferably such that said bar has a portion forward of the bracket and a portion rearward of the spring G arranged, as at 28, next to said wall.

It will be observed that by the peculiarities and relative arrangement of the parts hereinbefore described is produced a wrench which is simple and durable in construction and not liable to get out of order.

The shank *a* (see Fig. 1) is also shown provided between the range of movement of the sliding jaw and the rear end of the shank with a stop-forming member H shown secured, removably by screws *h*, to the shank and preventing movement of said jaw rearwardly off the shank.

What we claim is:—

In a monkey wrench, a shank having a serrated face, a jaw slidably mounted on the shank and having an interior chamber

which is arranged adjacent said face and having a longitudinal wall spaced from and arranged opposite said face, a locking member arranged within the chamber and longitudinally of the wrench and pivoted to the side walls of the chamber and normally in its locking position and provided rearwardly of its axis with a shoulder which faces forwardly and toward said wall and a serrated face which engages the serrated face of the shank in said position of said locking member, an endwise shiftable bar arranged within and longitudinally of the chamber adjacent the aforesaid longitudinal wall and normally in its rearward position and having a forwardly facing shoulder, a bracket loosely embracing and forming a slideway for the bar intermediately of said shoulder on the bar and the forward end of the bar and having a member which is fixed to the jaw, and a spiral spring coiled around said bar between said shoulder on the bar and the bracket and acting to retain the bar in its normal position, said locking member having a part normally lying in the path of said slidable bar and actuated by said bar during movement of the same into its forward position, and the bar engaging the aforesaid shoulder of said pivoted locking member in the operative position of said pivoted locking member.

In testimony whereof, we sign the foregoing specification, in the presence of two witnesses.

WILLIAM TOCZEK.
JAKOB RYNCARZ.

Witnesses:
B. C. BROWN,
A. W. MASSEY.

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