Aug. 30, 1949. J. P. VAN AUSDAL 2,480,274

SLIDING JAW WRENCH WITH CLUTCH YOKE

Filed Aug. 8, 1945

FIG. 1.

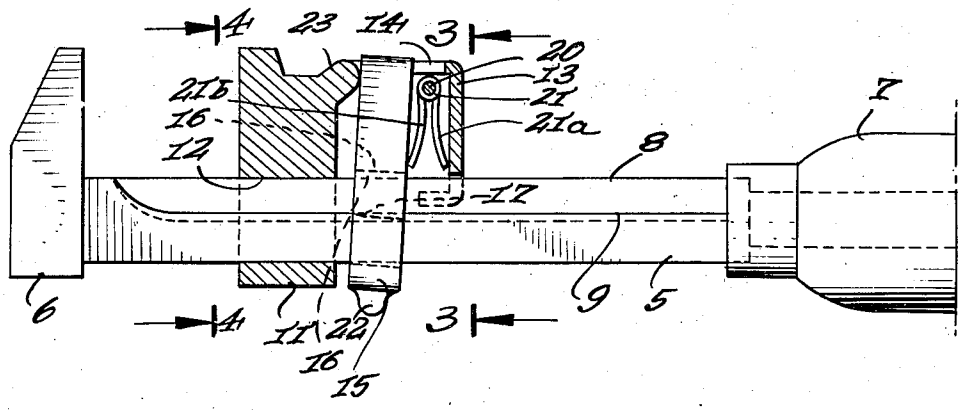


FIG. 2.

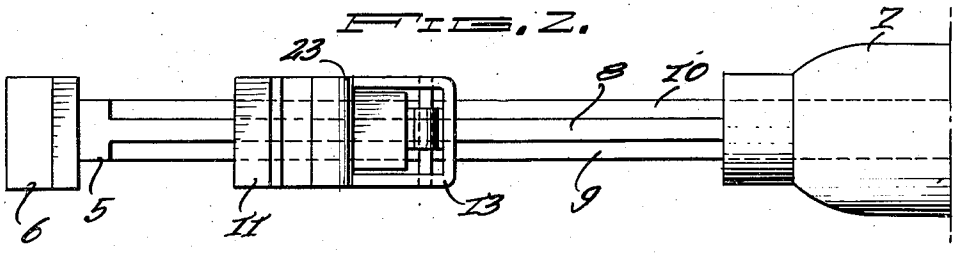


FIG. 3.

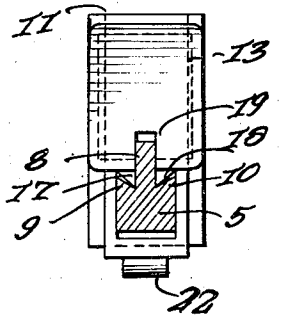
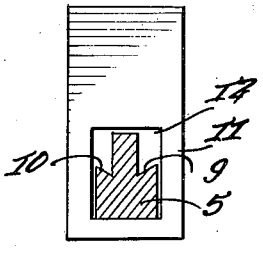


FIG. 4.



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SLIDING JAW WRENCH WITH CLUTCH YOKE

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2 Claims. (Cl. 81—152)

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This invention relates to wrench, and one of the objects is to provide a wrench with a sliding jaw, which is automatically held in any position of adjustment on the shank of wrench, by means of a spring pressed clutch, which is arranged to prevent slipping of the sliding jaw, when the clutch is tilted against V-shaped tracks formed on the shank.

Another object of the invention is the provision of a wrench with a sliding jaw, having a yoke clutch mounted to freely swing on the sliding jaw, against the pressure of a spring carried by the sliding jaw.

With the above and other objects in view the invention comprises certain new and useful constructions, combinations and arrangements of parts, clearly described in the following specification, and fully illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevation, showing the sliding jaw partly in vertical section.

Fig. 2 is a top plan view.

Fig. 3 is a transverse sectional view, taken on line 3—3 of Fig. 1, looking in the direction of the arrows.

Fig. 4 is a transverse sectional view, taken on line 4—4 of Fig. 1, looking in the direction of the arrows.

Referring to the accompanying drawings, which illustrate a practical embodiment of the invention, 5 designates the shank of the wrench, having a fixed jaw 6 on the forward end thereof and a handle 7 on the rear end of the shank.

The shank is formed approximately T-shaped in cross section, to provide a central longitudinal web or integral guide bar 8, and V-shaped tracks 9 and 10 on opposite sides of the web or bar 8, and at different levels thereto.

A sliding jaw 11 is mounted to slide on the shank 5, and is formed with a rectangular opening 12, which encloses the shank. This sliding jaw is formed with a rearward extension 13, which is relieved along the sides thereof at 14, to support the clutch yoke 15.

The clutch yoke 15 is formed with an opening 16 which receives the shank 5, and which opening is approximately T-shaped, so as to provide clutch faces 17 and 18, which are adapted to engage the tracks 9 and 10.

The extension 13 is formed with a slot 19 which receives the web or bar 8, and carries a cross shaft 20, which supports the spring 21, one leg 21*a* of which engages the extension 13, and the other leg 21*b* of which engages the clutch yoke 15 above the shank 5, so as to apply pressure on the clutch yoke to tilt the same on the shank 5, down- and forwardly of the extension 13.

The lower end of the clutch yoke 15 is provided with a finger lug 22, so that the clutch yoke may be pushed rearwardly, thereby disengaging the

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clutch faces 17 and 18 from the tracks 9 and 10. When manual pressure is relieved from the clutch yoke 15, the spring 21 will automatically tilt the clutch yoke again into clutching relation with the tracks 9 and 10.

The V-shaped tracks 9 and 10 concentrate the points of engagement with the clutch faces 17 and 18, so that maximum biting action, to resist sliding, develops, and the sliding wrench jaw will be thereby held against slipping.

To adjust the movable jaw all that is necessary is to push the extension 13 forwardly, or to push the finger hold or lug 22 rearwardly. When pressure is applied against the forward side of the movable jaw 11 by engagement with a nut or bolt head, the integral lug 23 on the movable jaw will press against the upper end of the clutch yoke, thereby tilting the clutch faces 17 and 18 against the tracks 9 and 10, and locking the movable jaw against sliding.

It is understood that various changes may be made in the construction of the details, the design and mounting of the spring, and the combination and arrangement of the parts, within the scope of the invention, as defined by the claims hereof.

Having described the invention, I claim:

1. A wrench provided with a shank having a fixed jaw on one end and a handle on the other end, the shank having a longitudinal web narrower than the shank and provided with V-shaped tracks on opposite sides of the web, a movable jaw sliding on the shank and provided with an extension having a slot which receives the web, a clutch yoke tiltably supported on the extension and having an opening to receive the shank and having clutch faces complementary in shape to said V-shaped tracks for gripping engagement therewith, and a spring pivotally supported on the extension and having one pendant leg to engage the extension and the other pendant leg to engage the clutch yoke to maintain said clutch yoke normally tilted.

2. The construction set forth in claim 1, the movable jaw having a rearwardly projecting lug engaging the upper end of the clutch yoke to force the clutch yoke into greater clutching engagement with the tracks when the movable jaw is forced rearwardly.

JAMES P. VAN AUSDAL.

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