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LONGITUDINALLY ADJUSTABLE SCREW DRIVER

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Fig. 1

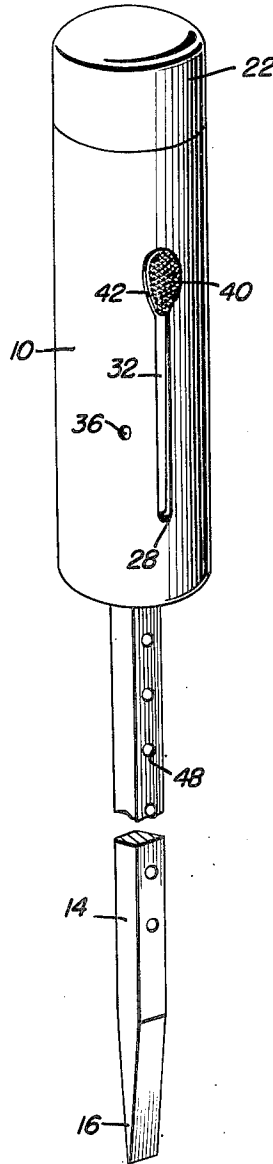
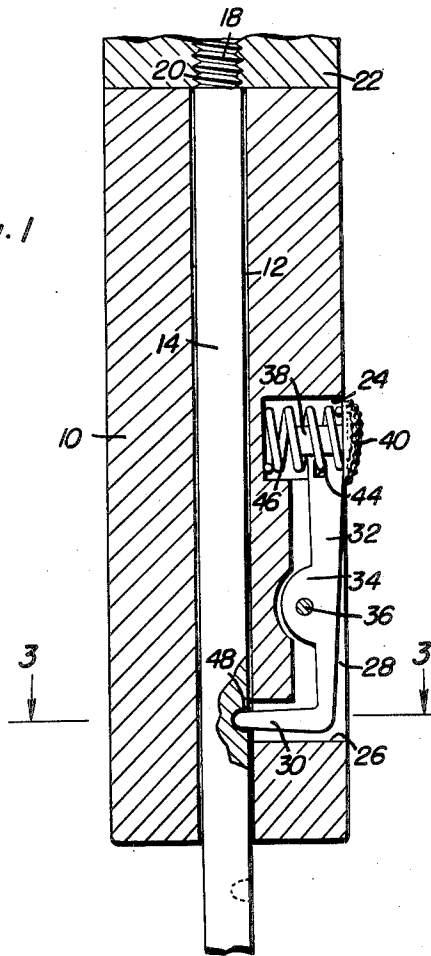
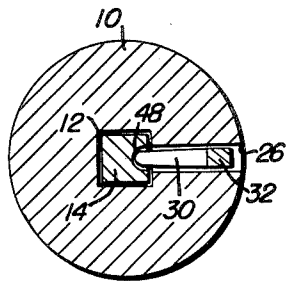


Fig. 2

Fig. 3



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LONGITUDINALLY ADJUSTABLE SCREW DRIVER

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4 Claims. (Cl. 279-77)

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This invention relates to new and useful improvements in screw drivers and the primary object of the present invention is to provide a screw driver including a handle and a bit longitudinally adjustable relative to the handle.

Another very important object of the present invention is to provide a screw driver including a longitudinally adjustable bit and embodying novel and improved means for locking the bit in a selected longitudinally adjusted position.

A further object of the present invention is to provide a screw driver of the aforementioned character wherein the locking means includes a spring member that is retained upon and which is adjustable on a locking member to accommodate for any weakening of the spring through continued use.

A still further aim of the present invention is to provide a screw driver that is simple and practical in construction, strong and reliable in use, small and compact in structure, inexpensive to manufacture, and otherwise well adapted for the purpose for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a vertical sectional view of the present invention to show the manner in which the bit is held longitudinally adjusted relative to the handle;

Figure 2 is a perspective view of the present invention, and which part of the bit broken away; and,

Figure 3 is a transverse horizontal sectional view taken substantially on the plane of section line 3-3 of Figure 1.

Referring now to the drawings in detail wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention the numeral 10 represents a preferably cylindrical handle having an axial multi-sided bore 12 that slidably receives a multi-sided bit or tool shank 14 having a tapered kerf engaging tip or end 16.

The end of the bit 14 remote from the tip 16 is externally threaded, as at 18, to receiveably engage a threaded socket 20 in a finger gripping knob 22 that is manually gripped to slide the bit longitudinally of the handle 10.

The handle 10 is provided with a pair of spaced parallel, transverse recesses 24 and 26 that are joined by a longitudinal slot 28 provided in the

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handle 10. The recess 26 intersects the bore 12 and slidably receives the angulated end of a locking dog 30 on an elongated locking member 32.

The member 32 is positioned in the slot 28 and its enlarged central portion 34 is transversely apertured to receive a pivot pin 36 that extends through the handle 10 as well as the slot 28.

The end of the member 32 remote from the dog 30 is integrally formed with a cylindrical shank 38 having an enlarged end portion 40 that is slidably received in the outer end portion 42 of the recess 24. The member 32 is formed with an opening 44 adjacent the shank 38 through which is trained or threaded a coil spring 46 that embraces the shank 38. One end of the spring 46 abuts the end portion 40 whereas the other end of the spring 46 abuts the inner wall of the recess 24 to yielding urge the dog 30 into the bore 12.

The bit 14 is provided with a plurality of longitudinally spaced recesses or depressions 48 for selectively receiving the dog 30 to permit longitudinal adjustment of the bit 14 relative to the handle 10.

In practical use of the present invention, the outer knurled surface of the portion 40 is manually depressed to compress the spring 46 and to permit the dog 30 to be retracted until the bit 14 has been moved longitudinally of the handle a predetermined amount, whereupon the portion 40 is released and the dog 30 enters one of the recesses 48 to lock the bit 14 in its longitudinally adjusted position.

Should the tension of the spring 46 be reduced through use, a rotation of the spring 46 will adjust the spring laterally of the member 32 to increase the spring force acting on the member 32.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A latch supporting handle comprising a body having an axial bore therein, said body having a pair of spaced recesses therein, one of said recesses intersecting said bore, an elongated lock-

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ing member pivoted on said handle and having an angulated end slidably received in said one of said recesses, a spring in the other of said recesses, a finger gripping shank integrally formed with said member, said spring embracing said shank and urging said angulated end into said bore, said member having a slot adjacent said finger gripping shank through which said spring is threaded to retain the spring on said finger gripping shank.

2. The combination of claim 1 wherein said body includes a longitudinal slot intersecting both of said recesses in said body, said longitudinal slot receiving said locking member.

3. Means for locking a bit in a longitudinally adjusted position relative to a handle comprising, a pivotal locking member having a dog at one end and a shank at its other end, said member including an opening adjacent the shank, and a coil spring embracing the shank to yieldingly urge the dog to a locking position, said spring being threaded through the opening for adjusting the tension thereof acting upon the member.

4. A latch comprising an elongated member having a lateral dog forming projection at one end, a cylindrical shank fixed to the other end of

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said member and paralleling the projection, said shank having an enlarged end portion, said member having an aperture adjacent said shank, and a coil spring extending about the shank and through the opening being adjustable longitudinally of said shank through the opening, said spring having an end abutting the enlarged end portion of said shank and an end projecting outwardly from the shank, said member including a central transverse pin receiving aperture.

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