Dec. 12, 1933. E. KRULL 1,939,268

SCREW DRIVER ATTACHMENT

Filed Dec. 21, 1931

Fig.1.

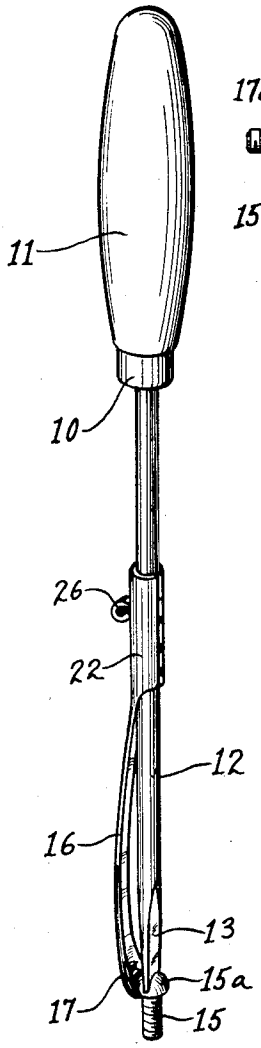


Fig.2.

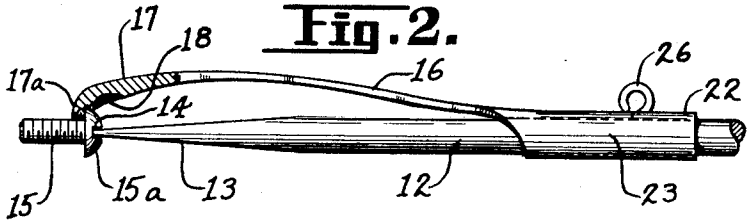


Fig.3.

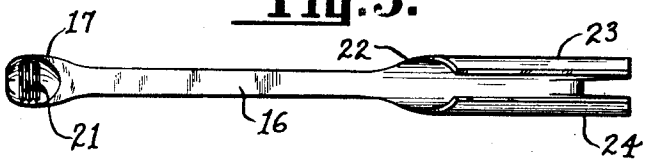


Fig.4.

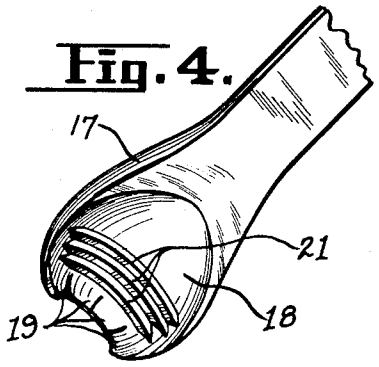
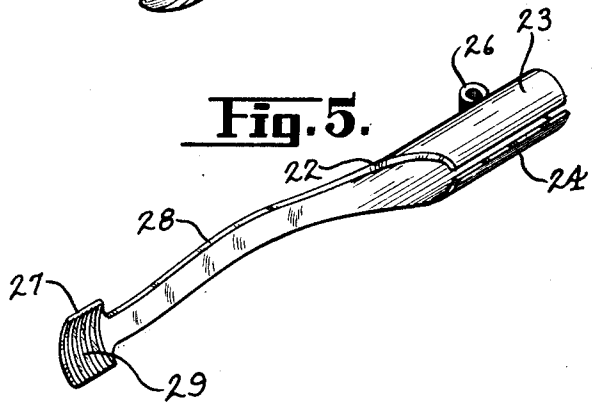


Fig.5.



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SCREW DRIVER ATTACHMENT

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Application December 21, 1931
Serial No. 582,291

1 Claim. (Cl. 145—52)

This invention relates to screw drivers, and more particularly to a slidable attachment for a screw driver for holding a screw upon the end of the blade thereof while it is being driven into or removed from a screw hole.

One object of this invention is to provide a screw driver attachment of the above nature which will be especially adapted to facilitate the manipulation of small screws such as are used by jewelers or watchmakers in locations which would be difficult of access to the operator's fingers.

A further object is to provide a screw driver attachment of the above nature which will be simple in construction, inexpensive to manufacture, easy to assemble and manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view there have been illustrated on the accompanying drawing two forms in which the invention may be conveniently embodied in practice.

In the drawing:

Fig. 1 represents a perspective view of a screw driver having the screw holding attachment assembled thereto for holding a screw upon the end of the screw driver blade.

Fig. 2 is a fragmentary side elevation of the screw driver and attachment, the screw clamping end of said attachment being shown in section.

Fig. 3 is a view in front elevation of the screw holding attachment shown detached from the screw driver.

Fig. 4 is an enlarged perspective view of the clamping end of the screw holding attachment.

Fig. 5 is a perspective view of a modified form of a screw holder attachment.

Referring now to the drawing in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates a screw driver of conventional type consisting of a wooden handle member 11 and a shank member 12 provided with a wedge-shaped blade 13 upon its end. The blade 13 is adapted to fit into a transverse slot 14 formed in the head of a screw 15, which may be of any desired commercial type, the screw herein shown having a rounded head 15*a*.

In order to hold the screw 15 upon the end of the screw driver blade 13 while said screw is either being screwed into or unscrewed from a screw hole, provision is made of a holding attachment including a resilient longitudinally bowed arm 16, to the forward end of which is integrally connected an enlarged screw clamping jaw 17 having a wedge shaped end 17*a*. The front of the jaw 17 is provided on one side with a concave recess 18 terminating in a plurality of curved converging fingers 19. The tips of the fingers 19 are adapted to resiliently engage the shank of the screw 15 below the head 15*a* thereof. The recess 18 is preferably provided with a plurality of parallel V-shaped transverse grooves 21, three in this instance, adapted to selectively receive the sharp annular rim of the screw 15 depending upon the size and shape thereof.

It will be understood that the recessed jaw 17 is adapted to clamp about the screw heads of other types beside the round head herein illustrated, such as filister heads, flat heads, hexagonal heads, etc.

In order to detachably fasten the resilient arm 16 to the screw driver shank 12, said arm 16 is provided on its upper end with an integral shank-engaging substantially cylindrical split spring clip 22, said clip 22 comprising a pair of curved side wings 23 and 24 which are adapted to resiliently embrace the rounded shank 12 of the screw driver 10 for detachably holding said slidable attachment in any desired adjusted position. It will also be obvious that the attachment may be employed upon screw drivers having shanks of various diameters.

To facilitate the manual longitudinal adjustment of the attachment along the length of the shank 12, the spring clip 22 is provided at its center with a curled over thumb lug 26 preferably formed integral with said clip.

Operation

In operation, when it is desired to drive a screw 15 into a screw hole, the head of the screw 15 will first be clamped between the screw driver blade 13 and the recessed jaw 17 of the screw holding attachment. The head of the screw may be readily positioned in the desired V-shaped groove 21 by sliding the attachment longitudinally along the shank 12. The attachment will then be rotated to bring the slot 14 in the head 15*a* of the screw into alinement with the end of the screw driver blade 13. The screw may then be readily inserted in a screw hole located in a position that would be otherwise difficult of access.

One of the advantages of the present invention is that the jaw 17 will be automatically disengaged from the screw head 15*a* when the screw 15 has been driven home into the screw hole. This is due to the peculiar wedge-shaped end 17*a* on the jaw 17.

When it is desired to remove the screw 15

from a screw hole, it will first be unscrewed a few turns in the usual manner by the blade 13 of the screw driver until the head 15*a* has moved out of the screw hole for a short distance. The attachment will then be slipped down the shank 12 of the screw driver until the jaw 17 can be clamped about said head 15*a*, as shown in Figs. 1 and 2.

In the modified form of screw driver attachment shown in Fig. 5, the construction is identical with the first form shown in Figs. 1 to 3 inclusive except that the jaw 27 and its integral resilient arm 28 are made of uniform thickness of metal. The jaw 27 is arcuate in shape and is slightly wider than the arm 28. The inside of the arcuate jaw 27 is provided as before with a plurality of V-shaped grooves 29 for engaging the sharp rim of the screw head 15.

While there have been disclosed in this specification two forms in which the invention may be embodied, it is to be understood that these forms are shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosures but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claim.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

In a screw holding device, a screw driver having a wedge-shaped blade, a clamping attachment member having sliding resilient engagement with the shank of said screw driver, said attachment member having an enlarged jaw provided with a recessed seat for receiving one side of a slotted screw head, the screw driver blade being adapted to engage in the slot of said screw, said jaw having a plurality of arcuate grooves of successively increasing diameters to form seats for screw heads of various sizes, said jaw also having slits in its extremity providing inwardly curving spring fingers to resiliently engage the shank of the screw, whereby when the screw is driven home, the attachment member will be automatically disengaged from said screw.

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