Aug. 11, 1925.

1,549,413

W. H. GREET

SCREW DRIVER ATTACHMENT

Filed Nov. 29, 1924

Fig. 1.

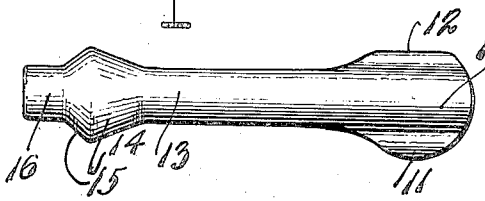


Fig. 2.

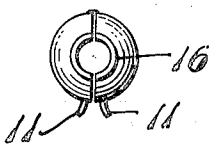


Fig. 3.

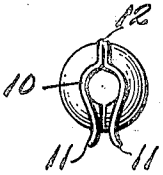


Fig. 4.

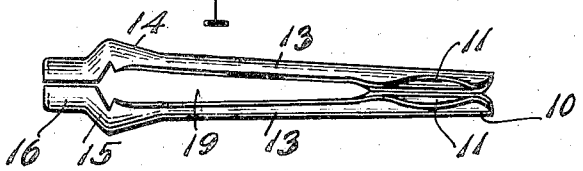


Fig. 5.

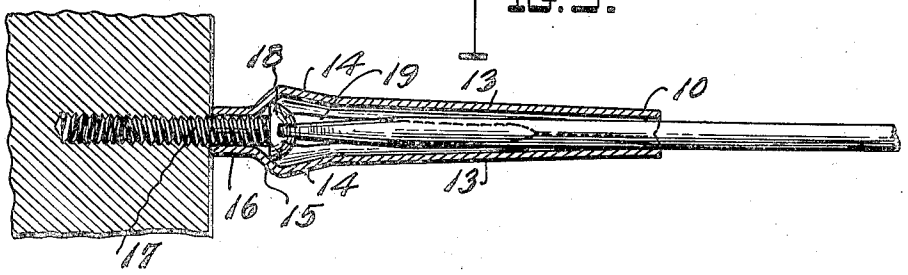
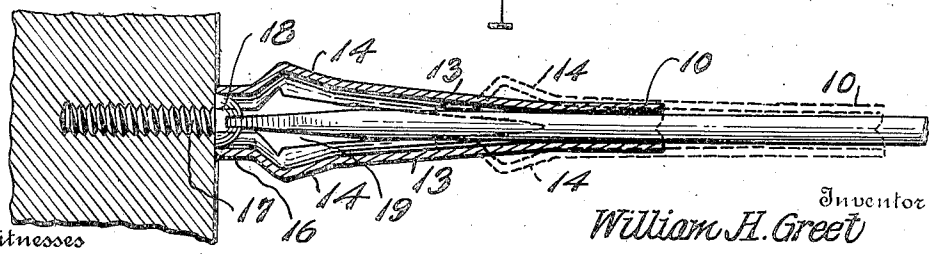


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. GREET, OF STARKVILLE, COLORADO.

SCREW-DRIVER ATTACHMENT.

Application filed November 29, 1924. Serial No. 752,986.

To all whom it may concern:

Be it known that I, WILLIAM H. GREET, a citizen of the United States, residing at Starkville, in the county of Las Animas and State of Colorado, have invented certain new and useful Improvements in Screw-Driver Attachments, of which the following is a specification.

This invention relates to a screw driver attachment, and particularly to a construction comprising a holder for the screw to be driven adapted to be supported upon the shank of the driver.

In this class of holders it has been found difficult to support the screw in a straight position while being driven and to permit a free rotary and longitudinal movement of the screw driver for that purpose without affecting the position of the holder upon the screw.

To obviate such difficulties my holder is provided with resilient fingers adapted to substantially enclose a screw inserted between the same and having at one end jaws disposed to firmly engage and support the shank or threaded portions of the screw to allow its free rotation, and the expanding of such jaws during its driving travel by engagement of the screw head with the inclined inner walls of the jaws.

It is also desirable to provide such a holder in which the screw to be applied can be readily inserted between the fingers and then pressed into contact with the jaws by an inserted screw driver, these jaws being of such length as to firmly support the screw against lateral displacement during the driving action as the opposite end of the holder which engages the screw driver is spaced at a distance from the jaws.

The invention has for an object to provide a novel and improved construction of screw holder comprising a body portion of resilient material open at one side to receive a tool and provided with fingers terminating in elongated clamping jaws adapted to engage the shank of a screw.

A further object of the invention is to provide such a holder in which the enclosing fingers are curved in cross section and provided at one end with holding jaws merging into an enlarged chamber into contact with which the screw head is pressed for expanding and releasing the jaws during the final driving action of the screw.

Another object of the invention is to provide a simple construction which may be formed from a single piece of material properly cut and bent upon itself to provide at one end a holding head having flaring entrance flanges and at the opposite end an enlarged screw receiving chamber terminating in parallel clamping jaws.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawing:—

Figure 1 is a top plan of the invention;

Figure 2 is an end elevation at the left thereof;

Figure 3 is a similar view at the right of Figure 1;

Figure 4 is a side elevation;

Figure 5 is a longitudinal section showing the screw supported during its starting action; and

Figure 6 is a similar view showing the completely driven screw.

Like reference characters designate corresponding parts throughout the several figures of the drawing.

The holder is adapted to be formed of any desired size or configuration and of a proper material for the purposes, preferably of resilient metal by which the fingers and jaws thereon will be tensioned toward each other. In the form shown the body 10 of the holder is produced by folding a blank upon itself and is formed at one side with oppositely flaring flanges 11 forming an entrance opening for the insertion of a tool into the head. The body of metal at the opposite side of these flanges is compressed upon itself to lend rigidity to the head, as shown at 12.

Extending longitudinally from this head are parallel fingers 13, each being preferably of semi-circular form so as to substantially enclose a screw inserted between the same and these fingers are spaced at 19 and merged into the enlarged chamber 14 adapted to receive the screw head and permit free rotation thereof without frictional engagement with the fingers. This chamber is formed with oppositely inclined walls 15 at one side which merge into the semicircular clamping jaws 16 adapted to engage the shank of a screw 17 while the head 18 of such screw will, during its driving movement, contact with the walls 15 and support the jaws 16 to permit a release of the screw in the final driving action so that the holder may be im-

mediately removed from the screw head, as shown in Figure 6.

In the use of the invention the screw driver or other tool for that purpose is adapted to be inserted by a lateral movement within the head while the screw to be supported is inserted between the spaced fingers so that a longitudinal movement of the driver forces the shank of the screw between the jaws by which it is firmly supported. At this time the screw may be started in its opening, in the case of a metal screw, by a rotation of the holder upon the driver, or by the usual movement of the screw driver. As before explained, the continued movement of the screw separates the jaw and releases the screw as it is gradually inserted.

While the invention has been shown in connection with a metal screw, still it is obvious that the identical operation will occur with a wooden screw. The body of the holder has only sufficient frictional contact with the shank of the screw driver to retain it in position thereon so that when not in use it may be moved away from the point of the driver permitting free use thereof in the usual manner, for instance when it is desired to remove a screw. Such a disposition of the holder is shown by dotted lines in Figure 6.

The invention comprises a very simple, efficient and economically constructed holder adapted to be formed by a stamping operation from a single piece of material, and while a specific shape and details thereof have been shown, it will be obvious that such may be changed without departing from the spirit of the invention as defined by the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A screw holding attachment formed from a single piece of material folded upon itself to provide at one end a gripping head open at one side and there formed with oppositely disposed flanges, and semicircular separated fingers extending from said head and diverging and then converging to form an enlarged chamber adapted to enclose a screw head and having inclined walls merging into elongated curved screw clamping jaws.

2. A screw holding attachment formed from a single piece of material folded upon itself to provide at one end a head having a closed flange at one side and separated flaring flanges at the opposite side thereof, semi-circular separated fingers extending from said head and diverging and then converging to form an enlarged chamber having an inclined wall at one side which communicates with elongated curved clamping jaws.

In testimony whereof I affix my signature.

WILLIAM H. GREET.