

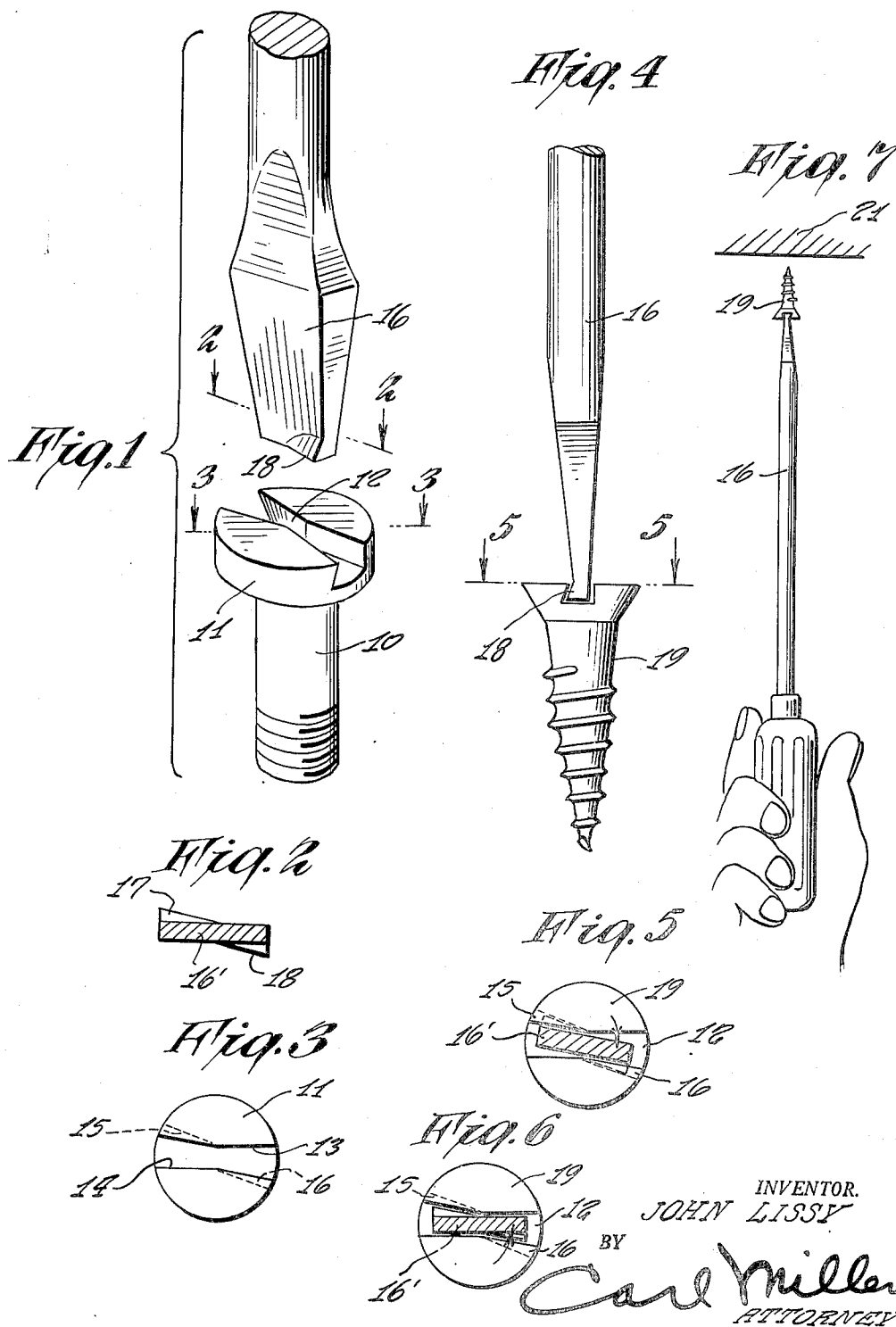
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NONSLIP SCREW DRIVER AND SCREWHEAD

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NONSLIP SCREW DRIVER AND SCREWHEAD

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1 Claim. (Cl. 145—59)

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This invention relates to a non-slip screw driver and screw head.

It is an object of the present invention to provide a screw having a slot chute in such a manner that upon receiving a specially formed screw driver and turning the screw driver slightly, there is no chance for the screw driver to slip from the screw head and it is locked upon the screw head.

Other objects of the invention are to provide a non-slip screw driver and screw head combination which is of simple construction, inexpensive to manufacture, permits easy insertion of the screw driver into the slot within the head, makes possible the use of a standard screw driver within the head if the special screw driver is not available at the time, durable and efficient in use.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a collective and perspective view showing the end of the screw driver and of a screw bolt having a head specially formed to receive the special screw driver.

Fig. 2 is a transverse sectional view of the screw driver taken on line 2—2 of Fig. 1.

Fig. 3 is a top plan view of the screw head and looking into the slot thereof.

Fig. 4 is a vertical elevational view of the screw driver fitted into a screw head.

Fig. 5 is a top plan view of a screw head and of the screw driver turned thereinto for gripping action, the view being taken on line 5—5 of Fig. 4.

Fig. 6 is a transverse sectional view taken on the same line as the view of Fig. 5 is taken, but with the screw driver twisted out of engagement with the sides of the slot and the undercut areas thereof.

Fig. 7 shows a screw driver supporting a screw and held in a position to apply the screw to an under surface.

Referring now to the figures, 10 represents the screw bolt having a screw head 11 with a special slot 12 cut therein according to the present invention. This slot 12 has the sides thereof beveled away from the center, as indicated at 13 and 14, and undercut from the center at opposite locations, as indicated at 15 and 16.

A screw driver end 16' is provided on the opposite sides thereof respectively with downwardly and outwardly flared projections 17 and 18 adapted to fill respectively the undercut spaces 15 and 16 of the walls 13 and 14 of the slot 12 in the head 11.

As the screw driver is turned after being put in the slot in the manner illustrated in Fig. 5, this action is effected. It will be seen that it is impossible for the screw driver end to be removed from the slot in the screw from any direction as long as it is turned to the position shown in Fig. 5. It cannot slide either to the right or left through

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the slot nor can it be pulled axially without first being rotated or returned to the position shown in Fig. 6.

While the invention is shown applied to a machine screw in Fig. 1, it will be understood that it can be equally applied to a wood screw, as indicated at 19 in Figs. 4 to 7. The same type of slot as defined above is provided in this wood screw.

As shown in Fig. 7, the screw driver 17 supports and retains a screw on its upper end with the screw driver being held in an inverted position and in order that the screw 19 can be forced into the under surface of a structure indicated at 21.

When the non-slip screw driver is inserted into the non-slip screw head and when a slight turn is made to the right with the screw driver, the screw driver tends to wedge itself into the undercut portions of the screw head. This interlocking action of the screw driver with the screw head keeps the screw driver from slipping to the right or to the left of the slot.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

Having thus set forth and disclosed the nature of my invention, what is claimed is:

In combination, a screw head having a transverse top slot defining opposed side wall therein, said slot being widened from its center toward both ends at the top face of the screw head, two diagonally opposite portions of the side walls of the slot being disposed in planes extending parallel to the axis of the screw head and the other two diagonally opposite portions of the side walls of the slot being undercut from the top face of the screw head to the bottom of the slot, and a screw driver of substantially rectangular cross-section and having its faces tapered towards the end of the screw driver, two diagonally opposed portions of the faces at the end portion of the driver having outwardly inclined projections at an angle complementary to that of the undercut portions of the side walls of the slot in the screw head, so that the two diagonally oppositely disposed projections engage the undercut walls of the screw head in operative position.

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