

SIMPLE SCREW ASSEMBLY

OCCASIONALLY in assembly work, only familiarity with some "dodge" or other enables a screw, bolt, or nut to be fitted without a great deal of frustration and loss of time. Much the same is true if a screw or small component is dropped in an inaccessible position.

Small screws and components can be handled effectively with tweezers, and medium-sized ones with long thin-jawed pliers; and there are various means of maintaining screws on screwdrivers.

If the screw slot and screwdriver blade are both good, and the screw is to be pushed into a horizontal or overhead hole, it can be done by simply placing the screw on the blade. If the hole is substantially downwards,

however, the screw will fall off unless held in some manner. To do this, the screwdriver blade can be magnetised for a steel screw, or alternatively a small blob of thick grease or Plasticine used-as for a brass screw. Some screwdrivers have a type of sliding "jaw" which can be pushed down the blade to hold the screw.

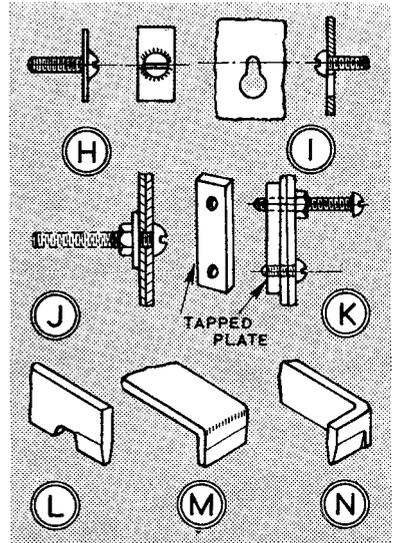
With a good screw slot, an ordinary thin rubber band can be looped one end through the other round the blade, twisted tight, then the free end passed over the screw shank A. Where the difficulty is mainly in fitting a screw in a hole, or maintaining it in alignment for screwdriver to be used, it can be done as B, employing a wire loop, and pulling it off when the screw has started. Another idea, where the hole is downwards, is to slot a piece of thin steel, C, for the screw to lie in. This method is also effective for driving in tacks and small nails without damage to fingers.

Other methods

Bolts and nuts can often be fitted by placing them in tubular box spanners, or in socket spanners with long shanks. A bolt or setscrew which is one of a number with the head drilled for a common locking wire, can be manipulated and fitted with a type of wire tweezers, D, bent from thin rod or wire. A slotted holder, a development of that at C, is as E, where a short strip of sheet steel is riveted on to hold the bolt in the slot. The hexagon can then be turned with an open spanner.

Occasionally, it is required to fit a screw in from the back of some panel or sheet metal work and a nut and washer outside. The wire loop method B may be practicable. But if the position is really inaccessible, a wire can be pushed through the hole from the front, out to where the screw can be fitted, this soldered on the end and pulled into place, F. The wire can be broken off and the thread cleaned up with the screw shank gripped by thin-jawed pliers.

On an inaccessible stud, a nut can sometimes be fitted by sliding down



a wire, then flicking round with a screwdriver to start it until a cranked spanner can be used, G.

A screw fitted to the rear of a panel can be prevented from turning by soldering or brazing on a plate H to abut against an edge. Where there is no access at all to the rear of a panel, a hole can be drilled off-position to pass the screw head, then a slot filed to bring the screw into position I. The hole being made large enough (or wide and the metal kinked), the screw can be fitted with a plate H to cover the slot and prevent turning.

Rotation can also be prevented in initial fitting, which may be all that is necessary, by using a long screw, gripping the shank with pliers for the nut to be tightened, then snipping off and filing smooth, J. A tapped plate, K, enables screws to be fitted from outside. If not soldered, it can be guided into position with a wire.

For badly-placed screws, various types of "round the corner" screwdriver can be bought or made from strip steel, case hardened, L, N.

