

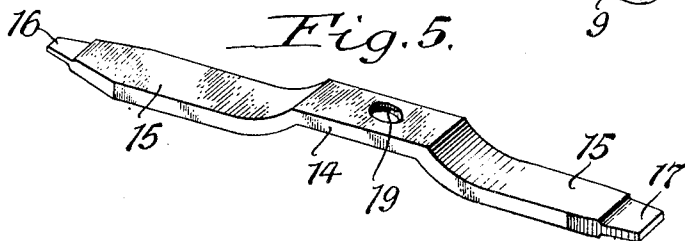
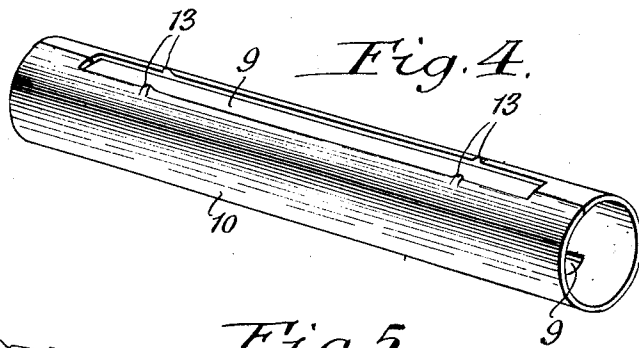
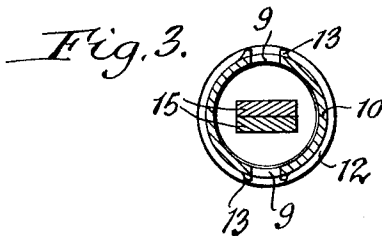
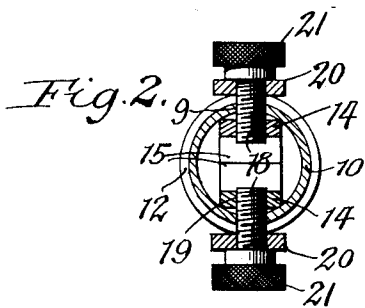
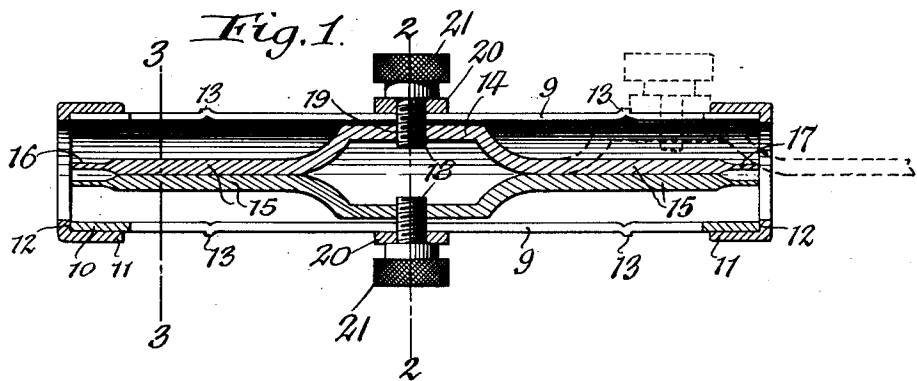
Oct. 30, 1928.

1,689,376

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MULTIPLE BIT TOOL

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UNITED STATES PATENT OFFICE.

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MULTIPLE BIT TOOL.

Application filed June 22, 1927. Serial No. 200,669.

This invention relates to a multiple bit tool and more particularly to a tool of this character which has a plurality of screw drivers of different sizes any one of which can be brought into operative position.

It is the purpose of this invention to provide a tool having this capacity which is very simple in construction, capable of being folded very compactly, convenient and effective in use, and marketable at exceedingly low cost.

In the accompanying drawings:—

Figure 1 is a longitudinal section of my improved multiple bit tool.

Figures 2 and 3 are transverse sections on an enlarged scale, of the same, taken on the correspondingly numbered lines in Fig. 1.

Figures 4 and 5 are perspective views of the casing and one of the bars forming parts of this tool.

Similar characters of reference indicate like parts in the several figures of the drawings.

The numeral 10 represents the casing or handle of this tool which is preferably constructed from a sheet of metal cut into the desired shape and then bent into the form of a tube which is open at both ends. On the end portions of the tubular casing are mounted ferrules 11 each of which has an inturned flange 12 at its outer edge which engages with the adjacent outer edge of the casing. On diametrically opposite sides the casing is provided with longitudinal slots 9 and near the ends of each slot 9 the casing has two stop lugs 13 struck up from the metal thereof.

Arranged within the casing are two bars which are slidable lengthwise relatively to each other and the casing, each of these bars having an outwardly deflected central part 14 which engages with the inner side of the casing along one of the slots thereof and two inwardly deflected end parts 15, 15 which slidably engage the corresponding end portions of the other bar. Each of these bars has its ends constructed to form a bit for performing some mechanical operation and the several bits are preferably different as to size or purpose so that the same tool can be used for various requirements. For example, the bar shown in Fig. 5 has its opposite ends constructed to form screw driver bits 16, 17, which are of different sizes and consequently adapts this bar for driving correspondingly different screws. Similarly the other bar may also have its opposite ends constructed to

form two different screw driver bits of a size differing from those of the first mentioned bit.

It therefore follows that in the present case four different screw driver bits are available. The length of the bars is equal to or less than the length of the casing so that both bars may be arranged flush and side by side and wholly enclosed by the casing, as shown in full lines in Fig. 1, which renders the tool very compact for convenient storage. If it is desired to use one or another of the bits the same can be projected beyond the respective end of the casing for use, as shown by dotted lines in Fig. 1, by pushing the respective bar lengthwise in the casing.

Means are provided for holding the bars in their central folded position within the casing and also in their outwardly projected position when it is desired to use one or another of the bits. The means shown in the drawings for this purpose comprise thumb clamping screws 18, each of which passes with its threaded shank through one of the slots of the casing and works in a threaded opening 19 in the outwardly deflected central part of one of the bars and a washer 20 interposed between the head 21 of each clamping screw and the outer side of the casing on opposite sides of one of the slots.

Upon tightening the clamping screws when the bars are arranged centrally within the casing, as shown by full lines in Fig. 1, then the several parts are securely held in place relatively to each other and the device is in its most compact form, so that it can be carried in the pocket or stored in a comparatively small space. When it is desired to use one or another of the bits the screw of the respective bar is loosened sufficiently to permit of sliding the respective bar lengthwise in the casing toward the end which contains the desired bit whereby the latter is projected beyond the casing. When this bar is in its fully projected position, the washer of the companion screw is arranged between the adjacent ferrule and the stop lug 13, as shown by dotted lines in Fig. 1, so that upon now tightening this screw the bar will be positively interlocked with the casing and any endwise pressure applied to the bit which is in use will not permit the tool to collapse inasmuch as the bar is not dependent solely on the frictional clamping action of the respective screw for holding the parts in operative relation. It is thus possible to apply very

heavy pressure on the bit and do as effective work with the tool as if the handle and bit were made of one piece.

This tool is not only very simple in construction but the same is also very strong and durable and not liable to get out of order by severe usage.

I claim as my invention:—

A multiple bit tool comprising a tubular casing, two bars slidable lengthwise in said casing and each having an outwardly deflected central guide part which slidingly engages with the inner side of the casing and inwardly deflected flat end portions which terminate in bits and which slidingly engage

the corresponding flat end portions of the other bar, said casing being provided on opposite sides with longitudinal slots, clamping screws slidable in said slots and connected with the outwardly deflected parts of said bars and bearing against the outer side of said casing, and stops which are arranged on the exterior of said casing which are adapted to be engaged by said screws for holding the latter against lengthwise movement on the casing.

In testimony whereof I hereby affix my signature.

JOHN ZILLIOX.