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COMBINATION TOOL AND HOLDER THEREFOR.

APPLICATION FILED JULY 21, 1913.

1,086,000. Patented Feb. 3, 1914.

Fig. 1.

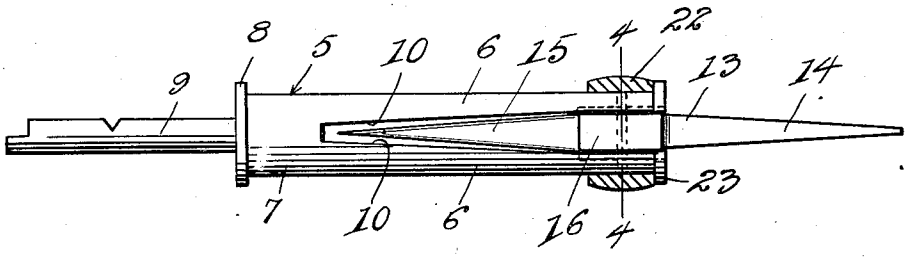


Fig. 2.

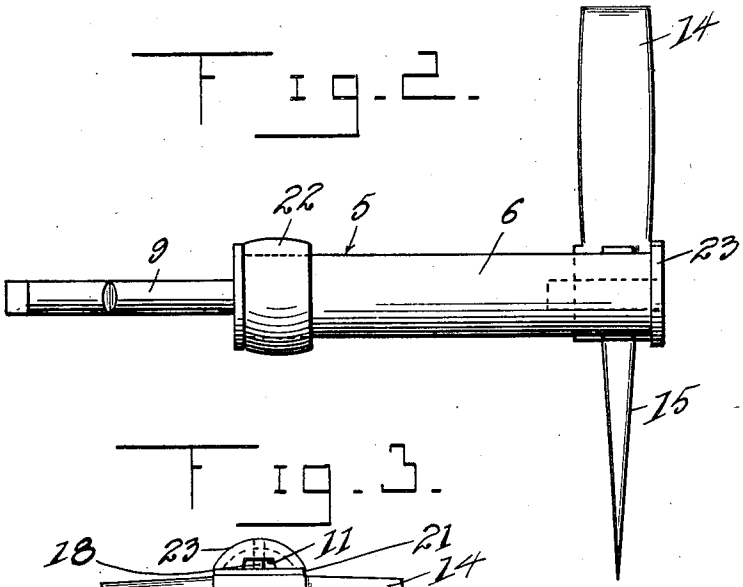


Fig. 3.

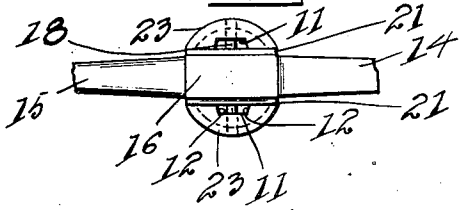
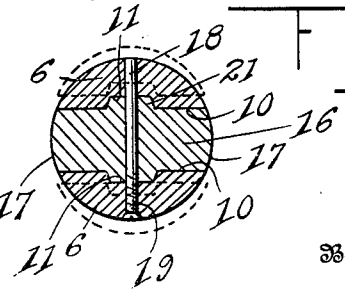


Fig. 4.



Witnesses

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COMBINATION-TOOL AND HOLDER THEREFOR.

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To all whom it may concern:

Be it known that I, WILLIAM SOINI, a citizen of the United States, residing at Taylor, in the county of Stark and State of North Dakota, have invented certain new and useful Improvements in Combination-Tools and Holders Therefor; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention comprehends improvements in combination tools and holders therefor and relates more particularly to a device of this nature wherein a reversible tool is provided, having its ends constructed differently for different functions.

One of the objects of the invention is to provide a combination tool and holder, which shall be of extremely simple construction, strong, durable, and very practical.

Another and more specific object of the invention is the provision of a holder having a shank adapted to be inserted into a suitable handle, such as that of a Yankee screw driver and provided with spring arms between which the combination tool is pivoted, the arms being longitudinally recessed and the tool being formed with longitudinal ribs adapted to snap into said recesses.

With these and other objects in view, as will become more apparent as the description proceeds, this invention consists in certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which,

Figure 1 is a side elevation of my device with the locking ring shown in section, Fig. 2 is a view taken on a plane at right angles to Fig. 1, showing the tool swung at right angles to the holder, Fig. 3 is a fragmentary front elevation of Fig. 2, and, Fig. 4 is a transverse section taken on the plane of line 4—4 of Fig. 1, the arms being shown in their spread position by dotted lines.

Referring in detail to the drawings by numerals, 5 designates, generally, the body of the holder, said body being formed from a cylindrical piece of stock by slotting the same longitudinally to form the spring arms 6. The inner end portion 7 of the body is solid and has an annular flange or collar 8 formed upon its inner extremity. A shank 9 extends longitudinally from the solid end of the body and is formed so as to properly fit within the handle of a Yankee screw driver. It is to be understood, however, that the holder may also be secured to various other handles or may be used independently thereof. The opposed faces 10 of the arms 6 are flat and converge toward their inner ends, as clearly shown in Fig. 1. Longitudinal recesses or grooves 11 are formed in the faces 10 adjacent their outer ends and along the line of their longitudinal centers. These grooves open upon the ends of the arms and are formed with oppositely inclined side walls 12. These grooves are of such shape and so positioned as to permit of their being formed at slight expense and with a small expenditure of time.

A combination tool, designated in its entirety by the numeral 13 and having one end in the form of a screw driver 14 and the other end in the form of a drill or punch 15, is provided for use in connection with the holder 5. The central portion 16 of the tool is of such a thickness as to fit snugly between the outer extremities of the arms 6 without spreading the same and is of such width as to extend flush with the sides of said arms when the tool is disposed in longitudinal alinement therewith. It will be noted that the edges 17 of the central portion are rounded so as to conform to the curvature of the piece of stock from which the holder is formed. A pivot pin 18 extends transversely through the arms 6 adjacent their outer extremities and through the center of the tool. The pin is threaded adjacent one end, as indicated by the numeral 19 so that it will be securely held in position. The sides of the central portion 16 of the tool are formed with longitudinal ribs or enlargements 20 which are shaped to conform to the recesses 11 into which they are adapted to be received when the tool is disposed longitudinally of the holder. By referring to Fig. 4, it will be seen that the pin 18 extends through the longitudinal centers of the arms 6 and therefore passes centrally through the grooves 11 and ribs or projections 21. A locking collar or ring 22 is slidably mounted upon the body 5 and is prevented from sliding off the outer end thereof by means of the flange 23.

When the device is in use, the tool is in

the relative position shown in Fig. 1 and is prevented from swinging within the holder by means of the locking ring 22 and the ribs 21. Since the locking ring fits closely upon the body 5 and since the curved edges 17 of the central portion 16 of the tool conform to the contour of the body, the tool is held very tightly in its operative position. When it is desired to reverse the tool the locking ring is moved to the position shown in Fig. 2 and the tool may then be swung to the desired position. During the turning movement of the tool, the ribs 21 ride out of the grooves or recesses 11, causing the arms to spring apart a slight distance. The applicant considers the provision of the grooves 11 and ribs 21 as being one of the primary features of his device since they assist materially in holding the tool steady and since they may be provided at a minimum expense.

From the foregoing description taken in connection with the accompanying drawings, it will be apparent that I have provided a very simple and practical combination tool and holder therefor, which is of strong and simple construction, and which will be found very useful and convenient in driving screws.

It is to be understood that while I have shown and described the preferred embodiment of my invention, I do not wish to be limited to this exact construction, combination, and arrangement of parts, but may make such changes as will fall within the spirit and scope of the invention as claimed.

Having thus described my invention, I claim:—

A device of the character described comprising a cylindrical body portion, said body portion being longitudinally slotted from one end to a point spaced from the other end to produce a pair of spring arms, the inner faces of the spring arms being flat and converging toward the unslotted end of the body portion, a reduced shank formed on the unslotted end of the body portion, an annular flange on the unslotted end of the body portion, a flange formed on the end of each of the arms, a reversible tool having a central portion adapted to fit closely between the ends of the arms, longitudinal end opening grooves formed in the opposed faces of said arms, ribs on the central portion adapted to fit in the grooves, a transverse pivot pin extending through the arms, grooves and ribs, the edges of the central portion being curved to conform to the shape of the body portion and adapted to lie flush therewith and a locking ring slidable upon the body and held thereon by the flanges on said body portion.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM SOINI.

Witnesses:
JOHN T. KNUDSON,
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