Feb. 5, 1929. 1,701,467

C. W. TILLMANNS

HANDLED TOOL

Filed March 5, 1923

Fig. 1

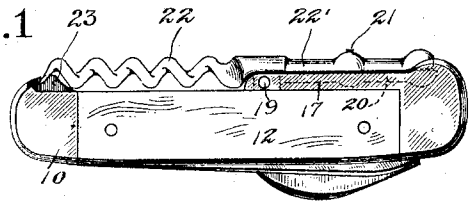


Fig. 2

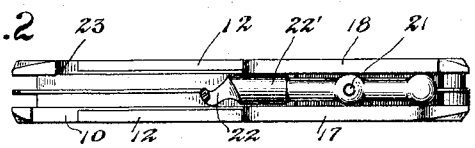


Fig. 3

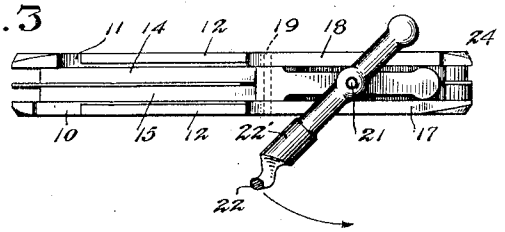


Fig. 6.

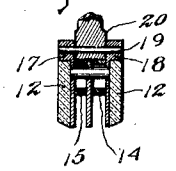
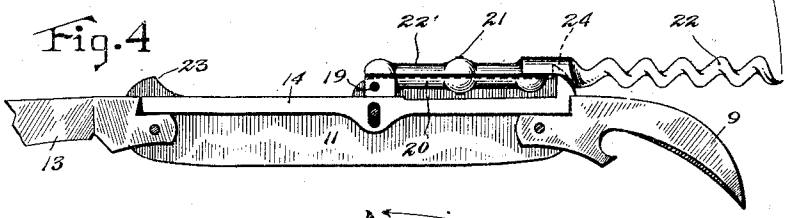


Fig. 4



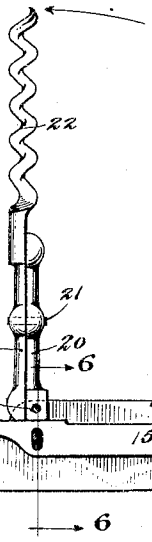
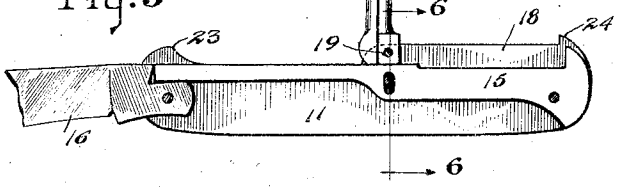


Fig. 5



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Patented Feb. 5, 1929. 1,701,467

UNITED STATES PATENT OFFICE.

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HANDLED TOOL.

Application filed March 5, 1923. Serial No. 622,902.

This invention relates to improvements in handled tools, as knives, corkscrews, and the like, and more particularly to knives or tools in which the blades are adapted to be folded in a handle so that they may be conveniently carried.

In commercial pocket-knives embodying corkscrews, the corkscrew is usually pivoted directly to the knife handle, either centrally of the handle or else at one end. Either of these constructions is subject to serious disadvantages. When the corkscrew is pivoted centrally of the handle it can be made only about half the length of the handle; and if the corkscrew is pivoted at one end difficulty is encountered in obtaining a firm and positive grip upon the handle when the corkscrew is in use.

The present invention has for one of its objects the provision of a tool such as a corkscrew pivotally mounted exterior to the knife handle, capable of convenient and easy operation, and effectually locked against operation when in its normal position.

Another object of the present invention is the provision of an improved means for attaching to the mid-point of a knife handle, a corkscrew having an effective length approximately equal to the length of the knife handle.

Another object of the present invention is to provide a tool such as a corkscrew pivotally mounted upon a member which in turn is pivoted midway of the knife handle, and means for compelling a rotation of the corkscrew about the first-mentioned pivot thereby releasing the member for rotation about its own pivot to bring the corkscrew to its operating position.

Another object of the present invention is the provision of effectual and positive means for locking the corkscrew when either in its open or closed position.

With these and incidental objects in view the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in appended claim, and a preferred embodiment of which is hereinafter described with reference to the drawings which accompany and form part of the specification.

Of said drawings:

Fig. 1 is a view in side elevation of the illustrative embodiment, the corkscrew attachment being illustrated in its closed position.

Fig. 2 is a top plan view of the knife with the corkscrew in the position shown in Fig. 1, part of the corkscrew being omitted.

Fig. 3 is a top plan view similar to Fig. 2, the arrow showing the direction of revolution of the corkscrew about one pivot to bring it to the position illustrated in Fig. 4.

Fig. 4 is a longitudinal sectional view with one of the outer handles and lining removed to illustrate more clearly the relation between one of the knife springs and the corkscrew attachment, which in this figure is illustrated in the position it assumes after having been rotated about one pivot.

Fig. 5 is a longitudinal section taken thru the knife showing how the corkscrew is given a rotation about the second pivot in the direction of the arrow to bring it to the position shown wherein it is in position for use. This figure also illustrates the relation between the corkscrew attachment and the other knife spring.

Fig. 6 is a cross-sectional view of the knife taken on the line 6—6 of Fig. 5.

The side plates of the knife 10 and 11 which compose the knife handle may have secured thereto any suitable material 12, such as pearl or bone, and may be of any desired shape or configuration. The knife blade 13 and special tool 9 are pivoted between side plates 10 and 11 and have a floating spring 14 associated therewith to frictionally retain said blade and tool in their closed or open positions in a manner well known in the art, while the blade 16 has its individual retaining spring 15 (see Fig. 5).

Each side plate 10 and 11 is provided with an upstanding longitudinal extension or ear 17 and 18 respectively, extending about half the length of the knife.

Suitably journaled by a pivot pin 19 between the extensions 17 and 18 is a member 20 best seen in Fig. 4. A corkscrew 22 having a shank portion 22′ is shown secured to member 20 by a pivot pin 21 which extends at right angles to the pivot pin 19. As shown, the corkscrew 22 may be approximately the length of the side plates 10 and 11. The lower part of the member 20 and of the corkscrew 22 contact with the springs 14 and 15, as is shown in Figs. 5 and 6, limiting the upward movement of the springs; while the lower end of the member 20 alone limits the upward movement of the springs when the parts are in the position illustrated in Figs.

1 and 4. To limit the movement of the corkscrew 22 about the pivot 21 two stops 23 and 24 (Figs. 1 and 5) are provided and are formed as upwardly extending projections of the side plate 11.

The sequence of movements necessary to bring the corkscrew from its closed to open position will now be given. As aforesaid Fig. 1 illustrates the corkscrew in its closed position, the end of the corkscrew abutting against the stop 23. Since the corkscrew is pivoted at 19 midway of the knife handle and lies directly over the knife springs 14 and 15, rotation about this pivot will be prevented and it will be therefore necessary to first rotate the corkscrew 22 about the pivot 21. The corkscrew 22 is grasped with the fingers and swung about its pivot 21 until the shank 22′ of said corkscrew abuts against the stop 24 assuming the position shown in Fig. 4. The corkscrew is now in a position allowing it to be rotated about the pivot 19 to bring it to the position illustrated in Fig. 5. As the corkscrew 22 is being rotated the lower end of member 20 and the shank 22′ of the corkscrew will depress the knife springs 14 and 15, and the upward pressure exerted by the springs against the edges of the two members will lock the corkscrew in its open position. The longitudinal extensions 17 and 18 will prevent a turning movement of the corkscrew about the pivot 21 as clearly shown in Fig. 5.

Since the corkscrew now occupies a medial position with respect to the knife handle when adjusted for service no difficulty will be encountered in obtaining a firm and positive grip upon the handle assisting greatly in extracting corks, etc.

In order to bring the corkscrew from its open to its closed position the sequence of movements is just the reverse of that described, and in view of the detailed explanation previously set forth it is believed that the operation of the knife will be evident.

In adapting the present invention to other types of knives, etc., it is to be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit of the invention. It is also to be understood that although a corkscrew has been shown and described it is not the desire to limit the present invention to the use of such a tool, and other tools, such a screwdriver blades, drills, etc., may readily be substituted for the corkscrew without departing from the spirit of the invention.

What is claimed is:

In a device of the character described in combination, a handle, a member pivoted to said handle, a tool pivoted to said member and movable about its pivot from a closed position to an extended position, said tool being effective to prevent movement of said member about its pivot until said tool has been moved about its pivot, and a stop positioned at one end of said device in such a manner as to shield the end of the tool in its closed position.

In witness whereof I have signed my name this 27th day of Feb., 1923.

C. W. TILLMANNS.