April 22, 1930. O. ALTENBACH 1,755,946

KNIFE HANDLE

Filed May 16, 1928

FIG. 1.

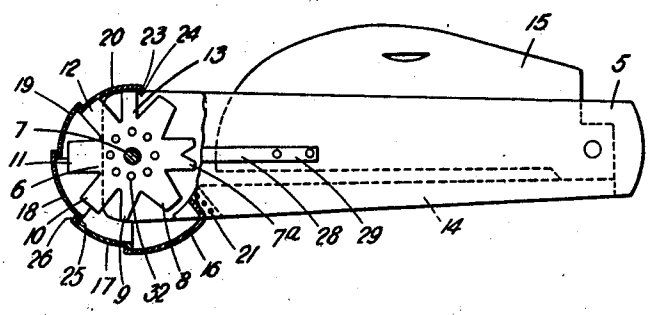


FIG. 3.

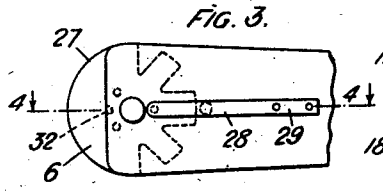


FIG. 2.

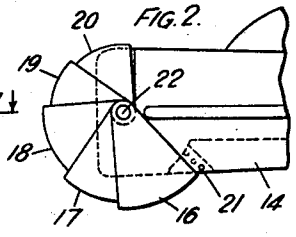
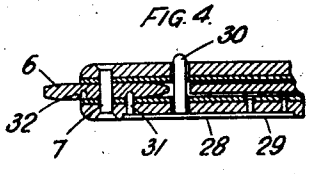


FIG. 4.



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Patented Apr. 22, 1930

1,755,946

UNITED STATES PATENT OFFICE

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KNIFE-HANDLE

Application filed May 16, 1928, Serial No. 278,116, and in Great Britain October 18, 1927.

This invention relates to improvements in knife handles of the kind fitted with tools such as screw-drivers, wedges, can openers, for example.

Heretofore such knives have been made with one or more separately pivoted tools which fold into the knife handle in a manner similar to the folding blade of a pocket knife, and a sliding catch has been provided engaging notches in the tools to lock them in the desired positions.

The object of the invention is to provide a knife handle with a series of tools, any one of which can be readily brought into operation and which do not require to be folded into the handle and further to provide means for covering the tools so as to prevent any possible injury to the person or in the case of pocket knives, to the pocket. The invention is applicable to pocket knives, sheath knives, bayonets or knives of any kind having handles.

According to the invention the desired series of tools are formed on a member which is rotatably mounted between the handle members of the knife at one end thereof in such a position that by rotating the member the desired tool may be brought into position for use, projecting beyond the knife handle. Locking means may also be provided for holding the rotary member in the desired position.

Further, a movable cover may be fitted for covering the projecting portions of the rotary member when the tools are not in use or the member itself may be so formed that a separate cover is unnecessary, as hereinafter described.

To enable the invention to be fully understood it will now be described by reference to the accompanying drawing in which:—

Fig. 1 is a part sectional elevation showing one form of the invention applied to a pocket knife, and

Fig. 2 is a view of one end portion of the knife showing a form of cover.

Fig. 3 is a view of one end portion of a knife having a modified form of the invention applied thereto, and

Fig. 4 is a section on line 4—4, Fig. 3, showing a method of locking the tool carrying member.

Referring first to Fig. 1, a single bladed pocket knife 5 is shown, one end of the handle carrying a rotatable member 6 mounted on a pin 7 carried in the handle members of the knife. The member 6 carries a series of tools 7^a, 8, 9, 10, 11, 12, 13 which may include a glass cutter 7^a, screw driver 8, piercer 9, can or box opener 10, in fact any small tool which is useful when combined with a pocket knife.

By rotating the member 6 any desired tool may be caused to project beyond the end of the knife handle in position for use as will be readily understood, the spring 14 of the knife blade 15 being cut away or shaped as shown to allow free rotation of the member 6. Since some of the tools always project beyond the handle and might damage the pocket, a telescoping cover is provided comprising a series of nested U-shaped sections 16, 17, 18, 19, 20. The largest section 16 is shown as fastened by rivets 21 to the spring 14, or it may be fastened to the handle members. The smaller telescoping sections as best seen in Fig. 2 are each pivotally movable at their inner ends on a pin 22 and have sector-shaped sides. They can all be turned to nest inside the fixed section 16 and are in that position while the tool is in use.

However, when the knife is to be carried in the pocket, the cover sections are in the position shown in Figs. 1 and 2. The smallest section 20 carries a snap 23 which projects into a corresponding notch 24 in the upper portion of the knife handle. In order to ensure that the sections will take the circular form illustrated in Fig. 2, and form a continuous guard or cover, they are provided with overlapping edges 25, 26. The edge 25 extends outwardly and is arranged to contact with the inwardly projecting edge such as 26 of the adjacent, larger section. Due to the provision of these overlapping edges, it is assured that as the smaller section 20 is extended out of the stationary section 16, all the other movable sections must follow and form the structure shown in Figs. 1 and 2.

In order to ensure retention of the movable sections within the section 16, the sides

thereof contact frictionally with one another. Thus the nested cover sections are held out of the way while the tool is in use.

In Fig. 3 an arrangement is shown wherein a separate cover is dispensed with, the member 6 being in the form of a wheel with tools formed on a portion of its circumference only, the other portion 27 of the wheel presenting a smooth unbroken curved edge. Thus in the position shown in Fig. 3, the tools are out of use and the portion 27 projects so that there is nothing to injure the pocket.

For locking the tool carrying members shown in Figs. 1 and 3 in position, the arrangement shown best in Figs. 3 and 4 may be employed. A flat spring 28 is secured at one end to the knife handle at 29 and carries a lateral press pin 30 which projects through the knife. The free end of the spring carries a pin 31 which projects through the adjacent side of the knife handle and is adapted to engage one of a series of holes or recesses 32 formed in the tool member 6 and thus to lock the member. One hole or recess is provided for each tool carried by the member so that the member may be locked with any desired tool in the operative position.

To unlock the member 6, the projecting end of the press pin 30 is pressed to free the pin 31.

Other locking methods may be devised.

By making the pivot 7 of the rotatable member in the form of a screw, the member may easily be detached and the various tools sharpened or a fresh member substituted.

While the invention has been described as applied to a pocket knife having a folding blade it will be obvious that it may be applied to knives of the type having a rigid blade adapted to be covered by a sheath or to bayonets and any kind of knife having a handle.

Having thus described the nature of my said invention and the best means I know of carrying the same into practical effect, I claim:—

1. A device of the character described, comprising a pair of spaced side plates forming a handle, a disc mounted for rotation between the side plates, adjacent one end of the latter, said disc having a series of integral tools projecting from its periphery, means for locking the disc with the desired tool in operative position and covering means for the ends of said plates in which said disc is mounted, said covering means being mounted to swing over said ends on an axis coaxial with the axis of rotation of said disc.

2. A device of the character described, comprising two spaced side plates forming a handle, a disc mounted for rotation between the side plates adjacent one end of the latter, said disc having a series of integral tools projecting substantially radially therefrom, means for locking the disc against rotation with the desired tool in operative position and a series of nested U shaped sections having their free ends mounted on a common pivot at the disc end of the handle, the outermost section being fixed to the handle and the other sections being adapted to nest inside the said fixed section.

3. A device of the character described, comprising two spaced side plates forming a handle; a disc mounted for rotation between the side plates adjacent one end of the latter, said disc having a plurality of tools formed integrally therewith and projecting substantially radially therefrom, spring actuated means carried by one of said plates for securing said disc against rotation with one of said tools in operative position; and means for covering said tools comprising a series of nested U shaped sections having their free ends mounted on a common pivot at the disc end of the handle, one of said U shaped sections being of such a size that all the other sections can be turned to nest therein.

In testimony whereof I have signed my name to this specification.

OTTO ALTENBACH.