March 11, 1930. J. DE BRACHT 1,750,577

KNIFE ATTACHMENT

Filed March 6, 1928

Fig. 1.

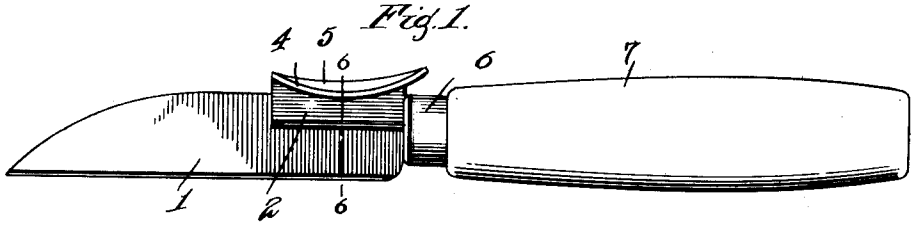


Fig. 2.

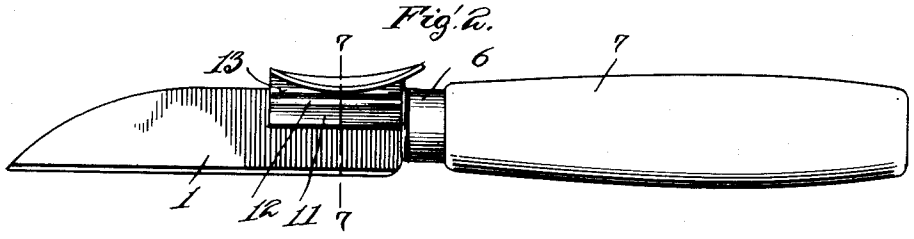


Fig. 3.

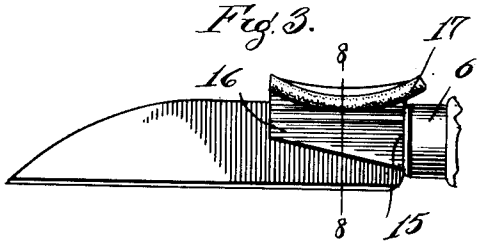
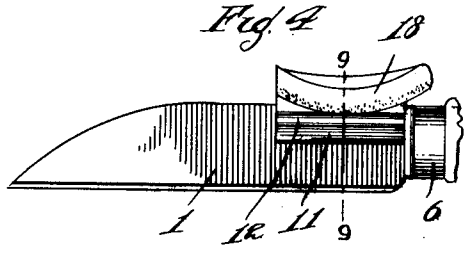


Fig. 4



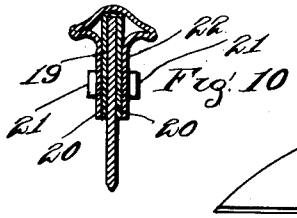


Fig. 10

Fig. 5.

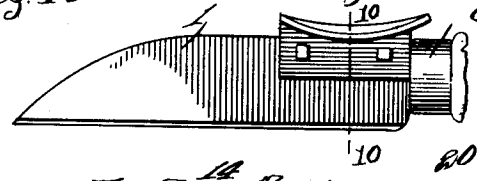


Fig. 11.

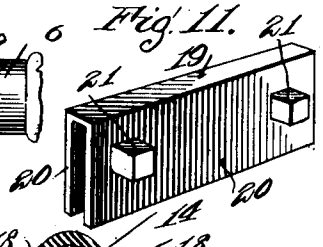


Fig. 6.

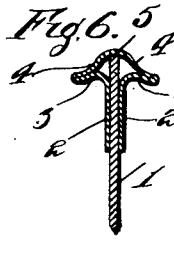


Fig. 7.

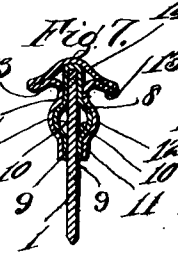


Fig. 8

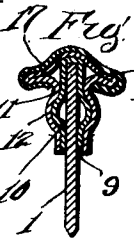




Fig. 9

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UNITED STATES PATENT OFFICE

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KNIFE ATTACHMENT

Application filed March 6, 1928. Serial No. 259,466.

This invention relates to knives, and particularly knives used for paring and other cutting operations during which pressure is exerted against the back edge of the knife by the finger.

The familiar paring knife used in removing the skins from vegetables and fruit best exemplifies and represents the largest field of use for the present invention. In this operation, if continued for any length of time, the pressure of the forefinger against the back edge of the blade causes soreness and frequently, because of the soreness of the guiding finger, slippage of the knife occurs with resulting damage to hand or material.

It is the object of the present invention to provide a knife blade with means affording a broad support for the finger at the back edge of the knife blade, so that, there is no longer present a narrow edge cutting into and lacerating the skin.

A further object is the provision of protective means such as described in the form of an attachment for the back edge of a knife blade. While it is possible to provide such protective means as an integral part of the blade, its manufacture as such is not feasible. The provision of separate protective means not only facilitates its manufacture, but makes it possible to apply the protection to knives already in use.

A further feature of the invention consists in a detachable protector so constructed as to be capable of application to and detachment from the back edges of blades within a reasonable size range so that one protector may be used for a number of different knives.

The invention in a number of alternative forms having common structural characteristics is illustrated in the accompanying drawings forming part hereof and in which:—

Figure 1 is a view in side elevation of a paring knife having a simple form of the invention as an attachment applied thereto.

Figure 2 is a similar view with the attachment detachably mounted on an anchoring base clip embracing the blade edge.

Figure 3 is a side elevation showing a slightly modified form with the finger guard faced with non-slipping material.

Figure 4 is a view in side elevation showing the protector of Figure 2 encased by a sleeve of rubber.

Figure 5 is a view in side elevation illustrating a modified form of anchoring clip and protector.

Figure 6 is a transverse vertical section on the line 6—6 of Figure 1.

Figure 7 is a transverse vertical section on the line 7—7 of Figure 2.

Figure 8 is a transverse vertical section on the line 8—8 of Figure 3.

Figure 9 is a transverse vertical section on the line 9—9 of Figure 4.

Figure 10 is a similar section on the line 10—10 of Figure 5.

Figure 11 is a detail perspective view of the anchoring clip for the protector shown in Figures 5 and 10.

The finger protector forming the subject matter of the present invention which, as above stated, may be formed as a component part of the blade itself, is more practical when provided as a separate attachable device. The simplest form which the invention may take is illustrated in Figures 1 and 6 of the drawings, the protector assuming the form of a spring clip embracing the sides of the blade 1. In forming this clip, provision is made of a strip of sheet metal bent to provide spaced parallel spring jaws 2, oppositely outturned at their upper ends at 3 and formed lengthwise of the blade as a concaved surface, having a central transversely convexed ridge 5 against the top face of which pressure is applied by the finger and which presents an abutment extending longitudi-

nally of the plate 4 providing a gripping surface for the finger. The spaced jaws 2 forming the gripping jaws are resilient and may be forced over the back edge of the blade 1 so that the protector will be frictionally held against the back of the jaws. The back edge of the jaws 2 will engage the ferrule 6 of the knife handle 7 and be held thereagainst by the pressure of the finger in the paring operation.

In the form of the invention shown in Figures 2 and 7, a separate anchorage clip 8 (Figure 7) is provided for the protector. This clip is of spring metal and elongated U-shape presenting spaced spring walls or jaws 9 formed longitudinally thereof and between their upper and lower edges with convexed portions 10 presenting longitudinal ribs exteriorly. The protector piece which cooperates with this anchoring clip has its spaced gripping walls 11 similarly convexed longitudinally between its upper and lower edges to form corresponding concaves 12 gripping the anchoring abutments formed by the ribs 10. The upper end of the spaced jaws 11 of the protector are oppositely outturned at 13 and spanned by the convexed finger rest plate 14 which is shaped similarly to the finger protector of Figures 1 and 6. In both of these forms of the protecting device, the back edge of the blade engages the concaved underface of the central convexed rib of the finger rest plate (Figure 6), or the bottom face of the underlying blade embracing clip, (Figure 7). The top face of the protector thus presents a central ridge convexed in cross section with its top line longitudinally of the blade edge slightly concaved as shown in Figures 1–5 inclusive. At opposite sides of the central ridge, the top face is slightly concaved transversely as shown in Figures 6–10 inclusive, this face extending longitudinally as an elongated longitudinally concaved surface edging the central rib as best seen in Figures 1–5 inclusive.

In the use of the attachment, and taking its simplest form, shown in Figures 1 and 6 as typical and illustrative, the handle is grasped between the palm and last three fingers, the edge of the thumb is brought against the underside of the outturned upper ends 3; and the forefinger is laid across the top faces 4, 5, with the palm face of the finger down and resting its first joint crease on the central convexed ridge 5. The pads of flesh at the opposite sides of the crease press down against the concaved side edges 4 of the top at opposite sides of the ridge 5 which thereby acts as a pressure holding abutment for the finger when the knife is used to cut or pare.

In order to provide a longer bearing surface for the rear edge of the anchoring clip and protector against the ferrule 6, the jaws 9 of the anchorage clip and the embracing jaws 11 of the protector plate, as shown in Figures 2 and 7, may be inclined downwardly as shown in Figure 3 presenting a wider rear edge 15 at the rear than its front edge 16. The construction of the protector and its anchoring plate otherwise corresponds to the form shown in Figures 2 and 7 and is identified in Figure 8 by corresponding reference characters. The face of the finger rest plate 14 in Figures 3 is shown as covered by a sleeve 17 of a material having a high coefficient of friction, such as is afforded by a roughened or abrasive surface.

As an alternative, the finger protector shown in Figure 2 may, as shown in Figure 4, be faced with a relatively thick sleeve 18 of rubber, the edges of which as in the case of the sleeve shown in Figures 3 and 8, extend beneath the top plate and may be secured thereto by suitable means such as cement. Rubber has the double advantage of presenting a non-slipping surface and furnishing a cushioning pad for the finger.

A further modification in the form of the anchoring clip is shown in Figures 5, 10 and 11 in which a U-shaped clip 19 of spring metal has its spaced blade embracing jaws 20 formed with oppositely outstanding stud 21 in spaced relation to each other and preferably as shown of rectangular cross section. The finger plate cooperating therewith has its spaced gripping jaws 22 formed with rectangular openings therein of corresponding area in spaced relation so that when the protector is applied over the anchoring clip 19, its recesses are alined with and seat over the anchoring abutments formed by the projecting studs 21 and are anchored thereby against displacement.

As is evident by the modified forms of portector herein disclosed and described, the invention is susceptible of embodiment in a number of different forms. These forms are illustrative of the invention but are not intended as restrictive of the scope thereof, since structural modification and adaptation to different conditions is contemplated in consonance with the spirit of the invention and the scope of the appended claims.

What I claim therefore, and desire to secure by Letters Patent is:—

1. A finger grip for the back edge of cutting blades comprising a spring clip for mounting over the back edge of the blade having anchoring abutments thereon and a finger grip member having spaced sides embracing said clip and engaging and anchored thereto by said abutments, said member having its upper portion longitudinally concaved and transversely extended to a width substantially greater than the back of the blade edge to form a relatively broad finger gripping surface extending longitudinally of the blade edge and having an upstanding ridge forming a gripping abutment for a finger traversing and overlying said upper concave portion.

2. A finger grip for the back edges of cut-

ting knives comprising a substantially U-shaped anchor clip to engage over the back edge of the blade and having abutment surfaces outstanding from its opposite sides, and a finger grip member having spaced sides to embrace said anchor clip formed also to engage with and be anchored to said abutments, said member at its top overlying the back edge of the blade being transversely extended and longitudinally concaved, and having a central ridge extending lengthwise of the blade edge and transversely convex to present a longitudinal abutment for a finger traversing and overlying said top.

JOSEPH DE BRACHT.