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54 A knife for household and professional uses.

57 A knife for household and professional uses comprises a handle (3) having a rigid core member (5) and an outer covering (8) of a soft elastomeric material fitted removably over the core member (5) and being retained in place by a pin (11) to be inserted into a seat (12) formed in the core member (5) through apertures (13,14) provided in the outer covering.

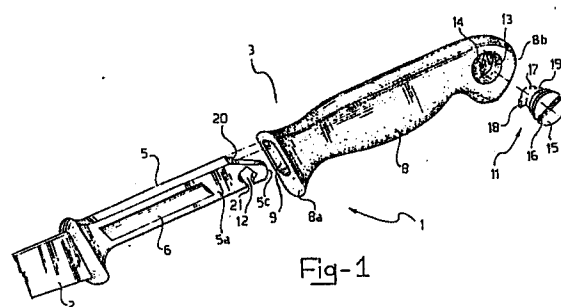


Fig-1

Description

This invention relates to a knife for household and professional uses, of a type which comprises a handle consisting of a rigid core member with an outer covering. As is known, widespread acceptance are currently enjoying knives of the so-called soft handle type, which are utilized not only for professional applications, for which they were originally intended, but also in household environments.

The handle of such knives usually consists of a core member, made of a rigid synthetic plastic material molded around the knife blade metal tang, and a covering of a soft and pliant elastomeric material molded over the rigid core member.

While being generally satisfactory especially from the standpoint of their performance, conventional soft-handled knives are deficient from the sanitary standpoint. In fact, crevices and voids tend to form in the areas of attachment of the soft covering material to the rigid core material wherein liquids and organic residue matter are retained which are difficult to remove, even by repeatedly washing the knife; as a result, such residual matter creates, in decomposing, dangerous bacteria niches.

The problem underlying this invention is to provide a knife of the type outlined above, which has such constructional and performance features as to overcome the drawbacks affecting the prior art as discussed hereinabove.

This problem is solved, according to the invention, by a knife as indicated being characterized in that said covering fits removably over said core member.

Advantageously according to the invention, this knife also comprises means of retaining the covering in its fitted position over the core member.

Further features and the advantages of a knife according to the invention will become apparent from the following detailed description of a preferred embodiment thereof, to be taken by way of illustration and not of limitation in conjunction with the accompanying drawings.

In the drawings:

Figure 1 is a fragmentary exploded view in perspective of a knife according to this invention;

Figure 2 is a part-sectional view of the knife shown in Figure 1;

Figure 3 is a part-sectional side view of the knife shown in Figure 1; and

Figure 4 is a sectional view of the inventive knife, taken along the line IV-IV in Figure 3.

With reference to the drawing figures, the numeral 1 generally designates a knife for household and professional uses, which comprises a steel blade 2 associated with a handle 3 as explained hereinafter.

The blade 2 has a plate-like tang 4 formed integrally therewith.

The handle 3 comprises a core member 5 of a rigid synthetic plastic material, molded around the tang 4.

Advantageously, two hollowed portions 6 and 7 are provided lengthwise in the core member 5,

respectively along opposed major sides 5a and 5b thereof.

The handle 3 further comprises a covering 8 molded from a soft elastomeric material, such as a thermoplastic rubber, and fitted removably over the core member 5. In accordance with this invention, the covering 8 is composed of a cap-like body wherein an axial recess 9 is formed which is open at a forward end 8a and configured to receive the core member 5 in matching shape relationship.

The knife 1 also comprises a means 10 of retaining the covering 8 in its fitted position over the core member 5; this retainer means 10 advantageously consists of a pin 11 adapted to fit removably into a seat 12, formed in the core member 5, by going through apertures 13, 14 provided in the covering 8.

The pin 11 has a head 15, slotted as at 16, a cylindrical stem 17, and a lug 18 projecting transversely from the stem 17, all these parts being a unitary construction. Indicated at 19, moreover, is a portion of said pin 11 which is integral with the stem 17 at the head 15 and forms an angular protrusion on the stem 17.

A bevel 20 is formed on the side 5b of the core member 5, at a free end 5c of the latter.

The seat 12 is formed crosswise in the core member 5, in the proximity of the free end 5c, extends from the side 5a to the bevel 20, and has a shape matching that of the cylindrical stem 17/angular protrusion 19 combination on the pin 11. Furthermore, the core member 5 is formed with an opening 21 in communication with the seat 12 to accommodate the lug 18 as the pin 11 is introduced into the seat 12.

It should be also noted that the pin 11 section lying between the lug 18 and the head 15 has a greater length than the seat 12, thereby, after the pin 11 is introduced into the seat 12, the lug 18 is left free to turn within the bevel 20.

The circular, coaxial apertures 13 and 14 are provided in opposed sides of the covering 8, at a location close to to a rearward end 8b thereof, respectively at the seat 12 and the bevel 20. More specifically, the diameter of the aperture 13 is the same as that of the head 15, and the diameter of the aperture 14 is the same as that of the stem 17 of the pin 11.

According to this invention, the handle 3 is assembled to the knife 1 by fitting the covering 8 over the core member 5, to then lock it in its fitted position over the core member by inserting the pin 11 through the aperture 13 into the seat 12.

Thereafter, the pin 11 is turned until, by virtue of its portion 19, the pin snaps into the seat 12 and is locked therein by its lug 18 locating itself, after being pushed past the seat 12, within the bevel 20, thereby the pin 11 is prevented from slipping out unintentionally.

To remove the covering 8 from the core member 5 of the handle 3, the same procedure is followed in the reverse order.

As a result, the knife for household and professional uses, according to this invention, has been provided with a quickly demountable handle which can then be easily and thoroughly washed clean to meet the strictest of sanitary criteria.

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It is important to observe that the hollowed portions in the handle rigid core member and facing toward the soft covering afford improved deformability for the covering, thereby enhancing the resilient effect and soft-contact property of the handle while leaving its strength properties unaffected.

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Claims

1. A knife for household and professional uses, of a type comprising a handle (3) consisting of a rigid core member (5) with an outer covering (8), characterized in that said covering (8) fits removably over the core member (5).

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2. A knife according to Claim 1, characterized in that it comprises means (10) of retaining the covering (8) in the fitted position over the core member (5).

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3. A knife according to Claim 2, characterized in that said retainer means (10) comprises a pin (11) inserted removably into a seat (12) formed in said core member (5) through at least one aperture (13,14) provided in said covering (8).

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4. A knife according to Claim 3, characterized in that said pin (11) is locked by snap-action engagement in said seat (12).

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5. A knife according to Claim 1, characterized in that it comprises hollowed portions (6,7) in said core member (5) facing toward said outer covering (8).

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6. A knife according to Claim 1, characterized in that said outer covering (8) comprises a cap-like body formed from a soft elastomeric material.

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Fig-1

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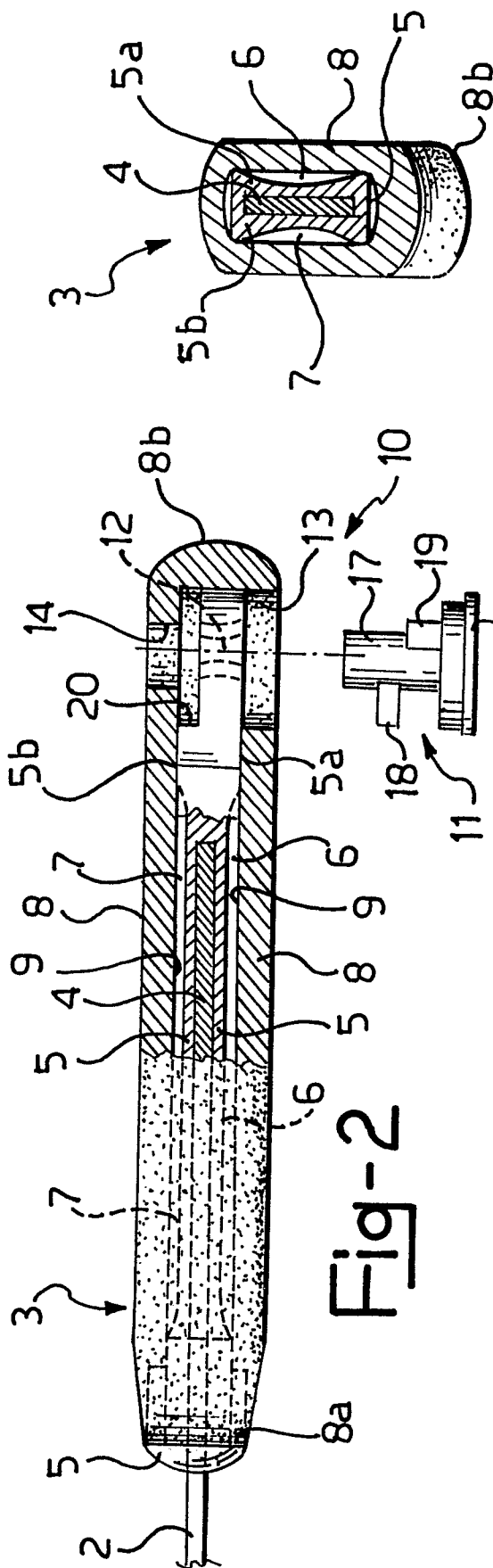
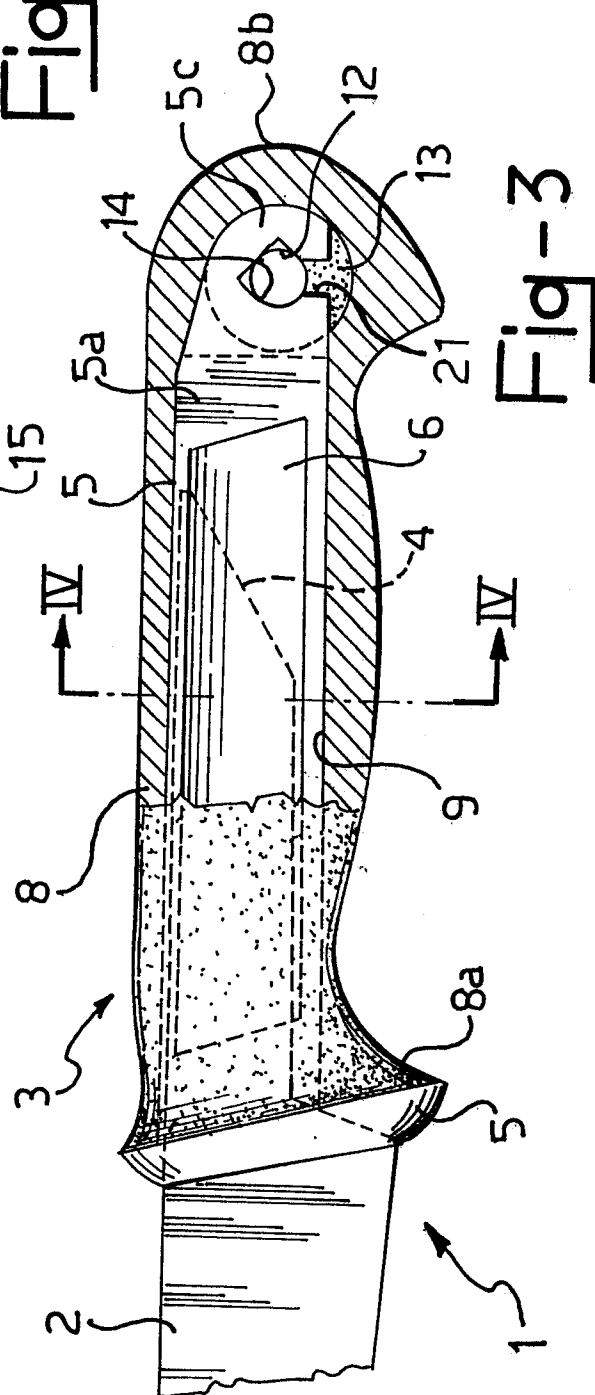


Fig-2

Fig-4



3-107



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 88 83 0097

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	GB-A-2 171 628 (WILKINSON SWORD) * Page 1, lines 51-67; figures 1,3 *	1,2,3,5	B 26 B 3/06
Y	---	4	B 26 B 11/00
Y	GB-A-1 533 631 (BETTERWEAR PRODUCTS LTD) * Page 2, lines 66-110; figures *	4	B 25 G 3/26
X	FR-A-2 597 588 (C. DRUINAUD) * Page 1, lines 18-37; figures 1,2,3 *	1,2,4	
A	US-A-3 760 438 (J.F. WHITE) * Column 1, lines 49-58; figures 1,3 *	1-5	
A	US-A-3 974 868 (G.C. DERBYSHIRE) * Column 2, lines 24-58; figures 1,4,5 *	3,4,5	
A	US-A-2 695 450 (H.C. PLATTS) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			B 26 B B 25 G
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16-06-1988	Examiner WOHLRAPP R.G.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	