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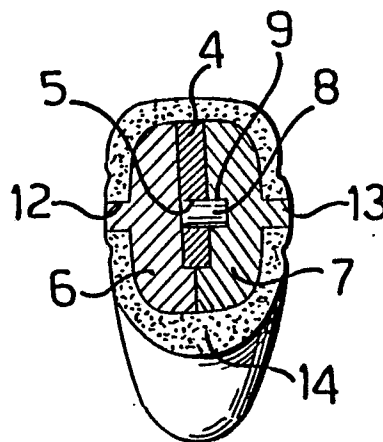
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Knife handle.

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A knife for household and professional applications comprises a handle (3) having a coating (14) of a soft elastomeric material molded over a core piece (3a) formed of two juxtaposed cheek pieces (6, 7) of polypropylene fitting interlockingly around a tang (4) of a blade (2).



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DESCRIPTION

This invention relates to a knife for household and professional applications, being of a type which comprises a handle having a coating of a soft elastomeric material molded over a core piece associated with a tang of a blade.

As is known, knives of the type specified above, and in particular knives intended for professional catering and butchering applications, are not only required to possess enhanced strength and quality characteristics of the steel from which their blades are formed, but also to afford a firm and "comfortable" hold, and must be easy to clean.

For these reasons, conventional knives are generally provided with handles which comprise a core piece, e.g. formed from either a polyamidic resin or a shockproof synthetic plastic material, molded over the metal tang of the knife blade. The core piece is then overlaid with a coating of a soft elastomeric material, also applied by a molding process, which suitably shaped to provide an anatomically functional handgrip. An account of its well-recognized properties, a thermoplastic rubber known under the trademark SANTOPRENE is usually employed for the coating.

However, such conventional knives, while affording substantially the expected features, involve excessively high manufacturing costs due to the dual molding process for the handle,



first for forming the core piece and then the coating.

Furthermore, such knives not unfrequently have the serious drawback of a poor bond between the various elements that make up the handle. The provision of corrugations formed on the outer surface of the handle core for the thermoplastic rubber coating to cling to, while overcoming on the one side the above-mentioned drawback of a poor bond, involves on the other side aggravated costs for the core piece mold.

On the other hand, it would not be appropriate to provide knives for household or professional uses which have a handle formed of thermoplastic rubber throughout, because while this approach can dodge the problem of dual molding, costs are still too high on account of the increased requirement for thermoplastic rubber, a highly expensive material, and the handle strength is impaired.

It is an object of this invention to provide a knife as specified above which has such constructional and operational features as to overcome the cited drawbacks affecting the prior art.

This object is achieved according to the invention by a knife as indicated being characterized in that said core piece comprises two juxtaposed cheek pieces secured interlockingly around said tang.

Advantageously, in a preferred embodiment of the invention, said cheek pieces are formed from polypropylene.

Further features and the advantages of a knife according to this invention will become apparent from the following description of a preferred exemplary embodiment thereof, given by way of illustration and not of limitation with reference to the accompanying drawings.

In the drawings:

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Figure 1 is a perspective view of a knife in accordance with this invention;

Figure 2 is an exploded perspective view of a detail of Figure 1;

Figure 3 is a reduced scale sectional view taken along a longitudinal centerplane of the knife shown in Figure 1; and

Figure 4 is a cross-sectional view taken along the line IV-IV in Figure 3.

With reference to the drawing figures, the numeral 1 designates generally a butcher knife and knife for generic professional applications, which comprises a steel blade 2 associated with a handle 3, as made clear hereinafter.

The blade 2 is provided with a plate-like tang 4 formed integrally with the blade 2 and being through-penetrated by three holes 5 which are aligned at regular intervals apart along the tang 4.

According to this invention, the handle 3 comprises a core piece 3a formed of two juxtaposed cheek pieces 6 and 7, respectively, which are the mirror image of each other and are each molded from polypropylene.

In each of said cheek pieces 6,7, there is formed a respective depression 6a and 7a, said depressions being arranged to face each other and shaped to match the tang 4 shape, thereby, with the cheek pieces 6 and 7 in mated relationship, the tang 4 will be enclosed therebetween. Furthermore, at the depression 6a in the cheek 6, there are formed integrally therewith two pegs, both designated 8, which extend through the through-going end holes 5 in the tang 4 and engage interlockingly at respective free ends in seats 9 formed at corresponding locations in the cheek 7.

Indicated at 10 is a stud-like lug, also formed integrally with the cheek 6 but outwardly of the depression 6a and engaging interlockingly in a blind hole 11 formed in the cheek 7.

The core piece 3a further comprises a pair of parallel rib formations 12 and 13 which are provided on the cheek 6 and the cheek 7, respectively, on the remote side from the depressions 6a and 7a. The rib formations 12 and 13 extend in substantial alignment to the blade 2.

The handle 3 of the inventive knife also comprises a coating 14 of a thermoplastic rubber which is molded over the core 3a.

It should be noted that the coating 14 has a small thickness dimension, and that accordingly, the tops of both ribs 12 and 13 are exposed on the exterior of the coating 14.

The knife of this invention has proved adequate to attain the objectives set forth for it, it having all those strength, positive hold, and handiness features which are expected of a knife of the so-called professional type, or for household use, while being relatively inexpensive to manufacture. In fact, of special import is in this respect the provision of a core piece in the form of pre-molded cheek pieces of polypropylene, a material which is of low cost, easily molded, and of mechanically good usefulness.

An additional advantage of the knife according to the invention is that the thermoplastic rubber coating is intimately bonded, and virtually heat welded, to the propylene core of the handle, since the surface layer of the polypropylene core would be fused on contacting the thermoplastic rubber during the coating molding step.

As a result, the handle of the inventive knife proves to be

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a highly solid and robust construction, and through having no cracks or crevices, easy to clean in daily use.

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CLAIMS

1. A knife for household and professional applications, of a type comprising a handle (3) provided with a coating (14) of a soft elastomeric material molded over a core piece (3a) associated with a tang (4) of a blade (2), characterized in that said core piece (3a) comprises two juxtaposed cheek pieces (6,7) fitting interlockingly around said tang (4).

2. A knife according to Claim 1, characterized in that said cheek pieces (6,7) are made of polypropylene.

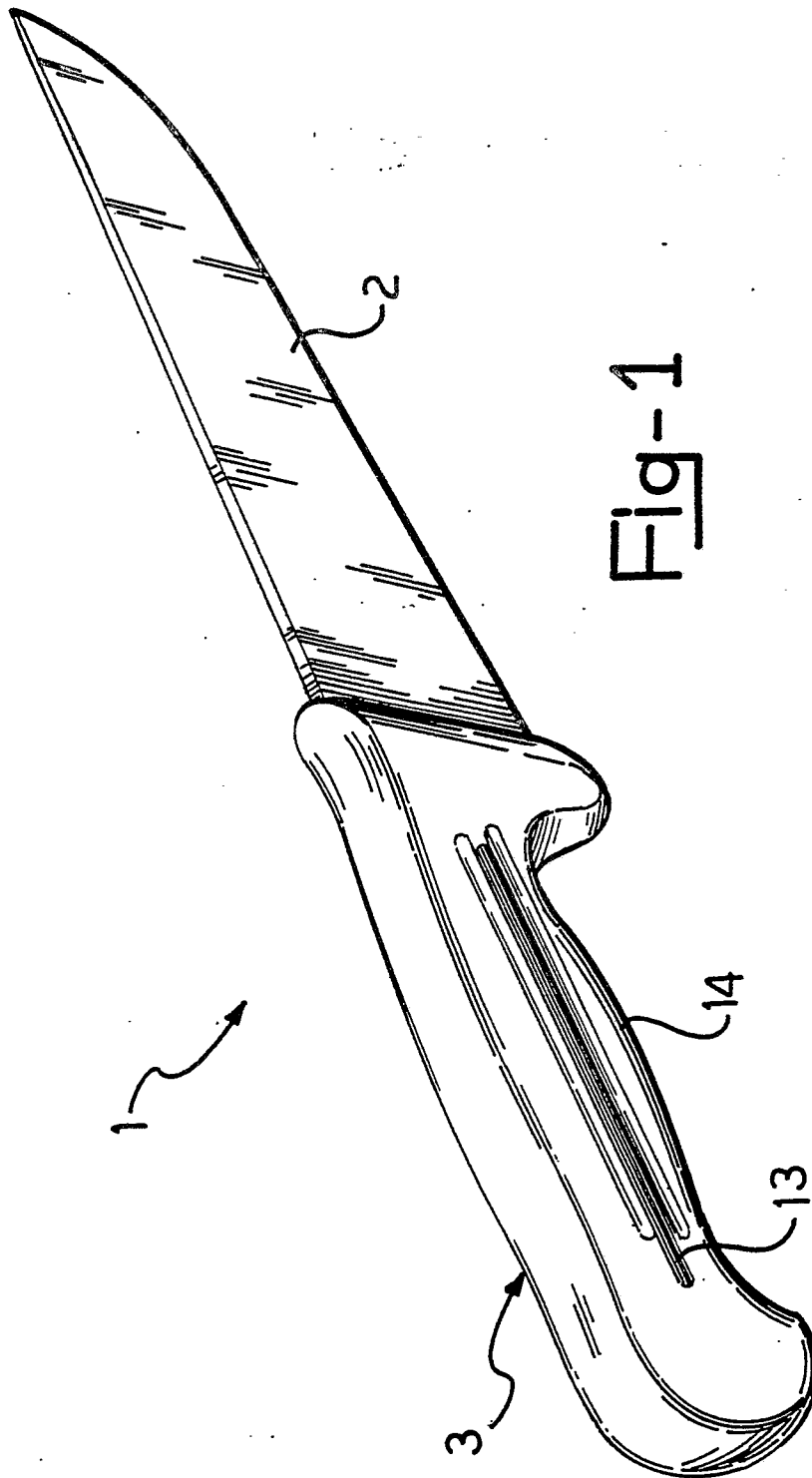
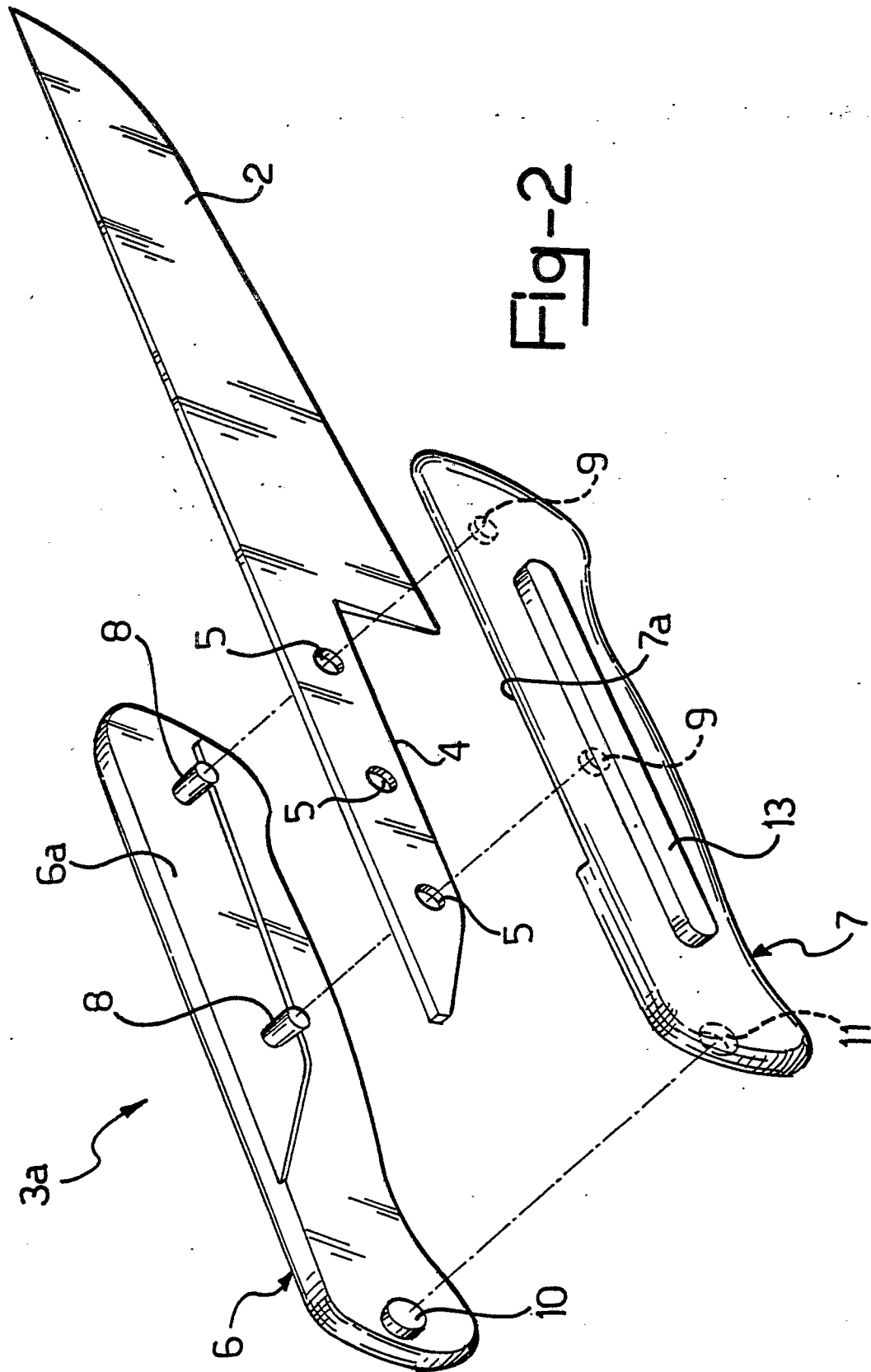


Fig-1



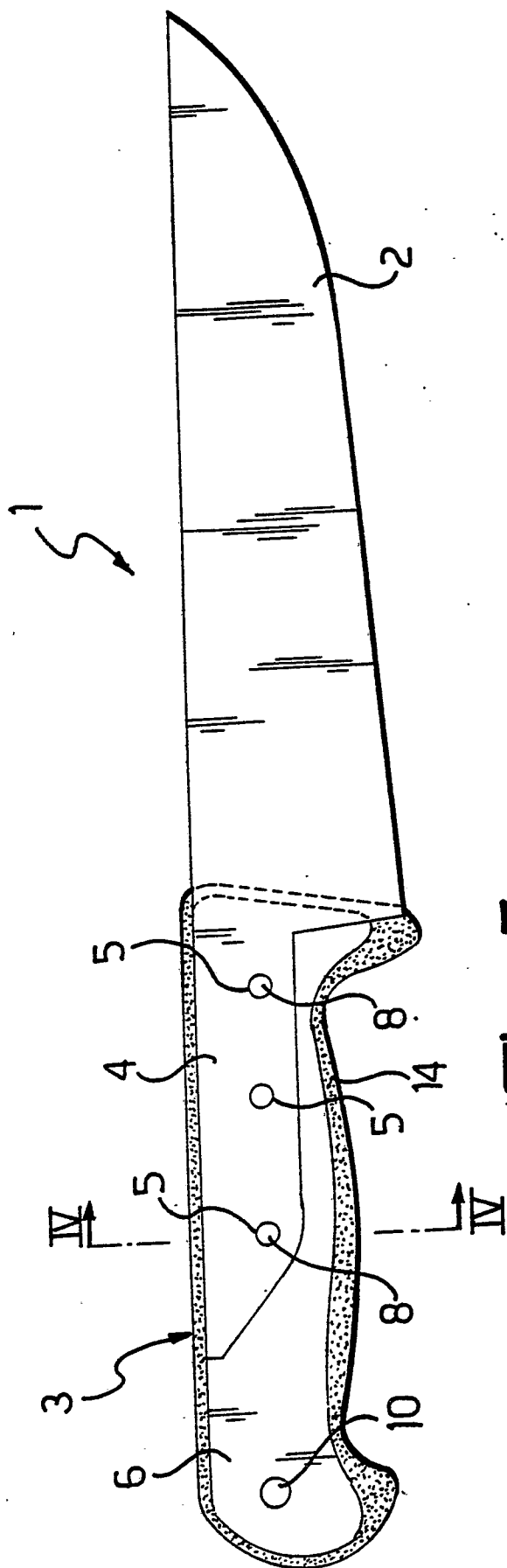


Fig-3

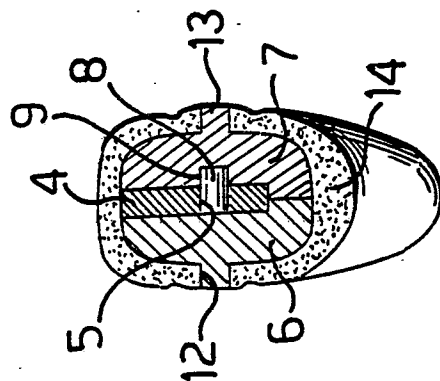


Fig-4