United States Patent [19]

Perry

[11] **3,832,774**

[45] ***Sept. 3, 1974**

[54] **RAZOR BLADE ASSEMBLY**

[75] Inventor: **Roger L. Perry,** Lynnfield Center, Mass.

[73] Assignee: **The Gillette Company,** Boston, Mass.

[*] Notice: The portion of the term of this patent subsequent to Nov. 28, 1989, has been disclaimed.

[22] Filed: **Dec. 13, 1971**

[21] Appl. No.: **207,422**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 124,069, March 15, 1971, abandoned, and a continuation-in-part of Ser. No. 124,217, March 15, 1971, Pat. No. 3,703,764.

[52] **U.S. Cl.** **30/32,** 30/47, 30/50

[51] **Int. Cl.**.. **B26b 21/24,** B26b 21/20, B26b 21/54

[58] **Field of Search** 30/32, 47, 85, 50

[56] **References Cited**

UNITED STATES PATENTS

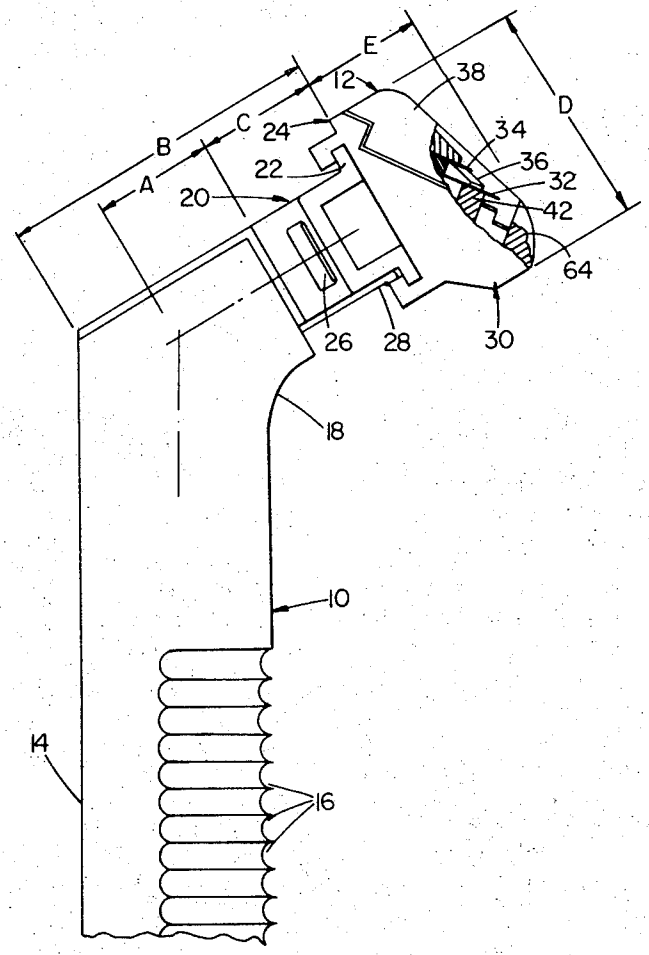
1,195,259	8/1916	O'Reilly	30/47
2,439,909	4/1948	Ruskin	30/85 X
2,563,802	8/1951	Denslow	30/47
2,755,549	7/1956	Hulkenberg	30/47
3,324,546	6/1967	Chavez	30/85 X
3,388,831	6/1968	Hansom	30/40.2 X
3,488,764	1/1970	Welsh	30/32 X
3,571,927	3/1971	Stone	30/85 X
3,703,764	11/1972	Perry	30/32
D216,070	11/1969	Hansom	D95/3 A

Primary Examiner—Othell M. Simpson

[57] **ABSTRACT**

A replaceable blade unit for use in a shaving system includes an elongated body structure having a transversely extending guard surface on its forward edge for contact with the skin, a thin, elongated cutting member permanently fixed to the body structure with its cutting edge disposed parallel to and spaced from the guard surface in shaving relation to the latter, and coupling structure formed in the base of the body structure. The coupling structure defines two recesses that are disposed parallel to the guard surface and extend along the length of the body structure.

12 Claims, 35 Drawing Figures



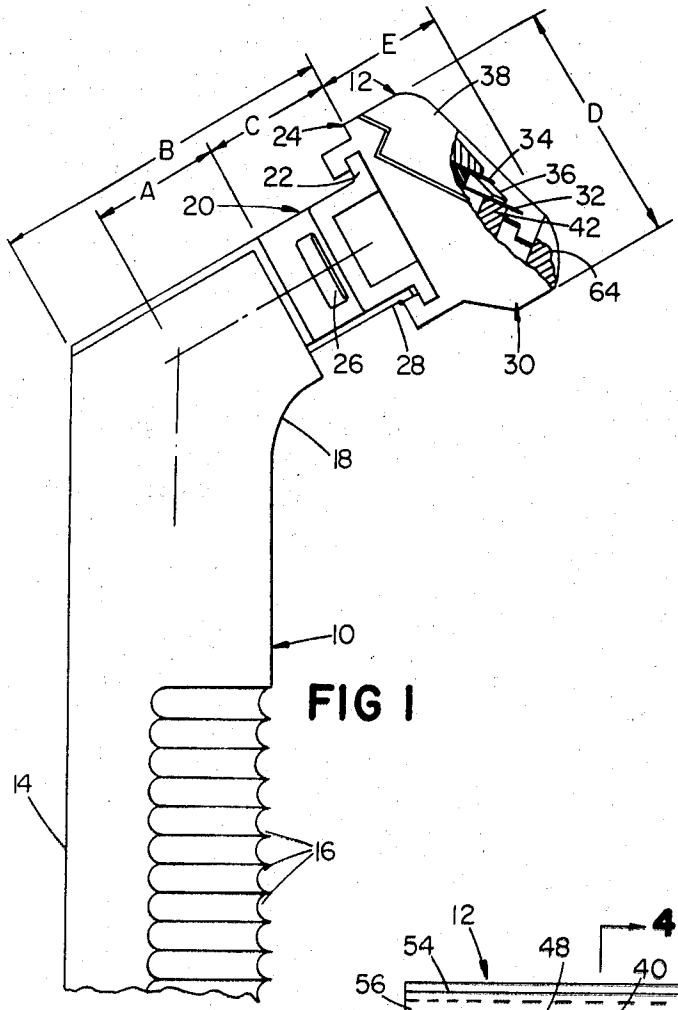


FIG 1

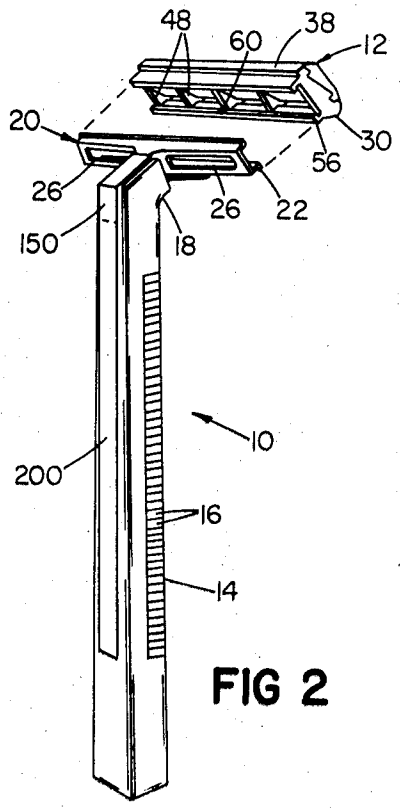


FIG 2

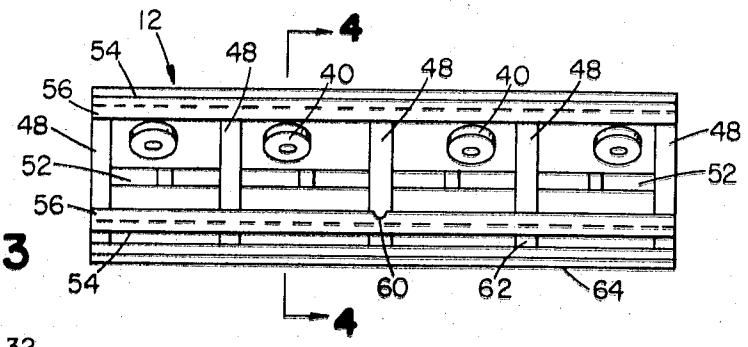


FIG 3

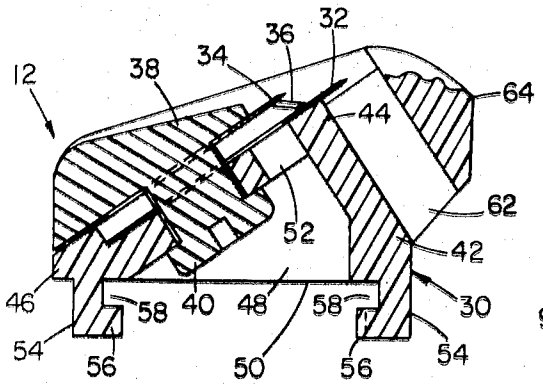


FIG 4

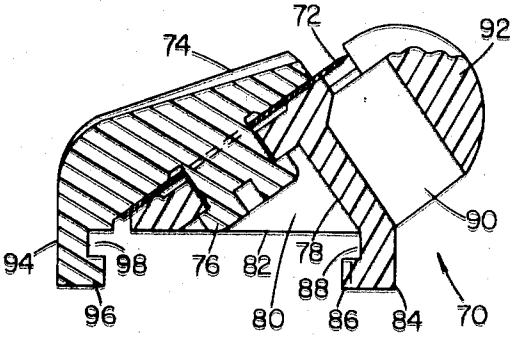


FIG 5

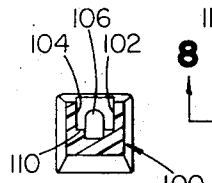


FIG 7

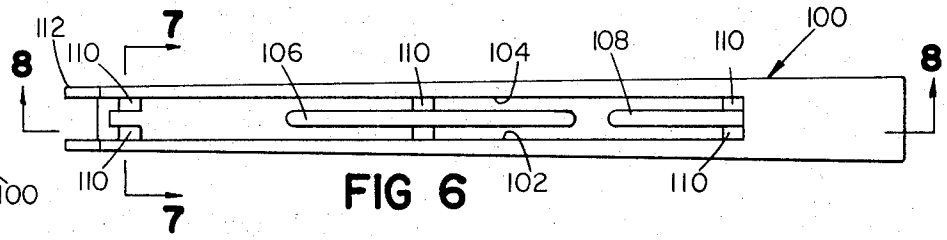


FIG 6

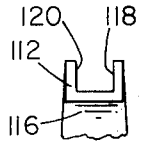


FIG 9

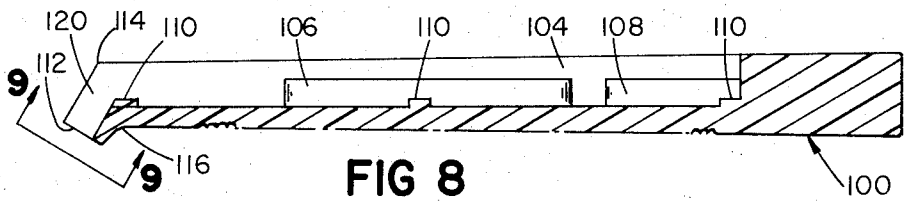


FIG 8

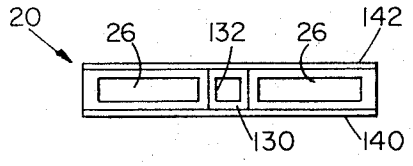


FIG 10

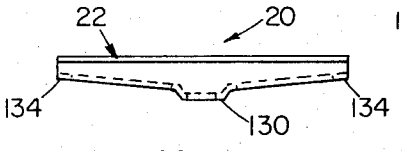


FIG 11

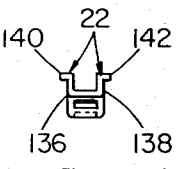


FIG 12

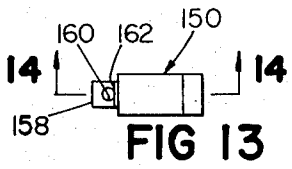


FIG 13

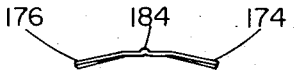


FIG 17

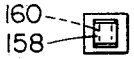


FIG 15

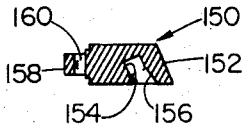


FIG 14

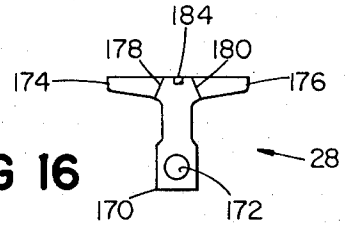


FIG 16

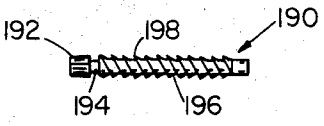


FIG 18

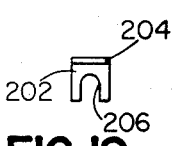


FIG 19

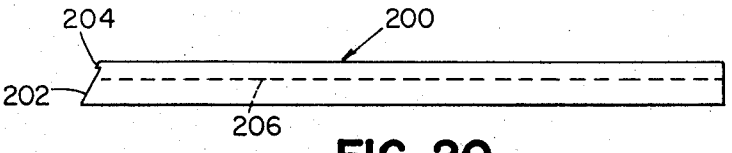


FIG 20

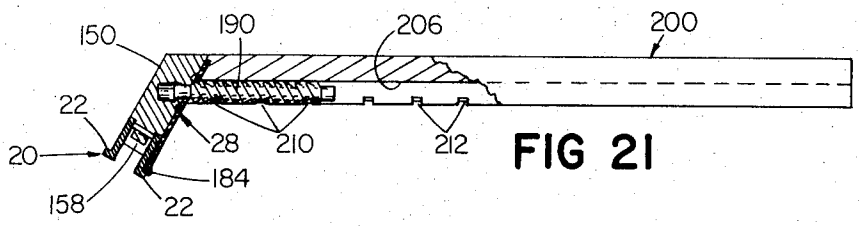


FIG 21

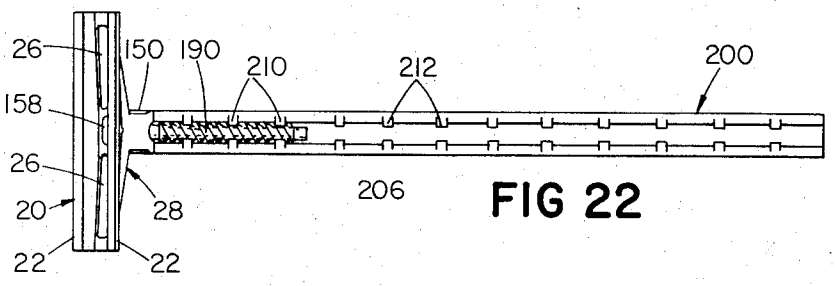


FIG 22

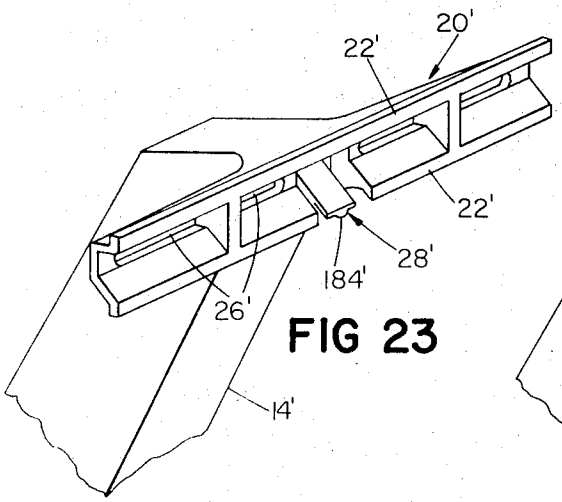


FIG 23

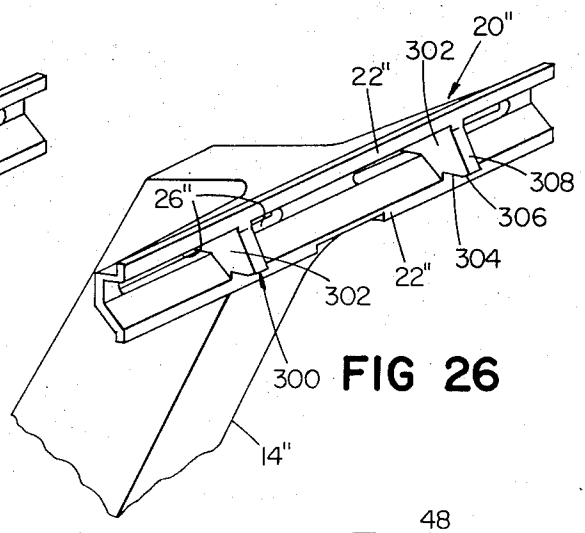


FIG 26

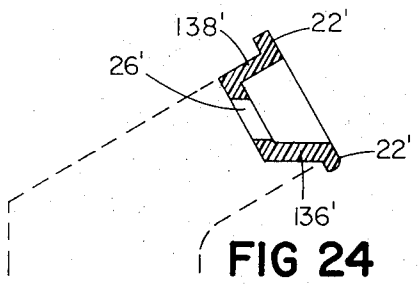


FIG 24

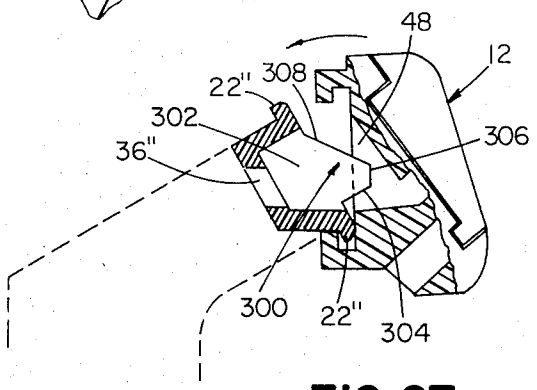


FIG 27

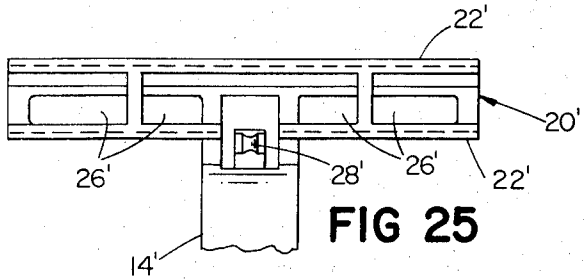
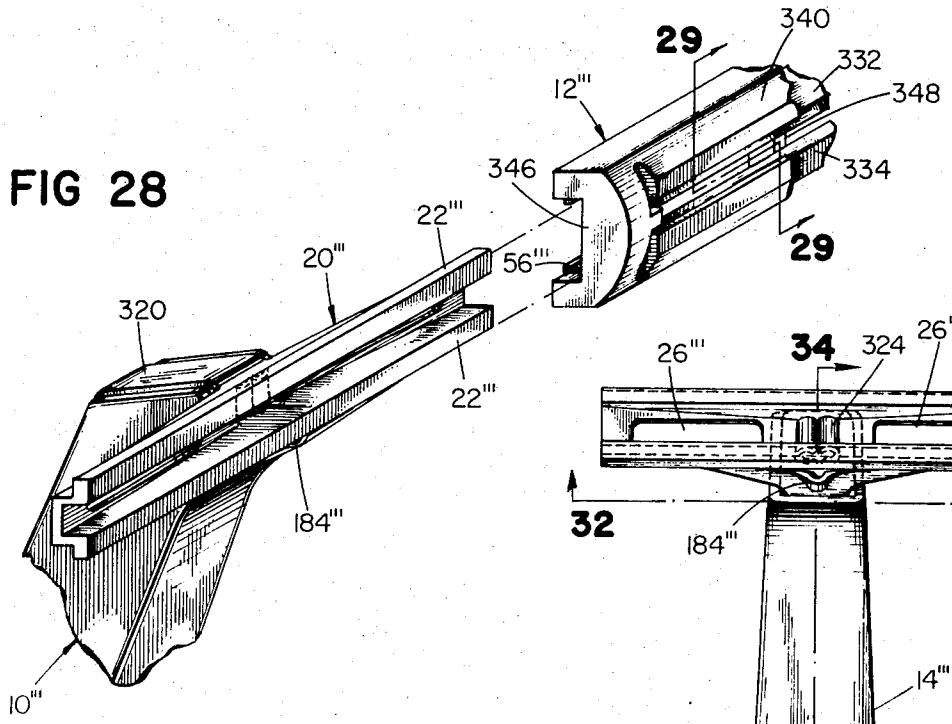


FIG 25

FIG 28



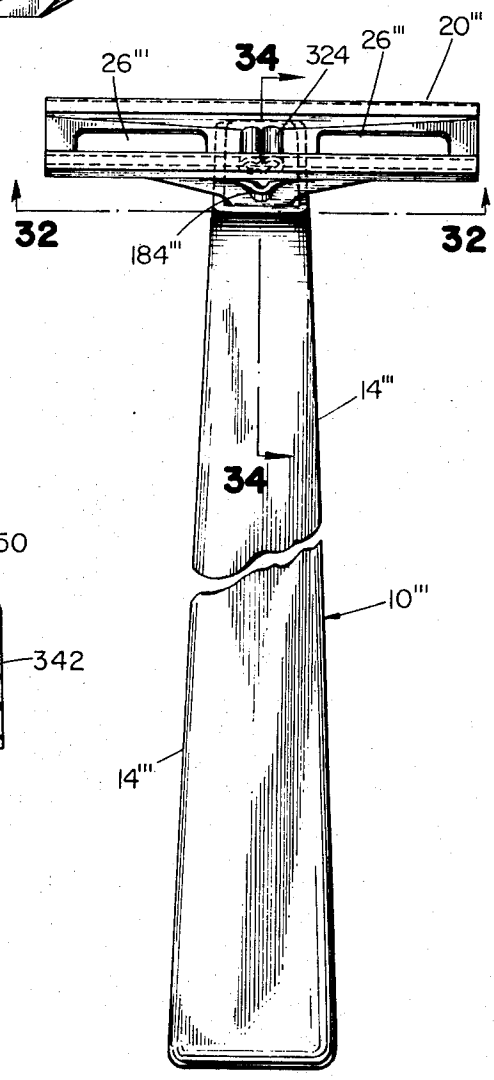
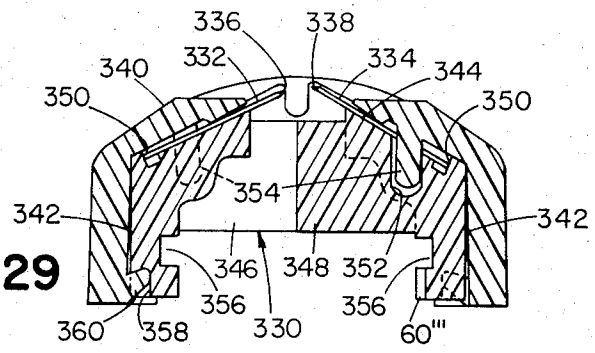


FIG 30

FIG 29



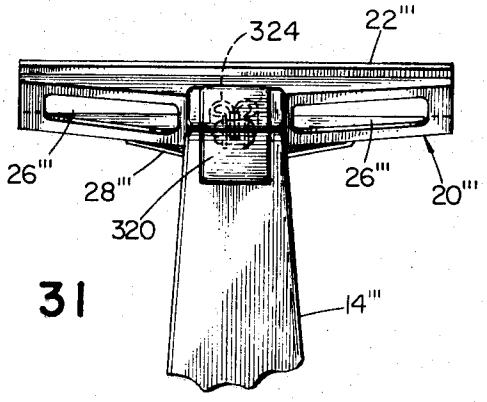
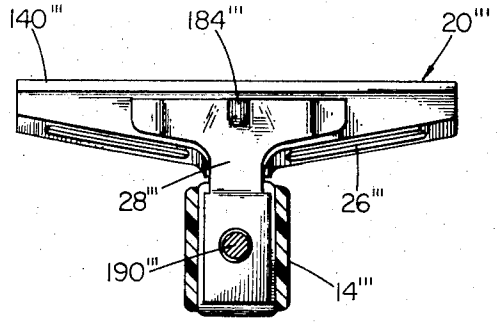


FIG 31

FIG 32



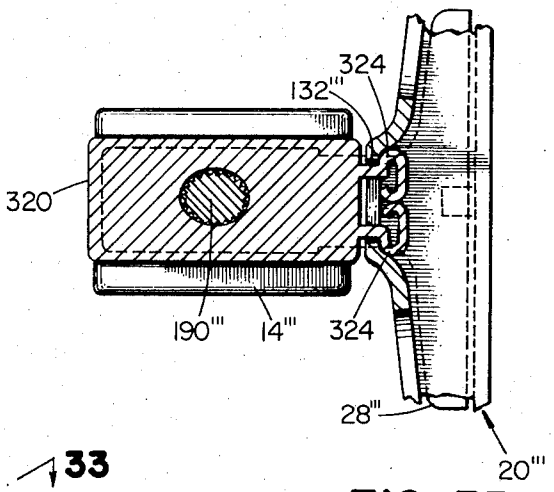


FIG 33

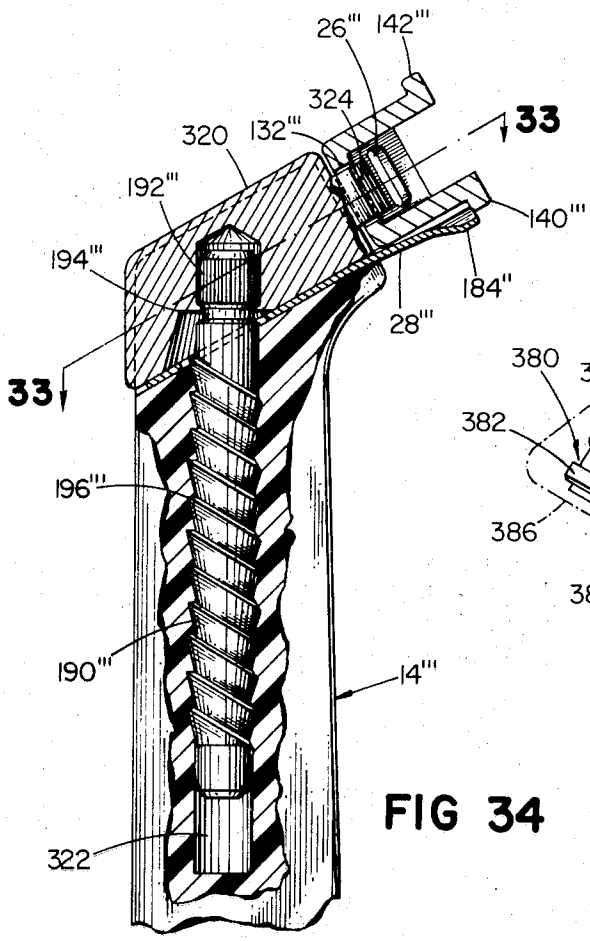


FIG 34

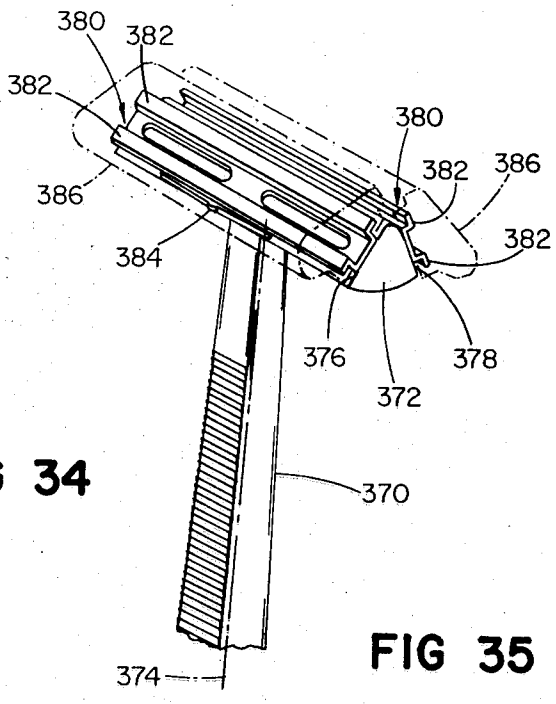


FIG 35

RAZOR BLADE ASSEMBLY

This application is a continuation-in-part of my copending patent applications Ser. No. 124,069, now abandoned, filed Mar. 15, 1971 entitled "Razor Blade Assembly" and Ser. No. 124,217, U.S. Pat No. 3,703,764 filed Mar. 15, 1971 entitled "Razor Blade Assembly".

SUMMARY OF INVENTION

This invention relates to shaving systems and more particularly to a blade unit for a shaving system, the blade unit being of the type having a blade element permanently secured in predetermined geometrical relationship to a guard element.

It is an object of this invention to provide a new and improved blade unit for a shaving system. A variety of shaving systems have been proposed, the principal arrangements presently being used including systems in which a single or double edged razor blade is inserted into a holder by the user, and systems employing a cartridge which holds a length of band blade with successive shaving lengths being advanced by the user. Other proposed systems employ a body member that defines a guard structure with a razor blade permanently secured to the body member to provide a fixed geometrical relationship between the guard surface and the cutting edge. A more specific object of this invention is to provide a novel and improved blade unit component of that type which when coupled to a handle component, provides a balanced, sturdy, compact shaving system that is easy to manipulate and provides efficient and effective shaving.

Shavers frequently prefer a shaving system having a handle component of relatively long life which is used with replaceable blade units. When a blade unit is no longer fit for use, the blade unit may be discarded or returned to a portion of a dispensing device designed to receive used blade units and another blade unit is attached to the handle component. Accordingly, another object of this invention is to provide a novel and improved blade unit that has coupling structure which facilitates the attachment of the blade unit to a handle member.

A further object of the invention is to provide a novel and improved blade unit which may be economically manufactured and easily and reliably attached to a handle member.

In accordance with the invention there is provided a blade unit component of a shaving system that includes a body portion with an integral guard structure and a blade element permanently attached to the body. Coupling structure formed in the base of the body portion defines two recesses that extend along the length of the blade unit body parallel to the blade edge and the guard surface. The blade unit is attachable to a cooperating handle component which includes a grip portion with a transversely extending support structure at one end thereof. The blade unit is attached to the handle by suitably disposing flange portions of the handle in the recesses of the blade unit coupling structure, for example, by a transverse sliding movement or by snapping the flange portions into the blade unit recesses.

In particular embodiments, the bottom surfaces of the coupling structure recesses face toward one another and are spaced apart about 0.28 inch and each said recess has a width of about 0.03 inch. Each recess

is defined in part by an inwardly extending flange portion at the bottom of the body portion and in one embodiment a notch is formed in one of the flange portions for engagement with latch structure carried by the handle member to inhibit transverse movement of the blade unit on the handle member. In another embodiment, transverse movement is inhibited by a rib formed in the blade unit body. The coupling structure in such particular embodiments defines a plane and a planar blade element is disposed in the body portion at an angle in the range of about 20°–45° to that plane. In preferred embodiments, the body portion of the blade unit includes a molded plastic base member and a molded plastic cap member permanently connected together with the blade element disposed therebetween. The coupling structure is at the bottom of the base member and its width is more than one half the width dimension or the depth dimension of the blade unit. The blade unit may have a single blade member or a plurality of blade members.

A blade unit in accordance with the invention is a compact member that has surfaces which define a predetermined shaving geometry and that is easily secured on a cooperating handle member to provide a relatively light and yet sturdy and balanced shaving implement which is convenient to use and which facilitates shaving of relatively inaccessible areas.

Other objects, features and advantages of the invention will be seen as the following description of particular embodiments progresses, in conjunction with the drawings, in which:

FIG. **1** is a side view of a shaving system incorporating a blade unit in accordance with the invention;

FIG. **2** is a perspective view of the shaving system shown in FIG. **1**;

FIG. **3** is a bottom view of the blade unit employed in the shaving system shown in FIGS. **1** and **2**;

FIG. **4** is a sectional view taken along the line **4—4** of FIG. **3**;

FIG. **5** is a sectional view, similar to FIG. **4**, of a modified form of blade unit;

FIG. **6** is a top view of the grip component of the handle member employed in the shaving system shown in FIGS. **1** and **2**;

FIG. **7** is a sectional view taken along the line **7—7** of FIG. **6**;

FIG. **8** is a sectional view taken along the line **8—8** of FIG. **6**;

FIG. **9** is an end view of the neck portion of the grip component as indicated by the line **9—9** of FIG. **8**;

FIG. **10** is a bottom view of the support portion of the handle member employed in the shaving system shown in FIGS. **1** and **2**;

FIG. **11** is a side view of the support portion shown in FIG. **10**;

FIG. **12** is an end view of the support portion shown in FIG. **10**;

FIG. **13** is a top view of a coupling component of the handle employed in the system shown in FIGS. **1** and **2**;

FIG. **14** is a side view of the coupling component shown in FIG. **13**;

FIG. **15** is an end view of the coupling component shown in FIG. **13**;

FIG. **16** is a front view of the latch component employed in the shaving system shown in FIGS. **1** and **2**;

FIG. 17 is a top view of the latch component shown in FIG. 16;

FIG. 18 is a side view of a pin component employed in the system shown in FIGS. 1 and 2;

FIG. 19 is an end view of a back component of the system shown in FIGS. 1 and 2;

FIG. 20 is a side view of the back component shown in FIG. 19;

FIG. 21 is a side view, partially in section, of a subassembly of components shown in FIGS. 10–20;

FIG. 22 is a front view of the subassembly shown in FIG. 21;

FIG. 23 is a perspective view of another embodiment of a handle unit;

FIG. 24 is a sectional view taken along the line 24—24 of FIG. 23;

FIG. 25 is a front view of a portion of the handle unit shown in FIG. 23;

FIG. 26 is a perspective view of portion of still another embodiment of a handle unit;

FIG. 27 is a sectional view of the handle unit of FIG. 26 taken along the line 27—27 of FIG. 26 and a cooperating blade unit;

FIG. 28 is an exploded perspective view of still another embodiment of a shaving system;

FIG. 29 is a sectional view of the blade unit employed in the shaving system shown in FIG. 28;

FIG. 30 is a front elevational view of the handle unit employed in the embodiment shown in FIG. 28;

FIG. 31 is a partial back elevational view of the handle unit shown in FIG. 30;

FIG. 32 is a sectional view along the line 32—32 of FIG. 30;

FIG. 33 is a partial sectional view taken along the line 33—33 of FIG. 34;

FIG. 34 is a partial sectional side elevational view taken generally along the line 34—34 of FIG. 30; and

FIG. 35 is a perspective view of still another embodiment of a handle unit in accordance with the invention.

DESCRIPTION OF PARTICULAR EMBODIMENTS

The shaving system shown in FIGS. 1 and 2 includes a handle component 10 and a blade unit component 12. The handle component includes a grip portion 14 that is 4¼ inches long and of generally square cross-sectional configuration with a slight taper along its axial length. Grooves 16 along a portion of the length of grip 14 facilitates its handling by the user. At the upper end of the grip portion 14 is a neck portion 18 which extends forwardly and upwardly from the upper end of grip portion 14 at an angle of 120° to the axis of grip portion 14 so that the end surface of neck portion 18 is offset a distance A of 0.37 inch from the axis of the grip portion. Secured to the end surface of neck portion 18 is a transversely extending support portion 20 that has two outwardly directed flange or rail portions 22, the upper surfaces of which define a reference plane 24 that is perpendicular to the axis of neck portion 18. Reference plane 24 is spaced a distance B of 0.55 inch from the junction of neck portion 18 and grip portion 14 and a distance C of 0.195 inch above the end surface of neck portion 18. Two laterally extending slots 26 are formed in the base of support head 20, one on either side of the point of attachment to neck portion 18. A spring plate 28 functions as a resilient latch member and cooperates with the forward rail 22 of the coupling structure 20 to secure the blade unit 12 on the handle 10.

The cooperating blade unit 12 has a transverse length of 1.56 inch, a width D of 0.426 inch and a depth E of 0.230 inch includes a base or platform member 30 molded of high impact polystyrene on which are supported two blade elements 32, 34 and an interposed spacer member 36 so that the shaving edges of the blade elements are maintained in spaced, parallel offset relation. Cap member 38, also molded of high impact polystyrene, has depending pins 40 (FIG. 4) which extend through apertures in the blades, spacer and base and are cold headed to secure the blade elements and spacer member to the base member 30.

The base member 30 defines an upper platform surface 42 on which the leading blade member 32 rests and includes a front wall portion 44 and a rear wall portion 46. Five webs 48 extend between the front and rear wall portions 44, 46 and the lower surfaces 50 of these webs define a plane that is disposed at an angle of 35° to the platform surface 42. Apertures 52 are aligned with apertures in blade 32 and permit shaving debris to flow through base 30 away from the shaving zone. Extending downwardly perpendicularly away from surface 50 are two spaced wall extensions 54, each of which has at its lower end an inturned flange 56 that projects inwardly 0.018 inch to define a recess in the form of slot 58 that has a height of 0.026 inch. The space between flanges 56 is 0.244 inch. Notch 60 in front flange 56 has a width of about 0.04 inch and a depth of 0.04 inch.

Web extensions 62 on the forward side of wall 44 support a transversely extending guard structure 64 that has a surface spaced about 0.23 inch above surface 50 (dimension E — FIG. 1) and when the blade unit 12 is attached to the handle unit 10, that surface is offset about 0.6 inch from the front surface of the upper end of the grip portion 14.

Another blade unit is shown in FIG. 5. This blade unit includes a base member 70, a blade member 72 and a cap member 74, the base member, blade and cap member being secured together by pins 76, the ends of which are deformed appropriately as in a cold heading operation. A front wall portion 78 extends downwardly from platform member and the lower surfaces of webs 80 define a reference surface 82. Extending downwardly perpendicularly away from reference surface 82 is wall extension 84 which has a flange 86 that defines recess 88. Extensions 90 of webs 80 support guard structure 92 forward of and parallel to the sharpened edge of blade 72. A rear wall portion 94 extends downwardly from cap 74 in a direction parallel to front wall portion 84 and carries a flange 96 at its base that defines a recess 98 that is opposed to and aligned with recess 88.

Further details of the grip component 100 of the handle member are shown in FIGS. 6–9. That grip component is molded of high impact polystyrene and has a generally rectangular configuration, having a height and width of about 0.33 inch at the section line 7—7 as indicated in FIG. 7 and a height and width of about 0.44 inch at its end. The groove formed between interior side walls 102, 104 has raised rib portions 106, 108 that extend up from its base. Lands 110 are spaced along the length of the groove. At the upper end of the

grip component is a neck portion that is disposed at an angle of 120° with end surface **112** being disposed 0.35 inch from transition point **114** and the front surface **116** being a smooth transition curve of 0.193 inch radius. Formed in the neck portion is a recess defined by walls **118, 120.**

Another component of the handle is the support head **20** which is formed of 0.029 inch gauge brass and has a length of 1.56 inch and a height of 0.195 inch. Formed in the central base portion **130** of head **20** is a square aperture **132** that has a side dimension of 0.135 inch. Lateral base portions **134** extend upwardly at an angle of 5° in either direction from central base portion **130.** Side walls **136, 138,** 0.120 inch in height at each end, extend vertically from the base and flanges **140, 142** formed by bending the upper end of each of side wall outwardly, define parallel transversely extending rail portions **22.** The width between the outer surfaces of flanges **140, 142** is 0.275 inch and each flange has a depth of 0.0375 inch.

Details of a coupling component **150** employed in the handle unit are shown in FIGS. **13–15.** That coupling component is manufactured of bronze and has a body portion that is square in cross-section, being 0.2 inch in width and height. Its rear surface **152** is inclined at an angle of 30° and includes a bore **154** having an axis parallel to surface **152** and a counterbore **156.** Projection **158** has a bore **160** to provide weakened side wall portions **162.**

Spring member **28,** shown in FIGS. **16** and **17,** is a brass member that has a base portion in body **170** which is formed a circular aperture **172** and an upper portion having wings **174, 176** that are bent rearwardly along lines **178, 180,** respectively, at an angle of 8°. A projection **184** having a 0.025 inch radius and a height of 0.015 inch beyond the plane of the body of the spring member provides a latching surface.

A coupling pin **190,** shown in FIG. **18,** has a head portion **192,** a neck portion **194** and a body portion **196** in which is formed a spiral thread that defines a series of grooves **198.**

A razor back component **200** of the handle unit **10** is shown in FIGS. **19** and **20.** That component is a brass member having a length of 3.34 inch, a width of 0.2 inch and a height of 0.215 inch. End surface **202** is inclined at an angle of 30° and includes a lip **204.** A groove **206** extends the length of the back component **200.**

An assembly of the razor back **200,** head **22,** spring latch **28,** and coupling members **150** and **190** is shown in FIGS. **21** and **22.** In assembly, aperture **132** of head **22** (FIG. **10**) is inserted over projection **158** of component **150** (FIGS. **13–15**) and force is applied to form walls **162** outwardly (FIGS. **21, 22**) so that head **22** is connected to coupling member **150.** The end **192** of pin **190** is inserted in bore **154** and material of the extension is forced into recess **194** in a ring staking operation. Spring plate **28** is then inserted over pin **190** and the razor back **200** is positioned on pin **190** so that lip **204** provides an aligning seat for the base of the spring. Crimps **210** are formed in the walls of the razor back and engage grooves **198** to secure pin **190** in the groove **206.** Additional inwardly extending projections **212** are similarly formed along the remaining length of the razor back. That assembly is then inserted in groove between walls **102** and **104** of the handle component **100** (FIG. **6**) under a pressure in the order of 300 pounds to force the projections **212** into the plastic material of ribs **106, 108** in a deforming operation so that the razor back and slide head assembly is secured to the grip component to form the handle unit **10** as indicated in FIGS. **1** and **2.**

In use, the blade unit **12** to be attached to the handle unit **10** is brought into adjacent relation to transverse support head **20** so that the rail elements **22** are aligned with recesses **58.** The blade unit and handle unit are then moved transversely relative to one another so that the rails **22** slide into grooves **58** until the ridge portion **184** of leaf spring **28** engages recess **60** in the front flange **56** (FIGS. **2, 3**). In this position, the blade unit **12** is centered on the head **20** and in position ready for shaving. When it is desired to replace a blade unit, lateral pressure is applied to overcome the latching resistance of spring **28** so that the blade unit **12** slides along the rails **22** for removal from the handle unit. Blade unit **70** may be similarly attached to and removed from the handle unit **10.**

Another embodiment of a handle unit **10′** is shown in FIGS. **23–25.** That handle unit is a molded one-piece member of a suitable plastic material and includes a grip portion **14′** having grooves **16′**, a neck portion **18′** and an integral transverse head portion **20′**. The handle **10′** has the same dimension B as the embodiment shown in FIG. **1,** the neck is disposed at the same angle (120°) and the grip portion tapers from a dimension of 0.45 inch to a dimension of 0.33 inch with a further taper in the neck portion to the dimension of 0.325 inch. The rails **22′** are integral with head **20′**, with front wall **136′** inclined at an angle of 30° to the axis of the neck portion. Four slots **26′** are formed in the base of transverse head **20′** to permit flow of shaving debris away from the blade unit. An integrally formed latch finger **28′** is disposed in a gap in front wall **136′** and has a thickness of 0.035 inch and a width of 0.100 inch. Projection **184′** having a surface radius of 0.025 inch is adapted to engage notch **60** in the blade unit.

Still another embodiment of a handle unit is shown in FIGS. **26** and **27.** That embodiment is similar to the embodiment shown in FIGS. **23–25** with the omission of latch finger **28′** and the further provision of projections **300,** one above each rib **302,** that separates apertures **26′′** from one another. Each projection **300** has a width of 0.06 inch, and includes vertical front surface **304,** 0.05 inch high, surface **306** inclined at an angle of **35°** to the axis of the neck portion and a rear surface **308** inclined at an angle of **65°** to the axis of the neck portion **18′′**. A blade unit **12,** rather than being slid onto the head structure as in the previous described embodiments, is snapped onto the ribs **22′′** as indicated by the arrow in FIG. **27.** The projections **300** are disposed on opposite sides of webs **48** of the blade unit and thus prevent lateral movement of the blade unit when it is positioned on the head structure while providing the same shaving geometry as indicated in FIG. **1.**

A further embodiment is shown in FIGS. **28–34.** That shaving system employs a handle of substantially the same geometry as previously described embodiments with a blade unit of different configuration. That system includes a handle unit **10′′′** that includes a grip portion **14′′′** on which is mounted a transverse head portion **20′′′**. The head portion is secured to a cap member **320** which in turn is secured to grip portion **14′′′** by a pin **190′′′** disposed in bore **322** (FIG. **34**).

Extending from the cap member **320** are two projections **324** (FIG. **33**) which protrude through an opening **132'''** in head **20'''** and are crimped to secure the head **20'''** to the cap member **320.** The head includes a pair of parallel rails **22'''** adapted to slidingly receive a razor blade unit **12'''** (FIG. **1**). Clamped between the grip portion **14'''** and cap member **320** is a leaf spring **28'''** having a raised ridge **184'''**. Spring **28'''** engages a complementary recess in the front flange **56'''** of razor blade unit **12'''** to properly position and releasably lock the blade unit **12'''** on the head member **20'''**. The spring tension may be overcome to remove the blade unit from the handle unit when desired.

The blade unit **12'''** has a length of 1.56 inch, a width of 0.43 inch and a depth of 0.23 inch, and is shown in section in FIG. **29.** That unit includes a base or platform member **330,** two blade elements **332, 334** which have their shaving edges **336, 338** disposed in adjacent opposed relation and a cap member **340.** The base member **330** includes two parallel side wall portions **342,** and two inclined transversely extending blade support surfaces **344,** each inclined at an angle of 27° to the horizontal. The side walls and platform surfaces are connected by end wall portions **346** and at the midpoint of the blade unit by a bridge member **348** (FIG. **28**). At the rear of each platform surface is a lip **350** against which the rear edge of the respective blade rests and in each platform surface is a recess **352** which receives locating projections **354** that depend from the cap member **340.** On the inner surface of each side wall is formed a groove **356** that has a depth of 0.018 inch and a height of 0.035 inch. On the outer surface at the lower end of each side wall **342** are recesses **358** which receive latching members **360** formed integrally with cap portion **340** to secure the components of the blade assembly together. In assembly, the blade members **332, 334** are disposed on the respective platform surfaces of the base member and the base is then inserted into cap **340** until projections **360** snap into recesses **358** to latch the members together. The assembled blade unit **12'''** is then coupled to flanges **22'''** and resiliently latched by the engagement of projection **184'''**, with recess **60'''**.

Another embodiment of a handle unit is shown in FIG. **35.** That handle unit includes an elongated grip portion **370** that has a slight taper along its axial length. Support structure **372** at the upper end of grip portion **370** extends transversely to the axis **374** thereof. That support structure includes two apertured planar surfaces **376, 378,** each of which is disposed at an angle of about 37½° to axis **374** and at an angle of about 75° to each other. Secured to each planar surface is a flange or runner structure **380** that has two outwardly directed flanges, the outer edges **382** of the flanges in each pair being spaced apart about 0.28 inch and each flange having a thickness of about 0.03 inch. A latch member **384** is disposed adjacent the lower flange of each pair for engaging a notch in a cooperating razor blade unit when the razor blade unit is disposed on the flange structure as in the previously described embodiments. Suitable blade units **386,** for example of the type shown in FIGS. **4, 5** or **29,** may be disposed on each pair of flange portions **380.** In this embodiment, as in the other embodiments, the flange or runner portions that extend along the transverse length of the support structure may be interrupted if desired rather than being continuous as in the illustrated embodiments.

While several embodiments have been shown and described, various modifications thereof will be apparent to those skilled in the art and therefore it is not intended that the invention be limited to the disclosed embodiments to to details thereof and departures may be made therefrom within the spirit and scope of the invention as defined in the claims.

What is claimed is:

1. A replaceable blade unit for use with a handle member in a shaving system, said handle member having an elongated grip portion, support structure extending transversely to the axis of said grip portion, said support structure including a pair of flange portions, said flange portions extending transversely of said support structure and projecting in directions generally opposed to one another, and structure connecting said grip portion to said support structure, said blade unit comprising an elongated body structure having a guard surface for contact with the skin, razor blade structure having transversely extending front and rear margins disposed between and extending parallel to front and rear surfaces of said body structure, said razor blade structure including at least one thin, planar elongated cutting member permanently fixed to said body structure with its cutting edge disposed parallel to and spaced from said guard surface in shaving relation to the latter, and coupling structure formed in the base of said body structure, said coupling structure defining two spaced coupling recesses disposed parallel to said cutting edge and beneath said front and rear margins, respectively, and extending along the length of said body structure, said coupling recesses defining a coupling recess plane and being adapted to receive said handle flange portions for attaching said blade unit to said handle member in shaving relation thereto, said cutting member being inclined with respect to said coupling recess plane such that the cutting edge of said cutting member is spaced further from said plane than other portions of said cutting member and said guard surface is disposed above said coupling recess plane, said front margin lying in a first plane that is perpendicular to said coupling recess plane, said rear margin lying in a second plane perpendicular to said coupling recess plane, the forward one of said coupling recesses being disposed contiguous with, parallel to and outwardly beyond said first plane, and the rearward one of said coupling recesses being disposed contiguous with and parallel to said second plane.

2. The blade unit as claimed in claim **1** wherein the distance between the bottom surfaces of said recesses is more than one half the width dimension of said blade unit.

3. The blade unit as claimed in claim **1** wherein the the bottom surfaces of said recesses are spaced less than one-third inch apart, said bottom surfaces face towards one another.

4. The blade unit as claimed in claim **1** wherein said body structure includes a surface cooperative with said handle member for inhibiting transverse movement of the blade unit on said handle member.

5. The blade unit as claimed in claim **4** wherein said transverse movement inhibiting surface comprises a rib formed in said body structure.

6. The blade unit as claimed in claim **4** wherein said transverse movement inhibiting surface comprises a notch formed in said body structure.

7. The blade unit as claimed in claim 1 wherein said cutting member is disposed at an angle in the range of about 20°–45° to said coupling recess plane.

8. The blade unit as claimed in claim 7 wherein said body structure includes a base member having a support portion and a cap member, said cap and base members being permanently connected with said cutting member disposed therebetween.

9. The blade unit as claimed in claim 8 wherein said base member is a molded plastic unitary member and said cap member is a molded plastic unitary member.

10. The blade unit as claimed in claim 9 and further including connecting means for connecting said base member and said cap member together, said connecting means including a post member integral with one of said members that extends through an aperture in the other of said members.

11. The blade unit as claimed in claim 10 wherein the bottom surfaces of said recesses are spaced apart about 0.28 inch and each said recess has a width of about 0.03 inch.

12. The blade unit as claimed in claim 11 wherein each said recess is defined in part by an inwardly extending flange portion at the bottom of said body structure and a notch is formed in one of said recess defining flange portions for engagement with latch structure carried by said handle member.

* * * * *