Nov. 23, 1965 L. B. ROSEN 3,219,180

RAZOR BLADE PACKAGE

Filed March 25, 1964

FIG 1

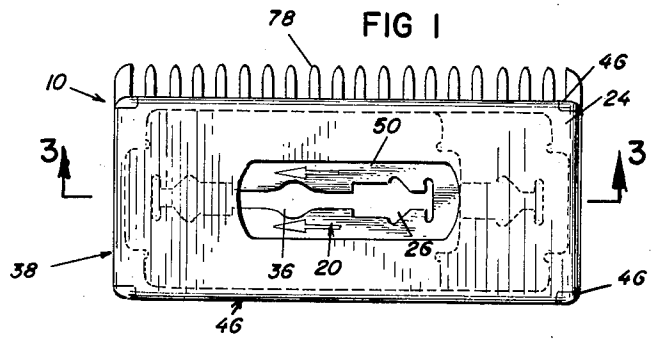


FIG 2

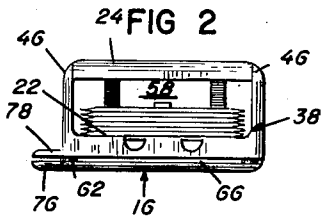
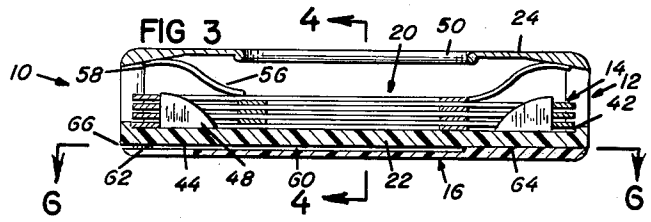


FIG 3



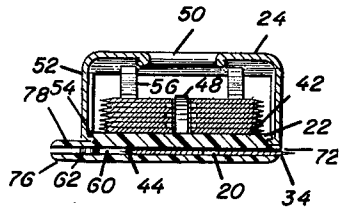


FIG 4

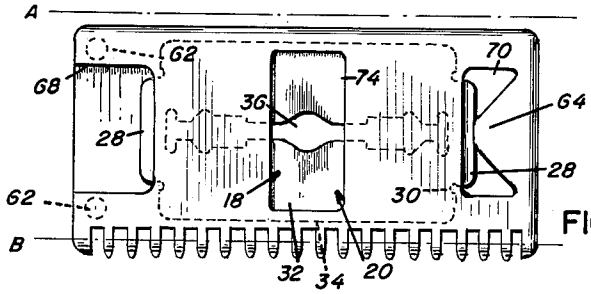
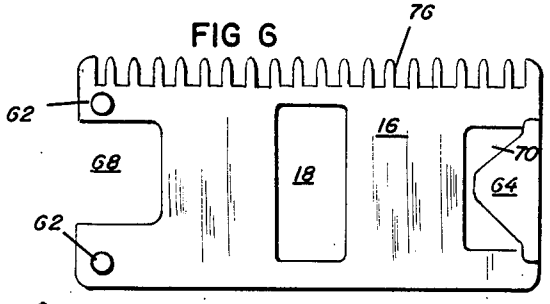


FIG 5

FIG 6



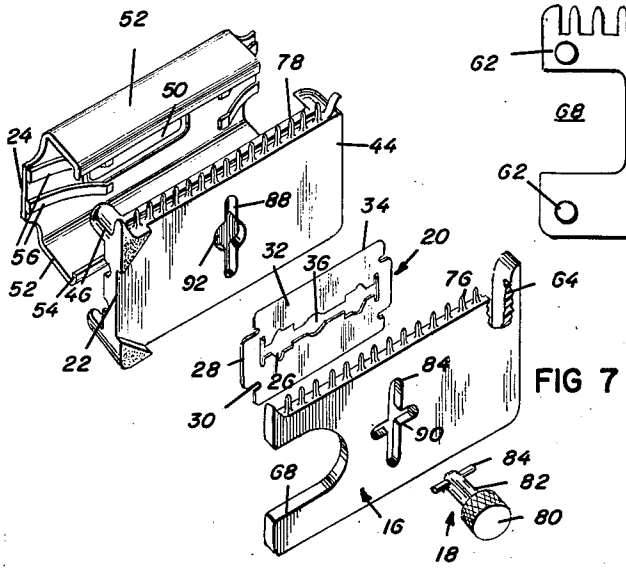


FIG 7

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RAZOR BLADE PACKAGE

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This invention relates to a razor blade package and more particularly it relates to a combination package for dispensing razor blades and for separately using the sharpened edges of one such blade for a variety of cutting purposes which do not interfere with the dispensing function of the package.

Safety razor blades are manufactured with finely ground cutting edges which produce sharp and clean cuts with a minimum of effort, and in packaging such razor blades, care must be taken to prevent such edges from being nicked, dented or otherwise abused in such a manner that the cutting ability of the blade is impaired. Such packaging efforts have been directed in two essential directions, one being where the blades are individually wrapped in paper wrappers and the other being where the blades are housed within a dispensing magazine from which they can be manually dispensed one at a time. In terms of cost, appearace and consumer convenience, this latter form of blade packaging has proved to be the most desirable.

Generally, such blade dispensing magazines have internal provisions for stacking the blades and for biasing the stack. A dispensing slot is formed at one end of the magazine and the top blade in the stack is manually movable endwise out of the magazine through the dispensing slot. There are a great variety of such blade dispensing magazines in the prior art, but, except for some which disclose an additional used blade compartment attached beneath the dispensing magazine, the great majority of these dispensing magazines are concerned only with the structural feautres of the housing or the dispensing arrangement. Moreover, it must be recognized that heretofore razor blades could only be utilized when removed from their dispensing containers and there was no provision for using either a new or a used blade while it was mounted within the container.

There is much to be said for providing a container wherein a blade is separately mounted for use by a consumer without first being removed from the container. There are several uses to which a razor blade may be put and among these uses are shaving, hair trimming, and various forms of cutting or severing. As for shaving, each razor blade dispensing magazine is constructed to dispense a blade directly into a razor since the razor is needed to accomplish a shaving operation; however, as for the other uses, there is no apparent need for first removing the razor blade from its container. For trimming and thinning the hair, a blade must be movably mounted in cooperation with a set of teeth, and in the past such trimmers were formed as separate items into which a razor blade could be inserted. It would certainly seem beneficial, both from the standpoint of cost and convenience, to provide such a trimmer in combination with the razor blade package rather than as a separate item. Similarly, razor blades are often used for cutting thread, cloth, patterns and many other severing operations, and in the past such razor blades were often inserted in separate holders which gave strength and stability to the thin blades and protected consumers from accidentally cutting their fingers on the blade edges. Again, it would seem desirable and beneficial to provide such a razor blade holder in combination with the razor blade package rather than as a separate item.

With the foregoing matter in mind, it is, therefore, a primary object of the present invention to provide a razor

blade package wherein razor blades can be unitarily dispensed and wherein a single blade can be movably mounted to selectively present its sharpened edge for severing purposes.

Another primary object of the present invention is to provide a combination package wherein a conventional blade dispensing magazine is united with a hair trimmer and a cutting means to form a single, inexpensive, attractive and easily manipulable package.

Still further, but somewhat more specific equivalent objects hereof include the following: (a) the provision of an attachment for a razor blade dispensing magazine which forms a cavity beneath said magazine and wherein a razor blade can be movably mounted for cooperative interaction with said attachment; (b) the provision of a two-compartment razor blade package with one compartment being adapted to protectively house and unitarily dispense individual razor blades and the other compartment being adapted to freely receive an inserted blade which can be manually moved to expose its sharpened edges beyond the boundaries of the package to thus permit suitable use of the blade edges in severing and cutting operations while the blade still remains housed within the package; and (c) the provision of such a razor blade package as a single attractive and easily operable unit which can be fabricated and assembled at high speed and low cost, and with which blades can be quickly and safely removed and inserted.

Other objects, advantages and salient features of the present invention will become apparent from the following detailed description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

FIGURE 1 is a top plan view of a razor blade package in accordance with the principles of the present invention;

FIGURE 2 is a left end view of the package of FIGURE 1;

FIGURE 3 is a longitudinal sectional view taken substantially along line 3—3 of FIGURE 1;

FIGURE 4 is a lateral or transverse sectional view taken substantially along line 4—4 of FIGURE 3 with no blades in the package;

FIGURE 5 is a bottom plan view of the razor blade package;

FIGURE 6 is a plan view of the package base member taken substantially along line 6—6 of FIGURE 3; and

FIGURE 7 is an exploded perspective view of a modified form of the present invention.

In accordance with the principles of the present invention and as can be seen generally from the figures thereof, there is provided a razor blade package generally designated **10** having a housing generally designated **12** formed of a dispensing magazine generally designated **14** and a base member generally designated **16**. Means generally designated **18** within said package permit lateral slidable movement of a razor blade generally designated **20** to selectively expose the sharpened lateral edges thereof.

Referring now to FIGURES 1–4, it can be seen that the dispensing magazine **14** includes a central member **22** adapted to support a superposed stack of razor blades **20** and a cover **24** overlying said central member and substantially enclosing said stack. Preferably, the central member **22** is molded of a durable synthetic plastic resin while the cover **24** is cast or stamped of a lightweight metal such as aluminum. The choice of such materials is governed not only by ease of amnufacture but also by appearance of the finished article, ease of handling and

assembly of the parts and adaptability to subsequent ornamentation or labelling.

The razor blades **20**, as can be seen from FIGURES 1, 5 and 7, have a shaped medial slot **26** extending along their longitudinal axis and have opposed longitudinal ends **28** which are not sharpened. Notches **30** are formed at each side of each end **28** and these notches set off edge portions or margins **32** having sharpened edges **34** which form the lateral extremities of the blade **20**. A circular hole **36** is formed at the center of the medial slot **26**.

It can be seen that the blades **20** are generally rectangular and the housing **12** is also generally rectangular, although of a larger size than the razor blades. The shorter or end housing walls are generally designated **38**, are opposed to one another along a longitudinal axis, and are intended to be generally parallel with the ends **28** of the razor blades **20**. The longer or side housing walls are generally designated **40**, are opposed to one another along a transverse or lateral axis, and are intended to be generally parallel with the sharpened edges **34** of the razor blades **20**.

The central member **22** is provided with a generally planar upper surface **42** upon which the blades **20** are supported and also with a lower surface **44** substantially parallel to the upper surface. Upstanding integral legs **46** project upward from the corners of the upper surface **42** to provide a means for properly orienting the cover **24**. A pair of cammed upstanding projections **48** are disposed along the central longitudinal axis of the central member upper surface **42** and these projections are narrow enough in width to fit within the slot **26** of a razor blade. As shown in FIGURES 2 and 3, a plurality of blades **20** are located within the dispensing magazine **14** with the projections **48** extending through their aligned medial slots **26**. The blades **20** are arranged in a staggered stack so that they can be alternately dispensed out of opposite ends of the magazine **14**.

The cover **24** has a generally flat upper surface with a central aperture or window **50** therein and is notched out at its corners to receive the legs **46** which position or orient the cover. A pair of depending side skirts **52** project downwardly from opposite sides of the cover **24** and are provided at their lower ends with elongated beads **54** which mate with complemental grooves in the sides of the central member **22** to thus assemble the cover and central member together to form the dispensing magazine. From each end of the cover **24**, a pair of spaced resilient spring fingers **56** extend downwardly into the magazine **14** to contact the stacked razor blades **20** and bias them toward the central member **22**. At each end **38** of the housing, the upper surface of the cover **24** is suitably spaced away from the upper surface **42** of the central member **22** to thereby provide an end or dispensing slot **58** through which a blade **20** can longitudinally pass.

To facilitate dispensing of the blades **20**, suitable indicia in the form of arrows is generally imprinted upon the upper surface of the blades to indicate in which direction the blade is to be dispensed. This indicia is visible through the window **50** and to accomplish dispensing of the uppermost blade **20** in the stack housed within the dispensing magazine, a thumb or finger is inserted through the window **50** to push the blade **20** in its indicated direction. This digital pushing causes the blade to exit endwise or longitudinally through a dispensing slot **58**.

The hereinbefore described structural details of the dispensing magazine **14** are considered conventional and, as such, do not form an essential part of the present invention. Their description was merely for the purpose of a more complete understanding of the operation of the package, but it should be understood that modified forms of blade dispensing magazines may also be employed in the package of the present invention without altering its inventive concept and principles.

Beneath the blade dispensing magazine **14**, a base member **16** is suitably mounted in spaced relation to the lower surface **44** of the central member. This space between the central and base members forms a compartment **60** which can suitably accommodate at least one razor blade **20**. The base member **16** has external dimensions corresponding generally to those of the central member **22**. At the corners of one end of the base member **16**, a pair of short upstanding posts or bosses **62** project upward for a short distance. At the opposite end of the base member, a raised abutment means **64** projects upward for a distance equal to the height of the posts **62**. The posts **62** and abutment means **64** provide the means for spacing the central and base members apart, and the height of the posts and abutment means is thus the height of the blade compartment **60**. To assemble the base member **16** to the central member **22**, a suitable adhesive material is employed between the upper surfaces of the posts **62** and abutment means **64** and the lower surface **44** of the central member **22**.

At the end of the compartment having the posts **62**, an entrance end slot **66** is formed between the posts and is of a size sufficient to longitudinally receive a blade **20**. The base member may be cut away adjacent the slot **66** to form a generally U-shaped thumb receiving recess **68** into which the user's thumb can be inserted to introduce a blade **20** through the slot **66** and into the compartment **60**. The blade **20** is longitudinally slidable within the compartment until its end **28** contacts the abutment means **64**, as shown in FIGURE 5. An aperture **70** may be formed adjacent the abutment means **64** to permit visual verification that the end **28** is in abutting contact with the means **64**.

Since the base member **16** is spaced away from the dispensing magazine **14** only at its ends, lateral or side slots **72** are necessarily formed between the base and central members along the lateral sides **40** of the package. Means generally designated **18** permit lateral slidable movement of a blade **20** within the compartment **60** to selectively project a sharpened lateral blade edge **34** through a lateral or side slot **72**. In the modification of FIGURE 5, this means **18** takes the form of an elongated slot **74** extending transversely across the base member, preferably at the center thereof. The slot **74** exposes a razor blade **20** within the compartment **60** and thus permits an operator to insert a finger into the slot and to digitally slide the blade **20** laterally toward a side slot **72**. When the blade is slid in one direction, its edge will reach the axis indicated by the dashed axis A in FIGURE 5 and in this position, the sharpened blade edge **34** will be exposed for cutting purposes as shown in FIGURE 4. If desired, the posts **62** and abutment means **64** can be elongated toward one another to narrow the width of the side slots **72** to substantially the size of the blade margins or edge portions **32** and in this manner the blade ends **28** would strike the elongated portions and prevent the entire blade **20** from inadvertently passing through the side slot **72**.

It is desired to allow the package **10** to also operate as a hair trimmer and to that end, a series of spaced teeth **76** project from one side of the base member. These teeth are similar to comb teeth and may be formed integrally with the base member itself. A similar series of spaced teeth **78** project from one side of the central member **22** and the two sets of teeth are spaced apart and extend beyond the associated side slot **72**, as shown in FIGURE 3. When the blade **20** in the compartment **60** is slid toward the teeth, its sharpened edge projects through the side slot **72** and between the teeth **76** and **78** to a position indicated by the dashed axis B in FIGURE 5. In this position, the blade and teeth cooperate to form a trimmer which can be utilized for thinning and trimming of hair. If desired, the blade may be utilized with only one set of teeth, either **76** or **78**, with the other set being eliminate. However, while such an arrangement may trim just as satisfactorily as the twin tooth set arrangement, there is more danger of personal injury during operation since the entire sharpened edge **34** of the blade would

be exposed, and for this reason, the twin tooth construction is preferred.

The modification illustrated in FIGURE 7 is similar to the previously described modification except for certain minor details and a modified means **18** for actuating or sliding the blade **20** laterally within the compartment **60**. As for the minor details, FIGURE 7 eliminates the posts **62** at the end of the base member **16** and instead provides similar depending posts or lugs, also identified as **62**, projecting from the lower surface **44** of the central member **22**. Likewise, if desired, the abutment means **64** could also be formed depending from the central member rather than extending from the base member. The base member aperture **70** may also be eliminated, if desired, as shown in FIGURE 7.

The means **18** for sliding the blade **20** laterally is shown in FIGURE 7 as a knob **80** having a depending stem **82** with cross-legs **84** at its end. The diameter of the stem **82** is small enough to fit through the central circular hole **36** in the razor blade medial slot **26**. The legs **84** are likewise small enough to fit through the slot **26** when they extend longitudinally of the blade, but they are great enough in length to extend beyond the perimeter of the circular hole **36** when they extend laterally of the blade **20**. A laterally extending groove **86** extends completely through the base member **16** and is formed of a width sufficient to accommodate the stem **82** for slidable movement therewithin. A similar groove **88** is formed in the central member **22** in alignment with the groove **86**, but the groove **88** extends only partially into the central member **22**. A short longitudinal groove **90** intersects the groove **86** medially thereof and is designed to permit passage of the legs **84**. A circular groove **92** is formed medially of the central member groove **88** and with a diameter substantially equal to the length of the groove **90**. Like the groove **88**, the circular groove **92** extends only partially through the central member **22**.

In operation, the blade **20** is positioned in the compartment **60** with its end **28** in contact with the abutment means **64**. The knob **80** is positioned adjacent the base member **16** with its appended stem **82** and legs **84** passing through the grooves **86** and **90** respectively. The legs then pass through the blade medial slot **26** and into the circular groove **92** while the stem **82** passes through the circular blade hole **36** and also into the groove **92**. At this point, the knob **80** is rotated through an angle of approximately 45 degrees to bring the legs **84** into alignment with the grooves **86** and **88**. Since the length of the legs **84** is greater in size than the diameter of the blade hole **36**, the blade prevents the knob means **18** from retracting back through the base member **16**. When the operator pushes the knob **80** laterally toward one of the side slots **72**, the stem **82** slides within the groove **86** and the legs **84** slide within the groove **88**. When the end of the foremost leg **84** strikes the end of the groove **88**, the sharpened edge **34** of the blade **20** will have passed through the side slot **72** and reached a position along either axis A or axis B, as shown in FIGURE 5. Sliding the knob **80** in the opposite direction will extend the other sharpened blade edge **34** out the other side slot **72**.

Other suitable expendients may also be incorporated into the package **10** to enhance its desirable characteristics. For instance, a small magnet may be attached to the package to facilitate the recovery of accidentally dropped razor blades. Similarly, some suitable form of indicating scale may be incorporated into the package to indicate the number of blades remaining in the dispensing magazine. Also, a used blade compartment might be incorporated into the package, if desired.

After reading the foregoing detailed description, it should be apparent that the objects set forth at the outset of this specification have been successfully achieved. Accordingly,

What is claimed is:

1. A razor blade package comprising:
- a dispensing magazine adapted to maintain and untarily dispense razor blades from a superposed stack thereof;
- a base member juxtaposed beneath said magazine in spaced relation thereto;
- said space between said base member and said magazine defining a blade-receiving compartment;
- said blade-receiving compartment having an end slot through which a razor blade can be longitudinally introduced into said compartment;
- said blade-receiving compartment further having at least one side slot adapted to accommodate at least a portion of a sharpened lateral edge of a razor blade housed within said compartment; and
- means permitting selective slidable movement of a blade within said compartment to project at least a portion of a sharpened lateral edge of said blade through said side slot for severing purposes.

2. A razor blade package as defined in claim **1** wherein two side slots are provided in spaced opposition to one another.

3. A razor blade package as defined in claim **1** but further characterized by a plurality of spaced teeth projecting from said package adjacent said side slot and cooperative with the projecting sharpened lateral edge portion of said razor blade to form therewith a hair trimmer.

4. A razor blade package as defined in claim **3** wherein a first set of teeth projects from said dispensing magazine and a second and aligned set of teeth projects from said base member with said razor blade lateral edge portion being slidable between said first and second sets of teeth.

5. A razor blade package as defined in claim **1** wherein said means includes an aperture in said base member communicating with said compartment and exposing a razor blade therein for digital manipulation thereof.

6. A razor blade package as defined in claim **1** wherein said means includes a knob projecting beyond said base member, a stem appended to said knob and adapted to pass through an apertured razor blade in said compartment, and aligned grooves in said base member and the bottom of said dispensing magazine whereby said knob and stem can be manually moved within said grooves to project the lateral sharpened edge portion of said blade through said side slot.

7. A combination razor blade package comprising:
- a generally rectangular central member having opposed longitudinal ends and opposed elongated lateral sides and being adapted to support a superposed stack of double-edged razor blades with the sharpened lateral edges of said blades being substantially parallel to said lateral sides and the ends of said blades being substantially parallel to said longitudinal ends;
- a cover having a window therein overlying said central member and being secured thereto to form a dispensing magazine for said stacked blades;
- said central member being recessed at one end thereof to form with said cover, a dispensing slot through which the uppermost blade in said stack can exit under the influence of digital actuation through said window;
- a base member secured beneath said central member in spaced juxtaposition thereto to form a blade-receiving compartment;
- said base member having opposed ends and sides corresponding substantially in size and location to those of said central member;
- said base member and said central member being spaced apart at one end thereof to form an end slot through which a blade can be longitudinally introduced into said compartment;
- said base member having an abutment means adjacent

the end opposite said end slot to limit the longitudinal movement of an introduced blade;

said base member and said central member also being spaced apart at their sides to form opposed side slots through which the sharpened lateral edges of a blade in said compartment can be projected;

a series of spaced teeth extending from one side of said central member;

a similar and aligned series of spaced teeth extending from one side of said base member;

said central and base member teeth forming therebetween an extension of said side slot for reception of said razor blade edge;

means permitting selective lateral slidable movement of a blade in said compartment to extend one sharpened lateral edge of said blade through a side slot and between said teeth to operate therewith as a hair trimmer or through said other side slot to present an exposed sharpened edge for cutting purposes.

8. A combination razor blade package as defined in claim **7** wherein said means includes an aperture in said base member communicating with said compartment and exposing a razor blade therein for digital manipulation thereof in a lateral direction.

9. A combination razor blade package as defined in claim **7** wherein said means includes a knob extending below said base member, a stem appended to said knob and extending through said base member and said compartment and adapted to pass through a medially slotted razor blade within said compartment, and aligned laterally extending grooves in said base member and the bottom of said central member for reception of said stem whereby manual movement of said knob causes a sharpened lateral edge of said blade to project through a side slot.

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THERON E. CONDON, *Primary Examiner.*