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3,287,803

RAZOR PROTECTOR

Filed April 12, 1965

2 Sheets-Sheet 1

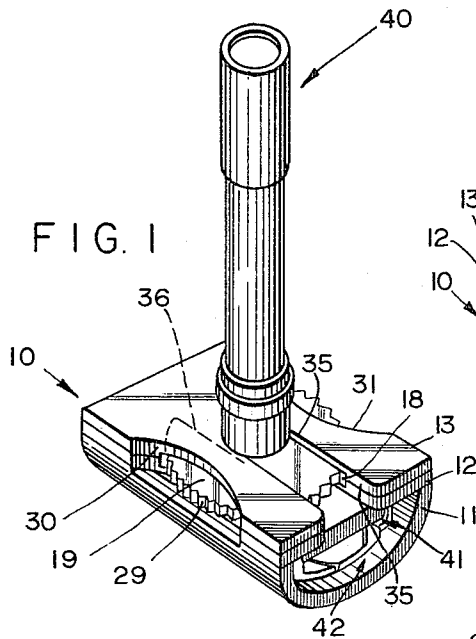
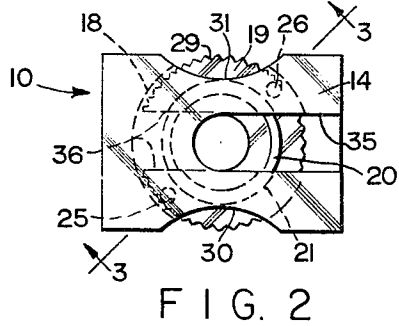
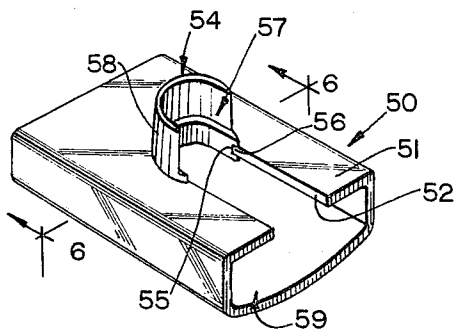


FIG. 5

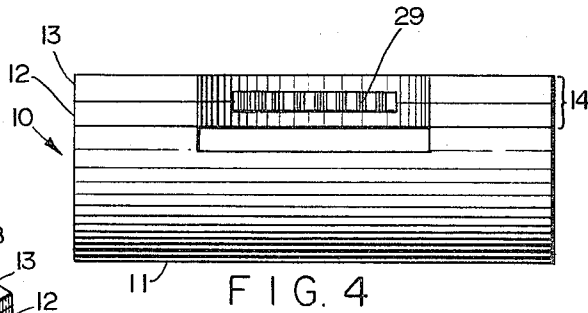
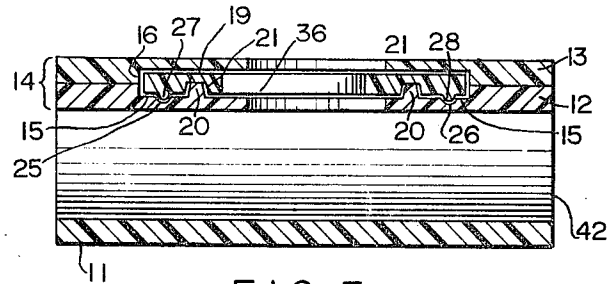


FIG. 3

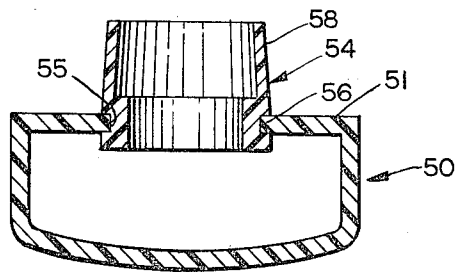


FIG. 6

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2 Sheets-Sheet 2

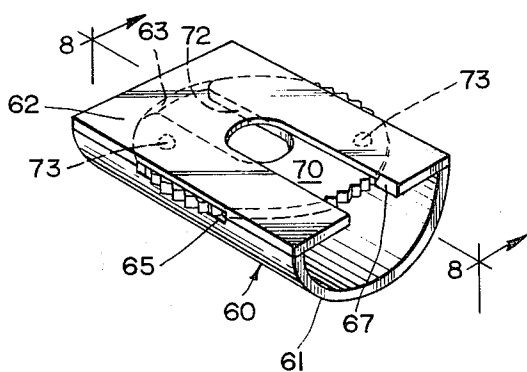


FIG. 7

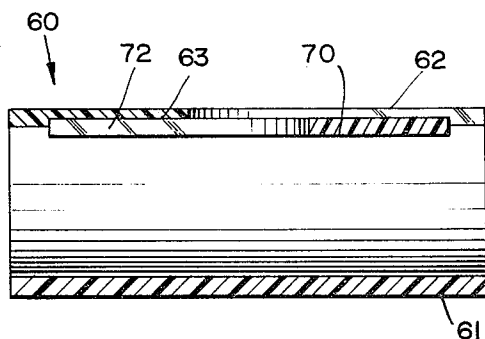


FIG. 8

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RAZOR PROTECTOR

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5 Claims. (Cl. 30-90)

This invention relates to safety razors and more particularly to a protector or sheath designed to protect the cutting edge or edges of the blade in storage, transit and otherwise when the razor is not in use.

A protector embodying this invention is useful and convenient in travel where the razor is placed among the other effects of one's luggage, for example, in a case for toilet articles. Heretofore, it has been customary while travelling to remove the cutting blade from the razor and store the blade separately from the other part or parts of the razor and then to reassemble the blade in the head of the razor for use.

With a protector embodying this invention it is merely necessary to insert the assembled blade and razor in the protector or sheath and place the assembly in one's luggage and it is ready for instant use by merely removing it from the sheath.

The protector of this invention is also useful for storing an assembled blade and razor in a bathroom cabinet or the like thereby to prevent injury to a child or unskilled person when the razor is not in use.

While attempts have been made to provide protectors for razors to accomplish the foregoing objects, they have not met with commercial acceptance, primarily because they have lacked means for reliably securing the head of the razor in the protector so as to prevent accidental withdrawal of the razor from the protector.

One object of this invention is to provide a commercially acceptable protector for a safety razor.

Another object is to provide a protector for a safety razor which embodies simple and reliable means for releasably holding the protector in place about the razor so as to prevent accidental withdrawal thereof.

A still further object is to provide a protector for a razor which is economical to manufacture.

Briefly stated, my invention comprises providing a casing with an opening in at least one end adapted to receive the head of a razor, one wall of said casing having a slot extending inwardly from adjacent to said opening, the slot being of sufficient width to slidably receive the portion of the handle of a razor which is adjacent to the head of the razor and means for opening and closing said slot to prevent accidental removal of the head of the razor from the protector.

In one embodiment the means for opening and closing the slot comprises a rotatable disc housed in the slotted wall and having a slot extending inwardly from its periphery which registers with the slot of the casing wall in one position to permit insertion of the head of the razor into the protector casing and is rotatable out of registry therewith to close the slot after the razor has been inserted.

In another embodiment the rotatable means comprises a slotted generally tubular member.

Although the features of this invention which are believed to be novel are set forth in the appended claims, details as to the construction and operation of the protector in preferred embodiments, as well as further objects and advantages thereof, will be apparent to persons skilled in the art by reference to the following description taken in connection with the accompanying drawings wherein:

FIG. 1 is a perspective view of a protector embodying this invention showing an ordinary safety razor of the type using double edged wafer blades inserted in the protector;

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FIG. 2 is a plan view of the protector shown in FIG. 1 with the razor removed;

FIG. 3 is an enlarged section taken on the lines 3-3 of FIG. 2;

FIG. 4 is an enlarged side elevation of the protector of FIGS. 1 to 3 inclusive;

FIG. 5 is a perspective view of another embodiment of a protector embodying this invention;

FIG. 6 is an enlarged section taken on the lines 6-6 of FIG. 5;

FIG. 7 is a perspective of still another embodiment of a protector embodying this invention; and

FIG. 8 is an enlarged section taken on the lines 8-8 of FIG. 7.

Referring to the embodiment shown in FIGS. 1 to 4 inclusive of the drawings, the protector casing indicated generally by the numeral 10 may be made of any suitable material such as plastic, metal or the like. I have found that acrylic resins which are relatively non-resilient such as those sold under the names Lucite and Plexiglas are satisfactory and also those which are somewhat resilient, such as polystyrene, are satisfactory.

The hollow casing 10 in the embodiment of FIGS. 1 to 4 inclusive comprises the trough-like member 11 and the flat wall member 14 which consists of two flat pieces 12 and 13 secured together by any suitable cement.

The member 12 is provided with an annular depression 15 and the member 13 is provided with an opposing annular depression 16, so that when assembled they form a chamber 18 which rotatably receives the disc 19. The member 12 is provided with an arcuate tongue or projection 20 which is slidably received in the arcuate groove 21 formed in the lower face of the disc 19. This tongue and groove accurately control the axis of rotation of the disc and permit rotation thereof through an angle of 360°.

A pair of depressions 25-26 are provided in one surface of the wall member 12 and a pair of projections 27-28 are provided on the surface of the disc 19. These projections are designed to fit into the depressions 25-26 to releasably hold the rotatable disc 19 in either of two selected positions.

The periphery of the disc 19 is provided with corrugations 29 to facilitate rotation of the disc by the thumb or fingers of the user.

The wall member 14 formed by the two members 12-13 is provided with semi-arcuate openings 30 and 31 at opposite sides so that opposite portions of the periphery of the disc project into these openings and the user may grasp said portions to rotate the disc.

The wall member 14 is provided with a longitudinal slot 35 which extends from one end of the wall member inwardly beyond its center. The disc 19 is provided with a slot 36 which extends inwardly from its periphery beyond its center. The slots 35 and 36 are of sufficient width to slidably receive the portion of the handle of the razor 40 which is adjacent to the head 41 when the head is moved into the casing through the open end 42 thereof.

In operation, the disc 19 is rotated so that the slots 35 and 36 are in registry. In this position of the disc the projections 27-28 are located in the depressions 25-26 thereby to releasably retain the disc in that position.

The head of the razor is then slid into the casing through its open end 42 and when this is done the portion of the handle which is adjacent to the head slides longitudinally of the slots 35-36. When the head has been fully inserted in the casing, the disc 19 is rotated 180°. During such rotation the projections 27-28 are moved out of the depressions 25-26 and when a movement of 180° has been accomplished, the projections reenter the opposite depressions thereby to releasably hold the disc in that position. This movement of the disc causes it to obstruct or close the slot 35 so that the razor is held

in the protector in the manner shown in FIGURES 1 and 2.

While the protector works satisfactorily without the projections 27-28 and depressions 25-26, I prefer to provide them since they prevent accidental rotation of the disc 19 by vibrations of the assembly while travelling or by a child while playing with the assembly.

In the embodiment shown in FIGURES 1 to 4, both ends of the casing are open but if desired, one end may be closed.

The arcuate tongue 20 may be provided on the member 13 instead of the member 12, in which event the groove 21 is provided on the upper side of the disc 19. If desired, the tongue 20 may be provided on the disc 19 in which event an arcuate groove is provided in either the member 12 or the member 13 depending upon from which surface of the disc the tongue 20 projects.

The projections 27-28 may be provided on the surface of one of the members 12 and 13 rather than upon the disc 19, in which event the depressions 25-26 to receive them are provided in the appropriate surface of the disc 19.

Only one of the inwardly extending arcuate openings 30 and 31 is necessary but two are preferred so that the user's thumb may engage one portion of the periphery of the disc 19 and a finger of the same hand may engage the opposite portion of the periphery thereby to facilitate rotating the disc while the handle of the razor is held in the other hand.

In the embodiment of FIGS. 5 and 6, the casing is indicated generally by the numeral 50 and its wall 51 is provided with a longitudinal slot 52 which terminates in a generally circular opening (not shown) having a diameter slightly greater than the width of the slot. A rotatable means for opening and closing the slot consists of the generally tubular member 54. The member 54 is provided with a groove 55 which slidably receives the portion 56 of the wall member 51 which projects into it, thereby mounting the member 54 for rotation about an axis which is substantially perpendicular to the plane of the wall member 51. The member 54 is formed with an opening 57 which is wide enough to slidably receive the portion of the handle of a razor when the head of the razor is slid into the casing 50 through the opening 59.

While projections and depressions similar to 27-28 and 25-26 of the first embodiment have not been illustrated in connection with the second embodiment, they may be provided in the ends of the portions 56 of the wall 51 and in the bottom surface of the groove 55.

The exposed periphery of the member 54 is provided with a roughened outer surface 58 to facilitate rotation of the member 54 by the user.

The operation of the embodiment of FIGS. 5 and 6 is substantially the same as that of the first embodiment except that the roughened area 58 is used to rotate the rotatable means rather than the roughened periphery of the disc 19.

Referring to the embodiment shown in FIGURES 7 and 8, the casing, indicated generally by the numeral 60, is made of a trough-like piece 61 and a flat wall member 62 secured thereto by suitable cement.

A generally annular depression 63 is provided in the wall member 62 which is of the proper size to receive the disc 70. In this case, the diameter of the disc 70 is greater than the width of the wall member 62. A pair of slots 65 are provided in opposite sides of the trough-like member 61 and the periphery of the disc 70 projects outwardly between the bases of the depression 63 and the bottoms of the slots 65 as shown in FIG. 7.

The slots 65 and the depression 63 cooperate to retain the disc 70 in position for rotation about an axis which is substantially perpendicular to the plane of the wall 62.

The wall 62 is provided with a longitudinal slot 67 which extends inwardly from one open end of the casing and the disc 70 is provided with a corresponding longitudinal slot 72 which extends inwardly from its periphery to beyond its center. The slots 67 and 72 register when the disc 70 is rotated to open position and the slot 72 is moved out of registry with the slot 67 after the razor head has been slid into the casing whereby to close the slot 67 and retain the head of the razor in the projector.

Projections and depressions indicated generally by the numeral 73 may be provided on the disc and casing wall 62 respectively to releasably hold the disc in open and closed positions.

The embodiment of FIGS. 7 and 8 operates in substantially the same manner as the embodiment of FIGS. 1 to 4 inclusive. The essential differences between these embodiments are that the slotted wall member of the embodiment of FIGS. 7 and 8 is made of one rather than of two pieces and the periphery of the disc 70 extends outwardly beyond the sides of the wall member 62.

It will be apparent from the foregoing description that a protector embodying this invention provides a sheath for an assembled razor guarding the cutting edge or edges of the blade which is useful and convenient for storage of the razor during travelling as well as at all other times. The protector of this invention is easy to operate, economical to manufacture and embodies means which reliably secures the head of the razor in the protector so as to prevent accidental withdrawal thereof while carried in luggage or played with by a child.

It should be understood that the specific embodiments of this invention which are disclosed herein are of a descriptive rather than a limiting nature and that various changes, combinations, substitutions, additions and modifications may be effected in accordance with these teachings without departing in spirit or scope from the invention in its broader aspects.

I claim:

1. A razor protector comprising a hollow casing adapted to receive the head of a razor, an opening in at least one end of said casing adapted to receive the head of a razor, one wall of said casing having a slot extending inwardly from the end of said wall which is adjacent to said opening, said slot being of sufficient width to slidably receive the portion of the handle of a razor which is adjacent to the head of a razor when its head is moved into the casing through said opening, and means for opening and closing said slot comprising rotatable means provided with a slot of sufficient width to slidably receive a portion of a handle of a razor.

2. A razor protector comprising a hollow casing adapted to receive the head of a razor, an opening in at least one end of said casing adapted to receive the head of a razor, one wall of said casing having a slot extending inwardly from the end of said wall which is adjacent to said opening, said slot being of sufficient width to slidably receive the portion of the handle of a razor which is adjacent to the head of a razor when its head is moved into the casing through said opening, means for opening and closing said slot comprising rotatable means provided with a slot of sufficient width to slidably receive a portion of a handle of a razor, a first opening extending inwardly from one side of said one wall and a second opening extending inwardly from the opposite side of said one wall, opposite portions of the periphery of said rotatable means being exposed in said openings, whereby said rotatable means may be contacted at opposite portions of its periphery for manual rotation.

3. A protector according to claim 1 wherein said rotatable means comprises a disc having a slot extending inwardly from its periphery beyond its center, said slot being of sufficient width to slidably receive the portion of a handle of a razor which is adjacent to the head of the razor.

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4. A protector according to claim 3 wherein an arcuate tongue is provided upon a surface of one of (a) the rotatable disc and (b) one of said spaced wall portions, and an arcuate groove for slidably receiving said tongue is provided in a surface of one of (a) the rotatable disc and (b) one of said spaced wall portions, whereby the axis of rotation of said disc is controlled by the interaction of said tongue and groove.

5. A protector according to claim 1 wherein a depression is provided in a surface of one of (a) said rotatable means and (b) said one wall, and a projection adapted to fit in said depression is provided on a surface of one of (a) said rotatable means and (b) said one wall, whereby the interaction of the depression and the projection releasably holds the rotatable means in closed positions.

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