

[54] **BLADE HOLDER AND DISPENSER**

3,602,366 8/1971 Dawidowicz..... 206/16 BC

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[57] **ABSTRACT**

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A holder and dispenser for razor blades of the type having double cutting edges and a central longitudinal slot, the blades being arranged in a stack in alternately longitudinally offset relation and adapted to be discharged one at a time from the end of the holder to which the particular blade is oriented, the blades being mounted on three lugs or vertical ribs comprising a left blade guide lug, a right blade guide lug and an intermediate blade retaining lug, the inner ends of the blades all being looped over the blade retaining lug in overlapping relation the three lugs each being elastically mounted and depressible independently of the other two.

[52] U.S. Cl. **221/67, 206/16 B**

[51] Int. Cl. **B65d 83/10**

[58] Field of Search 221/67; 206/16 B,
206/16 BC

[56] **References Cited**
UNITED STATES PATENTS

3,502,203	3/1970	Braginetz	206/16 B
3,543,918	12/1970	Waterman	206/16 B
2,611,176	9/1952	Testi	221/67 X

6 Claims, 6 Drawing Figures

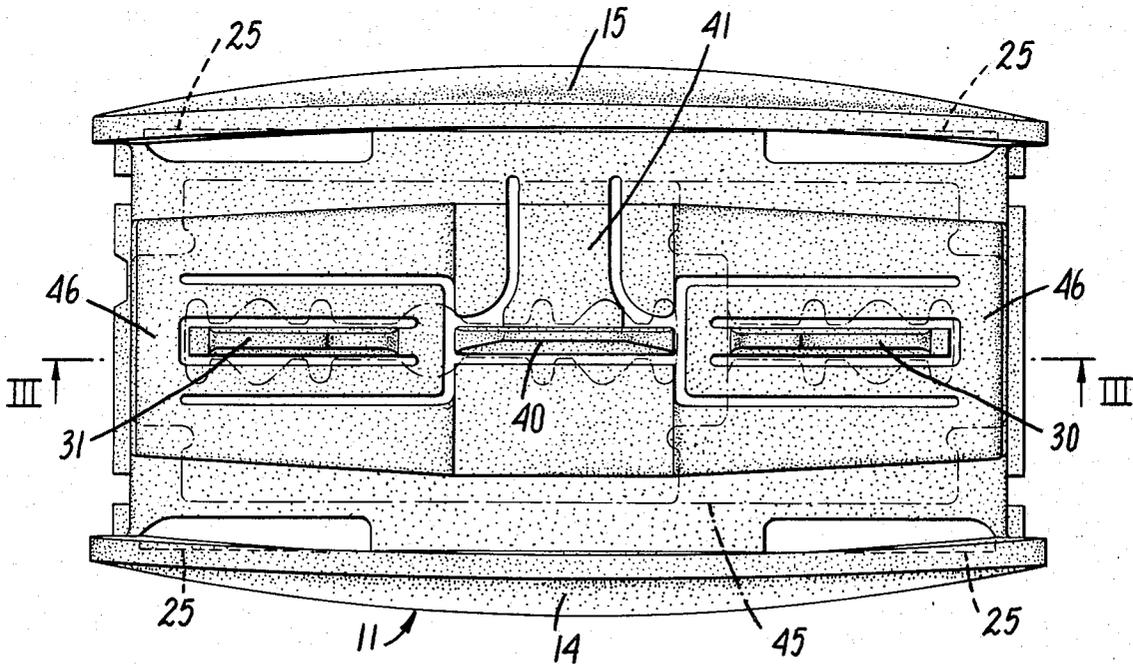


FIG. 1

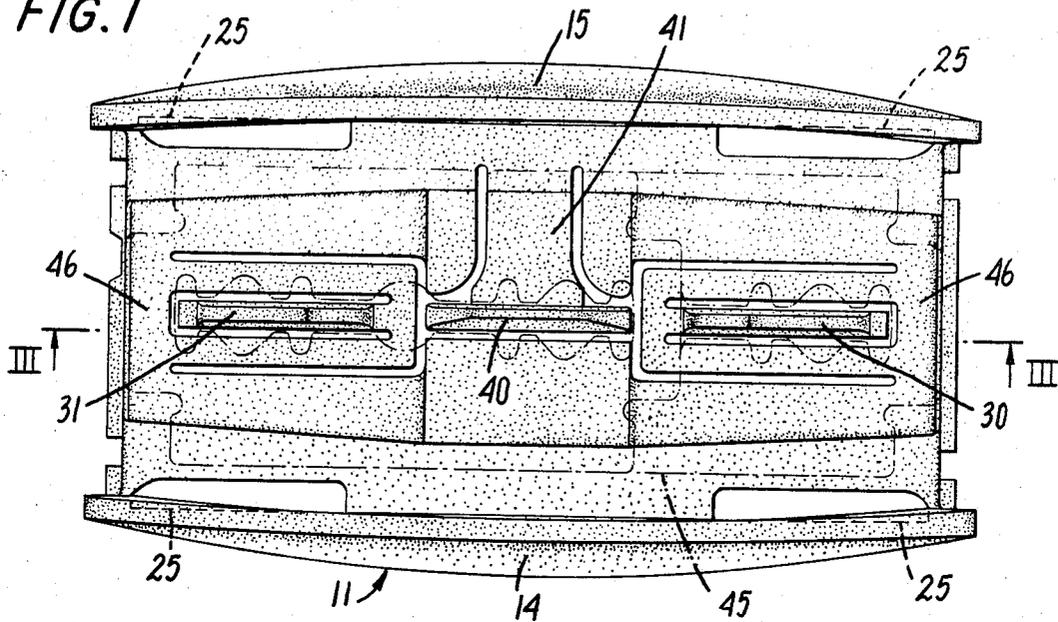


FIG. 2

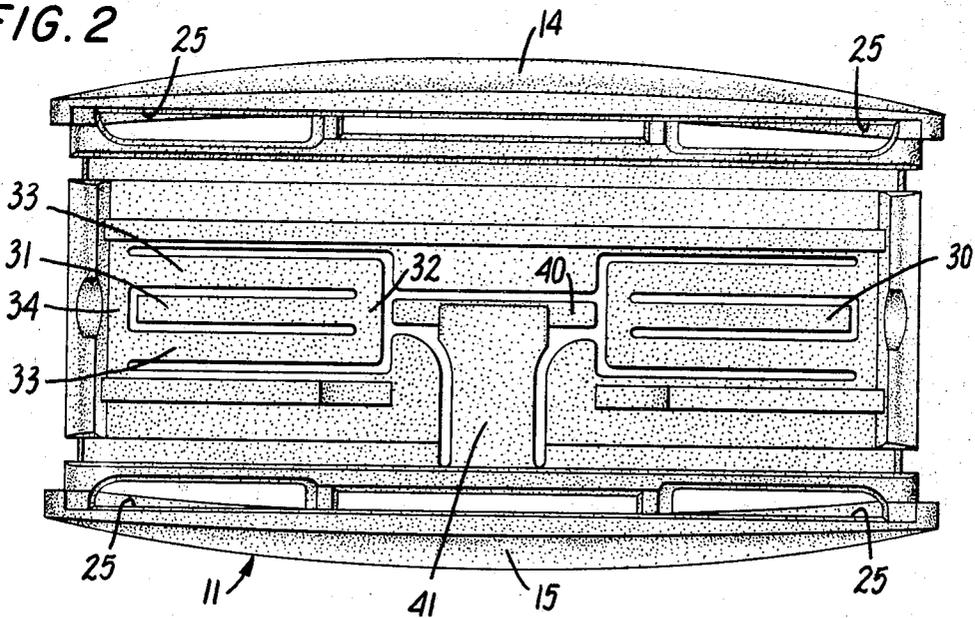


FIG. 3

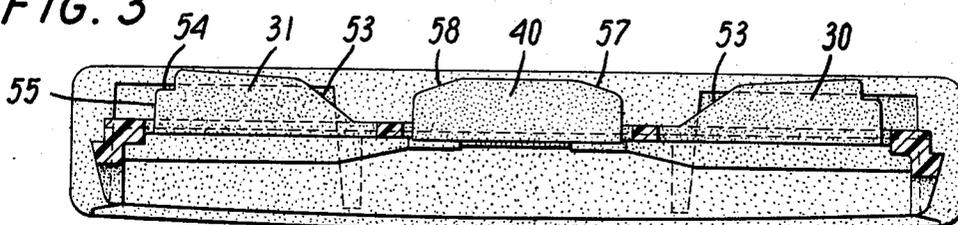


FIG. 4

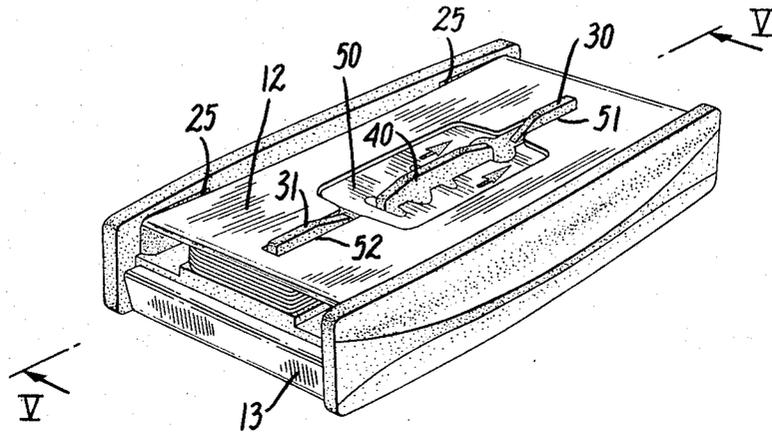


FIG. 5

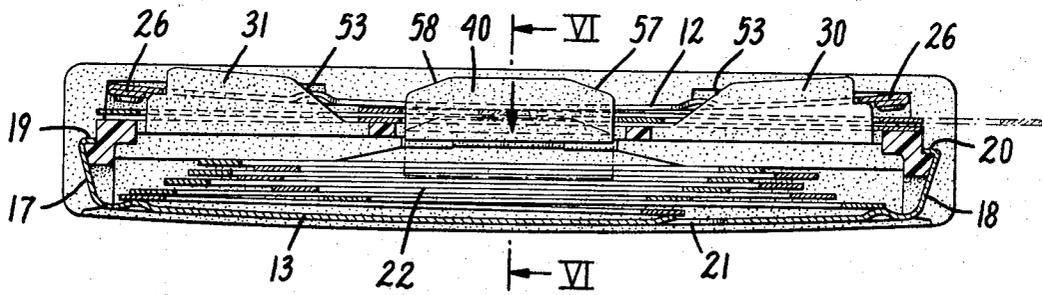
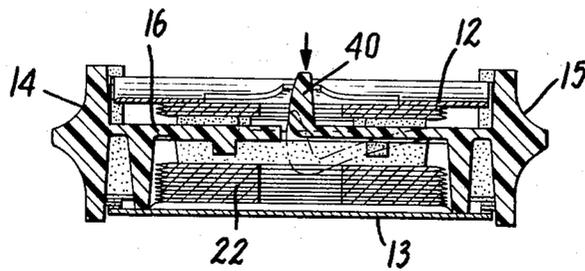


FIG. 6



BLADE HOLDER AND DISPENSER

BACKGROUND OF THE INVENTION

The invention is in the art of blade holders and particularly in the art of razor blade combined holders and dispensers of the type adapted to contain a stack of blades of the type having a longitudinal central slot and cross bands at each end, the blades being arranged in a stack and the dispenser having an exit at each end at which the blades are alternately dispensed one at a time. In dispensers of this double ended type it has been common to arrange the blades thereon in alternately longitudinally offset relation with overlapping ends and the dispenser being provided with a finger opening in the top whereby the user may engage the top blade with his thumb and push the blade out the exit toward which it is oriented in the stack. A great variety of means have been employed or proposed for locating the blades in the housing and guiding the individual blades to the appropriate exit. The most common type of such means has employed one or more vertical ribs or lugs over which the slots of the blades are threaded.

A recent patent showing a dispenser of the above general type is Braginetz U.S. Pat. No. 3,502,203. In that case the dispenser involves two pairs of lugs all in alignment, the lugs of a pair being mounted on a common flexible support and each blade has its central slot looped over the lugs of a pair and also the inner lug of the other pair, or in other words looped over three lugs nearest to the end to which the blade is oriented. Release of the blade involves depression of all three of the lugs over which the blade is looped.

SUMMARY OF THE INVENTION

The dispenser of the present invention comprises a simplified arrangement embodying few parts readily assembled and marked by ease of operation and dispensing of the blades. In particular it insures the dispensing of a single blade at a time in a smooth easy continuous advance of the blade under thumb pressure with no hanging up or catching of the blade at some intermediate position.

Structurally it embodies an elastically mounted guide lug at each end with a single blade retaining lug at the central thumb opening between the ends of the opposed outer guide lugs. The blade retaining lug is elastically mounted but independently of the guide lugs. The inner ends of all of the blades are looped over the single blade retaining lug in overlapping offset relation, and the lug has square shoulders at each end to lock the respective blades in position until the lug is depressed below the level of the top blade.

Related structural features and advantages will be made more apparent from a consideration of a representative embodiment of the dispenser as depicted in the accompanying drawings in which:

FIG. 1 is a top plan view of the dispenser with the top cover omitted and showing in broken lines blades in position on the blade retainer member;

FIG. 2 is a bottom plan view with the bottom plate omitted;

FIG. 3 is a cross sectional view on the plane III—III of FIG. 1;

FIG. 4 is a perspective view of the complete assembled dispenser;

FIG. 5 is a cross sectional view on the plane V—V of FIG. 4; and

FIG. 6 is a transverse vertical sectional view on the plane VI—VI of FIG. 5.

The dispenser includes in general three principal elements comprising a main body part 11 shown particularly in top plan and bottom plan view respectively of FIGS. 1 and 2; and a top plate 12 and a bottom plate 13 these elements being shown in FIGS. 4, 5 and 6. The main body part 11 serves as a blade mounting and retainer means.

The body part 11 which conveniently may be composed of a suitable plastic material such as polystyrene or polypropylene includes side flanges 14 and 15 which extend upwardly and downwardly from the generally flat main platform section 16 as appears particularly in FIG. 6. The bottom plate 13 of thin sheet metal has end flanges 17 and 18 with right angled end portions 19 and 20 respectively each engaging over a projecting shoulder part of the blade retainer 11. The bottom plate has a slotted opening 21 for the insertion of used blades 22 as indicated in FIGS. 5 and 6.

The side flanges 14 and 15 of the blade retainer plate 11 are slightly curved in the horizontal plan with the end portions inclined toward each other and the top plate 12 is mounted between the upper portions of the side flanges. The ends of the top plate are recessed into the side of the retainer flanges, the recesses being shown at 25 in FIGS. 1 and 4. The top plate is made of elastic spring material such as sheet metal and is bowed downwardly at the mid portion to engage upon the stack of razor blades mounted on the blade retainer. In assembling the dispenser the upper halves of the flanges 14 and 15 are bent outwardly permitting the ends of the plate 12 to be snapped into place. The spring pressure on the blades results from the fact that the end portions of the plate 12 are restrained against vertical movement within the recesses 25 of the side flanges of the blade retainer. As blades are dispensed from the dispenser the central portion of the top plate progresses downwardly maintaining a spring pressure on the blade stack. The outer ends of the top plate 12 are preferably rolled downwardly and inwardly as indicated at 26 in FIG. 5.

The blade retainer plate includes right and left end lugs or ribs 30 and 31 respectively, the lug 31 being integral with a cross section 32 which is suspended by arms 33 projecting inwardly from an area 34 of the blade retainer platform 16. The left lug 31 therefore is elastically mounted both at the point 34 and at its connection to the cross bar 32. The right lug 30 is similarly elastically mounted. The lugs 30 and 31 serve particularly as blade guide lugs as will be described more fully hereinafter.

The blade retainer member 11 also includes a blade retaining lug or rib 40 elastically mounted from some suitable area of the platform 16. Preferably as shown the lug is mounted on a flat plate section 41 extending from one side of the blade retainer 11 toward the middle of the retainer. As will be described the lug 40 functions as a blade retainer for blades oriented to the right and to the left. Since the lug 40 is suspended from the side of the blade retainer it remains symmetrical with respect to the right and left guide lugs 30 and 31 as it is depressed, that is the lug 40 moves downwardly without rocking about an axis transverse to the blade retainer plate.

As is common the double edge blades indicated in broken lines 45 in FIG. 1 have a central longitudinal

slot and a transverse band at each end as indicated at 46 in FIG. 1. The blades are arranged in a stock in alternately longitudinally offset relation each with its inner end engaged over the central retainer lug 40, one set of blades being oriented toward the right and threaded over the guide lugs 30 and the other set oriented toward the left and threaded over the guide lug 31. In the interest of clarity of disclosure in FIGS. 5 and 6 only three new blades are shown, two being oriented toward the right and one toward the left.

The top plate 12 has a normal thumb opening 50 and slots 51 and 52 extending outwardly therefrom adapted to receive the guide lugs 30 and 31 respectively, the blade retainer lug 40 being fully exposed in the thumb opening 50. The left guide lug 31 has an inclined top edge portion 53 and an outer notch portion 54 to insure that the lug 31 extends upwardly sufficient to present an outer shoulder 55 against which the outer cross band 46 of the blades oriented to the left engage preventing inward movement of the top blade at the left when a blade is advanced toward the right end of the dispenser. The right guide lug 30 is of course similarly shaped with a reversal of the parts. The central blade retaining lug 40 has its top edge inclined downwardly toward the respective ends of the lugs as shown at 57 and 58.

In operation assuming the top blade is oriented to the right in dispensing the top blade the lug 40 is depressed by a thumb and the top blade frictionally engaged and urged to the right. The rear end of the blade rides up over the inclined top edge portion 58 of the lug 40 and as it progresses it engages the inclined surface 53 of the lug 30 and depresses the lug permitting the blade to advance. The lugs 30 and 31, in addition to cooperating with lug 40 to retain the blades, serve to guide the respective blade as it is being withdrawn and prevent the blades from contacting the side walls and avoid damage to the cutting edges. The mounting supports for the lugs 30 and 31 are relatively weak and permit the rear cross band of the razor to ride up and over the lug freely. In general the blade is permitted to advance easily and smoothly without interruption.

Various changes may be made in the details of the dispenser particularly disclosed herein and different embodiments of the invention made without departing from the principles thereof and it is intended that all matter contained herein shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. In a blade dispenser having right and left dispenser ends, a cover with a central finger opening and an elongated blade retainer plate for holding a stack of blades having a longitudinal slot and transverse end bands; said retainer having a right end and a left end blade guide lug longitudinally aligned, and spaced apart longitudinally, each of said lugs being elastically mounted

and depressible to permit outward movement of a blade thereover, a single intermediate blade retaining lug located between said end blade guide lugs and in longitudinal alignment therewith and elastically mounted to said dispenser on a support independent of and depressible independently of each of said end lugs, the blades being arranged on the retainer lug in alternately longitudinally offset relation with overlapping ends, a first set of the blades oriented to the left having their slots arranged over said left end lug and said retaining lug, and a second set of the blades oriented to the right having their slots arranged over said right end lug and said retainer lug, manual depression of said retainer lug permitting movement of the top blade in the direction in which it is oriented.

2. A blade dispenser in accordance with claim 1 in which the inner ends of the blades are located at said finger opening and the top of said blade retaining lug is fully exposed centrally of said opening.

3. A blade dispenser in accordance with claim 1 in which each of said guide lugs extends upwardly through a slot in the cover and the respective inner ends of the guide lugs are inclined downwardly toward said finger opening.

4. A blade dispenser in accordance with claim 1 in which said blade retaining lug is provided with a square shoulder at each end to retain positively the respective blades until depression of the lug.

5. A blade dispenser in accordance with claim 4 in which the top edge of said blade retaining lug is inclined downwardly at each end toward the corresponding square shoulder.

6. In a blade dispenser having right and left dispenser ends, a cover with a central finger opening and an elongated blade retainer plate for holding a stack of blades having a longitudinal slot and transverse end bands; said retainer having a right end and a left end blade guiding lug longitudinally aligned, and spaced apart longitudinally, each of said lugs being elastically mounted and depressible to permit outward movement of a blade thereover, a single intermediate blade retaining lug located between said end blade guide lugs and in longitudinal alignment therewith and elastically mounted on a transverse support member connected to one side of said retainer plate and depressible independently of each of said end lugs, the blades being arranged on the retainer lug in alternately longitudinally offset relation with overlapping ends, a first set of the blades oriented to the left having their slots arranged over said left end lug and said retaining lug, and a second set of the blades oriented to the right having their slots arranged over said right end lug and said retainer lug, manual depression of said retainer lug permitting movement of the top blade in the direction in which it is oriented.

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