

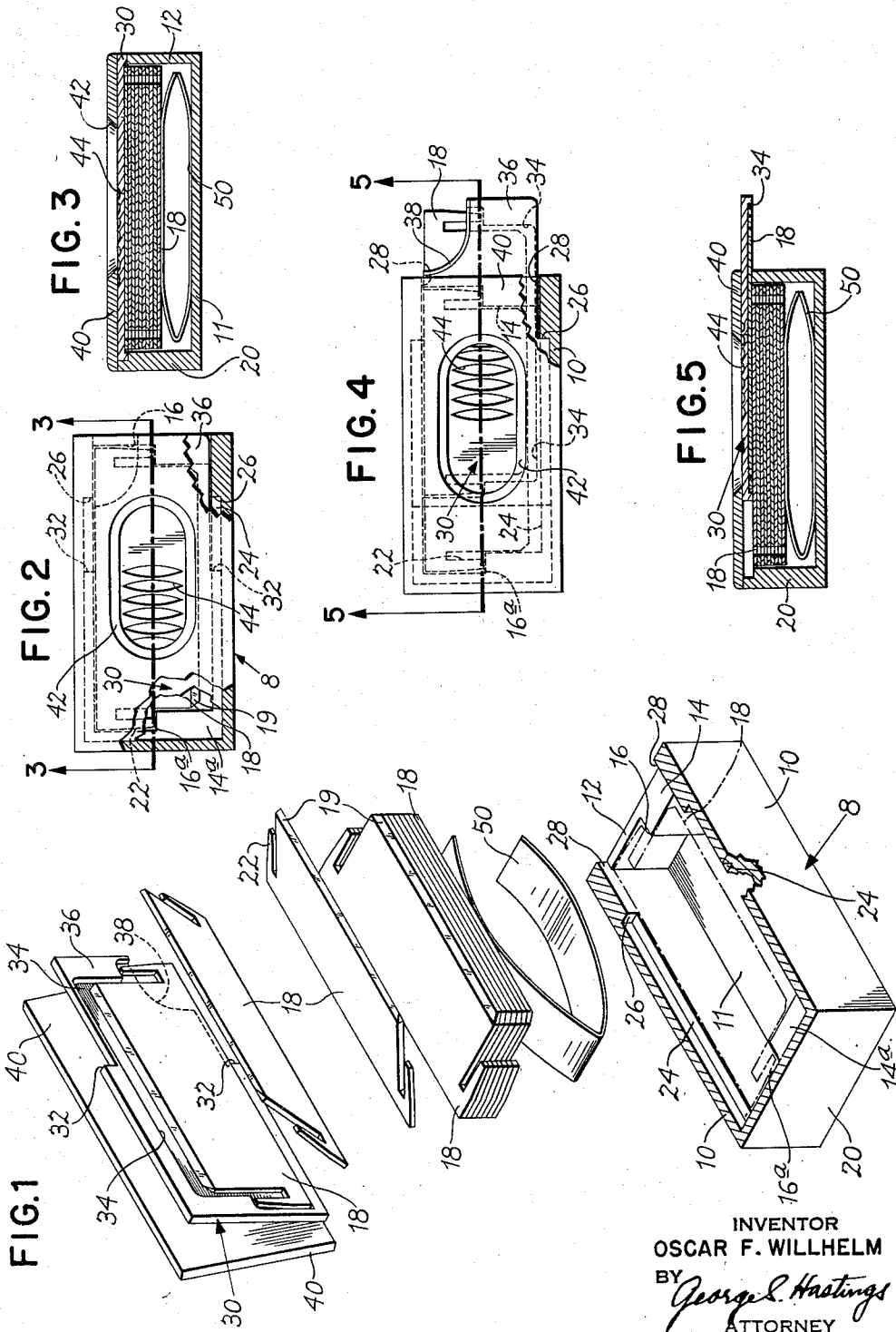
Dec. 25, 1956

O. F. WILLHELM
RAZOR BLADE CONTAINER

2,775,366

Filed April 29, 1950

3 Sheets-Sheet 1



INVENTOR
OSCAR F. WILLHELM
BY *George L. Hastings*
ATTORNEY

Dec. 25, 1956

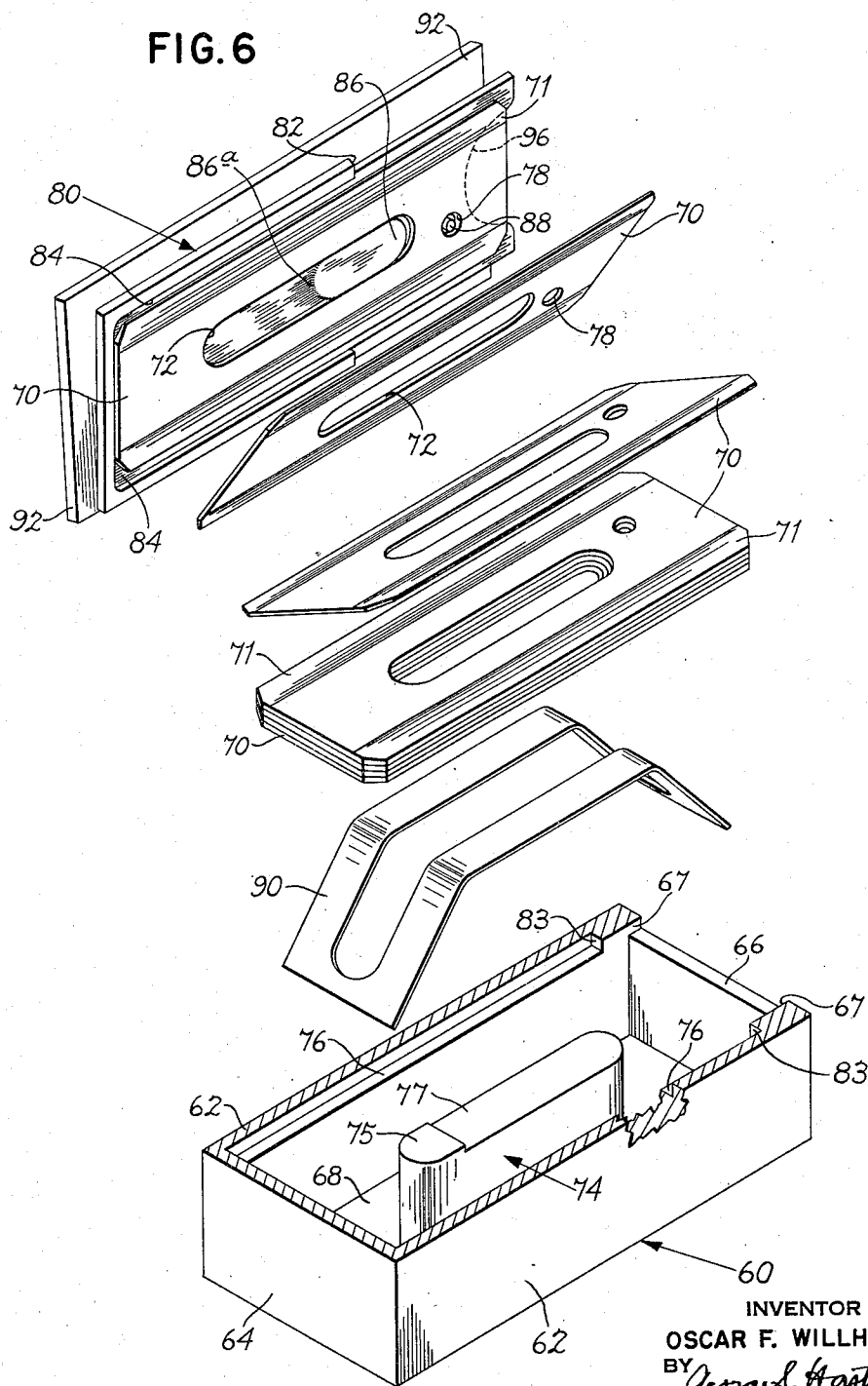
O. F. WILLHELM
RAZOR BLADE CONTAINER

2,775,366

Filed April 29, 1950

3 Sheets-Sheet 2

FIG. 6



INVENTOR
OSCAR F. WILLHELM
BY *Georges Hastings*
ATTORNEY

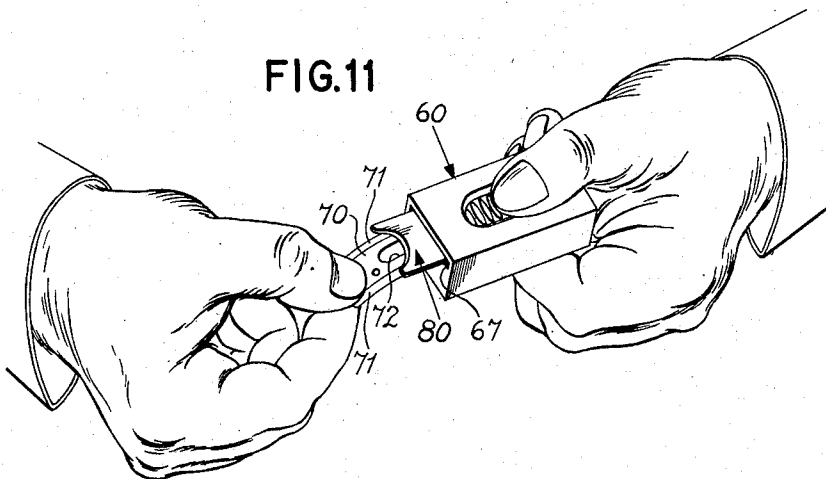
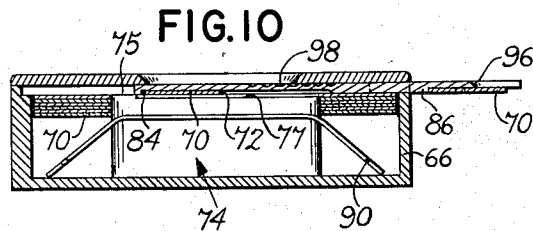
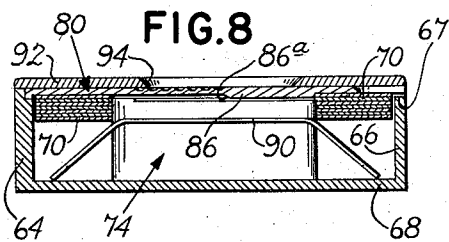
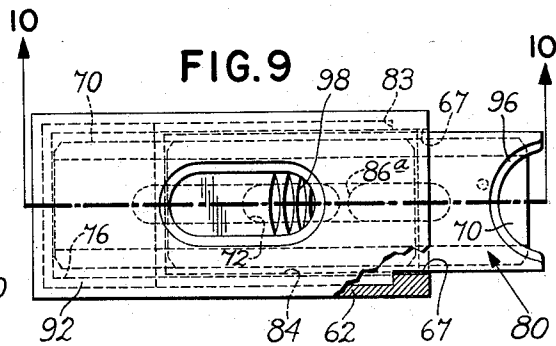
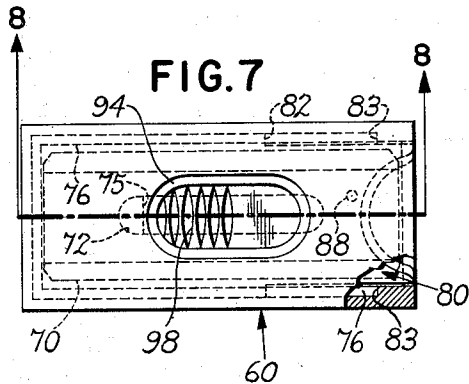
Dec. 25, 1956

O. F. WILLHELM
RAZOR BLADE CONTAINER

2,775,366

Filed April 29, 1950

3 Sheets-Sheet 3



INVENTOR
OSCAR F. WILLHELM
BY *George H. Hastings*
ATTORNEY

1

2,775,366

RAZOR BLADE CONTAINER

Oscar F. Wilhelm, New London, Conn., assignor to Durham-Enders Razor Corporation, a corporation of New York

Application April 29, 1950, Serial No. 158,999

5 Claims. (Cl. 221—232)

This invention relates to containers for razor blades and, particularly, to an inexpensive box or package whose construction permits blades to be dispensed in a convenient and accurate manner without danger of injury to the user.

It is an object of this invention to provide a container for razor blades that will feed blades one at a time in a safe and effective manner.

It is a further object to provide a guard to cover the beveled edge of the blade to protect the fingers of the user.

When very thin blades are stacked, they tend to adhere to each other, due to atmospheric pressure and to the surface tension of the lubricant with which they are normally coated. This makes individual feeding difficult.

It is an object of this invention to more accurately feed individual blades and to prevent jamming by providing a sliding element that better grips the single blade in a recess thereof so that blade and element together are protruded. In this manner, no jamming can occur.

Another object is to stack blades in a container so that the cutting edge will not contact any part of the container, thus precluding damage or dulling of the cutting edge.

It is a further object to provide a handsome, neat but inexpensive package for storing razor blades.

In the accompanying drawings:

Fig. 1 is an exploded view in perspective of the invention;

Fig. 2 is a plan view, partially in section, of the container and blades shown in Fig. 1;

Fig. 3 is a cross-section taken on the line 3—3 of Fig. 2;

Fig. 4 is a plan view of the invention showing the ejector plate with blade in ejecting position;

Fig. 5 is a cross-section taken on the line 5—5 of Fig. 4;

Fig. 6 is an exploded view in perspective of a second form of the invention;

Fig. 7 is a plan view, partially in section, of a second form of the invention;

Fig. 8 is a cross-section taken on the line 8—8 of Fig. 7;

Fig. 9 is a plan view showing ejector plate dispensing a blade;

Fig. 10 is a cross-section taken on the line 10—10 of Fig. 9, and

Fig. 11 is a perspective view showing a blade being removed from the package embodying the invention.

The magazine of my invention is herein shown as an embodiment designed for use in connection with razor blades of the type shown in the Bigoney Patent 1,791,552, although my invention may be embodied in magazines adapted for use with other types of blades.

As herein shown, a container 8 is formed in a box-like structure having a bottom 11, side and end walls. Of these, the forward wall 12 is provided with a lug 14 and a recess 16 to accommodate and guide a stack of blades 18. The rearward wall 20, in the mirror image of the forward wall 12 has the lug 14a and recess 16a also to accom-

2

modate and guide the stack of blades 18. The ears 22 of the razor blades fit into the recesses 16, 16a. Thus the cutting edge 19 is held out of contact with wall 10.

The ejector plate or slide 30 on its bottom face has a recess 34 of contour corresponding to the profile of blades 18 and of depth sufficient to accommodate only one of said blades. This recess 34 accurately engages a single blade for ejection. At the same time plate 30 covers the blade's cutting edge and safeguards against injury to the user's fingers. Again, the ears 22 are so engaged in the recess that the cutting edge 19 does not contact the wall of the recess of the ejector plate 30, as shown at 34 of Fig. 1.

The ejector plate or slide 30 is slidably supported in guide tracks 24 formed in the side walls 10 and bounded on top by the cover piece 40. These guide tracks 24 terminate in an abutment 26 which serves to arrest the motion of the ejector plate as follows. The forward portion 36 of the ejector plate is narrowed to form the shoulder 32. As the plate 30 is moved forward in tracks 24, this narrowed portion 36 of slides 30 passes readily through a slot 28 piercing forward wall 14 until the shoulders 32 strike abutments 26, as shown in Fig. 4.

A cutaway 38 is provided in the protruded corner of the slide 30 distal from the cutting edge of the blade retained in recess 34. Thus, when the slide is in the position shown in Fig. 4, the back of the blade may be grasped, flexed downwardly, and withdrawn.

The cover piece 40 is firmly secured on the top of the side walls 10 and the rear wall 20. In the cover 40 there is also provided an opening 42 to permit the user to slide the ejector plate 30 to and fro. To facilitate this action, flutings or dashings 44 are formed on the top surface of the ejector plate.

As shown in Figs. 3 and 5, a compression spring 50 urges the stack of blades 18 against the ejector plate 30 at all times. When the ejector plate is retracted as shown in Figs. 2 and 3, pressure of the spring 50 causes the topmost blade 18 to enter the recess 34 of the ejector plate so that as said ejector plate is moved to the position shown in Figs. 4 and 5, this topmost blade is carried with it.

In the second form of the invention, as illustrated in Figs. 6-11, the container 60 is composed of side walls 62, rear wall 64, front wall 66 and bottom 68. The blades 70 have an elongated slot 72 which fits over stack alignment lug 74 rising from the bottom 68 of the container. The critical height of lug 74 is maintained at its rearward end 75 while the forward portion 77 is cut down slightly to facilitate removal of the blade. This lug 74 also prevents either of the cutting edges 71 from contacting the side walls 62. The ejector plate 80 is slidably supported in guide tracks 72. A forward portion of the plate does not engage this track but is narrowed to form shoulders 82. In its bottom side, the ejector plate has a recess 84 of sufficient depth to receive one blade only and a ridge 86 of about the same width as stack alignment lug 74 but of much shorter length. This ridge 86 is provided with a beveled edge 86a at its rearward end.

There is further provided a pin 88 on the bottom face of ejector plate 80 which engages a hole 78 in the blades 70. A spring 90 straddles stack alignment lug 74 urging the stack of blades 70 upwardly against ejector plate 80 so that the topmost blade may be engaged by recess 84, ridge 86 and pin 88 of ejector plate 80. In this manner, the cutting edge 71 of the blade does not contact the side of the recess 84 as illustrated at 84 on Fig. 6.

A cover piece 92 is secured to the top of side walls 62 and rear wall 64. This cover piece 92 has a hole 94 for manually gripping and sliding the ejector plate 80 outwardly through a slot 67 in front wall 66. The ejector plate 80 has a fluted or knurled surface 98 to accommodate the thumb or thumbnail of the user. The ejector

3

plate may be partially protruded until shoulders 82 strike abutments 83 of side walls 62. In this position, as illustrated in Fig. 9, the cutting edges of the blades are protected by the body of ejector plate 80 and the blade is maintained in alignment with the recess 84 by ridge 86 and pin 88.

Referring to Fig. 11, the blade may be grasped at the central cutaway portion 96, flexed downwardly, and withdrawn. The downward flexion releases the blade from the pin 88 while the beveled end 86a permits the blade to ride onto and over ridge 86, whereby it may be easily withdrawn.

In accordance with my invention I provide a convenient dispensing container for blades in which the blade edges are protected to avoid danger to the user's fingers when he is ejecting a blade from the container. This improved blade container may be cheaply produced of plastic and/or metallic material so that it may be discarded after all the blades have been used.

Further variations in detail other than those herein illustrated may, of course, be made. The illustrations above set forth are exemplary only in order to comply with §4888 of the revised statutes. It is apparent that many variations of this invention within the scope of the appended claims are possible.

I claim:

1. A razor blade dispenser for flat single edge razor blades having a cut-out portion at either end providing longitudinally extending shoulders, said dispenser having side walls and a top and bottom, abutments in said dispenser engaging said shoulders to locate a stack of blades therein by the engagement of said abutments with said shoulders and the engagement of one side of the dispenser with the rear edge of the blades, thus eliminating any guiding engagement with the cutting edge portion, an ejecting element mounted adjacent the top of said dispenser and in sliding contact with said stack of blades, means accessible from the exterior of said dispenser for imparting ejecting movement to said element, a shallow recess in the bottom face of said ejecting element having the same profile as the blade, and also having abutment means engaging said blade shoulders to locate the blade transversely without engagement with the cutting edge thereof, said recess being of a depth no greater than the thickness of one blade, a resilient element on the bottom of said dispenser to urge said stack of blades upwardly towards said ejecting element, a slot at one end only of the dispenser through which said ejecting element may be manually protruded, said slot having a depth just sufficient to permit passage of said ejector and the blade in its recess without permitting any other blades to pass, said ejecting element having a cutaway portion on the protruding corner of the ejecting element corresponding to the back edge of the blade so that the blade may be readily removed from the ejecting element without exposure of the edge where it may cause injury.

2. In a container for razor blades having a top and bottom, an ejecting element slidably mounted adjacent said top, a recess in the bottom face of said ejecting element wherein not more than one blade may rest, a cavity in said container beneath said ejecting element wherein blades may be stacked, a resilient element on the bottom of said container to urge said stacked blades upwards toward said ejecting element, a slot in one end of said container through which said ejecting element may partially protrude, means operative to arrest the movement of said ejecting element when it has passed less than one-half its length through said slot to partially expose a blade supported on said ejecting element, said ejecting element having a cutaway portion on said protruded section said cutaway portion being adapted to expose a portion of the blade not including a cutting edge so that the blade may be grasped at said portion without danger of injury on the cutting edge and flexed

4

out of the supporting plane of said ejecting element for removal of said blade.

3. In a container for razor blades having a top and bottom, an ejecting element slidably mounted adjacent said top, a recess in the bottom face of said ejecting element wherein not more than one blade may rest, a cavity in said container beneath said ejecting element wherein blades may be stacked, a resilient element on the bottom of said container to urge said stacked blades upwards toward said ejecting element, a slot in one end of said container through which said ejecting element may partially protrude, means operative to arrest the movement of said ejecting element when it has passed less than one-half its length through said slot whereby to partially expose a blade supported on said ejecting element, said ejecting element having a cutaway portion on said protruding section, aligning means on said ejecting element including means adjacent said cutaway portion co-acting with said blade to maintain said blade longitudinally aligned on said ejecting element, said cutaway portion being adapted to expose a portion of the blade not including its cutting edge so that the blade may be grasped at said portion without danger of injury on the cutting edge and flexed out of the supporting plane and away from said aligning means adjacent said cutaway portion of said ejecting element for removal of said blade.

4. In a razor blade dispenser for flat thin razor blades having a central longitudinally elongated slot therein, said dispenser having side walls and a top and bottom, vertically disposed means secured to the bottom of said dispenser to engage said central longitudinally elongated slot to maintain said blades in vertical alignment, thus eliminating any guiding engagement with the cutting edge portion, an ejecting element mounted at the top of said dispenser and in sliding contact with said stack of blades, means accessible from the exterior of said dispenser for imparting ejecting movement to said element, a shallow recess on the bottom face of said ejecting element corresponding to the profile of said blade and of depth sufficient to engage one blade only, a resilient element in the bottom of said dispenser to urge said stack of blades upwardly toward said ejecting element, an opening at one end only of the dispenser through which said ejecting element may be manually protruded, said opening having a depth just sufficient to permit passage of the ejector and the blade in its recess without permitting any other blades to pass, stops to engage said ejecting element to arrest its ejecting movement when it has passed less than one-half its length through said slot whereby to partially extrude a blade supported in the recess of said ejecting element, said ejecting element having a cutaway portion on a protruding part of the ejecting element, said cutaway portion being positioned and adapted to expose a portion of the blade not including a cutting edge, abutment means in the bottom of said recess adjacent said cutaway portion to engage with a portion of said elongated slot adjacent said cutaway portion of said ejecting element and near said opening in said dispenser to maintain said blade longitudinally aligned on said ejecting element whereby said blade may be grasped at said cutaway portion of said ejecting element and flexed out of the supporting plane of said ejecting element to disengage from said abutment means for removal of said blade from said dispenser without danger of injury on a cutting edge.

5. In a razor blade dispenser for flat thin razor blades having a central longitudinally elongated slot therein, said dispenser having side walls and a top and bottom, vertically disposed means secured to the bottom of said dispenser to engage said central longitudinally elongated slot to maintain said blades in vertical alignment, thus eliminating any guiding engagement with the cutting edge portion, an ejecting element mounted at the top of said dispenser and in sliding contact with said stack of blades,

5

means accessible from the exterior of said dispenser for imparting ejecting movement to said element, a shallow recess on the bottom face of said ejecting element corresponding to the profile of said blade and of depth sufficient to engage one blade only, a resilient element in the bottom of said dispenser to urge said stack of blades upwardly toward said ejecting element, an opening at one end only of the dispenser through which said ejecting element may be manually protruded, said opening having a depth just sufficient to permit passage of the ejector and the blade in its recess without permitting any other blades to pass, stops to engage said ejecting element to arrest its ejecting movement when it has passed less than its length through said slot whereby to partially extrude a blade supported in the recess of said ejecting element, said ejecting element having a cutaway portion on a protruding part of the ejecting element, said cutaway portion being positioned and adapted to expose a portion of the blade not including a cutting edge, abutment means in the bottom of said recess adjacent said cutaway portion to engage with a portion of said elongated slot adjacent said cutaway portion of said ejecting element and

6

near said opening in said dispenser to maintain said blade longitudinally aligned on said ejecting element whereby said blade may be grasped at said cutaway portion of said ejecting element and flexed out of the supporting plane of said ejecting element to disengage from said abutment means for removal of said blade from said dispenser without danger of injury on a cutting edge.

References Cited in the file of this patent

UNITED STATES PATENTS

1,092,067	Marx -----	Mar. 31, 1915
1,911,627	Lashar -----	May 30, 1933
2,094,722	Sandford -----	Oct. 5, 1937
2,131,358	Rothschild -----	Sept. 27, 1938
2,321,570	Billing -----	June 15, 1943
2,326,202	Bryan -----	Aug. 10, 1943
2,363,908	Stampleman -----	Nov. 28, 1944
2,514,161	Nelson -----	July 4, 1950

FOREIGN PATENTS

767,491	France -----	May 1, 1934
---------	--------------	-------------