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SPRINGLESS BLADE DISPENSER

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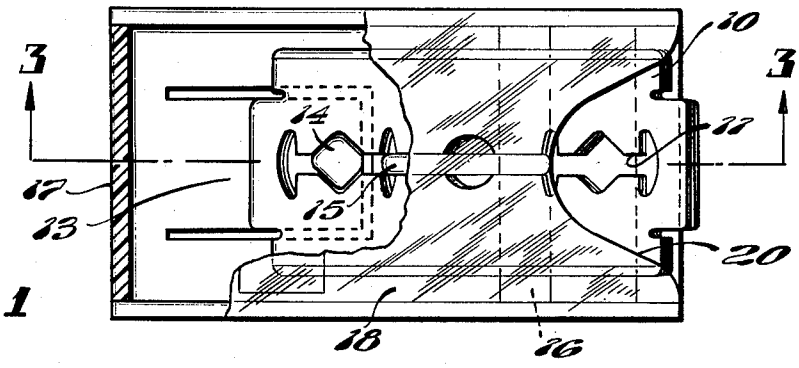


Fig. 1

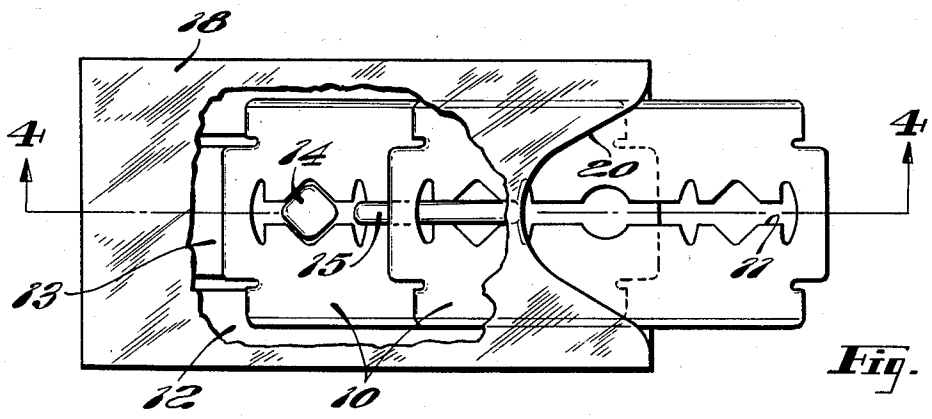


Fig. 2

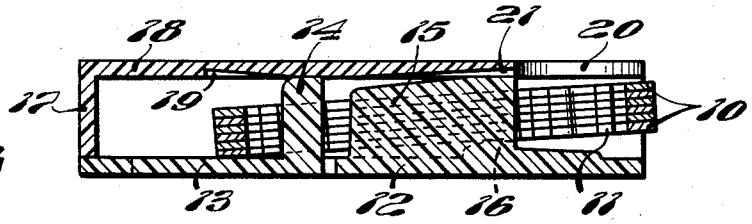


Fig. 3

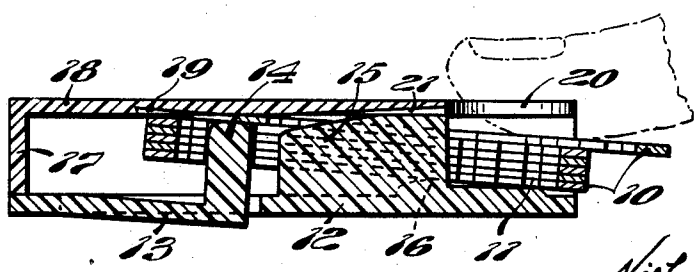


Fig. 4

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SPRINGLESS BLADE DISPENSER

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6 Claims. (Cl. 221—309)

This invention comprises a new and improved blade dispenser compactly constructed and arranged to house and protect an ample supply of thin sharp edged blades, such as safety razor blades, which may by simple manipulation be withdrawn singly as required by the user.

It has been found that any chance contact with the fine cutting edge of a safety razor blade prior to use frequently damages its delicate structure and impairs its fine cutting quality. It is desirable, therefore, for the manufacturer to provide for packaging of the blades so as to insure their protection prior to actual use. Accordingly, general objects of the invention are to provide a dispenser which will protect the quality of the blades it contains, will lend itself to inexpensive assembly in manufacture, will provide safety for the user against cutting, and will be attractive and convenient under all conditions.

One of the difficulties heretofore encountered in dispensers of this general type has been the tendency of the blades to jam in the exit opening of the dispenser. The present invention comprises as one of its features a solution of this problem. It has been solved by providing in a dispenser the combination of a stripping pin normally in contact with the top or cover of the dispenser and means for supporting the blade stack so that it may be rocked or tipped within the dispenser to carry the uppermost blade into a releasing position with respect to the pin. The remaining blades of the stack meanwhile are impaled in stack formation upon the stripper pin thus positively preventing the separation of more than one blade at a time from the stack. Another advantage arising from the employment of a stripper pin in this manner is that the blades may be packaged in vertical stack formation without relative longitudinal displacement. This arrangement of the blades facilitates the employment of a dispenser of minimum length and compact design.

In one embodiment the dispenser of my invention comprises a rectangular enclosure open at one end and having top and bottom walls. A stripping pin projects from one of these walls into yielding contact with the other wall, and in the other wall is provided a clearance recess into which one end of the uppermost blade of the stack may be tilted or rocked and so withdrawn and disengaged from the stripping pin by passing beyond it. Meanwhile the perforated blades of the stack remain positively impaled upon the pin thus insuring delivery of a single blade at a time and freedom from jamming in the exit opening of the dispenser.

Preferably and as herein shown at least one wall of the dispenser is formed from resilient plastic material and an advantageous mounting of the stripper pin is provided by defining or partially cutting out a yieldable tongue from the material of the wall. The stripper pin extends inwardly from this tongue into yielding contact with the opposite wall of the dispenser in an area adjacent to the clearance recess. An important advantage of this construction is that it obviates the employment of a spring as a separate element of the dispenser and instead utilizes a section of one wall as a built-in spring.

The dispenser is also equipped with a transverse fulcrum shoulder over which the blade stack contained within it may be rocked or tilted to carry the uppermost blade of the stack into the clearance recess from which it may be drawn outwardly over the end of the stripper pin.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof selected for purposes of illustration and shown in the accompanying drawings in which:

Fig. 1 is a plan view of the dispenser showing a portion of its upper wall broken away,

Fig. 2 is a similar view showing one of the blades of the stack in partially ejected position,

Fig. 3 is a view in longitudinal section on the line 3—3 of Fig. 1, and

Fig. 4 is a view in longitudinal section on the line 4—4 of Fig. 2.

As herein shown the dispenser is designed to handle double edged safety razor blades **10** of well known commercial construction. These blades are notched at each corner, provided with elongated unsharpened end portions, and they are perforated by a longitudinal slot **11** having a series of spaced enlargements of different shapes, including diamond-shaped openings adjacent both ends of the blade.

The dispenser which is shown with exaggerated vertical dimensions in Figs. 3 and 4 in order to bring out more clearly certain constructional details comprises a rectangular enclosure of resilient plastic material and includes a lower section having a bottom wall **12** in which is defined a rectangular tongue **13** as best shown in Figs. 1 and 4. The tongue is separated from the body of the bottom wall **12** on three sides by slots, and while it normally occupies the position shown in Fig. 3, it is free to flex outwardly and resiliently into some such position as that shown in Fig. 4. The tongue is biased to remain normally flush with the plane of the bottom wall **12**.

An inwardly and upwardly projecting stripper pin **14** is formed integral with or otherwise attached to the free inner end of the tongue **13** and this normally contacts in a yielding manner with the top wall of the dispenser. Its upper end is beveled or rounded on the rear side of the pin to facilitate the passage of a blade above it as will be presently described.

The bottom wall **12** is provided with a stationary inwardly projecting blade guiding rib **15** extending forwardly from adjacent to the free end of the tongue **13** and designed to make sliding fit within the slot **11** of the blades. The bottom wall **12** is also provided with a transversely extended fulcrum shoulder **16** which extends transversely across the bottom **12** on both sides of the rib **15**. The rib **15** is beveled toward the rear at its upper edge to facilitate the passage of the blade being withdrawn.

The upper section of the dispenser has a rear end wall **17** and a solid top wall **18** and in general is shaped to supplement the bottom section in forming the rectangular enclosure and make a snap fit with the bottom section. It is provided in its inner top surface with a clearance recess **19** located vertically above the end of the blade stack and to the rear of the area in which the stripping pin **14** engages the top wall. The forward end of the enclosure is open and unobstructed and the top wall **18**, though covering the greater part of the stack, is provided with a cut-out **20** in its forward end so that the operator may engage the forward or outer end of the blade stack and by downward pressure rock it upon the fulcrum shoulder **16** sufficiently to carry the rear end of the uppermost blade into the clearance recess **19**. The upper wall **18** is also provided with a longitudinal groove **21** in line with and above the rib **15**.

It will be seen that before the dispenser is closed the

blade stack may be presented to and assembled in the lower section with the blades impaled upon the stripper pin **14** and the guide rib **15**, assuming substantially the position shown in Fig. 3. The dispenser then may be conveniently closed by merely snapping the upper section into place.

When the user desires to withdraw a single blade, he has only to depress the outer end of the blade stack as suggested in Fig. 4 and draw the uppermost blade outwardly by surface contact. The rocking or tilting of the stack moves the inner end of the uppermost blade into the clearance recess **19** and when that blade is subjected to forward or outward traction, the rear solid end of the blade displaces the stripping pin by prying action as shown in Fig. 4, passing over it and over the upper edge of the blade-locating rib **15**. Meanwhile the remaining blades of the stack are positively retained in position by the stripping pin **14** which, upon removal of the uppermost blade, immediately contacts again with the inner surface of the top wall **18** and so locking the remaining blades securely within the dispenser. All the blades of the stack may be individually removed in the same manner, down to the last remaining single blade.

Having thus disclosed my invention and described in detail an illustrative embodiment thereof, I claim as new and desire to secure by Letters Patent:

1. A blade dispenser comprising a rectangular enclosure having a bottom and a solid top wall and being closed at one end and open at the other, a fulcrum shoulder for the blade stack contained within the dispenser projecting inwardly from the bottom wall near the open end of the enclosure, and a stripping pin resiliently mounted on the bottom wall near the closed end of the enclosure, beneath and extending into proximity to the top wall.

2. A blade dispenser comprising a rectangular enclosure open at one end, closed at the other and having a bottom and a solid top wall, a transverse rigid fulcrum shoulder projecting inwardly from the bottom wall near the open end of the enclosure, a stationary blade-locating rib projecting inwardly and longitudinally of the bottom wall and rearwardly with respect to the fulcrum shoulder, and a stripping pin resiliently mounted beneath the top wall and between the inner end of said rib and the closed end of the enclosure.

3. A blade dispenser comprising a rectangular enclosure of resilient sheet material having a bottom and a solid top wall, a yieldable tongue defined in the bottom wall and an oppositely located blade-receiving recess in the top wall, and a stripping pin projecting inwardly from the said tongue and normally contacting yieldingly against the top wall in an area adjacent to the recess therein.

4. A blade dispenser comprising a rectangular enclosure of resilient plastic material open at one end and closed at the other and having opposed top and bottom walls, the bottom wall having a transverse rigid fulcrum shoulder adjacent the open end of the enclosure and a yieldable tongue carrying a stripping pin adjacent to the closed end of the enclosure, and a stationary blade-locating rib disposed between the stripping pin and the fulcrum shoulder, the top wall of the enclosure having a blade clearance recess located behind the stripping pin in position to receive the inner end of a blade in a stack tilted over the fulcrum shoulder.

5. A blade dispenser comprising a rectangular enclosure having top and bottom walls, a stripping pin yieldably mounted in the bottom wall and normally engaging the top wall, a stack of perforated blades impaled on said pin, and a rigid fulcrum shoulder on the bottom wall, the top wall having a recess so located as to receive the trailing end of the uppermost blade of the stack when the stack is tilted over the fulcrum shoulder and thereby permit the blade to disengage the stripping pin.

6. A blade dispenser having top and bottom walls, a yieldable stripping pin normally engaged with the top wall at a point adjacent to a clearance recess in the said wall, a stack of perforated blades impaled on the pin, a rigid fulcrum shoulder on the bottom wall whereby the inner end of the blade stack may be rocked to enter the rearward end of a blade in the recess and the uppermost blade drawn outwardly above the stripping pin, and a fixed guide rib adjacent said fulcrum.

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