

Filed March 14, 1950

RAZOR BLADE DISPENSER

2 Sheets-Sheet 1

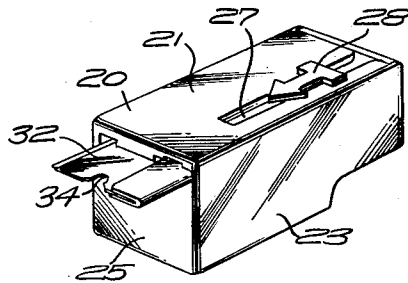


Fig. 1

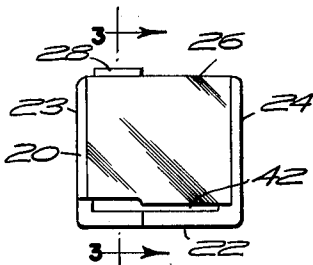


Fig. 2

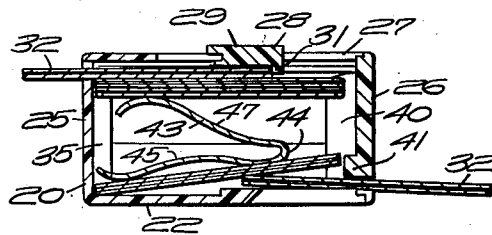


Fig.3

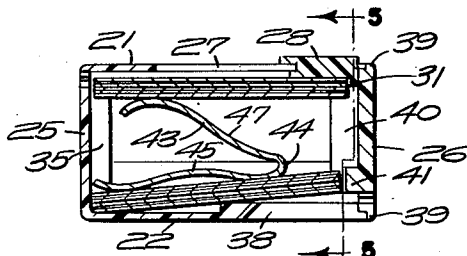


Fig. 4

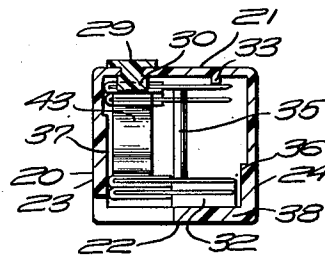


Fig. 5

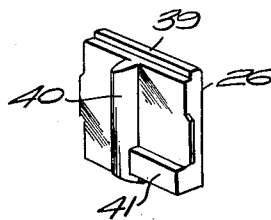


Fig.6

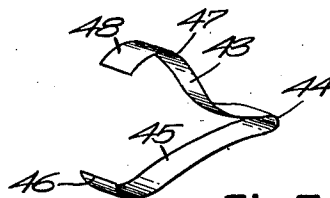


Fig.7

INVENTOR.
Dominick C. Santo
BY
Max Schwartz
ATTORNEY

June 9, 1953

D. C. SANTO
RAZOR BLADE DISPENSER

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2 Sheets-Sheet 2

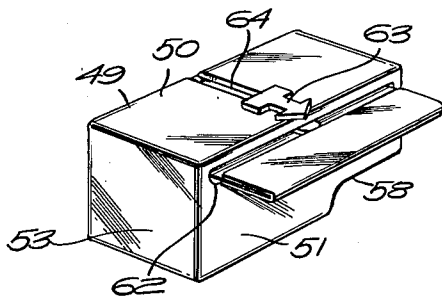


Fig. 8

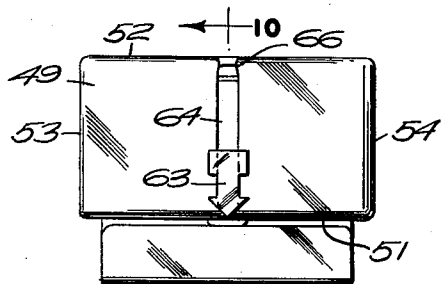


Fig. 9

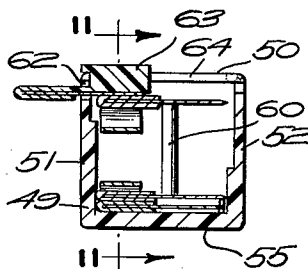


Fig. 10

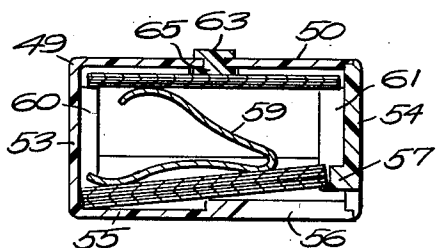


Fig. 11

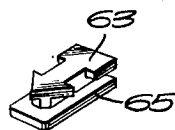


Fig. 12

INVENTOR.
Dominick C. Santo
BY
Max Schwartz
ATTORNEY

UNITED STATES PATENT OFFICE

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RAZOR BLADE DISPENSER

Dominick C. Santo, Bristol, R. I., assignor of one-half to Worcester Moulded Plastics Company, Worcester, Mass., a corporation of Massachusetts

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5 Claims. (Cl. 206-16)

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My present invention relates to dispensers, and more particularly to a novel razor blade dispenser.

The principal object of the present invention is to provide a razor blade dispenser having a compartment for the insertion of the used blades.

Another object of the present invention is to provide a razor blade dispenser into which the used blades can be placed without the danger of having them fall or shake out of the dispenser.

A further object of the present invention is to provide a razor blade dispenser into which the used blades can be readily inserted without interference from blades already positioned in the dispenser.

Another object of the present invention is to provide a razor blade dispenser which will hold a number of used blades equal to the number of new blades taken from the dispenser.

A further object of the present invention is to provide a razor blade dispenser having a compartment for used blades which is simple in construction and which requires very little alteration of existing types of razor blade dispensers.

With the above and other objects and advantageous features in view, my invention consists of a novel arrangement of parts more fully disclosed in the detailed description following, in conjunction with the accompanying drawings and more particularly defined in the appended claims.

In the drawings,

Fig. 1 is a perspective view of a razor blade dispenser embodying my invention.

Fig. 2 is a rear view thereof.

Fig. 3 is a section taken on line 3-3 of Fig. 2, showing a used blade being inserted in the dispenser.

Fig. 4 is a view similar to Fig. 3, with the used blade entirely within the dispenser.

Fig. 5 is a section taken on line 5-5 of Fig. 4.

Fig. 6 is a perspective view of the rear wall of the dispenser.

Fig. 7 is a perspective view of the spring.

Fig. 8 is a perspective view of a modified form of my invention.

Fig. 9 is a top plan view of the same.

Fig. 10 is a section taken on line 10-10 on Fig. 9.

Fig. 11 is a section taken on line 11-11 on Fig. 10, and

Fig. 12 is a perspective view of the slide member.

Most razor blades are now conventionally sold in so-called dispensers. These dispensers vary

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with the different blade manufacturers and also vary slightly with the single edge and double edge blades. However, the basic principle in all of the dispensers is the same.

A rectangular housing is provided into which a quantity, usually 10, razor blades are loaded. A spring is inserted between the bottom of the housing and the lowermost blade to push the blades resiliently upwardly towards the top. One end of the housing is provided with a slot adjacent the top. Means is then provided for pushing the topmost blade out through the slot. In some dispensers, a slide which engages the edge of the blade is used. In others, the top is cut away to permit the user to engage the blade with his thumb and push it out of the slot.

The present invention provides an improvement on the above dispensers by permitting the used blade taken from the razor to be inserted into the dispenser so that it cannot be removed from and will not fall out of the dispenser. As each new blade is removed from the dispenser, the used blade taken from the razor is inserted therein until finally the ten new blades have been removed from the dispenser and are replaced by ten used blades. The dispenser can then be safely thrown away into the waste can without danger of cutting.

The construction and operation of the dispenser hereinafter described will readily apply to either a single or double edge blade. For purposes of illustration only, the dispenser has been shown with a double edge blade.

Referring more in detail to the drawings illustrating my invention, and particularly Figs. 1-7 thereof, my dispenser comprises a rectangular housing 20, having a top 21, bottom 22, sides 23 and 24, front end 25 and rear end 26. The dispenser 20 may be made of any suitable material such as metal or plastic. The top 21 may be provided with a slot 27 extending from the rear edge thereof forwardly of the front end, as shown in Fig. 1. A slide member 28 is slidable in the slot 27. The member 28 is provided with a finger engageable portion 29 extending above the surface of the dispenser, a narrow portion extending through the slot and a wider portion 30 slidable within the dispenser. The portion 30 is provided at the rear edge thereof with an integral depending portion 31. Where single edge blades are used, such as the blades 32, the top 21 is also provided with an integral depending rib 33, Fig. 5, which extends parallel to the thick end of the blade. The thin portions of the blade bear against this rib 33 to retain the top blade at

proper horizontal level. Where single edge blades are used, these blades are normally provided with side indentations 34 at each side edge for clamping into the razor. These indentations may be used as guides to keep the blades in proper alignment in the dispenser. The front wall 25 of the dispenser may, therefore, be provided with an integral vertical rib 35 which will extend into the indentations 34 and serve to retain the blades in alignment.

To make sure that the used blades inserted into the dispenser 20 are aligned with the rib 35, the side walls 23 and 24 are provided with thickened wall portions 36 and 37 to restrict the interior of the dispenser especially at the point where the used blades are inserted. The bottom wall 22 of the dispenser is provided with a double thickness 38 extending from the rear thereof to just short of the center of the dispenser as shown in Fig. 4, the double thickness 38 terminating in an abrupt shoulder to a single thickness portion. The rear wall 26 of the dispenser, Fig. 6, may be provided with upper and lower tongue portions 39 for fitting into the dispenser and is also provided with a vertical guide rib 40 complementary to the rib 35 in the front wall for keeping the blades in alignment. The lower inner right edge, Fig. 6, of the rear wall 26 is provided with a double thickness 41 for a purpose hereinafter to be described. The rear wall 26 is provided with the slot 42, Fig. 2, for the insertion of used blades adjacent the bottom edge thereof, the left end of the slot, as shown in Fig. 2, being wider to accommodate the thick edge of the single edge blades 32. The thickened wall portion 41 of the wall 26 is just above the widened portion of the slot. The side wall 23 and the bottom wall 22 are partially cut away, as shown in Fig. 1, so that the wider portion of the slot 42 is extended partially rearwardly to permit manual communication with the interior of the dispenser.

The blades are retained in proper relationship in the dispenser by the spring 43, shown in Fig. 7. The spring 43 comprises a unitary integral leaf folded sharply at 44 to form a close U-bend, the lower arm 45 having a slight upward and then downward curvature and terminating in an upwardly extending end 46. The upper arm 47 is slightly shorter than the lower arm and is also slightly curved, terminating in a slightly downwardly extending end 48. The spring is inserted in the receptacle 20 with the free arms facing the front wall 25 and the U-bend 44 extending rearwardly. The spring is positioned adjacent the wall 23 and beneath the slide portion 28.

As shown in Figs. 3, 4 and 5, the dispenser is loaded with ten new blades, so that the thick ends of the blades are under the slot 27 in the top 21. The spring 43 is then slipped into its proper position beneath the blades, the bend 48 bearing against the blades and pushing them upwardly. As the slide 28 is pulled rearwardly, the portion 31 will engage the rear edge of each blade and forward movement of the slide 28 will push the blade 32 out of the slot adjacent the upper edge of the front wall 25. In conventional constructions, the tension exerted by the spring 43 will become gradually lessened as more and more blades are removed, leaving more room for the spring arms 45 and 47 to spread apart. However, in the present construction, as each new blade is removed from the dispenser, the used blade taken from the razor is inserted in the slot 42, as shown in Fig. 3, beneath the spring 43 and pushed manually inwardly until it is

within the confines of the dispenser. By applying the thumb to the cut away portion of the dispenser shown in Figs. 1 and 2, the used blade can be moved further within the dispenser until its rear end clears the thickened portion 41 on the rear wall 26. At this point, the lower arm 45 will press downwardly on the inner end of the used blade and push it against the thin portion of the bottom wall 22, as shown in Fig. 4. A rocking action is created by the spring and the used blade assuming the angular position shown in Fig. 4, with the forward end of the blade resting on the thin portion of the bottom wall and the rear end of the blade being held upwardly by the shoulder formed by the thick portion of the wall 38. In this position, the rear edge of the used blade faces the thickened portion 41 of the rear wall and does not face the slot 42. It therefore cannot be removed from the dispenser nor can it be shaken out of the dispenser. Furthermore, the raised position of the rear of the used blade clears the slot 42 for the insertion of the next used blade beneath it, as shown in Fig. 3. As this action is repeated, the spring will always be at its maximum tension, since the dispenser will always contain ten blades, either new or used. When the last new blade has been removed, the dispenser can be safely thrown away without danger of the used blades therein cutting anyone.

If desired, the dispenser may be constructed as shown in Figs. 8-12, inclusive. This form of the invention is designed to avoid the danger of cutting in the handling of a single edge blade. The dispenser 49 comprises a generally rectangular housing similar in shape to the dispenser 20. It has a top 50, sides 51 and 52, front end 53, rear end 54 and a bottom 55. The interior construction of the dispenser 49 is identical to that of the dispenser 20. The bottom 55 is provided with a thickened portion 56 for supplying the rocking movement to the used blades, and the rear wall 54 is constructed with the thickened portion 57 similar to the dispenser 20. The slot and cut away portion 58 is also the same. The spring 59 is identical to the one used in the dispenser 20. The sole difference between the two dispensers is in the removal of the new blades. The guide ribs 60 and 61 in the front and rear walls do not extend completely to the top of the dispenser so that the top blade is always free of the guide ribs. The removal slot 62 is in the side of the dispenser 51 and the slide 63, Fig. 12, is slidable within a slot 64 extending transversely across the top 50 of the dispenser 49 as shown in Figs. 8 and 9. The slide 63 is provided at its lower end with the rectangular portion 65 to engage the new blades. In inserting the slide 63 in a unitary construction, the rear end of the slot 64 may be slightly restricted, as at 66, so that the slide may be forced into the slot and will be retained within the slot against accidental removal.

As can be seen in Fig. 10, the portion 65 on the slide 63 will engage the thickened edge of the topmost new blade and forward movement of the slide will push the thickened portion of the blade out of the slot as shown in Fig. 9. The user can then safely grasp this portion of the blade and pull it out of the dispenser. The insertion of used blades is accomplished from the rear end exactly as in the dispenser 20 hereinabove described and the spring action in retaining the used blades within the dispenser will be the same. This form of the dispenser is adaptable for single edge blades

only, whereas the dispenser 20 may be applied to either single or double edge blades.

The dispensers hereinabove described are simple in construction and easy and economical to manufacture and assemble. It can readily be seen that they can be manufactured at only a slight additional cost over and above the present type of conventional dispensers. Other advantages will be readily apparent to a person skilled in the art.

While I have described certain specific embodiments of my invention, it is obvious that changes may readily be made in the size, shape, or relative arrangement of the parts without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A razor blade dispenser for a rigid non-flexible razor blade comprising a generally rectangular container having a top, a bottom, and side, front and rear walls, a dispensing slot in one wall adjacent the top of the container, a used blade receiving slot in the rear wall adjacent the bottom of the container, said slot being in alignment with the front wall to permit a rigid razor blade to be inserted in parallel relation to said bottom, spring means in said container for pushing successive new blades toward the top of the container and for retaining used blades at the bottom of the container, means for slidably ejecting the topmost new blade from said container through said dispensing slot, and means for permanently retaining used blades in said container after they have been inserted through the used blade receiving slot, said retaining means comprising a raised portion extending upwardly from the bottom of the container and extending lengthwise from a point adjacent the lower portion of said rear wall to a point intermediate the front and rear walls, said raised portion supporting the used blades away from the bottom at one point and said spring means depressing said blades to the bottom at a point intermediate the inner end of said raised portion and said front wall to cause an inclination of the used blades out of alignment with the used blade receiving slot.

2. A razor blade dispenser for a rigid non-flexible razor blade comprising a generally rectangular container having a top, a bottom, and side, front and rear walls, a dispensing slot in one wall adjacent the top of the container, a used blade receiving slot in the rear wall adjacent the bottom of the container, said slot being in alignment with the front wall to permit a rigid razor blade to be inserted in parallel relation to said bottom, spring means in said container for pushing successive new blades toward the top of the container and for retaining used blades at the bottom of the container, means for slidably ejecting the topmost new blade from said container through said dispensing slot, and means for permanently retaining used blades in said container after they have been inserted through the used blade receiving slot, said retaining means comprising a raised portion extending upwardly from the bottom of the container and extending lengthwise from a point adjacent the lower portion of said rear wall to a point intermediate the front and rear walls, said raised portion supporting the used blades away from the bottom at one point and said spring means depressing said blades to the bottom at a point intermediate the inner end of said raised portion and said front wall to cause an inclination of the used blades

out of alignment with the used blade receiving slot, and a thick portion on the rear wall above said used blade receiving slot adapted to abut the raised rear edges of said inclined used blades.

3. A razor blade dispenser for a rigid non-flexible razor blade comprising a generally rectangular container having a top, a bottom, and side, front and rear walls, a dispensing slot in one wall adjacent the top of the container, a used blade receiving slot in the rear wall adjacent the bottom of the container, said slot being in alignment with the front wall to permit a rigid razor blade to be inserted in parallel relation to said bottom, a generally U-shaped spring in said container having spaced curved arms, the upper arm bearing against the new blades and the lower arm bearing against the used blades, means for slidably ejecting the topmost new blade from said container through said dispensing slot, and means for permanently retaining used blades in said container after they have been inserted through said used blade receiving slot, said retaining means comprising a raised portion extending upwardly from the bottom of the container and extending lengthwise from a point adjacent the lower portion of said rear wall to a point intermediate the front and rear walls, said raised portion supporting the used blades away from the bottom at one point and said lower spring arm depressing said blades to the bottom at a point intermediate the inner end of said raised portion and said front wall to cause an inclination of the used blades out of alignment with the used blade receiving slot.

4. A razor blade dispenser for a rigid non-flexible razor blade comprising a generally rectangular container having a top, a bottom, and side, front and rear walls, a dispensing slot in one wall adjacent the top of the container, a used blade receiving slot in the rear wall adjacent the bottom of the container, said slot being in alignment with the front wall to permit a rigid razor blade to be inserted in parallel relation to said bottom, a generally U-shaped spring in said container having spaced curved arms, the upper arm bearing against the new blades and the lower arm bearing against the used blades, means for slidably ejecting the topmost new blade from said container through said dispensing slot, and means for permanently retaining used blades in said container after they have been inserted through said used blade receiving slot, said retaining means comprising a thickened bottom portion extending from the rear wall to short of the center of the container and terminating in an abrupt shoulder, said lower spring arm bearing against said used blades at a point intermediate said abrupt shoulder and said front wall to cause said blades to incline out of alignment with the used blade receiving slot with the rear edges of said blades extending above said slot.

5. A blade magazine comprising, a blade containing compartment having a blade-exit slot and a blade-entrance slot each formed in an end wall of said compartment with said two slots communicating respectively with the upper and lower portions of said compartment, said blade-entrance slot being disposed in its associated end wall a slight distance above the bottom wall of said compartment, a raised portion extending upwardly into said compartment from the bottom wall and extending lengthwise of said compartment from a point adjacent the lower wall portion of said entrance slot inwardly to a point

intermediate the compartment end walls and terminating in an abrupt shoulder, a substantially U-shaped spring disposed within said compartment with its two limbs biased apart and extending away from the end wall having said entrance slot and substantially beyond said shoulder so that one of said limbs is normally urged toward the top and the other limb toward the bottom of said compartment whereby used blades inserted through said entrance slot will be inclined out of alignment with said slot, and a feed slot disposed lengthwise of the top wall of said compartment for ejecting new blades from said upper portion through said blade-exit slot.

DOMINICK C. SANTO. 15

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