Jan. 8, 1957 H. G. TREISS 2,776,743

BLADE DISPENSERS

Filed Aug. 28, 1951 2 Sheets-Sheet 1

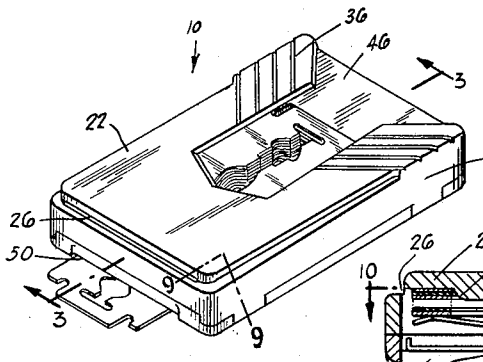


Fig. 1.

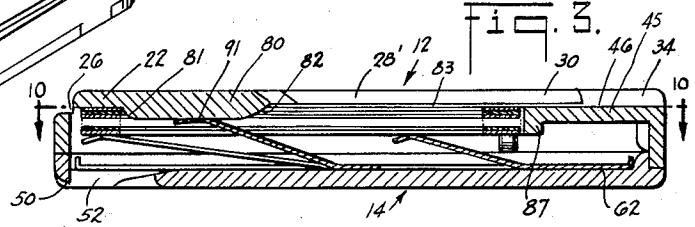


Fig. 3.

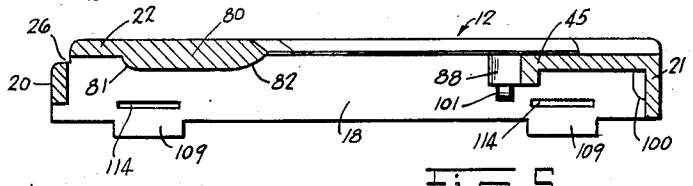
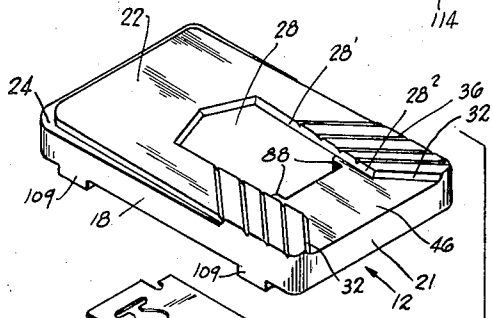


Fig. 5.



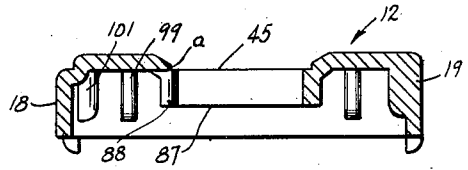
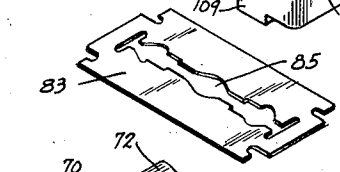


Fig. 6.



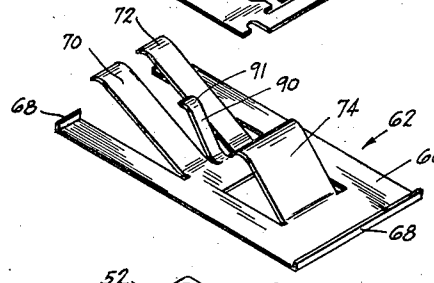
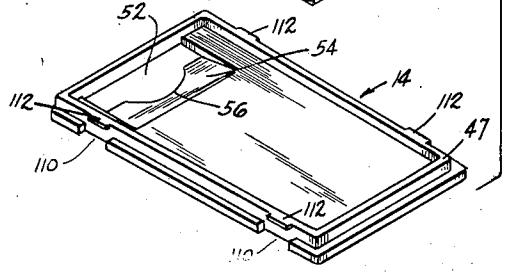


Fig. 2.



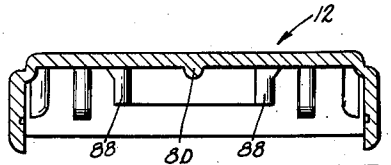


Fig. 7.

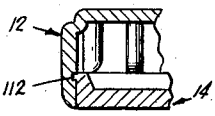


Fig. 9.

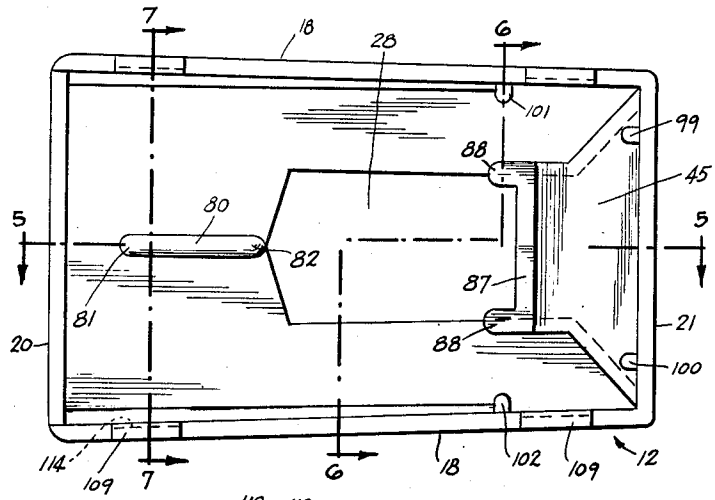
INVENTOR.
HERMAN G. TREISS
BY
ATTORNEY

Jan. 8, 1957 H. G. TREISS 2,776,743

BLADE DISPENSERS

Filed Aug. 28, 1951 2 Sheets-Sheet 2

Fig. 4.



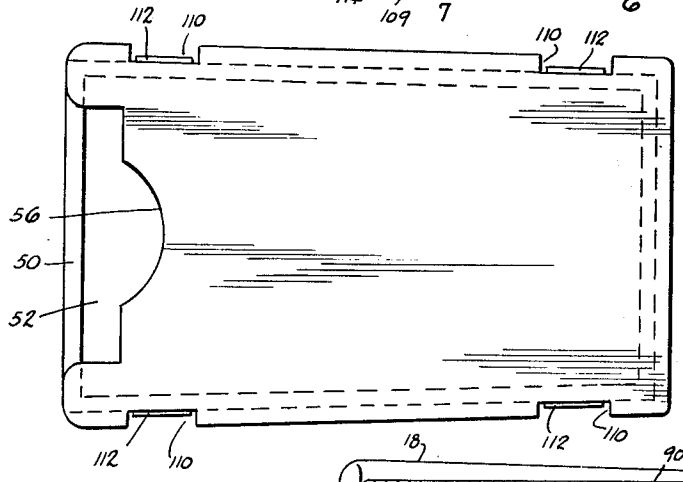
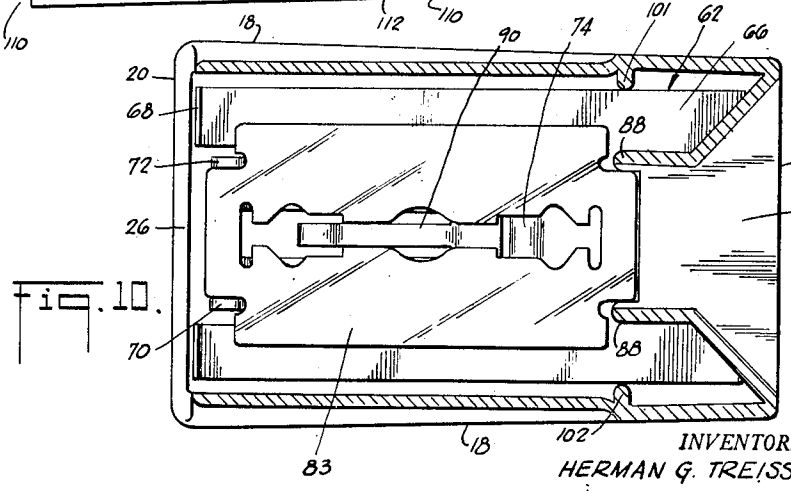


Fig. 8.

Fig. 10.



INVENTOR.
HERMAN G. TREISS
BY
ATTORNEY

United States Patent Office 2,776,743 Patented Jan. 8, 1957

2,776,743

BLADE DISPENSERS

Herman George Treiss, Riverdale, N. Y., assignor to American Safety Razor Corporation, Brooklyn, N. Y., a corporation of Virginia

Application August 28, 1951, Serial No. 243,987

2 Claims. (Cl. 206—16)

This invention relates to a razor blade container.

One of the general objects of the invention is an improved arrangement for containing blades registered in stacked relation.

Another general object is an improved arrangement whereby blades may be dispensed from a container.

Another general object of the invention is the provision in a blade container of an improved arrangement for receiving and storing used blades therein.

A more particular object of the present invention is the provision in a blade container of an improved arrangement whereby new blades may be dispensed therefrom to replace a used blade and the used blade entered into and stored in the container for disposal.

For the attainment of these objects and such other objects as may hereinafter appear or be pointed out, one illustrative embodiment of my invention has been shown in the drawings, wherein:

Fig. 1 is a perspective view of a container constructed in accordance with the present invention;

Fig. 2 is an exploded view thereof showing the parts of which the container is comprised;

Fig. 3 is an enlarged sectional view taken substantially along the line 3—3 of Fig. 1;

Fig. 4 is an enlarged bottom view of the upper part of the container

Fig. 5 is a sectional view taken substantially along the line 5—5 of Fig. 4;

Fig. 6 is a sectional view taken substantially along the line 6—6 of Fig. 4;

Fig. 7 is a sectional view taken substantially along the line 7—7 of Fig. 4;

Fig. 8 is a bottom view of the base of the container shown in Fig. 1;

Fig. 9 is an enlarged fragmentary sectional view taken substantially along the line 9—9 of Fig. 1; and

Fig. 10 is a sectional view taken substantially along the line 10—10 of Fig. 3.

Referring now in detail to the drawings, the reference numeral 10 denotes a container constructed in accordance with the present invention to serve standard double edged blades 83 longitudinally slotted at 85 as shown in Fig. 2. The container body is shown as comprised of two separately formed parts 12 and 14 (see Fig. 2) made of any preferred or desired material, such as for example a commercial synthetic plastic. Part 14 is the base or lower part and part 12 is the upper part.

The upper part 12 of the container includes two depending side walls 18, 19 (Fig. 6), front depending end wall 20 (Fig. 5), rear end wall 21 and top wall 22. A continuous step 24 runs around the top edge of its front end and extends along the major length of the sides. A slot 26 shown as of a width greater than that of a razor blade to be fed therethrough, is formed in the vertical front part of said step. Slot 26 is shown as of a height slightly greater than the thickness of a bare razor blade.

One feature of the invention contemplates that the topmost of a stack of blades in the container be moved

through discharge slot 26 by finger engagement through opening 28 provided through top wall 22 of the upper part and whose width is defined by the spacing between side edge portions 28′ which define the opening. This width is shown as such that a finger, preferably the human thumb, is enterable thereinto sufficiently to engage its fleshy underpart with those portions of the topmost blade which are rendered accessible thereto by opening 28 and the following provisions are made whereby the thumb is guided into opening 28 and therealong to advance the blade, thumb engagement with the topmost blade is facilitated and thumb movement controlled against slippage. Among these provisions are the following: the side edges 28′ are extended rearwardly as shown at 28^2 to define channel portion 30 to the rear of opening 28 and thus extend rearwardly the passageway between its edges 28′; these side edge extensions 28^2 are continued rearwardly to the rear end of the container as side edge portions 32, which are however directed angularly outwardly to provide the passageway between edge portions 28′ and 28^2, with an enlarged mouth 34 which gradually increases in width toward the rear end of the container; the edges 28′, 28^2 and 32 which define the passageway are bevelled upwardly and outwardly from the level indicated at "*a*" in Fig. 6; a platform 45 to the rear of opening 28 and extending forwardly from rear wall 21 to initially seat the thumb, is levelled to the top of discharge mouth 26 and the undersurfaces of edge portions 28^2 and 32; portions of the top surface of top 22 to opposite sides of the passageway defined by edges 28′, 28^2 and 32, are provided with inclined grooves 36 generally parallel to the outwardly diverging edge portions 32, each groove having its rear wall vertical and its front wall inclined upwardly and forwardly relatively thereto.

As a result when the thumb is seated on top surface 46 of platform 45 and then advanced, it will be guided visually and physically by the edges 32 into the narrow portion of the passageway wherein it will be pinched sufficiently by the side edges 28 to depress the fleshy parts of the undersurface of the thumb downwardly through opening 28 and into effective engagement with the blade and in such advancement the diagonal grooves 36 will tend to prevent thumb slippage.

Base 12 is provided with an upstanding peripheral flange 47 inset from the periphery of the base at all points except at the front end. The flange is adapted to snugly fit within the walls of the upper part of the container.

An inlet slot 50 is provided in the lower left corner of the container so that it opens downwardly through the bottom and also forwardly through the front. This slot shown as somewhat wider than a razor blade and slightly deeper than major blade thickness, is extended rearwardly by opening 52 in said base, immediately to the rear thereof and into which the slot opens for its full length. This arrangement permits the advanced end of a used blade to be entered substantially horizontally into inlet 50.

The transverse edge portion of the bottom which defines the rear end of bottom opening 52, is bevelled at a relatively low angle, upwardly and rearwardly from the base bottom to the base top, to provide ramp 54, which will engage the advanced edge of the blade being entered through mouth 50 and direct it upwardly so that the fully entered blade will seat itself onto the base bottom.

The lower portion of ramp 54 is recessed centrally as shown at 56 for entry of the pushing finger (human) to assure entry of the distal end of the blade approximately to the innermost portion of the recess. When so fully entered, the used blade will present that portion of its distal end which overhangs the unrecessed upper ramp portion in spaced relation thereto, so that the entry of a following used blade will be guided thereby into underlying relation to the already entered used blade. It will

be understood that used blade entry is resisted by the downward pressure of overlying spring **62**, so that overthrow of the blade is minimized.

The base is assembly with the upper part and the two are held together as will now be described to present inlet slot **50** and ejection slot **26** at the top and bottom of the front end of the container, for convenience of operation.

The side walls of the upper part **12** are each provided with spaced apart downwardly extending tabs **109** (Fig. 5) contoured, dimensioned and located to engage in notches **110** provided in the side portions of step **24** of the lower member **14** to thus guide the two parts into assembled relation. The two parts are locked in this relation upon their assembly by engagement of projections **112** which extend outwardly from the upper end of flange **47** of the lower member, in indentations **114** provided on the inner surfaces of the side walls of the upper member. It will be observed that projections **112** and indentations **114** are located vertically above cutouts **110** and tabs **109**, respectively.

This assembly operation must include and be preceded by the step of loading the parts **12** and **14** with blades and spring **62**. One manner of effecting this is as follows: spring **62** is entered into and seated on lower member **14** and blades are entered into upper part **12** preferably while this part is held upside down; the upper and lower parts are then assembled in locked relation, as already explained. In this final assembly step, it is advisable that the blades and spring be held by hand in their respective parts.

The spring **62** hereinabove referred to, comprises a body portion **66**, shown as flat and dimensioned and contoured to be received initially within peripheral flange **47** of lower casing portion **12**. Its ends are upturned to provide flanges **68** which serve to guide its up and down movement and also to prevent used blades from being inserted thereabove.

Spring **62** has two laterally related spaced apart spring fingers **70** and **72** extending upwardly from and transversely of the middle of the spring body or base **66** and a spring finger **74** extending upwardly from the rear portion of base **66** and to the rear of fingers **70** and **72**. Said three fingers all extend generally in the same direction and it is contemplated that the spring be positioned in the casing so that these three fingers be forwardly directed toward the mouth as shown in Fig. 3, so that the upper curved free ends thereof all face in the same direction. The spacing between and the location of fingers **70** and **72** is such that these fingers engage the blade portions of the lowermost blade of the stack to opposite sides of its longitudinal slot **85**. The width of finger **74** is such that its central location assures its engagement across and to opposite sides of blade slot **85**. It will be observed that fingers **70** and **72** engage and elevate the front end of the stack and that finger **74** engages and elevates the rear end of the stack and that the three fingers are directed toward the container front. The position within a container stacked only with new blades, of spring **62** and its aforementioned fingers **70**, **72** and **74**, is shown in Fig. 3.

An upwardly and forwardly directed centrally located spring finger **90** is interposed in the space between spring fingers **70** and **72** of a character and for a purpose to be set forth shortly.

The body **66** of the spring is located by pairs of projections **99**, **100**, **101**, **102** on the upper part. One pair of projections is disposed in spaced apart relation, on the inner surface of the rear end of the upper part of the dispenser. The other pair of projections are disposed respectively on the inner surfaces of side walls **18** and **19**. These projections taper downwardly at their lower ends into their respective walls and terminate at a level which clears the flange **47** of the lower part **14** for the assembly of the parts, all as shown in Fig. 3. The spring will lie initially below the projections and will be guided thereby when elevated by the entry of used blades therebeneath.

The container is provided with means for locating and holding the blades with their shaving edges in vertical registration and held out of contact with the container walls and it will here be premised that the container shown in the drawing is designed to take 20 new blades, although a specific number is not required by the invention. The blade locating means comprise a rib **80** extending longitudinally, centrally downwardly from top wall **22**, and centrally located upwardly and forwardly directed finger **90** of spring **62**. The width of rib **80** and finger **90** are no greater and preferably less than the narrowest widths of the irregularly shaped slot **85** of the standard blade so as to be enterable thereinto. The length of rib **80** is such that its engagement through the slot of the topmost blade, will locate that blade in the stack and also guide it rectilinearly as it is advanced through mouth **26**. Its depth is such that this engagement is not only with the topmost blade but also with a few (about five or six) blades immediately therebelow. Its location is immediately to the front of opening **28**, and its front end is spaced from exit mouth **26** by a distance slightly greater than the length of the unslotted front end portion of blade **83** which will be free to seat between rib **80** and mouth **26**. The lower surface of rib **80** is curved or beveled upwardly at its front **81** and also at its rear **82** as shown in Fig. 3.

As a result, advancement of the topmost blade can be effected freely by thumb engagement without flexing the blade until the rear unslotted end thereof engages bevel **82** and is flexed downward to pass under and clear it, which is practically feasible where the rib depth engages up to about 5 or 6 blades. It will be observed that where the advancement of the topmost blade carries with it the blade immediately therebelow, mouth **26** will prevent advancement therethrough of this second blade.

The length and location of centrally located finger **90** is such that where the casing parts are loaded and fully assembled, its free end will be entered into the registered slots of the blade stack through the bottom thereof to engage its curved top free end **91** with the underface of rib **80** with a sufficient pressure to effect its intended purpose. Finger **90** therefore serves for the blades below rib **80**, a purpose similar to that served by the rib for the blades thereabove.

A further provision to retain the blades stacked above spring **62** against lateral shift and with their edges registered and protected against contact with the container walls, comprises depending flange **87** at the front of platform **45** having forwardly directed and upwardly extending ribs **88**, located so as to engage in the cut away corner portions at the blade end which characterize this standard blade (see Fig. 2) and receive therebetween the extreme end lobe of the blade, left by the corner cutouts.

A blade moved out of the container through top mouth **26** for placement in a razor, will be replaced by the discarded blade when it is entered into the magazine below spring **62** and the pressure of the spring will therefore remain constant. It will however rise gradually in the container with successive replacements.

What I claim is:

1. A blade dispenser comprising an elongated enclosure having an exit slot at one end and a recess-opening at the top wall located rearwardly of said exit slot through which a finger may engage the topmost blade to advance it and a platform to the rear of the opening presenting a top surface which is leveled to the top of the slot, an enclosed stack of double-edged blades underlying said opening, said stack of blades having cut away corner portions, said platform having a flange depending therefrom to present a front wall whose depth is at least equal to the depth of the blade stack, said front wall presenting spaced apart ribs to enter the cutaway corner portions of the standard double edged slotted blade to thus locate the rear end of the stack with reference to the opening through the top.

2. A blade dispenser comprising an elongated enclosure having an exit slot at one end and a recess opening at the top wall located rearwardly of said exit slot through which a finger may engage the topmost blade to advance it, and a platform to the rear of the opening presenting a top surface which is leveled to the top of the slot, an enclosed stack of double-edged blades underlying said opening, said platform having a front wall whose depth is at least equal to the depth of the blade stack, said front wall including means cooperating with portions of the blades to locate the rear end of the stack with reference to the opening through the top.

References Cited in the file of this patent

UNITED STATES PATENTS

1,092,067	Marx	Mar. 31, 1914
1,791,586	Todd	Feb. 10, 1931
1,834,284	Kylberg	Dec. 1, 1931
1,908,115	Chadwick	May 9, 1933
1,909,919	Testi	May 16, 1933
2,148,989	Illmer	Feb. 28, 1939
2,339,480	Hollis	Jan. 18, 1944
2,363,908	Stampleman	Nov. 28, 1944
2,410,311	Steinbach	Oct. 29, 1946
2,418,495	Auerbach	Apr. 8, 1947
2,472,051	Testi	May 31, 1949
2,536,109	Testi	Jan. 2, 1951
2,557,323	Testi	June 19, 1951
2,573,671	Muros	Oct. 30, 1951
2,604,979	Roberts	July 29, 1952
2,625,260	Muros	Jan. 13, 1953