March 10, 1953 M. KLEINMANN ET AL 2,630,625

RAZOR BLADE MAGAZINE

Filed Jan. 24, 1949 2 SHEETS—SHEET 1

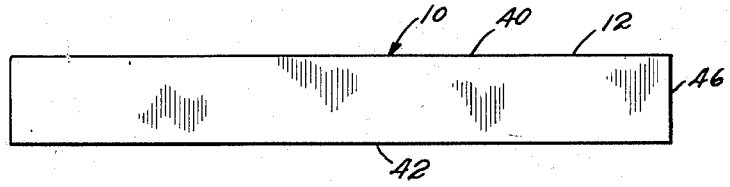


Fig. 1

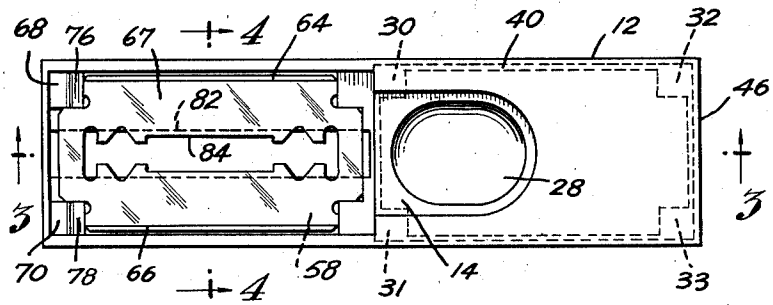


Fig. 2

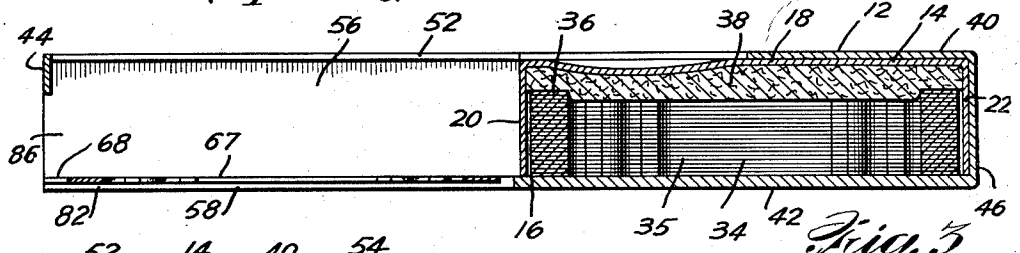


Fig. 3

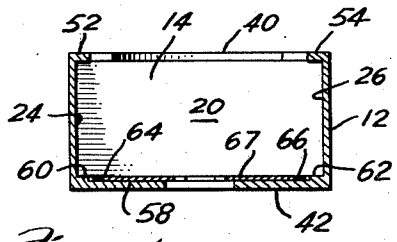


Fig. 4

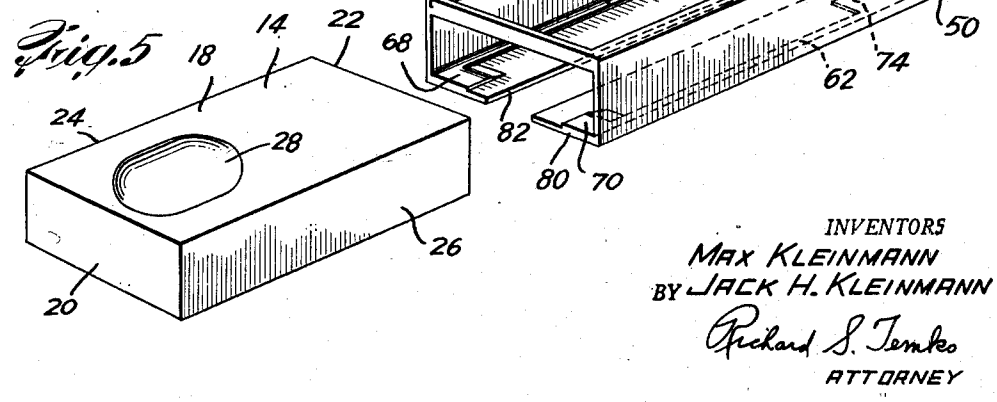


Fig. 6

Fig. 5

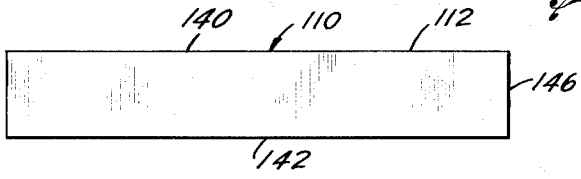
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RAZOR BLADE MAGAZINE

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Fig. 7



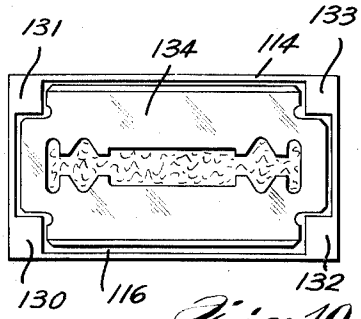


Fig. 10

Fig. 8

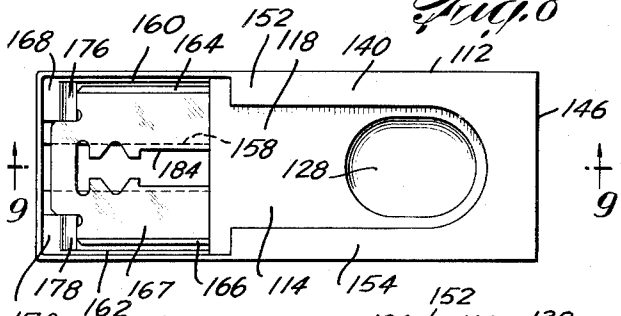
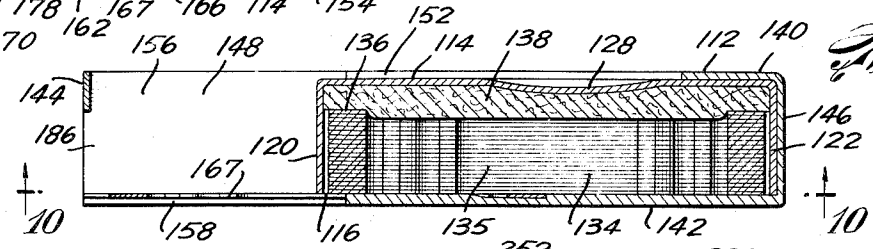


Fig. 9



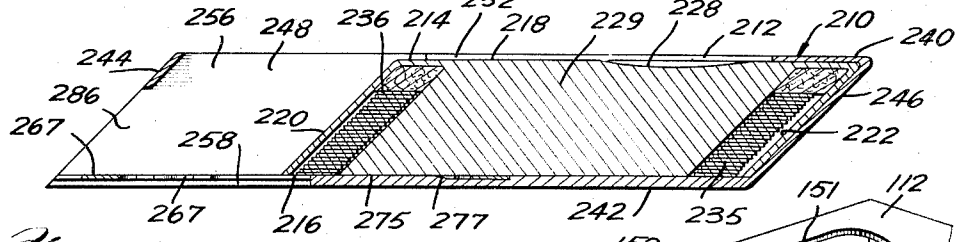


Fig. 13

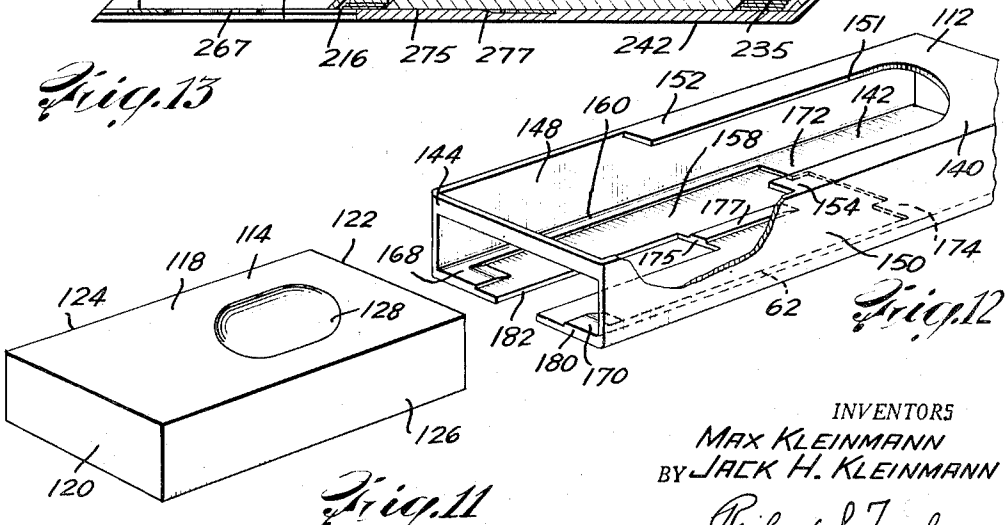


Fig. 12

Fig. 11

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RAZOR BLADE MAGAZINE

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Brooklyn, N. Y.

Application January 24, 1949, Serial No. 72,502

5 Claims. (Cl. 30—40)

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This invention relates generally to the field of razor blade packaging and more particularly to improvements in razor blade magazines.

It is among the objects of the present invention to provide razor blade magazine constructions which are easily loaded, particularly in view of the fact that the blades are placed within the magazine in an alined stacked relation, staggered arrangements being avoided.

Another object herein lies in the provision of structure of the class described in which the blades are consecutively and singly deposited upon a platform from which they may be easily and conveniently positioned upon the razor with which the blade is to be used.

A feature of the invention lies in the fact that the present construction with minor alterations may be utilized in connection with razor blades of various types although for the purpose of example, the present invention has been illustrated in connection with double edged razor blades having a central orifice.

Another object herein lies in the provision of razor blade magazines in which only one blade is fed out at a time and jamming is avoided. In view of the fact that in accordance with present construction the blade is positively guided at all times prior to its actual positioning upon the razor, the blades cannot twist and their cutting edges are protected against accidental contact. The prevention of accidental contact of the cutting edges not only keeps them sharp but also prevents the user from cutting himself.

Another object herein lies in the provision of structure whereby the blade is fully supported until actually removed so that it cannot accidentally fall on the floor.

The present devices are compact and easily operated, because one positive stroke feeds one blade.

As illustrated in certain of the following embodiments, the last fed blade may be completely separate from the stack so that it may be picked up by old style razors in which the entire blade must be engaged by the head at one time rather than by the hooking arrangements on some of the newer models of razors.

Another feature of the present invention lies in the fact that the blades in the stack, prior to actual use, may be kept fully lubricated and are protected from outside contamination.

These objects and other incidental ends and advantages will more fully appear in the progress of this disclosure and be pointed out in the appended claims.

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In the drawings, in which similar reference characters designate corresponding parts throughout the several views:

Figure 1 is side elevational view of the first embodiment of the invention.

Figure 2 is a plan view of Figure 1 with a blade on the platform ready to be taken for use.

Figure 3 is an enlarged vertical sectional view as seen from the plane 3—3 on Figure 2.

Figure 4 is a transverse vertical sectional view as seen from the plane 4—4 on Figure 2.

Figure 5 is a view in perspective of the blade container, a part of the present device.

Figure 6 is a fragmentary view in perspective of the outer body or casing of the device.

Figure 7 is a side elevational view of a second embodiment of the invention.

Figure 8 is a plan view of Figure 7 with a blade on the platform ready to be taken for use.

Figure 9 is an enlarged vertical sectional view as seen from the plane 9—9 on Figure 8.

Figure 10 is a bottom plan view of the blade container of the second embodiment of the invention as seen from the plane 10—10 on Figure 9.

Figure 11 is a view in perspective of the blade container of the second embodiment.

Figure 12 is a fragmentary view in perspective of the body or casing of the second embodiment.

Figure 13 is an enlarged vertical sectional view corresponding generally to Figure 9 but showing an alternate form.

Turning now to the first embodiment of the invention illustrated in Figures 1 to 6 inclusive, the razor blade magazine generally indicated by reference character 10 comprises broadly a casing 12 and a blade container 14. As will be obvious to those skilled in the art to which the present invention relates, these parts may be made of various materials such as metal, card board, or artificial resin. When made of metal, the parts may be stamped and formed or die cast. When formed of card board they may be blanked, folded and the joints secured by suitable adhesives. Because of the pleasing appearance, sanitary condition and low cost manufacture which synthetic resins afford I prefer to mould these parts in suitable dies from such synthetic resins, frequently referred to as plastics. Many suitable plastics are known including cellulose acetate, methyl methacrylate, polystyrene, and the like.

The blade container 14 is generally of boxlike configuration, having a bottom opening 16. The container 14 includes a top wall 18, a front wall 20, a rear wall 22, a left side wall 24, and a right

side wall 26. The top wall 18 is provided with a depression 28 which is adapted to receive one of the user's fingers, preferably the thumb for manipulation of the device. Disposed at the four corners of the container 14 are a plurality of blade aligning guides 30 to 33 inclusive. The guides 30—33, serve to properly position the blades generally indicated by reference character 34 while they are in the stack 35 as will more fully appear. Disposed between the topmost blade 36 in the stack 35 and the inner surface of the top wall 18, is a resilient member 38. This is preferably composed of sponge rubber, although other materials such as felt, cotton, wool, or plastic or metallic springs may be used. The resilient member 38 is not intended to urge the blades out of the blade container 14, but rather to keep them parallel with each other and with the bottom wall, as will more fully appear. The guides 30—33 not only keep the blades 34 in alignment, but they prevent the cutting edges from contacting the inner surfaces of the side walls 24 and 26.

The casing 12 includes a top wall 40, a bottom wall 42, a front wall 44, a rear wall 46, a left side wall 48, and a right side wall 50. The top wall has a rearwardly extending indentation 51 which extends to the rear a distance sufficient to permit convenient access to the depression 28 and is also preferably slightly wider than the depression 28, for the same purpose. The forward portion of the top wall 40 includes left and right ledge portions 52 and 54 which extend inwardly toward each other on opposite sides of the opening 56 sufficiently to prevent the blade container from coming up through the opening 56.

The bottom wall 42 at the forward portion thereof has a blade supporting platform 58. The platform 58 is downwardly depressed in the bottom wall 42 a distance substantially equal to the thickness of a single razor blade and is of substantially the same outline except that the ridges 60 and 62 are spaced apart from each other a distance greater than the distance between the cutting edges 64 and 66 of a blade 67 when it is located upon the blade supporting platform. Bordering the blade supporting platform 58, and preferably at the four corners thereof, are the front blade retaining guides 68 and 70 and the rear blade feeding guides 72 and 74. The front blade retaining guides 68 and 70 are provided with rearwardly extending ramp portions 76 and 78. The bottom wall 42 at the forward portion thereof, and extending rearwardly from the front edge 80 thereof, is provided with a razor receiving indentation 82.

Operation of first embodiment

The blade container 14 is normally located in the position in which it is shown in Figures 2 and 3, and it tends to remain there because of gravity and friction. When it is desired to remove the lowermost blade from the stack 35, the device 10 may be held in the palm of one hand, and preferably with the thumb, the blade container 14 is moved forwardly, or to the left, as seen in Figures 2 and 3 of the accompanying drawings, whereupon the lowermost blade in the stack, will be deposited, principally by gravity, upon the blade supporting platform 58. In this position of the blade container, the forward wall 20 may abut against the inner surface of the front wall 44. The blade then deposited upon the blade supporting platform 58, said blade being indicated by reference character 67, is horizontally disposed between the guides 72, 74, 76, 78. Next the blade container 14 is returned to its original position, the guides 72 and 74 acting to prevent the blade 67 from returning with the stack 35.

The blade 67 is now in full view of the user, but he is prevented from manually touching the cutting edges 64 and 66 in such a direction as would permit him to harm himself, or to damage said cutting edges. The blade 67 may now be removed, from the magazine 10, by the user bringing a suitable razor (not shown) upwardly and partially through the indentation 82 so that the usual projections, or the like, on the razor may engage the slot 84, whereupon the blade 67 may be brought forwardly and outwardly through the opening 86 below the front wall 44. The easy movement of the blade 67 outwardly of the magazine 10 is facilitated by its easy sliding action over the ramps 76 and 78.

Turning now to the second embodiment of the invention illustrated in Figures 7 to 12, inclusive, for the purpose of avoiding needless repetition, certain of the parts corresponding to the first embodiment are given the same reference characters, with the addition of a prefix "1."

The second embodiment differs from the first embodiment, principally in the relatively shortened length of the casing 112, and the provision of an additional ramp portion 177. Also, in this form, the indentation 151 is longer, so that the depression 158 is located closer to the rear wall 122.

When a blade 167 is located upon the blade supporting platform 158, the forward portion of the ramp portion 177 engages the central slot 184 and assists in properly aligning it, while the forward edge 175, assists the guides 172 and 174, during the return passage of the blade container 114 in a rearward direction.

In removing a blade, such as the blade 167, from the blade supporting platform 158, the razor (not shown) may engage parts of the exposed portion of the blade to hook and pull it off of the blade supporting platform 158.

In the alternate form of the second embodiment shown in Figure 13 the front wall 220, and the rear wall 222 of the blade container 214 are angularly disposed so as to slope forwardly in a downward direction. A central blade aligning guide 229 extends downwardly from the under surface under the top wall 218 and extends downwardly through the aligned slots in the stack 235.

The front wall 244 and the rear wall 246 of the casing 212 are parallel to the walls 220 and 222 of the blade container.

Certain of the other parts of the form showing Figure 13 have reference characters corresponding to the first embodiment with the addition of a prefix "2."

By virtue of the stepped arrangement of the stack 235, their vertical disalignment further assists in preventing the deposition of more than the lowermost blade in the stack upon the blade supporting platform 258.

It may thus be seen that we have disclosed a novel and useful razor blade magazine construction which in the several illustrated embodiments thereof provide for secure, sanitary, and protected maintenance of the razor blades in the magazine and for easy and convenient manipulation and use.

The blades even after having been deposited upon the blade supporting platform, are protected against damage to themselves and to the user. By virtue of the disclosed structure, jamming is

avoided, and the blades are fed from the stack in a consecutive manner by positive action.

Because the blades are urged into position upon the blade supporting platform when it is in juxtaposition with the blade container, by gravity, the disadvantages and additional expense of springs or spring actions are avoided.

The present invention avoids the use of skill by the user because of any normal range of digital pressure upon the blade container, because this pressure is not communicated to the blades in the blade container. Thus their feeding is only the result of the reciprocation of the blade container. This may be contrasted with prior art devices in which manual pressure against the blades and against a spring affects the operation, so that too much or too little pressure causes jamming, misfeeding or failure to feed.

We wish it to be understood that we do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

We claim:

1. Razor blade magazine construction comprising: a casing; a blade container adapted to hold a stack of blades, said blade container being smaller than said casing and disposed therein; said casing having a wall with a depression therein forming a blade supporting platform, said depression being of a size sufficient to receive a single blade from said stack; said blade container being movable along said wall, whereby in a position of the container in which it overlies said depression a single blade may be deposited therein.

2. Razor blade magazine construction comprising: a casing having a bottom wall with a blade receiving depression forming a blade supporting platform and a top wall having an opening adjacent said depression; a blade container disposed within said casing and adapted to hold a stack of blades; said container being movable along said bottom wall and in a first position thereof, overlying said depression to deposit a single blade in said depression and in a second position of said blade container to lie beneath said top wall; said opening affording access to the blade container for manual actuation thereof.

3. Razor blade magazine construction comprising: a casing having a bottom wall substantially larger than a single blade, with a blade receiving depression forming a blade supporting platform

and a top wall having an opening; a blade container having an open bottom, disposed within said casing for holding a stack of blades; said blade container having guide means therein for maintaining said stack of blades in alignment; said container being movable along said bottom wall and in a first position thereof overlying said depression to deposit a single blade in said depression and in a second position of said blade container to lie above said bottom wall; said opening affording access to the blade container for manual actuation thereof.

4. Razor blade magazine construction comprising: a casing having top, bottom, side, and front and rear walls; said top and front walls having openings; said bottom wall having a blade receiving depression adjacent said front wall opening forming a blade supporting platform; a blade container disposed within said casing and movable therein, said blade container being adapted to hold a stack of blades; said container in one position thereof overlying said depression to deposit a single blade therein and in another position to lie beneath the top wall; said opening in the top wall affording access to the blade container for manual actuation thereof, and said opening in the front wall affording an exit for a blade from the blade supporting platform.

5. Structure as claimed in claim 4 in which the bottom wall in the area of the blade supporting platform has an indentation into which a razor may be inserted for engaging a blade on the blade supporting platform.

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