

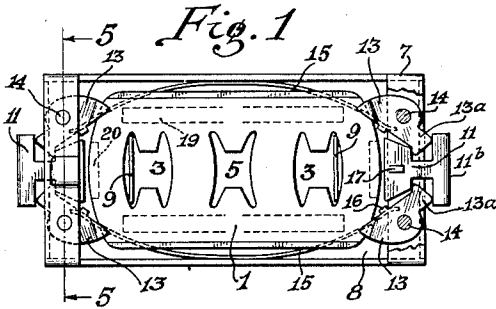
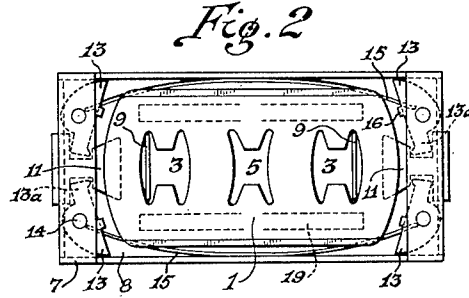
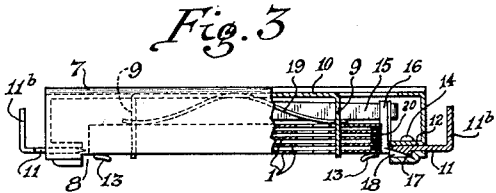
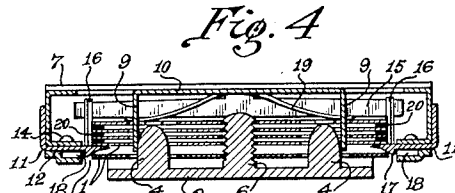
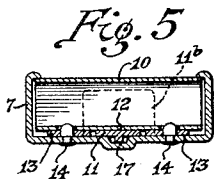
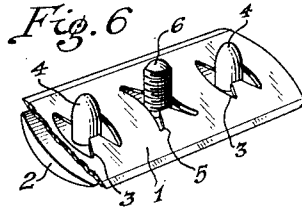
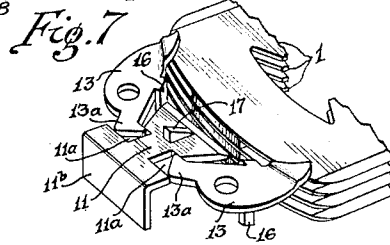
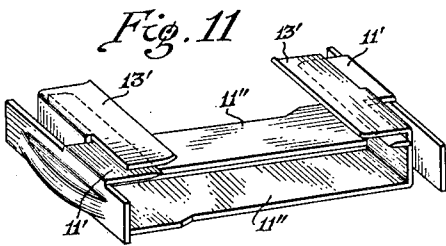
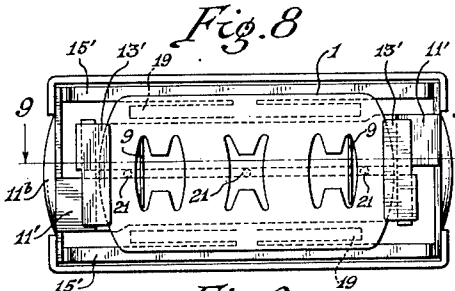
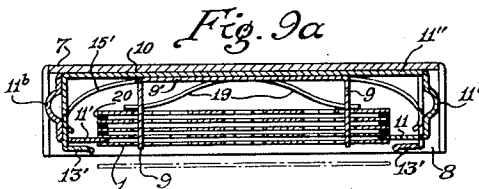
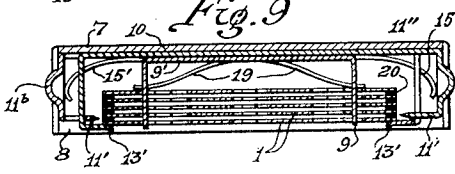
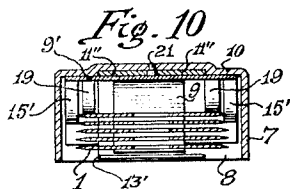
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BLADE PACKAGE

Filed Oct. 8, 1928



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BLADE PACKAGE

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My invention relates to improved means for storing razor blades for protection and transportation, and has particular reference to permitting the blades to be applied to a portion of a safety razor without requiring the blades to be handled when being so applied.

One of the objects of my invention is to provide a blade package wherein a stack or series of blades may be stored, one upon another, the package having a side opening through which the blades may pass flatwise, the package being provided with means by which the blades may be delivered singly therefrom by manipulation of said means to avoid handling of the blades, whereby the blades may be delivered against a portion of a safety razor successively as required for use.

Another object of my invention is to so arrange the blade delivering means of the package that as one blade is delivered from the stack of blades the remaining blades of said stack will be retained within the package.

Another object is to keep the cutting edges of the blades from contact with the package or container while stored therein and while being delivered therefrom.

In carrying out my invention I provide a container for a stack or pile of blades, said container having an opening in one side for the passage of blades and to permit the entrance into the container of studs or pins from a portion of a safety razor, such as a well known backing member for the blade, and the container is provided with manually operable devices that retain the blades normally within the container and when operated serve to release the outermost blade and retain the remaining blades, and so on for each blade to be delivered. When the razor backing is applied to the stack of blades the studs or pins of the backing will pass through openings in the blades and when said devices are operated the outermost blade will be delivered against or upon said backing and the remaining blades will be retained within the container, whereby a blade may be applied to the backing without manually handling the blade.

My invention also comprises novel details of improvement that will be more fully here-

inafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part hereof, wherein

Fig. 1 is a partly broken face view of my improved blade package, showing the manually operable devices in position for retaining the blades;

Fig. 2 is a substantially similar view showing the said devices in position for releasing the outermost blade;

Fig. 3 is a partly sectional side view of the package, showing the parts in blade retaining position;

Fig. 4 is a longitudinal section through Fig. 2, showing the parts in blade releasing position;

Fig. 5 is a section on line 5, 5 in Fig. 1;

Fig. 6 is a perspective view showing a blade upon a razor-blade backing, as the blade is delivered from the container;

Fig. 7 is an enlarged detail perspective view illustrating the relation of the blade controlling devices to the blades;

Fig. 8 is a face view of a modification;

Fig. 9 is a section on line 9, 9 in Fig. 8, showing the parts in blade retaining position;

Fig. 9a is a similar view showing the parts in position for releasing the outermost blade;

Fig. 10 is a cross section of Fig. 9, and

Fig. 11 is a detail perspective of the blade controlling devices of Figs. 8-10.

Similar numerals of reference indicate corresponding parts in the several views.

The blade 1 is of the variety adapted to be clamped in a safety razor frame or blade-holder, between a guard member and a backing member 2. The blade is shown provided with spaced openings 3 adapted to receive studs or pins 4 from the backing 2, and with an opening 5 adapted to receive a threaded stud 6 from the backing, in a well known way, (Fig. 6). The openings of the blade are adapted to register when the blades are in a stack or pile to permit the passage of the studs 4 and 6 into the openings of several blades simultaneously, (Fig. 4). My improved container 7 is shown in box-like or casing form having one side open, at 8, to permit the passage of the blades into and

from the container. The container is sufficiently deep to contain any desired number of blades in a stack or pile, and the container is of larger area than a blade so that the cutting edges of the latter will not engage the container, whereby to keep the said edges from injury. Spaced guides 9 extend across the container to enter the openings 3 of the blades to guide the latter within the container and keep the blade edges from engaging the container. Said guides may be cut and pressed from the metal of the back 10 of the container, (Figs. 3 and 4).

The container is provided with devices adapted to retain the stack of blades within the container for storage and transportation, which devices are adapted to be manually operated to release the outermost blade and retain the remaining blades within the container. A slidable member 11 is guided at each end of the container in a guideway at 12, (Figs. 3 and 4), and adapted to be pushed inwardly between the two outermost blades of the stack to release the extreme outer blade and oppose the next inner blade to retain the remaining blades within the container, Fig. 4. When the members 11 are spread apart they release all the blades and cause stop members 13 to oppose all the blades to retain them within the container, (Figs. 1, 3 and 9), until the members 11 are pushed inwardly and operate the stop members to release the blades (Figs. 2, 4 and 9a). In the form shown in Figs. 1 to 7 the stop members 13 are pivoted at 14 upon the container, on opposite sides of the adjacent slide member 11, and are operated by the latter by means of extensions 13a of the members 13 entering recesses 11a of the members 11 to engage the adjacent metal of the latter, (Fig. 7). The members 11 have finger pieces 11b for operating them. Springs 15, (shown in bow-like form), bear near their ends against projections 16 from the stop members 13, which springs tend normally to press the members 13 in position against the stack of blades, (Fig. 1), and thereby press the members 11 normally away from the blades. The members 11 have stops or projections 17, (operable in recesses 18 in the container), to engage the container and limit outward movement of said members and inward movement of stop members 13 in front of the stack of blades. The projections 17 are shown inclined or wedge-like to pass between two blades and to facilitate separation of the outer blade of the stack, Fig. 4.

A spring 19 opposes the back 10 of the container and bears against the adjacent blade of the stack, tending normally to press the blades toward opening 8 against the stop members 13 or the slide members 11 (Figs. 3 and 4). At the ends of the blades are strips or pieces of parafine or analogous material at 20, to engage the opposing blade to space the blades of the stack apart and permit ready

entry of the sharpened ends of the members 11 between adjacent blades, (Figs. 3, 4, 9 and 9a), and when said members enter between two blades said material will be scraped away.

When the container is charged with blades the parts will be in the positions shown in Fig. 3, with the stop members 13 in front of the blades and the members 11 withdrawn from the blades by the action of the springs 15. When a blade is to be applied to a razor backing 2 the parts are assembled as shown in Fig. 4, with the backing opposing the outermost blade of the stack and the studs 4 and 6 of the backing projecting into the openings 3 and 5 of the blades. The members 11 will next be pressed inwardly manually, whereby said members enter between the outermost blades of the stack, to release the extreme outer blade and oppose the remaining blades, and substantially simultaneously the stop members 13 will (by the inward movement of the members 11) be moved away from the blades (Fig. 2) to permit the outermost blade (which the stops 13 directly opposed) to be removed from the container. The outermost blade then will be upon the backing 2, as shown in Fig. 4, and the backing with the blade attached may be removed from the container, as illustrated in Fig. 6. The operations described permit a blade to be assembled upon a razor backing without requiring the said blade to be handled, and thereby danger of cutting the fingers of the user is avoided.

In the form shown in Figs. 8 to 11 the members 13' are attached directly to the corresponding slide members 11' by means of intermediate piece 11'', a member 11' being at one end of the container and its companion stop member 13' being at the opposite end of the container, the pieces 11'' being shown side by side and being slidably guided by the container (at the recessed portion thereof) and by pins 21 fastened on the back 10 of the container, (Fig. 10). Springs 15' have an outward tendency and bear against the members 11' to normally spread them from the blades and simultaneously keep the stops 13' opposing the blades to retain the stack in the container, (Fig. 9). The guides 9 are shown on a piece of metal 9' separate from the container back 10. From said piece 9' springs 15' and springs 19 are also drawn and bent to shape. With the parts in the position shown in Fig. 9 the stack of blades will be retained, and when a blade is to be removed the members 11' are to be pressed inwardly to enter between the two outermost blades and substantially simultaneously the companion stops 13' will be moved away from the blades to release the outermost blade. The backing 2 may be applied against the container in the manner described with respect to Fig. 4 to receive the endmost blade. In case it should be desired to remove a blade from the container, without directly applying it

to a blade backing, it is merely necessary to hold the container in the position shown in Fig. 4 or Fig. 9 and press the members 11 or 11' inwardly, whereupon the outermost blade will be released and will drop from the container.

My improvements are simple in construction and operation and effective for storage and transportation of blades, and for permitting the application of blades to razor backings or other holders of the class described in an expeditious way, and avoid the necessity of wrapping blades in papers to protect them, as has been customary with safety razor blades. Furthermore, the blade edges are protected from injury within the container, and the ability to place the blades directly upon razor holders or backings is of great advantage.

My invention is not limited to the details of construction set forth, as the same may be varied, within the scope of the appended claims, without departing from the spirit of my invention.

Having now described my invention what I claim is:

1. A blade package comprising a container having an opening for the passage of blades, and devices carried by the container to retain a stack of blades therein, said devices including means to release the outermost blade of the stack for delivery and to enter between the outermost and an inner blade to retain the remaining blades within the container.

2. A blade package as set forth in claim 1 provided with means to guide the blades within the container with their cutting edges out of contact with the container.

3. A blade package comprising a container having an opening for the passage of blades, members to oppose a stack of blades to retain them within the container, and other members operative between two blades of the stack to release the outermost blade and retain the remaining blades within the container.

4. A blade package as set forth in claim 3 provided with means to guide the blades within the container with their cutting edges out of contact with the container.

5. A blade package as set forth in claim 3 in which the second named members are operatively connected with the first named members to operate the latter to withdraw them from the blades when the second named members enter between two blades of the stack.

6. A blade package comprising a container having an opening for the passage of blades, members carried by the container to enter between two blades to release the outermost blade and retain the remaining blades within the container, and other members movably carried by the container and oper-

atively connected with the first named members to release the blades when the last named members oppose blades.

7. A blade package as set forth in claim 6 in which the second named members are pivotally carried by the container to oppose and move away from the blades.

8. A blade package as set forth in claim 6 provided with spring means operative with the first named members to normally retain them away from the blades and simultaneously retain the second named members in opposition to the blades.

9. A blade package comprising a container having an opening for the passage of blades, members movably carried by the container to enter between two blades to release the outermost blade and retain the remaining blades within the container, and other members pivotally carried by the container on opposite sides of the corresponding first named members and operatively connected with the latter to be moved thereby out of opposition to the blades when the first named members enter between two blades.

10. A blade package as set forth in claim 9 provided with spring means operative with the said members to normally retain the first named members away from the blades and simultaneously retain the second named members in opposition to the blades to retain the latter within the container.

11. A blade package comprising a container having an opening for the passage of blades, members slidably carried at opposite ends of the container to oppose and release blades, and other members pivotally carried by the container and operatively connected with the first named members to oppose the blades when the first named members are away from the blades and to release the blades when the first named members enter between two blades.

12. A blade package as set forth in claim 11 provided with spring means operative with said second named members to normally retain the second named members in opposition to the blades to retain the latter within the container.

13. A blade package comprising a container having an opening for the passage of blades, members slidably carried at opposite ends of the container to oppose and release blades, and other members pivotally carried by the container, the first named members having recesses and the second named members having projecting portions within said recesses for operation of the second named members by and with the first named members for retaining and releasing blades.

14. A blade package as set forth in claim 13 provided with spring means operative with the second named members to normally retain them in opposition to the blades and

the first named members away from the blades.

15. A blade package as set forth in claim 13 in which some of the members have means to engage the container to retain said members in a normal position with some of the members opposing the blades, and spring means operative with said members to retain them in the last named position.

16. A blade package comprising a container having an opening for the free passage of blades flatwise therefrom, and devices carried by the container to retain a stack of blades therein, part of said devices being movable entirely away from the outermost blade to release it to permit said blade to pass flatwise through said opening and part of said devices being operable in opposition to the remaining blades to retain them in the container during discharge of the released blade.

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