Aug. 9, 1932. O. JANSSEN 1,870,912

PACKAGE

Filed Dec. 17, 1931 2 Sheets-Sheet 1

FIG. 1.

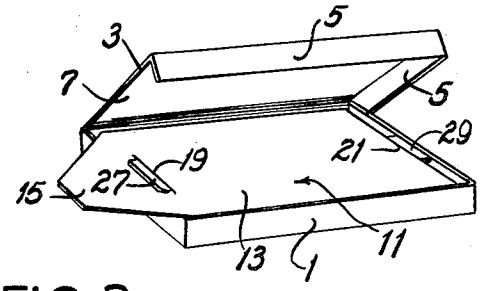


FIG. 2.

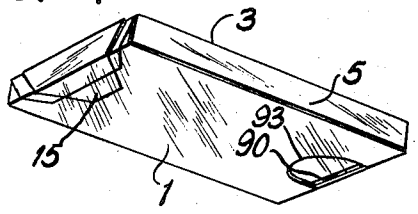


FIG. 3.

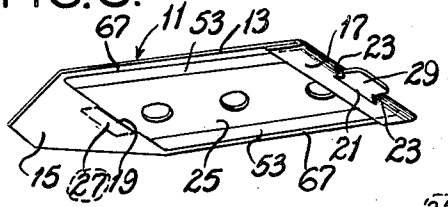


FIG. 4.

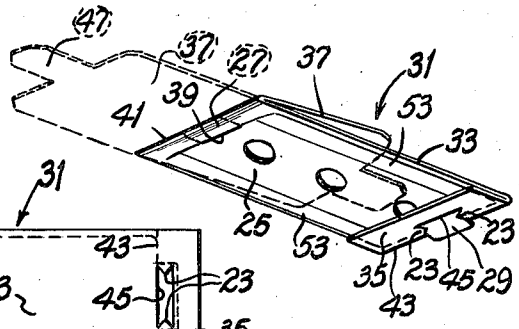


FIG. 5.

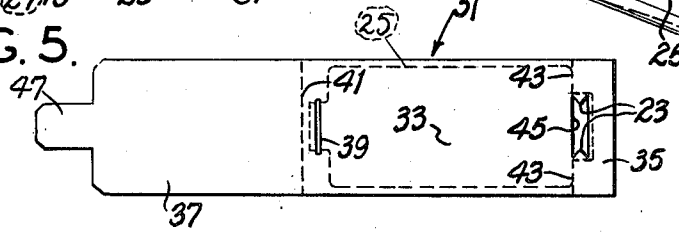


FIG. 6.

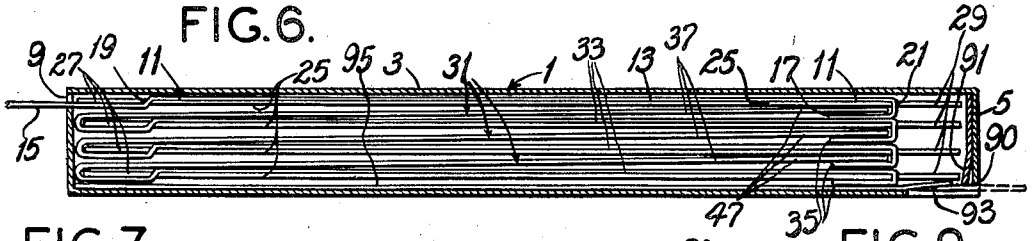


FIG. 7.

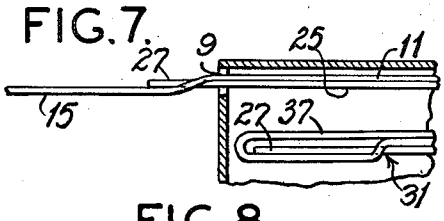


FIG. 9.

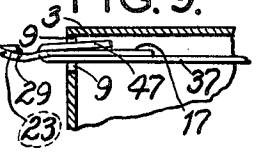


FIG. 8.

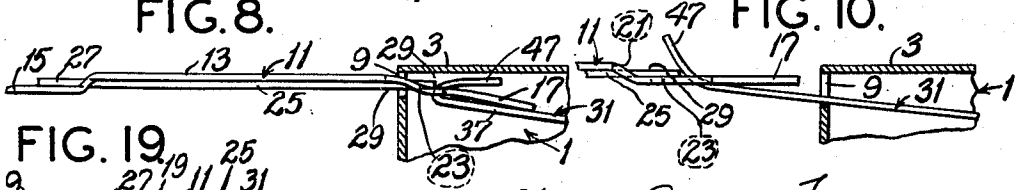
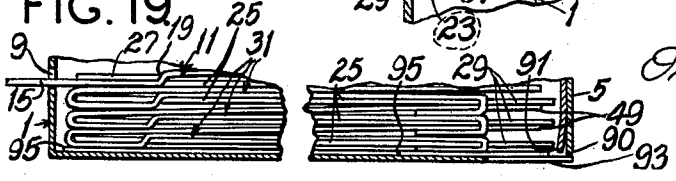


FIG. 10.

FIG. 19.



Oscar Janssen,
Inventor.
Delos V. Haynes,
Attorney.

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FIG. 11.

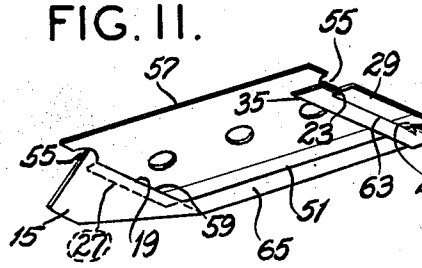


FIG. 12.

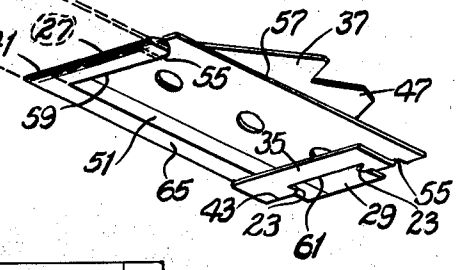


FIG. 13.

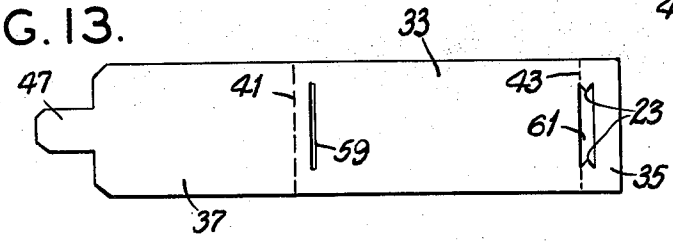


FIG. 14.

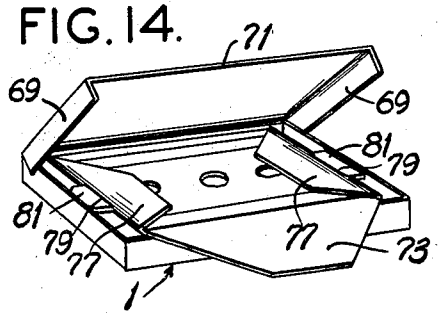


FIG. 15.

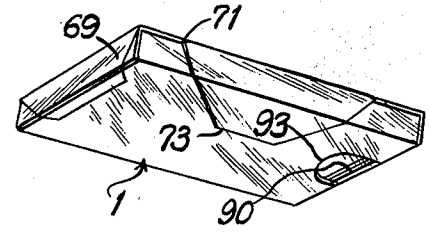


FIG. 16.

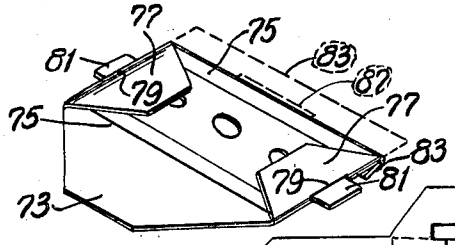


FIG. 17.

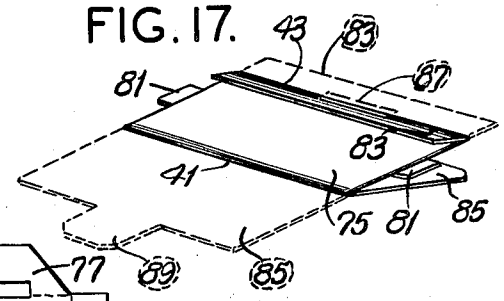
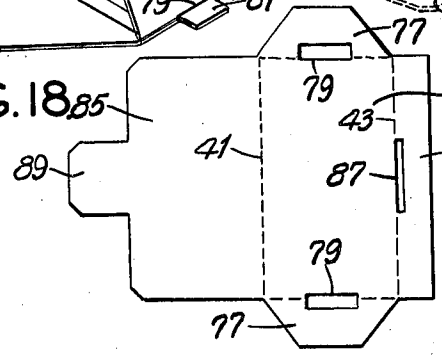


FIG. 18.



Oscar Janssen,
Inventor.
Delos D. Hayes,
Attorney

Patented Aug. 9, 1932 1,870,912

UNITED STATES PATENT OFFICE

OSCAR JANSSEN, OF ST. LOUIS, MISSOURI

PACKAGE

Application filed December 17, 1931. Serial No. 581,587.

This invention relates to packages, and with regard to certain more specific features, to packages for razor blades and the like.

Among the several objects of the invention may be noted the provision of a package which permits of individual removal of blades from the package without opening the package; the provision of a package of the class described wherein the removal of a blade affects a holder for a succeeding blade so that said holder may be subsequently readily removed; the provision of a device of this class which insures that a withdrawn blade is supported in its holder until removed and insures that the edge or edges of said blade before removal shall be positively protected against contact; the provision of a package which provides for reinsertion of used blades; and the provision of means for carrying out the above which shall be simple in operation, and easily manufactured and assembled. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly comprises the elements and combinations of elements, features of construction and arrangements of parts which will be exemplified in the structures hereinafter described, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, in which are illustrated several of various possible embodiments of the invention.

Fig. 1 is a perspective view of a box showing a topmost blade holder of several holders packed therein, the box being pictured prior to closure and fastening;

Fig. 2 is a view showing the completed package in a transparent wrapper;

Fig. 3 is a perspective viewed from the bottom, showing a blade in its holder;

Fig. 4 is a view similar to Fig. 3 showing how other blades (not located at the top of a package) are held in their holders, the solid line showing how the holder is packed and the dotted line how it may be pulled out;

Fig. 5 is a plan view of a holder without a blade therein;

Fig. 6 is a longitudinal section of a box loaded with four blades in four holders;

Fig. 7 is an enlarged fragmentary detail showing the action upon partially removing a top holder with its blades;

Fig. 8 is a view similar to Fig. 7 showing conditions upon further removal;

Fig. 9 is a view similar to Fig. 8 but showing a subsequent position;

Fig. 10 is a view similar to Fig. 9 showing the final condition as a blade and its holder leaves the box;

Fig. 11 is a view similar to Fig. 3 showing another form of blade in its holder;

Fig. 12 is a view similar to Fig. 4 but showing said other form of blade and holder;

Fig. 13 is a view similar to Fig. 5 but showing said other form of blade;

Fig. 14 is a view similar to Fig. 1 but showing an alternative construction permitting sideward removal, instead of endwise removal as shown in Fig. 1;

Fig. 15 is a view similar to Fig. 2 showing the form of package of Fig. 14;

Fig. 16 shows a topmost holder for side removal, the dotted lines showing the position of the holder prior to packaging;

Fig. 17 is a perspective of an inverted holder showing how the blade is wrapped;

Fig. 18 is a plan view of the form of holder shown in Figs. 14 to 17; and

Fig. 19 is a fragmentary view showing a modified detail.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring now more particularly to Fig. 1, there is illustrated at numeral 1 a rectangularly-shaped package which is relatively flat, having a hinged lid 3. The lid 3 is provided with gummed sideward lips 5 which, when the lid is closed down, are adapted to be permanently attached to the sides of the box to form a permanently closed package. One end of the lid 3 is not provided with a lip but is left free, as shown at numeral 7, for the purpose of leaving an opening or outlet 9 upon closure, the same being between said lid 3 and the box 1, as shown in Fig. 6.

The package 1 carries a series of holders therein for blades or the like, one of which

is shown at numeral 11 in Fig. 3. This is a topmost holder comprising a back 13, an endwise tab 15 adapted to project through said opening 9; also a rearward lip 17. The holder also has slots 19 and 21 at the creases between the back and respective folded portions 15 and 17. The slot 19 is relatively smooth but the rearward slot 21 is provided with small tabs or clips 23 serving functions to be described. The parts thus far described are arranged to position themselves with respect to an applied razor blade 25 as shown in Fig. 3, that is, the endwise tongues 27 of the blades are adapted to slip into the slots 19 and 21 as to have the lip 17 folded thereover as shown.

In Figs. 4 and 5 is shown another form of holder for the same type of blade which is to be used in conjunction with the holder 11. The holder shown in Figs. 4 and 5 is indicated generally at numeral 31 and comprises a back 33 having a tongue 37 folded thereon and also a lip 35. The development is shown in Fig. 5 wherein the back 33 is shown as provided with a slot 39 based some distance from the score line 41 between said back 33 and the tongue 37. At the score line 43 between said back 33 and the lip 35 is a slot 45 which has tabs 23 of the type described in connection with Fig. 3.

A blade 25, similar to the first blade 25, is adapted to be held at the tongues 27 and 29 thereof in the slots 39 and 45. The lip 35 is then bent down as shown in Fig. 4 and the tongue 37 bent back.

Packaging is accomplished in the open condition of the box 1. This is done by applying a succession of the type of holder 31 shown in Fig. 4 face down in the back as illustrated in Fig. 6. Each tongue 37 is hooked by the next successive lip 35, as shown. The last blade to be packaged, however, is not placed in a holder such as 31, but in a type of holder such as shown in numeral 11. Holder 11 is placed face down. Herein "face down" is referred to as the position of a holder wherein the blade is down. It will be understood that the terms "up" and "down" are used arbitrarily and that the order of direction may be reversed within the principles of the invention herein set forth.

It will be seen that the holders have side elevations of a substantial S-shape, the lower limb of each preceding S-shape lapping the upper limb of the succeeding S-shape.

After the insertion of the blade holders is made as above described, the lid 3 is closed down and the tongues 5 are attached to the sides of the box 1, thereby permanently closing the box. This leaves the tongues 15 of the uppermost folder 11 protruding from the opening 9. This tongue is folded down as shown in Fig. 2 and the package is then wrapped in a transparent wrapper, such as glasene, cellophane, waxed paper or the like.

The user receives the package in this condition and removes the outer transparent wrapper. This leaves the package substantially as shown in Fig. 6. To remove the first blade, the user grasps the tongue or tab 15 and pulls it out through the opening 9. This withdraws the first holder 11 with its blade 25. As above noted, in packaging the holders, each upper tongue of the lower holders has been placed interiorly of the lower lip of the preceding holder. Thus when the first holder 11 is withdrawn, an extension 47 of the succeeding tongue 37 is automatically positioned in the notch 21 (or 45) of the preceding holder, the numeral depending upon whether it is the topmost holder or a succeeding one.

Thus the conditions of Fig. 7 are arrived at wherein said extension 47 is definitely caught in the slot 21. The withdrawal of the holder 11 causes the convolutions 49 to be effected in the succeeding tongue 37, thereby pressing down said succeeding holder 31 and the blade 27 therein. This ensures that only one blade will be removed at a time, because the succeeding blade is at this time misaligned with respect to the opening 9.

As the opening is approached, the conditions of Fig. 8 are met wherein the lip 17 has been rotated due to reaction at the opening but its grip upon the tongue 29 of the blade has not been released because of the holding action of the tabs 23. Also, the holding action of the slots 21 is not released upon the succeeding holder extension 47 because the latter is held bent back by the top of the box.

The next succeeding position is shown in Fig. 9 wherein the holding action of the tabs 23 is shown, as well as the definite threading action of the tongue 27 through the opening 9, accomplished by the lip 17.

As further withdrawal is made, the extension 47 rotates forwardly, having been relieved by the absence of the top of the box exteriorly of the package. This is shown in Fig. 10 wherein the extension 47 is about to slip out of the slot 21. The result is that the box is left with a succeeding tab extending therefrom comprising said extension 47. The actions between successive holders 31 is similar to that subscribed above, except that a slightly longer withdrawal is required for the relatively longer tongues 37.

Referring to the concept of a S-shaped side elevation of the holders, withdrawal is effected by interlocking action between adjacent limbs of the S-shapes, the interlock being effective until a preceding holder has been completely withdrawn from the outlet. Up until the time of complete withdrawal the interlocking action is positive and thereafter there is effected an automatic and easy separation, all of which is effective merely upon pulling a tab.

It will be seen from the above that the package presented to the customer has at all times only one tab which can be withdrawn and which presents a purchase. No decision is required by the user as to which tab to withdraw, there being only one. Furthermore, only one blade is removed at a time, no matter how accelerated a withdrawal is made. No definite point of stoppage is required during the withdrawal operation. Also, the blade definitely remains in its holder after separation from the box, and may thereupon be removed by retracting the tongues 27 and 29 from the respective slots. When the package is empty no tab appears and this is a useful indication.

The packaging is relatively easy and the effects above described are quite definite, even under wide variations of usage. That is to say, the holders may be withdrawn slowly or quickly, they may be canted or otherwise misaligned and the operation is nevertheless sure.

As above described, the extension tongues 47 are placed in position directly ahead of the slots 45 or 21, but it will be understood that the tongues 47 may be made longer and threaded through said slots during the packaging operation as illustrated at numeral 49 in Fig. 19.

In Figs. 11 to 13 is shown a modification for receiving a different type of blade, these figures corresponding to Figs. 3 and 5 of the above described modification. Like reference numerals refer to like parts. However, these blades, unlike those above described have only one cutting edge 51. It will be noted in Figs. 3 to 5 that there are two cutting edges 53. The extensions 19 and 29 are continuous with the blades 51 and on the other sides thereof have notches 55, there being an unsharpened edge 57 outside of the notches 55. The difference that is required to be made is that the slots 59 be made longer than the corresponding slots 39 of the Fig. 5 form and that the slots 59 be made correspondingly longer than the Fig. 3 illustration. The rearward slots 61 need also to be made longer than the corresponding slots in the prior form as is also the case with slot 63 (Fig. 11).

The principle to be observed, however, is that the blade 51 be spaced a substantial distance 65 from the edge of the holder. The same is true of the form shown in Figs. 3 to 5, wherein a space 67 is left between each blade edge and the edge of the holder. This spacing insures that the edges of the blade touch nothing which would dull them, as has often been the case heretofore.

In Figs. 14 to 18 is shown another form of the invention wherein a sideward removal from the package is made. The package 1, instead of having the slot at the end, has the slot formed sidewardly. This is done by providing the pasting tongue 69 at the ends and leaving the other edge 71 clear to form a sideward opening for the receipt of a tab 73 formed sidewardly on a body portion 75 of a holder. The body portion 75 has endwise tabs 77 provided with slots 79 at score lines between said tabs and the body 75. The slots 79 are for receiving the projection 81 of the blade and holding the same. On the other side of the body 75 is provided a lip 83 adapted to be folded down to catch the succeeding tab of the succeeding holder.

In Figs. 14 and 16 is shown the topmost holder of this modification. The succeeding folders are of the class shown in Fig. 17 wherein the body or back 75 is provided with a relatively long tab or tongue 85. It also has a tongue 83 which is adapted to catch the next succeeding tongue 85 of the next succeeding holder.

The lower ones of the folders of Figs. 16 and 17 have slots 87 which are adapted to thread over projections 89 on the tongues 85 upon withdrawal. The tongues or extensions 89 may be only long enough to be disposed oppositely to the slots 87 upon packing, or they may be made long enough to thread through, as was the case with the modified extension 49 of the original form above described.

The operation of this alternative form of the invention corresponds to that already described. The first tab 73 is drawn out of the sideward opening of the box. The lip 83 engages the tab 85 of the next lower holder after the extension 89 of said tab 85 is automatically threaded through the slot 87. The same definite drawing out and interlocking action is effected until the extension 89 has been withdrawn, whereupon the slot 87 slips therefrom. The result is that only one holder is withdrawn at a time with its enfolded blades and at the same time a tab of the next holder is presented for subsequent withdrawal. This form of the invention is shown wrapped in a transparent wrapper in Fig. 15.

Another feature of the invention shown in Figs. 2, 6 and 15 is the provision of a slot 90 in a diagonal corner of the box formed by sloping back an edge 91 of one of the sides. At this slot is formed a thumb notch 93 and behind the thumb notch and backed against the supply of interior holders and blades is a sheet of paper or cardboard 95. The purpose of this is to provide means for disposing of used blades. The blades are inserted into the slot 90 and are guided in position behind the cardboard or paper 95 by means of the bent-back tab 91. The thumb notch 93 permits complete inclusion by finger pressure of the blade in the box. After a blade has been inserted the tab 91 springs back somewhat to prevent it from coming out of the slot 89. The paper 95 prevents confusion between the used and new blades in the package.

It will be understood that other forms of

blades may be accommodated within the principles of this invention. Likewise, the forms of the various lips and tongues may be changed to conform to the blade shapes and the desires of various manufacturers and/or users.

In view of the above, it will be seen that the several objects of the invention are achieved and other advantageous results attained.

As many changes could be made in carrying out the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. A package for razor blades and the like comprising an outer container having an outlet, adjacently located blade holders in said container each supporting a blade, tabs on the successive holders adapted to be presented through said outlet, said tabs being bent away from said openings before removal, tabs on the opposite sides of said holder presented towards said opening before removal, the tabs of adjacent holders being provided with interlocking means effective during withdrawal of the successive holders, whereby the withdrawal of each holder results in drawing a tab of the next holder for presentation through said opening, said interlock being automatically broken as each holder completes its passage through said outlet.

2. A package for razor blades and the like comprising an outer casing having an outlet, S-shaped holders in successive order therein, means associated with said holder for supporting blades, the relationship between the S-shape being such that adjacent legs of the successively S-shapes are interlocked so that upon withdrawing one holder from said outlet the adjacent leg of the next succeeding holder is withdrawn from said outlet, said interlock being such that there is positive threading of the lip of said succeeding holder through the outlet and automatic release of said lip after the preceding holder has passed out of said outlet.

3. A package for razor blades and the like comprising an outer casing having an outlet, S-shaped holders in successive order therein, means associated with said holder for supporting blades, the relationship between the S-shape being such that adjacent legs of the successively S-shapes are interlocked, so that upon withdrawing one holder from said outlet the adjacent leg of the next succeeding holder is withdrawn from said outlet, said interlock including openings in one set of said legs, openings through which portions of the other set of legs are adapted to thread, the action being such that there is positive threading of the lip of said succeeding holder through the outlet and automatic release of said lip after the preceding holder has passed out of said outlet, said openings also providing means for supporting the blades.

4. A package for razor blades and the like comprising an outer casing having an outlet, S-shaped holders in successive order therein, means associated with said holder for supporting blades, the relationship between the S-shape being such that adjacent legs of the successively S-shapes are interlocked so that upon withdrawing one holder from said outlet the adjacent leg of the next succeeding holder is withdrawn from said outlet, said interlock being such that there is positive threading of the lip of said succeeding holder through the outlet and automatic release of said lip after the preceding holder has passed out of said outlet, and means for positively holding the blades to the holder after the holders have been withdrawn from said container.

In testimony whereof, I have signed my name to this specification this 14th day of December, 1931.

OSCAR JANSSEN.