

March 29, 1949.

C. P. HORNING
COMBINED PACKAGE AND MAGAZINE FOR HOLDING
BLADES AND/OR OTHER THIN ARTICLES

2,465,876

Filed Aug. 31, 1944

2 Sheets-Sheet 1

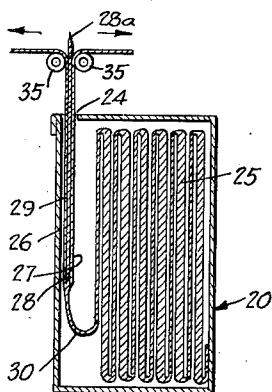


Fig. 1.

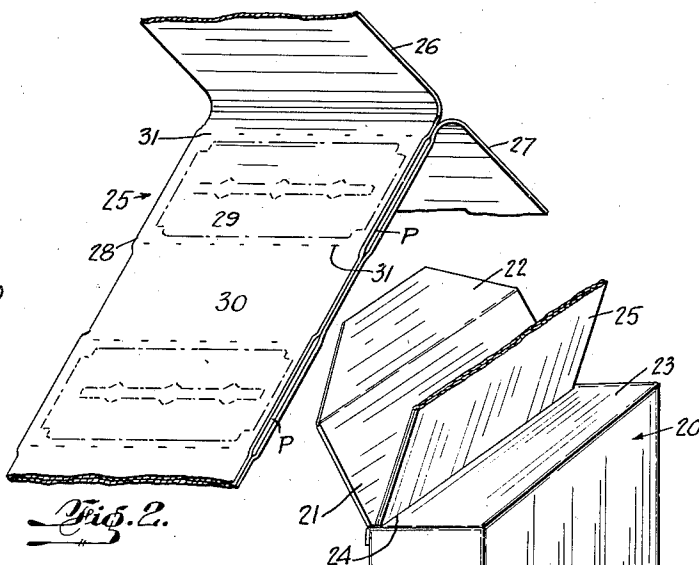


Fig. 2.

Fig. 3.

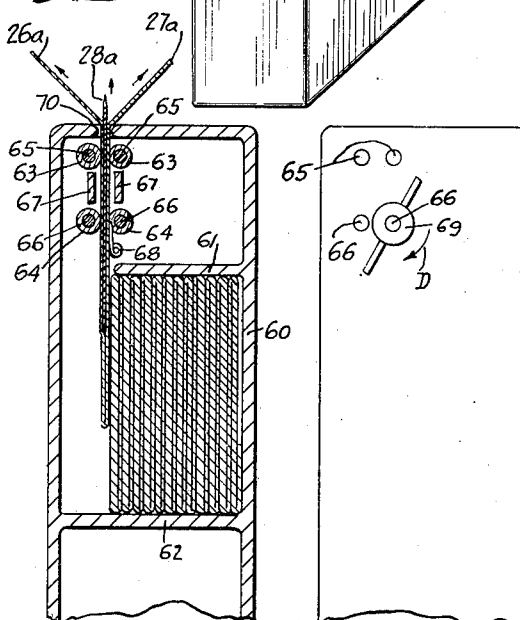


Fig. 5.

Fig. 6.

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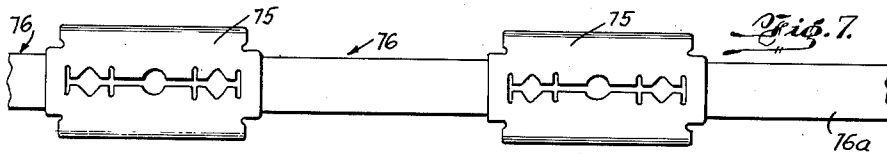
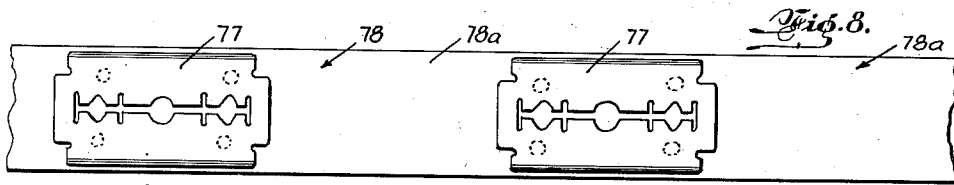
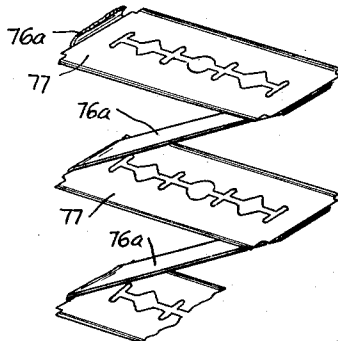
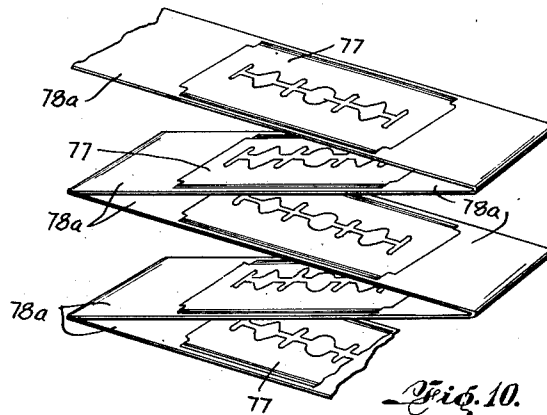
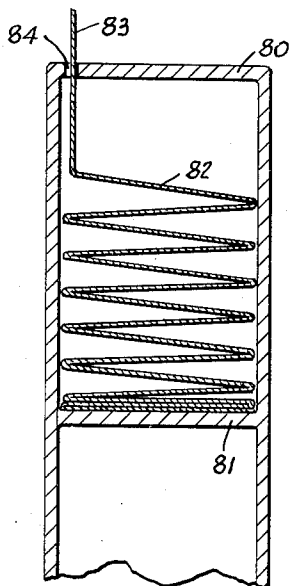
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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COMBINED PACKAGE AND MAGAZINE FOR
HOLDING BLADES AND/OR OTHER THIN
ARTICLES

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6 Claims. (Cl. 206—16)

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This invention relates to improvements in combined package and magazine for holding razor blades and/or other thin articles.

It is an object of the present invention to provide a novel, practical and efficient package containing razor blades or other thin articles, from which said blades may be dispensed one by one as required for use.

It is a further object of the present invention to arrange thin articles, such as, razor blades in spaced relation on an accordion-folded runner or ribbons whereby the blades may be delivered from a container or holder one by one as required for use; and a still further object is to provide flexible zones on the runner between the blades whereby the dispensing of the blades may be accomplished through a narrow slot in the container and/or holder.

It is a still further object of the present invention to provide a stack containing razor blades which may be placed in a holder or container and dispensed one by one as desired, this being accomplished by creating pockets in the stack containing the blades and flexible zones between the pockets so that the stack may be flexed at these zones to position the blades for extrusion from the holder.

Yet another object of the present invention resides in providing package or magazine containing a stack carrying thin articles, such as, for example, razor blades, the stack comprising two superposed longitudinal strips accordion folded, in such manner that every other layer carries a blade between the strips of that layer, the strips being removably secured at lines adjacent the blades, whereby the strips are easily separated to bring into view blades respectively as required; and other objects of the invention are to provide means for separating said strips; and also dispense or facilitate the dispensing of blades from the stack.

The above and other objects and advantageous features of the invention are accomplished by the novel and practical construction, combination and arrangement of parts hereinafter disclosed and illustrated in the accompanying drawings, constituting an essential part of the disclosure, and in which:

Fig. 1 is a sectional view of a package and holder containing razor blades made in accordance with the invention and indicating in one manner how the blades may be withdrawn from the package;

Fig. 2 is a perspective view of a portion of the wrapper with blades enclosed, seen in Fig. 1;

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Fig. 3 is a perspective view of the container or package seen in Fig. 1;

Fig. 4 shows in section a portion of a razor holder having inserted therein the stacked enveloped razor blades and a means for separating portions of the wrapper or envelope and for ejecting the razor blade;

Fig. 5 is a view showing in section a portion of another razor blade holder having inserted therein the stacked enveloped razor blades and a further means for separating portions of the wrapper or envelope and for ejecting the razor blade;

Fig. 6 is an outside view of Fig. 5;

Figs. 7 and 8 illustrate portions of continuous strips carrying in spaced relation razor blades;

Figs. 9 and 10 illustrate portions of other continuous strips enveloping razor blades in spaced relation and stacked in accordion-pleated fashion;

Fig. 11 shows in section a portion of a razor holder within which is stacked in accordion-pleated fashion a continuous strip housing for carrying in spaced relation razor blades.

Referring now more particularly to the drawing, there is disclosed a container 20 made of metal or other suitable material having a cover 21 provided with a flap 22. In Fig. 1 the cover is not seen. Container 20 has a top portion 23 which extends towards but does not meet the rear thereof producing a longitudinal slot 24, whose width permits passage of only one unit at a time.

Within container 20 there is contained a package comprising a wrapper 25 folded in accordion-pleated form. This wrapper may be formed by two parallelly-disposed strips 26, 27 within which are disposed in spaced relation the razor blades 28, so that there are provided respectively razor blades containing areas 29 separated by areas 30 devoid of razor blades. Adjacent the edges of the razor blades 28, the strips 26, 27 are transversely joined together as indicated at 31 as by cement or glue, but the securing means selected is such that the strips 26, 27 may be readily separated without tearing. In the embodiments seen in Figs. 1, 4 and 5 the stack containing the razor blades is positioned in the container or holder with the blades therein disposed vertically; that is with the areas 29 and 30 of the accordion-folded wrapper 25 in vertical position.

A means of facilitating withdrawal of the razor blades, successively, is shown diagrammatically in Fig. 1. Two rollers 35 are provided which may be rotatably mounted on any convenient support (not shown). These rollers are spaced just sufficiently to accommodate therebetween the strips

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26, 27 and the razor blade. By separating strips 23, 27 as indicated by the arrows in Fig. 1, the blade 28a will be withdrawn.

The flexible non-containing area 30 of the stack permits the wrapper portions containing the blades to be manipulated into position for withdrawal. Of course, instead of employing the rollers 35, the layers or strips 26, 27 may be separated manually as the forward portion of the wrapper 25 is withdrawn from container 20.

Fig. 4 shows the application of the aforementioned accordion-folded stack to a holder 40 which may form the handle or housing of a razor. Housing 40 has a transverse partition 41 supporting the stack 25 within which are spacedly disposed the razor blades, the flexible portions of the stack between adjacent blades being indicated by the numeral 30. An upright wall 45 divides the upper portion of housing 40 into compartment 46, 47 communicating with each other at 48. The top of housing 40 is provided with a slot 49 and rotatably mounted on shafts 50 within compartment 46 are a pair of spaced rollers 51. The strips 26, 27 are trained respectively over rollers 51, the strip 26 passing through a slot 52 in partition 41, whereas strip 27 is trained over the top edge of upright wall 45 at 48 and through a slot 53 in partition 41. The ends of strips 26, 27 are received in a slot of a rotatable member 54 secured to a toothed wheel 55 mounted in housing 40 and engaged by a dog 56.

It is evident that by rotating shaft 54, the strips 26, 27 will be wound thereupon and separate at points adjacent rollers 50, thus urging blade 28a upward through slot 49 as indicated by the arrow A. The arrows B and C indicate the directions of the strips 26, 27 as they are being separated.

According to Fig. 5, the housing 60 has a shelf 61 and a partition 62 on the latter of which is supported the stack 25. Within housing 60, there are provided two pairs of rollers 63, 64 mounted respectively on shafts 65, 66. The pair of rollers 64 are disposed below the pair of rollers 63 and intermediate the pairs of rollers 63, 64 are a pair of spaced guides 67. Attached to one of the shafts 66 is a toothed wheel (not seen) similar to wheel 55 engageable by a dog 68. This toothed wheel and the shaft 66 is operable by a winged handle 69. It is evident that when handle 69 is rotated in the direction of arrow D, the forward envelope of the stack will be urged upward by and between rollers 64 and between the idle rollers 63. The strips 26, 27 may be separated above the housing 60, either manually or by mechanical means, thus extruding blade 28a through slot 70 of housing 60. Of course, once the forward end of the stack projects through slot 70, it is not necessary to manipulate handle 69, unless the said end tears within the housing. Normally, the stack may be undone, as it is desired to use the blades, by merely pulling on the free ends 26a, 27a of these strips 26, 27.

It is evident from the foregoing that any series of thin flat articles may be packaged and stored, other than razor blades. The pockets P (Fig. 2) containing these thin articles may be formed by crimping or glueing together the strips 26, 27 at spaced intervals (such as at 31), or by any other suitable means, it being borne in mind, however, that the securement should be such that the strips may be separated without tearing at the lines 31. The portions of the strips 26, 27 forming the zones 30, may be completely secured to-

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gether, or securement at the lines 31 may be relied upon.

According to Fig. 7 the razor blades 75 are secured in spaced relation by any suitable means or in any suitable manner, to a continuous strip of flexible material 76 narrower in width than the blades 75, whereas, according to Fig. 8, razor blades 77 are secured in spaced relation to a flexible strip 78 slightly wider than the blades 77. In Figs. 7 and 8, the blades are arranged in tandem, that is, along the length of the securing strip, whereas, according to Fig. 2, the blades run crosswise of the strips.

Fig. 9 shows how the embodiment of Fig. 7 may be accordion folded with the non-carrying zones 76a of strip 76 disposed between the blade carrying zones, but in unfolded condition, whereas, Fig. 10 shows how the embodiment of Fig. 8 may be accordion folded with the non-carrying zones 78a of strip 78 folded upon itself. It is evident that the embodiments of Figs. 7 and 8, may be folded in either fashion depicted in Figs. 9 and 10.

Fig. 11 discloses a housing 80, in which is arranged on a ledge 81 a stack 82, in such a manner that the blades are disposed horizontally within the housing, in contradistinction to the stacks shown in Figs. 1, 4 and 5 where the blades are disposed vertically within the respective housings. The end 83 of the stack protrudes from slot 84 of housing 80.

Although the drawings and the above specification disclose the best modes in which I have contemplated embodying my invention, I desire in no way to be limited to the details of such disclosure, for in the further practical application of my invention many changes in the form and proportions may be made as circumstances require or experience suggests without departing from the spirit of the invention within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to be secured by Letters Patent is:

1. A package comprising thin elements, a flexible carrier for said elements, said carrier comprising a pair of superposed flexible strips, separable means connecting together said strips at spaced intervals transversely thereof, providing respective zones between adjacent connecting means, said elements being disposed between said strips and in alternate zones of said zones respectively, said carrier being folded in accordion pleated fashion whereby said zones lie in stacked relation, and a receptacle housing said package, said receptacle having a slot through which said carrier may be withdrawn to present successively said zones.

2. A package comprising thin elements, a flexible carrier for said elements, said carrier comprising a pair of superposed flexible strips, separable means connecting together said strips at spaced intervals transversely thereof, providing respective zones between adjacent connecting means, said elements being disposed between said strips and in alternate zones of said zones respectively, said carrier being folded in accordion pleated fashion whereby said zones lie in stacked relation, and a receptacle housing said package, said receptacle having a slot through which said carrier may be withdrawn to present successively said zones, and means for facilitating withdrawal of said carrier.

3. A package comprising thin elements, a flexible carrier for said elements, said carrier com-

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prising a pair of superposed flexible strips, and separatable means connecting together said strips, said means comprising tacky material, transverse fold lines at spaced intervals providing respective zones therebetween, said elements being disposed between said strips and in alternate zones of said zones, respectively, said carrier being folded at said fold lines in accordion pleated fashion whereby said zones are arranged in layers.

4. A package comprising thin elements, a flexible carrier for said elements, said carrier comprising a pair of superposed flexible strips, separatable means connecting together said strips, said means comprising tacky material, transverse fold lines at spaced intervals providing respective zones therebetween, said elements being disposed between said strips and in alternate zones of said zones, respectively, said carrier being folded at said fold lines in accordion pleated fashion whereby said zones are arranged in layers, and a receptacle housing said package, said receptacle having a slot through which said carrier may be withdrawn to present successively said zones outside said receptacle.

5. A package comprising thin elements, a flexible carrier for said elements, said carrier comprising a pair of superposed flexible strips, separatable means connecting together said strips, said means comprising tacky material, transverse fold lines at spaced intervals providing respective zones therebetween, said elements being disposed between said strips and in alternate zones of said zones, respectively, said carrier being folded at said fold lines in accordion pleated fashion whereby said zones are arranged in layers, a receptacle housing said package, said receptacle having a slot through which said carrier may be withdrawn to present successively said

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zones outside said receptacle, and means within said receptacle for separating said strips substantially upon the carrier's emergence from said receptacle and thereby advancing said elements successively.

6. A device for individually dispensing thin elements such as razor blades and the like, comprising a housing having a slot through which said elements may pass, a supply of said elements in said housing, and means for successively advancing individual elements from said supply toward said slot, said means including a pair of superposed flexible strips forming pockets for respective ones of said elements spaced longitudinally of said strips, means separably connecting said strips together whereby each of said elements will be held in one of said pockets at least until the element reaches the said slot, means in said housing for guiding said superposed strips toward the said slot, and means in said housing for separating said strips at a point adjacent said slot whereby said elements will be successively released from said pockets and fed outwardly through said slot.

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