Jan. 13, 1953 J. MUROS 2,625,260

BLADE-DISPENSING MAGAZINE

Filed June 4, 1948

Fig. 1

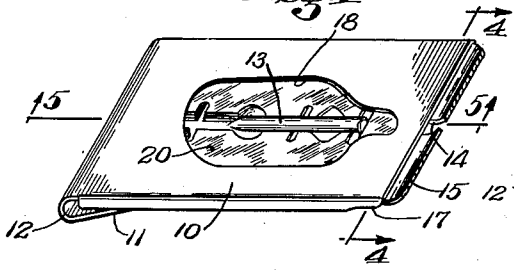


Fig. 2

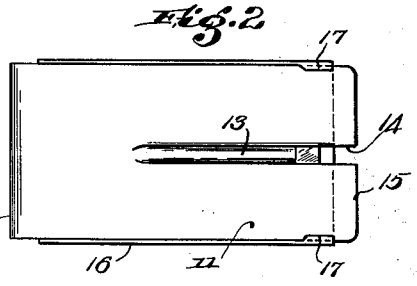


Fig. 3

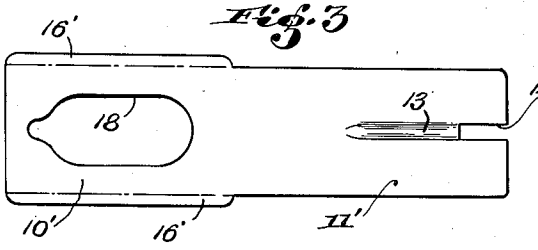


Fig. 4

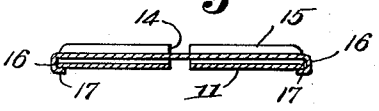


Fig. 5

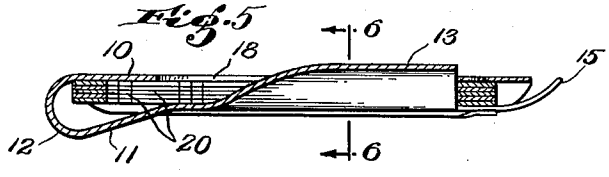


Fig. 6

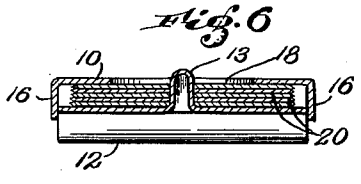


Fig. 7

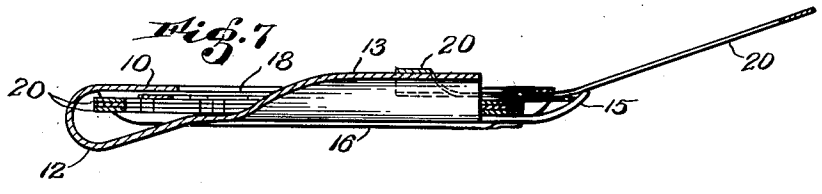
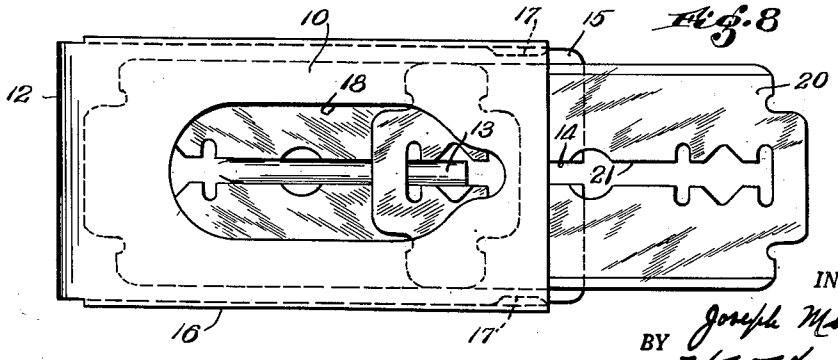


Fig. 8



INVENTOR.

BY Joseph Muros.

H. W. McKenney

Atty.

Patented Jan. 13, 1953

2,625,260

UNITED STATES PATENT OFFICE

2,625,260

BLADE-DISPENSING MAGAZINE

Joseph Muros, Newtonville, Mass., assignor to The Gillette Company, Boston, Mass., a corporation of Delaware

Application June 4, 1948, Serial No. 31,060

5 Claims. (Cl. 206—16)

1

This invention comprises a new and improved blade-dispensing magazine constructed and arranged to contain a supply of sharp-edged blades, such as safety razor blades, to guard their keen cutting edges against damage and to permit the withdrawal of one blade at a time as required by the user.

An object of the invention is to provide a blade-dispensing magazine which may be readily filled by the blade manufacturer by automatic machinery and which will be so inexpensive in its construction that the user may discard it after it has served its purpose. Preferably and as herein shown, the magazine is constructed and arranged to handle unwrapped blades. In this way the cost of individual wrappings is eliminated and the operation of filling or charging the magazine reduced to the simplest possible terms.

With these ends in view, an important feature of the invention consists in a magazine comprising a single metallic strip folded so that it provides upper and lower walls, or a base and cover for the magazine, the folded strip presenting at one end an exit slit for the blades. If desired, the fold vertex of the strip may be formed as an enlarged loop for the convenience of the user in handling the magazine, while the free ends of the upper and lower walls may be separated to provide for the blades an exit slit which is equipped with a stripper.

Another feature of the invention consists in extending one or other wall of the magazine beyond the exit slit and shaping it so that it will serve as a stripper, yieldingly engaging each blade as it is advanced through the exit slit and thereby preventing outward movement of a second blade which might otherwise jam in the exit slit. This simple and effective construction permits the blades to be arranged in stacked formation in the magazine and eliminates the necessity for mechanical feeding means.

In one aspect, my invention comprises a blade magazine having a thumb or finger opening in its cover through which the uppermost blade in the stack may be engaged by the user and advanced through the exit slit. This mode of operation is facilitated by the stripping function supplied by the extended wall of the magazine, in this case the lower wall.

Another feature of the invention consists in a blade-locating rib arranged to project upwardly from the lower wall of the magazine through the finger opening in the cover and preferably to a level above the plane of its center surface. Longitudinally-slotted blades may be located accurately within the magazine by such a rib. Going more into detail, the rear end of the rib may be smoothly inclined so that the solid end of the blade may ride up upon it, thus flexing the blade transversely and subjecting it to a yielding retarding action as the blade is ejected. Further, the forward end of the rib may be formed as an abrupt shoulder which will serve to prevent or obstruct the re-introduction of a blade into the magazine through the exit slit.

2

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof selected for purposes of illustration and shown in the accompanying drawings, in which:

Figure 1 is a view in perspective of the blade magazine;

Fig. 2 is a bottom view of the magazine;

Fig. 3 is a plan view of a sheet metal blank from which the magazine may be made;

Fig. 4 is a view in cross-section of the line 4—4 of Fig. 1;

Fig. 5 is a view in longitudinal section of the line 5—5 of Fig. 1, but on an enlarged scale;

Fig. 6 is a view on cross-section on the line 6—6 of Fig. 5;

Fig. 7 is a sectional view corresponding to Fig. 5 and showing a blade in partially-ejected position; and

Fig. 8 is a plan view corresponding to Fig. 7.

The entire magazine is constructed from a single sheet or strip metal blank which may be formed in a single dying-out operation and may be of the character shown in Fig. 3, that is to say, it has an elongated rectangular body consisting of a cover part 10' which merges into a bottom or base part 11'. The cover part has side flanges 16' and an elongated finger opening 18 therein. The base part is molded with a central longitudinal rib 13 and with an end notch 14.

In forming the magazine the blank shown in Fig. 3 is folded so that it presents a top wall or cover 10 and an underlying bottom wall or base 11 disposed in parallel relation throughout the major portion of their areas and connected by a looped enlargement 12. This enlargement forms a convenient means for the user in grasping the magazine by supplying a finger grip thicker than the body of the magazine. The rib 13 is drawn from the metal of the bottom wall and disposed longitudinally. It slopes upwardly at its rear end and terminates at its forward end in an abrupt shoulder as best seen in Figs. 5 and 7. The notch 14 extends inwardly in the base to the end shoulder of the rib 13 and in alignment there-

with, in fact it is the removal of material in forming the notch that terminates the rib 13 in its abrupt shoulder. The forked ends 15 of the bottom wall extend outwardly and upwardly beyond the inner edge of the top wall 10 which is flat throughout its entire area and serves at its free edge as the upper edge of a blade-exit slit. The forked ends 15 of the base are curved upwardly to a level slightly above the plane of the inner face of the top wall 10 and thus drag resiliently upon the under face of a blade which is ejected from the magazine from beneath the top wall 10.

The side flanges 16' shown in Fig. 3 are turned downwardly to form the side walls 16 of the magazine and are crimped inwardly in areas 17 to make interlocking engagement with the bottom wall 11 of the magazine as clearly shown in Fig. 2. The top wall 10 is provided with an elongated finger opening 18 which tapers toward the blade-exit slot and in that opening is exposed the full length of the rib 13.

The magazine as herein illustrated is adapted for handling a double-edged safety razor blade 20 of well-known commercial type, that is to say, a blade having a longitudinal median slot 21 and elongated unsharpened end portions, although with appropriate modifications it may be easily adapted for handling blades of different contour. As hereinafter shown, however, the blades 20 are arranged in stacked relation within the enclosure of the magazine wherein they are located by the rib 13 which fits with slight clearance within the blades. A stack of five blades 20 is shown in Figs. 5 and 6 and it will be seen that their inner ends lie within the loop 12. When the user desires to eject a blade from the magazine he has only to exert traction upon the uppermost blade by inserting his thumb or finger through the opening 18 and drawing it with the blade toward the exit opening. As the uppermost blade of the stack is advanced in this manner its solid rear end will ride up upon the inclined rear end of the rib 13, thus flexing the rear end of the blade transversely against the sides of the top wall 10 and exerting a yielding friction on the blade. As the blade is advanced, its solid end passes along the rib 12 in flexed condition as shown in Figure 7 while its advancing end is yieldingly engaged by the upturned end portions 15 of the bottom wall. These, as already pointed out, act as a stripper to arrest outward movement by an underlying blade in case it should happen to be dragged ahead by the blade being ejected. As soon as the rear end of the blade passes the forward end of the rib 13 it will snap down into a flattened position, leaving the blade projecting outwardly and upwardly at an angle as suggested in Fig. 7, and yieldingly engaged between the forward edge of the top wall 10 and the end projections 15 of the lower wall. In this position it may be very conveniently removed by the user and placed in shaving position in the razor. If desired the slot 21 of the blade may be engaged with the blade-locating rib of the usual razor and the blade removed from the magazine without further contact with the user's fingers.

The magazine is preferably charged by the manufacturer with the supply of blades it is to contain before the magazine is completely formed or at least before the side walls are crimped into interlocking engagement with the lower wall. It will be apparent that the abrupt shoulder of the rib 13 makes it impracticable to insert a blade into the magazine through the exit slot and thus the user is safeguarded against blades of any but those of the original manufacturer.

Having thus disclosed my invention and described in detail an illustrative embodiment thereof, I claim as new and desire to secure by Letters Patent:

1. A blade dispensing magazine comprising a single strip of metal folded to present the upper and lower walls of the magazine body, disposed substantially parallel throughout the major portion of their areas and connected at one end by an enlarged loop supplying a finger grip greater than the thickness of the magazine body, the upper wall having an elongated finger opening, and the material of the lower wall being folded to present an upstanding rib sloping gradually upwardly at one end from the plane of the lower wall to a level above the upper wall and terminating at its other end in an abrupt shoulder extending through the finger opening, the upper and lower walls of the magazine being spaced from each other adjacent to said shoulder to afford a blade-exit slot.

2. A blade dispensing magazine comprising a sheet metal strip transversely folded to present upper and lower walls having a blade exit slot at their free ends, the upper wall having an elongated finger opening therein and the lower wall having a longitudinally folded blade-locating rib projecting upwardly through the finger opening and above the upper wall, said rib having a smoothly inclined rear end and an abrupt shoulder at its forward end in the vicinity of the exit slot, thereby permitting a longitudinally slotted blade to ride upwardly upon the rib in passing from the exit slot, and the lower wall having a notch in its free end that extends inwardly to the shoulder of the rib.

3. A blade dispensing magazine comprising a single strip of metal folded transversely to present the upper and lower walls of the magazine body providing a blade exit slot at their free ends, the upper wall having an elongated finger opening and the lower wall having a rib folded longiturinally and projecting upwardly through the finger opening and having an elongated notch in alignment with and terminating the rib, thereby providing an abrupt shoulder at the end of the rib remote from the fold vertex of the strip.

4. A blade dispensing magazine comprising a single sheet metal blank folded transversely to present upper and lower magazine walls having portions disposed generally in parallel relation and free ends spaced to provide an exit slot, the upper wall having an elongated finger opening, portions of the lower wall extending as a finger grip in loop formation below the plane of the parallel area of the lower wall, and intermediate portions of the lower wall being creased longitudinally in rib formation and extending from the lower wall upwardly through the finger opening and above the parallel area of the upper wall and to a point adjacent said exit slot and terminating in an abrupt shoulder thereat.

5. A blade dispensing magazine comprising a sheet metal blank folded transversely and presenting upper and lower magazine walls, the upper wall having an elongated finger opening therein, and the lower wall having an elongated notch in its free end and being folded longitudinally in a blade-locating rib that terminates in an abrupt shoulder at the inner end of the notch in the lower wall, and at its other end slopes

gradually upwardly from the level of the lower wall to a point above the level of the upper wall.

JOSEPH MUROS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
521,116	Ingram	June 5, 1894
1,040,051	Swihart	Oct. 1, 1912
1,178,967	Taylor	Apr. 11, 1916
1,370,560	Russell	Mar. 8, 1921
1,451,279	Strietelmeier	Apr. 10, 1923
1,834,284	Kylberg	Dec. 1, 1931
1,841,389	Weis	Jan. 19, 1932
1,909,919	Testi	May 16, 1933
2,330,252	Testi	Sept. 28, 1943

FOREIGN PATENTS

Number	Country	Date
456,176	Great Britain	Nov. 4, 1936