Aug. 21, 1951 J. MUROS ET AL 2,564,712

RAZOR BLADE DISPENSING CONTAINER

Filed Sept. 30, 1946

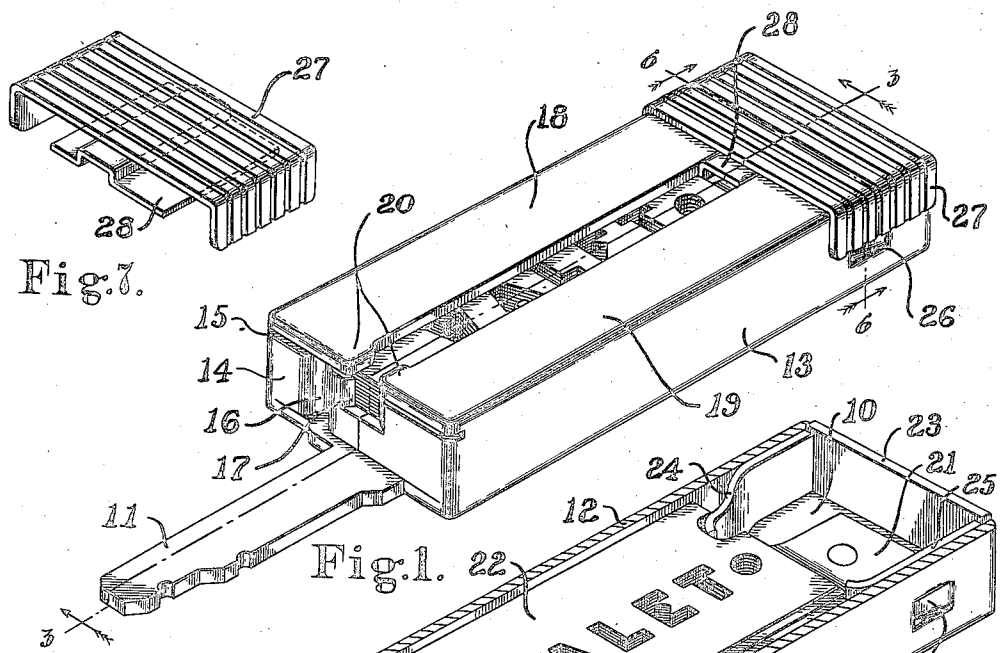


Fig. 7.

Fig. 1.

Fig. 2.

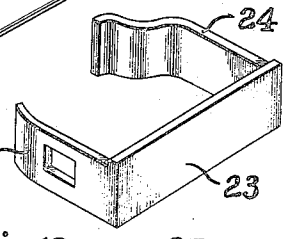


Fig. 8.

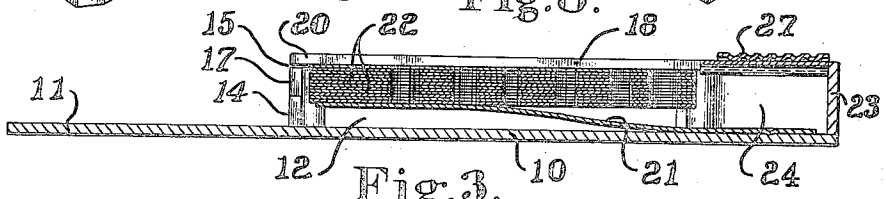


Fig. 3.

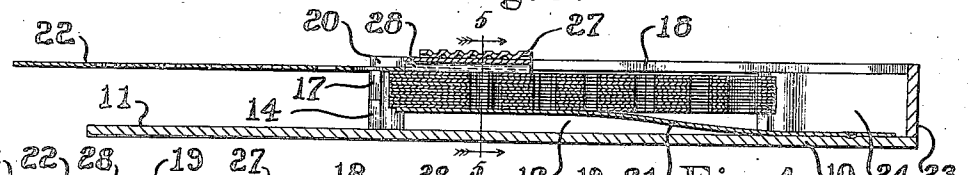


Fig. 4.

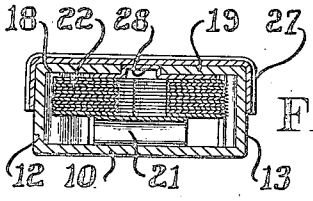


Fig. 5.

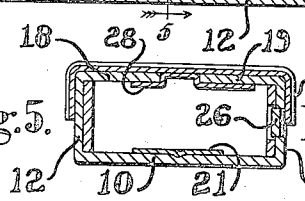


Fig. 6.

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RAZOR BLADE DISPENSING CONTAINER

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8 Claims. (Cl. 206—46)

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This invention comprises a new and improved magazine for safety razor blades and the like. In one aspect it consists in a magazine adapted by reason of its economical, compact and convenient construction to be filled by the blade manufacturer, to serve as a dispensing container and to be thrown away by the user after its charge of blades has been exhausted. By the use of such a magazine the manufacturer is enabled to bring the blade edges to the highest possible degree of keenness, to package the blades under factory conditions safeguarding their fragile edges, and to insure the user that each fresh blade will be delivered to his razor without danger of the impairment which inevitably results from contact with the edge of the blade in removing the blade from a protecting wrapping or in presenting it to the razor.

Going more into detail, the magazine of my invention includes a shell which is originally open at one end and which is adapted to be closed by an inserted member or clip constructed and arranged to supply a closing wall behind the blade stack in the shell and having inwardly projecting arms which may be utilized for locating the blades within the shell, or for making an interlocking connection with the shell, or for both of these functions. Preferably and as herein shown, the shell of the magazine is adapted to be loaded in vertical position, that is to say the stack of blades may be presented while resting on their unsharpened edges and then located with their sharp edges out of contact with the shell by the insertion of the clip which permanently closes the shell.

Another feature of the invention consists in a sight window in the shell exposing an unsharpened portion of the blades in the stack, thus obviating the annoyance frequently encountered heretofore of having the magazine run out of its supply of blades without notice to the user. To avoid this mischance, it has been the practice heretofore to insert near the bottom of the blade stack a dummy blade or blank as a warning to the user. But even this expediation has not been entirely satisfactory for occasionally the user is inattentive and may transfer the dummy blade to his razor and then, after all preparations have been made, finds that he has no shaving edge available.

The magazine of our invention has the advantage that it requires no tray or carrier for the blade stack but is adapted to receive the stack directly and without danger of injury to the individual blades.

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Another feature of our improved magazine comprises the combination of a clip or closure having arms which extend into the shell in spaced relation, for the purpose of loading the blade stack, together with a feed slide of such width that it may pass freely between the arms of the clip. This construction presents the advantage that the blade stack may be positioned by engagement extending from top to bottom of the stack, thus positively preventing rearward displacement of any blade during the reverse movement of the feed slide and insuring the accurate location of successive blades in readiness for transfer from the magazine to the safety razor.

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 on an enlarged scale of the blade magazine;

Fig. 2 is a corresponding view showing the top of the magazine as broken away;

Fig. 3 is a view in longitudinal section on the plane 3—3 of Figure 1;

Fig. 4 is a corresponding sectional view showing the feed slide in advanced position;

Fig. 5 is a view of the magazine in cross-section on the plane 5—5 of Fig. 4;

Fig. 6 is a view in cross-section on the plane 6—6 of Figure 1;

Fig. 7 is a view in perspective of the feed slide; and

Fig. 8 is a view in perspective of the clip or closure for the shell.

The magazine herein selected for purposes of illustration is designed for single-edged safety razor blades of a well-known commercial type. These blades are maintained in flat condition for shaving in the "Valet" type of safety razor and are provided with perforations in the shape of the letters of the word "Valet" arranged to receive corresponding blade-locating projections in the razor. It will be understood, however, that the magazine of our invention is not limited to this or to any specific type of blade but that with suitable modifications it may be readily adapted for other sharp-edged blades all within the scope of our invention.

The casing or shell of the magazine may be formed of sheet metal or it may be moulded of plastic material. It is substantially rectangular in shape, having a bottom 10, which at the forward end of the magazine is extended in the form of a key 11 by which is established the

proper relation between the magazine and the safety razor for transferring a blade from the magazine to the razor. The shell of the magazine includes side walls 12 and 13 and a front wall 14 provided with a blade-exit slot 15 and a reentrant curved portion 16 which forms inside the shell a convex rib whose function is to locate one end of the blades contained within the magazine. In the front wall beneath the slot 15 is provided a sight window 17 which permits the user to keep track of the number of blades in the magazine by observing the unsharpened end edges of the blades in the stack within the magazine. The top of the shell is formed by inturned flanges 18 and 19 separated by a median slot which forms a track for the feed slide. At the forward end of the shell, the top flanges 18 and 19 are provided with opposed bosses or projections 20 which narrow the median slot and thus provide a positive stop for limiting the forward stroke of the feed slide. The bottom 10 of the shell is provided with a leaf spring 21 which extends forwardly in the magazine and normally presses the blade stack upwardly holding it against the top flanges 18 and 19.

The magazine is shown as containing a stack of about twenty "Valet" blades 22. Each of these blades has a rounded notch in both ends, in one end to receive the reentrant rib 16 and in the other to receive a blade-locating arm of the clip. When properly engaged by the rib 16 the unsharpened backs of the blades are maintained in contact with the side wall 12 of the magazine shell.

The shell, as heretofore described, is open at its rear end and it is provided with an inserted closure or clip, best shown in Figure 8. This closure includes a rear wall 23 covering the open end of the shell and shouldered so that it extends upwardly against the rear ends of the top flanges 18 and 19. It has two opposed spring arms 24 and 25 that extend into the shell and yieldingly engage its opposite walls. The arm 24 is rounded at its inner end and normally extends into the notch formed in the rear end of the blade stack. It corresponds in position with the blade-locating rib 16 of the front wall of the shell. The rib 16 and the end of the arm 24 co-operate to hold the blade stack without binding and with the shaving edges of the blades in the clear and safely out of contact with the wall 13 of the shell. The arm 25 is curved inwardly at its inner end and may or may not engage the corner of the blade stack. It is not necessary that it should because the rib 16 and the longer arm 24 adequately locate the blade stack without resistance. The arm 25 is provided with a rectangular window and this is located in position to receive an inwardly projecting tongue 26 struck inwardly from the material of the wall 13 of the shell. Accordingly, when the clip is pressed into place and its rear wall 23 located in closing position, the tongue 26 snaps into the window of the arm 25 thus forming a positive interlocking connection retaining the clip permanently in its shell closing position. Both of the arms 24 and 25 are of sufficient width completely to fill the shell of the magazine from top to bottom. They therefore positively prevent the uppermost blade of the stack from being dragged rearwardly or displaced in the rearward movement of the feed slide.

The feed slide comprises a corrugated outer plate 27 downturned at its edges to engage the side walls of the magazine shell and connected by welding or otherwise to a channel-shaped blade-engaging portion 28 which fills the channel between the top flanges 18 and 19 of the shell and extends transversely on both sides thereof in engagement with the top of the shell. This channel shaped portion is of such over-all width as to pass freely between the opposed ends of the arms 24 and 25 of the closure. It is extended unsymmetrically on both sides of its channel so as to afford maximum area contact with the uppermost blade of the stack permitted by the arms 24 and 25 of the clip.

The shell of the magazine above described is adapted to be filled by the manufacturer before its open end is closed. It will be apparent that the blade stack may be delivered to the shell while the latter is held in vertical position so that the blades slide inwardly upon the wall 12 while resting upon their unsharpened edges. When the stack has been loaded into the shell the clip is inserted and in this operation the arm 24 advances the blade stack into position engaging it between itself and the reentrant rib 16 of the front wall. The closure is permanently held in place, as already explained, and the loaded magazine is now in condition to be used as a dispensing container. When it reaches the user he has only to insert the key 11 in his safety razor and advance the feed slide from the position shown in Fig. 1 to the position shown in Fig. 4. In this movement, the blade-engaging portion 28 of the feed slide picks up the uppermost blade in the stack, ejects it through the slot 15 and transfers it to the blade seat of the razor. When the blade has been fully ejected from the magazine the feed slide is arrested by engaging the projections 20 in the top of the shell. After the blade has been delivered, the feed slide is returned to its right-hand position as shown in Figs. 11 and 13; meanwhile the spring 21 has acted to lift the stack to bring the next blade in order into feeding position against the flanges 18 and 19.

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

1. A magazine for safety razor blades, comprising an integral shell having a front wall with a reentrant blade-locating portion therein, and an insertible clip having a rear wall and an inwardly projecting blade-locating arm disposed opposite to the reentrant portion of the front wall, the clip being thus constructed for insertion into the shell after the latter has been loaded with blades.

2. A magazine for safety razor blades, comprising a rectangular shell having a front wall with an inwardly curved blade-locating portion, and a clip having a rear wall and opposed spring arms yieldingly engaging the inside of the shell, one arm being curved to correspond to the blade-locating portion of the front wall and being disposed opposite thereto and the other arm interlocking with the shell.

3. A magazine for safety razor blades, comprising a rectangular shell open at one end and having a blade-exit slot in the other, in combination with a stack of end-notched blades, and an inserted closure for the shell shaped to cover the open end therefor and having an arm extending into the shell and being shaped for engaging the end notches of the blade and locating the blades thereby.

4. A magazine for safety razor blades, comprising a rectangular shell open at its rear end and having a blade-exit slot in its front end, in

combination with an inserted closure for the shell having a rear wall and two opposed spring arms shaped for engaging the inner walls of the shell and spaced apart at their inner ends, and a feed slide having a blade-engaging portion sufficiently narrow to pass freely between said arms.

5. A blade magazine comprising a rectangular shell having top and bottom walls and being open at its rear end, in combination with a stack of blades in the shell, an inserted closure for the shell supplying a rear wall therefor and having opposed spring arms extending longitudinally into the shell in spaced relation and filling the shell between its top and bottom walls, and a feed slide movable on the top of the shell and having a blade-engaging portion of such width that it may pass freely between the arms of the closure.

6. A magazine for safety razor blades, comprising an elongated shell having a slotted front wall with a blade-locating portion formed therein, a stack of blades within the shell, an inserted clip having a wall disposed behind the blade stack and opposed spring arms that extend longitudinally into the shell and fill the shell from top to bottom, and a feed slide movable in the shell between the two arms of the clip.

7. A blade-dispensing container comprising an elongated shell having integral front, side and bottom walls and a slotted top wall, and being open at its rear end, the front wall having a blade-exit slot therein, a stack of blades within the shell, a clip inserted in the rear end of the shell behind the blade stack having a transverse

wall and an arm projecting inwardly and engaging the blade stack for holding it in position, and a feed slide movable in the shell, one wall of the shell being provided with a window exposing unsharpened edges of the blades in the stack as the blades are removed one by one by the feed slide.

8. A magazine for safety razor blades, comprising a rectangular shell having a slotted front wall with a blade-locating portion formed therein, a stack of blades within the shell, and an inserted clip having a transverse wall substantially closing the shell behind the blade stack and spaced arms within the shell, one of which engages and holds the blade stack spaced from the shell, and a feed slide movable in the shell between the two arms of the clip.

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