Dec. 9, 1958 N. TESTI 2,863,586

BLADE DISPENSER

Filed Oct. 29, 1953 2 Sheets-Sheet 1

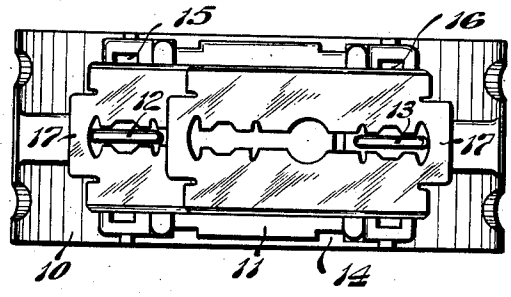


Fig. 1

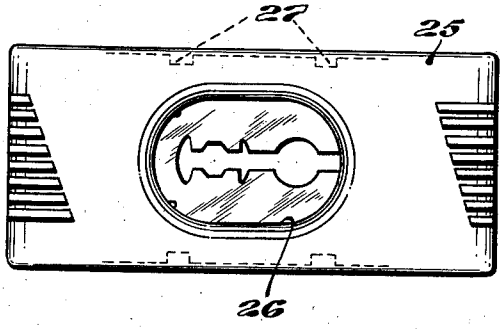


Fig. 2

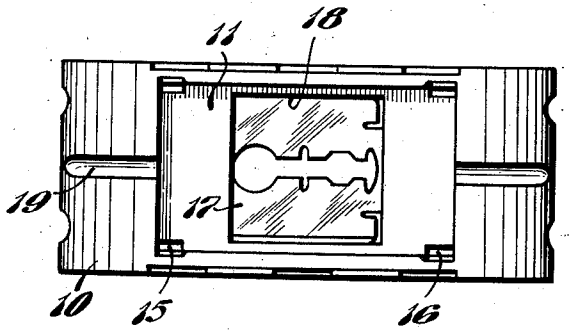


Fig. 3

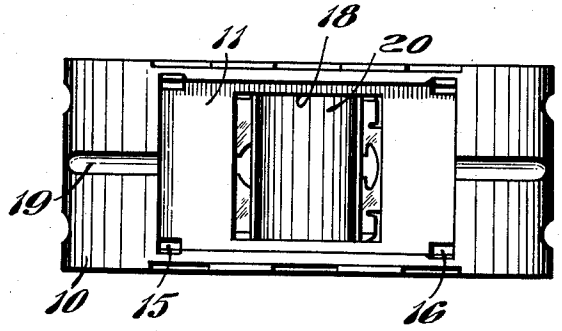


Fig. 4

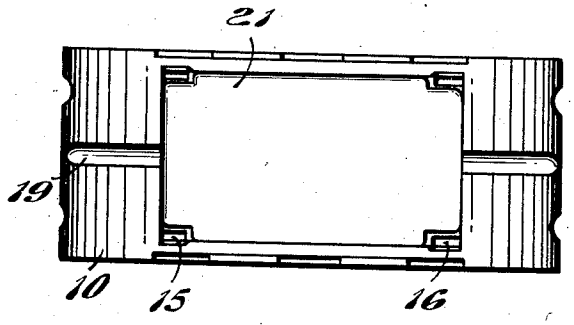
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BLADE DISPENSER

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Fig. 5



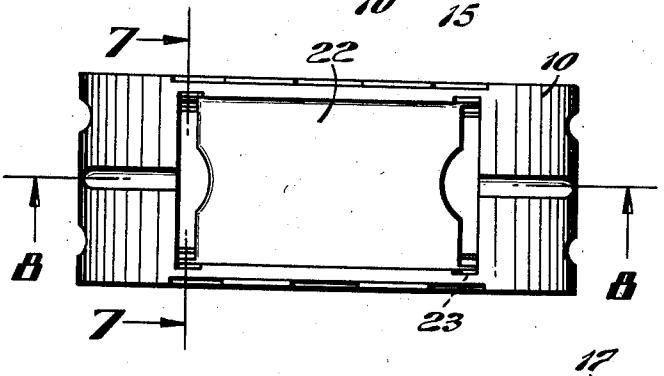
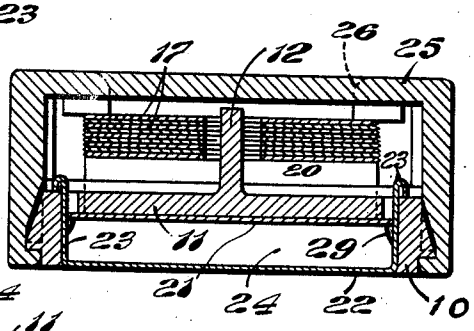


Fig. 6

Fig. 7



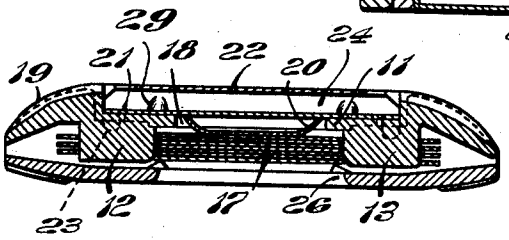


Fig. 8

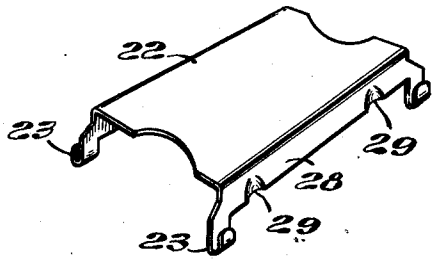


Fig. 9

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2,863,586

BLADE DISPENSER

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Application October 29, 1953, Serial No. 389,005

4 Claims. (Cl. 221—102)

This invention comprises a blade dispenser or magazine having a new and improved spring organization by which the position and movement of the contained blades are controlled in their enclosure.

In packaging unwrapped blades in a dispenser of this kind, it is a matter of considerable convenience if the usual spring which controls the position of the blade stack in the dispenser is not activated or placed under compression until the entire dispenser and its charge of blades are assembled. Otherwise some provision must be made for temporarily suspending the action of the spring or there is a constant danger that the partially assembled charge of blades may be disrupted. In accordance with the present invention, these difficulties are entirely obviated, the cost of packing the dispensers is reduced, and the safety and speed of the operation substantially increased. This desirable result is achieved by so constructing and arranging the component parts of the whole organization that the spring is energized or activated in the step of placing or securing in position the last component of the complete assembly.

Going more into detail, the dispenser of my invention as completely assembled comprises connected sections, together providing an elongated blade enclosure having an exit opening at at least one end, a blade stack contained within the enclosure, an intermediate partition in the enclosure having an aperture therein, and a spring which may be passed through this aperture and, in completing the assembling operation, compressed between the bottom of the blade stack and a concurrently assembled portion of the dispenser, such for example, as an attached cover.

In this respect a feature of the invention comprises a cover member having hooked spring legs so constructed that by merely pressing the cover into its final position in the assembly its legs automatically interlock with an interior part of the dispenser and hold the cover in place.

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:

Fig. 1 is a plan view of the bottom section of the dispenser showing a few blades of the stack in position therein.

Fig. 2 is a plan view of the upper section.

Fig. 3 is a plan view of the bottom section in inverted position.

Fig. 4 is a similar view showing the spring in its initial position.

Fig. 5 is a similar view showing an intermediate plate in position.

Fig. 6 is a similar view showing the bottom cover in its final position.

Fig. 7 is an enlarged view in cross section on the line 7—7 of Fig. 6.

Fig. 8 is a view in longitudinal section on line 8—8 of Fig. 6, and

Fig. 9 is a view in perspective of the cover which appears for the first time in Fig. 6 of this sequence of views.

The bottom and top sections of the dispenser may be molded from any suitable colored or transparent plastic or of metal. As shown herein, the bottom section is rectangular in outline and provided with a fixed inwardly offset partition **11** which constitutes an elevated platform **11** as seen from the upper side of the section as in Figs. 1, 3 and 4. From opposite ends of this platform rise a pair of spaced longitudinally aligned blade-positioning studs **12** and **13** with rounded inner corners. The side walls of the platform are provided with square notches **14** which receive corresponding ribs in the upper section of the dispenser. At each corner of the platform **11** are formed longitudinal slits **15** and **16** for a purpose which will presently be described. The studs **12** and **13** are so arranged as to locate a stack of double-edged longitudinally slotted blades **17** in alternate overlapping relation, and while this arrangement of the blades is one that now finds particular favor, the arrangement of the blades is of only secondary importance, and it would be within the scope of the invention to organize the dispenser for handling blades disposed in vertical registration.

The bottom section of the dispenser is shown in its inverted position in Figs. 3–6 and as seen in this position, the platform **11** defines a rectangular recess which in the complete dispenser constitutes the major part of the used-blade compartment. Referring to Fig. 3, it will be seen that the platform or partition **11** contains a large symmetrically located aperture **18** that is substantially square in contour. Both ends of this section of the dispenser are curved upwardly and provided externally with longitudinal grooves **19** which facilitate locating the dispenser as a whole accurately with respect to a safety razor in the operation of supplying it with a blade as fully explained in U. S. Patent No. 2,562,115 of July 24, 1951, to Muros. The aperture **18** opens completely through the platform or partition **11** directly beneath the center of the blade stack and is designed to receive a curved leaf spring **20**. This spring is also substantially square in projected contour and fills the aperture **18** with just sufficient clearance to prevent the spring from becoming misplaced. In Fig. 4 the spring **20** is shown with its concave side uppermost and as loosely received within the aperture **18**.

It has been found desirable to interpose a loose plate between the spring **20** and the pressure-resisting element of the dispenser. Such a plate **21** is shown in Fig. 5. This may be shaped to fit with clearance in the used-blade compartment and to engage the two ends of the spring which is inserted with its concave side uppermost in the inverted section **10**.

The bottom cover **22** as shown in Fig. 9 is generally rectangular and shaped to close and complete the used-blade compartment and is provided with an outwardly-hooked spring leg **23** at each corner. These legs are formed integral with side walls **28** of the cover which correspond in height to the depth of the used-blade compartment.

The top section of the dispenser as shown in Figs. 2, 7 and 8 is similar in outline to the bottom section and provided with a symmetrically-located finger-opening **26** through which the uppermost blade in the stack may be engaged and moved out of the dispenser by the thumb or finger of the user. Downwardly projecting lugs spaced about the perimeter of the opening **26** determine the height-wise position of the uppermost blade of the stack in this enclosure. The upper section has side walls provided with ribs **27** which register with the notches **14** of the bottom section and these side walls are shaped to make interlocking engagement with the marginal edges of the bottom sections as suggested in Fig. 7.

In assembling the elements of the dispenser above-de-

scribed, the blades of the stack are first arranged in staggered relation as suggested in Fig. 1 and the stack may include as many as twenty blades. The blades of the stack may be presented freely and conveniently in the desired position upon the platform **11**, there being no spring present at this time to disturb them. When the stack has been completed, the top section **25** is snapped into place and the stack of blades thus securely enclosed. The ends of the top and bottom sections are shaped to provide blade exit slots at both ends of the dispenser as shown in Fig. 8. The partially assembled dispenser is now inverted as represented in Fig. 3 bringing the aperture **18** into view. The spring **20** is next dropped into place as suggested in Fig. 4 followed by the intermediate plate **21** as suggested in Fig. 5. Finally, the cover **22** which is the last component of the organization is assembled by passing its hooked legs **23** through the slits **15** and **16** and forcing them inwardly or downwardly until the hooked ends of these legs snap into position against the inner face of the platform or partition **11** as best shown in Fig. 7. This provides a permanent fastening since the hooked ends are entirely concealed and cannot, therefore, be sprung into disengaging position. The side walls **28** of the cover limit its inward movement and determine its final position with respect to the platform or partition **11**. In forcing the cover **22** into place, this being the last step in the assembling operation, the spring **20** is placed under compression and the uppermost blade **17** of the blade stack is held yieldingly against the inner face of the top section or against blade-locating projections formed thereon adjacent to the finger-opening **26**.

As the blades are removed one-by-one through the exit slots the spring forces the blade stack upwardly, holding the uppermost blade always in predetermined position and at the proper level in the dispenser for movement through one or the other of the blade exit slots. The spring acts freely through the aperture **18** in the partition **11** in which it is partially located. At its concave side it bears against the presser plate **21**, if that is present, or directly against the inner face of the cover **22** or against used-blades if any have been inserted in the compartment **24**, but in any of these cases it is the step of assembling the cover **22** which compresses and thus energizes the spring.

The cover **22** is slightly shorter than the recess **24** of the used blade compartment and thus provides inlet slots for used blades at both ends. Used blades are therefore presented between the cover and the spring **20** or between the cover and the presser plate **21** when the latter is included as a component of the assembly.

The side walls **28** of the cover are each provided with a pair of spaced inwardly extending lugs **29**, herein shown as formed by embossing or die-forming the sheet metal of the cover. These lugs serve to hold the presser plate always in place upon the platform **11** as best shown in Fig. 8 and to support it in position against the thrust of the spring **20**.

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 dispenser comprising a bottom section having a fixed inwardly offset partition provided with a rectangular centrally located aperture, aligned guide lugs projecting from one face of said partition at opposite sides of the aperture, an unattached compression spring disposed in said aperture and extending therefrom into contact with a stack of longitudinally slotted blades maintained by said lugs in position spanning said aperture, a top section forming with the bottom section an enclosure for the blade stack with an exit opening at one end, and a bottom cover having legs providing means for attachment to the bottom section, said bottom section having means for receiving said legs and engaging said attachment means, the cover being spaced from said partition and forming therewith a used blade compartment and at the same time receiving the thrust of said spring and thereby locating the uppermost blade of the stack in line with said exit opening.

2. A blade dispenser as described in claim 1 further characterized by the fact that the legs are disposed at each corner of said bottom cover and are interlocked with said offset partition.

3. A blade dispenser as described in claim 1 further characterized by the fact that the bottom cover is provided with inwardly projecting lugs and an intermediate presser plate is held by said lugs between the bottom cover and the spring and the spring is engaged by said plate and held under compression thereby.

4. A blade dispenser comprising upper and lower sections having an apertured partition between them defining separate compartments for used and unused blades, spaced slits in the partition, an unattached spring movable in the aperture of the partition and extending therefrom into contact with an unused blade, and a lower cover member having inwardly projecting legs each provided with a hooked end that is forced through one of the slits of the partition to engage the side of said slit thus anchoring the lower cover in position and means to contact the spring to maintain it under pressure.

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