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N. TESTI

2,288,979

BLADE RECEPTACLE

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Fig. 1

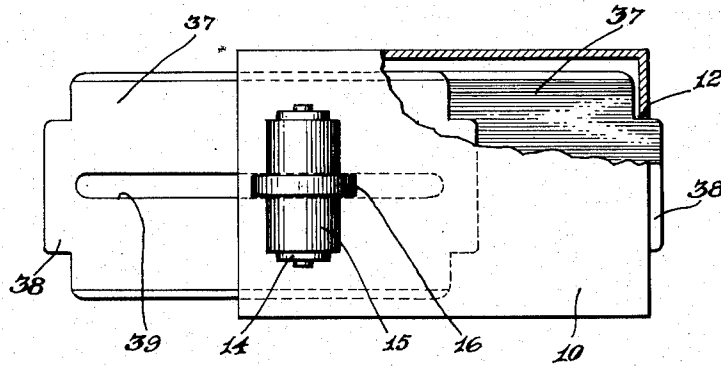


Fig. 2

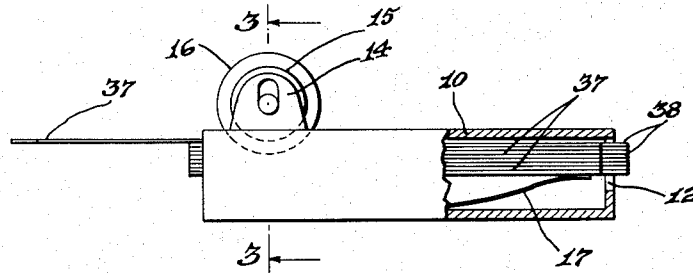
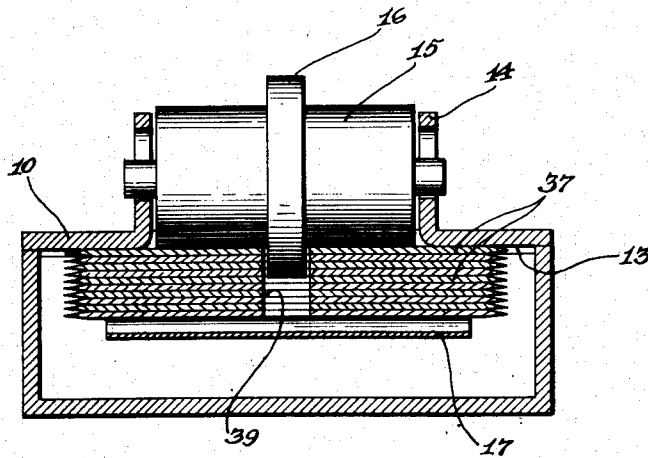


Fig. 3



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BLADE RECEPTACLE

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4 Claims. (CL 206—16)

This invention relates to the packaging of fine-edged blades, such for example as safety razor blades. In one aspect it consists in a novel receptacle for containing a supply of blades, well adapted for purposes of distribution and also to serve as a magazine from which the user may conveniently remove a single blade from time to time as he requires it. In another aspect it consists in a receptacle for blades having a novel mechanism under the control of the user for discharging safely a single blade at a time in such a manner as to safeguard its sharp cutting edge or edges against danger of contact with any part of the receptacle which would impair the keenness of the sharp edge of the blade.

In handling safety razor blades under commercial conditions of transportation and distribution and in the more or less casual treatment of such blades by the user, the extremely fine keen edge of the blade is likely to become dulled by being brought into contact with a fold in its wrapping or by being drawn across or cutting the wrapping on being removed therefrom. On this account the best and most skillful efforts of the blade manufacturer are often brought to naught because of the damage done to the fragile and delicate shaving edge of the blade after it has been brought to the keenest possible shaving condition in the factory but before the shaving operation is actually undertaken. These difficulties have been overcome to some extent by temporarily attaching the individual blade to a wrapper and then enclosing the wrapped blade in an individual envelope. While the blades are thus well protected in storage it is more or less inconvenient for the user to remove the blade from its envelope and wrappings when he is ready to use the blade and in that operation there is serious danger that the user may cut his fingers.

An object of the present invention is to do away with the individual wrapping of blades and to provide instead a receptacle for containing and fully protecting a stack of unwrapped blades, the receptacle being of such character that it may be filled automatically by the manufacturer with the proper precautions for maintaining the blade edges in perfect condition. Accordingly, the novel receptacle of my invention may be filled and sealed at the factory. It may serve as a self-contained unit in storage and for distribution and it may serve as a convenient magazine up to the time the blade is used.

Preferably and as herein shown the receptacle of my invention is made by stamping out and bending thin sheet metal and may be so inexpensive that it can be thrown away when empty. Within the receptacle the sharp blade edges may be maintained out of contact with the walls of the receptacle by corner engagement, or if the blades have elongated unsharpened end portions

of reduced width, these end portions may be utilized to locate the blades within the receptacle and to assist in guiding the blade as it is delivered from the receptacle. These desirable features may be realized in receptacles for handling blades of all different types—wide or narrow, double or single edges, and of any desired range of thickness.

To these ends, my invention in one aspect consists in a blade receptacle shaped to enclose a stack of safety razor blades and having a blade delivery slot in one wall, in combination with a friction drive operative upon an outer blade of the stack within said receptacle, for example the uppermost blade of the stack and means for preventing the sharp edge of the blade from touching the walls of the receptacle during the delivering movement. As herein shown this latter characteristic or feature is embodied in a receptacle for blades having an elongated aperture or slot therein and in this instance the receptacle is equipped with a friction feed roll having a guide flange arranged to run in the slot or channel provided by the blades aligned in the stack.

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 drawing, in which—

Fig. 1 is a plan view of the receptacle with one corner of the cover broken away;

Fig. 2 is a view of the receptacle in elevation partly in longitudinal section; and

Fig. 3 is a view in cross-section on the line 3—3 of Fig. 2 but on a larger scale.

The invention is herein illustrated as embodied in a receptacle designed and intended to handle double-edged safety razor blades of the well-known commercial type shown in Fig. 1. This is an elongated double-edged blade 37 provided with corner notches defining elongated unsharpened portions 38 in each end of the blade and provided with a longitudinal central slot 39 which extends continuously and in uniform width substantially co-extensive with the cutting edges of the blade. It will be understood that certain features of the illustrated receptacle are designed for the purpose of accommodating the specific blade shown and it is within the scope of the invention to modify these features of the receptacle in adapting it to handle blades of different styles. For purposes of illustration, however, the receptacle will be described in its illustrated form.

The receptacle shown in the drawing is generally rectangular in shape having a cover 10, a rear wall in which is provided a rectangular notch 12 of such dimensions as to receive the elongated, unsharpened portions 38 of a stack of blades and a front wall in which is provided a similar notch

widened at its upper edge into a narrow delivery slot 13. The slot 13 is disposed transversely adjacent to the inner surface of the cover 10 and is of such width as to permit the passage of only one blade at a time. It will be noted that the stack of blades 37 is thus retained within the receptacle by engagement of the end portions 38 of the blades with the notches in the end walls of the receptacle and that in this manner the sharp cutting edges of the blades are initially maintained out of contact with the inner walls of the receptacle.

The cover 10 is provided near its forward end with a pair of upstanding ears 14 and in the cover between these ears extends a transverse slot or opening permitting access of a feed roll to the uppermost blade 37 in the blade stack. The ears 14 are vertically slotted to provide bearings for a transverse shaft carrying a rotatable friction feed device in the shape of a rubber roll 15. This roll is of such diameter as to extend into engagement with the uppermost blade of the stack when the roll shaft is depressed to the bottom of its bearing slots. The roll, however, is provided with a centrally disposed concentric flange or collar 16 which extends at all times into the enclosure of the receptacle and into the slot in the blade stack provided by the aligned slots 39 of the individual blades. The flange or collar 16 may be of unyielding material and it may turn or not with the roll 15.

The receptacle may be filled with sharp blades by having the aligned stack of blades inserted in the body of the receptacle before the cover 10 is fastened in place, or by merely presenting the blades successively through the delivery slot in the front wall, each one thus presented acting to depress those previously in place against the compression of a bowed leaf spring 17 located in the bottom of the receptacle and acting normally to lift the stack and maintain it with its uppermost blade in yielding contact with the inner face of the cover 10. The cover 10 may be crimped upon the walls of the receptacle or may be soldered to the body of the receptacle or otherwise secured thereto.

In using the blade receptacle above described, it is necessary only to rotate the feed roll 15 in the proper direction by drawing a thumb or finger across it. Thereupon the uppermost blade 37 is slipped off the top of the stack and advanced endwise out through the delivery slot 13 in the front wall of the receptacle. In this feeding movement the rear end of the blade is at once freed from the guiding engagement of the notch 12 in the rear wall and since the delivery slot 13 is wider than the blade it has no transverse guiding effect upon the forward end of the blade. However, the blade is positively guided and held against angular or transverse displacement in its feeding movement by the action of the flange 16 of the feed roll as the edges of the slot 39 travel past it. In the illustrated construction the flange 16 thus acts as means for preventing contact of the sharp edges of the blade with the walls of its receptacle throughout the feeding movement but this guiding means need not be part of the feeding device.

When the rear edge of the uppermost blade passes out from beyond the roll 15 it has been advanced substantially out of the receptacle and the blade may now be conveniently removed for use. In the final movement beneath the feed

roll the solid end portion 38 of the blade passes under the flange 16 of the feed roll and momentarily the flange may ride up upon this unslotted portion of the blade. In this operation the shaft of the feed roll is free to move upwardly in the slots of the ears 14. Upon the removal of the uppermost blade from the stack the next lower blade takes its place in contact with the underface of the cover 10 and in readiness to be delivered upon further rotation of the feed roll 15. It will be noted that in feeding the blade endwise out of the receptacle the feed roll 15 does not pass over any sharp edge of the blade but merely rolls against its flat face and the unsharpened end portion.

The term "friction-drive" is employed herein to include any sort of device movable in contact with the blade and capable of exerting frictional traction thereon sufficient to advance the blade while yieldingly engaged between the cover 10 and the next lower blade in the stack.

Having thus disclosed my invention and described certain embodiments thereof for illustrative purposes but not in any limiting sense, I claim as new and desire to secure by Letters Patent:

1. In an elongated rectangular receptacle for longitudinally slotted blades, an end wall having a blade passage, and a cover having an opening above a stack of blades in the receptacle, a feed roll mounted to rotate on an axis disposed transversely of said receptacle with part of its circumference in the opening of the cover, and a collar disposed concentrically upon the roll and extending into the slot of the uppermost blade in the stack.

2. In a rectangular receptacle for longitudinally slotted blades, a wall having a blade passage, a cover having an opening therein adjacent to the blade passage, a yielding feed roll mounted to rotate in the opening of the cover about an axis disposed transversely of said receptacle, and an unyielding collar concentric with said feed roll and of greater diameter than the feed roll, said collar being so located as to rotate in the slot of a blade passing beneath the cover.

3. An elongated rectangular blade receptacle having an end wall with a blade passage therein, side walls, a cover with an opening affording access to the uppermost blade of a stack of longitudinally slotted blades in the receptacle, and a friction roll mounted on the cover to rotate partly within said opening on an axis disposed transversely of said receptacle and being constructed and arranged to advance the said uppermost blade and having a projecting collar rotatable in the slot of the blade to maintain its sharpened edge out of contact with the side walls of the receptacle.

4. A safety razor blade package comprising a rectangular receptacle having a slotted end wall and an apertured cover, in combination with a stack of safety razor blades, each longitudinally slotted and having solid end portions of reduced width, a flanged friction feed roll mounted on a cover for rotation about an axis disposed transversely of the receptacle for feeding a blade beneath it while the said flange rotates in a blade slot and mounted for bodily movement to yield in allowing the flange of the roll to pass over the solid end of the blade as the blade passes beneath the roll.

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