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MAGAZINE FOR RAZOR BLADES

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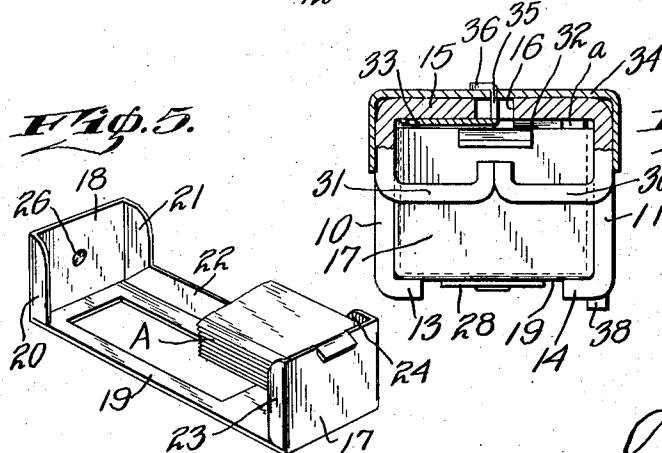
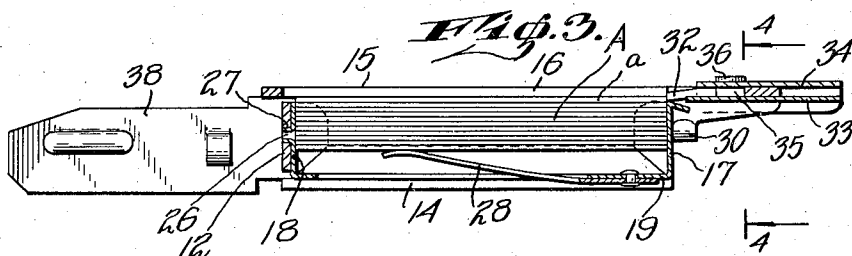
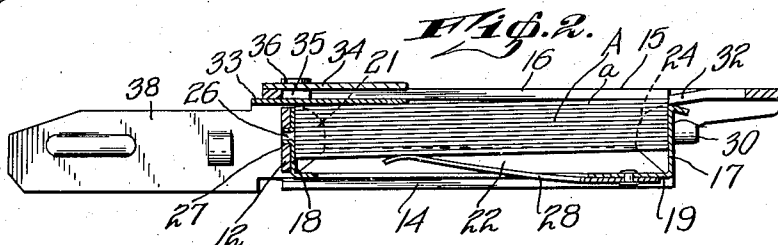
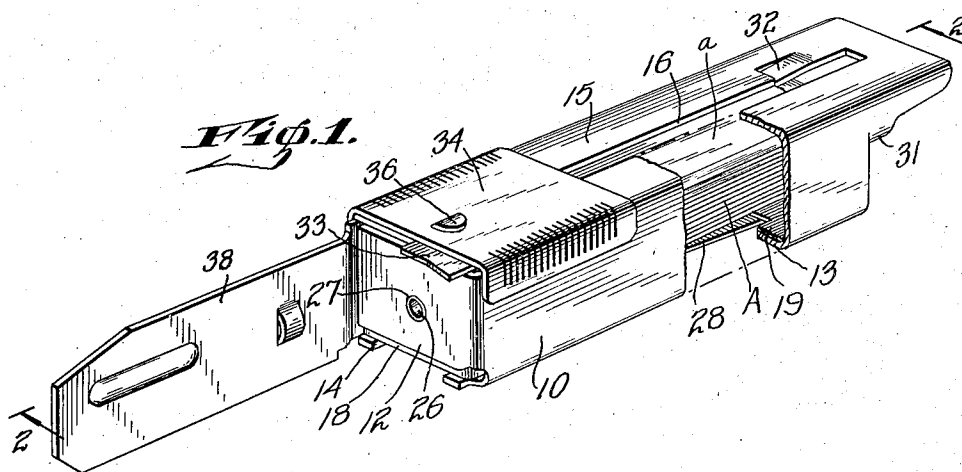


Fig. 5.

INVENTOR
LEOPOLD KUHN

BY
John H. Hilliard
ATTORNEY

UNITED STATES PATENT OFFICE

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MAGAZINE FOR RAZOR BLADES

Leopold Kuhn, Bridgeport, Conn., assignor to
Magazine Repeating Razor Company, New York,
N. Y., a corporation of New Jersey

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3 Claims. (Cl. 206—16)

The invention relates to an improved razor blade magazine of the type provided with means for ejecting blades therefrom one by one and as they are ejected feeding them to shaving position in a razor head. The general nature and purposes of the device will be understood after examining the blade magazines illustrated and described in U. S. Patent #1,969,945 to O. V. Rodrigues, U. S. Patent #2,043,046 to Leopold Kuhn, and U. S. Patent #2,109,017 to O. V. Rodrigues, and generally described they comprise a casing, a receptacle within the casing in which a stack of blades is retained, a reciprocable plunger for successively ejecting the blades from the stack, and means for aligning the magazine with the razor head so that each blade, as it is ejected from the magazine, will be properly directed to shaving position in the razor head.

In blade magazines of this general character, it has been frequently found that, as the plunger is retracted, it exerts sufficient frictional effect on the topmost blade of the stack to drag the blade back with it, with the result that the plunger cannot be made to engage the blade for injecting it into the razor head. This is due to the fact that clearance is provided between the end wall of the receptacle and the upper wall of the casing in order to permit the blade-engaging plunger to pass to the rear of the stack of blades preparatory to engagement with the topmost blade of the stack for ejecting it. This clearance may be sufficient to permit not only the plunger but also a blade to pass through it at the same time; although, as a practical matter, the clearance is preferably considerably less than the thickness of the plunger plus a blade. However, if on retraction of the plunger a blade is dragged into the clearance, the plunger becomes jammed and cannot pick up a blade on its forward stroke.

It is the object of the invention to prevent frictional engagement of the plunger from dragging the topmost blade of the stack back through the clearance referred to.

Referring to the drawing:

Fig. 1 is a perspective view of a razor blade magazine embodying the invention;

Fig. 2 is a view on the line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 4 but showing the plunger in fully retracted position ready to eject a blade from the magazine;

Fig. 4 is a view on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of a blade receptacle.

Referring to the drawing more in detail, the casing (see Fig. 1) comprises a sheet metal structure consisting of the side walls 10 and 11, the

end wall 12, the bottom flanges 13 and 14, and the top wall 15, the top wall 15 being provided with the slot 16 running nearly its entire length serving as a guide for the blade ejecting unit as will presently be described.

The stack of blades indicated as a whole by the letter "A" is contained in a receptacle comprising an open top, box-like structure having the rear end wall 17 and the front end wall 18, the bottom wall 19, and the flanges 20, 21, 22, 23, and 24 for confining the stack. The projection 25 on the end wall 18 extends into an aperture 27 in the front end wall 12 of the casing and therefore positions the end wall 18 of the receptacle so that its top edge is flush with the top edge of the end wall 12 of the casing.

The rear end wall 17 of the blade-holding receptacle extends upwardly toward the top wall 15 of the casing but not so far but that clearance is provided in the form of a slot, as is best shown in Fig. 4 between its upper edge and the top wall 15 of the casing, the amount of this clearance being sufficient to permit the plunger to pass therethrough as will be presently explained. The blade stack is resiliently pressed upwardly by a spring 28 affixed by riveting or otherwise to the bottom wall 19 of the receptacle as shown in Figs. 2 and 3. This causes the blade which may occupy the topmost position on the stack to be pressed upwardly to the point where it bears against the top wall 15 of the casing or against the plunger, depending upon the position of the latter in the guide slot 16 or against the plunger and top wall together. In Fig. 2 the forward end of the blade is shown as bearing against the plunger, while the rear end is shown as bearing against the top wall 15 of the casing. In Fig. 3 the blade *a* bears against the top wall of the casing throughout its entire length, for the reason that the plunger in Fig. 3 is completely retracted so that its blade engaging end is to the rear of the topmost blade *a* and in alignment with it.

The blade holding receptacle is prevented from sliding out of the casing by the lugs 30 and 31 struck from the material of the side walls of the casing.

The means which I provide for preventing the topmost blade of the stack from being drawn back through the clearance between the blade receptacle and the top wall of the casing comprises the tongue 32 struck down from the top wall of the casing sufficiently so that it bears against the top edge of the rear end wall of the receptacle but only through a portion of the length of the latter, leaving a part of the clear-

ance free. It will be apparent that, with the tongue in this position, no blade from the stack can, under any circumstances, pass through the clearance referred to, since the blades are wider than the length of the unobstructed portion of the clearance.

The blade ejecting unit comprises the plunger 33 and the thumb-and-finger piece 34 connected together by the tongue 35 struck from the material of the plunger and extending through an aperture in the thumb-and-finger piece and bent over as shown at 36. The connection however is loose so that the unit may slide freely back and forth the whole length of the slot 16. The plunger, it will be observed, is so located with respect to the thumb-and-finger piece and is sufficiently narrow that it passes freely through the clearance above referred to without obstruction by the tongue 32. On the other hand, the blades are assumed to be wide enough so that passage of the topmost one through this clearance is obstructed by this tongue.

While not related to the invention, the device usually includes (for use in certain types of razors) an aligning finger 38. However, since the scope of the invention is confined to the mechanism for ejecting blades from a magazine, it is immaterial in its broadest aspect whether or not this finger be included.

While I have described a certain particular construction in which my invention is incorporated, I do not desire to be limited to this particular embodiment since many changes and modifications may easily be made without departing from the spirit and scope of the invention as set forth in the following claims:

I claim:

1. In a magazine injector for razor blades, of the type comprising a boxlike casing provided with a blade ejection orifice in one end together with a receptacle within the casing for containing a stack of blades and having an end wall of a height to provide a slot between its free edge

and a wall of the casing of dimensions sufficient for a blade to pass therethrough, a plunger reciprocally mounted within the casing for travel in a path passing through said slot, the width of the plunger being less than the length of the slot, and a tongue inwardly projecting from a wall of said casing and positioned to obstruct the passage of a blade through said slot but offset from the path of movement of the plunger therethrough.

2. In a magazine injector for razor blades, of the type comprising a boxlike casing provided with a blade ejection orifice in one end together with a receptacle within the casing for containing a stack of blades having an end wall of a height to provide a slot between its free edge and a wall of the casing of dimensions sufficient for a blade to pass therethrough, a plunger reciprocally mounted within the casing for travel in a path passing through said slot, the width of the plunger being less than the length of the slot, and a projection inwardly projecting from a wall of said casing and positioned to obstruct passage of a blade through said slot but offset from the path of movement of the plunger there- through.

3. In a magazine injector for razor blades, of the type comprising a boxlike casing provided with a blade ejection orifice in one end together with a receptacle within the casing for containing a stack of blades and having an end wall of a height to provide slot between its free edge and a wall of the casing of dimensions sufficient for a blade to pass therethrough, a plunger reciprocally mounted within the casing for travel in a path passing through said slot and to the rear of the blade stack, the width of the plunger being less than the length of the slot and a projection projecting from the top wall of the casing toward the said free edge and positioned to the rear of a blade but offset from the path of movement of the plunger therethrough.

LEOPOLD KUHNLE.