

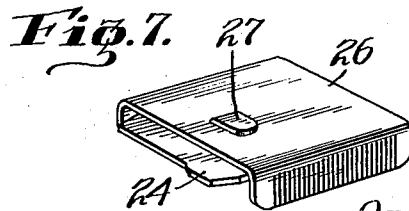
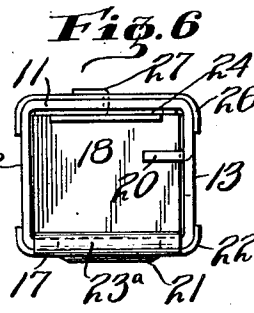
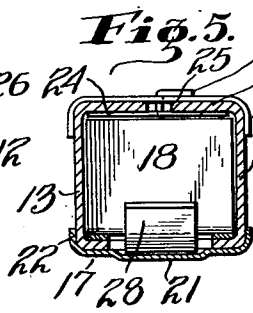
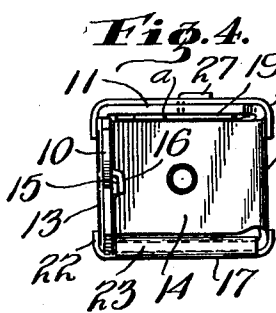
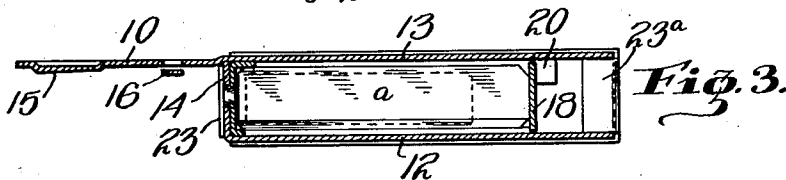
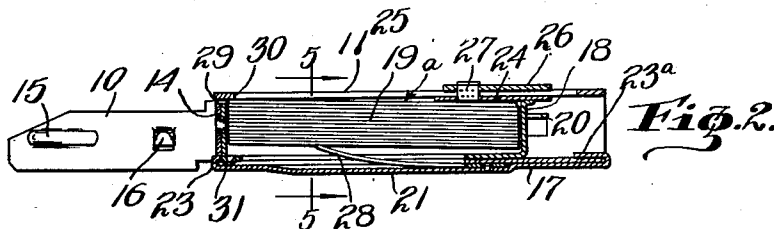
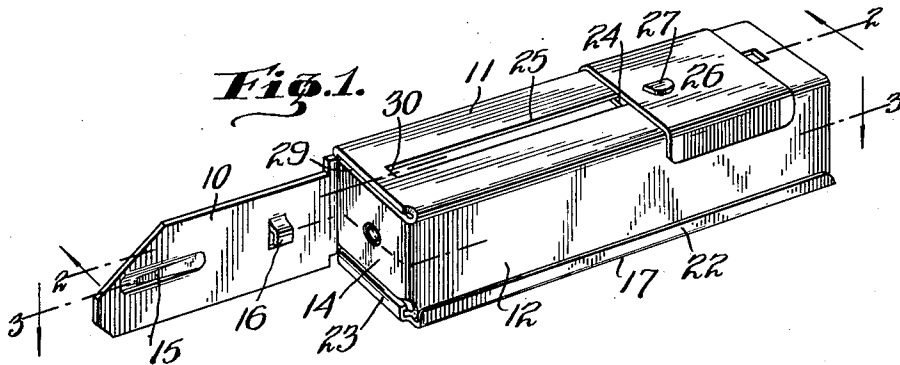
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O. V. RODRIGUES

2,109,017

MAGAZINE FOR RAZOR BLADES

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MAGAZINE FOR RAZOR BLADES

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5 Claims. (Cl. 206—16)

The invention relates to an improved magazine for razor blades, of the type provided with means for ejecting the blades one by one, and as they are ejected, feeding them to position in a razor. The essential characteristics of a suitable device for this purpose are to be observed in the blade magazines illustrated and described in United States Patent No. 1,969,945 to O. V. Rodrigues and United States Patent No. 2,043,046 to Leo Kuhn, and, generally described, they comprise a box-like receptacle in which is inserted a clip or holder containing a stack of blades, provision being made for ejecting the blades one by one and locating them in a razor head in proper position for shaving.

The object of the invention, broadly stated, is to improve those features of the Kuhn patent which make it difficult to remove a blade clip from the magazine without destroying the latter or, at any rate, without mutilating or distorting it or parts of it to an extent which will inhibit its further use for its intended purposes.

By utilizing the invention it is possible to dispense blades sealed up in the magazine and in most cases, to prevent the insertion in the same magazine of a second supply of blades, thus compelling the user to discard the magazine when its first loading has been exhausted. Consequently, the razor producer may be assured that only blades of his own make or of his selection shall be used in connection with his razor, and he thus avoids the damage to the reputation of his razor, which would be almost certain to arise from the sale by others of cheap and inferior blades.

Referring to the drawing,
Fig. 1 is a perspective view of the magazine;
Fig. 2 is a view, in section, on the line 2—2 of Fig. 1;

Fig. 3 is a view, in section, on the line 3—3 of Fig. 1;

Fig. 4 is an end view of the magazine, as observed from the left of Fig. 1;

Fig. 5 is a cross-section view on the line 5—5 of Fig. 2;

Fig. 6 is an end view of the magazine, as observed from the right of Fig. 1;

Fig. 7 is a perspective view of the plunger by means of which the blades are ejected.

The magazine that I have selected to illustrate a preferred embodiment of the invention comprises an elongated, box-like structure of channel section transversely, in which a clip containing a number of blades may be inserted and from which extends a projecting finger 10, the function of which is to align the magazine with

the razor as described in Patent #1,969,945 above referred to. The box-like structure, which I will term the "barrel", comprises what may be referred to (with reference to the orientation of the device as it appears in Fig. 1) as a top portion 11, an end portion 14, and two side portions 12 and 13, intumed as indicated at 17 along a line parallel to and slightly remote from their edges, all of which may be formed from a single blank of sheet metal of a suitable pattern. Preferably a gap or slot is left between these edges through which the spring 28 hereinafter mentioned protrudes. The barrel may, if the device is to be used in the manner shown in the Patent #1,969,945, be provided as above stated with the finger 10 which, in turn, is provided with the projection 15 and the projection 16. The primary purpose of these two projections 15 and 16 is that of co-acting with the razor to properly open the blade channel of the latter to receive a blade, but, in addition, the projection 16 also performs a function that is related to the invention and which will be later referred to. It will be obvious that the clip 18, whether containing a stack of blades indicated as a whole by the numeral 19 or empty, cannot by reason of the presence of the intumed edges 17 be removed by extracting it through the bottom of the barrel. The same would be true even if the edge of only one side were intumed. Neither can the clip be extracted through the front of the barrel by virtue of the closure constituted of the end wall 14, but even if the end wall 14 be bent so that the end is open, the projection 16 offers a further positive obstacle to removal of the clip—i. e., unless the finger 10 also be bent aside. If it is intended to make use of the projection 16 as an obstacle to the extraction of the clip in this manner, it is preferable that the clip should fit the barrel closely. Extraction of the clip through the rear end of the barrel is effectively prevented by the lug 20 which may be, and preferably is, provided by striking in by means of a punch, a small area of the stock in one of the sides, leaving it however attached along one edge. In assembling it is preferable that the entire barrel be formed except the lug 20, the clip loaded with blades inserted and the lug 20 then struck in.

We thus have a barrel containing a clip for holding a stack of blades which cannot be extracted without removing the obstructions created by the end wall 14, the projection 16, and the lug 20. Removal, breakage or distortion of these parts, while possible with special tools, is not feasible for the ordinary razor user, and in any event the

operation would result in distortion or mutilation of the barrel, rendering it unavailable for further use. The same result would occur if it were attempted to extract the clip from the barrel by forcibly spreading the sides of the latter.

The bottom of the magazine which may be considered as a part of the barrel may consist of a cover plate 21 preferably turned up at its edges as shown at 22, and folded over the inner turned edges 17 of the side walls, as shown at 23 and 23'.

It will thus be seen that an attempt to remove the clip without mutilation or distortion of the barrel is not in any way helped by removing the cover plate. In other words, removal of the cover plate does not in any way help in the removal of the clip, if it is desired that the removal is to be accomplished without rendering the magazine unusable.

The obstacles to removal of the clip may be increased by forming it from stock that is capable of withstanding very little bending or working. To this end brittle stock may be selected and if possible stock so brittle that the lug 20 cannot be bent back out of the way of the clip without rupture along the line of bend or at any rate cannot be bent to its original position and then restored to its position of projection without such an effect. The desired results may be still further approached by using thick stock since the thicker the stock of a given grade the less bending will it stand. Not only would the same difficulties arise as in the case of the lug 20 in case it were attempted to bend the projection 16 out of the path of the clip, but even were the attempt successful it would not be feasible to restore it to its original shape without the use of special dies, and thus the function of the finger 10 would be lost or impaired.

The parts shown in the drawing, which I have not referred to above, while not essentially related to the invention, will be briefly referred to in order that the description of the device shall be complete.

The means for ejecting the blades from the stack comprise a plunger 24 located in the magazine and connected through the slot 25 to a finger piece 26 by means of a connecting piece 27. When the plunger is drawn to the extreme rear—that is, to the right, as shown in Figs. 1, 2, and 3,—the spring 28 forces the entire stack 19 of blades upwardly, thus interposing the rear end of the blade *a* in the path of the plunger, and then when the plunger is moved forwardly—that is, to the left with reference to Figure 1—through a full stroke, the blade *a* is ejected through the orifice 29 of the magazine, and if the magazine is properly lined up with a razor, the blade will be inserted in the blade channel of the latter. The operation is of course repeated until the supply is exhausted as often as it is desired to insert a new blade in the razor.

From the foregoing description it will be seen that the invention makes possible an effective way of preventing the indiscriminate selling of cheap and inferior razor blades, with the necessary result of discrediting the producer of the razor with which they are to be used. While the

invention has been described with reference to a specific type of blade magazine, it is to be understood that it is capable of use in connection with other types of blade magazines, and that accordingly any limitations as to the scope of the invention are to be only such as are set forth in the following claims.

I claim:

1. A blade magazine for use with razors, comprising a barrel adapted to contain a blade holder, said barrel comprising a casing of channel section with the edges of the channel inturned leaving a gap between them and a cover plate affixed to said casing and serving as a closure for said gap, a permanent closure for one end of the casing, and a lug projecting inwardly from a wall of the casing and positioned to obstruct movement of the blade holder toward the opposite end of the casing.

2. A blade magazine for use with razors, comprising a barrel adapted to contain a blade holder, said barrel comprising a casing of channel section with the edges of the channel inturned leaving a gap between them and a cover plate affixed to said casing and serving as a closure for said gap, a permanent closure for one end of the casing, and a lug formed of the material of the casing projecting inwardly from a wall of the casing and positioned to obstruct movement of the blade holder toward the opposite end of the casing.

3. A blade magazine for use with razors, comprising a barrel adapted to contain a blade holder, said barrel comprising a casing of channel section with the edges of the channel inturned leaving a gap between them and a cover plate affixed to said casing and serving as a closure for said gap, a permanent closure for one end of the casing, and a lug struck in from a wall of the casing and positioned to obstruct movement of the blade holder toward the opposite end of the casing.

4. A blade magazine for use with razors, comprising a barrel adapted to contain a blade holder, said barrel being provided with means for preventing removal of said blade holder, said means comprising a permanent closure for one end of the barrel, a lug projecting inwardly from the wall of the barrel and positioned to obstruct movement of the blade holder toward the opposite end of the barrel, and a finger for co-acting with the razor projecting from one end of said barrel and provided with a lug positioned to obstruct movement of the blade holder from the barrel when the said permanent closure is removed.

5. A blade magazine for use with razors, comprising a barrel adapted to contain a blade holder, said barrel being provided with means for preventing removal of said blade holder, said means comprising a permanent closure for one end of the barrel, and a lug projecting inwardly from the wall of the barrel and positioned to obstruct movement of the blade holder toward the opposite end of the barrel, the material of said barrel being of such a nature that it is incapable of withstanding more than one right-angle bend.

OCTAVIUS V. RODRIGUES.