Feb. 3, 1931. J. SCHICK 1,791,042

SAFETY RAZOR

Filed May 19, 1926 3 Sheets-Sheet 1

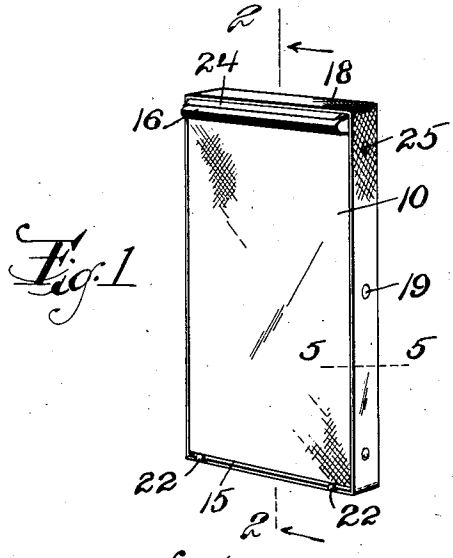


Fig. 1

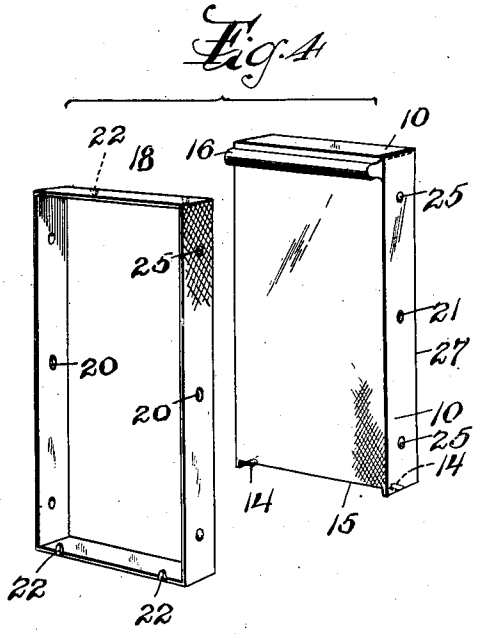


Fig. 4



Fig. 5

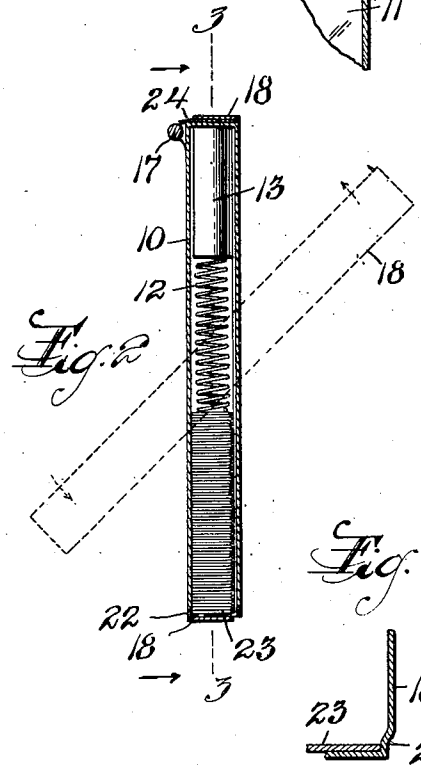


Fig. 2

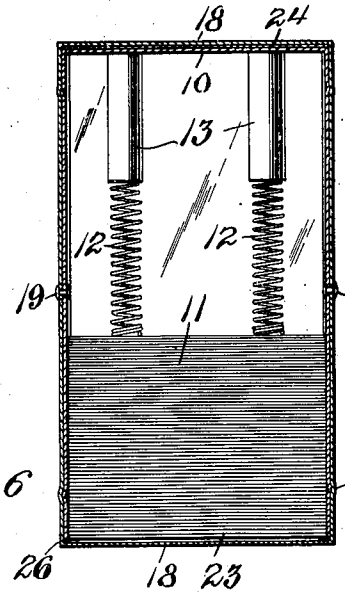


Fig. 3

Fig. 6

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Feb. 3, 1931. J. SCHICK 1,791,042

SAFETY RAZOR

Filed May 19, 1926 3 Sheets-Sheet 2

Fig. 7

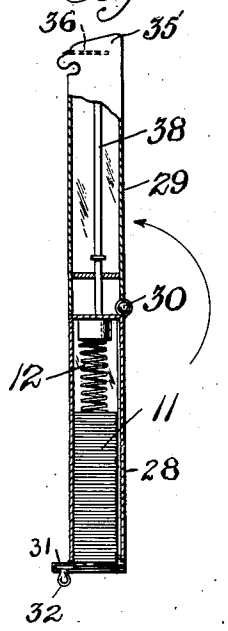


Fig. 8

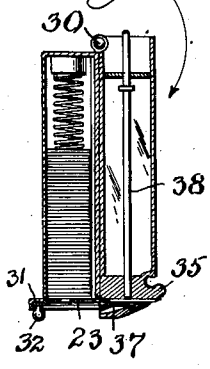


Fig. 9

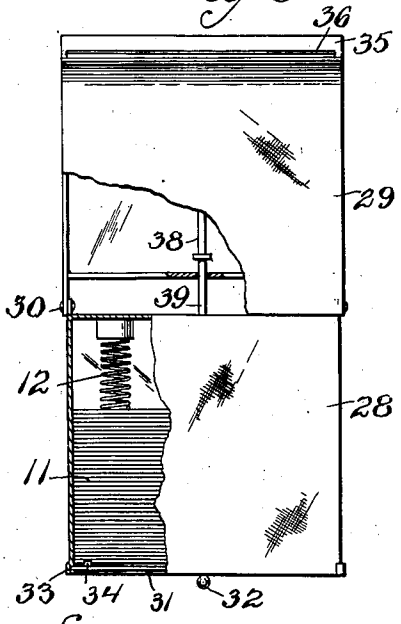


Fig. 10

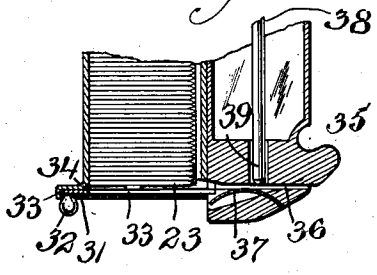


Fig. 11

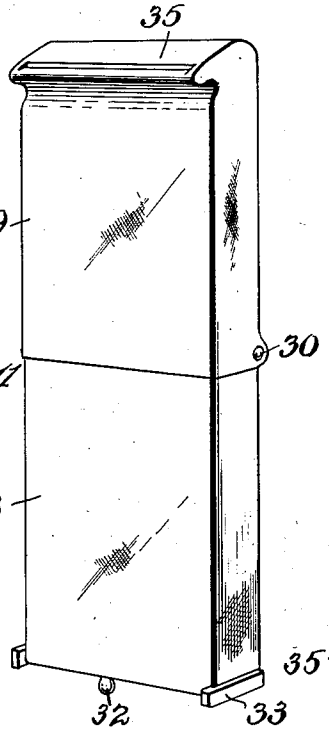


Fig. 12

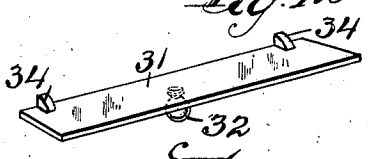
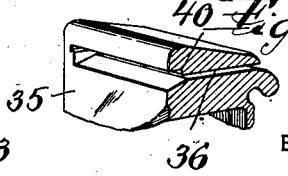


Fig. 13



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Feb. 3, 1931. J. SCHICK 1,791,042

SAFETY RAZOR

Filed May 19, 1926 3 Sheets-Sheet 3

Fig. 14

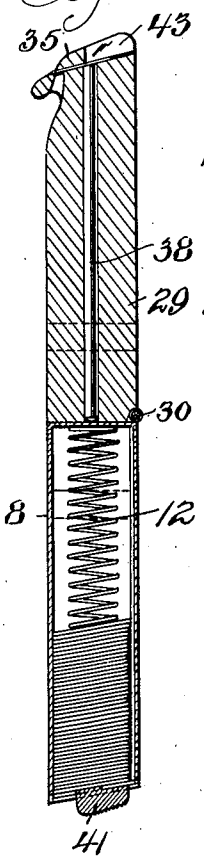


Fig. 15

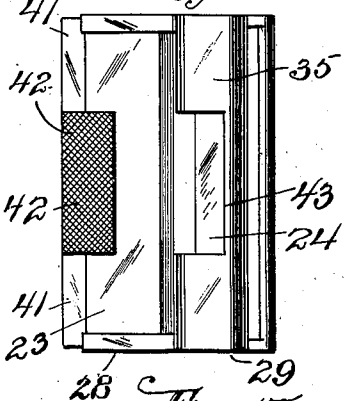


Fig. 16

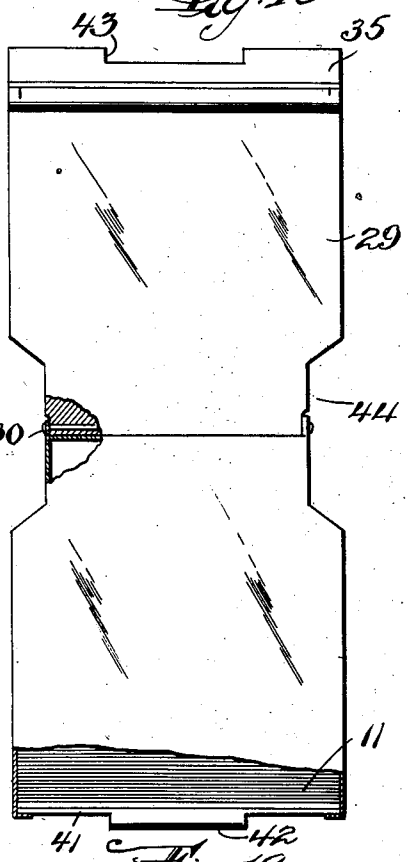


Fig. 17

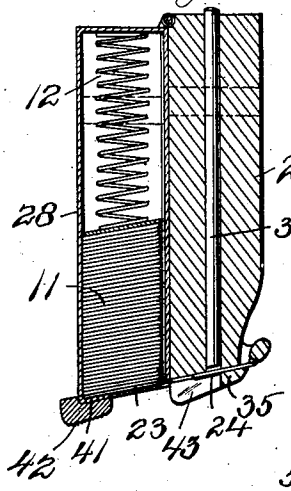


Fig. 18

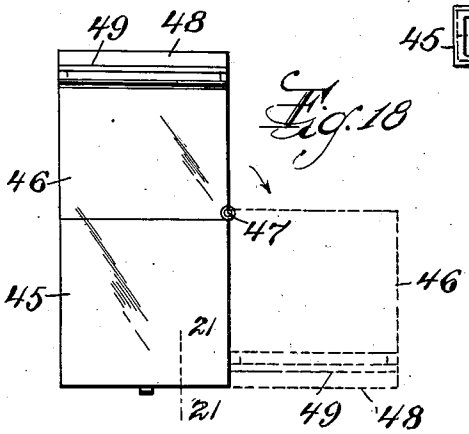


Fig. 19

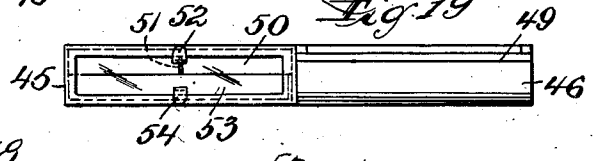


Fig. 20

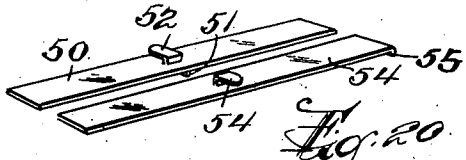
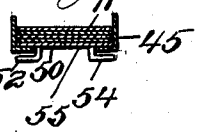


Fig. 21



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Patented Feb. 3, 1931

1,791,042

UNITED STATES PATENT OFFICE

JACOB SCHICK, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO MAGAZINE REPEATING RAZOR COMPANY, A CORPORATION OF NEW JERSEY

SAFETY RAZOR

Application filed May 19, 1926. Serial No. 110,107.

This invention relates to an improved razor of the magazine type which razor is novel in its construction and operation and furthermore is a distinct contribution to the razor art in that it is made so cheaply and of such construction that when the supply of blades is exhausted from the magazine or holder, the razor is expended and useless and the user finds it of advantage to buy a new razor.

The invention resides, furthermore, in a razor which is compact and is preferably foldable, being of such sizes as could be carried in the vest pocket and large enough to provide sufficient handle for comfortable and positive manipulation.

A feature of the invention is the blade holder which is made so as to be non-refillable in a commercial sense, being adapted for use only once while its supply of blades lasts and the holder is then thrown away.

In this form of razor the blades are not handled separately by the dealer nor the user and a sanitary and also a safe use of the blades is assured.

The invention also relates to a razor in which the blade holder or magazine is provided with a shaving head which is mounted so that it is movable to a point where it receives a blade from the magazine and is then moved to a position where it is ready for shaving.

The invention also relates to a razor employing narrow relatively long blades which are formed into a high stack placed in a holder that is broad and flat, the blades being movable from one end into the shaving head. The razor when folded is convenient for the pocket and when extended forms a holder in which the handle is of substantially the same width all the way down and the shaving head is as wide as the handle so that when held in the hand the razor permits comfortable handling of it and a light grip can be used as there is no possibility of the razor turning in the hand.

The invention is illustrated in the accompanying drawings in which Figure 1 is a perspective view of a razor made according to my invention. Figure 2 is a section taken through line 2—2 in Figure 1 and showing the blade transfer means in an intermediate position by dotted outline. Figure 3 is a section taken on line 3—3 in Figure 2 and Figure 4 is a perspective view of two parts of the razor separated. Figure 5 is a detailed section of one corner of the holder taken on line 5—5 in Figure 1 and Figure 6 is a detailed section of the blade transferring member which is part of the shaving head and illustrates in exaggerated form how it holds a blade in place.

Figure 7 is a section of a modified form of construction with the parts extended for shaving and Figure 8 is a similar view with the parts folded. Figure 9 is a front view partly broken away with the members extended. Figure 10 is an enlarged section showing the blade feeding means. Figure 11 is a perspective view of the razor illustrated in Figures 7 to 9. Figure 12 is a perspective view of the feeding slide detached. Figure 13 is a detailed perspective of the shaving head shown in section. Figure 14 is a section of still another modification and Figure 15 is a view of the razor shown in Figure 14 but with the members folded. Figure 16 is a front view of the razor illustrated in Figure 14 and Figure 17 is a section similar to Figure 14 but with the members folded. Figure 18 is a face view of a modification in which the blades are fed endwise from the magazine into the shaving head, the members being shown extended and Figure 19 is a bottom view with the members folded. Figure 20 is a perspective view of a pair of feeding slides. Figure 21 is an enlarged section taken on line 21 in Figure 18.

It will be evident that the razor is subject to considerable modification but the improvement common to all of them is a broad flat razor easily held with a non-refillable magagine or holder with a stack of blades therein, the blade holder thereof being useless when empty and being practically non-refillable and expendable.

In Figure 1, I show a holder comprising a box 10 which is supplied with a stack of blades 11, it being the intention to supply these holders with fifty blades in them, this

not being too heavy because the blades are one-quarter of an inch wide and are usually about one and one-half inches long. The blades and the stack are held in close contact and in ready position for feeding by springs 12 which can be held against undue distortion by sleeves 13. The bottom of the holder is open except for the lips 14 which hold up the stack of blades, the back end of the bottom blade being accessible by reason of the cut away part 15 at the bottom of the box. On one end of the box, which forms the handle, is the shaving head having a guard 16 which is preferably secured to the box 10 on its closed end, the shaving head proper being in the form of practically the same width as the box. A frame 18 is pivoted to the box and in the form shown this is accomplished by the rivets 19 passing through the holes 20 in the frame and the holes 21 in the box or holder.

On the opposite end of the frame 18 are the lips 22. These lips act to both move and hold the blades, moving the blades when desired from the stack to the shaving head and holding the blades in the shaving head after having carried the blade there.

When it is necessary to replace a blade, the frame 18 is swung on the handle, the lips 22 at the bottom move the bottom blade shown at 23 forward until it clears the lips 14 and carries it around as shown in dotted outline in Figure 2 until it arrives at the top of the box where the blade is positioned as shown at 24 and is thus held in shaving position. The frame and the holder are held in alignment by indented portions 25.

In order to securely hold the blade while it is being carried upward in the frame it is snugly held by reason of the corners of the frame as at 26 being slightly contracted so that as soon as the back edge of the bottom blade clears the lips 14 it is pushed down by the weight of the stack and the pressure of the springs 12 into the slightly restricted end of the frame.

It will be understood that the showing in Figure 6 is exaggerated. In order to protect the edges of the blades in the stack only the corners of the blades are used for guiding the sharpened edges by indenting the corners 27 of the blade holder. It will thus be seen that the ends of the frame pass alternately from the bottom to the top of the holder, each time carrying a blade, the old blade being ejected by hand from the frame on that end which is moved down to pick up a new blade.

In Figures 7 to 13 I show a modified form of holder 28 having the stack of blades 11 therein and the springs 12 are also shown, the holder forming one member of the razor the other member being shown at 29 and being pivoted to the holder but instead of being rotary it is adapted to be oscillating and is secured by a pivot 30 so that it can be extended as shown in Figure 7 for shaving or can be folded as in Figure 8 for carrying or for feeding a new blade thereto. When it is folded as in Figure 8 the bottom blade is pushed forward by a slide 31 with a suitable handle 32, the slide being mounted in a slideway 33 in the bottom of the holder so as to project the bottom blade forward as the fingers 34 are properly situated for this purpose as will be seen from Figure 10.

The member 29 has the shaving head 35 on its end with a blade receiving slit 36 into which the bottom blade 23 is projected when the slide 31 is moved forward, the blade being thus properly positioned in the slit 36 and lightly held by the spring 37. When the blade has been thus positioned the member 29 is swung up to the positions shown in Figures 7, 9, and 11 and the blade is then locked by the stem 38, the end 39 of which engages the top wall of the holder 28 and the other end 39 is pressed up against the blade hard enough to hold against slipping under shaving pressure.

The blade is properly positioned when it is fed into the shaving head as the slide 31 is stopped by the shoulder 40 of the shaving head.

In Figures 14 to 16 I show a structure somewhat similar to that just described but the feeding means are slightly different in that the slide for feeding the blades is formed as shown at 41 and it operates on an inclined plane into the inclined slit of the shaving head. The slide has a finger portion 42 projecting beyond the feeding plate 41 and the bottom blade 23 is pushed well forward into the shaving head 35 since the finger can move up far enough because the shaving head is recessed as at 43. The stem 38 is of such a length as to tightly bind the blade in the shaving head since the other end of the stem engages the top wall of the holder when the two members are extended.

In this structure the sides are cut away as at 44 which is done when the user desires a recessed portion in the sides of the razor for what some users consider a more suitable holding.

In Figures 18 to 21 I show a razor showing two members 45 and 46 which swing endwise in the same plane to folded or extended positions being pivoted as at 47. The member 45 is the blade holder and the member 46 carries the shaving head 48.

The shaving head 48 has a slit 49 which receives the blades endwise since the slit extends from side to side. At the bottom of the member 45 is the feeding means for the blades and in the preferred form I show two slides, one to propel the blade half way in. One slide 50 has a shoulder 51 and when the finger piece 52 is slid back the shoulder 51 picks up the bottom blade and when it is re-

turned to its position shown in Figure 19 the blade is half way into the shaving head and then the other slide 53 is slid back and as it has the shoulder 54 on its end, it picks up the blade where the shoulder 51 left it and when the slide 53 is returned by means of its finger piece 55 into its normal position, the blade is completely fed into the slit 49 of the shaving head 48.

Two members can be suitably secured in extended position by any suitable catch or friction means which are not shown in the drawing.

I claim:

1. A razor comprising a magazine of blades consisting of a casing in which a group of blades are inaccessible except for an opening through which they can be only singly and successively ejected, a shaving head for supporting a blade in shaving position, and means for transferring a blade from the group to the head, these elements forming a complete unitary device completely expended when the supply of blades is exhausted.

2. A razor comprising two flat box-like members hinged together so as to fold to form a pocket piece, a stack of blades in one member, a shaving head on the other member, the members when folded co-operating to permit the feeding of a blade from the stack to the shaving head, the members when extended forming a flat broad handle with the shaving head at one end.

In testimony whereof I affix my signature.

JACOB SCHICK.