This invention relates to an improved form of safety razor and magazine of blades in which the razor and magazine are readily attachable and readily separable. The razor is used separately from the magazine and the magazine is attached to the razor only for the purpose of supplying the razor with a new blade.

The purpose of this invention is an improvement in that the means for feeding a blade from the magazine and into the shaving head of the razor is simultaneous with a limited separation of parts of the shaving head, both operations being performed by a single means operated manually after the magazine and shaving head are joined.

This form of shaving device is not only of marked utility but is adapted for economical manufacture.

The invention is illustrated in the accompanying drawing in which Figure 1 is an end view partly in section of a shaving head embodying my invention and showing the finger of the magazine in section. Figure 2 is a view similar to Figure 1 with the parts of the shaving head separated to expand the head. Figure 3 is a perspective view of the shaving head and the magazine ready for assembly. Figure 4 is a top view of the magazine.

The shaving head comprises two members which support a blade in shaving position and one member engages the rear edge of the blade to hold it in proper shaving position relative to the guard. The members are yieldingly held in holding position and are separated slightly when a blade is inserted in the razor. The blade is propelled from the magazine and at the same time the members of the shaving head are slightly separated to accommodate the blade. The blade is fed into the razor head in rear of its shaving position and when the razor feed device is drawn back the members of the shaving head are free to position the blade relative to the guard. In case the razor is provided with front stops these form an additional means for positioning the blade and are engaged by the front edge of the blade when the members are in holding position but are clear of the path of the front edge of the blade when the blade is projected into the shaving head.

The form of shaving head shown comprises a member having blade platform 10 which supports the blade 11. The blade platform has a guard 12 on its front edge. The other member comprises a back plate 13 which is bent over at the top to form a top plate 14 which bears on the top of the blade with sufficient pressure to prevent the "chattering" of the blade when shaving. The back plate 13 engages the back edge of the blade and moves it to proper shaving position relative to the guard and holds it there. In case the blades have cutting edges extending the full length of the blades the stops 15 are provided at the ends of the blade platform for protecting the fingers from the sharp edges of the corners. When the stops are used they serve to engage the front edge of the blade at the corners and co-operate with the back plate 13 to hold the blade firmly by its front and back edges.

The shaving head is so constructed that the two members are yieldingly held in holding position usually by the spring inherent in the metal, especially when struck up from sheet metal and 1 show the two members held together by a member 16. A suitable handle is provided and it can be formed by extending the metal in the form of a loop 17 of sufficient length to provide a grip.

The blade magazine comprises a casing 18 which contains a stack of blades from which individual blades are successively projected endwise and are injected directly into the shaving head, the new blade moving a used blade from the shaving head by its end contact. The magazine are in themselves not new and the inside mechanism is not shown in detail. The blades are ejected by a slide 19 with a blade-ejecting lip 20 which slides in a slot 21 in the top of the casing and engages the top blade 22 and moves it through the slot 23. The slide has a grip 24 for its easy manipulation.

The shaving head and the magazine have cooperating means for fitting them together and maintaining them in such assembled relation. The form shown comprises a finger 25 projecting from the magazine and a recessed portion 26 in the shaving head. The friction between these elements is sufficient to hold the parts together but no appreciable separation of the parts of the shaving head is caused.

The movement of the blade is at the same time as the movement of a tongue that separates the members of the shaving head to a slight but sufficient extent. The tongue is shown at 27 and moves along the side of the finger 25. It is preferably extended from the grip 24 and the end 28 of the tongue is slightly in advance of the end of the blade to be moved. The end 28 enters the shaving head between the finger 25 and the back plate 13, as shown in Figure 2 and then the forward end of the tongue pushes the back plate 13 back which in turn causes the top plate 14 to rise slightly. These movements are slightly exaggerated.

7 Claims. (Cl. 30—49)
in the drawing. The back plate is sent back slightly at 23 to form a mouth for easy entrance of the tongue and the tongue is tapered at 30 to form a wedge or taper for easy opening of the shaving head.

The parts are so proportioned that the blade slot 23 is in line with the front surface of the back plate 13, or nearly so, and is in relation to the finger 25 to feed a blade in rear of its shaving position in the holder. This position is shown in Figure 2 with the front edge of the blade in rear of the shaving position relative to the guard 12. When the ejection slide is slid back on the magazine or the magazine withdrawn with the tongue advanced, the back plate 13 moves forwardly and pushes the blade to shaving position as shown in Figure 1. In case the stops 15 are on the razor they are positioned so as to act as a stop for the blade in its forward movement.

In commercial practice the magazines are preferably thrown away when empty and a new magazine purchased, as the cheapness makes it possible to supply a magazine filled with blades as a sales package.

1. A razor comprising a shaving head having two members adapted to yieldingly support and position a razor blade, a magazine having means for attaching it to the razor whereby a blade can be projected from the magazine into the razor, and a single manually operable means for simultaneously feeding a blade from the magazine to a position between the members of the shaving head, said means also engaging at least one of the members to move the member out of the path of the incoming blade, said members positioning the blade by assuming their normal positions when said manually operated means is retracted.

2. A razor comprising a shaving head having two members for clamping a blade between them, a magazine of blades, means for positioning and attaching the magazine on the shaving head, and manually operable means for simultaneously projecting a blade from the magazine and also engaging one of the members to move the member out of the path of the said projected blade.

3. A razor comprising a shaving head having two members for clamping a blade between them, a magazine of blades, means for positioning and attaching the magazine on the shaving head, and a single manually operable means for simultaneously projecting a blade from the magazine and also engaging one of the members to move the member out of the path of the said projected blade.

4. A razor having a shaving head comprising two clamping members having means thereon for engaging the front edge and the rear edges of a blade for positioning the blade in shaving position, the members being separable to a limited extent for disengaging the blade, a blade magazine, the shaving head and the blade magazine having co-acting means for holding them in co-operative position for transferring a blade from the magazine to the shaving head, and a manually operable single means for simultaneously causing the above-mentioned limited separation of the shaving head and feeding a blade from the magazine to the shaving head.

5. A razor comprising a shaving head having two members connected together to yieldingly engage the front and back edge of a razor blade, a blade magazine, the blade magazine having a single means for simultaneously spreading the members to a limited extent and feeding a blade from the magazine between said members.

6. A razor comprising a shaving head of two members which are adapted to clamp a blade between them and adapted for a limited separation, a magazine for blades, a finger on the magazine for passage between the members to position the magazine, a slide on the magazine for projecting a blade therefrom, and a tongue slidable along the finger and operatively connected to the slide, said tongue acting to engage at least one of the members to cause said limited separation when a blade is passed into the shaving head.

7. A razor comprising a shaving head of two members, one member comprising a blade platform, the second member comprising a back plate and a top plate, the shaving head having a recess between the two members, a blade magazine, a slide for ejecting a blade from the magazine, a finger on the magazine and adapted to fit into the recess for positioning the magazine on the shaving head, and a tongue alongside the finger and secured to the slide for entering the recess and moving one of the members when a blade is ejected from the magazine.

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