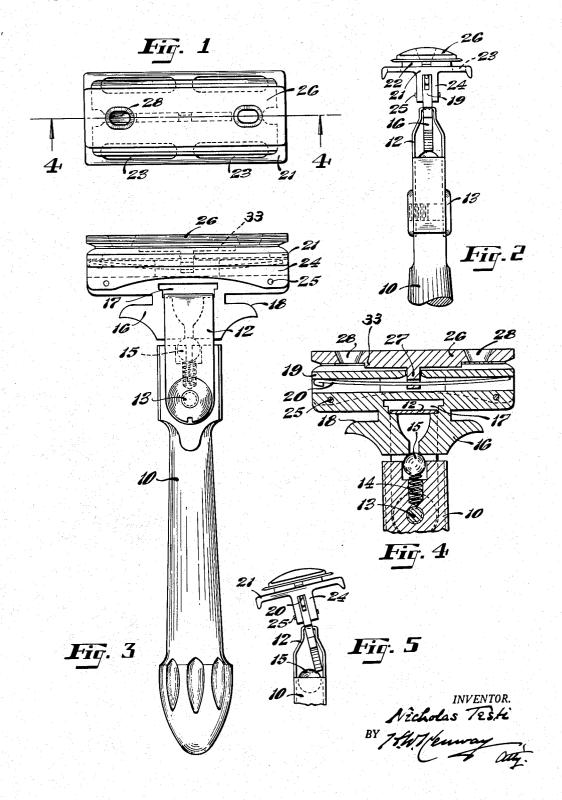
SAFETY RAZOR

Original Filed March 19, 1949

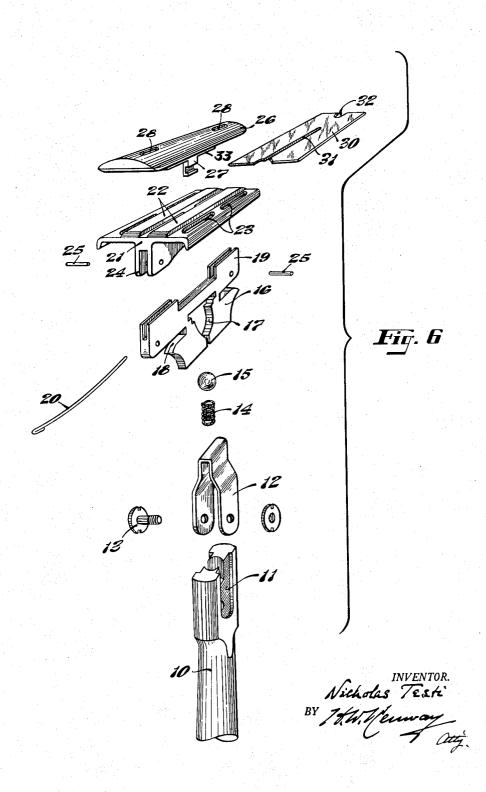
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SAFETY RAZOR

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SAFETY RAZOR

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Original application March 19, 1949, Serial No. 82,309, now Patent No. 2,676,396, dated April 27, 1954. Divided and this application January 24, 1952, Serial No. 10 267,975

6 Claims. (Cl. 30-65)

This invention comprises a new and improved safety 15 razor of the type in which a thin flexible blade is supported on both sides for shaving. While the razor may be supplied with blades by hand, it is used with particular convenience in connection with a blade magazine.

The invention provides a new and improved razor in which blade-clamping members, such as a cap and guard, are yieldingly connected and at all times urged together with pressure sufficient to clamp the blade in shaving position, while at the same time permitting introduction and removal of fresh and used blades. The structural features by which this object is achieved will be more particularly pointed out hereinafter.

These and other objects and features of the invention will be best understood and appreciated from the following description of preferred embodiments thereof, selected for purposes of illustration and shown in the accompanying drawings, in which:

Fig. 1 is a plan view of the razor;

Fig. 2 is a view in end elevation;

Fig. 3 is a view in front elevation;

Fig. 4 is a view of the razor head in longitudinal section;

Fig. 5 is a view similar to Fig. 2, showing the razor head in a different angular position; and

Fig. 6 is a view in perspective showing the various parts 40 of the razor head in exploded relation.

The razor of this invention consists of parts which are assembled and remain connected during normal use so that the user has to contend with no loose parts that may become misplaced or lost, although its construction is such that for purposes of special cleaning or renovating, its parts may be separated. Ordinarily, however, blades may be presented and removed without disturbing the connections or disassembling of parts.

Referring to Figs. 1 to 6, it will be seen that the razor comprises a handle 10 enlarged and ornamented at its lower end and flattened and forked at its upper end. The forked end of the razor is provided with shallow longitudinal recesses 11 on opposite sides to receive the two arms of a U-shaped strap 12 and this is connected to the handle by a transverse screw 13 which passes through both ends of the strap and the handle and is provided at its threaded end with a circular nut. The forked portion of the handle is provided in its end with a longitudinal bore in which is contained a compression spring 14 and with a pocket in which is contained a ball 15 normally pressed outwardly or upwardly by the spring 14.

The head of the razor includes in its structure a flat vertically disposed under-plate 16 having an opening 17 to receive the closed or looped end of the strap 12. The 65 opening 17 is slotted at its lower side so that the strap 12 may be passed into the opening in assembling the parts of the razor. In the body of the plate 16 is formed a pair of oppositely directed transverse slots which define inwardly and upwardly sloping cam surfaces 18. These 70 serve to position the magazine height-wise with respect to the razor as will be presently described. The upper

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portion of the plate 16 is formed as a longitudinal channel opening upwardly and interrupted in mid-section by an opening or recess extending entirely through the plate from side to side as best shown in Fig. 6. The channel thus provided is shaped to receive a bowed wire spring 20 which serves yieldingly to retain in place the cap member of the razor head.

The plate 16 is connected to the guard or blade-supporting member 21 which is rectangular in shape and provided with a pair of parallel rectangular lands 22 which constitute the blade seat and are separated by a longitudinal channel. At its longitudinal edges, this member is provided with curved flanges constituting guards of conventional shape and with longitudinal slots 23 which reduce the weight of the head and provide clearance for the shaving debris. This guard member is formed with a wide downwardly-extending flange 24 channeled to receive the narrower upstanding plate 16 and permanently connected thereto by a pair of transverse pins or rivets 25. The channel flange 24 extends from end to end of the guard member beneath the blade seat and is of such width as to span the upper portion of the vertical plate 19. The cap member of the head is similar in shape to the guard member though somewhat narrower. It is provided with a lower substantially flat blade-engaging face and with a downwardly-extending tang 27 rectangular in cross-section and recessed or grooved in one face to receive the wire spring 20 when assembled with the guard member, as shown in Fig. 4. The cap member is also provided on its lower face with an elongated rib 33 which serves to locate longitudinally slotted blades presented endwise to the razor head. The body of the cap member is provided with a pair of elongated recesses 28 which are ornamental in effect and reduce the weight of this part. It will be understood that the guard member is provided with a centrally disposed rectangular hole which permits the passage of the tang 27 of the cap member with clearance, so that the tang may enter the channel portion 19 of the under plate 16 and thus be located in position to receive the spring wire 20. Flange 24 has the double function of housing the spring 20 and connecting the razor head to the handle.

The razor herein shown is intended for use with an open-end blade 30 of the type shown in Fig. 6, that is to say, a thin generally rectangular blade having a long slot 31, opening from one end of the blade and provided with a somewhat wider semi-circular notch 32 in both ends. The slot 31 is of such width as to receive with slight clearance the tang 27 of the cap member so that the blade may be introduced upon the blade seat 22 from one end of the razor and removed therefrom in the opposite direction. For example, with the razor head assembled as suggested in Fig. 6, the blade 30 would be introduced from the right-hand end of the head between the cap and guard members and removed from the same end.

The assembled relation of the parts of the head is well shown in Fig. 4 from which it will be seen that the under plate 16 is spaced from the end of the handle 10 by the upward pressure of the ball 15 against the slotted lower edge of the plate. The upward pressure of the ball also holds the plate tightly in contact with the closed upper end of the strap 12. This connection permits the head of the razor to be rocked forcibly from one side to the other as suggesed in Fig. 5, or to be held yieldingly in central position as suggested in Fig. 2, thus accommodating the user to the most convenient angle for his individual taste. It will be apparent that the ball will yield slightly in such rocking movement of the head but will hold the head in any selected position without danger of displacement.

The present application is a division of my co-pending application Serial No. 82,309, filed March 19, 1949, now Patent No. 2,676,396, dated April 27, 1954, wherein is

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claimed the combination of the razor with the magazine

Having thus disclosed my invention and described in detail illustrative embodiments thereof, I claim as new and desire to secure by Letters Patent:

1. A safety razor comprising a head having a plate channeled in its upper edge, a guard having a channeled rib on its lower face in which the upper edge of said plate is received and having also an opening leading into the channel thereof, a cap having a centrally disposed 10 tang passing through said opening and into the channel of said plate, and an elongated spring located in said channel

and engaging the tang of the cap.

2. A safety razor comprising three interfitting members, namely, a vertically disposed supporting plate hav- 15 ing a longitudinal channel in its upper edge, a guard member having a perforated blade seat and a downwardly extending rib channeled to span the vertically disposed plate, and a cap having a tang extending into the channel of said plate through the perforation of the blade seat, the 20 said members being held yieldingly together by an elongated spring located in the channel of the supporting plate

and engaged with the tang of the cap.

3. A safety razor having a handle, an upstanding plate connected thereto and having an upwardly open channel 25 in its upper edge with a central recess in its walls, a bladesupporting member having a downwardly directed flange with an open channel in which is received the channeled upper edge of the plate, a cap having a recessed stem located in the recess of the channeled plate, and an elon- 30 gated spring in its channel detachably engaged with the stem of the cap.

4. A safety razor having a handle, an upright plate connected thereto and having its upper edge provided with an open channel extending from end to end, a blade sup- 35 4

porting member having a downwardly extending channeled flange fitting over the upright plate, a cap above the blade supporting member, spring means located in the channel of said plate, and connections between said spring means and the cap for urging the cap toward the

blade supporting member.

5. A safety razor comprising a handle, an upright plate secured to the handle and having in opposite ends inwardly and upwardly inclined cam slots, together with cap and guard members carried by said plate, the upright plate having a narrow upper edge, while the guard member has a wider channeled flange fitting thereon, and the cap member has a stem extending into the channel of the flange, and a spring housed in said channel and engaged with the stem of the cap member.

6. A safety razor head comprising a blade-supporting member having a blade seat on its upper face and a longitudinal flange projecting downwardly and centrally from its lower face, the blade seat being centrally apertured and the flange having a longitudinal channel extending from end to end of said member beneath the blade seat, a cooperating cap having a recessed tang passing down through the aperture of the blade seat into said channel, a spring housed in the channel and passing through the recessed tang of the cap, and a handle connected to the razor head through the medium of said flange.

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