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R. BOIZARD

SELF SETTING SAFETY RAZOR

Filed Dec. 10, 1924

Fig.1.

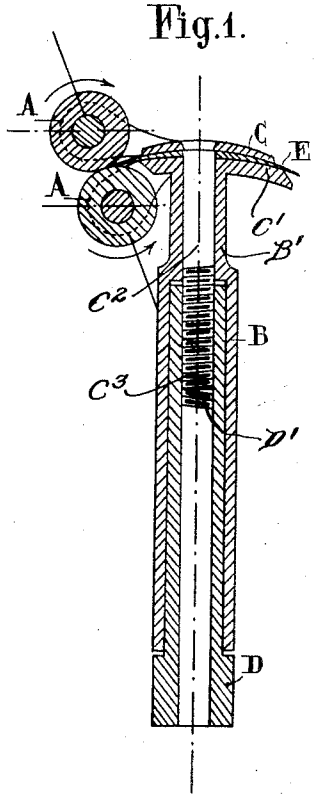
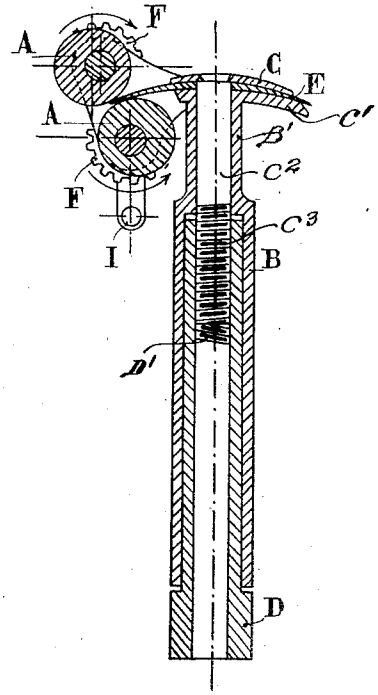


Fig.2.



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RAOUL BOIZARD, OF PARIS, FRANCE.

SELF-SETTING SAFETY RAZOR.

Application filed December 10, 1924. Serial No. 755,015.

To all whom it may concern:

Be it known that I, RAOUL BOIZARD, a citizen of the Republic of France, residing at Paris, France, have invented certain new and useful Improvements in Self-Setting Safety Razors, of which the following is a specification.

The present invention relates to safety razors; and its main object, stated broadly, is to provide an improved sharpening or stropping attachment therefor which enables a blade to be honed without being removed from the holder.

The invention is particularly applicable to razors using a wafer blade of the double-edged type, as it enables the rear edge of such a blade to be sharpened while the blade itself is disposed in the holder with its front edge in normal shaving position; the parts being so arranged that at the completion of the sharpening operation, the blade can be loosened and rotated through a half-turn about its axis, thereby bringing its sharpened rear edge into shaving position and its dulled front edge into engagement with the sharpening device. The latter preferably consists of a pair of coacting rolls of suitable character which are adapted to engage the opposite faces of the blade and to be rotated in opposite directions; the aforementioned turning movement of the blade serving, therefore, to withdraw one edge of the blade from the bite of the rolls and to bring the other edge into engagement therewith when a double-edged blade is being used.

The accompanying drawing represents two slightly different forms which the invention may take in practice, both figures being longitudinal sectional views.

Referring more particularly to the drawing, B indicates in both figures the hollow handle of the razor, C′ the fixed or supporting member of the blade holder (usually in the form of a guard), C the movable or clamping member of the holder, C^2 the stem on the latter member having the usual threaded portion C^3, and D the adjusting member having the threaded socket D′ to receive the threaded part C^3 of stem C^2, so as to tighten or loosen the clamp; these parts being of any preferred or standard type. The blade E is adapted to be clamped in the holder, as usual, and is here shown as of the double-edged, wafer type.

The sharpening attachment preferably consists, as already stated, of a pair of coacting rolls, indicated at A, A, in Fig. 1, and at A′, A′ in Fig. 2, these rolls being of any suitable construction and treated in any desired way to enable them to exert the necessary sharpening or stropping action on the blade. They are mounted adjacent the blade holder in such a position that the rear edge of a blade clamped in normal shaving position in the holder will project directly into their bite, so that when the rolls are rotated the blade will be sharpened on both faces at the same time.

In the form illustrated in Fig. 1, one roll A is directly attached to the movable member C of the holder, and the other to the reduced portion B′ of the handle B immediately adjacent the fixed member C′; while in Fig. 2, both rolls A′ are attached to the afore-mentioned portion B′ of the handle. Due to this arrangement, the roll A carried by the movable holder member C will be moved with the latter into and out of contact with the other roll A when the adjusting screw is operated, whereas the two rolls A′ (Fig. 2) always occupy the same relative position. In the figure last mentioned, the rolls A′ are eccentrically mounted and are connected to rotate in unison by means of intermeshing gears F which are secured to the axles of the rolls; one of said axles being provided with a crank I for rotating it. The two rolls A (Fig. 1) are rotated by moving the upper roll across a suitable bearing surface, the rotation of that roll being transmitted by friction to the other roll. Both rolls A act on the blade at the same time, whereas the two eccentrically-mounted rolls A′ act in alternation upon the blade edge which can flex slightly in either direction, as will be apparent. It is to be understood, however, that the mounting and operation of the two pairs of rolls may be reversed or otherwise modified, and that various other changes may be made in the same connection without departing from the scope of the invention as hereinafter claimed.

In both forms of the invention, as illustrated, the upper or clamping member C of the blade holder can be loosened at the completion of the sharpening operation by turning screw D in the proper direction, whereby said member C is moved far enough away from its companion member C′ to enable the blade to be given a half-

turn about its axis; such movement of the blade withdrawing its sharpened rear edge from the bite of the rolls and bringing it into shaving position at the front of the holder, while at the same time, the dulled front edge of the blade is brought into engagement with the rolls, after which the screw D can again be tightened.

I claim as my invention:—

1. A self-stropping safety razor, comprising a handle, a blade holder at one end thereof, and a sharpening device adapted to directly engage and sharpen both faces of the adjacent edge of a blade disposed in normal shaving position in the holder.

2. A self-stropping safety razor, comprising a handle, a blade holder at one end thereof, and a pair of coacting sharpening rolls adapted to engage between them the adjacent edge of a blade disposed in normal shaving position in the holder.

3. A self-stropping safety razor, comprising a handle, a blade-supporting member carried thereby, a clamping member cooperative with said supporting member, and a sharpening device adapted to engage and sharpen both faces of the adjacent edge of a blade held in normal shaving position between the clamping and supporting members.

4. A self-stropping safety razor for double-edged wafer blades, comprising a handle, a blade holder carried thereby and including a movable clamping member, a sharpening device adapted to engage the rear edge of a double-edged blade disposed in the holder with its front edge in shaving position, and an adjusting member for the clamping member adapted to loosen the latter and thereby enable the blade to be rotated half a turn upon its axis and in its own plane to bring its front edge into position for engagement by the sharpening device.

5. A self-stropping safety razor for double-edged wafer blades, comprising a handle, a blade holder carried thereby and including a movable clamping member, a pair of coacting sharpening rolls adapted to engage between them the rear edge of a double-edge blade disposed in the holder with its front edge in shaving position, and an adjusting member for the clamping member to loosen the same and thereby enable the blade to be rotated half a turn about its axis and in its own plane so as to bring its front edge between the sharpening rolls.

6. A self-stropping safety razor, comprising a handle provided at one end with a blade-supporting member, a clamping member cooperative with the supporting member, and a pair of coacting sharpening rolls adapted to directly engage between them the rear edge of a double-edged blade disposed between the clamping and supporting members with its front edge in shaving position.

7. A self-stropping safety razor, comprising a handle, a blade holder carried thereby and including a movable clamping member, and a sharpening device mounted in position to directly engage the edge of a blade clamped in the holder; said clamping member adapted to be loosened to enable the blade to be rotated in the holder a half-turn about its axis and in its own plane, thereby to bring its sharpened edge into shaving position.

8. A self-stropping safety razor, comprising a handle, a blade holder carried thereby and including a movable clamping member, and a pair of coacting sharpening rolls mounted in position to engage between them the edge of a blade clamped in the holder; said clamping member adapted to be loosened to enable the blade to be rotated in the holder a half-turn about its axis and in its own plane, thereby to disengage the sharpened edge from the rolls and bring it into shaving position.

9. A self-stropping safety razor, comprising a handle; a blade holder carried thereby and embodying a blade-supporting member and a clamping member movable toward and from the same; a pair of coacting sharpening rolls adapted to engage between them the edge of a blade clamped between said members, one roll being carried by the supporting member, and the other roll being carried by and movable with the clamping member into and out of direct engagement with the first roll; and an adjusting member for the clamping member to effect its movements relative to the supporting member.

10. A self-stropping safety razor, comprising a handle; a blade holder carried thereby and embodying a blade-supporting member and a member cooperative with the supporting member to clamp a double-edged blade in the holder with its front edge in normal shaving position; a pair of coacting sharpening rolls adapted to engage between them the rear edge of the blade, one roll being carried by the supporting member, and the other roll being carried by and movable with the clamping member into and out of direct engagement with the first roll; and means for moving the clamping member toward and from the supporting member, to tighten or loosen the blade, said blade adapted to be rotated a half-turn about its axis and in its own plane when loosened so as to bring its sharpened rear edge into shaving position and its front edge between the two sharpening rolls.

In testimony whereof I affix my signature.

RAOUL BOIZARD.