

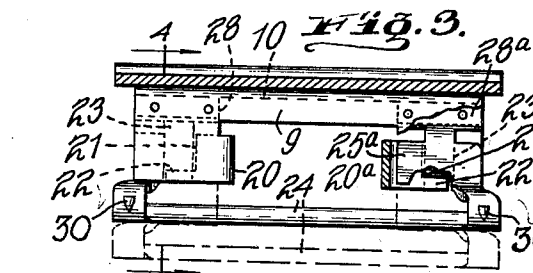
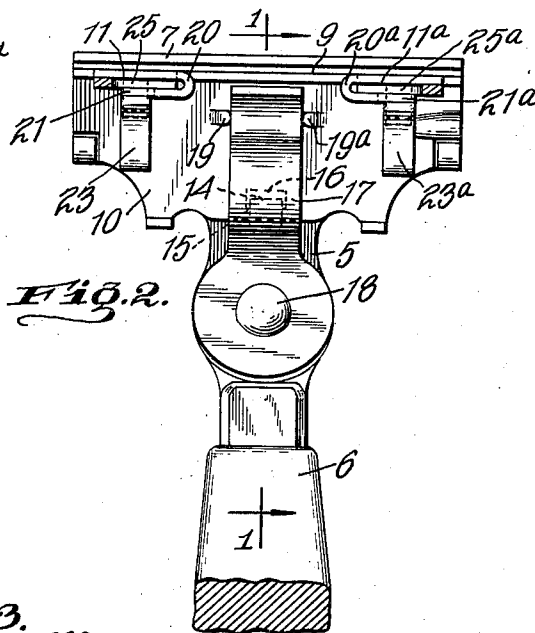
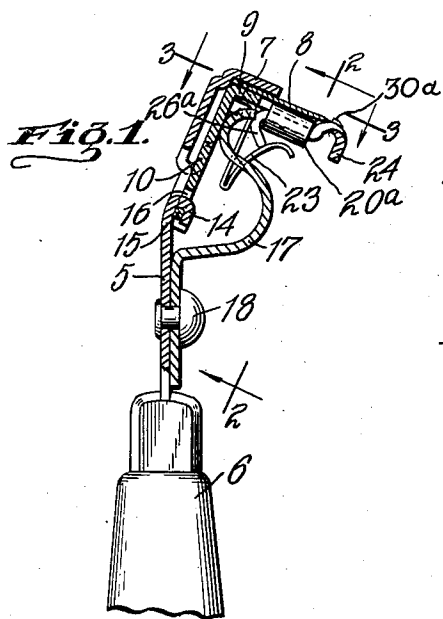
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RAZOR

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8 Claims. (Cl. 30-64)

The invention relates to improvements in razors of the "safety" type and is exemplified by a construction wherein provision is made for withdrawing the blade guard, and if desired dropping it out of the way in order to facilitate cleaning of the razor. Further provision is made for complete removal of the guard from the razor and its reinsertion, or if desired the insertion of another guard of the same or different characteristics. The latter feature makes it possible for a user to readily insert a guard of a selected design that best suits the particular texture of his skin, the contour of his face, the toughness of his beard, or other special or peculiar conditions.

Referring to the drawing,

Fig. 1 is a view on the section line 1-1 of Fig. 2 which in turn shows a razor head with parts broken away and also a portion of a handle by which the razor is manipulated.

Fig. 3 is a view on the line 3-3 of Fig. 1;

Fig. 4 is a section view on the line 4-4 of Fig. 3;

Fig. 5 is a view similar to Fig. 4 with the exception that the blade is missing and the guard is shown in a broken-down position;

Fig. 6 is a view of the razor with the guard disassembled.

Referring more particularly to the drawing:

The shank 5 projects from the handle 6 and terminates in a blade clamping plate 7 which is of a length preferably slightly exceeding that of the blade which is to be used, such as the blade 8. The blade platform 9, carried by the plate 10, is connected to the shank preferably in a manner such that it is caused to exert a constant spring pressure on any blade that may be inserted between it and the clamping plate 7. A suitable method of effecting this object is shown in the drawing wherein is shown a hinge construction consisting of the eye 14 struck out of the material of the shank and a pintle 15 which is the result of punching out the aperture 16 in the material of the plate 10. Unless opposed the blade platform is therefore free to swing on a radius the center of which is the hinge. In order however to create the constant resilient pressure of the blade platform on a blade above referred to, I provide the spring 17 which may be rigidly attached to the shank by means of a rivet 18 or the like. The rivet connection may, however, as an alternative construction, be sufficiently slack to permit the spring to swing on the rivet and clear of the blade platform whereby the blade platform may be swung entirely clear from

the shank. In order to create resistance to accidental pivoting of the spring in this manner, the lugs 19 and 19a may be struck in from the material of the plate holder so that the spring 17 may bear against the plate 10 in the space between the lugs. The lugs therefore constitute releasable catches that practically eliminate the possibility of unintended pivoting of the spring 17 on the rivet 18 but permit it if sufficient manual force be exerted to carry the lugs over the springs.

The blade holder is provided with two outwardly turned lugs 20 and 20a which may for convenience in manufacture be formed by cutting out portions of the blade platform and then turning them outwardly as is best shown in Figs. 2 and 6, leaving slots 11 and 11a. The lugs are shaped to provide shoulders 21 and 21a and projecting pins 22 and 22a, the projecting pins serving as pintles on which the guard member may swing as is hereinafter described. The blade platform is also provided with preferably two springs 23 and 23a, the function of which will be described following the description of the guard member.

The guard member comprises a guard bar 24 and connected to it at each end are guide plates 25 and 25a, which are so spaced as to abut the bottoms of the slots. From the guide plates project hooks or partially closed eyes 26 and 26a which are spaced from each other at such a distance that they may be engaged with and disengaged from the pins 22 and 22a.

When the razor is in condition for use, the guard member is in the position best shown in Fig. 1, that is to say, the plates 25 and 25a are positioned in the slots 11 and 11a between the lugs 22 and 22a and the blade platform, the guard being thereby rigidly held against deflection with respect to the blade platform; although unless obstructed the guard can be withdrawn to the position shown in Fig. 4. It is not of course desirable that it should be capable of doing this readily, so I therefore provide the two springs 23 and 23a which are fastened to the blade platform at 28 and 28a, these springs having a shape in side view (shown in Fig. 1) such that they bear against the hooks 26 and 26a, thus yieldingly resisting withdrawal of the guard member from the blade platform. However, by exerting sufficient force the guard member can be withdrawn manually against the resistance offered by the springs until the tips of the hooks have passed over the high point of the springs whereupon the guard occupies the position shown in

Fig. 4, the springs still maintaining resilient pressure on the hooks or partially-formed eyes 26 and 26a, the effect of which is to steady the guard. The parts are now sufficiently separated to permit cleaning, and a blade can be removed or inserted as required. If still easier access to the blade and associated parts is required for cleaning or to facilitate insertion or removal of a blade, or for any other purpose, the guard member may be turned downwardly, the hooks or eyes 26 and 26a pivoting on the pins 22 and 22a until it assumes the position shown in Fig. 5. The parts are then more freely accessible than before for either the removal or insertion of a blade, the operation being facilitated if necessary by inserting a simple tool in the slot 29 between the blade platform and the shank and exerting a leverage to pry apart the clamping plate 7 and the shank 5.

If it is desired to wholly remove the guard member for the substitution therefor of another guard member with perhaps a guard of different dimensions or different design to suit the purposes of a particular user, the guard member may, by rotating it on the pins 22 and 22a as pivotal axes below the position shown in Fig. 5, be wholly removed, as shown in Fig. 6, and the substitute guard member may in turn be engaged with the pins and placed in position by a reversal of the operations above described.

Instead of effecting the final step in the complete removal of the guard member by the process of swinging the partially-formed eyes 26 and 26a on the pins 22 and 22a until they become disengaged, the parts may be so dimensioned and spaced that the detachment can be effected by an endwise motion of the guard member. This may be accomplished by so spacing the partially-formed eyes or hooks 26 and 26a with respect to each other that, when the plates 25 and 25a have been withdrawn from the slots sufficiently that they are just clear of the latter (e. g., to the position shown in Fig. 4), a longitudinal motion of the guard member will cause one of the eyes to pass beyond its pin, thus freeing it from engagement therewith. By a reverse longitudinal motion the other partially-formed eye or hook may then be freed from its pin. To describe the construction and operation more specifically, the distance between adjacent edges of the partially-formed eyes 26 and 26a is slightly greater than the distance from say, the shoulder 21 to the projecting end of the pin 22a. Consequently, when the partially-formed eye 26 is abutting the shoulder 21 (both plates 25 and 25a being assumed to be free from the slots), the partially-formed eye 26a is carried beyond the tip of the pin 22a and is therefore free therefrom and, if withdrawn out of line therewith, the other partially-formed eye 26 may, by a reverse longitudinal motion, be also freed from the pin 22. The same guard member or a substitute therefor may be re-inserted by a reversal of either of the processes of removal that have been described.

It will be observed that the guard is provided with two stops 30 and 30a which bear against the edge of the blade. To make full use of these stops, it is best that the blade be of such width and the parts be so proportioned that the stops are always resiliently bearing against the blade edge, thus maintaining the guard uniformly positioned with respect to the blade edge.

It is recognized that the present invention may be embodied in other constructions than those herein specifically illustrated, and therefore it is

desired that the constructions disclosed shall be considered as illustrative and not in a limiting sense.

I claim:

1. In a razor, a blade platform, means for retaining a blade on said platform, said blade platform being provided with a slot parallel therewith, a guard provided with a supporting lug freely slidable in said slot, the blade platform being also provided with a hinge pin and the supporting lug being provided with a hook positioned to engage with the hinge pin when the supporting lug has been withdrawn from the slot and adapted to permit the guard to swing on the hinge pin.

2. In a razor, a blade platform, means for retaining a blade on said platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned and adapted to make hinge connection between the blade platform and the guard when the latter is completely withdrawn from its sliding connection with the former.

3. In a razor, a blade platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned with respect to each other and adapted to make detachable pivotal connection between the blade platform and the guard when the latter is completely withdrawn from its sliding connection with the former.

4. In a razor, a blade platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned with respect to each other and adapted to make detachable pivotal connection between the blade platform and the guard when the latter is completely withdrawn from its sliding connection with the former, and complementary members on said guard and blade platform constituting a resilient cam that urges the guard toward the blade platform.

5. In a razor, a blade platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned with respect to each other and adapted to make detachable pivotal connection between the blade platform and the guard when the latter is completely withdrawn from its sliding connection with the former, and means for releasably locking the guard and platform together.

6. In a razor, a blade platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn

from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned with respect to each other and adapted to make detachable pivotal connection between the blade platform and the guard when the latter is completely withdrawn from its sliding connection with the former, and means adapted to create resistance to separation of the guard and blade platform.

7. In a razor, a blade platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned with respect to each other and adapted to make detachable pivotal connection between the blade platform and the guard when the latter

is completely withdrawn from its sliding connection with the former, and means adapted to create resilient resistance to separation of the guard and blade platform.

8. In a razor, a blade platform, a guard, complementary members on said blade platform and said guard respectively, providing a sliding connection between them, which said connection permits the guard to be completely withdrawn from the blade platform, complementary hinge members on said blade platform and said guard respectively, said complementary members being positioned with respect to each other and adapted to make detachable pivotal connection between the blade platform and the guard when the latter is completely withdrawn from its sliding connection with the former, said guard being provided with a lug and said blade platform being provided with a spring that bears against the lug and urges the guard toward the blade platform.

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