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2,170,215

MOVABLE GUARD FOR DRY SHAVERS

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Fig. 1

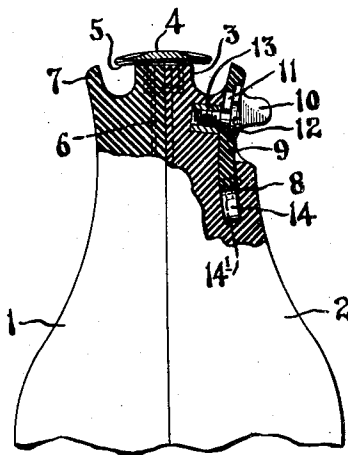


Fig. 2

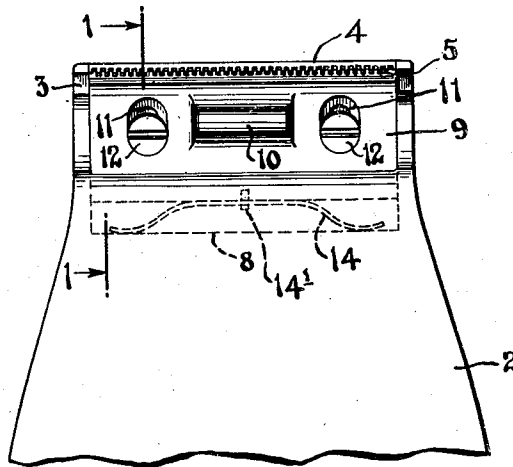


Fig. 3

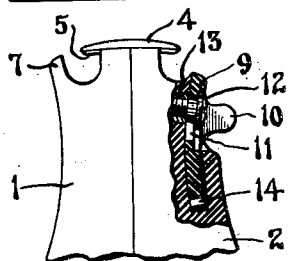


Fig. 4

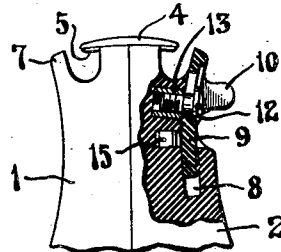
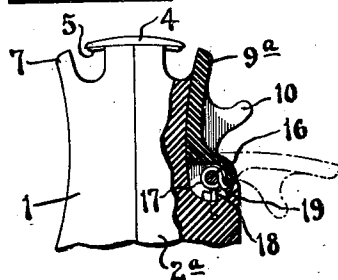


Fig. 5



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MOVABLE GUARD FOR DRY SHAVERS

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1 Claim. (Cl. 30-43)

This invention relates to improvements in shaving implements of the type known as dry shavers because they are employed without the use of soap, lather, or other shaving preparations.

An object of this invention is to provide a movable guard for shaving implements of this type.

Other and more detailed objects of the invention will be apparent from the following disclosure when taken in connection with the attached drawing.

This invention resides substantially in the combination, construction, arrangement and relative location of parts, all in accordance with the following disclosure.

In the accompanying drawing,

Figure 1 is a side elevational view with some parts in cross section of a structure in accordance with this invention;

Fig. 2 is a front elevational view thereof;

Fig. 3 is a view similar to Figure 1 showing the movable guard withdrawn;

Fig. 4 is a view similar to Figure 1 of a modified arrangement;

Fig. 5 is a view similar to Figure 1 of a still further modified arrangement.

In some types of dry shaving implements now produced commercially, the construction of the cooperating cutting members is such as to desirably, if not necessarily, require a guard member positioned so as to minimize any tendency of the device to cut or injure the skin. It is common practice to position the upper end of this guard substantially in the cutting plane of the cutting members but spaced therefrom in such a way as to provide the desired protection. Such guards are positioned so as to be in advance of the cutting members as they move over the skin with the result that, in close places, such as shaving for example under the nose, the guard prevents bringing the cutting members close enough to the nose to permit shaving up to it. The purpose of this invention is to provide a guard which is movably supported so that it will normally carry out its protecting function, and yet may be readily and simply retracted out of position when shaving in close quarters so that the cutting members are exposed for shaving in the corners such as for example, closely around the nose, under the ears and like places.

The full nature of the invention can best be explained from here on by direct reference to the drawing. As illustrated in Figures 1, 2 and 3, the complete implement comprises a housing, the upper end of which is shown. With this mech-

anism is operated the operating motor and mechanism commonly employed with such devices but not illustrated in the drawing. Frequently the housing is made as shown in two complementary parts 1 and 2 of any suitable material. The upper end of the housing is provided with three projections. The central projection 3, running longitudinally across the end of the housing, provides support for the cooperating cutting elements 4 and 5. The lower cutting element 5 is caused to have longitudinal reciprocation with respect to the cutting element 4 by means of the motor not shown in the housing which is connected to it by the operating lever 6'. In the case of the instrument shown these elements are provided with cutting members along a pair of opposite side edges running parallel to the projection 3 in accordance with known practice. The portion 1 of the housing is formed so as to have a projecting wall 7 extending longitudinally of the end thereof and parallel to but spaced from the cutting members on that side. The upper end of this wall is substantially in the plane of the cutting members so as to form a guard which minimizes the danger of injury without seriously interfering with the cutting action of the device. In prior practice a guard similar to the guard wall 7 is formed on the portion 2 of the housing to guard the other cutting members on the other side.

However, in accordance with this invention, this guard wall is not formed integral with the housing but is made in the form of a separate plate as shown at 9. The portion 2 of the housing is modified so as to have a groove 8 extending thereacross but terminating short of the side edges as is clear from Figure 2. The movable plate 11 is shown slidably mounted in a substantially vertical plane in this groove. A flat leaf spring 14 is secured to the movable plate 9 on its bottom edge by means of a rivet 14' for example, and is positioned between the plate 9 in the bottom of the groove 8 so as to resist downward movement of the plate. The plate is provided with a pair of slots 11 through which extended the screws 12 which engage in bushings 13 moulded in the portion 2 of the housing. These screws as is apparent serve to permit guided, substantially vertical movement of the plate 9 in the groove 8 while attaching the plate to the housing. The plate is provided as shown with a thumb piece 10. In the normal position of the plate as shown in Figures 1 and 2, its upper edge is substantially in the plane of the cutting members on the adjacent side of the cooperating cut-

ter plates 4 and 5 and, therefore, normally performs its guarding function as explained above.

However, when it is desired to shave in close spaces as described above, the user retracts the guard from the position shown in Figures 1 and 2 to the position shown in Figure 3 by engaging the thumb piece 10 and sliding the plate or wall 9 down into the groove 8 compressing spring 14. The plate is held in this position while the implement is used in close quarters and returns to full guarding position as shown in Figure 1 when released by springs 14.

In the modification of Fig. 4 the structure differs from that previously described in that the spring is now placed in a groove which extends at right angles to the plate 9 and in back of it. In this groove is placed the spring 15 which may be similar to spring 14 which causes the plate 9 to frictionally bind in groove 8 and hold it in either raised or lowered position. The plate may be moved to either of these positions by application of pressure on the thumb piece 10 in the right direction.

In the modification shown in Figure 5 the plate 9^a is formed so that it may be pivotally mounted on a shaft 16 which is mounted in any suitable manner in the portion 2^a of the housing. In this case the housing is provided with a shallow transversely curved shoulder into which the similarly curved tail on the bottom of the plate 9^a may be moved. The spring 17 encircles the shaft 16

and has one end 18 secured in the housing 2^a and the other end 19 engaging the tail of the plate. As is clear from Fig. 5, this spring normally holds the plate in the full line position. When it is desired to move it to better exposed cutting members, its thumb piece 10 is engaged, and the plate swung down the dotted line position. When it is released it returns to full guarding position.

In all forms of device shown, the structure is so arranged that the guard may be manipulated by the thumb of the hand holding the device.

I am of course well aware that those skilled in the art will readily understand other ways in which the principles of this invention may be embodied in other physical forms.

I do not, therefore, desire to be strictly limited to the disclosure as given for the purpose of illustrating how to obtain the objects of this invention, but rather to the claim granted me.

What I claim to secure by United States Letters Patent is:

A dry shaver of the type described comprising a handle, a cutter head mounted on the end of the handle, said handle having a recess in its side wall adjacent said head, a movable guard plate mounted on the handle in said recess, and a spring for holding said plate in and returning it to guarding relationship with respect to the cutter head when released.

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