O. A. CLARK.

SAFETY RAZOR.

APPLICATION FILED DEC. 7, 1916.

1,260,144.

Patented Mar. 19, 1918.

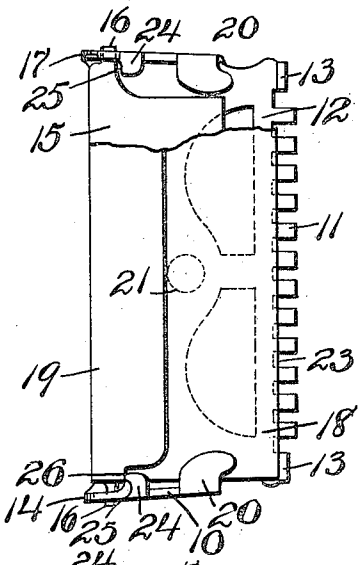


Fig. 1

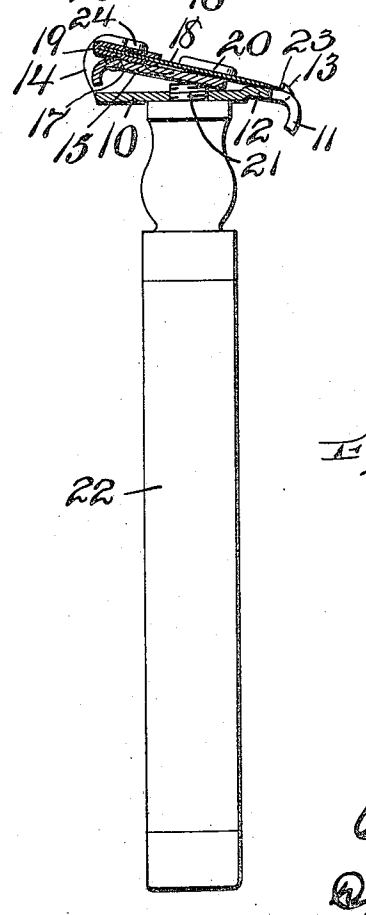


Fig. 2

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SAFETY-RAZOR.

1,260,144. Specification of Letters Patent. Patented Mar. 19, 1918.

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To all whom it may concern:

Be it known that I, OSROE A. CLARK, a citizen of the United States, and a resident of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to an improved safety razor which is of the type having a guard in which is pivoted a swinging plate, which has means for forcing the plate toward the blade, when thus forced clamping the blade between the plate and fingers, the blade being held in proper shaving position with its cutting edge adjacent to the front edge of the guard. It is necessary to hold the blade in a certain position with its cutting edge at a proper distance in rear of the teeth or guarding portion at the front edge of the guard, because if the blade projects too far it is apt to cut the face, and if it is held too far back it will not give a close shave. The blade is also positioned so that projections on the guard shield its corners, these corners, if left unguarded, cutting the skin when the razor is held in a certain position to cause the corners of the blade to engage the skin with the point of the corners.

The guard portions with the projections thereon are usually made of soft metal, such as brass, and the blades being made of steel, it has been found that when the blade is forced forward against the projections so as to limit the entrance of the blade, the back edges of the projections are soon cut away and the blade moves forward beyond its proper shaving position. It is thus essential to stop the blade by means other than the shielding projections, and I have devised a fixed set of stops in the form of lugs on the guard portion, which lugs are adapted to be engaged by the backing of the blade so as to prevent the cutting of the projections by excessive contact of the blade therewith.

The plate that swings on the guard is made to swing loosely, so that it can be swung out of position by a jerky movement of the guard portion when the blade is out of position to enable the device to be easily cleaned, and this free swinging is caused by a loose pivoting of the plate, which becomes looser when the razor is used on account of the wear on the soft metal parts, and to overcome such inequalities, which affect the stops or lugs when placed on the swinging plate, I have so positioned the lugs on the guard so that the distance between the stopping edges of the lugs and the rear edges of the projections is not less than the distance between the cutting edge of the blade and that part of the backing which is engaged by the lugs.

Another advantage in this location of the stopping lugs is the fact that it provides no projections on the swinging plate, the path of the plate thus not interfering with the easy sliding of the blade into the rear, and the device also has no tendency to damage the cutting edge of the blade during the insertion of the blade into the razor.

The invention is illustrated in the accompanying drawing, in which Figure 1 is a top view of my improved razor, one end of the blade being cut away, and Fig. 2 is a central section of the razor shown in Fig. 1, the handle being shown in elevation.

The razor consists of a guard portion 10, the guard portion having on its front edge a set of teeth 11 or any equivalent shielding or guiding surface, the portion 12 in rear of the teeth being adapted to receive the front edge of the blade. The end teeth are formed with projections 13 placed so that they will shield the corners of the blade when the blade is in shaving position. The ends of the guard are provided with means for shielding a swinging plate in peripheral relation thereto, this being usually done by striking up from the guard portion ears 14 in which the plate 15 is pivoted to swing from freely, the common manner of pivoting being to provide the plate with pins or projections 16 which project through perforations 17 in the ears, and, fitting loosely, the plate has considerable play, so that when the blade is not in position the plate can be swung back by snapping or jerking the handle carrying the guard portion.

The blade 18 is provided with a backing 19, the backing usually being made by folding over a metal strip to inclose the back ends of the blade 18, the blade being slid in from the back along the top ends of the plate 15, which plate is smooth and offers no obstruction to the entrance of the blade, the blade also passing under fingers 20 which project upward and then inward from the ends of the guard, and when in

position the blade is forced upward by a suitable pressure means, this being usually in the form of a screw-threaded stud 21 which screws through the guard portion 10 and is located on the end of the handle 22. Thus by turning the handle the plate 15 is forced upward to lock the blade 18 in position, as will be evident.

In order to prevent the cutting edge 23 of the blade from engaging the soft metal projections 13 and thus eventually cutting away sufficient of the back edges of the projections to permit an excessive upward movement of the blade, I provide stops in the form of lugs 24, which are on the guard, being usually provided by bending over a portion of the top edges of the ears 14. The rear edges 25 of the lugs are in the path of the stopping or forward edges 26 of the backing of the blade, the lugs thus halting the blade when its cutting edge is in contact with or nearly in contact with the projections 13. In other words, when the blade is in position to be shielded by such projections, the lugs are fixed in relation to the projections, and the distance between the edges 25 of the lugs and the projections 13 is no less than the distance between the cutting edge 23 of the blade and the edge 26 of the backing. This position thus never varies, the parts being attached to the same part of the razor, and furthermore, the top edge of the plate 15 is kept smooth, so that there is no obstruction to the easy entrance of the blade into the razor from the rear.

This construction also provides for an economically manufactured article, and the ears 14, in addition to acting as supports in which the plate 15 is pivoted, have the additional function of providing the lugs or stops whereby the blade is prevented from cutting away the projections 13.

Having thus described my invention, I claim:

In a safety razor, a guard having projections on its front end for seating the corners of the blade, the guard having upwardly projecting ears on its ends at the rear, the ears having perforations therein and having lugs projecting therefrom on the inner edges of the top, a plate having lugs on its side edges, said lugs being pivoted in the perforations of the ears whereby the plate can freely swing, a blade with a backing to engage the lugs and rest on the plate, and a handle screwing through the guard and forcing the plate upward to lock the plate in position, the distance between the projections and the rear edge of the lugs being no less than the distance between the backing and cutting edge of the blade.

In testimony that I claim the foregoing I hereto set my hand, this 6th day of December, 1916.

OSROE A. CLARK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."