May 30, 1933. E. S. MARTIN 1,911,378

SAFETY RAZOR

Filed June 15, 1932

Fig. 1

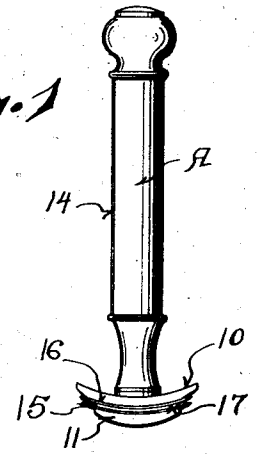


Fig. 2

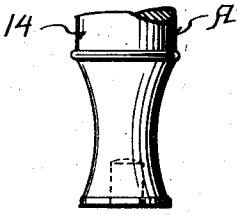
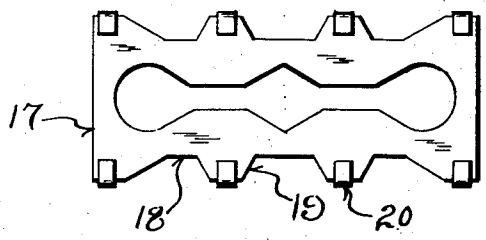


Fig. 3



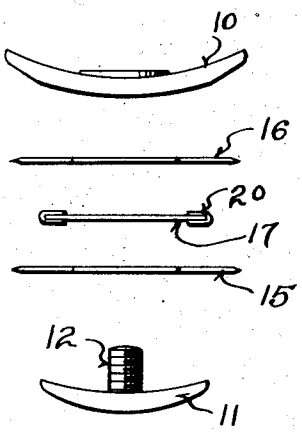
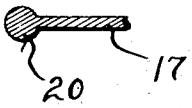


Fig. 4



Inventor
Etta S. Martin
By Geo. W. Wright
Attorneys

Patented May 30, 1933 1,911,378

UNITED STATES PATENT OFFICE

ETTA S. MARTIN, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO BENSEL AND MARTIN, OF EAST ORANGE, NEW JERSEY, A PARTNERSHIP CONSISTING OF ARLINGTON BENSEL AND CHARLES W. MARTIN

SAFETY RAZOR

Application filed June 15, 1932. Serial No. 617,285.

This invention appertains to improvements in safety razors and is a continuation in part of my prior application Serial No. 600,278, filed March 21, 1932, which is hereby abandoned in favor of the present application.

One of the primary objects of my present invention is to provide a safety razor embodying a pair of spaced blades for acting on the face, whereby a desired close shave can be had with one shaving operation without causing any detrimental effects on the skin of the user.

Another prime object of my invention is the provision of novel means for holding the blades in spaced relation, whereby the desired curvature will be given to blades so that the desired smooth and fast shave can be obtained.

It has been found, in actual practice, that certain types of spacers will not give the desired and best results, in that the desired curvature is not imparted to the blades and the spacer has a tendency to clog up the razor when the same is in use, preventing the giving of the rapid, smooth shave.

It is therefore a further important object of my present invention to provide a novel spacer for the blades, which will entirely eliminate the clogging up of the razor and permit the efficient washing of the debris from between the blades of the razor by merely holding the razor under the faucet.

A further object of my invention is the provision of a safety razor embodying a pair of superimposed, dual cutting blades, with novel means for spacing the blades, the spacer being of such a character as to permit a maximum amount of flexibility between the body portions of the blades and still hold the blades spaced apart the desired distance at their cutting edges, the spacer being provided with spaced knobs at its longitudinal edges for this purpose.

A still further object of my invention is to provide a novel spacer for safety razors of the type above referred to, which can be manufactured at a low cost and associated with the safety razors of ordinary construction without any change thereto.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which drawing:

Figure 1 is a side elevation of a complete razor showing my invention applied thereto.

Figure 2 is a side elevation of a razor, showing the parts thereof separated, illustrating the use of the dual blades and the spacer.

Figure 3 is a top plan view of the spacer.

Figure 4 is a detailed sectional view on an enlarged scale, illustrating a slightly modified type of spacer.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates a safety razor embodying my invention. As shown, the razor A embodies a guard 10 and a clamping plate 11 for overlying the same. In the present instance I have shown the clamping plate 11 provided with a threaded stud 12 for engaging through an opening in the guard plate. The threaded stud 12 is adapted to be adjustably and detachably received within the handle 14, which serves to adjust the guard 10 and the clamping plate 11 toward and away from each other. The above construction is conventional with safety razors and forms no part of my present invention, and it is to be understood that any desired means can be provided for adjusting the guard and clamping plate relative to each other, and that the above description is to be taken merely as illustrative of one form of safety razor.

In accordance with my invention, I employ a pair of like razor blades 15 and 16. These blades may also be of the usual form and construction and are adapted to be placed and clamped between the guard 10 and clamping plate 11. These blades, as in the ordinary razor, are flexed transversely by the guard and clamping plate. The blades can be made in any desired form

for cooperation with the centering means carried by the inner faces of the guard and the clamping plate, so that all twisting movement of the blades will be prevented.

Between the two blades 15 and 16 I utilize my novel spacer plate 17, which forms the salient feature of my present invention. This spacer plate 17 is preferably formed of the same material, as the razor blades 1 are of less width than the razor blades, for a purpose which will be later set forth. While I have stated that the spacer 17 can be made from the same material as the razor blades, it is to be understood that this is not necessary to the invention, as the spacer can be made from any preferred material, such as celluloid. Both the blades and the spacer can be provided with the usual design of openings for receiving the threaded stud 12 and the supporting and spacing lugs carried by the parts of the razor.

As clearly shown in Figures 1 and 2 of the drawing, the spacer plate 17 is positioned between the blades 15 and 16. Upon adjustment of the clamping plate and the guard relative to each other, the blades 15 and 16, and the spacer plate 17, will be flexed. Owing to the fact that the plate 17 is arranged between the blades, the lowermost blade 16 will be given a greater curvature than the outermost blade 15. This disposes the cutting edges of the outermost blade 15 slightly inwardly of the cutting edges of the innermost blade. From this construction, as the razor is drawn over the face, the cutting edges of the innermost blade 16 will initially engage the hairs to sever the same and then the cutting edges of the following blade will immediately engage and cut the same hairs closer to the face. This gives the desired close shave with one operation without causing any harm to the face of the user.

As heretofore intimated, one of the salient features of my invention is the provision of the novel means employed for constructing the spacer 17. This spacer is so constructed as to hold the blades in the desired position, and, without materially affecting the flexibility thereof, will allow the quick cleaning of the razor and preclude the clogging up thereof.

Thus, in accordance with invention, the longitudinal sides of the guard plate 17 are provided with spaced, relatively large notches 18, which define spaced, outwardly projecting lugs or fingers 19. By this construction only the relatively narrow fingers 19 will be disposed between the blades and the notches form channels for permitting the flow of washing water to allow the quick cleaning of the razor.

In order to further facilitate the cleaning of the razor, and to prevent the clogging thereof, and at the same time hold the edges of the blades in their correct spaced position, knobs 20 are formed on the edges of the fingers 19. These knobs are preferably narrower than the fingers 19 and can be made integral with the fingers, as shown in Figure 4 of the drawing. If preferred, these knobs can be in the nature of metal clips forced over the fingers, as is suggested in Figure 2 of the drawing. The use of clips is particularly desirable if the spacer is to be made from celluloid.

From the foregoing description it can be seen that I have provided an improved safety razor, which is of exceptionally simple and durable construction, and which will give the desired smooth, fast and close shave without any ill effects on the face of the user.

Changes in details may be made without departing from the spirit or scope of this invention, but what I claim is:—

1. A safety razor comprising a guard, a clamping plate, means for adjusting the guard and plate toward and away from each other, a pair of superimposed blades arranged and clamped between the guard and plate, a spacing plate of less width than said blades arranged between the same, outwardly projecting spaced fingers on the longitudinal edges of said spacing plate projecting toward the cutting edges of the blades, and knobs on said fingers for holding the cutting edges of the blades in the desired spaced relation.

2. A safety razor comprising a guard, a clamping plate, means for adjusting the guard and clamping plate toward and away from each other, a pair of superimposed blades arranged and clamped between the guard and plate, a spacer plate arranged between the blades and of less width than said blades, longitudinal edges of said plate being provided with spaced enlarged notches defining relatively narrow fingers, and projections on the opposite sides of said fingers for spacing the cutting edges of the blades the desired distance away from each other.

3. As a new article of manufacture, an anti-clogging spacer plate for the blades of safety razors comprising a thin flexible body having outwardly projecting spaced fingers on the longitudinal edges thereof, and projections formed on the opposite sides of said fingers.

In testimony that I claim the foregoing, I have hereunto set my hand at Chicago, in the county of Cook, and State of Illinois.

ETTA S. MARTIN.