July 26, 1932. J. MOLKENTHIN, JR 1,869,327

SAFETY RAZOR BLADE

Filed Oct. 14, 1930

Fig. 1.

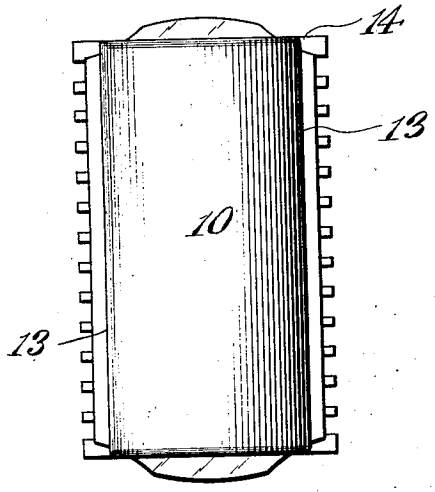


Fig. 3.

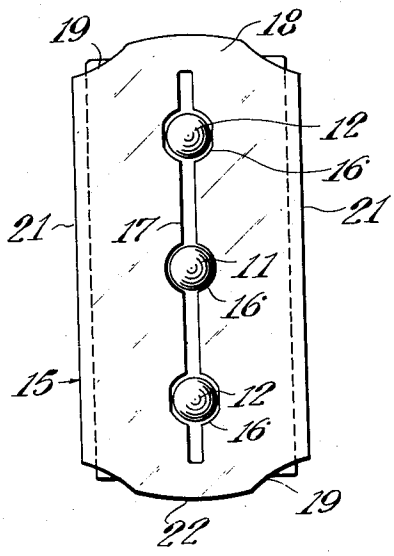
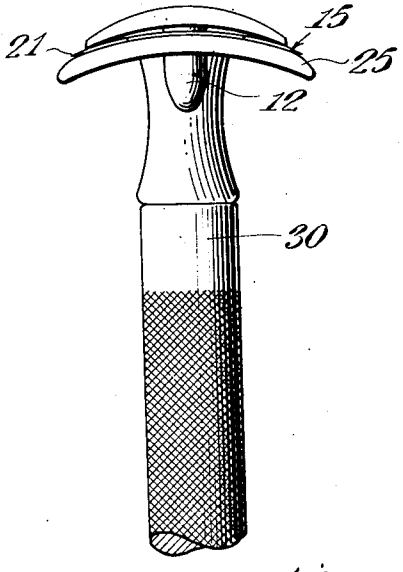


Fig. 2.



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BY his ATTORNEYS
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Patented July 26, 1932 1,869,327

UNITED STATES PATENT OFFICE

JOSEPH MOLKENTHIN, JR., OF GLENRIDGE, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GILLETTE SAFETY RAZOR COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF DELAWARE

SAFETY RAZOR BLADE

Application filed October 14, 1930. Serial No. 488,624.

This invention relates to an improved blade for safety razors, and in particular to a blade for razors of the class in which the blade is clamped in a bent position in the holder. The object of the invention is to minimize cracking or breaking of the blade and to preserve a straight or plane edge for the blade when clamped in the holder.

The nature and objects of the invention will be best understood from a consideration of an illustrative embodiment of the invention described herein with reference to the accompanying drawing thereof, in which:

Figure 1 is a top plan view of the holder and blade;

Figure 2 is an end elevation; and

Figure 3 is a plan view of the blade and top plate.

The holder may be and herein is illustrated as a well-known type, comprising the curved top plate 10, the mating curved guard plate 25, and a handle 30. The top plate is provided with the central threaded clamp pin 11 and positioning pins 12. The guard plate is provided with holes receiving the pins 11, 12 and the handle is internally threaded at its end to screw on the pin 11 to clamp the plates together. A flat double-edged flexible blade 15 is clamped between the plates, being provided with holes 16 for receiving the pins 11, 12 and a longitudinal slit 17 passing through the holes 16. The blade is bent considerably when clamped between the plates as shown in Figure 2.

Also by reference to Figure 2, it will be seen that the holder plates exert a clamping action upon the blade along the side edges 13 of the top plate 10. In Figure 1 it may be seen that the top plate and guard plate are substantially coextensive in length and both have straight end edges.

By reference to Figure 3 it is observed that the corners of the blade are cut away to form recesses 19. The recesses present no sharp corners but have a smooth reentrant concave outline throughout their length and a smooth juncture with the ends 22 of the blade.

The cutting away of the corners provides cooperation between the blade and holder to avoid locking the blade between the corners 14 of the plate as might occur if the plates were made with burrs or projections on the corners or if such burrs were formed by droppage of the holder. Also by having the corners cut out in smooth lines the tendency for cracks to start is greatly minimized. The corners of the blade are also shaped and designed to cooperate with the central slitted portion of the blade to promote flexibility, proper positioning and clamping of the blade in the holder, and to prevent the starting of cracks in the material between the corners and the central slit.

The slit 16 in the center of the blade leaves only the end connecting strips 18 between the sides of the blade. This makes the blade very flexible along the major axis and serves to reduce breakage along this line. The blade between the central slit and either cutting edge 21 is of substantially uniform thickness and flexibility.

The slit is approximately as long as or slightly longer than the cutting edges of the blade. This minimizes or eliminates the formation of waves in the cutting edges of the blade when bent and may provide other benefits, which, it is thought, need not now be particularly explained.

The length of the blade along the central axis, that is, the length between the ends 22 is preferably greater than the length of the holder plates so it may be readily grasped for removal.

The construction and characteristics of the blade have been fully described and some of the benefits and advantages thereof have been explained. It will be apparent, however, that other advantages may accrue from the construction. Also, that while a single exemplary embodiment has been illustrated and particularly described, the objects may be accomplished by other embodiments and constructions. The invention, therefore, is not to be considered as limited to the particular embodiment illustrated and described but that it is susceptible of some changes and modifications within the scope of the subjoined claim.

What I claim is:—

A safety razor blade adapted to be flexed

transversely by the clamping action of a holder and having two outer cutting edge portions separated longitudinally by a slot and connected at their ends by flexing hinges which are located beyond the cutting edge portions.

In testimony whereof, I have signed my name to this specification this 10th day of October, 1930.

JOSEPH MOLKENTHIN, JR.