Oct. 13, 1931. H. J. GAISMAN 1,826,764

SAFETY RAZOR

Filed May 23, 1930

Fig. 1

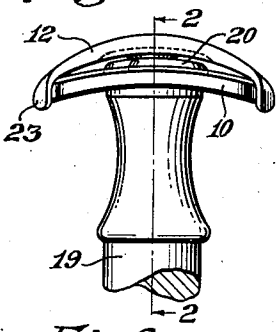


Fig. 2

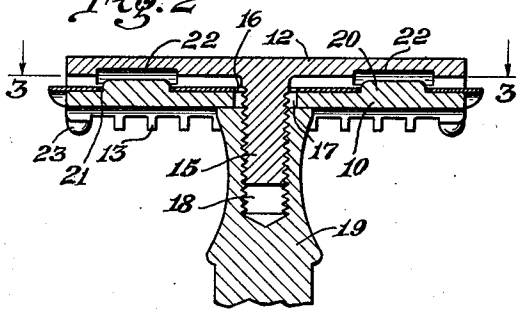


Fig. 6

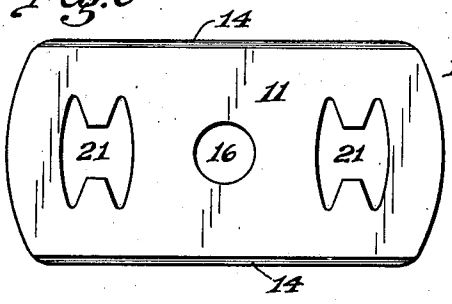


Fig. 3

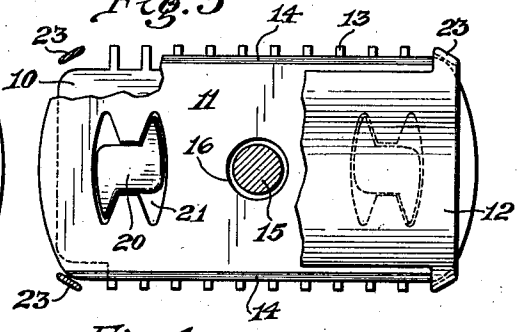


Fig. 5

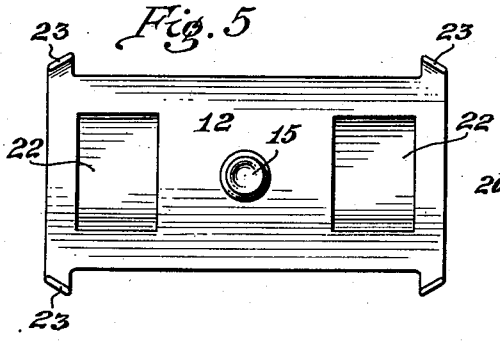
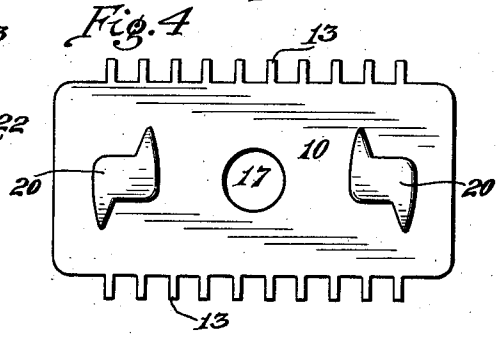


Fig. 4



INVENTOR
H. J. Gaisman
BY
Sigmund Herzog
ATTORNEY

Patented Oct. 13, 1931 1,826,764

UNITED STATES PATENT OFFICE

HENRY J. GAISMAN, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO GILLETTE SAFETY RAZOR COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF DELAWARE

SAFETY RAZOR

Application filed May 23, 1930. Serial No. 454,989.

The present invention relates to that class of safety razors in which two clamping members, a guard member and a blade backing member, are provided, and a thin flexible blade is clamped between the guard and backing members to retain the cutting edges of the blade in shaving relation to the guard teeth. The invention pertains more particularly to that type of the above-mentioned class of safety razors wherein the blade co-operates with one of the clamping members to retain the blade in shaving relation thereto, and the blade also co-operates with the other clamping member to retain the latter in proper relation to the blade for shaving purposes. A safety razor of this type is described in U. S. Patent #1,633,739, granted to me on June 28, 1927.

The razor described in the patent mentioned comprises, generally speaking, a guard member on which is provided a non-cylindrical positioning stud, adapted to be seated in an aperture in the blade, said positioning stud and said aperture having a co-operative contour to retain the blade in shaving position on the guard member, said blade also having recesses in its transverse edges adapted to receive projections on the backing member of the structure, said recesses and projections co-operating for retaining the backing in shaving relation to the blade and the guard member, in combination with means for clamping the guard and backing members on the blade.

The main object of the present invention is to simplify the construction above referred to by doing away with the recesses in the blade, and by so arranging the projections on the backing member that they act also as means for reinforcing the corners of said backing member and as corner protecting means for the blade.

Another object of the invention is to provide a simple and efficient blade holder of the type mentioned which is capable of manufacture on a commercial scale, or in other words one which is not so difficult to make as to be beyond the reasonable cost of such an implement.

With these and other objects in view, which will more fully appear as the nature of the invention is better understood, the same consists in the combination, arrangement and construction of parts hereinafter described, pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that many changes may be made in the size and proportion of the several parts and details of construction within the scope of the appended claims, without departing from the spirit or sacrificing any of the advantages of the invention.

One of the many possible embodiments of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is an end view of a razor constructed in accordance with the present invention; Fig. 2 is a section taken on line 2—2 of Fig. 1; Fig. 3 is a section taken on line 3—3 of Fig. 2, part of the backing member being shown in plan view; Fig. 4 is a top plan view of the guard member of the improved razor; Fig. 5 is a bottom plan view of the blade backing member of the construction; and Fig. 6 is a plan view of a blade used in connection with the razor herein described.

Referring now to the drawings, the numeral 10 indicates the guard member, the numeral 11 the blade, and the numeral 12 the backing member of the razor, so organized that the said blade may be clamped between said members. The guard member is shown of the variety having guard teeth 13 in its opposite longitudinal edges, along which the cutting edges 14 of the blade may extend in an ordinary way for shaving. Any suitable means may be provided for causing the blade to be clamped between the guard member and the backing member. In the example illustrated in the drawings, the backing member is provided with a screw-threaded pin 15 which is adapted to pass through a central opening 16 in the blade and through a hole 17 in the guard member, and to engage a screw-threaded socket 18 in a handle 19, to clamp the parts together for shaving. The hole 17 is of a size and configuration that the pin 15 is adapted to pass therethrough without positioning the backing member in relation to the the guard member.

On the guard member are provided two non-cylindrical positioning studs 20, one on either side of the hole 17, which are adapted to be seated in apertures 21 in the blade. Both the positioning studs and the apertures may be of any suitable configuration, according to the requirements. It is preferred, however, to so design the positioning stud receiving apertures in the blade and to so space the same that they are adapted to receive each a cylindrical stud of the blade holders of the ordinary Gillette type of safety razors. As this feature is now well known and old in the art, it seems to be unnecessary to give a further detailed description thereof. In the underface of the backing member are provided recesses 22, to receive the free ends of the positioning studs 20 without, however, making a connection between the guard and backing members. The backing member is positioned in relation to the blade by downwardly extending projections 23, one on each corner of the backing member, said projections bearing against the blade corners, as clearly shown in Figs. 1 to 3, inclusive, of the drawings, but not contacting with the guard member, as shown in Fig. 3 of the drawings. The projections 23 on the backing member corners ex end transversely beyond the longitudinal edges of the backing member and are dimensioned to form corner reinforcing means, so that, when the backing member is accidentally dropped or knocked against an object, the longitudinal edges of the backing member are not deformed. This is essential in view of the fact that it is highly desirable to maintain the longitudinal edges of the backing member in the condition in which they are obtained in the process of manufacture. It will be readily seen that, if portions of these longitudinal edges are accidentally deformed, not only will the blade not be properly clamped upon the guard member but it may be broken or cracked in the blade flexing operation. As appears from Fig. 3 of the drawings, the projections 23 are so located that they overlie the ends of the cutting edges of the blade and thus constitute blade corner protecting means.

When the parts are to be assembled for use, the blade is first placed upon the guard member so that the positioning studs 20 extend through the blade apertures 21. The backing member 12 is then applied to the blade, its clamping pin 15 being passed through the blade opening 16 and the guard member hole 17, the projections 23 on the backing member being caused to bear against the blade corners, whereby the backing member, by means of the blade, is properly positioned with respect to the guard member. When then the handle is screwed upon the pin 15, the elements of the razor are firmly clamped together for shaving. As stated above, the projections 23 do not co-operate with the guard member 10 to retain the backing member in operative relation with respect to the guard member, but the blade forms the connecting link between the backing and guard members for properly positioning the elements of the blade holder.

What I claim is:—

1. A safety razor, comprising a guard member, positioning studs thereon, a blade fitting upon said guard member having apertures to receive said positioning studs, a backing member for the blade, corner reinforcing means on said backing member adapted to engage the corners of the blade for positioning said backing member in shaving relation to said blade and said guard member, said corner reinforcing means simultaneously forming guard teeth at the corners of said guard member, and means to clamp said blade between said guard and backing members.

2. A safety razor, comprising a guard member, positioning studs thereon, a blade fitting upon said guard member having apertures to receive said positioning studs, a backing member for the blade, projections on said backing member adapted to engage the corners of the blade for positioning said backing member in shaving relation to said blade and said guard member, said projections simultaneously forming guard teeth at the corners of said guard member, and means to clamp said blade between said guard and backing members.

Signed at New York, in the county of New York, and State of New York, this 16th day of May, A. D. 1930.

HENRY J. GAISMAN.