E. G. MERGENTHALER.

SAFETY RAZOR.

APPLICATION FILED JULY 15, 1912.

1,269,299.

Patented June 11, 1918.

Fig. 1

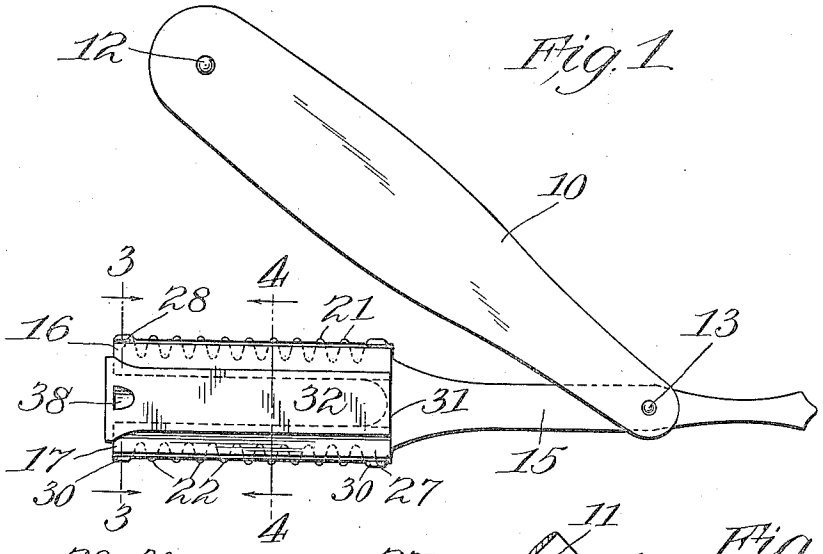


Fig. 2.

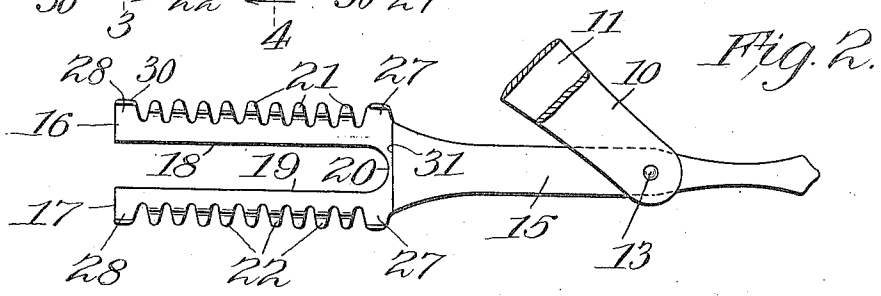


Fig. 3.

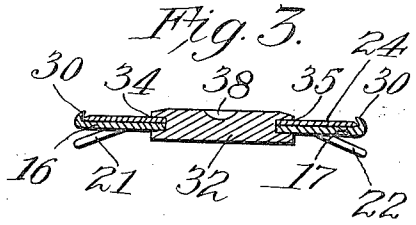


Fig. 5.

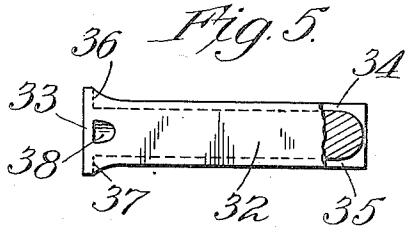


Fig. 4.

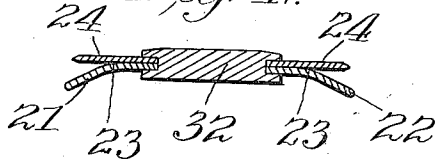
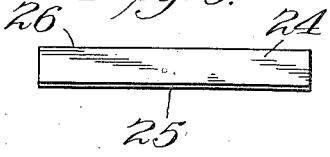


Fig. 6.



Witnesses

Paul J. Gathmann

E. C. Grunewald

Inventor

E. G. Mergenthaler

by Foster Freeman Watson & Coit

Attorneys

UNITED STATES PATENT OFFICE.

EUGENE G. MERGENTHALER, OF BALTIMORE, MARYLAND.

SAFETY-RAZOR.

1,269,299. Specification of Letters Patent. Patented June 11, 1918.

Application filed July 15, 1912. Serial No. 709,461.

To all whom it may concern:

Be it known that I, EUGENE G. MERGENTHALER, a citizen of the United States, residing at Baltimore city, Maryland, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to safety razors and has for some of its objects to reduce the number of parts, thereby lessening the cost of manufacture; to simplify the construction and adjustment and generally improve razors of this character. Another object is to provide a holder with which an inexpensive blade may be used, so that the blade may be thrown away after use. The above and other objects and the novel features of the invention will be apparent from the following description taken in connection with the drawings, in which:

Figure 1 is a side elevation of the razor, the blades and clamping member being in position for use.

Fig. 2 is a similar view showing the blades and clamping member removed, the handle being partly broken away.

Fig. 3 is an enlarged cross sectional view along the line 3—3 of Fig. 1.

Fig. 4 is an enlarged cross sectional view along line 4—4 of Fig. 1.

Fig. 5 is a plan view of the clamping member, part being broken away to show the slot in the edges thereof.

Fig. 6 is a plan view of a blade adapted to be used with the razor.

Referring to the drawings, the handle of the razor comprises the two sections 10 and 11 spaced apart and connected at their ends by means of the rivets 12 and 13 or other suitable fastening means.

The blade holder is made up of a shank 15 and a bifurcated guard and razor supporting section comprising the two legs 16 and 17 integrally connected to the shank 15. The shank 15 is pivoted between sections 10 and 11 by means of pivot 13 and when not in use the blade holder may be folded up and be embraced by the sections 10 and 11 of the handle as is usual. The legs 16 and 17 have inner parallel edges 18 and 19 respectively which merge at their inner ends forming a concave seat 20 for the clamping member to be described. The blade holder is substantially flat and may be readily formed from a single sheet of suitable metal or other material thereby providing an inexpensive device.

The outer edges of the members 16 and 17 are serrated or crenated to form the guard edges 21 and 22 which are disposed on opposite sides of the blade holder. As is clearly shown in Figs. 3 and 4, the teeth forming the guard edges 21 and 22 extend slightly beyond the blades 24 and are bent downwardly at a point 23, thus leaving the parts of the teeth near their bases parallel to the faces of members 16 and 17 to assist in supporting the blades 24, 24 throughout their length. The blades 24, 24 are of thin steel, long and narrow, sharp along one edge 25, and squared off and blunt along the edge 26 parallel to edge 25.

Integral with members 16 and 17 and at each end of the serrated edges thereof there are outstanding lugs 27, 27 and 28, 28, lugs 27, 27 being located at the inner ends of the members 16 and 17 and lugs 28, 28 at the opposite ends. At the outer edge of each of the lugs there is an upwardly and inwardly extending lip or hook 30, under which the ends of the edge 25 of each blade engages and which rigidly holds the cutting edge in position.

The blades 24, 24 are positioned as indicated in Figs. 1, 3 and 4 when adjusted for use, the ends of the cutting edge engaging against and under the lips 30 and the inner end of the blade abutting against a shoulder 31 formed where the shank 15 and bifurcated portion meet. To releasably hold the blades in position the locking or clamping member 32 shown in Fig. 5 is employed. The said clamping member 32 comprises a flat rectangular block of metal or other suitable material having an enlarged transverse section 33 at its end. Along its parallel edges the said block is provided with rectangular grooves 34 and 35 merging at their ends to form a convex grooved end on the clamping member corresponding to the

concavity 20 in which it may seat. The grooves 34 and 35 are of sufficient depth to afford a firm hold and sliding surface on the blade and members 16 and 17 and are of a width substantially equal to the thickness of the blade 24 plus the thickness of one of the edges 18 or 19, as is indicated in Figs. 3 and 4. The blades being in position as above described, the grooves 34 and 35 engage over the blades 24, 24 and edges 18 and 19, and the member 32 is pushed in position its inner end abutting against the shoulder 31 and concavity 20. The member 32 slides between edges 18 and 19, interlocking with said edges, and is of such a width between the grooves therein that it will not readily work loose. The grooves 34 and 35 terminate short of the outer end of the clamping member 32, forming in the enlarged section 33, shoulders 36 and 37 which engage the outer ends of the blades and force them up against the shoulder 31. An indent 38 is formed in the clamping member 32 at its outer end so that by means of a finger nail or a suitable instrument the clamping member 32 may be withdrawn.

It will be seen that a very simple and inexpensive razor is thus provided. Besides the blade or blades only two members are required, namely, the blade supporting member and the clamping member. In the present illustration two blades are shown in the holder but it will be understood that the same will hold a single blade, each blade being held independently of the other. It is believed that with the foregoing description the adjustment and use of the device will be clear.

As numerous changes may be made in the device without departing from the spirit of the invention I do not wish to be limited to the exact details as shown and described.

Having thus described the invention what is claimed as new is:

1. In a safety razor the combination of a blade holder having a bifurcated portion, a separate blade supported on each of the members comprising the bifurcated portion, each blade having a cutting edge and a blunt edge, and means adapted to engage the blunt edges of said blades and portions of the holder to clamp the blades in operative position, said bifurcated blade holder, blades and clamping means being substantially flat and disposed substantially in the same plane.

2. In a safety razor, the combination of a bifurcated blade holder made in one piece and comprising a shank and parallel blade supporting members having parallel guard portions on the outer edges thereof, a separate blade on each of said supporting members, the blades having cutting edges lying parallel to the guard portions and blunt edges disposed opposite to each other, and means between and engaging the blunt edges of said blades to hold the blades in operative position on the blade supporting members, said shank, blade supporting members, blades and blade holding means being substantially flat and disposed substantially in the same plane.

3. In a safety razor, the combination of a bifurcated blade holder comprising a shank and two parallel oppositely facing guard sections in the same plane and integral therewith, each of said guard sections constituting a blade supporting member provided with inturned hooks at the ends thereof, two blades sharp along one edge and blunt along the opposite edge adapted to be supported one on each of said guard sections, the ends of the sharp edges of said blades fitting under said hooks and means slidable along the blunt edges of the blades toward the shank of the holder and coöperating with the inner edges of said guard sections to hold the blades in operative position on the blade holder.

4. In a safety razor, the combination of a bifurcated blade holder comprising a shank and two parallel parts integral therewith, one of said parallel parts constituting a blade supporting member, said blade supporting member having a guard portion along its outer edge and provided with inturned hooks at the ends thereof, a sharp blade mounted on said blade supporting member with the ends of the sharp edge thereof fitting under said hooks, and means slidable between the bifurcated parts of said shank and coöperating with the inner edges of said blade supporting member and blade to clamp the blade in operative position on the blade holder.

5. In a safety razor, the combination of a blade holder comprising a shank and parallel blade supporting members integral with the shank, means fitting said members and the blades thereon and slidable along the members toward said shank to clamp the blades in operative position on the supporting members, means on the blade holder to limit the movement of the blades toward said shank, and means on the clamping means to engage the outer ends of the blades.

6. In a safety razor the combination of a blade holder comprising a shank and parallel blade supporting members integral with said shank, said members having guard portions, projections on said members, blades adapted to be mounted on the members and having their sharp edges abutting against said projections, means for clamping said blades in operative position on the supporting members comprising a member having grooves in its parallel edges fitting and inclosing the contiguous edges of said supporting member and the blades thereon, a shoul-

der on the blade holder adapted to engage the blades at one end and limit their movement in one direction, means on the clamping member to engage the opposite ends of the blades, and means whereby the clamping member may be readily withdrawn from its clamping position.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE G. MERGENTHALER.

Witnesses:
EMIL R. DENHARD,
FERDINAND F. DENHARD.