

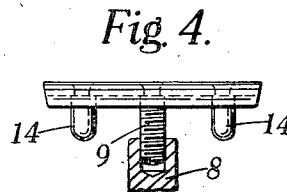
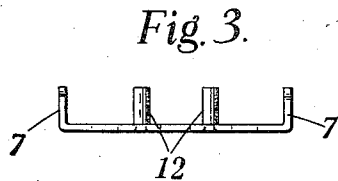
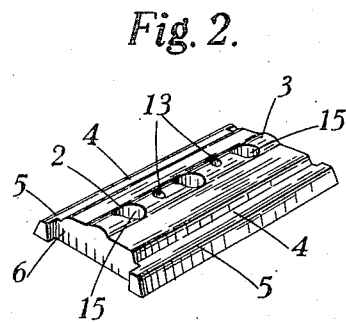
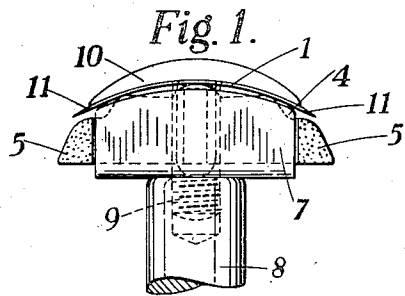
May 12, 1936.

G. TAYLOR

2,040,345

SAFETY RAZOR

Filed Oct. 17, 1934



INVENTOR
GEORGE TAYLOR

BY *Sydney E. Page*

ATTORNEY

UNITED STATES PATENT OFFICE

2,040,345

SAFETY RAZOR

George Taylor, Penwortham, Preston, England

Application October 17, 1934, Serial No. 748,673

In Great Britain October 30, 1933

3 Claims. (Cl. 30—34)

This invention relates to improvements in safety razors and particularly to the formation of the guard and the means by which the blade is secured in place.

The object of the invention is to provide a simple means of fixing the blade, at the same time that an improved shaving performance is obtained.

A further object of the invention is that this improved means of attachment and improved shaving performance should be applicable to safety razors already in use.

As regards the improved shaving performance, a new method is employed which consists in causing a drag on the skin in front of the razor edge, by which a condition somewhat like a stretching of the skin by means of the finger is produced.

In carrying this principle into effect, a flexible pad or guard member is mounted adjoining the razor blade with an edge projecting as a guard beyond the latter so that it may contact with the surface of the skin and owing to the frictional effect between this flexible material and the skin, the latter is drawn forward by the action of the razor.

According to one construction carrying this invention into effect and referring to the commonly known form of safety razor employing a backing plate with a stem threaded into a handle, the invention comprises a pad or guard member of flexible material mounted beneath the razor blade so that the latter is forced against the backing plate by the flexible pad, this pad or ridge is disposed beneath the cutting edge or edges of the blade, and extends transversely beyond the said edge or edges so as to form a guard therefor; the forcing of the pad or guard member against the razor blade may be achieved by a handle pressing against a compression plate which, in the case of the razor holder already in use may be the original guard plate or head.

Hereinafter the holder upon which a blade is commonly pressed by the cap, will be referred to as a carrier or guard member and the piece, sometimes called a cap, which is drawn down on the guard member to grip the razor blade is referred to herein as a backing plate.

In its simplest form the guard member may be simply a pad or strip of flexible material, shaped preferably with a curved surface where the blade beds thereon, the curve of this part being such that when the blade is compressed thereon its cutting edge or edges are spaced slightly away from the surface of the guard

member adjoining them to form the normal pitch for the said blade, it being understood that parts of the guard member project well beyond the shaving pitch of the blade so that these projecting edges form a guard when shaving.

A particular material for the guard member is rubber of suitable consistency to cause the necessary drag on the skin when in operation, but it should be understood that other material may be employed, for example, rubber sponge, rubber substitute, or other materials of a flexible nature which can exert a frictional grip on the skin. Hereinafter the flexible material will be referred to as rubber.

In the construction referred to, where a compression plate is forced upwards on a threaded stem proceeding from a backing plate, the curve of the rubber guard member adjoining the backing plate may be of slightly less radius than the radius of the backing plate, the ordinary straight blade being similarly curved when pressed against the latter; in order to limit the compression on these parts and so as to effect a correct pitch or clearance between the blade and the adjoining guard member, some distancing posts or lugs may be fixed on the compression plate in order to limit the distance apart of the backing plate and the compression plate.

In the case of the guard member being a complete rubber pad it may be constructed with its upper surface of irregular form so that compression may take place more readily and so that the pitch or clearance of the razor blade may be varied by increasing the pressure holding on the backing plate and the razor blade. Considerable advantage is obtained in that by increasing this pressure, the pitch of the blade may be altered and thereby a closer shave is automatically obtained if desired. The contacting surface of the guard plate with the skin may be furnished with serrations, pimples, mesh or other pattern markings, with the object of increasing its frictional hold on the skin; also by providing pimples, ridges or the like on the top and bottom surface of the guard member, a greater relative movement of the said member to or from the cutting edges of the blade can be achieved.

In order that the invention may be more clearly understood reference will now be made to the accompanying drawing which shows by way of example preferred embodiments.

Fig. 1 is an end elevation in which the guard member is a single block or pad;

Fig. 2 shows this single pad in perspective view;

Fig. 3 illustrates a compression plate for use therewith;

Fig. 4 shows a means for attaching the blade and the guard member to a handle.

5 It should be noted that the illustration shown by Fig. 1 is to an enlarged scale in order to show the detail more clearly. The other figures represent their parts in about the correct size.

10 Referring to Figs. 1, 2, 3, and 4, 1 is a razor blade, 2 is a guard member composed wholly of rubber, of which the top surface is flexible and provided with the longitudinal ridge 3 and the hollow portion 4 adjoining the edge portion 5
15 which makes contact with the skin; 7 is a compression plate for use in distributing the pressure produced by the handle 8 being attached on to the stem 9 projecting from the backing plate 10, and it will be noticed that recesses 6 are made in the case of the member 2 for the reception of flanges
20 on the end of the plate 7. In addition the plate 7 is provided with pins 12 which occupy holes 13 in the guard member 2 when the parts are assembled together.

25 When assembled the backing plate 10 connected to the handle 8 by stem 9 compresses the blade 1 on to the guard member 2 the guide pins (see Fig. 4) occupying the holes 15 in the pad 2 and the pins 12 occupying the holes 13 therein.

30 By screwing up the handle 8 on the stem 9, the flat blade 1 is fixed with its cutting edge 11 adjoining the guard edges 5 of the guard member, and by reason of screwing up the handle 8 more or less the clearance between the edge 11 and the guard 5 can be varied.

35 Whilst the invention is applicable to safety razors which vary widely as regards their general construction, and in which either a single edge blade or a double edge blade is used, it is preferably embodied in a razor having a double edge
40 blade, but it should be understood that the invention is equally applicable to a structure having a single edge blade.

45 The invention has the advantage that by the use of the flexible guard member, it may be applied to fit particular safety razors already in use; in the case of one having prongs on its edges as a guard, the rubber guard member may be formed with pockets or inturned edges adapted to be placed over the prongs which may thus be used
50 to stiffen somewhat the exposed surface of the guard which slides on the skin.

By the use of this invention a much improved

shaving operation is effected, and a very simple construction of holder for the blade is obtained which is inexpensive to manufacture and does not readily get out of order.

What I claim is:—

5 1. The combination in a safety razor of a backing plate having a concave surface, guide pins on said backing plate, a threaded stem proceeding from said backing plate, a double edged blade adjacent said concave surface, a carrier of flexible material, three supporting ridges extending longitudinally of said carrier, two longitudinal ridges at the sides of said carrier, said longitudinal ridges extending adjacent the cutting edges of said
10 blade and when in position forming a recess between them and said cutting edges, said carrier and said blade having holes therein for the reception of said pins and for the passage of said stem, and a handle screwed on said stem, said handle when screwed on said stem serving to
15 cause the three supporting edges to cooperate with the concave surface of the backing plate so as to flex the blade.

25 2. The combination in a safety razor of a backing plate having a concave surface, guide pins and a screwed stem on said backing plate, a double edged blade adjacent said concave surface, a carrier of wholly flexible material having three supporting ridges for the blade on one face, two ridges adjoining the edges but spaced therefrom
30 with a predetermined clearance, said blade and carrier having a plurality of holes therein for the passage of said pins and stem, a handle screwing on said stem, a compression plate interposed between said handle and said flexible carrier, and
35 distance posts on said compression plate, said posts engaging some of the holes in said carrier whereby compression on said carrier is limited.

40 3. The combination in a safety razor of a backing plate having a concave surface, guide pins and a screwed stem on said backing plate, a blade adjacent said concave surface, a carrier of wholly flexible material adjacent said blade, said blade and carrier having a plurality of holes therein
45 for the passage of said pins and said stem, a handle screwing on said stem, a compression plate interposed between said handle and said carrier, and distance posts on said compression plate, said posts engaging some of the holes in said carrier
50 whereby compression on said carrier is limited.

GEORGE TAYLOR.