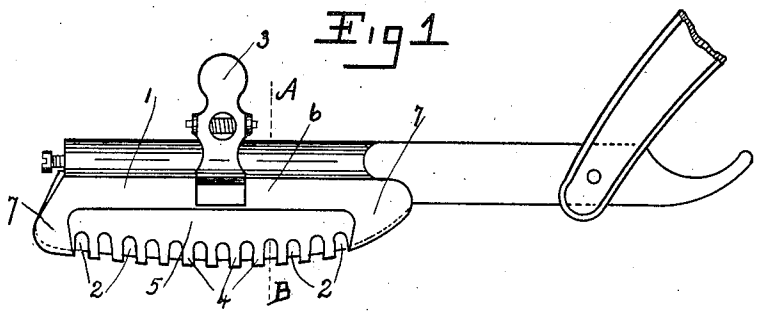
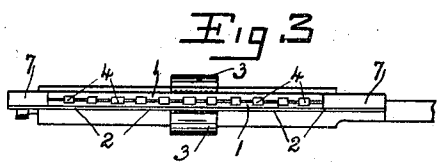
A. ARBENZ.

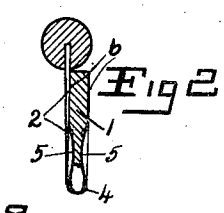
SAFETY ATTACHMENT FOR RAZORS.

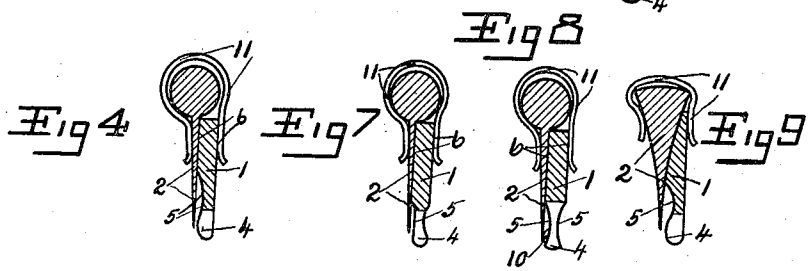
APPLICATION FILED OCT. 11, 1907.

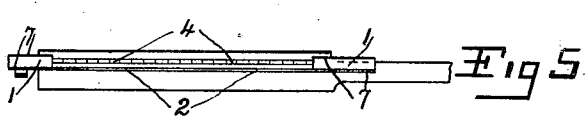
903,160. Patented Nov. 10, 1908

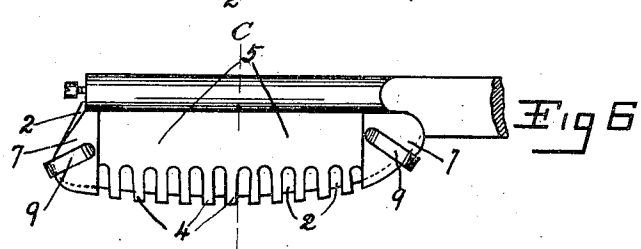


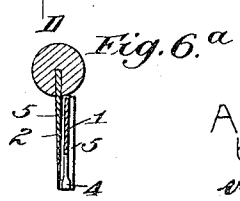












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SAFETY ATTACHMENT FOR RAZORS.

No. 903,160. Specification of Letters Patent. Patented Nov. 10, 1908.

Application filed October 11, 1907. Serial No. 396,887.

To all whom it may concern.

Be it known that I, ADOLPHE ARBENZ, a citizen of the Republic of Switzerland, and residing at Lausanne, Switzerland, have invented a new and useful Safety Attachment for Razors; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention comprises a new or improved safety attachment for razors, and has for its object to provide a removable device or plate, whereby an ordinary razor may be converted into a safety razor or restored to its normal condition at will, the device being reversible to enable it to be used for either right hand or left hand shaving and being easily cleaned, pleasant to use, very light in weight and not liable to corrosion.

To this end, my invention consists of a plate, or equivalent, preferably made from celluloid, galalite, bone, horn, ivory, or other vegetable or animal material, or of aluminium on account of its light weight, though it can also be made from other suitable metals or other material. These plates are designed to be (singly) secured to the razor blade by clips, or other means, and are grooved or otherwise shaped at the part which is near the cutting edge of the razor when attached thereto, while this part of the safety plate is also formed with a series of teeth arranged so as to prevent the razor edge cutting into the face while, at the same time, it allows hair and lather to pass through and enables the shaving operation to be performed.

My invention is illustrated in the accompanying drawings, in which,

Figure 1 shows a heavy backed razor (with a removable blade) having a safety plate fixed thereon according to my invention, ready for use; Fig. 2 is an enlarged sectional view at line A—B in Fig. 1; Fig. 3 is an inverted view, looking towards the edge of the razor, of the aforesaid blade fitted with my plate; Fig. 4 is a section of a razor blade and modified plate having a groove on one side only, such a plate being intended to be used with a razor having a straight or parallel cutting edge; Figs. 5 and 6 show in edge view and in elevation, a razor and plate of modified form; Fig. 6ª is a sectional view at line C—D of Fig. 6. Figs. 7 and 8 are sections of blades with modified forms of plates applied to same, while Fig. 9 is a section of a hollow ground blade and plate applied to same.

In carrying my invention into practice, according to the form illustrated in Figs. 1—3, I provide a plate (1) of any of the specified substances, said plate being suitably formed to lie against the razor blade 2, to which it is intended to be fixed by a separate and detachable spring clip 3. Said clip is of common construction and comprises two members pivoted together, closed by a spring and opened by compressing the upper ends. On the lower edge of the safety plate, adjacent to the razor edge, I cut or otherwise form a series of teeth 4, while on each face of the plate I form grooves, 5, extending for part of the length of the plate only. These teeth are slightly thinner than a plate at their thickest parts or ends, thereby providing a clearance between same and the razor blade when in use, while the groove 5 further reduces the thickness of the other part, or stem, of the teeth to allow the hair and lather to pass away. The groove is cut, or formed, in the material of the plate as distinguished from a groove formed by bending the plate, such bent grooves providing a protuberance on the opposite surface of the plate, and leaving no end supports for the plate near the razor edge; these bent plates being very liable to tilt and bring their teeth into contact with the razor edge. When in position, the plate bears against the blade at its upper edge 6 and ends 7, these parts 6 and 7 being of the full thickness of material which is not reduced at these parts by the groove. Thus the plate bears against the razor at three points, at the top 6, and also near its two ends 7, and when so supported is much firmer in use than a plate which is only supported at its upper edge. A space or clearance is thus left near the groove, while (the teeth being thinner than the rest of the plate) there is also a clearance there, through which the hair and lather may pass. Obviously the plate already described may readily be reversed to lie against the opposite face of the plate by simply removing the clip.

In Figs. 5 and 6, I have shown a form of plate which is readily made from metal the grooving 5 being continued as shown in Fig. 6ª to the back of the plate, which only touches the blades at its ends. Such a plate is readily made from metal and is of minimum weight. Said plate is illustrated as being fixed by two separate clips 9, 9 in the form of spring arches, and of known form.

A plate (1) grooved on one side only, as at

5, is shown at Fig. 4, such a plate being particularly intended for use on a razor having a straight or parallel edge. Figs. 7 and 8 show plates having narrower grooves. These plates bearing against the blade over the greater part of their surface, the grooves on the opposite or outer surface permit the escape or passage of the hair and lather. In Fig. 8, the plate bears against the blade at its upper edge 6 and in addition the plate at its ends, is thickened (as at 10) to make contact with the blade thus supporting the plate near its lower edge. Fig. 9 shows the application of the invention to a hollow ground razor. In Figs. 4, 7, 8 and 9 the plates are secured by separate clips (11) which merely consist of a spring arch, similar to those shown in Figs. 5 and 6, but fitted at the back of the blade. The plates may be applied to a razor blade irrespective of the manner of connecting the blade with the handle therefor.

I claim:

1. In a safety attachment for razors, the combination, with a razor blade, of a plate having teeth on its lower edge thinner than said plate, to provide a clearance between said teeth when in use, and said plate having a longitudinal groove formed in the material of said plate adjacent to the razor and intersecting said teeth and reducing the thickness of the upper part thereof, to provide a clearance for the hair and lather, said groove extending for part of the length of the plate only leaving the material of full thickness at the upper part as 6, and two ends as 7, which thus form a bearing at three points for the support of the plate against the razor blade.

2. In a safety attachment for razors, the combination, with a razor blade, of a plate having teeth on its lower edge but thinner than said plate, to provide a clearance between said teeth and blade when in use, and said plate having a longitudinal groove on each surface intersecting and reducing the thickness of the upper part of said teeth at both sides, to provide a clearance for the hair and lather, as and for the purpose stated.

3. In a safety attachment for razors, the combination, with a razor blade, of a plate having teeth on its lower edge thinner than said plate, the latter having thick end parts extending from its top to its bottom edges, and having a portion of its body, including the upper part of said teeth and between said ends, thinner than the latter.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLPHE ARBENZ.

Witnesses:

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