(No Model.)

A. V. BROKHALME.

GUARD FOR RAZOR BLADES.

No. 315,708. Patented Apr. 14, 1885.

Fig. 1.

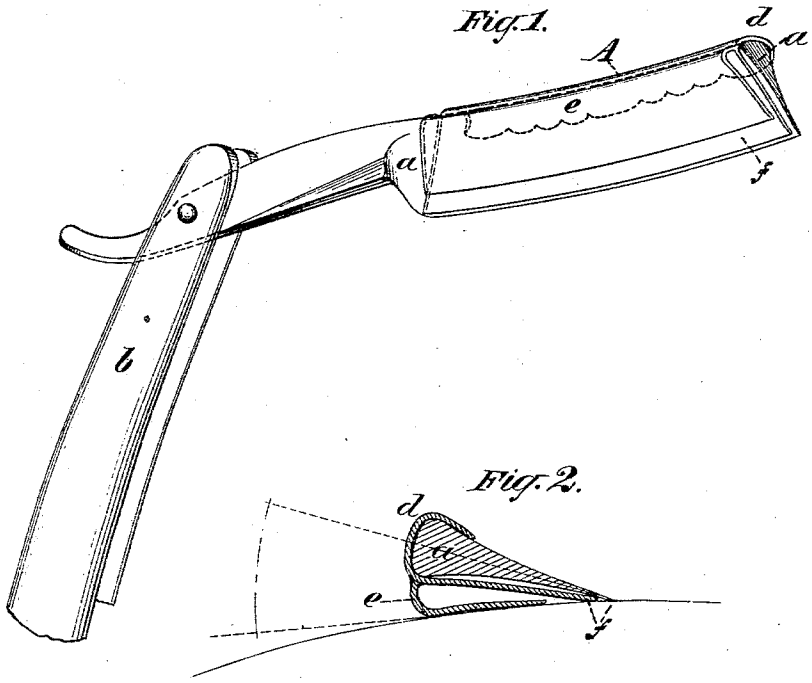


Fig. 2.

Fig. 4.

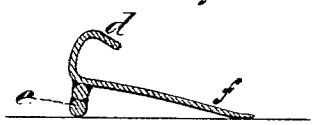


Fig. 3.

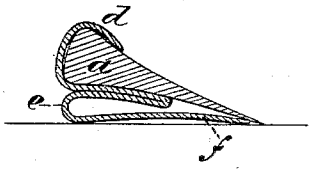
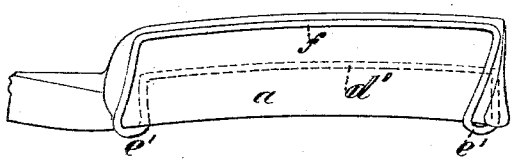


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALFRED V. BROKHALME, OF NEW YORK, N. Y.

GUARD FOR RAZOR-BLADES.

SPECIFICATION forming part of Letters Patent No. 315,708, dated April 14, 1885.

Application filed March 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALFRED V. BROKHALME, of the city, county, and State of New York, have invented a certain new and useful Attachment or Shaving-Guard for Razor-Blades, of which the following is a specification.

My invention aims to provide a simple attachment or fitting for the blades of ordinary razors, whereby persons who shave themselves, particularly novices in the practice, may be enabled to perform the operation with greater safety and accuracy, and with little or no danger of cutting themselves.

It is well known that the chief cause of cuts in shaving occurs from holding the blade at too obtuse an angle to the skin, whereas if the blade be held sufficiently flat to the skin or within certain limited angles of acuteness, cutting is almost impossible. The safe shaving angle is therefore about fifteen degrees, an inclination which the expert shaver has no difficulty in maintaining during the various strokes of shaving, but which the novice finds difficult to observe, and who, consequently, is in frequent danger of cuts from tilting the blade up in a steep angle in making the shaving-stroke. Particularly is this likely to occur when first applying the blade to the skin to commence a stroke, which, if not presented at a sufficiently flat or acute angle, cuts at once into the skin at the first advance. It is therefore obvious that if some means were provided whereby the action of the shaver would be guided in applying the blade to his skin so as to enable him to present the blade constantly at the proper angle, the chief danger would be obviated, and if in addition some further means were provided which would prevent the possibility of the edge penetrating the skin to any appreciable extent, even if the blade were inadvertently tilted too high out of the proper angle, the act of shaving would be rendered very safe, even by very inexpert novices. Now, my present invention provides these means, and it may, therefore, be briefly stated to consist in equipping the razor-blade with a protuberance extending longitudinally on the back of the blade and projecting laterally therefrom, forming a rest to fit against the skin and trail over the same behind the cutting-edge during the shaving-strokes, the said protuberance or rest being of such projection as to tilt the blade to the correct shaving angle, so that while the blade is held against the skin with the projecting rest in contact therewith the cutting-edge will always be presented at the safe and efficient angle for shaving.

Another feature of the invention lies in a guard or fender plate extending out on one side of the blade, running longitudinally thereon near to the cutting-edge, but terminating a very slight distance from the extreme cutting-edge and pressing against the edge of the blade so as to deflect or curve it slightly from the skin, which plate, as hereinafter shown, will prevent the possibility of any serious cuts, even if the razor be held at a very steep angle to the skin. These devices may be affixed permanently on the blade, but are preferably embodied in a removable slide-clasp or attachment adapted to slip on the razor-blade and to be reversible so as to be applied to either side of the blade according as the blade is used either on the right or left side of the face, as hereinafter fully set forth.

In the drawings annexed, Figure 1 is a perspective view of an ordinary razor fitted with my novel attachment or shaving-guard. Fig. 2 is a cross section of the blade and guard represented as resting on the skin in the act of shaving. Figs. 3 and 4 are cross-sections of modifications. Fig. 5 is a perspective view of a razor-blade provided with another modified form of the invention.

Referring to Figs. 1 and 5, *a* indicates the blade and *b* the handle of an ordinary razor. The razor-blades may be of any of the usual forms, but I prefer to have the outer end of the blade beveled or inclined or rounded off, as shown, while the inner end is rounded off in the usual manner, as illustrated, in order that the guard may be more perfectly reversible to one side or the other of the blade, as will be understood.

A indicates my novel attachment or guard, which is preferably made of sheet metal adapted to slip longitudinally on the blade, and to tightly clasp or embrace the back or thick edge of the blade, as shown. The guard contains three essential elements, which are, first, the clasp or socket *d*, preferably of semi-tubular or dovetailed section adapted to fit the back

of the razor-blade; second, the protuberance *e*, coincident with the back of the razor and projecting laterally; and, third, the fender-plate *f*, which extends out on the razor-blade and runs longitudinally thereon close to the cutting-edge, terminating preferably with a thin rounded beveled edge at a very slight distance, preferably the thickness of a hair, from the actual edge of the blade, as fully shown in Figs. 1 and 2. The clasp or socket *d* is preferably elastic or springy to grasp the back of the blade firmly, and yet be capable of being slid on or off the blade, while the protuberance or rest *e* is preferably rounded on its apex, and adapted to rest smoothly upon and trail easily over the skin when the blade and its guard are applied thereto in shaving, as shown in Fig. 2. Furthermore, the lateral projection of the rest *e* is of such an extent that a line drawn from its apex to the cutting-edge of the razor-blade will make an angle of about fifteen degrees with the central plane of the blade, as indicated by dotted lines in Fig. 2. Consequently when the razor-blade is fitted with this device, the shaver in applying the blade to the skin need only take the precaution to first make the back rest, *e*, contact with the skin and then bring the cutting-edge down gently on the skin, which will present the edge at the true and safe shaving angle, and the blade can hence be advanced boldly with the shaving-strokes without any danger of cuts, while the rest *e* remains in contact with the skin, thereby accomplishing the object of the invention in a very simple and effective manner, as will be readily appreciated. Now, while the rest *e* thus enables the blade to be kept at the safe angle the fine but dull rounded edge of the fender-plate *f* rests on the flesh just an infinitesimal distance behind the cutting-edge, and hence prevents all the pressure of the shaving-stroke from being concentrated on the skin at the cutting-edge, and thus counteracts the heavy crude touch of the novice in shaving, which tends to induce cuts or to irritate the skin. Furthermore, it will be seen that in case the blade should be tilted up at any time to an obtuse angle, which would bring the rest *e* off the skin, the fine but dull edge of the fender-blade *f* would be then brought "end on" to the skin, and the possibility of the cutting-edge of the razor sinking into the skin will be thereby prevented. At least the cutting-edge could not sink beyond the slight extent to which it projects beyond the fender edge, which in most cases will not be sufficient to penetrate the lower layers of the skin to a bleeding depth, and hence will not produce any visible or painful cut, which is a very efficient precaution against danger, even in the most clumsy movements of the razor. A further advantage of the fender *f* or *f'* is that by resting against the side of the blade near the thin edge it protects the edge from the pressure of shaving and prevents the thin flexible edge from being bowed or bent unequally, which frequently occurs in the case of hollow-ground razors in which the blade is very thin and flexible, and for which this protection is quite desirable.

It will be noted that in my device the fender-plate extends out on but one side of the blade and on that side only which is placed against the skin and that the edge of the fender-plate presses laterally against the very thin and flexible portion of the blade just at the cutting-edge. Hence the pressure of the fender-plate being on but one side of the blade and that on the under or working side, it will tend to slightly curve or deflect the thin edge of the blade upward or outward away from the skin. This is of great importance in shaving action, as it greatly tends to reduce the possibility of cuts, for the more the fender-plate is pressed against the skin the more tendency is there to curve or deflect the cutting-edge slightly from the skin, so that while the edge is kept sufficiently near to make a close shave it is presented more in an elastic yielding manner and kept in a position of close parallelism to the skin and not in a rigid obtuse position, as would be the case if the edge were not thus slightly curved or deflected from the skin.

I am aware that a shaving-guard has been applied to razor-blades with a fender-plate on each side between which the blade was embraced so that the cutting-edge projected between the two plates; but this is obviously distinct from my improvement in the respect above noted, that by reason of the edge being held between two embracing-plates the lateral deflection of the edge from the skin is prevented, and hence causes the edge to always be presented at a rigid angle to the skin and not in that condition of relaxation and close parallelism which my device secures, so that the device referred to cannot be said to reduce the liability of cuts, but only to prevent a cut being very deep or serious, whereas my device not only prevents the possibility of a serious cut being given, but also reduces the possibility of any cuts or scratches at all being given in comparatively careless movements.

It will be noted that each end of the fender-plate is beveled or rounded off at opposite inclines diverging toward the fender edge, the divergent angles being adapted to coincide with the two ends of the razor-blade, as seen in Fig. 1, so that the attachment may be slipped on one side of the razor or the other, and the fender-plate will properly command the full length of the cutting-edge, as will be understood. The attachment is therefore readily reversible from one side of the blade to the other, so that it may be applied to one side or the other, according to whichever side is applied to the skin.

In Figs. 1 and 2 the socket *d* and fender-plate *f* are presumed to be made in one piece of sheet metal with the rest *e* of a second piece soldered thereto, as indicated; but in Fig. 3 I represent both elements as made from one integral sheet bent into the form shown.

Again, in Fig. 4 I represent the socket *d* and fender-plate *f* as being made of one piece of sheet metal, and the rest *e* of one or more wires soldered thereto, while in Fig. 5 I represent the entire device as made of a bent wire slipped onto the razor-blade with the same effect as the device shown in Figs. 1 and 2—that is, the member *f'* of the wire corresponds to the fender-plate *f* in Fig. 1, the member *d'* and spring-clasping loops *e'* to the socket *d*, and the lateral crests of the loops *e'* to the seat *e*, as will be readily comprehended. It will be evident, however, that still further modifications might be made in the structure of the device without departing from the essentials of the invention. It will be also understood that the attachment may also be made in sheet metal in the same skeleton form of the wire device shown in Fig. 5 with great advantage.

What I claim is—

1. A razor having a rest, as *e*, projecting laterally therefrom to trail upon the skin when shaving, and present its edge to the work at an angle of about fifteen degrees, substantially as and for the purpose specified.

2. In combination with a razor-blade, a removable rest, as *e*, fitted to the back thereof, to trail upon the skin when shaving and present its edge to the work at an angle of about fifteen degrees, substantially as herein set forth.

3. A semi-tubular attachment adapted to be slid onto the back edge of a razor-blade, with a longitudinal protuberance projecting laterally therefrom to such an extent relative to the width of the blade that a line drawn from its apex to the edge of the blade will make an angle of fifteen degrees, or thereabout, with the plane of the blade, substantially as and for the purpose set forth.

4. In combination with a razor-blade, a fender plate or bar extending out on one side of the blade only, and running longitudinally thereon at a close approach to the extreme cutting-edge of the blade to deflect said edge outward, substantially as and for the purpose set forth.

5. A reversible guard for razor-blades, consisting of the clasp or socket *d*, to secure the device on the back of the blade, and the fender-plate *f*, extending from one side of the clasp only, to cover one side of the blade, and constructed to press laterally thereon near the cutting-edge to deflect the same outward, substantially as and for the purpose herein set forth.

6. A combined razor guard and rest consisting of a fender-plate constructed to approach close to the cutting-edge of the blade, and provided with a lateral extension to trail upon the skin and present the cutting-edge of the blade to its work at an angle of about fifteen degrees, as and for the purpose set forth.

ALFRED V. BROKHALME.

Witnesses:
CHAS. M. HIGGINS,
JNO. E. GAVIN.

Correction in Letters Patent No. 315,708.

It is hereby certified that in Letters Patent No. 315,708, granted April 14, 1885, upon the application of Alfred V. Brokhahne, of New York, New York, for an improvement in "Guards for Razor Blades," the name of the inventor was incorrectly written and printed "Alfred V. Brokhalme" instead of *Alfred V. Brokhahne;* and that the proper corrections have been made in the records of the case in the Patent Office, and should be read in the Letters Patent to make the same conform thereto.

Signed, countersigned, and sealed this 21st day of April, A. D. 1885.

[SEAL.]

H. L. MULDROW,
Acting Secretary of the Interior.

Countersigned:

M. V. MONTGOMERY,
Commissioner of Patents.