C. W. LUND.

SAFETY RAZOR.

APPLICATION FILED FEB. 4, 1919.

1,308,747. Patented July 1, 1919

Fig. 2.

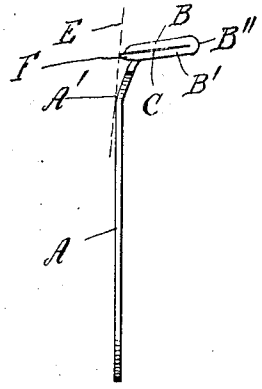


Fig. 1.

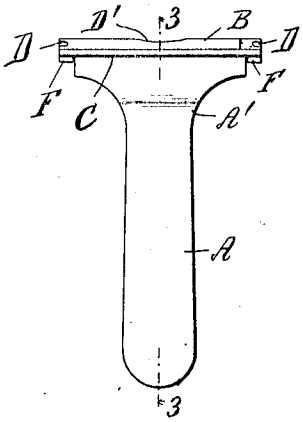


Fig. 3.

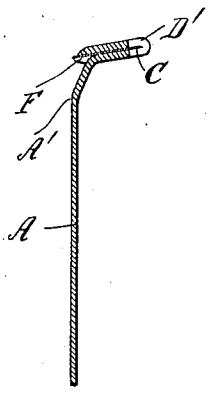


Fig. 4.

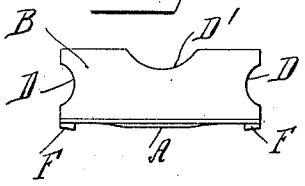


Fig. 5.

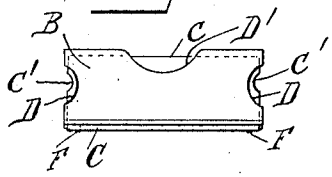


Fig. 6.

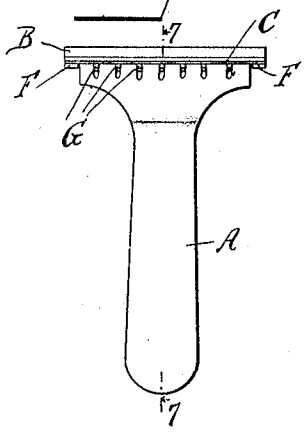
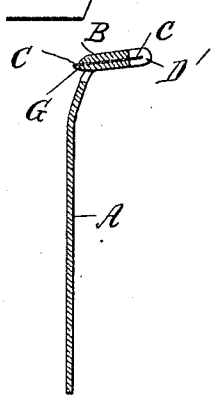


Fig. 7.



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By his Attorney
Read Hoffman

UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR.

1,308,747. Specification of Letters Patent. Patented July 1, 1919.

Application filed February 4, 1919. Serial No. 274,846.

To all whom it may concern:

Be it known that I, CHARLES W. LUND, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Safety-Razors, of which the following is a full, clear, and exact specification.

This invention relates to razors of the class known as "safety-razors," and its object is to provide a razor of this kind which will combine low manufacturing cost with simplicity in construction and use, without curtailment of its properties as a "safety" razor.

Two forms of my invention have been shown in the accompanying drawings, in which Figure 1 is a front elevation of one form of my safety-razor; Fig. 2 is a side elevation thereof; Fig. 3 is a vertical cross-section on line 3—3 of Fig. 1; Fig. 4 is a top view of the form shown in Figs. 1 to 3, with the blade removed. Fig. 5 is a similar view with the blade in position in the holder; and Figs. 6 and 7 are views corresponding to Figs. 1 and 3, respectively, showing another form of my invention, Fig. 7 being a section on line 7—7 of Fig. 6.

Referring first to the form of my invention shown in Figs. 1 to 5, inclusive, my safety-razor consists mainly of a handle A and a blade-holder preferably made integral with each other; as, for instance, by stamping them out of sheet metal and bending them to the proper shape (see Fig. 3), or in any other suitable way. The blade-holder consists preferably of an upper member B and a lower member B′, bent one over the other, and connected at their rear ends, as at B″. The two blade-holder members B, B′ leave between them a very thin space, open at the front and sides of the holder and adapted to receive the razor-blade C. The blade is preferably of such a width that when inserted into the holder, with its rear edge abutting against the holder portion B″, its front or cutting edge will project beyond the front ends of the upper and lower holder members. It is, of course, understood that the rear edge of the blade may be a cutting edge, similar to the front edge of said blade, as just explained. As shown in Figs. 2 and 3, the front edge of the upper blade-holder member is preferably slightly beveled, so as to avoid sharp edges. The distance between the upper and lower blade-holder members is preferably such that a certain pressure has to be exerted on the blade to bring it into position within the holder, or to remove it therefrom, so that the blade is securely held in position in the blade-holder between the upper and lower members thereof, after it has been fully inserted into the holder; that is, the holder member B will press the blade automatically and elastically against the holder member B′.

The blade C is preferably made slightly shorter than the holder in the direction parallel to the cutting edge, as shown best in Fig. 5, so as to insure its proper positioning in the blade-holder, without projecting to the sides of the latter, although it might, of course, be made of exactly the same length as the holder. To allow this proper positioning, the holder is preferably provided on its side edges with notches D, and the blade with corresponding notches C′, which are preferably of somewhat smaller size than the notches D on the holder. Furthermore, the distance between the two notches C′ in the opposing side edges of the blade is somewhat larger than the distance between the notches D in the opposing side edges of the holder, so that the notches in the blade edges and those in the holder edges will not overlap or register exactly, but the meeting points between the notches C′ and the side edges of the blade will be exposed within the space formed by the notches D and by engaging these exposed gripping points or corners with the finger-tips or finger-nails, the blade C can readily be moved from one side to the other and forward or rearward, until it is in its proper position within the blade-holder. The fact that the notches C′ in the blade are somewhat smaller than the corresponding notches D in the holder, enables the blade to be adjusted in any desired position within the holder. This is of great importance, inasmuch as the blade may be re-sharpened a number of times, thus reducing it somewhat in width, and yet, by means of the notches C′ it can always be placed in the holder in such a manner that its cutting edge will be in proper cutting position. As described above, the blade will always be

held securely in any such position by the pressure exerted on it by the two holder sections.

For the purpose of facilitating the removal of the blade, the holder has at its rear edge, a notch D′, into which the blade projects when it is in its position within the holder, as shown in Figs. 3 and 5. This notch allows the blade to be pushed out of the holder for a certain distance, whereupon it can be seized between two fingers and removed entirely.

As shown in Figs. 2 and 3, the handle A has a slight rearward bend A′ preferably located at a distance from the blade-holder. This allows the cutting edge of the blade to project freely. It will also be seen from these views that the plane containing the front face of the handle and the plane containing the cutting edge of the blade intersect each other at an angle slightly larger than 90°. This will position the cutting edge of the blade properly with respect to the face or other surface to be shaved. This surface has been indicated by the dotted line E in Fig. 2, and it will be seen that in the position of use the razor will be in contact with such surface at two points, viz.: at the cutting edge and at the bend A′ of the handle.

To further insure the proper positioning of the cutting edge, in conjunction with the bend A′ of the handle, and also prevent injury by the outer ends of the cutting edge of the blade during shaving, or other manipulation of the razor, these outer edges are preferably protected from below by guard-fingers F, projecting outwardly from the lower blade-holder portion B′, and preferably made integral therewith. These projections, together with the handle portion or bend A′ forms a guard which prevents cutting by the blade during shaving. The location of the bend A′ at a distance from the blade holder, as shown, and as described above, is of especial advantage, in that this arrangement provides a much better guide and guard for the cutting edge of the blade than if the two points engaging the surface to be shaved, viz.: the bend A′ and the projections F were located close together; this will be clear from Fig. 2.

In order to provide additional safety, the holder may be made as shown in Figs. 6 and 7, with a series of spaced guard-fingers or tongues G, preferably stamped out of the handle, at its junction with the blade-holder member B′ and bent upward into contact with the blade from below, so as to be in line with, and form a continuation of, the blade-holder member B′.

Owing to the fact that the upper holder member B is connected with the holder member B′ at its rear end only, it will automatically hold the blade elastically against the member B′, as stated above, and a certain elasticity is thus provided which will allow the blade to adapt itself automatically to the varying hardness of the beard.

It will be seen that the construction, as well as the manipulation of my new safety-razor, is extremely simple, yet it is very efficient in use, and the blade can be removed and replaced readily.

Various modifications may be made without departing from the nature of my invention as set forth in the appended claims.

I claim:

1. A safety-razor comprising a handle and a blade holder connected therewith and having notches at its outer or side edges, a blade in said holder with its cutting edge projecting therefrom, and with its side edges projecting into the notches of said holder, said blade having notches corresponding in position to the notches in said holder, said notches being smaller than the corresponding notches in the holder, thus forming in those portions of the blade which projects into the notches of the holder, points or corners by means of which the blade may be adjusted to any desired position within the holder.

2. A safety-razor comprising a handle and a blade-holder connected therewith and having notches at its outer or side edges, a blade in said holder with its cutting edge projecting therefrom, and with its side edges projecting into the notches of said holder, said blade having notches corresponding in position to the notches in said holder, said notches being smaller than the corresponding notches in the holder, and the distance between the opposing notches in the blade being larger than the distance between the opposing notches in the holder, so that the meeting points between the notches and the side edges of the blade will form gripping corners for the purpose of adjusting the blade within the holder.

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

CHARLES W. LUND.

Witnesses:

EDWARD W. CARPENTER,

ANDREW R. SMITH.