

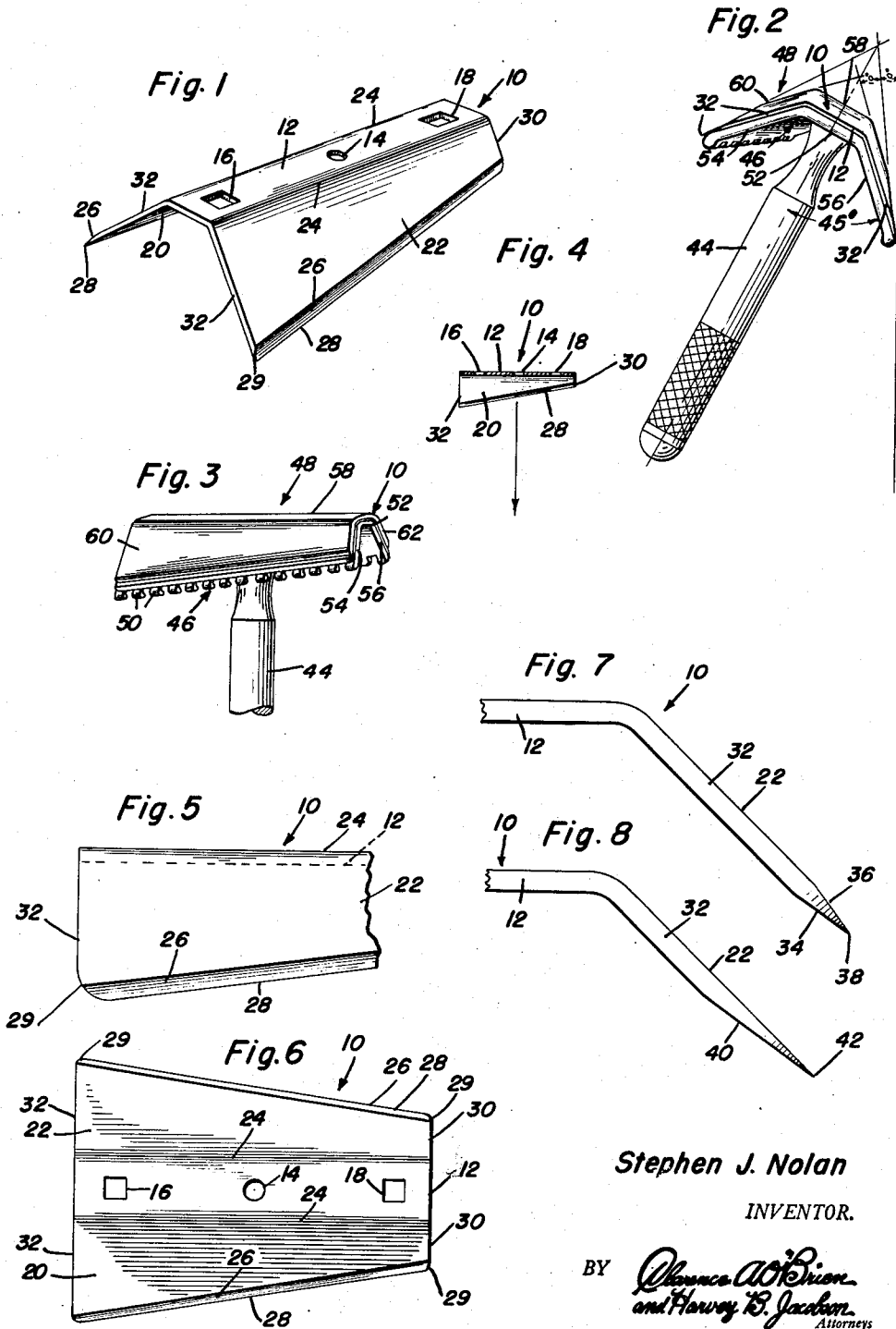
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SAFETY RAZOR BLADE AND HOLDER

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SAFETY RAZOR BLADE AND HOLDER

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The present invention relates to certain new and useful improvements in safety razor constructions and has more particular reference to a novel, double edged blade and a mating holder therefor.

More specifically, the invention has to do with a so-called hoe-type safety razor construction which is characterized by a bed or guard plate with toothed or equivalent outer marginal edges, a capping and clamping plate, an intervening permanently shaped blade and a handle which separably joins the plates and blade in prescribed ready-to-use relationship.

In carrying out the invention, a precision-type blade is provided, this being unique in that it affords the user keen cleavage results by reason of cutting edges which, in use, are oblique to the longitudinal line of the swath traversed thereby.

As will be seen from the following detailed description, drawings and claims, novelty is predicated primarily on the blade per se. However, and at the same time, novelty is thought to reside in the especially designed holder by itself and in combination with the blade.

It is also within the purview of the invention to cover a safety razor blade which may, under certain circumstances, have but a single cutting edge which is oblique to the longitudinal center line of the attaching and retaining portion of the blade.

In carrying out a preferred embodiment, a safety razor blade construction is had wherein the same takes the form of a pre-shaped precision blade which is substantially semi-hexagonal in cross-section, thus to define an open-ended channel. The depth of the latter gradually decreases from one end to the other, whereby said channel is deep at one end and shallow at the opposite end. The intermediate portion is preferably flat and rectangular in form and the side walls are flat and quadrilateral in configuration. More specifically, each side wall is trapezoidal in outline. The guard and clamping plates, constituting the holder, are of corresponding design and are proportioned to correctly contact, in a somewhat usual manner, with the complementary cutting edges of the blade.

Other objects and advantages will become more readily apparent from the following description and the accompanying sheet of illustrative drawings.

In the accompanying sheet of drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a perspective view of a precision-

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type, shear cutting safety razor blade constructed in accordance with the principles of the present invention and illustrating the essential features of construction thought to be novel.

Figure 2 is an end elevation of the complete or over-all safety razor with the blade of Figure 1 in position and illustrating the manner in which the razor is held against the user's face for effective cutting results.

Figure 3 is a perspective view of the complete razor construction, said view being on a reduced scale.

Figure 4 is a view, somewhat diagrammatic in form, showing, as is obvious, the oblique cutting edge of the blade, this being the principal feature of the invention.

Figure 5 is a fragmentary elevational view showing the outside bevel on one of the blade portions and emphasizing the rounded corner of said blade portion at the left.

Figure 6 is a top plan view of the over-all blade per se showing the isosceles-trapezoidal configuration thereof.

Figure 7 is an enlarged fragmentary view showing the attaching portion and one blade portion and showing how the cutting edge may be formed through the use of inner and outer contacting bevels, approximately ten degrees each.

Figure 8 is a view based on Figure 7 and on the same scale and showing a single inside bevel defining the cutting edge.

Although invention appears to reside in the safety razor blade per se, the holder plates, in a collective sense, and in the combination of the blade and holder, it will be understood that the holder is somewhat incidental and that the principal act of invention has to do with the blade per se, for which reason the latter is described with particularity. Attention is therefore invited to the safety razor blade by itself and first to Figure 1.

In Figure 1, the safety razor blade is denoted, as an over-all unit, by the numeral 10. Said blade is preferably of substantially rigid form and has the permanent shape shown. It is of suitable material and of even temper throughout. In end elevation, it may be said to be substantially semi-hexagonal in cross-section. Thus formed, it provides an open-ended channel which, in some broad instances, has been referred to as "inverted V-shape." The channel is deep at one end and shallow at the opposite end.

The bight or attaching portion 12 is flat faced and takes the form of a true rectangle. It is provided with a center hole 14 and end openings

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16 and 18, somewhat as usual, to accommodate assembling and retaining means provided in the holder. Since the latter means is conventional, it is not detailed in the drawing. The blade or wing portions are identical in construction and they are denoted by the numerals 20 and 22, respectively. Each blade portion is the same in construction, and a description of one will suffice for both. To this end, it will be seen that each blade portion is broadly quadrilateral in form. specifically, however, each blade portion is trapezoidal in outline. The inner longitudinal edge 24 is linearly straight from end to end and this straight edge is obviously parallel with the longitudinal center line of the attaching portion 12. The opposite longitudinal edge is beveled, as at 26, and defines the cutting edge 28 and this is oblique in respect to the edge 24. It follows that the transverse end 30 is at right angles to edge 24 and the opposite end 32 is at right angles to the same edge 24. However, the edge 30 is appreciably shorter in length than the edge 32. The several portions 12, 20 and 22 define the aforementioned, substantially hexagonal channel and render the latter deep at one end and shallow at the other end. In connection with the bevels which define the cutting edges, it is to be understood that these may be single or double and either located on the top side or under side as the case may be. For example, in Figure 7, inner and outer bevels 34 and 35 define the keen cutting edge 30. In Figure 8, on the other hand, the bevel is on the inside and is denoted at 40 and defines the cutting edge 42.

In the complete assemblage, the handle, which is conventional in form, is denoted by the numeral 44. The cutter guard or bed plate is denoted at 46 and the capping and clamping plate is denoted by the numeral 48. The cutter guard has its edges serrated to provide non-clogging teeth 50. Said cutter guard includes a flat, rectangular, intermediate or bight portion 52 which corresponds to the attaching portion 12 and, in addition, it has obtuse angled flanges 54 and 56 diverging downwardly and outwardly. The cap and clamping plate has a corresponding flat, intermediate portion 58 of rectangular form and side flanges 60 and 62 which correspond, proportionately speaking, to the blade portions 20 and 22, as well as the guard flanges 54 and 56.

It will be evident that the blade 10 is not the customary highly flexible, deformable type. Instead, it is permanently fixed in its shape and is substantially rigid. The parts which go to make up the holder conform precisely in shape and have the desired relative proportions to gauge the positions of the cutting edges in respect to the corresponding companion edges of the cap and clamping plate 48 and guard plate 46. It follows that when the razor is in use, it is assembled as shown in Figure 2 and the handle is held at an approximate forty-five degree angle, providing the approximate clearances shown. By pulling the handle in a straight forward stroking action, as is customary, and holding it at a forty-five degree angle, the cutting edge which is then in use traverses the swath or path of movement while assuming the degree of obliquity

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shown in Figure 4. This results in the desired cutting action. It makes for keen cleavage and achieves the desired end result, smooth, unhampered shaving accomplishments.

In all forms of the blade construction, the corners 29 at opposite ends of the cutting edges 28 will be rounded off as shown in Figure 5.

In view of the foregoing description taken in conjunction with the accompanying drawings, it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

Minor changes in shape, size, materials, and arrangement of parts may be resorted to in actual practice without departing from the spirit and scope of the invention as claimed.

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

1. A safety razor blade construction comprising a rigid channel-shaped body substantially semi-hexagonal in cross-section and embodying a flat rectangular bight portion and outwardly diverging identical side walls, each wall being trapezoidal in shape, the inner longitudinal edges of said walls being parallel with the longitudinal axis of said body and the outer longitudinal edges being inclined relative to said axis, whereby the channel is deep at one end and shallow at the other end, the outer surfaces only of the outer longitudinal edge portions being beveled at an approximately 20 degree angle and providing a single-bevel slicing and cutting edge and a relatively broad skin clearing surface permitting the cutting edge to skim over the skin minus excessive friction drag, to intimately contact the skin and to take full advantage of the slicing action of the oblique-angled cutting edges.

2. The structure defined in claim 1 and the combination therewith of a holder for said blade, said holder comprising a handle-equipped guard plate of rigid form, said guard plate being of one-piece form and embodying a flat rectangular bight portion and outwardly diverging identical flanges, each flange being trapezoidal in shape, the inner longitudinal edges of said flanges being parallel with the longitudinal axis of said guard plate, and the outer longitudinal edges being inclined relative to said axis whereby to provide a channel-shaped guard plate which is semi-hexagonal in cross-section, a capping and clamping plate, said latter plate being of one-piece rigid form and corresponding in construction and shape to that of the guard plate and razor blade, said razor blade being removably fitted and clampingly held between said plates.

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