

Jan. 13, 1942.

J. DRAUT

2,269,711

SAFETY RAZOR

Filed Feb. 27, 1940

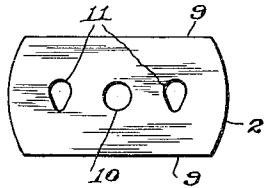


Fig. 2.

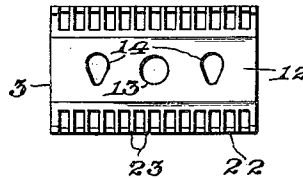


Fig. 5.

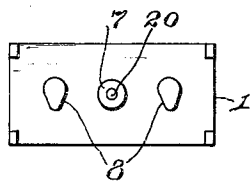


Fig. 3.

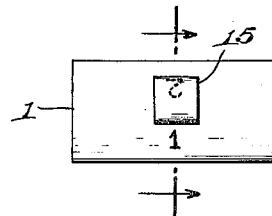


Fig. 4.

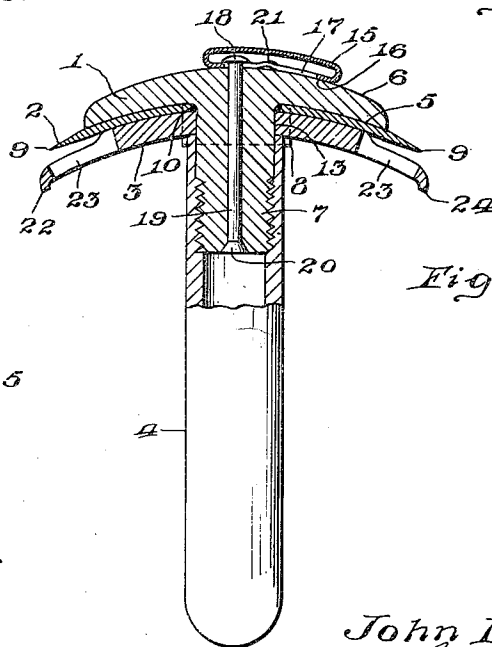


Fig. 1.

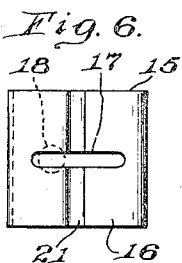


Fig. 6.

INVENTOR
John Draut,
BY
J. Stuart Freeman,
ATTORNEYS

UNITED STATES PATENT OFFICE

2,269,711

SAFETY RAZOR

John Draut, Philadelphia, Pa.

Application February 27, 1940, Serial No. 321,010

10 Claims. (Cl. 30—75)

The object of the invention is to provide improvements in so-called safety razors, and particularly in means for indicating which of the two oppositely directed edges of the usual double blade is in sharpened condition and, therefore, ready for use.

Another object is to provide a reciprocating indicating means carried by the normally outer surface of the head element of the blade holder, and so arranged that it can be shifted from one position to the other with the least possible effort, and merely by using the tip of the pointer finger (or whichever other such digit may be more convenient).

A further object is to provide the combination of a razor holder head having a convex outer surface, in combination with a reciprocating indicating means, the under surface of which is of complementary concave curvature, and is retained in sliding engagement and limited to a given predetermined path of movement by any suitable means, such for instance as a rivet extending longitudinally through the handle or the handle-engagable axial extension of said head element.

Still another object is to provide an indicating means, which comprises a hollow member of relatively thin sheet metal, formed either from an initially cylindrical member properly flattened and curved, or from an initially planular blank folded longitudinally, so as to cover the otherwise exposed head of the rivet or other attaching means.

A still further object is to provide means for yieldingly maintaining the said indicating means in extreme opposite positions selectively, said positioning means comprising some suitable form of resilient device, such for instance as a centrally raised portion of the indicating means, in slidable cooperation with the head of the rivet or other attaching means.

And a still further object is to employ in combination with such position indicating means, position determining means preferably in the form of one or more non-symmetrical lugs or the like, which insure replacement of the double edged blade upon the head element in only one position (or inverted, but not reversed) as for instance after the blade has been removed from the holder for cleaning, and in order that the user will not be forced to remember in some relatively uncertain way, which cutting edge he has previously used, instead of relying solely upon said indicating means for such purpose.

With the objects thus briefly stated, the invention comprises further details of construction and

operation, which are hereinafter fully brought out in the following description, when read in conjunction with the accompanying drawing, in which Fig. 1 is a longitudinal sectional view through a combined double blade and holder comprising one embodiment of the invention, with the handle shown in elevation; Fig. 2 is a plan view of the blade per se; Fig. 3 is a bottom plan view of the head element per se; Fig. 4 is a top plan view of the head element per se; Fig. 5 is bottom plan view of the clamping element per se; and Fig. 6 is a bottom plan view of the indicating member per se.

Referring to the drawing, one embodiment of the invention is shown as comprising a head element or cap 1, a double edged blade 2, a combined guard and clamping element 3, and a handle 4. The said head element is characterized by a transversely extending concavo-convex portion defined by an inwardly directed concavo-cylindrical surface 5 and an outwardly directed convex-cylindrical or cylindrifform surface 6, the underside of the laterally opposite end portions of said head element being provided with a centrally disposed threaded post 7, to which is normally detachably secured the centrally threaded handle 4, while upon the longitudinally opposite sides of said posts the same under-side of said head element is provided with one or more depending lugs 8, which are of any desired non-symmetrical shape, that is, non-symmetrical with respect to the longitudinally extending axis of said head element.

The blade 2 is characterized by a pair of oppositely directed cutting edges 9, while centrally said blade is provided with an aperture 10 of such shape and size as to conform to the cross section of the post 7, while upon the longitudinally opposite sides of said aperture, said plate is provided with non-symmetrical apertures 11 of the same general shape, size and arrangement as the lugs 8 upon the under surface of the head element 1. On the other hand, instead of two separate apertures 11 in the blade 2, various other arrangements of a single or a plurality of apertures may be provided, so long as it or they receive the lugs 8 only when said blade is in a given predetermined position with respect to said head element, or is inverted with respect thereto (side for side), but not reversed (edge for edge).

The guard 3 comprises a longitudinally extending rigid central portion 12, having a central aperture 13 of suitable size, shape and position to also receive and encircle the post 7, while upon the longitudinally opposite sides of said aperture

said guard-clamp is provided with either a pair of independent non-symmetrical apertures 14, similar in shape and arrangement and adapted to receive the lugs 8 of said head element, or instead, may be provided with any other suitable arrangement of one or more apertures which, as in the case of the blade 2, will receive the head lugs 8 in a predetermined relationship. However, it is not so essential that said guard shall always assume a given position with respect to said head element, as it is essential that the said blade shall be so related thereto, for the invention relates primarily to identifying the respective cutting edges of the blade, rather than to any particular edge or other portion of said guard.

Upon the outer convex surface 6 of the head element 1 is slidably positioned for reciprocation in a transverse path an indicating member 15, which is preferably formed of a hollow sheet metal member, such as that suggested by the cross sectional representation in Fig. 1. This indicating member may initially comprise either a hollow cylindrical member which is subsequently flattened, or may instead initially comprise an extended planular sheet metal blank, one half of which is folded over upon the other half, and the initial free edge portions of said blank being brought together and secured in such suitable manner, as to provide a flattened hollow member substantially the same as that shown in Figs. 1 and 4. In either case, it will be noted that the under surface 16 of this member is concave-cylindrical, and of the same cylindrical curvature as that of the convex outer surface 6 of the head element 1, while this under portion is also provided with an elongated slot 17, through which projects the outer flattened head 18 of a rivet or the like 19, which may extend axially through the post 7 and may be secured in fixed position by means of a second flattened head 20, preferably countersunk within the under end surface of said post, somewhat as shown in Fig. 1.

The under portion of said indicating member is preferably also provided with a transversely arranged, normally inwardly raised shoulder 21, or the like. As the thickness of the metal of which said indicator is formed is relatively thin and resiliently yielding, this transversely extending shoulder will tend to flatten as it passes beneath the rivet head 18, during the movement of said indicating member from one extreme position to another, and after passing beneath said rivet head, returning to its inward position, in order to thereby yieldingly resist the subsequent accidental movement of said member from the particular extreme position, into which it has been manually shifted, in order to expose one or the other of the numerals "1" and "2" or other suitable form of indicating indicia. It will, of course, be understood that the height and curvature of the shoulder or ridge 21 is exaggerated in the drawing, in order to clearly illustrate the function of the same, for, as a matter of fact, in actual practice this shoulder would probably rise and fall a maximum of only a few thousandths of an inch in order to efficiently function.

In addition to the foregoing, it is to be understood that additional details and changes in the details herein illustrated may be made for enhancing either or both the appearance and efficiency of the device as a whole, as for instance, the provision of a longitudinally extending rod 22 or its equivalent, connecting the guard teeth 23 upon each of the opposite sides of the

clamping element 3, in order to flatten and "roll" the skin of the user while shaving, rather than permitting the several teeth 23 to produce individual depressions or grooves in the skin, as the adjacent cutting surface of the blade passes over the skin while shaving. Also, it will be understood that numerous variations are possible in the actual shape and construction of the indicating member 15, while other means than that shown may be employed to prevent said indicating means from actually rotating about said rivet; and similar variations in the means for yieldingly maintaining said indicating means in either extreme operative position.

Said indicating member may, for example, comprise a sheet metal base in sliding engagement with the rivet, or other attaching means, and an initially separate sheet metal cap which is secured by peripheral or equivalent engagement to said base, but the principle of operation being the same as in that of the device illustrated and hereinbefore described.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent of the United States is:

1. A safety razor, comprising a blade having a pair of oppositely directed cutting edges and provided with an aperture which is non-symmetrical as to that one of its axes parallel with its cutting edges, and a holder in turn comprising a cap, said cap having a non-symmetrically shaped lug corresponding sufficiently with the aperture in said blade to insure a predetermined relation between blade and cap, and a reciprocable indicator member carried by said cap and in spaced positions being operative to alternately expose and cover blade edge-designating indicia also carried by said cap.

2. A safety razor, comprising a blade having a pair of oppositely directed cutting edges and provided with an aperture which is non-symmetrical as to that one of its axes parallel with its cutting edges, and a holder in turn comprising a cap, said cap having a non-symmetrically shaped lug corresponding sufficiently with the aperture in said blade to insure a predetermined relation between blade and cap, a reciprocable indicator member carried by said cap and in spaced positions being operative to alternately expose and cover blade edge-designating indicia also carried by said cap, and resilient means to yieldingly maintain said member in either designating position.

3. A safety razor, comprising an oblong blade having a pair of oppositely directed cutting edges and provided with a pair of apertures non-symmetrical with respect to the longitudinal axis of said blade, and a holder in turn comprising a cap, said cap having a pair of non-symmetrically shaped lugs corresponding with the apertures in said blade, to insure a predetermined relation between blade and cap, said cap being provided with blade edge-designating indicia, and a reciprocable indicator carried by said cap and operative to alternately expose and cover said indicia selectively.

4. A safety razor, comprising an oblong blade having a pair of oppositely directed cutting edges and provided with a pair of non-symmetrical apertures with respect to the longitudinal axis of said blade, and a holder in turn comprising a cap, said cap having a pair of non-symmetrically shaped lugs corresponding with the apertures in said blade, to insure a predetermined relation between blade and cap, said cap being pro-

vided with blade edge-designating indicia, a reciprocatable indicia carried by said cap and operative to alternately expose and cover said indicia selectively, and resilient means to yieldingly maintain said indicator in either designating position.

5. A safety razor, comprising a blade and a holder in turn comprising a cap and a guard clamp operative to secure said blade to said cap, said blade having a pair of oppositely directed cutting edges, said blade and said cap being provided with cooperating means, which are non-symmetrical with respect to that one of their axes parallel with said edges, and which operate to insure a predetermined relation between them, said cap being provided with edge-designating indicia, and a reciprocatory indicator member carried by said cap and operative to alternately expose and cover said indicia selectively.

6. A safety razor, comprising a blade and a holder in turn comprising a cap and a guard clamp operative to secure said blade to said cap, said blade having a pair of oppositely directed cutting edges, said blade and said cap being provided with cooperating means, which are non-symmetrical with respect to that one of their axes parallel with said edges, and which operate to insure a predetermined relation between them, said cap being provided with edge-designating indicia, a reciprocatory indicator member carried by said cap and operative to alternately expose and cover said indicia selectively, and resilient means to yieldingly maintain said member in either indicating position.

7. A safety razor, comprising a double edged blade and a holder comprising a cap provided with edge-designating indicia, a lug-and-aperture position-fixing structure carried by and unsymmetrical with respect to the longitudinal axes of said blade and cap, an indicator member reciprocatably mounted upon said cap, and resilient means to yieldingly maintain said member in either indicating position.

8. A safety razor, comprising a double edged blade and a cap provided with edge-designating indicia, and having a cylindriform surface, a hol-

low, thin-walled, readily shiftable indicator member reciprocatably mounted upon said cap and having a cylindriform surface complementary to that of said cap, movement of said member in opposite directions exposing said indicating means alternately, said member comprising an outer manually engageable wall and an inner wall slidably contacting the outer surface of said cap, said last-mentioned wall being provided with an elongated aperture, and an attaching member carried by said holder and extending slidably through said aperture.

9. A safety razor, comprising a double edged blade and a cap provided with edge-designating indicia, and having a cylindriform surface, a hollow, thin-walled, readily shiftable indicator member reciprocatably mounted upon said cap and having a cylindriform surface complementary to that of said cap, movement of said member in opposite directions exposing said indicating means alternately, said member comprising an outer manually engageable wall and an inner wall slidably contacting the outer surface of said cap, said last-mentioned wall being provided with an elongated aperture, an attaching member carried by said cap and extending slidably through said aperture, and resilient means to yieldingly maintain said hollow member in either indicating position.

10. A safety razor, comprising a double edged blade and a cap having a convex-cylindrical outer surface provided with edge-designating indicia, a flattened thin-walled, hollow indicating member, having a concaved cylindrical inner wall corresponding with and in slidable engagement with the outer surface of said cap, and a manually engageable outer wall, said inner wall being provided with a centrally positioned raised portion traversed by an elongated aperture, and an attaching member carried by said cap, extending through said aperture and provided with a head which cooperates with said raised portion, to yieldingly maintain said indicating member in either indicating position.

JOHN DRAUT.