July 18, 1967 J. S. GOUDIE 3,331,129

CURVED EDGE SAFETY RAZOR HAVING NOTCHES TO SEAT THE ENDS OF THE BLADE

Filed Oct. 23, 1965

FIG. 2

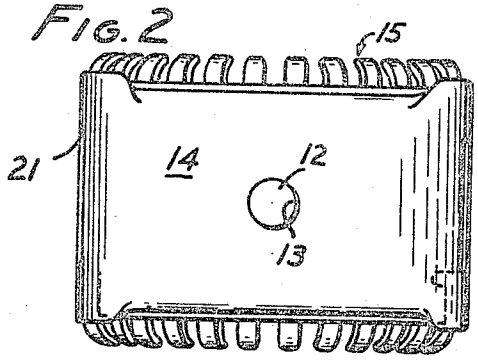


FIG. 3

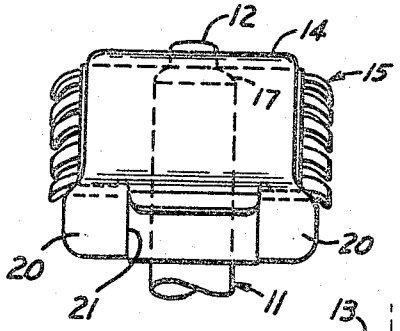


FIG. 1

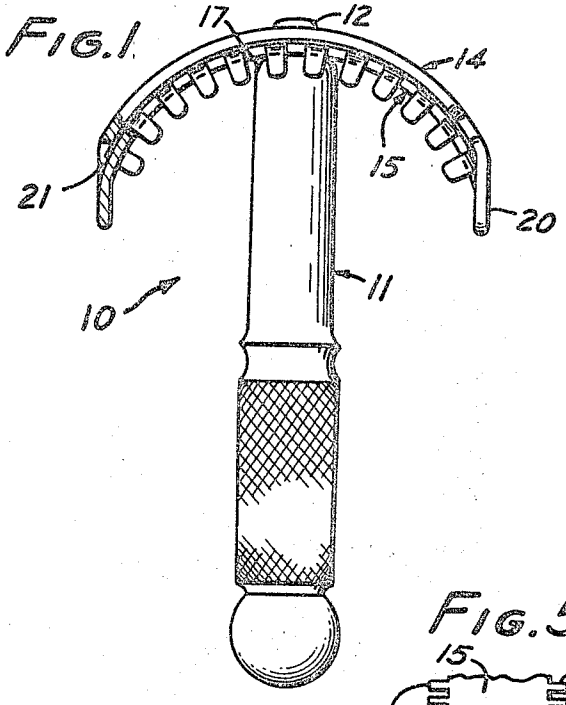


FIG. 4

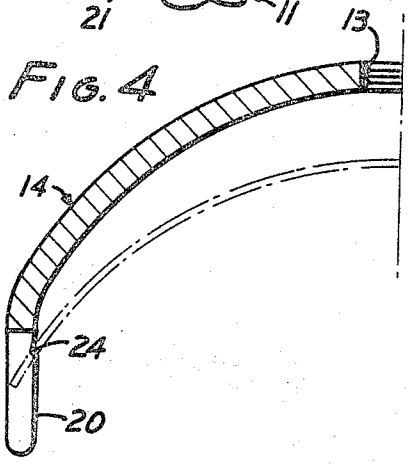


FIG. 5

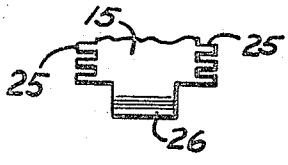


FIG. 6

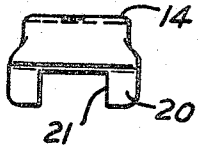


FIG. 8

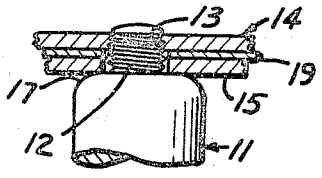
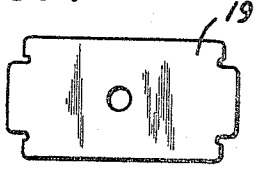


FIG. 7



INVENTOR.
JOHN S. GOUDIE

BY

ATTORNEY.

United States Patent Office

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CURVED EDGE SAFETY RAZOR HAVING NOTCHES TO SEAT THE ENDS OF THE BLADE

John S. Goudie, 3024 Alabama St.,
La Crescenta, Calif. 91014

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1 Claim. (Cl. 30—49)

This invention relates to razors and more particularly to an improved safety razor designed for use in shaving concavely-contoured areas, such as the armpits and the like.

Shaving the armpits and other parts of the body having concavely-contoured areas presents problems and is not conveniently accomplished by the conventional type of safety razor since the cutting head is not appropriately contoured.

Previous razor designs intended to avoid the shortcomings of straight-type safety razors, though proposing a curved head, are subject to shortcomings and disadvantages sought to be avoided by the present invention. Desirably the head should be so designed as not to present a hazard to the user when assembling and disassembling the head. Owing to the resiliency of the blade and the energy stored therein in the assembled position of the parts, it will be apparent that upon disassembly this stored energy is released suddenly and unexpectedly and presents a hazard to the user. Additionally prior curved razor heads make inadequate provision for protecting the user against injury while using the razor.

In view of the foregoing shortcomings of safety razors with contoured heads, it is a primary object of the present invention to provide a new and improved armpit safety razor avoiding these shortcomings and presenting a construction which is simple, inexpensive and foolproof in use. The parts can be easily assembled and disassembled without risk of injury to the person or his clothing and more particularly include safety abutment means for holding the blade arched lengthwise thereof and captive in the main frame of the razor between the abutments until deliberately removed from the abutments by the user in a mode dictated by the main frame construction and so arranged as to avoid the possibility of injury to the user.

Another feature of importance is the fact that the abutment means are so disposed relative to the corners of the sharp edges of the blade that the back member of the blade overlies and safeguards these corners from contact with a surface undergoing shaving.

It is therefore a primary object of the present invention to provide a new and improved safety razor having a curved main head exhibiting unique safety and functional features.

Another object of the invention is the provision of a simple safety razor having a curved head featuring means for holding the blade arched lengthwise thereof and firmly seated in a desired assembled position until the user applies pressure to its opposite ends through notches in the main body provided for this purpose.

Another object of the invention is the provision of an armpit safety razor having a specially constructed main frame and a cooperating comb plate having interfitting parts at their ends mutually cooperating to hold the parts properly assembled and the end corners of the cutting edges of the blade concealed and covered by protective guards.

These and other more specific objects will appear upon reading the following specification and claim and upon considering in connection therewith the attached drawing to which they relate.

Referring now to the drawing in which a preferred embodiment of the invention is illustrated.

FIGURE 1 is a side elevational view of a preferred embodiment of the invention razor with a portion of one end corner broken away;

FIGURE 2 is a top view of FIGURE 1;

FIGURE 3 is an end view from the right-hand side of FIGURE 2;

FIGURE 4 is a fragmentary longitudinal sectional view on an enlarged scale taken through one end of the main body member;

FIGURES 5 and 6 are fragmentary end views of the comb and guard member and of the main body member respectively;

FIGURE 7 is a view of a typical razor blade suitable for use with the razor; and

FIGURE 8 is a fragmentary detail view of the junction between the handle and the razor head.

Referring initially more particularly to FIGURES 1 to 3 there is shown a preferred embodiment of the invention razor designated generally **10** and having a handle **11** formed with a threaded stud **12** at one end mating with the threaded opening **13** centrally of the longitudinally-arched main frame member **14**. An arched comb member **15** and a conventional double-edged flexible razor blade **19** are firmly clamped between a shoulder **17** at the base of the handle.

Main body member **14** has downturned tabs **20, 20** at each corner thereof lying generally parallel to one another and to the axis of handle **11**. The material between these tabs is cut away to provide a wide notch **21** at the opposite ends of the main body sufficiently wide to accommodate the thumb and index finger for a purpose to be explained presently. Tabs **20** are provided crosswise of their inner ends with a shallow shoulder **24** best shown in FIGURE 4 and disposed to engage and seat the end corners of blade **19**.

The combined comb and guard member **15** is of conventional design and is provided along either lateral edge with curved guard fingers **25**. The opposite ends of the comb include tang **26** projecting therefrom and sized to fit snugly within notches **21** of the main frame member. Tangs **26** are bent to lie in the same general plane as main body tabs **20, 20** as is made clear by FIGURE 1. It will be evident from the foregoing that the described interlocking arrangement between the opposite ends of main body **14** and comb **15** assure the accurate positioning of these two members in the assembled position of the razor.

The assembly of the razor will be quite apparent from the foregoing description of the parts and their operative and structural relationship one to the other. Blade **19** is preferably assembled against the inner surface of the arcuate main body while the opposite ends of the blade are held arched upwardly between the tips of the thumb and index finger, the requisite pressure being applied to the ends to arch the blade as it is pressed into the concavity on the inner side of the main body. When fully nested therein, the short transversely extending end corners of the blade fit snugly against shoulders **24, 24**, FIG. 4. The resiliency of the blade and the snug fit of the corners against these shoulders causes the blade to remain immovably and securely in this assembled position. Thereafter the threaded end of the handle is inserted through the center opening in comb **15** and these members are then assembled against the back of the main body member as the handle is rotated to thread shank **12** into opening **13**.

When fully and properly assembled it will be observed from FIGURE 2 that the portions of the main body overlying each end corner of the cutting edge of the blade overlie and conceal these corners and cooperate with guard fingers **25, 25** in preventing the blade edge coming in direct contact with the skin except and unless the razor is pressed into the skin at a proper angle during a normal shaving operation.

When disassembling the parts for cleaning, inspection and replacement of the blade, the operator loosens handle **11** while grasping the handle in one hand and holding the head in the other. As the handle is separated from the main body the comb falls away through the open ends of notches **21** but the flexed blade remains firmly seated on shoulders **24**. Removal of the blade is then accomplished in a safe manner by inserting the thumb and index finger tips in the respective ones of notches **21** and pressing the razor blade ends toward one another while displacing one end from shoulders **24**. While so held, the blade may be withdrawn safely from the head member and allowed to straighten out gradually and harmlessly under controlled restraint between the tips of the thumb and index finger.

While the particular safety razor herein shown and disclosed in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, it is to be understood that it is merely illustrative of the presently preferred embodiment of the invention and that no limitations are intended to the details of construction or design herein shown other than as defined in the appended claim.

I claim:

A safety razor for use in shaving the armpit and the like concavities comprising, an elongated main body arched lengthwise thereof and formed transversely and inwardly of its opposite interior ends with shallow shoulder means, a flexible double-edged safety razor blade having corners adapted to seat against said shoulders when the blade is arched lengthwise thereof similarly to the arch of said main body, said shoulders being effective to hold the blade captive thereon and arched similarly to said arched main body while a guard member is being assembled and disassembled relative to said main body, the mid-

portions of the opposite ends of said main body member being notched toward one another past said transverse blade-seating shoulders and accommodating the tip of the user's thumb and index finger while installing and removing a blade relative to said seating shoulders, a guard member complemental in shape to and nestable within said main body member, said guard member having projections at its opposite ends shaped and sized to have a close fit between the edges of said notches at the ends of said main body member and cooperating therewith to hold said guard and main body member accurately aligned lengthwise of one another in the assembled operative position of the parts of said razor, and a handle having threads at one end thereof insertable through the mid-portion of said guard member and matable with threads in said main body member to hold said members tightly assembled against the opposite faces of said blade.

References Cited

UNITED STATES PATENTS

977,919	12/1910	Yeaton	30—74.1
1,065,109	6/1913	Bunnell	30—51
1,485,093	2/1924	Speirs	30—49
1,642,338	9/1927	Holtzman	30—49
1,821,825	9/1931	Zumwalt	30—49
1,981,958	11/1934	Koree	30—49
2,069,465	2/1937	Wallenbeck	30—49
2,421,205	5/1947	Kingsley	30—49
3,066,413	12/1962	Saavedra et al.	30—32 X

WILLIAM FELDMAN, *Primary Examiner.*

MYRON C. KRUSE, *Examiner.*