Feb. 9, 1937. S. SAMUEL 2,070,028

SAFETY RAZOR

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Fig. 1.

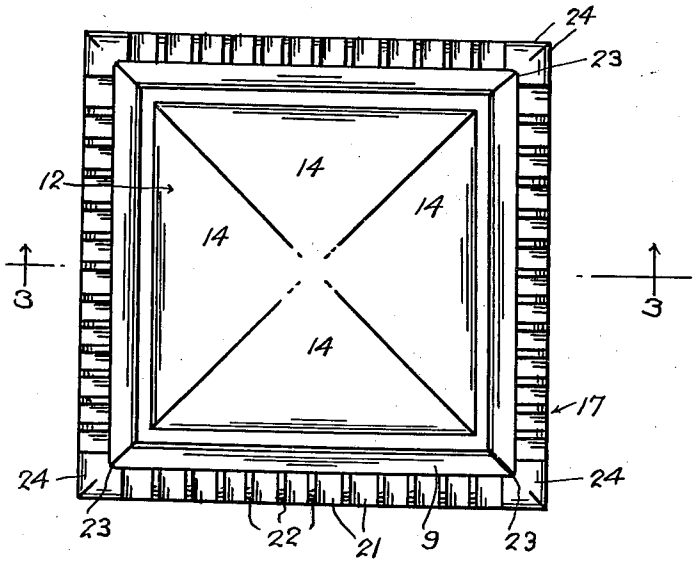
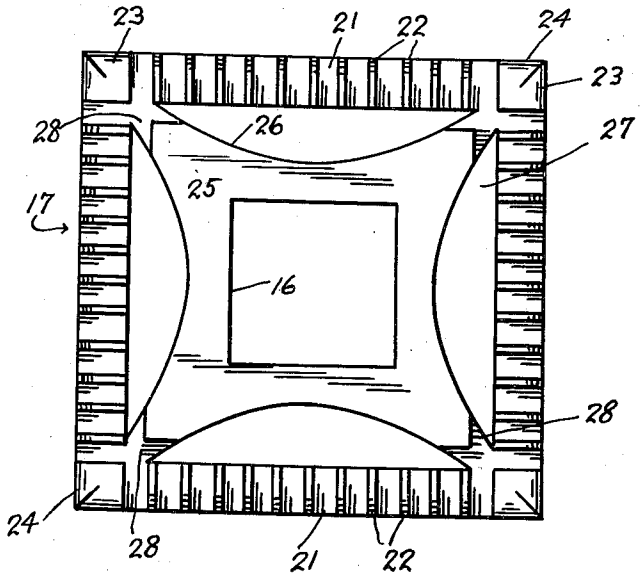


Fig. 2.



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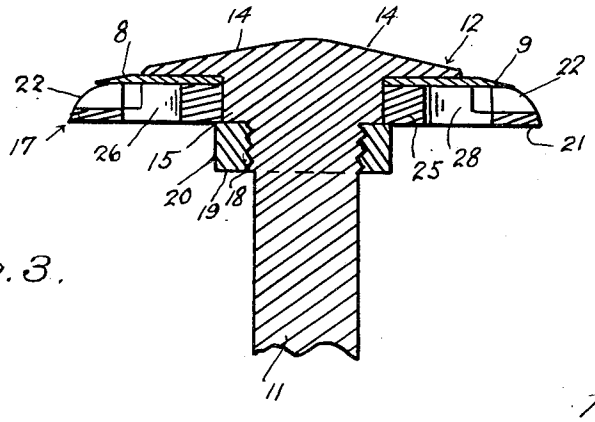
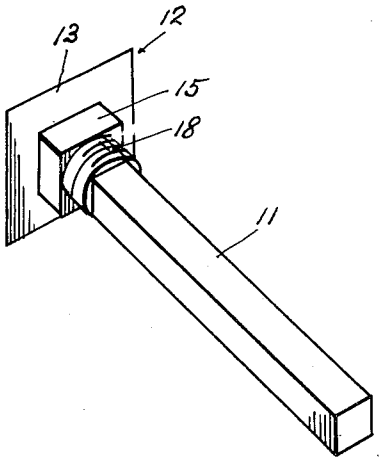


Fig. 3.

Fig. 5.

Fig. 4.



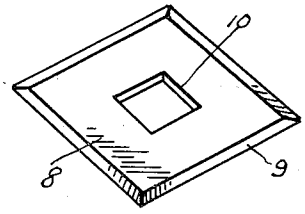
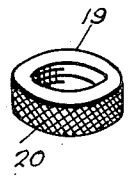


Fig. 7.



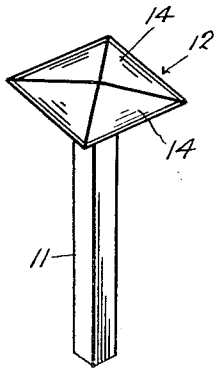


Fig. 6.

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UNITED STATES PATENT OFFICE

2,070,028

SAFETY RAZOR

Samuel Samuel, Worcester, Mass.

Application February 18, 1936, Serial No. 64,547

2 Claims. (Cl. 30—70)

This invention relates to an improved safety razor structurally typical of the type belonging to that category generally referred to as the selectively usable four-edged style.

Admittedly, and as implied by the preceding statement, I am aware that the principle of using four individually distinguished cutting edges in a blade and holder assembly is not new. It follows, therefore, that the structural novelty hereinafter explicitly described and particularly claimed is devoted to certain comparatively distinct refinements and improvements which, it is believed, may be justly endorsed as appreciable contributions to the trade and art.

The unique and improved assembly, being essentially made up of three companion units relies for distinctiveness on the specific holder in conjunction with the four-edged flexible blade.

One feature of construction is devoted to the adoption and construction of a unique rectangular guard noticeably different in that it embodies a marginal frame and an assembling and retaining web or spider carefully designed and including special accessories rendering it aptly fitted for the purposes herein intended.

An equally important feature believed to possess structural newness is that part of the holder comprising the handle and an especially designed head with which the blade and guard cooperate, wherein the head is joined to the handle or stem through the medium of carefully formed and properly allocated detail to accurately accommodate the guard and the clamping nut and to combine with the blade to provide or regulate the angularity of the head to the face and the pitch of the blade for expeditious cutting.

Other features and advantages will become more readily apparent from the following description and drawings:—

In the drawings wherein like numerals are employed to designate like parts throughout the same:—

Figure 1 is a top plan view of the complete assembled safety razor constructed in accordance with the principles of the present invention.

Figure 2 is a top plan view of the frame-like four-sided guard.

Figure 3 is a section taken approximately on the plane of the line 3—3 of Figure 1.

Figures 4, 5, 6, and 7 are detail perspective views of the complemental parts.

As will be hereinafter discerned the safety razor blade, indicated by the numeral 8 in Figure 5 is preferably a flexible cheap steel product and is substantially square or rectangular including selectively usable individual bevelled cutting edges 9. At its center it is formed with a square opening permitting it to be held non-rotatably and effectively as clamped in place.

The handle part or section of the holder comprises a stem 11 of appropriate length which functions as a handle, this being polygonal in cross-sectional form. At one end is an appropriately proportioned integral head 11 which may be said to be in the form of a square plate, this having a flat underside 13 which functions as a backing element. The top, as shown for example in Figures 1 and 6 is approximately pyramidal in configuration, being thus divided into four distinguishable uniform triangular face contacting segments or sectors 14. These sectors when held properly against the face virtually regulate the pitch or angle of the cutting edges of the blade, that is, in conjunction with the complemental features of the guard. At the juncture of the handle and underside of the plate is an integral square keeper block 15 proportioned to accommodate the square opening 10 in the blade. This also serves as a retention element to accommodate the correspondingly shaped opening 16 at the center of the guard unit 17. The numeral 18 designates a screw-threaded cylindrical jointing and assembling neck to accommodate the clamping nut 19. The nut is preferably circular and externally knurled as indicated at 20 to facilitate application and removal.

Referring now to Figure 2 and in particular to the guard 17, this comprises a single casting of appropriate dimensions and material. It includes a rectangular marginal frame, the portions or bars which may be differentiated by the numerals 21. These bars are provided with longitudinally spaced transverse guard teeth 22 which function for clearance purposes and perform as ordinary guard teeth do in the conventional holders. At the four corners are upstanding risers which may be conveniently differentiated as stabilizing posts 23 for the somewhat rounded corner portions of the blade. The surfaces 24 are chamfered or rounded off for design and appearance as well as to facilitate a gliding contact with the face. The spider or web is denoted by the numeral 25 and has its marginal end portions 26 cut away to define segmental passages or openings as indicated at 27. The corner portions of the web, which merge into the corner portions of the frame, are provided with thickened lugs or rests 28 of a height commensurate to the posts and these serve to support the corner portions of the blade.

In assembling the razor for use, the blade which is of an area greater than the plate-like head 13 is placed against the backing surface 13 of said head as shown in the assembly view in Figure 3. Then the guard is slipped up in place so that the opening 16 firmly surrounds the keeper block 15 in a non-rotatable manner. The guard as is obvious is of an area to permit the cutting edges 9 to rest partially on the guard teeth 22, with the corner portions simultaneously bearing on the posts 23 and the diagonally inward abutments or rests 28. The parts are maintained in this assembled relationship through the instrumentality of the nut 20 which is threaded on to the neck 18.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size and rearrangement of details coming within the field of invention claimed may be resorted to in actual practice, if desired.

I claim:—

1. As a component part of a holder assembly of the class described, a guard including an outer rectangular frame, the bars of said frame being provided with transverse longitudinally spaced ribs constituting guard teeth, having corner posts and an inner central attaching web, extending inwardly from each corner of the frame and abutments on said web for supporting a blade, said abutments being located inwardly of the bars of the guard.

2. As a component part of a holder assembly of the class described, a guard including a rectangular frame said frame comprising four bars, the bars of said frame being provided with transverse longitudinally spaced ribs constituting guard teeth, having corner posts, a central attaching web, said web being formed with a central square retention aperture having its marginal edges of longitudinally curved form and spaced from the bar members of the frame and having its corner portion joined to the corner portions of the frame and provided with upstanding blade supporting abutments diagonally inward of the respective corner posts.

SAMUEL SAMUEL.