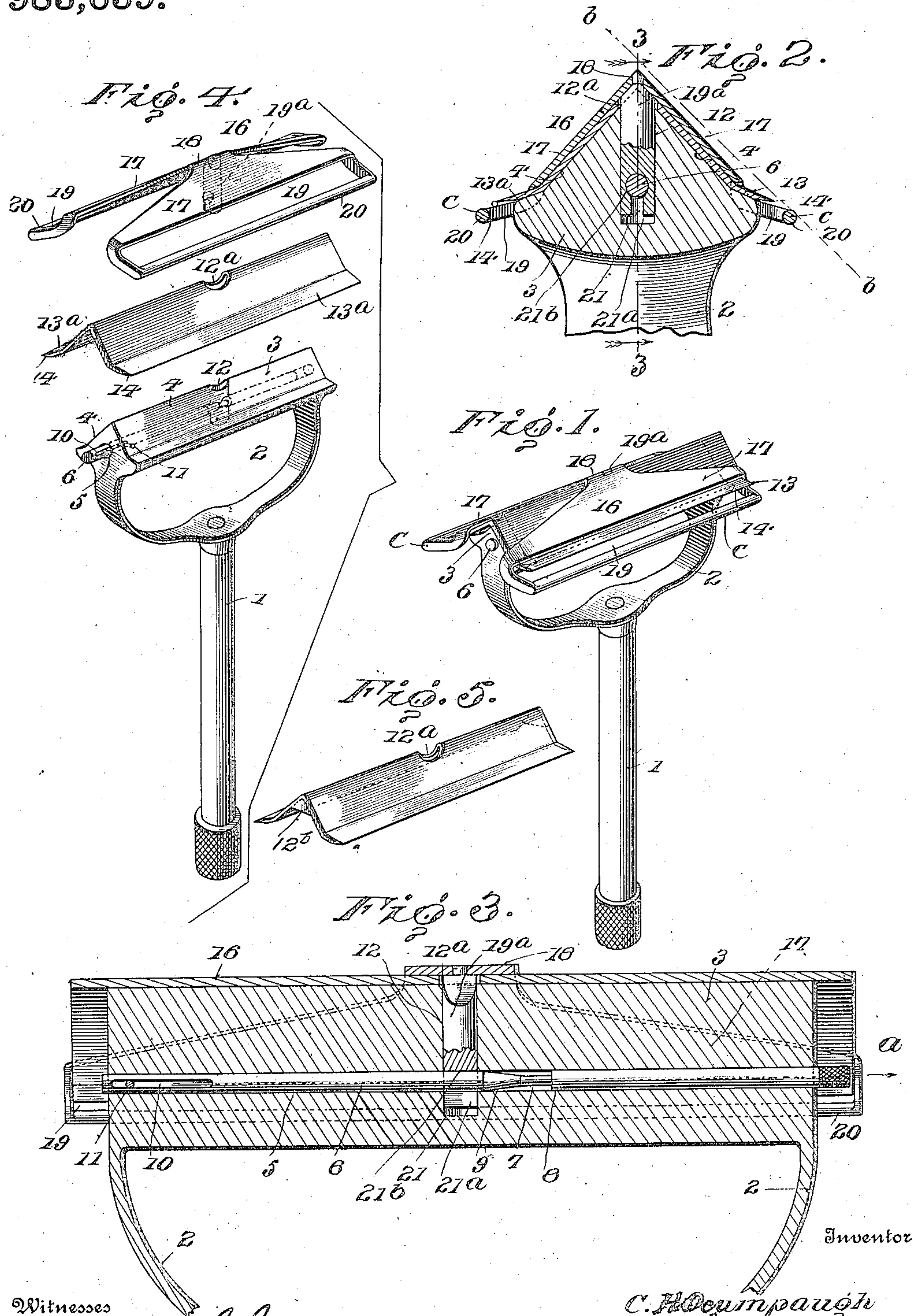


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 RAZOR.
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RAZOR.

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To all whom it may concern:

Be it known that I, CHARLES H. OCUMPAUGH, a citizen of the United States, residing at Rochester, in the State of New York, have invented certain new and useful Improvements in Razors, of which the following is a specification.

This invention relates to improvements in safety razors.

10 A main feature of the invention is to provide a new and novel guard, in which the guard is used as a clamp for fastening the blade to a handle, (in this case the guard being located on the side of the blade opposite the handle,) and a means for effectually clamping the guard in position to insure against displacement of the blade when using the razor.

20 My invention also as shown comprehends a straight bar guard which does away with the unsanitary teeth in the old style guard and also as shown entirely surrounds the plane of the blade.

25 Another main object of the invention is to provide a rigid sheet steel blade, having two diverging faces, and so proportioned that it is rigid, in combination with the means employed for holding the blade in position for use.

30 My invention also comprehends improvements in the specific form of locking means by the guard and handle, by which a less number of parts are used than heretofore, where a detachable guard has been employed.

35 This invention also relates to improvements in specific details of construction and arrangement of parts etc.

40 Other objects of the invention will hereinafter appear, as will be shown in the specification and claims.

45 In the drawings: Figure 1 is a perspective view of my improved razor. Fig. 2 is a transverse section of the same, on an enlarged scale. Fig. 3 is a longitudinal section, on an enlarged scale. Fig. 4 is a perspective view, parts being separated. Fig. 5 is a perspective view of a modification of the blade showing the blade made with partially closed ends to stiffen it.

50 1, indicates a handle, provided on its upper end with a U-frame 2, including a cross bar 3, having two angularly disposed surfaces 4—4 the apex of said surfaces forming a projection to fit in a recess in the blade to be referred to hereafter. The bar 3, is formed with a longitudinal opening 5, in

which a locking rod 6, operates. The rod 6, is reduced as at 7, to form a shoulder 8, at one point, and from the opposite end of the reduced portion the rod is beveled, as at 9, for a purpose to be described. The movement of the rod is limited in the opening 5, and is provided with a groove or slot 10, in which fits a pin 11, extending from the bar 3. Intersecting the opening 5, is a vertically disposed opening 12, in bar 3, to receive a projection or post to cooperate with the rod to effect the locking of the parts.

70 A blade of substantially V-shape cross section, of uniform thickness having two extensions 13^a and cutting edges 14—14, is supported on the angularly disposed faces of the bar 3, and extends slightly beyond the ends of the same, as shown in Fig. 3. The blade will be of sufficient thickness to form a rigid structure to insure of a substantial structure when the parts are assembled and the underside, at the apex forms a recess to receive the projection formed at the apex of the holder. The sides of this blade are arranged at an angle to each other with the terminal edges of said sides projected at an angle to said sides, as seen clearly in Figs. 2 and 4. In the apex of the blade is an opening 12^a which registers with the opening 12, in the bar 3. Fitting over the blade is a cap member 16, comprising two angularly disposed sections 17—17, corresponding to the angle of the outer surface of the knife, and connected by a web 18, fitting over the apex of the blade at a point about the center thereof. The lower ends of the cap are dropped below the normal angle of the two members and are formed with longitudinal slots 19, through which the edges of the blade pass. By reason of the slots, two connecting rods or guards 20, are provided at the lower ends of the guard, which are normally below the lower edges of the blade, and the distance between the inside of said rods about equals the distance between the two edges of the blade. Depending from the web 18, is a post 19^a, formed with a slot 21, at its lower end. The width of the lower end of the slot equals the diameter of the reduced portion 7, of the bar 6, while the upper portion of said slot is enlarged, and about equals the normal diameter of the rod.

110 To assemble the parts, the blade is fitted on the bar 3 of the frame 2, then, by reason of the width between the guards 20—20, of the cap 16, the latter can be dropped down

over the blade 13, the post passing into the openings to hold the blade in position on the frame. After the cap has been positioned, the narrow portion 21^a of the slot 21, straddles the reduced portion 7, of the rod 6, whereupon the latter is forced longitudinally in direction of the arrow *a* the beveled portion passing through the enlarged portion 21^b, of the opening until the normal diameter of the rod reaches the enlarged portion, which effectually locks the post, hence, the guard and blade to the handle frame. The fit of the rod 6, in the enlarged portion of the slot is such as to form a frictional contact. To release the connection, the movement of the rod is reversed, by endwise pressure thereon in an obvious direction to bring the reduced portion in alinement with the lower end of the post.

The relationship of the guard with reference to the blade, is such that when one is shaving there can be no liability of presenting the wrong angle to the face which is so prevalent with the safety razors.

The angular disposition of the blades with relation to the guards 20—20, makes it possible to shave with the razor held in the hand in the most natural position without liability of cutting. When the razor is drawn over the face on the line *b—b*, obviously the edges *c—c*, of the guard will serve as a means for preventing the edge of the blade cutting into the flesh of the person using the razor.

By making the blade of V-shape cross section and a proper width blade, I am enabled to produce a rigid sheet steel blade, thus overcoming all the objections to the old type flexible sheet steel blade. I do not wish this to be confused with any V-shaped sheet steel blade, whose two diverging faces are of such width that the blade is flexible.

The razor can be adjusted to suit a coarse or a fine beard by varying the angle of the cutting edge of the blade in relation to the face. This is accomplished by holding the handle at an angle to bring the blade to suit any beard.

The invention is extremely simple, and effective and by means of the relationship and shape of the parts the blade may be made stronger than the blades of this type now in use.

By making the opening 12^a in the blade elongated it facilitates the placing and removal of the blade from the guard, 19^a. This however is not obligatory as a perfectly round opening can be used if desired.

The blade may be formed as shown in Fig. 5 if desired thus giving it an extra stiffening. In this form the end edges of the sides of the blades, adjacent the apex of said sides, are connected by bridging strips "12^b", which effectively stiffens the blade as an entirety.

What I claim is:

1. In a razor, the combination with a perforated blade of substantially V shaped cross section and having a longitudinal cutting edge, of a handle embodying a holder, a perforation in the holder to cooperate with the perforation in the blade and a cap having a lug adapted to cooperate with both perforations and a cooperating member to detachably secure the blade to the holder.

2. In a razor, a handle comprising a transversely extended holder of substantially V-shaped cross section with rigid end portions, and a clamping or locking device one member of which extends longitudinally under the apex of the holder and parallel thereto, said locking device comprising a wedge and a cooperating part both extended through the holder.

3. In a razor a handle comprising a longitudinally extended holder and a clamping or locking device extending longitudinally of the holder but parallel thereto a perforated blade having two cutting edges extending through openings in the holder, and a cap having a part extending through the blade and into the holder and cooperating with the said locking device.

4. In a razor the combination of a blade, a handle comprising a holder V shaped, in cross section, a locking device mounted to slide longitudinally in the holder, said locking device having a slot, a pin in the holder and passing through the slot in the locking device to provide means for holding the locking device to the holder, a cooperating blade locking part extending into an opening in the holder and through which said locking device passes, the movement of the locking device in one direction locking the cooperating part and thus the blade, while the movement of said locking device in the opposite direction unlocks the blade.

5. A razor including a holder, a blade overlying and engaging the holder, said blade and holder being provided, one with a recess and the other with a projection, a clamp member which fits over the blade, said holder and clamp member being provided, one with an opening the other with a projection, the projection fitting in the opening, and a sliding locking device which engages the projection to lock the clamp and blade to the holder, there being a slot in the sliding locking device and a pin in the holder, the pin engaging the slot to secure said sliding locking device in said holder.

6. A razor including a holder, a blade overlying and engaging the holder, a clamping member overlying and engaging the blade in opposition to the holder, said clamping member having extensions at the ends, the lower ends of the extensions being below the plane of the upper surface of the clamping member and connected by a trans-

verse bar, the upper surface of the said bar being below the upper surface of the blade and underlies the latter, and means extending from the clamping member into the holder to lock the blade in position.

7. A razor including a holder, a two edged razor blade of arched formation overlying and engaging the holder, and an arched shaped member corresponding to the shape of the arched blade and overlying and engaging said blade, said members having depressed slotted extensions, the edges of the blade extending through the slots and over the ends of the extensions, the underlying extensions forming guard for the edges of the blade.

8. A razor including a holder, a blade overlying and engaging the holder, a member overlying and engaging the blade and through which the blade edge projects, a part projecting from said member and extending through the blade and into the holder, and locking means operative within the holder for engaging said part.

9. A razor including a V shaped blade, V-shaped members engaging said blade on opposite sides thereof and through one of which the blade edges project, and cooperative means carried by the respective members adjacent the apex thereof for securing said members and blade together.

10. A razor including a holder, a locking means operative therein, a blade overlying and engaging the holder, a member overlying and engaging said blade and through which the edge of the blade projects, and a pin projecting from said member and adapted to pass through an opening formed in the blade and into an opening formed in the holder, said pin being engaged by the locking means.

11. A razor blade having its sides arranged at an angle to each other, the terminal edges of said sides being projected at an angle to said sides to form cutting edges.

12. A cap for securing a razor blade in position and adapted to overlie and engage said blade, said cap having a part with a longitudinal opening for the passage of the edge of the blade and a portion arranged to underlie and guard the cutting edge of the blade, the underlying portion extending laterally beyond the edge of the blade.

13. A razor including a holder, a blade, and a cap member, all of said parts being of substantially the same sectional contour and the cap member formed to in part underlie said blade and said member having openings through which the blade edges extend.

14. A razor including a holder, a blade, and a cap member, all of said parts being of substantially V-shape in cross section, said member having longitudinal slots through which the blade edges extend, with a part underlying each edge of the blade.

15. A razor including a holder, a blade, and a cap member, all of said parts being of substantially V-shaped in cross section and said member having openings through which the blade edges extend, said cap member being formed to in part overlie and in part underlie said blade.

16. In a razor, a holder, a blade and a cap member, each being of substantially V shape in cross section, the cap member having an opening for the passage therethrough of the edges of the blade, and the cap and holder provided with interengaging locking means.

17. In a razor, a holder, a blade and a cap member, each being of substantially V shape in cross section, the cap member having an opening for the passage of the edge of the blade therethrough, and the cap and holder provided with interengaging locking means, both members of which extend through the holder.

18. In a razor, a holder, a blade and a cap member, each being of substantially V shape in cross section, the cap member having an opening for the passage therethrough of the edges of the blade, and the cap and holder provided with interengaging locking means, both members of which extend through the holder, and one member supported in the ends of said holder.

19. A razor including a two edged blade, a cap member provided with slots at its extremities through which the edges of the blade extend, the extreme ends of the cap member being below and underlying the edges of the blade to constitute guards, and means for clamping the blade and cap member together.

20. A razor including a two edged arch shaped blade, an arch shaped cap member provided with slots through which the opposite edges of the blade extend, the lower ends of the cap member extending below and beyond the plane of the edges of the blade to form guards, and means for clamping the blade and cap member together.

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

CHARLES H. OCUMPAUGH.

Witnesses:

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IDA ELIZABETH BRINK.