Jan. 5, 1932. J. B. RHODES 1,840,056

SAFETY RAZOR AND BLADE THEREFOR

Filed April 7, 1930

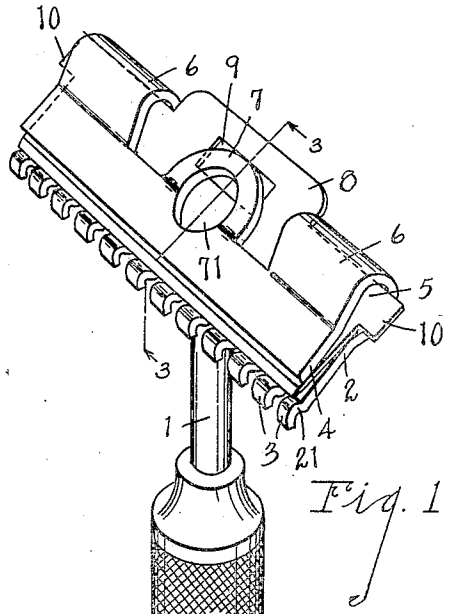


Fig. 1

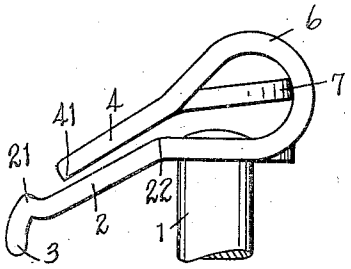


Fig. 2

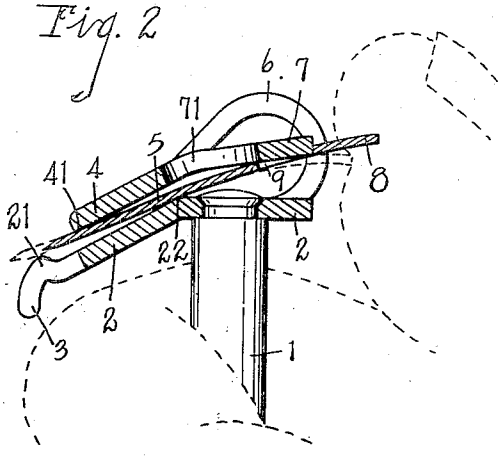


Fig. 3

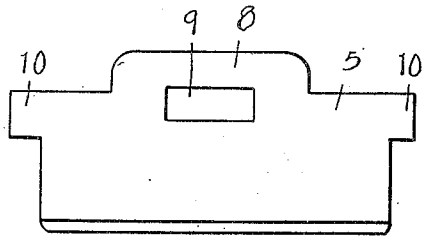


Fig. 4

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UNITED STATES PATENT OFFICE

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SAFETY RAZOR AND BLADE THEREFOR

Application filed April 7, 1930. Serial No. 442,206.

The main objects of this invention are:

First, to provide a safety razor which is very convenient to use and one in which the blade can be quickly inserted and removed and at the same time is very securely retained and held in position for effective use.

Second, to provide a structure of this type in which there are no screws or adjustable parts.

Third, to provide a structure having these advantages which may be very economically produced..

Fourth, to provide an improved safety razor blade which may be quickly inserted or removed from its holder and when inserted is retained in a most effective position for use without adjustment of parts of the holder.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of my improved safety razor with the blade in position therein.

Fig. 2 is a fragmentary side elevation with the blade removed.

Fig. 3 is a fragmentary section on line 3—3 of Fig. 1 illustrating the manner of removing the blade, the blade being shown in partially projected position by dotted lines.

Fig. 4 is a plan view of the blade.

My improved safety razor comprises a handle 1 to which I permanently secure the combined base plate and guard member 2 curved upwardly at 21 and having curved guard teeth 3 at its forward edge.

The blade holder plate 4 is supported in spaced relation to the plate 2 to receive the blade 5 between them.

The holder plate 4 and the base plate or member 2 are connected at their rear edges by the integral spaced outwardly curved loops 6. The finger 7 having a hole 71 therein projects rearwardly from the holder plate between these loops, this finger being directed inwardly as clearly shown in Figs. 2 and 3. The hole 71 permits the riveting of the handle to the base plate after the head portion has been formed.

The blade 5 is provided with a central tongue 8 on its rear edge which projects between the member 6, the rear edge of the blade being in supporting engagement with these members and the tongue 8 projecting between the members, supporting the blade against longitudinal movement within the holder.

The blade is provided with a hole 9 into which the finger 7 projects, the finger engaging the rear edge of the hole, thereby preventing forward movement of the blade.

The finger also applies a bending stress to the blade, as shown in Fig. 3, so that the forward part of the blade is held against the inner side of the holder plate 4 and centrally of the blade against the upper side of the plate at 21, thereby allowing the flexing of the cutting edge which enhances the smooth shaving with the razor.

The blade is also provided with longitudinally projecting finger pieces 10 disposed at its rear end, these finger pieces projecting beyond the base and holder plates so that the blade may be grasped thereby when in the holder.

To insert the blade, it is only necessary to introduce it between the base and holder plates and draw it rearwardly until its rear edge engages the loop-like supports 6 in which position the spring of the blade will engage the rear edge of the opening 9 with the finger 7, the blade then being held under spring tension as described.

To remove the blade, its tongue 8 is pushed downwardly as indicated by dotted lines in Fig. 3 to disengage it from the finger 7 when the blade may be pushed forwardly and grasped by its finger pieces 10 for complete removal.

My improved razor is made up of two pieces of material, the handle constituting one part and the holder parts the other. There are no screws or adjustments required to properly hold the blade.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a safety razor, the combination with

a handle, of a base plate secured to said handle and having curved guard teeth on its forward edge, a blade holder plate spaced from said guard plate to receive a blade between them, said holder plate being connected at its rear edge to the rear edge of said base plate by spaced outwardly curved integral loops constituting blade supports, a rearwardly projecting inwardly directed blade engaging finger disposed between said loops, and a resilient blade having projecting finger pieces on its ends disposed adjacent its rear edge and a central tongue projecting between said loops, said blade also having an opening with which said finger engages, the blade being engaged with said finger under stress thereby urging its forward portion against said holder plate.

2. In a safety razor, the combination with a handle, of a base plate secured to said handle and having curved guard teeth on its forward edge, a blade holder plate spaced from said guard plate to receive a blade between them, said holder plate being connected at its rear edge to the rear edge of said base plate by spaced outwardly curved integral loops constituting blade supports, a rearwardly projecting inwardly directed blade engaging finger disposed between said loops, and a resilient blade having a central tongue projecting between said loops, said blade also having an opening with which said finger engages, the blade being engaged with said finger under stress thereby urging its forward portion against said holder plate.

3. In a safety razor, the combination with a handle, of a base plate secured to said handle and having curved guard teeth on its forward edge, a blade holder plate spaced from said guard plate to receive a blade between them, said holder plate being connected at its rear edge to the rear edge of said base plate by spaced outwardly curved integral loops constituting blade supports, and a rearwardly projecting inwardly directed blade engaging finger disposed between said loops.

4. In a safety razor, the combination with a handle, of a combined guard and base plate, a blade holder plate overlying and spaced from said base plate to receive a blade, said plates being connected at their rear edges by spaced members constituting blade supports, said holder plate having a rearwardly projecting blade engaging finger disposed centrally between said connecting members, and a blade having an opening adjacent its rear end adapted to receive said finger when the blade is in operative position.

5. In a safety razor, the combination with the handle, of an angled base plate mounted on said handle, a blade holder plate overlying and spaced from said base plate, said plates being connected at their rear edges by spaced connecting members constituting blade supports, said holder having a rearwardly-projecting blade-engaging finger disposed between said connecting members for said plates and at an angle to the front portion of said holder plate, and a resilient blade having a central tongue-like projection disposed between said plates and in supporting engagement with said plate connecting members, said blade having an opening with which the rear end of said finger engages, said finger also holding the blade in engagement with the angle of said base plate and against the under side of said holder plate adjacent its front edge under stress.

6. In a safety razor, the combination with the handle, of an angled base plate mounted on said handle, a blade holder plate overlying and spaced from said base plate, said plates being connected at their rear edges, said holder having a rearwardly projecting blade-engaging finger disposed at an angle to the front portion of said holder plate, and a resilient blade disposed between said plates, said blade having an opening with which the rear end of said finger engages, said finger also holding the blade in engagement with the angle of said base plate and against the under side of said holder plate adjacent its front edge under stress.

7. In a safety razor, the combination with a handle, of a combined guard and base plate, a blade holder plate overlying and spaced from said base plate, said plates being connected at their rear edges by spaced connecting members constituting blade supports, said holder plate having a rearwardly-projecting blade-engaging finger disposed between said connecting members of said plates, said finger being disposed at an angle to the front portion of said holder plate, and a resilient blade having a central tongue-like projection disposed between said plates and in supporting engagement with said plate connecting members, said blade having an opening to receive the rear end of said fingers with the finger engaging the upper side of said blade, whereby the blade is supported in engagement with the holder plate adjacent its front end and with said base plate at a point intermediate the points of its engagement with the holder plate and finger.

8. In a safety razor, the combination with a handle, of a combined guard and base plate, a blade holder plate overlying and spaced from said base plate, said plates being connected at their rear edges, said holder plate having a rearwardly-projecting blade-engaging finger disposed at an angle to the front portion of said holder plate, and a resilient blade disposed between said plates, said blade having an opening to receive the rear end of said finger with the finger engaging the upper side of said blade whereby the blade is supported in engagement with the holder plate adjacent its front end and with said base plate at a point intermediate the points

of its engagement with the holder plate and finger.

9. A safety razor blade having a centrally projecting tongue portion of substantial width on its rear edge and a longitudinal slot bisected by the plane of the rear edge of the blade, and providing a holder-engaging part and permitting the springing of the tongue.

10. A safety razor blade having a projecting tongue on its rear edge and a slot at the base of the tongue bisected by the plane of the rear edge of the blade.

11. A safety razor blade having a projecting tongue of substantial width on its rear edge, and a slot disposed so that it is bisected by the plane of the rear edge of the blade providing a holder engaging part and permitting the springing of the tongue.

12. In a safety ravor, the combination with a handle, of a base plate fixed to said handle and having a guard at the front edge thereof and a transversely disposed blade supporting shoulder substantially spaced from its guard, and a blade holder overlying and spaced from said base plate, said plates being non-adjustably connected at their rear edges by spaced connecting members, said holder plate having a fixed rearwardly projecting blade engaging finger disposed between said connecting members and at an angle to the front portion of said holder plate to engage a blade at the rear of said supporting shoulder of said base plate, said shoulder, the front edge of said holder plate, and said finger being disposed relative to each other so that a flat resilient blade engaged therewith is under bending stress and urged against the under side of the holder plate at its front edge with the edge of the blade in operative relation to the guard.

13. In a safety razor, the combination with a handle, of a base plate on said handle and having a guard at the front edge thereof and a transversely disposed blade supporting shoulder substantially spaced from its guard, and a blade holder overlying and spaced from said base plate, said plates being fixedly and non-adjustably connected at their rear edges, said holder plate having a non-adjustable rearwardly projecting blade engaging finger disposed to engage a blade at the rear of said supporting shoulder of said base plate, said shoulder, the front edge of said blade holder plate and said finger being disposed relative to each other so that a flat resilient blade engaged therewith is under bending stress and urged against the under side of the holder plate at its front edge.

14. In a safety razor, the combination with a handle, of an angled base plate mounted on said handle, the crown of the angle constituting a blade supporting shoulder, and a blade holder plate overlying and spaced from said base plate, said plates being fixedly connected at their rear edges, said holder having a rearwardly projecting blade engaging finger disposed at an angle to the front portion of said holder plate, said shoulder, the front edge of said holder plate and the blade engaging portion of said finger being disposed relative to each other so that the plane of the inner side of the holder at its front edge and the blade engaging portion of said finger is on the inner side of the crown of the shoulder on said base plate.

In witness whereof I have hereunto set my hand.

JAY B. RHODES.