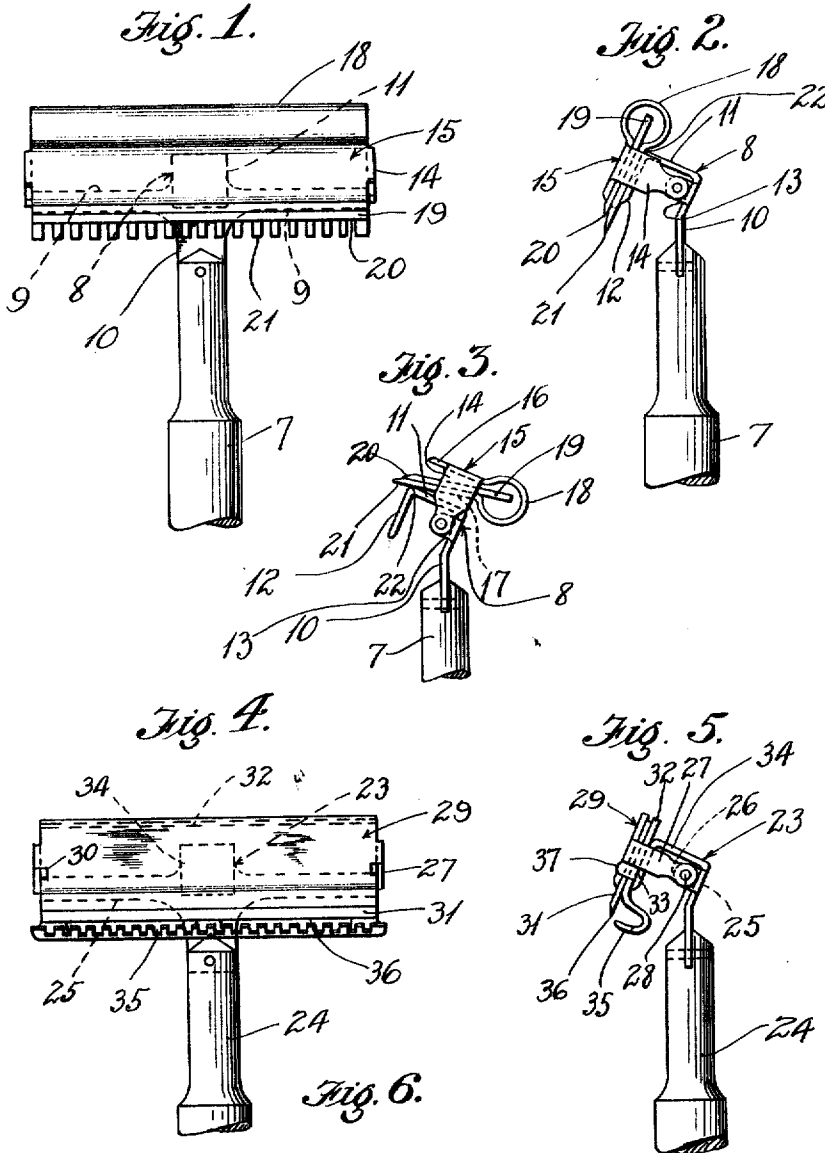


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SAFETY RAZOR.  
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1,007,379.

Patented Oct. 31, 1911.



Witnesses.

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# UNITED STATES PATENT OFFICE.

LEVI J. ODELL, OF GLENDORA, CALIFORNIA, ASSIGNOR TO ODELL MANUFACTURING COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

## SAFETY-RAZOR.

1,007,379.

Specification of Letters Patent.

Patented Oct. 31, 1911.

Application filed June 2, 1910. Serial No. 564,570.

*To all whom it may concern:*

Be it known that I, LEVI J. ODELL, a citizen of the United States, residing at Glendora, county of Los Angeles, State of California, have invented new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to safety razors and the object of the invention is to produce a device of this class having an improved construction facilitating the insertion and removal of the blade.

In the drawing which forms a part of this specification, Figure 1 is a front elevation of a safety razor constructed according to my invention, the handle being broken away. Fig. 2 is an end elevation of the device, showing the same in a closed position. Fig. 3 is a view similar to Fig. 2, but showing the device in an open position in the act of closing upon the blade. Fig. 4 is a front elevation showing another form of the razor, the handle being broken away. Fig. 5 is an end elevation of the device shown in Fig. 4 showing the same in a closed position. Fig. 6 is a plan view of the razor blade removed from the razor.

Referring more particularly to the parts, and especially Figs. 1 to 3, 7 represents the handle of the razor to the outer end of which a bracket 8 is attached. This bracket is in the form of an elongated bar 9, having a tang 10 formed near the middle point thereof, which tang is secured in the end of the handle as indicated. As shown in Fig. 2, the bar 9 is disposed in an inclined position and from the upper edge of this bar, a tongue 11 extends forwardly in an inclined position and substantially at right angles to the plane of the bar. The extremity of this tongue is bent at right angles to the body of the tongue so as to form a tip or seat 12, the purpose of which will appear more fully hereinafter. The ends of the bar 9 are turned upwardly so as to form lugs 13 and to these lugs 13 are pivotally attached ears 14, which are formed on the ends of a blade holder 15. The construction of this blade-holder is shown most clearly in Fig. 3. It is in the form of two plates, a cover plate 16 and a bottom plate 17, said plates being connected by a resilient bow 18, which is formed integral with the plates as shown. As shown in Fig. 3, the plate 17 in the open position of the razor, lies between the plate

15 and the tongue 11, lying also between the ears 14. When the parts are in this relation, the blade 19 of the razor is inserted between the plates 16 and 17 with its cutting edge 20 disposed outwardly and remote from the bow-spring 18. The forward edge of the plate 17 is formed with guard fingers 21 as indicated in Fig. 1, so that this plate 17 may be regarded as a guard plate. Having adjusted the cutting edge 20 of the blade to the proper position with respect to the guard fingers, the entire blade-holder 15 is then rotated in a forward direction, so that the lower face of the plate 17 slides over the angle or corner 22, which is formed at the junction of the body of the tongue 11 with its seat 12. When rotated in this way, the parts will come into the relation shown in Fig. 2, with the under-face of the guard plate resting against the seat 12. The resiliency of this tongue 11 then clamps the blade securely between the cover plate 16 and the guard plate 17 and the razor can then be used for shaving. From this arrangement it will be understood that when the razor is thrown to its open position the plates of the blade-holder separate resiliently to permit the blade to be removed and when the device is moved into its closed position, they are pressed together by the resiliency of the tongue 11.

In the form of the invention shown in Figs. 4 to 6, I provide a bracket 23, which is similar in form to the bracket 8 and attached in a similar manner to the end of the handle 24. This bracket 23 has a longitudinal bar 25, the ends of which are bent upwardly to form lugs 26 and to these lugs ears 27 are pivotally attached on a pivot bar 28, said ears 27 extending downwardly from the ends of a blade holder 29. This blade-holder 29 is in the form of a rectangular plate having notches 30 formed in the ends thereof adjacent to the ears 27. The blade 31 is held against the under side of the blade-holder 29 by means of a guard plate 32 and this guard plate is adapted to come into position on the upper side of the seat 33, which is formed by bending the tongue 34 at right angles as in the other form of the invention. The forward edge of the guard plate 32 is formed with guard teeth or guard fingers 35 and the edge of the guard at this point is offset downwardly and inwardly as shown in Fig.

5 so that the tips of the guard fingers 35 project outwardly and lie near the cutting edge 36 of the blade. This guard 32 is also of rectangular form and its ends are provided with upwardly projecting lugs 37, which are adapted to be received in the notches 30 aforesaid, and the blade 31 is provided with notches 38, which register with the notches 30 and the lugs 37 so that the blade may be set in position on the guard 32 and the guard and plate can then be applied to the under side of the blade-holder 29, while the blade-holder is in an open position, that is, in a position corresponding to the position indicated in Fig. 3. After the blade and guard are applied in this manner to the blade-holder, the blade holder is then rotated forwardly so as to bring the under face of the guard plate against the outer face of the seat 33 and this clamps the blade securely between the guard and holder.

What I claim is:

1. In combination, a safety razor comprising a handle having a fixed bracket, a blade holder pivotally mounted on said bracket and adapted to swing thereabout, said bracket having a resilient extension adapted to be deflected in the plane in which said blade holder swings when the blade-holder is swung, said extension cooperating with said blade holder to lock the same against rotation and hold a blade therein.

2. A safety razor comprising a handle having a fixed bracket provided with a resilient extension, a blade holder pivotally mounted on the said bracket and provided with means cooperating with the said resilient extension for gripping the blade in said holder.

3. In combination, a safety razor comprising a handle having a bracket fixed thereto, said bracket having a tongue with a laterally bent extension, a blade holder pivotally attached to said bracket and having a plate which may be swung into close proximity to said extension, and provided with cooperating means for gripping a blade in said holder, the extension of the bracket affording means for clamping the parts of the blade holder upon the said blade.

4. In combination, a safety razor comprising a handle having a fixed bracket, said bracket having a tongue extending therefrom with a bent extension forming a

seat, a blade holder comprising a pair of plates for holding a razor blade between them, said blade holder being pivotally attached to said bracket, whereby movement of the handle and the bracket forces the seat into contact with one of the plates of the blade holder, thereby securing a blade in position between said plates.

5. In combination, a safety razor comprising a handle having a bracket fixed thereto, said bracket having a resilient tongue with a laterally bent extension forming a seat, a blade holder consisting of a cover plate and a bottom plate having a resilient bow connecting the same and tending to separate said plates, a blade inserted between said plates, said tongue lying in the path of said blade holder whereby the rotation of said blade-holder affords means for bringing said plates into position on said seat so that said seat clamps said plates together to secure said blade.

6. In combination, a safety razor having a handle, and a fixed bracket having a resilient tongue extending therefrom, a blade holder rotatably attached to said bracket, a blade seated against the inner side of said blade-holder, a guard seated against the under side of said blade, said tongue being deflected by said blade holder in the direction in which said blade swings, and affording means for clamping said guard against said blade, and against said blade-holder when said blade-holder is rotated.

7. A safety razor mechanism comprising a handle with a bracket fixed thereto, said bracket having a tongue extending therefrom, a blade holding means comprising a plate pivotally attached to said bracket and a guard portion cooperating therewith, a blade seated against the inner face of said plate, and adapted to be gripped by said guard, means for positioning said blade in proper alinement between the plate of the blade holder and the said guard, the tongue of the said bracket affording means for clamping the guard and plate of the blade holder when the said blade holder is swung on its pivotal connection.

In witness that I claim the foregoing I have hereunto subscribed my name this 27th day of May, 1910.

LEVI J. ODELL.

Witnesses:

G. E. ODELL,

GEO. D. WOLFREY.