O. A. EN HOLM.

SAFETY RAZOR.

APPLICATION FILED MAR. 24, 1911.

1,053,089. Patented Feb. 11, 1913.

Fig. 1.

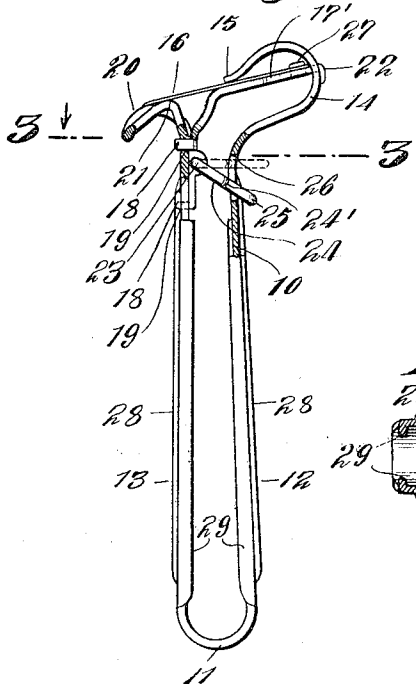


Fig. 2.

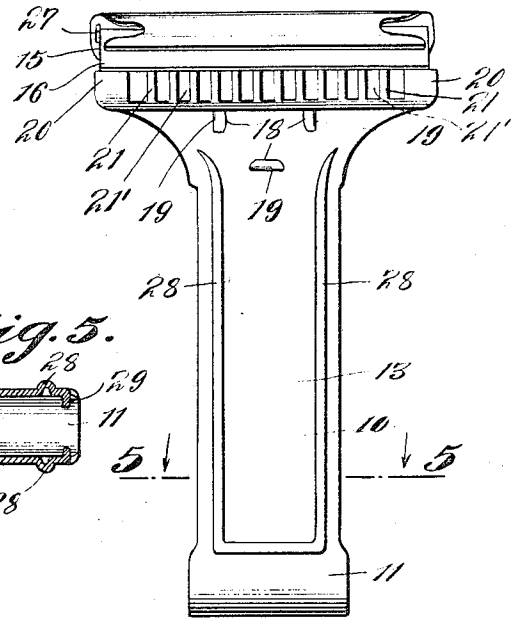


Fig. 5.

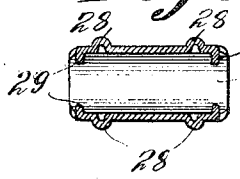
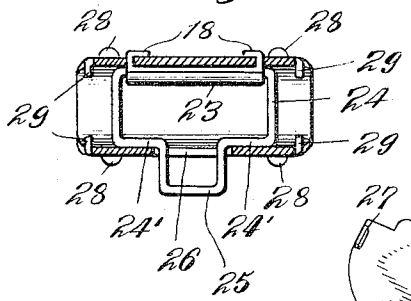


Fig. 3.



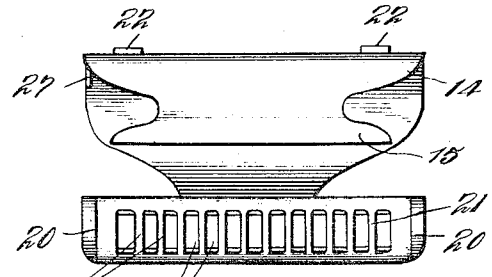


Fig. 4.

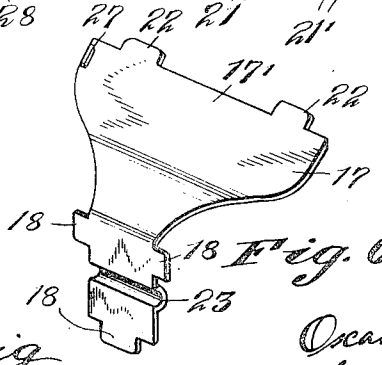


Fig. 6.

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UNITED STATES PATENT OFFICE.

OSCAR A. EN HOLM, OF NEW YORK, N. Y., ASSIGNOR TO FRANK M. ASHLEY, OF BROOKLYN, NEW YORK.

SAFETY-RAZOR.

1,053,089. Specification of Letters Patent. Patented Feb. 11, 1913.

Application filed March 24, 1911. Serial No. 616,597.

To all whom it may concern:

Be it known that I, OSCAR A. EN HOLM, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

My invention relates to safety razors and the object of my invention is to provide a safety razor of simple and durable construction formed of thin sheet metal that is resilient, and that is stiffened where necessary by embossing or corrugating the metal. Further objects will be set forth in the specification and the novel features of construction particularly pointed out in the claims hereinafter.

Referring to the drawings which form a part of this specification Figure 1 is a drawing presenting a side view of a safety razor embodying my invention, the upper end being shown in section. Fig. 2 is a front view. Fig. 3 is a sectional view taken on lines 3—3 of Fig. 1. Fig. 4 is an end view of the blade holding end with the blade removed. Fig. 5 is a sectional view on line 5—5 of Fig. 2. Fig. 6 is a perspective view of the bridge portion which presents the table on which the blade rests.

10, indicates the body portion formed preferably of thin sheet brass, the body being formed by bending the metal to form a curved spring portion 11 and the upper and lower sides 12 and 13 respectively being normally held parallel to each other, the side portion 12 extending beyond the portion 13 and formed in a curved spring 14, the end 15 of which serves to press and hold the blade 16 on to the table 17′ of the bridge 17. The bridge 17 is connected to the side 13 by bending the clip portions 18—18, etc., at right angles to the plane of the sheet and passing them through corresponding slots 19—19, etc., formed in the side portion 13, the bridge being held in such a position that the plane of the table will lie in alinement with the top of the curved surfaces 20—21, so that the end portions of the blade 16 will rest on the curved surfaces 20 with the cutting edge in contact therewith, to prevent said cutting edge and the corners of the blade from cutting the face of the user, while the blade contacts with the surface of the guard at 21 a short distance back of the cutting edge to support the blade but permit the cutting edge to project beyond the surface of the guard a predetermined distance so that the entire cutting edge between the surfaces 20—20 may be used. The upper end of the bridge is also provided with projecting clip portions 22—22 which are passed through slots formed in the top of the spring portion 14 and bent over as shown to hold the side portions 12 and 13 together in practically fixed relation. The bridge portion 17 is provided with a groove 23 which holds the lower end of a swinging lever 24 which may be stamped from sheet metal but in the present case is shown as formed from a wire which is bent to provide shoulders 24′—24′, and having an extended portion 25 which projects through a slot 26 formed in the portion 10 at a point opposite the groove 23 and extending toward the spring 11 far enough to bring the shoulders out of abutment with the portion 12 when in unlocked position as illustrated in Fig. 1, and into forcible abutment therewith when in locked position as illustrated in dotted lines, the top of the lever being carried slightly beyond the center to prevent it from accidentally snapping back when the razor is being used. Now the bridge by reason of its abutting the under side of the curved portion 14, acts as a fulcrum for the side portion 12, so that when the lever rests in the position illustrated in dotted lines and called its locked position, the shoulders 24′ force the sides 12 and 13 slightly farther apart and the edge 15 is forced tightly against the blade and holds it on the table 17′, and when it is desired to release the blade 16, the lever is moved to the position shown in full lines in Fig. 1, thus permitting the sides 12 and 13 to be pressed toward each other which action swings the edge 15 upward and releases the blade, as will be readily understood.

The guard is preferably provided with slots 21′—21′, etc., to permit the lather, etc., to pass through them and to prevent the hair from clogging between the blade and guard. An abutment 27 is formed on the portion 14 by bending a portion of the metal at a right angle, or may be formed in the bridge portion if preferred and serves to limit the movement of the blade in placing the blade in the holder and insure its accuracy of position therein. Corrugated or

embossed ribs 28—28 are formed in the side portions to stiffen the same, and the edge portions 29—29, etc., are bent over to form smooth side portions as shown.

The razor as above described may be plated with nickel or silver if desired and the plane surfaces between the ribs 28 may be engraved with the name of the owner or otherwise ornamented.

Having thus described my invention, I claim as new:

1. A safety razor comprising upper and lower side portions which extend practically parallel with each other, one of which portions is provided with a curved spring portion, the end of which is adapted to press against a razor blade, a bridge portion extending from one side portion to the other side portion and abutting said curved spring portion to form a fulcrum about which said spring portion is adapted to turn in adjustment, means located remote from said point and on the other side of the same with respect to said spring portion for actuating the latter to adjust the blade, said bridge portion having a table on which a blade may be held by said spring portion, one of said side portions having a curved guard, a portion of the surface of which is disposed in alinement with the table of said bridge portion, and a blade held between said spring portion and said guard, the middle of said guard being formed to contact with said blade back of the cutting edge thereof as set forth.

2. A safety razor comprising two side portions which extend practically parallel with each other, one of which portions is provided with a curved spring portion the end of which is adapted to press against a razor blade, a bridge portion extending from one side portion to the other side portion and abutting said curved spring portion to form a fulcrum, and having a table on which a blade may be held by said spring portion, one of said side portions having a curved guard a portion of the surface of which is disposed in alinement with the table of said bridge portion, and a lever arranged to abut the inner surfaces of said side portions and press the end of the curved spring portion tightly against said bridge portion.

3. A safety razor comprising two integral side portions and extending practically parallel with each other, one of which portions is provided with a curved spring portion the end of which is adapted to press against a razor blade, and a bridge portion extending from one side portion to the other side portion and abutting said curved spring portion to form a fulcrum about which said spring portion is adapted to turn in adjustment, means located remote from said point and on the other side of the same with respect to said spring portion for actuating the latter to adjust the blade, said bridge portion having a table on which a blade may be held by said spring portion, one of said side portions having a curved guard, a portion of the surface of which is disposed in alinement with the table of said bridge portion.

4. A safety razor comprising upper and lower side portions formed integral which extend practically parallel with each other and connected together by a curved spring portion and formed of thin sheet metal, the sides of which are corrugated to stiffen the material and the edge portions of which are curved toward each other to provide smooth edges, one of which portions is provided with a curved spring portion, the end of which is adapted to press against a razor blade, and a bridge portion formed of sheet metal and extending from one side portion to the other side portion and connected to each of said portions at its end, one of said ends serving as a fulcrum for the curved spring portion about which said spring portion is adapted to turn in adjustment, means located remote from said point and on the other side of the same with respect to said spring portion for actuating the latter to adjust the blade, said bridge portion having a table on which a blade may be held by said spring portion, and a guard portion formed integral with one of said side portions, a portion of the surface of which is disposed in alinement with the table of said bridge portion.

5. A safety razor comprising two side portions formed integral which extend practically parallel with each other and connected together by a curved spring portion and formed of thin sheet metal, the sides of which are corrugated to stiffen the material and the edge portions of which are curved toward each other to provide smooth edge portions, one of which portions is provided with a curved spring portion, the end of which is adapted to press against a razor blade and a bridge portion formed of sheet metal and extending from one side portion to the other side portion, and connected to each of said portions at its end, one of said ends serving as a fulcrum for the curved spring portion, said bridge portion having a table on which a blade may be held by said spring portion, a guard portion formed integral with one of said side portions, a portion of the surface of which is disposed in alinement with the table of said bridge portion, and a lever hinged to one of said portions and extending through the opposite portion and provided with shoulders which are adapted to force said side portions apart to exert an increased pressure on the end portion which presses on the blade.

6. A safety razor comprising two side portions, one of which portions is provided with

a curved spring portion the end of which is adapted to press against a razor blade, a bridge portion extending from one side portion to the other side portion and abutting said curved spring portion to form a fulcrum, and having a table on which a blade may be held by said spring portion, one of said side portions having a curved guard a portion of the surface of which is disposed in alinement with the table of said bridge portion, and a lever arranged to abut the inner surfaces of said side portions and press the end of the curved spring portion tightly against said bridge portion.

7. A safety razor comprising two side portions formed integral and connected together by a curved spring portion and formed of thin sheet metal, one of which portions is provided with a curved spring portion, the end of which is adapted to press against a razor blade and a bridge portion formed of sheet metal and extending from one side portion to the other side portion and connected to each of said portions at its end, one of said ends serving as a fulcrum for the curved spring portion, said bridge portion having a table on which a blade may be held by said spring portion, a guard portion formed integral with one of said side portions, a portion of the surface of which is disposed in alinement with the table of said bridge portion, and a lever hinged to one of said portions and extending through the opposite portion and provided with shoulders which are adapted to force said side portions apart to exert an increase pressure on the end portion which presses on the blade.

8. A safety razor comprising two integral sheet metal side portions connected together, one of which portions is provided with a curved spring portion, the end of which is adapted to press against a razor blade and a bridge portion formed of sheet metal and extending from one side portion to the other side portion and connected to each of said portions at its end, one of said ends serving as a fulcrum for the curved spring portion, said bridge portion having a table on which a blade may be held by said spring portion, a guard portion formed integral with one of said side portions, a portion of the surface of which is disposed in alinement with the table of said bridge portion, and means for forcing said side portions apart to increase the pressure of the end of the spring portion on the blade.

9. A safety razor comprising upper and lower side portions one of which portions is provided with a curved spring portion the end of which is adapted to press against a razor blade, said end spring portion being provided with slots, a bridge portion extending from one side portion to the other side portion and abutting said curved spring portion to form a fulcrum and provided with clips which pass through said slots in the curved spring portion and serving to hold the bridge portion and spring portion together, said bridge portion comprising a table on which a blade may be held by said spring portion, and means for forcing said side portions apart to force the spring portion against the said table and means for locking them in fixed relative position.

10. A safety razor comprising two sheet metal strips constituting a handle and having blade supporting means at one end, said strips being connected at a point adjacent to the blade support, one of said strips having a spring portion adapted to contact with the blade, and means located between said strips and adapted to spread them apart to cause the spring portion to bear down upon the blade and to hold it in adjustment.

11. A safety razor comprising two sheet metal strips constituting a handle and having blade supporting means at one end, said strips being connected at a point adjacent to the blade support, one of said strips having a spring portion adapted to contact with the blade, and a lever located between said strips and adapted to spread them apart to cause the spring portion to bear down upon the blade and to hold it in adjustment.

Signed at New York city, in the county of New York and State of New York, this 21 day of March, 1911.

OSCAR A. EN HOLM.

Witnesses:
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MINNIE S. MILLER.