D. E. LOCHMAN.

SAFETY RAZOR.

APPLICATION FILED NOV. 11, 1912.

1,074,126. Patented Sept. 30, 1913.

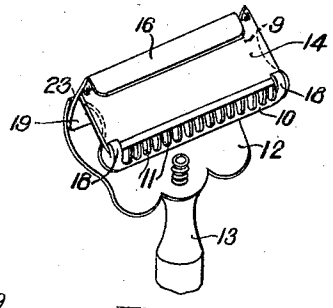


Fig. 1.

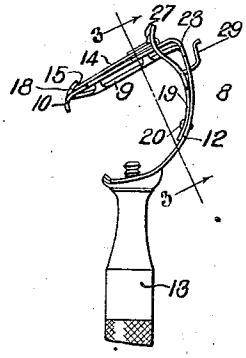


Fig. 2.

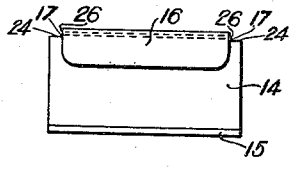


Fig. 3.

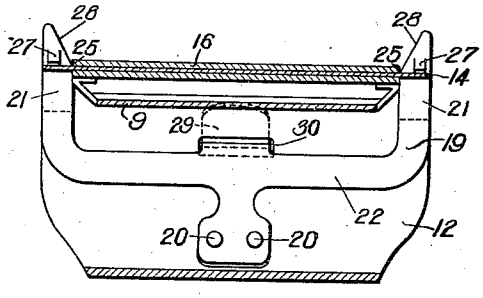


Fig. 4.

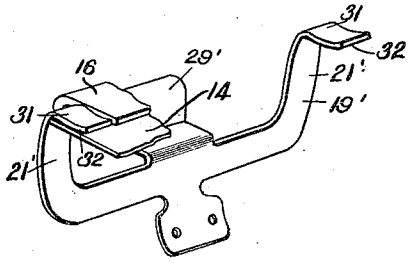


Fig. 5.

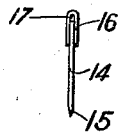


Fig. 6.

Witnesses:
Leonard A. Powell.
Sydney E. Taft.

Inventor:
Dean E. Lochman,
By his attorney,
Charles S. Gooding

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DEAN E. LOCHMAN, OF SALEM, MASSACHUSETTS.

SAFETY-RAZOR.

1,074,126. Specification of Letters Patent. Patented Sept. 30, 1913.

Application filed November 11, 1912. Serial No. 730,614.

To all whom it may concern:

Be it known that I, DEAN E. LOCHMAN, a citizen of the United States, residing at Salem, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to improvements in razors and particularly to that type known as the safety razor.

The object of the invention is to provide a safety razor comprising a blade having notches at opposite ends thereof and a single means adapted to project into said notches to perform a threefold purpose, namely, to position said blade longitudinally and laterally thereof and to yieldingly hold said blade transversely thereof, thereby producing a razor which will be inexpensive to manufacture and particularly simple and easy to operate, clean, or to remove and replace the blades used in connection therewith.

The invention consists in the combination and arrangement of parts by which the above objects and certain other objects hereinafter appearing, are attained as set forth in the following specification and particularly pointed out in the claim.

Referring to the drawings: Figure 1 is a perspective view of a razor embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a detail plan view of the razor blade used in connection with my invention. Fig. 4 is an enlarged sectional elevation taken on line 3, 3 of Fig. 2 as viewed in the direction of the arrows on said line. Fig. 5 is a perspective view of a modified form of spring for securing the razor blade on the holder, a portion of the razor blade being shown in said figure. Fig. 6 is an end view of the blade illustrated in Fig. 3.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 8 is a holder, of a well known type, which comprises a blade support 9 having a guard 10 provided with the usual serrations 11. The holder 8 is further provided with a depending portion 12 which is connected at its upper end to the rear edge of the blade support 9 and at its lower end with a handle 13.

A razor blade 14, which is rectangular in shape and formed from a piece of thin sheet material, is provided with a single cutting edge 15, while said blade is preferably reinforced at its rear edge by a U-shaped member 16 extending substantially the length of said rear edge, and adjacent to the ends of said reinforcing member 16 are notches 17, 17 for the purpose hereinafter set forth. The razor blade 14 is arranged to rest upon the holder 8 against the upper surface of the blade support 9 with the cutting edge 15 parallel with the front edge of the guard 10 and above the serrations 11. To facilitate the positioning of said cutting edge relatively to said guard 10 and serrations 11, stops 18 are provided which are preferably formed by partially detaching a portion of the material constituting the holder 8 at points adjacent to the opposite ends of said guard, said stops 18 permitting the cutting edge of said razor blade to project therebeneath, thus not only preventing a movement of the cutting edge toward the edge of said guard 10, but also preventing the movement of said cutting edge laterally of said razor blade support away from the serrations 11, said stops being long enough to permit of a slight movement of the cutting edge toward and away from the front edge of the guard 10 without said edge becoming disengaged therefrom. The rear edge of the blade 14 is engaged by means adapted to position said blade longitudinally thereof and laterally relatively to the blade support 9, and furthermore said means is adapted to yieldingly press said blade toward the front of the guard 10 until its cutting edge engages the stops 18, said means consisting of a forked spring 19 which is secured by rivets 20 preferably to the front of the depending portion 12 of the holder 8. Arms 21 of the forked spring 19 extend upwardly from the cross piece 22 through recesses 23 formed in the holder 8 and bear against the rear edges 24 of the blade 14, said edges constituting one of the sides of the notches 17. The inner edges 25 of the arms 21 engage the edges 26 which constitute the other edges of the notches 17 when said blade is resting against the upper face of the blade support 9 and position said blade longitudinally

thereof on said holder. By providing the notches 17 it will be obvious that one member, such for instance, as the arm 21 of the forked spring 19, will be capable of engaging both edges constituting said notch and thus position said blade both longitudinally and transversely thereof, it being much cheaper and far preferable to form said notches in said blade than to construct the arm on said spring in such a manner that it will be able to engage both the rear and end edges of said blade, because with the notches in the blade less space will be utilized and said spring will be least exposed and less liable to interfere with the use of said razor. To retain the rear portion of the blade 14 in contact with the upper face of the blade support 9, lugs 27 are provided adjacent to the free ends or extremities of said arms 21 to engage the upper face of said blade 14. These lugs are preferably formed in the same manner as are the stops 18, that is, by partially detaching a portion of the material constituting said forked member 19 and forcing said material laterally of the front face of said forked spring. In placing the blade 14 upon the holder 8 the cutting edge 15, as hereinbefore stated, is placed beneath and against the stops 18. To insure the proper positioning of said blade longitudinally relatively to said holder the extremities of the arms 21 are provided with beveled inner faces 28 and these faces are engaged by the edges 26 during the downward movement of the rear edge of said blade and consequently move said blade lengthwise in one direction or the other as the case may be until said blade strikes the upper face of the blade support 9 at which time the edges 26 will engage the inner edges 25 of the arms 21.

It will be noted that the lugs 27 are detached from the arms 21 at their lower edges and forced forward laterally of said arms thus providing wedges against which the edges 24 of the blade 14 contact during the downward movement thereof and through the instrumentalities of said wedges the extremities of the arms 21 are forced rearwardly, or in other words, the forked spring will be deflected until the edges 24 have passed beneath the lower edges of the lugs 27 at which time said lugs will be forced back by the reaction of the arms 21 until the front faces of said arms engage said edges 24, thus said blade will be securely locked in this position on said holder 8.

When it is desired to remove the blade 14 from the holder 8 to strop the same or to replace it with another blade, the rear edge of said blade is released by deflecting the forked spring 19, thus detaching or disconnecting the lugs 27 from the upper face of said blade. To facilitate this and the simultaneous movement of both of the lugs 27 a finger piece 29 is provided upon said spring 19, the same being preferably formed integral with said spring and extending from the rear thereof through an opening 30 in the portion 12 of said holder 8 and in a position to be engaged by the finger and to be manipulated thereby to disengage the lugs 27 from the upper face of said blade 14, as hereinbefore stated. Upon the movement of said member 19 the holder which is being held by means of the handle 13 may then be inverted and the blade will be free to drop therefrom disengaging itself from the stops 18.

In Fig. 5, I have shown another form of spring for retaining the blade in place upon the blade supporting member 9. In this figure the spring 19′ is, in construction similar to the spring 19, illustrated in Fig. 4, the only difference being that the extremities of the arms 21′ are bent laterally thereof at 31 and these lateral portions are turned upwardly at their forward ends to provide a rounded face 32. This construction provides a more substantial securing means than would be possible with that illustrated in Figs. 1, 2 and 4, the blade being constructed in the same manner as hereinbefore stated. With this form of spring the blade may be put in place upon the holder 8 in the same manner in which the blade is positioned in the form hereinbefore described, that is, by manipulating the finger piece 29′ to deflect the arms 21′ or if desired, the blade may be grasped between the thumb and forefinger and the back of said blade placed against the arms 21′ with the edges 24 of said blade engaging the front faces of said arms 21′ beneath said lateral projections 31 and pressing said blade backwardly sufficiently to permit the cutting edge 15 to be placed beneath the stops 18 and upon releasing said blade the reaction of the spring 19′ will cause said blade to slide beneath said stops 18 and in this form, as in the other form, said blade will be yieldingly retained in its proper relation to the guard 10, thus increasing the efficiency of the razor, as it has been found that a yielding cutting edge is superior to a rigidly supported cutting edge.

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

A razor having, in combination, a razor blade provided with notches at the rear corners thereof, a holder, means for positioning the cutting edge of said blade relatively to said holder, a forked member secured to said holder, the members thereof constituting said fork adapted to project into said notches to yieldingly press said blade against said positioning means, the extremities of the members of said fork having beveled

faces adapted to engage the ends of said blade within said notches, to position said blade longitudinally of said holder, and lugs formed on said members adjacent to their extremities adapted to engage the upper face of said blade adjacent to said notches to retain said blade in contact with said holder.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DEAN E. LOCHMAN.

Witnesses:
SYDNEY E. TAFT,
ANNIE J. DAILEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."