

J. A. HORTON.
SAFETY RAZOR.
APPLICATION FILED SEPT. 23, 1911.

1,048,696.

Patented Dec. 31, 1912.

Fig. 1

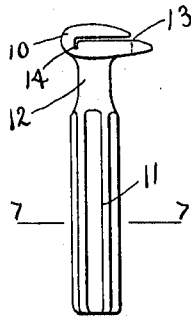


Fig. 2

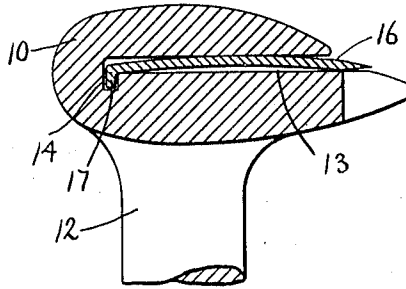


Fig. 3.

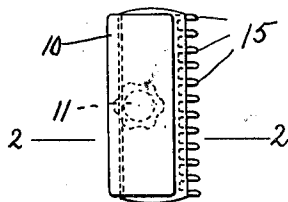


Fig. 4.

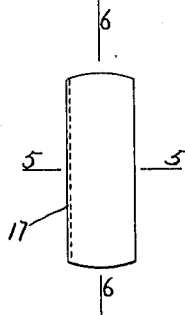


Fig. 6.



Fig. 7.



Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES A. HORTON, OF PROVIDENCE, RHODE ISLAND.

SAFETY-RAZOR.

1,048,696.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES A. HORTON, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to razors of the type commonly known as safety razors, and it refers especially to devices of this character which employ a thin, flexible, one-edged blade.

The object of the invention is to provide an exceedingly simple and durable safety razor at the minimum of cost, dispensing with means for providing adjustments and thereby avoiding the cost of such structure.

To these ends the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, Figure 1 is an elevation of a razor embodying my improvements, the blade-carrying head being shown in end elevation, and the blade being omitted. Fig. 2 is a view similar to a portion of Fig. 1, on an enlarged scale and including the blade. Fig. 3 is an end view of the entire razor looking from the top of Fig. 1. Fig. 4 is a plan view of the blade. Figs. 5 and 6 represent, respectively, sections on lines 5—5 and 6—6 of Fig. 4. Fig. 7 represents a section on line 7—7 of Fig. 1.

Similar reference characters indicate the same or similar parts in all of the figures.

The blade-carrying head 10 is solid, being preferably formed in a single piece which is afterwards cut to form the slot and retaining recess for the flexible blade. The handle 11, preferably fluted as shown in Figs. 1 and 7 is connected to the head 10 by an integral neck 12. This one piece comprising the head 10, handle 11, and neck 12 is so constructed that it can be made in a die-press, and it is therefore simple and inexpensive, the surfaces of the head being formed very smooth by the action of the dies. By suitable cutting mechanism which need not here be described, the head 10 is formed with a slot 13, the sides of which are flat and parallel with each other, the width of said slot being slightly in excess of the thickness of the flexible blade presently described. At the inner end of the slot 13, a recess 14 is formed at an angle to said slot, and the front edge of the head,

below the slot 13 is formed with protruding guard teeth 15.

As best shown by comparing Figs. 2 and 3, the slot 13 is open at both ends, and is entirely free from any locking device whatever to engage the blade.

The blade 16 is of thin, flexible steel, and has but one sharp edge, its other edge being bent at an angle to form a rib 17. The blade is curved, either transversely or longitudinally or both. The blade illustrated in Figs. 5 and 6 is curved both transversely and longitudinally. The reason for curving the thin, flexible blade is that it is adapted to be sprung to a flat position by insertion into the flat sided slot 13, and to be held therein by friction so as to require no other mechanism or devices to keep the blade in its position. In practice, the amount of resilience of the curved blade is such that the rib 17 would not be necessary in order to define the amount that the cutting edge of the blade shall project from the slot.

When the blade is to be assembled with the holder it is simply inserted endwise into the slot and pushed in substantially to the position shown in Fig. 3. This practically straightens out the blade in that it removes the curvature therefrom, and the resilience of the blade causes sufficient friction with the walls of the slot of the head to hold it in position for use.

If it is desired, some suitable tool may be employed for pulling the blade out of the recess, but ordinarily it can be easily removed by simply pushing one slightly protruding end in as far as it will go, which results in the other end being projected sufficient to be grasped by the fingers so that it can be pulled out.

Owing to the structure of the holder with a solid head, the blade is so completely inclosed that it is protected by said head, and the entire holder can be readily kept clean because of its exterior being free from depressions to catch and retain the lather or other material.

I claim:

1. A safety razor comprising a one-piece holder having a flat slot, the two faces of which are plane surfaces, and a thin flexible normally curved blade adapted to be sprung to flat position by insertion in said slot, the area of the slot and blade being practically

co-extensive whereby only the cutting edge of the blade is exposed, the front edge of the holder at one side of the slot having guard teeth.

- 5 2. A safety razor comprising a one-piece holder having a flat slot, the two faces of which are plane surfaces, a recess being formed at an angle to said slot, and extending from the inner end thereof, the front
10 edge of the holder at one side of the slot having guard teeth, and a thin flexible normally curved blade adapted to be sprung to

flat position by insertion in said slot, said blade having a rib to engage the said recess, the area of the slot and blade being practically co-extensive whereby only the cutting edge of the blade is exposed. 15

In testimony whereof I have affixed my signature, in presence of two witnesses.

JAMES A. HORTON.

Witnesses:

J. WESLEY BINNING,
ALICE J. OWENS.