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M. H. BAKER & F. S. FRISBIE.
MULTIPLE EDGE SAFETY RAZOR.

APPLICATION FILED AUG. 17, 1906.

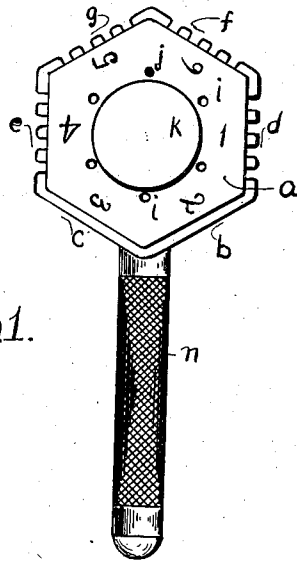


Fig. 1.

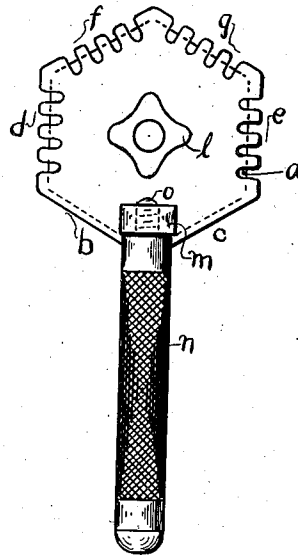


Fig. 2.

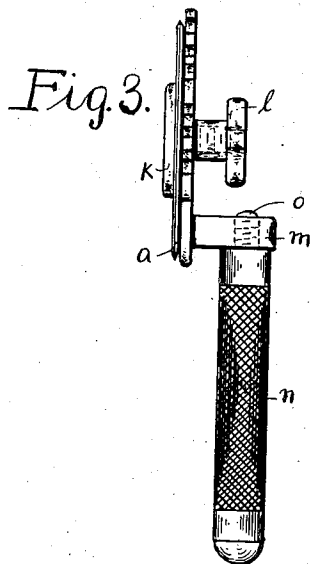


Fig. 3.

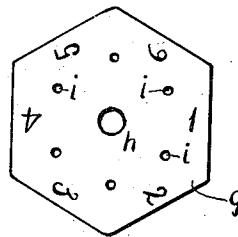


Fig. 4.

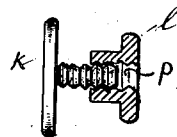


Fig. 5.

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MULTIPLE-EDGE SAFETY-RAZOR.

No. 847,308.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, MALCOLM H. BAKER and FRANKLIN S. FRISBIE, residents of the city of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Multiple-Edge Safety-Razors, of which the following is a specification.

It is the object of the present invention to produce a razor of the safety type in which the blades by the use of a plurality of cutting edges shall have increased life—in other words, a razor in which the blades require re-sharpening or replacing at longer intervals than in devices at present in use.

A further object is to employ every edge of the razor-blade as a cutting edge, and thus provide the maximum number of cutting edges, or, otherwise expressed, the equivalent of the maximum number of individual razors in a single blade.

A further object is to so shape the blade as to provide the maximum number of cutting edges of practically operative length in the minimum diameter of blade.

A further object is to provide a razor in which the cutting edge in use is in a parallel plane with the handle, and thus to provide for a drawing stroke in shaving, of the same type as is employed in the ordinary old-style folding-blade razor.

A further object is to provide a blade of a form which is easily removable from the guard and which adapts itself to honing or stropping.

A further object is to provide means for readily bringing any desired cutting edge of the blade into an operative position.

A further object is to provide a form of guard which not only protects the face from laceration by the cutting edge in use, but also protects both the face and the fingers from the remaining edges.

A further object is to provide means for properly alining each cutting edge at the operative position.

A further object is to provide a razor which may be readily adapted for use with either the right or left hand.

A further object is to produce a razor of few and simple parts, which may be easily

taken apart or assembled and which is readily cleansed after use.

A further object is to produce a razor which occupies a minimum space when packed for carrying and which readily adapts itself to the pocket.

We provide a guard consisting of a plate in approximately the form of a hexagon and of a greater diameter than the blade. This guard is attached to a suitable handle by means of a threaded block which engages a screw set in one end of the said handle in such a manner that the handle and guard lie in parallel planes. The above-mentioned threaded block is attached to the guard-plate at the back and near the junction of two of the edges. These two edges are left plain; and the remaining four edges of the guard-plate are cut into teeth.

We provide a blade in the form of a hexagon every edge of which is sharpened to a cutting edge, having a central perforation and six equidistant perforations surrounding the center and adapted to act as registering devices, as hereafter described. In order to attach the blade to the guard-plate, we provide a screw which passes through the central perforation in the blade and through a corresponding opening in the guard-plate and engages a locking-nut at the back of the said plate.

A small pin is set in the face of the guard-plate and engages successively with the perforations in the blade as the latter is rotated in such a manner as to maintain alinement between the blade and guard edges.

In order to note which edges of the blade have been used and dulled, we consecutively number or otherwise denote each edge upon the face of the blade.

We have illustrated our invention in the annexed drawings, in which—

Figure 1 is a front elevation, Fig. 2 a back elevation, and Fig. 3 a side elevation, of our improved razor with the blade and parts in position for shaving. Fig. 4 is a plan of the blade, and Fig. 5 a section of the locking-nut and engaging screw.

In the drawings, *a* is a hexagonal steel blade every edge of which is sharpened to a cutting edge. This blade is provided with a

central opening *b* and with six registering openings *i*. The hexagonal guard-plate is provided with four toothed edges *d e f g* and with two plain edges *b c*, and a threaded block *m* is attached to the guard-plate near the junction of the latter two edges. A handle *n*, suitably knurled to afford a proper grip to the fingers, carries a screw *o*, which engages the block *m*, and thus locks the handle in position in a plane parallel to the plane of the guard-plate.

A flat-head screw *k* passes through the central opening in the blade and through a corresponding opening in the guard-plate and engages with a locking-nut *l*, one of the registering openings *i* also engaging with the set-pin *j* in the face of the guard in such a manner that the guard and blade edges are in alinement.

The blade edges are shown as consecutively numbered from 1 to 6 for the purposes before described.

In operation the blade edge marked 1, co-operating with the guard edge *d*, is adapted for right-hand use in the usual drawing lateral strokes in precisely the same manner as in the old-style folding-blade razors. The inclined edges 5 and 6 are available for up-strokes about the chin, under and upper lips, and such portions of the face without the necessity of turning over the hand. The inclination and convergence of these edges gives a drawing cut as the blade is pushed up over the face and greatly assists close and delicate shaving of parts of the face difficult to reach with previous forms of razors. The blade edge marked 4 is available for use with the left hand. The edges 2 3 are held in reserve and are protected by the guard edges *b c* from lacerating the face or fingers. These edges may be brought into operative positions by loosening the locking-nut *l* and freeing the blade from engagement with the set-pin *j*, when the said blade may be rotated as desired. It is thus evident that the user has at his disposal six independent razor edges with each blade and may employ from one to four of these edges in the above-described manner without altering the relation of the parts of the razor.

In practice we provide each razor with twelve blades, thus affording the user seventy-two separate edges, the length of time elapsing before these edges are dulled, from one to two years, practically eliminating the usual necessity of stropping and honing.

We have found that the hexagonal form of blade is the only one which effectively accomplishes these results with a structure of practical size and having a sufficiently long cutting edge.

If it is desired to employ a stroke in which the handle is placed at right angles to the blade and which is technically termed the "hoe" type, the said handle is unscrewed

from the threaded block *m* and screwed into the recess *p* in the back of the locking-nut *l*.

We claim as our invention—

1. A safety-razor comprising a hexagonal blade every edge of which is sharpened to a cutting edge, a guard for the said blade provided with four toothed and two plain edges, a handle attached to and approximately parallel with the said guard, and means for relatively rotating the blade and guard.

2. A safety-razor comprising a hexagonal blade every edge of which is sharpened to a cutting edge, a guard for the said blade provided with four toothed and two plain edges, a handle attached to the said guard, a registering pin set in the face of the guard, and successively engaging corresponding openings in the blade, a clamping-screw passing through the center of the blade and guard and engaging a locking-nut at the back of the guard, together with means for rotating the blade relatively to the guard.

3. In a safety-razor, a hexagonal blade every edge of which is sharpened to a cutting edge, a guard for the said blade having four toothed and two plain edges, a handle removably attached to and approximately parallel with the said guard, and means for rotating the blade relatively to the guard so as to bring the cutting edges into successive co-operation with the toothed edges of the guard, the said blade edges being successively marked for reference.

4. In a safety-razor, a hexagonal blade every edge of which is sharpened to a cutting edge, symbols marked upon the said blade in such a manner as to successively denote the cutting edges, a guard for the said blade having four toothed and two plain edges, a clamping-screw passing through the blade and guard and engaging a locking-nut at the back of the guard, a registering pin set in the face of the guard and engaging corresponding openings in the blade, a threaded block attached to the back of the guard near the junction of the two plain guard edges, and a handle adapted to engage either the threaded block or the locking-nut, substantially as described.

5. The safety-razor herein described, comprising a hexagonal guard every edge of which is sharpened to a cutting edge, co-operating with a guard having four toothed and two plain edges, a registering pin *j* set in the face of the guard and engaging successively corresponding openings *i*, *i*, in the blade, a screw *k* passing centrally through the blade and guard and engaging a locking-nut *l*, a threaded block *m* attached to the back of the guard near the junction of the two plain edges *b*, *c*, and a handle *n* provided with a threaded end *o*, the said threaded end being adapted to engage either the block *m* or the locking-nut *l*, as herein set forth.

6. In a safety-razor, a hexagonal steel

blade every edge of which is sharpened to a cutting edge, a central opening in the said blade, a locking-stud passing through the central opening and clamping the blade to the guard, equidistant registering openings surrounding the central opening and adapted to successively engage a registering pin set in the face of the guard, and symbols marked

upon the blade and successively denoting the cutting edges.

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