

M. F. SMITH.

RAZOR.

APPLICATION FILED JULY 6, 1911.

1,064,101.

Patented June 10, 1913.

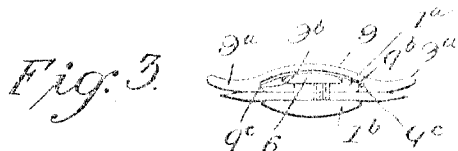
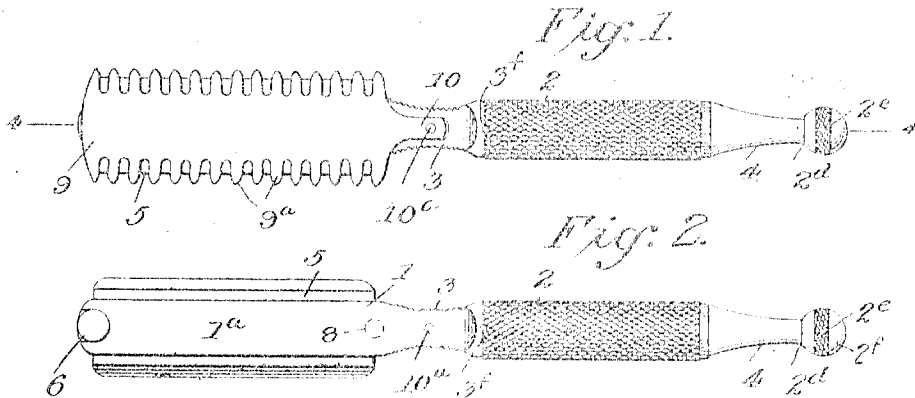


Fig. 4.

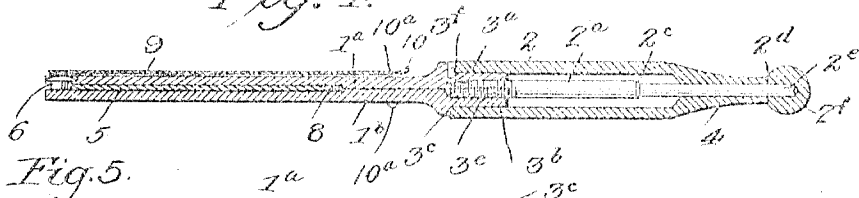


Fig. 5.

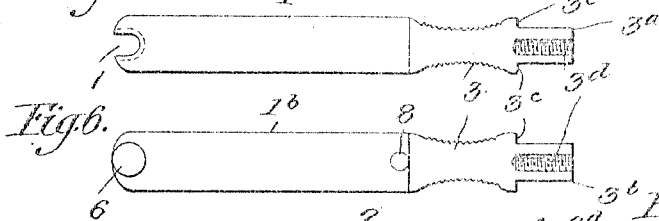


Fig. 6.

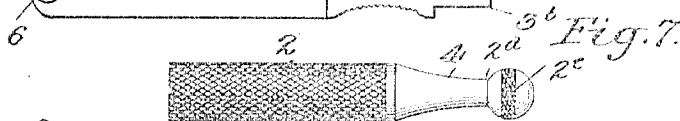
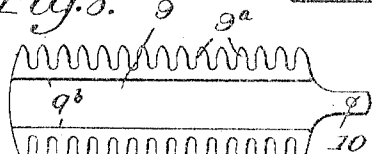


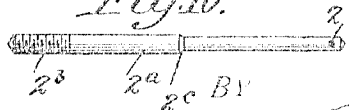
Fig. 8.



WITNESSES:

John H. Bell
James M. Knight

Fig. 10.



INVENTOR

Morris F. Smith
By J. H. Knight
Attorney

UNITED STATES PATENT OFFICE.

MORRIS FORD SMITH, OF PHILADELPHIA, PENNSYLVANIA.

RAZOR.

1,064,101.

Specification of Letters Patent.

Patented June 10, 1913

Application filed July 6, 1911. Serial No. 637,186.

To all whom it may concern:

Be it known that I, MORRIS FORD SMITH, a citizen of the United States, residing at 3129 Montgomery avenue, in the city of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Razors, of which the following is a specification.

This invention relates primarily to multiple blade razors in which a single manipulating holder is adapted to have any one of a plurality of blades removably mounted thereon, at will and particularly to that type of such razors in which the longitudinal axes of the blade and holder coincide and the blade has two edges simultaneously exposed for use.

Secondarily, the invention relates to a so called safety razor, in which a double finger-bar guard is mounted in such relation to the shaving edges of the blade as to prevent contact of the edges when the razor is tilted to a dangerous angle.

One object of the invention is to have one and the same holder to serve for manipulating the blade both in shaving and stropping; the safety guard being employed solely for safety purposes and serving no part in mounting the blade in the holder; the holder being so constructed that both edges of the blade may be honed or stropped without any adjustment or changing of the parts other than the removal of the guard.

Another object is to produce a razor which will simulate as closely as possible, the effect and mode of manipulation, both in shaving and stropping, of a straight-blade integral shank razor and which shall, at the same time, embody the feature of having a double edge so that it can be used either right-handed or left-handed without changing the position of the guard.

Another object is to have the guard reversible from one side of the holder to the other, so that a single edge may be used by either hand in shaving either side of the face.

A further object is to have the holder constructed of readily separable members secured together in part, by means which also holds the interchangeable blade in position.

A further object is to provide means for attaining all of the above objects by a simple, durable and cheap construction.

In carrying out the invention, I employ a holder comprising two counter-part mem-

bers, between which the blade is rigidly clamped with its cutting edges protruding on opposite sides of the holder in position not only for shaving with either edge, at will, but to expose both faces of the blade adjacent to each edge in position for stropping; said members being divided longitudinally in the plane of the blade and having at one end an interengaging connection, which permits the members to separate to admit the blade between them; said connection being preferably such as will permit the members to move in the plane of the blade. At the other end, the members have a connection which prevents any relative movement between them and holds them in their assembled relation with the blade; said last named connection preferably forming a greater or less portion of the handle. The guard is of the usual toothed or serrated form and fits neatly upon either face of the holder, in guarding relation to both edges of the blade.

The invention will be fully understood upon reference to the accompanying drawings in which,

Figures 1 and 2 are views showing the razor assembled with and without the guard; Fig. 3 is an end view of Fig. 1; Fig. 4 is a section on the line 4-4, Figs. 1 and 3; and Figs. 5 and 6 are the two parts of the holder respectively; Fig. 7 the handle; Fig. 8 the guard; Fig. 9 the blade; and Fig. 10 lastly the screw rod of the handle.

The razor comprises a relatively flat holder 1 having a handle 2 of any suitable shape (preferably cylindrical and knurled to avoid slipping) with a reduced shank 3 between the holder and the handle, and a reduced finger rest 4 at the rear end of the handle. The holder 1 and a greater or less portion of the handle (according to the particular details of construction followed) are divided in a longitudinal plane, to provide clamping jaws 1^a, 1^b, adapted to firmly clamp between them a two-edged blade 5, which protrudes beyond the opposite edges of the holder. To interlock the members of the holder, I employ a bearded stud 6, preferably carried by one member, while the other member has an end slot 7, adapted to engage beneath the head of the stud by an endwise movement; said members being adapted, if desired, after such engagement, to swing in their dividing plane. The blade is provided with end notches 5^a, one of which

is adapted to engage the interlocking stud 6, while the other is adapted to drop over a relatively short securing stud 8 carried by one holder member in position to lie between the members when the parts are assembled. The blades are thus rendered not only conveniently interchangeable but reversible sidewise and invertible endwise.

To secure the parts in assembled position, the holder is provided with means for preventing relative longitudinal or other movement of its two counterpart members, such for instance as a handle 2, preferably in cylindrical form, bored to receive the reduced ends 3^a, 3^b of the shank 3 and to fit tightly thereon so that when the handle 2 is forced up upon said reduced ends and into abutment with the shoulder 3^c, it will accurately align the two counterpart members of the holder and clamp them together upon the blade. A pin or other keying device, such as 3^d is introduced between the handle 2 and the shank 3 for the purpose of preventing relative rotation and adapting the handle to completely control the angular position of the razor, both in shaving and stropping. To secure the handle 2 against axial displacement, it is provided with a screw-rod 2^a, passing axially through the handle 2, with a threaded end 2^b, adapted to enter the threaded socket 3^a in the shank 3 and having a shoulder 2^c that prevents withdrawal of the rod 2^a from the handle 2 when unscrewed from the socket 3^a; also a shoulder 2^d adapted to abut against the rear end of the handle 2 in rear of the finger rest 4, so that the handle 2 will be drawn up tightly against the shoulder 3^c when the screw rod is screwed home. For convenience in manufacture, the shoulder 2^d is provided by applying an enlargement or separate knob 2^e to the end of the rod 2^a after passing it through the handle 2 and securing said enlargement by the transverse pin 2^f. The enlargement 2^e completes the conformation of the rear finger rest. There is an especial advantage in being able to assemble the parts completely and accurately by sliding the handle in place, and thereafter locking them against displacement by an independent movement of the screw rod, as distinguished from assembling by a screwing action, which frequently results in displacement of some of the assembled parts during the manipulation of the screw.

The dividing plane might be continued through any desired portion of the handle and the remainder made in the form of the sliding sleeve held by the screw.

The blade has two cutting edges 5^a and two sharpening faces 5^b adjacent to each edge. Each holder member 1^a, 1^b is constructed so that, in connection with either of two of the sharpening faces, it will support the razor upon a sharpening surface at

the proper angle for sharpening, with respect to said surface. From so much of the description, and upon reference to Fig. 2, it will be seen that the razor without the guard is in good form for convenient stropping or even honing of both sides of either edge.

The guard 9, which has fingers 9^a, which project in guarding relation to both edges of the blade, lies flat upon the holder and is secured thereto by a longitudinal dove-tail connection, one part, 9^b, of which is formed on each side of the holder, while the other part, 9^c, is carried by the guard. In this way, the guard may be fitted to the holder by a longitudinal movement and said movement in the direction of removal, yieldingly resisted by means of a spring catch, such as one comprising recessed spring tongue 10 carried by the guard and a rounded stud 10^a on either side of the holder in position to receive said tongue. With the razor assembled as described, two edges are presented for right and left-hand shaving. If, however, it be desired to get the use of either edge for both hands, the guard may be readily slipped endwise from the shank and replaced on the opposite side.

When the guard is wholly removed, the razor presents both edges of the blade at the same time, in convenient position for effective stropping.

I claim:—

1. A shaving and stropping tool comprising a double edged razor blade, a holder, a handle and a detachable guard; said handle having a sleeve part and an inner rod with a protruding head and threads at its opposite end, said rod constructed to have a limited axial movement in said sleeve; said holder consisting of two separable halves having a recess for said blade on their inner side, studs in said holder for preventing displacement of the blade and holding the outer end of said halves together; the inner end of the two halves forming a boss constructed to fit snugly in said sleeve part and threads in said boss adapted to engage with said rod threads, whereby said blade, holder and handle are securely held together.

2. A shaving and stropping tool comprising a double edged razor blade, a holder, a handle and a detachable guard; said handle having a sleeve part and an inner rod with a protruding head and threads at its opposite end, said rod constructed to have a limited axial movement in said sleeve; said holder consisting of two separable halves having a recess for said blade on their inner side, studs in said holder for preventing displacement of the blade and holding the outer end of said halves together; the inner end of the two halves forming a boss constructed to fit snugly in said sleeve part

and threads in said boss adapted to engage with said rod threads, whereby said blade, holder and handle are securely held together; said guard having a sliding connection with either side of said holder selectively and a spring latch to secure it in place, whereby said guard may be readily detached from said tool preparatory to the stropping operation and without taking the tool apart.

3. A shaving and stropping tool comprising a double edged razor blade, a pair of holding pieces adapted to grip the blade between them and a hollow handle; projections on the inner ends of said holding pieces, said projections forming a cylindrical shank which fits snugly in the hollow part of said handle, flanges on said projections abutting against the end of the handle, a screw spindle mounted to turn into the handle and having an external head and internal shoulder permitting a limited longitudinal movement of said spindle relative to said handle, and screw threads for said spindle in said shank, whereby said spindle

is able to rigidly secure said holding pieces and handle together.

4. A shaving and stropping tool comprising a double edged razor blade, a pair of holding pieces adapted to grip the blade between them, a hollow handle and a guard extending from the handle to the end of said holding pieces; a flanged stud in the one and a flanged open slot in the other of said holding pieces, said stud and slot cooperating to lock the outer ends of said holding pieces together; said holding pieces having beveled edges, a central longitudinal recess in said guard having its sides beveled to engage with said beveled edges and said recess conforming to the shape of the holding pieces and covering said stud when in position.

The foregoing specification signed at Washington D. C. this sixth day of June, 1911.

MORRIS FORD SMITH.

In presence of two witnesses:

GEORGE J. MULLER,

HERVEY S. KNIGHT.