(Model.)

H. G. FISKE.

SAFETY RAZOR.

No. 373,395. Patented Nov. 15, 1887.

Fig. 1.

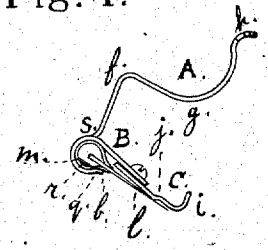
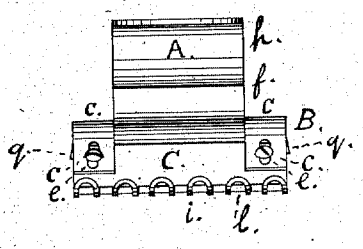


Fig. 2.



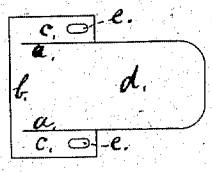


Fig. 10.

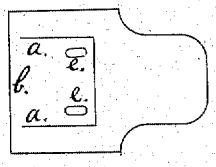


Fig. 11.

Fig. 3.

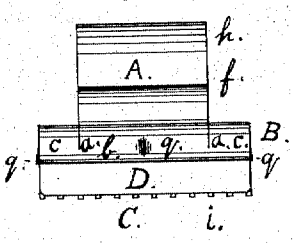


Fig. 4

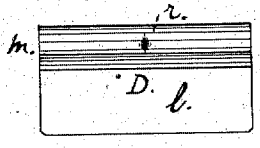


Fig. 5.



Fig. 6.

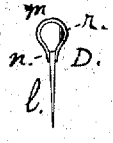


Fig. 7.

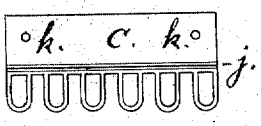


Fig. 8.

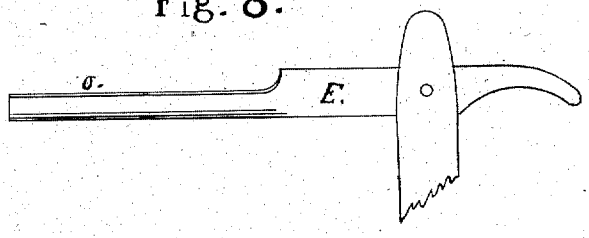


Fig. 9.



Witnesses;
George T. Buckland.
Alder a Mann

Inventor;
Henry G Fiske.

UNITED STATES PATENT OFFICE.

HENRY G. FISKE, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO KAMPFE BROS., OF NEW YORK, N. Y.

SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 373,395, dated November 15, 1887.

Application filed March 16, 1887. Serial No. 231,090. (Model.)

To all whom it may concern:

Be it known that I, HENRY G. FISKE, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Safety-Razor, of which the following is a specification.

My invention relates to improvements in safety-razors, in which the razor-blade is provided with a guard to prevent accidentally cutting the skin while shaving; and the objects of my improvements are, first, to provide the handle with a clasp whereby the razor-blade may be held firmly with its edge near the guard or be easily and quickly released; second, to provide the clasp with a smooth channel in which to slide the back of the razor-blade, and, third, to provide means for inserting and removing the razor-blade without holding it in the fingers. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical end view of my razor; Fig. 2, a front view, and Fig. 3 a rear view, of the same, all showing the razor inclined to about the angle at which it is held while shaving. Fig. 4 is a side elevation of the razor-blade, and Fig. 5 an end view of the same, and Fig. 6 a modification of Fig. 5. Fig. 7 is a plan view of the guard as it appears previous to bending the projecting fingers upward. Fig. 8 is a side view of the sharpening-handle with a portion of the handle proper removed. Fig. 9 is an end view of that portion of the sharpening-handle which is used to insert into the hollow back of the blade while removing, stropping, and returning the latter to place. Fig. 10 is a reduced plan view of the sheet-metal plate used to form the handle and clasp for the blade; and Fig. 11 is a modification of Fig. 10, showing a reversed order of the handle and blade-clasp portions of the plate.

Similar letters refer to similar parts throughout the several views.

The safety-razor, as shown in Figs. 1, 2, and 3, is formed of two principal and separable parts—namely, the frame, which is composed of the handle A, the clasp B, and the guard C, the second part being the blade D, which is detachable from said frame.

The handle A and the clasp B are preferably made of one piece of sheet metal, shaped as shown in Fig. 10, upon either side of which and parallel thereto are cut slits *a a*, extending nearly to the end *b*, thus forming three parallel strips joined at one end only. The outside strips, *c c*, which are somewhat shorter than the central one, *d*, are provided with the oblong openings *e e*, and are bent into shape to form two spring-clips united through the medium and upon either side of the end *b* of the central strip, the latter being bent to conform with the said clips, and thus united they form the clasp B. The central strip, *d*, however, is only bent to an extent sufficient to form a continuous channel in which to slide the back of the razor-blade D, and without impinging thereon, it being then bent laterally upward a short distance to *f*, thence forward to *g*, and thence upward to *h*, thus forming the handle A and a receptacle for lather while shaving.

The guard C is also made of sheet metal, and is provided on one edge with a series of protecting-fingers, *i*, which are joined together in alternate pairs to provide an open guard for the free passage of the lather while shaving and yet avoid sharp ends to the fingers. The tips of said fingers may be all joined together, if desired, but at the risk of obstructing the free passage of the lather, or be left open at the risk of the sharp ends catching upon the beard. At the base of the fingers *i* is provided the offset *j*, to raise them slightly from the cutting-edge of the blade D and admit of the free passage of the beard and lather. The fingers are then extended a short distance forward of the edge, and thence bent upward to give a rounding and smooth but open support for the edge of the razor-blade.

The guard is secured to the spring-clips by aid of a screw at either end passing through the openings *e e* in said clips and into the threaded holes *k k* in such guard. The openings *e e* being oblong, the guard may be set to conform to any one of various widths of blades.

The blade D may be solid, but, as shown, is composed of the finely-tempered steel blade proper, *l*, and an annular or pear-shaped hollow metallic back, *m*, preferably made of sheet-steel and secured to the blade proper, *l*, just forward and to either side of its back edge, *n*, as in Fig. 5, or it may be secured directly to

the back edge of blade *l*, as in Fig. 6, if desired. The purpose of the hollow back is to permit the blade D as a whole to be secured to a stropping-handle similar to E (shown in Fig. 8) before removing it from the frame of the razor.

The stropping-handle may be provided with a hinge-joint, as shown, where grasped by the hand, or, if preferred, made in one solid piece or in detachable parts. The end *o* is made of sheet metal somewhat elastic, and is also of an annular or pear shape, adapting it to fit tightly within the back *m* of blade D, and is provided with the slot *p*, to adapt it to fit closely on either side of the blade proper, *l*, at *n*.

In safety-razors having a lateral shaving-handle as usually constructed, the blade is made solid, as already intimated, and is secured for stropping by a handle similar to that herein shown, the end *o* of which is made sufficiently large to slide over the back of the blade and protect the said back from wear while honing and stropping. When so constructed the blade must not only be released from its fastenings with the shaving-handle before the stropping-handle can be applied, but must first be taken in the hand in a most awkward manner to be wiped. This difficulty is overcome in my invention by making the back of the blade hollow and providing a handle similar to E, which may be employed simply to remove, wipe, and insert the blade to place in connection with the usual handle for stropping, or be additionally employed to hone and strop the blade at the risk of injuring its back. This can all be done without once handling the blade with the fingers.

Some people prefer to use the razor with an end handle, or first with an end handle and then a lateral one. For such usage the hollow-back blade D especially adapts the insertible end handle, E, to be employed as an additional shaving-handle, either with the frame and guard shown or any suitable frame and guard, or simply with the naked blade.

I am aware that razor-blades have been made with a hollow back and permanently hinged to the ordinary shaving-handle, and I do not claim a hollow-back razor-blade, except when provided with and made detachable from an insertible handle, which may be used for either shaving, stropping, or wiping, or all or any two of the said uses combined.

I am also aware that broad lateral shaving-handles have been previously secured to the back of a razor-blade, but have been made to extend approximately straight upward from and at a right angle with the side of the said blade without a special bend to form a receptacle for lather. Such handles afford no protection to the fingers of the person shaving, but readily allow the lather to run down upon them, whereas by providing the elevated forward bend shown a receptacle is formed which retains the lather and protects the fingers, and also affords a more convenient means of operating the blade-clasp B.

The blade D is prevented from sliding out endwise too easily by the aid of one or more retarding depressions, *q*, in the channel of the clasp B and depressions *r* in the back *m*.

The handle A, being joined to the clasp B beneath the blade D at *b*, retains a firm hold of the under side of the said clasp, and as the said handle extends upward thence and over and approximately parallel to the upper side of the clasp, it will be seen that by pinching the two slightly together the under side of the said clasp will open and allow of the insertion or withdrawal of the said blade. It is obvious from the foregoing that the bends *s*, *f*, and *g* of the handle A may be varied either to give the handle one circular bend from *s* to *g* or any of the well-known shapes which will raise the handle above and extend it forward approximately parallel to the upper side of the clasp B and blade D. It is also obvious that the handle and sides of the clasp may unite at *s* at the risk of impairing the operativeness of the said clasp, and also that the receptacle for lather will be equally good as formed by the broad and overhanging lateral shaving-handle, whether it be secured to the back of the blade by a spring-clamp, a screw, a cam, or other well-known means, and, furthermore, the blade provided with the above-shaped handle and clasp may be used for shaving without the guard, at the risk of cutting the skin.

For shaving with the above-described razor, grasp the tip *h* of the handle A with the thumb and forefinger and allow the second finger to rest at *f*. (By so doing the fingers are protected from the lather.) Then hold with the blade D at an angle of thirty degrees and draw obliquely across the face.

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

1. In combination with a razor-blade, the spring blade-clasp B, having a suitable guard attached to the upper side and a shaving-handle, bent substantially as shown, joined to the under side at or near *b*, and arranged to operate in conjunction with the said clasp, substantially as and for the purposes herein shown and described.

2. In combination with a razor-blade, a suitable clasp arranged to be secured to the back of the said blade and provided with a broad lateral shaving-handle bent and having a lather-receptacle formed therein, substantially as shown, and joined to the said clasp at or near the back of the said blade, substantially as and for the purposes herein shown and described.

3. The clasp B, having the continuous channel herein mentioned formed therein by providing the central strip, *d*, with the half-bend from *b* to *s* and the spring-clips the full bend shown, all being arranged and joined substantially as and for the purpose herein shown and described.

4. In combination with a hollow-back razor-

blade, an insertible end handle made detachable therefrom and arranged to operate substantially as shown and described.

5. In combination with a hollow-back razor-blade, an insertible end handle made detachable therefrom and a blade-clasp having a guard secured thereto and provided with a lateral shaving-handle, all being arranged substantially as and for the purposes herein shown and described.

HENRY G. FISKE.

Witnesses:
GEORGE T. BUCKLAND,
OLIVER A. MARSH.

Correction in Letters Patent No. 373,395.

It is hereby certified that Letters Patent No. 373,395, granted November 15, 1887, upon the application of Henry G. Fiske, of Springfield, Massachusetts, for an improvement in "Safety Razors," was erroneously issued to the inventor, "Henry G. Fiske, and Kampfe Bros." as joint owners of the patent; whereas said Letters Patent should have been issued to said *Kampfe Bros.*, solely, said Kampfe Bros. being assignees of the entire interest in said invention as shown by an assignment duly recorded in this Office; and that said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 29th day of November, A. D. 1887.

[SEAL.]

D. L. HAWKINS,
Acting Secretary of the Interior.

Countersigned:

BENTON J. HALL,
Commissioner of Patents.