

H. A. DOW.  
RAZOR-BACK.

No. 182,904.

Patented Oct. 3, 1876.

Fig. 1.

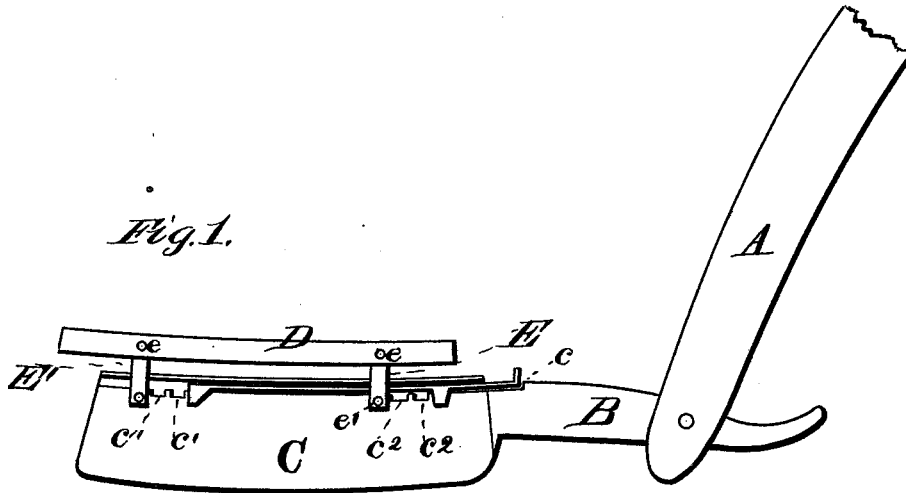


Fig. 2.

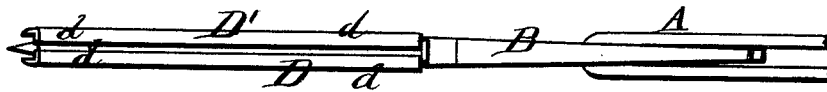


Fig. 3.

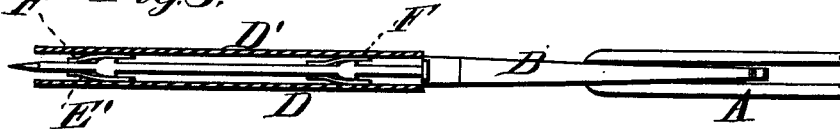


Fig. 4.

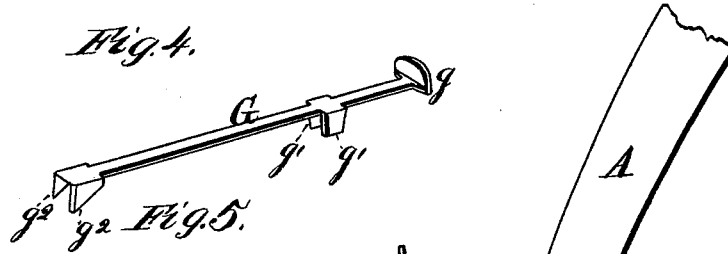
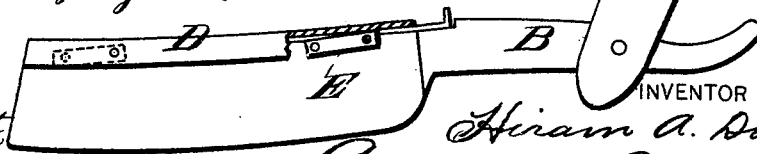


Fig. 5.



WITNESSES

Robert Everett  
J. F. Ackley

INVENTOR

Hiram A. Dow  
Gilmore Smith & Co.  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HIRAM A. DOW, OF QUARRY, IOWA.

## IMPROVEMENT IN RAZOR-BACKS.

Specification forming part of Letters Patent No. 182,904, dated October 3, 1876; application filed August 19, 1876.

*To all whom it may concern:*

Be it known that I, HIRAM A. DOW, of Quarry, in the county of Marshall and State of Iowa, have invented a new and valuable Improvement in Razor-Backs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my razor with strips elevated, and Fig. 2 is a plan view of same. Fig. 3 is a horizontal vertical sectional view. Fig. 4 is a detail view, and Fig. 5 is a side view, of my razor, having strips closed.

The object of this invention is to provide a convenient means for giving to razors, when sharpening them, an even and satisfactory edge; and to this end my invention consists in the application to a razor-blade of a rod provided with lugs, springs, and strips for expanding the casing or back of the blade, as will be hereinafter more fully set forth and definitely claimed.

In the accompanying drawings, A designates an ordinary bifurcated or split razor-handle, and B the curved tapering shank of a razor-blade, which is pivoted therein after the usual manner. C is the razor-blade, which is made in one piece with said shank, and is recessed on the back so as to leave a shoulder, *c*, at the junction of said shank with said blade. Said blade is also provided with notches or small recesses *c*<sup>1</sup> *c*<sup>1</sup> *c*<sup>2</sup> *c*<sup>2</sup>, for a purpose hereinafter stated. D D' designate two corresponding angular longitudinal metal strips, which consist, respectively, of vertical longitudinal plate *d* or *d*<sup>1</sup> and horizontal top flange *d*<sup>2</sup> or *d*<sup>2</sup>, as the case may be. The lower edges of longitudinal vertical plates *d* and *d*<sup>1</sup> clasp the sides of razor-blade C when said plates are not separated by the operation of devices hereinafter described, and the horizontal top flanges *d*<sup>2</sup> *d*<sup>2</sup>, under the same circumstances, meet above or behind the back of said blade C. Thus the two strips D D', taken together, constitute a casing for the back of the razor. Said strips or angular plates, at their angles, are made of considerable thickness, and are rounded on

their exposed outer and upper surfaces, to avoid unnecessary friction and add to the attractiveness of their appearance. Strip D is connected to the back of blade C by means of plate-spring E near the inner end of said blade, and by means of a similar plate-spring, E', near the outer end of said blade. Each of said springs is pivoted at one end to the inside of said strip at *e*, and at the other end to said blade at *e*<sup>1</sup>, near its back. When said strip is folded down upon the back of said blade, pivots *e e* set respectively into notches *c*<sup>1</sup> or *c*<sup>2</sup>, and are directly in the rear of pivots *e*<sup>1</sup>, which connect said springs to blade C. Said springs thus act as links as well as springs. Strip D' is connected to blade C by rear spring F and forward spring F', which correspond in construction, arrangement, attachment, and operation with those already described as being used for the attachment of casing-strip D. G designates a metal rod, which is provided with a raised flange or thumb-piece, *g*, at its inner end, and with two pairs, *g*<sup>1</sup> *g*<sup>1</sup> and *g*<sup>2</sup> *g*<sup>2</sup>, of downwardly-extending lugs. Said rod G lies longitudinally along the back of blade C and between said back and casing-strips D D'. When out of operation, thumb-piece *g* is against shoulder *c* (though rising a little above it) on the back of said blade. Lugs *g*<sup>1</sup> *g*<sup>1</sup> are then in the rear of springs E F, and lugs *g*<sup>2</sup> *g*<sup>2</sup> are in the rear of springs E' F'. Said lugs *g*<sup>1</sup> *g*<sup>1</sup> and *g*<sup>2</sup> *g*<sup>2</sup> at all times embrace or straddle the back of said blade and extend laterally the distance of their own thickness beyond rod G, which corresponds almost exactly to said back.

By pressing against the back of flange or thumb-piece *g*, rod G is forced forward so as to drive lugs *g*<sup>1</sup> *g*<sup>1</sup> between springs E and F, and lugs *g*<sup>2</sup> *g*<sup>2</sup> between springs E' and F', thereby expanding said springs and the casing-strips D D' attached thereto. The device is now ready for giving the razor a smooth cutting-edge.

It is obvious that blade C, if laid as nearly flat as possible, with one of the strips of said expanded casing resting upon the strop, will present its edge at a considerable angle thereto, and thereby aid in making said edge even as well as sharp.

In case it should be necessary to inspect or clean the interior of the device, the strips D

D' may be thrown up into the position shown in Fig. 1. The degree of inclination of the blade to the strop may also be lessened in the same way. The said strips are preferably made of steel, though other materials may be used, and the springs E F and E' F' are preferably constructed of brass.

I do not desire to confine myself to the precise construction and arrangement of the devices shown, as these may be modified in various ways without departing from the spirit of my invention. For instance, instead of downwardly-extending lugs  $g^1 g^2$ , I may employ beveled side shoulders, and rod G may be pushed from the outer end instead of being pushed from the inner. Also strips D D' may be connected together by helical springs and linked to blade C independently thereof; or a headed screw working up from below, or any other known equivalent expanding device, may be substituted for rod G.

I am aware that a casing for the back of a razor-blade is not new, *per se*; but

What I claim as new, and desire to secure by Letters Patent, is—

1. A razor-blade, C, in combination with springs E F and E' F' and strips D D', and means for expanding the same, substantially as described, and for the purpose set forth.

2. The combination of blade C, strips D D', rod G, having lugs  $g^1 g^2$ , and thumb-piece  $g$ , and springs E F and E' F', all substantially as and for the purpose set forth.

3. The razor-blade C, provided with shoulder  $c$  and recesses  $c^1 c^2$ , substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HIRAM A. DOW.

Witnesses:

R. N. YOUNT,  
ALDUS M. COATE.