No. 685,912. Patented Nov. 5, 1901.

A. FORNANDER.

RAZOR STROPPING DEVICE.

(Application filed Mar. 21, 1901.)

(No Model.) 2 Sheets—Sheet 1.

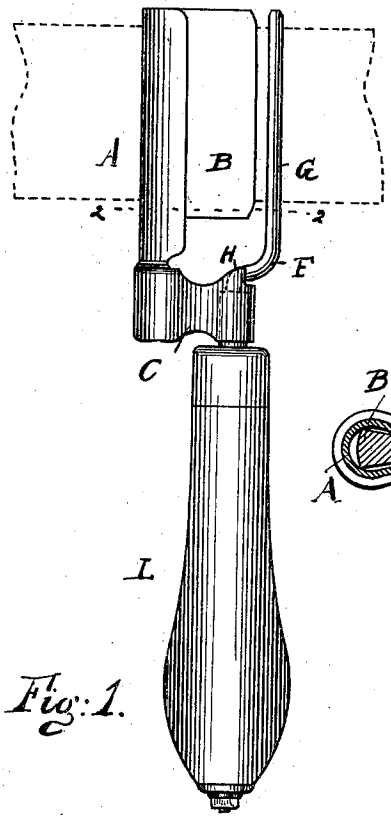


Fig. 1.

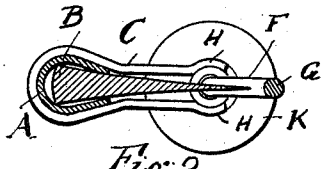


Fig. 2.

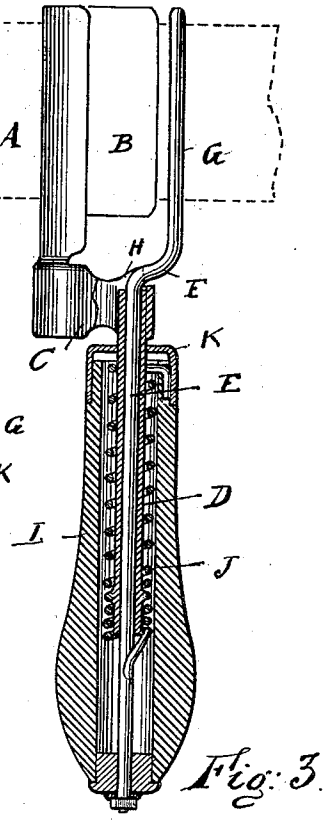


Fig. 3.

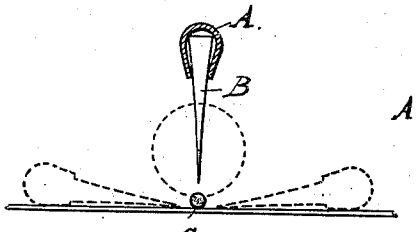


Fig. 4.

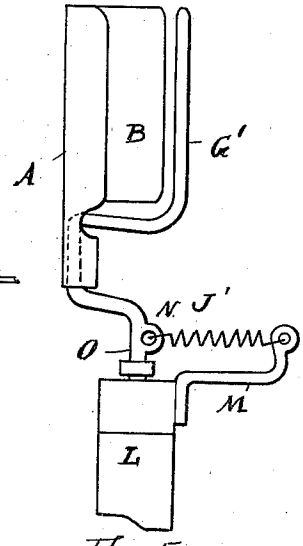


Fig. 5.

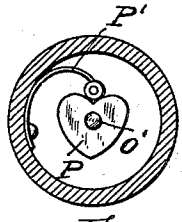


Fig. 6.

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No. 685,912. Patented Nov. 5, 1901.

A. FORNANDER.

RAZOR STROPPING DEVICE.

(Application filed Mar. 21, 1901.)

(No Model.) 2 Sheets—Sheet 2.

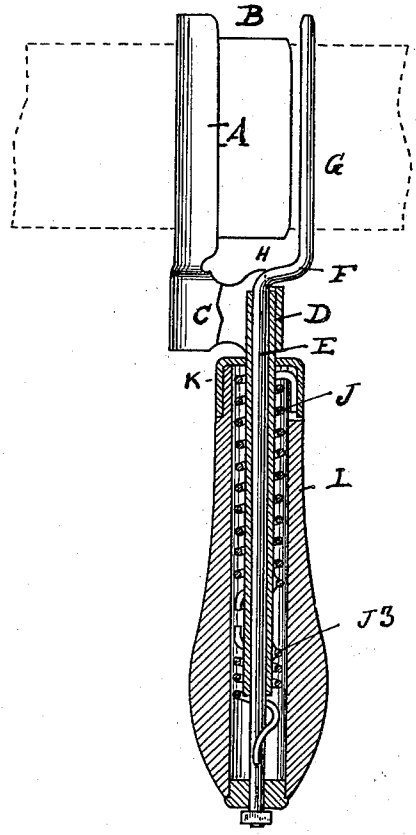


Fig 7.

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UNITED STATES PATENT OFFICE.

ALFRED FORNANDER, OF NEW YORK, N. Y., ASSIGNOR TO KAMPFE BROTHERS, OF NEW YORK, N. Y., A FIRM.

RAZOR-STROPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 685,912, dated November 5, 1901.

Application filed March 21, 1901. Serial No. 52,144. (No model.)

To all whom it may concern:

Be it known that I, ALFRED FORNANDER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Razor-Stropping Devices, of which the following is a specification.

This invention relates to improvements in stropping devices for safety-razor blades; and the object of my invention is to provide a new and improved device of this class which is simple in construction, strong, and durable.

In the accompanying drawings, in which like letters of reference indicate like parts in all the views, Figure 1 is a side view of my improved razor-stropping machine. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a longitudinal sectional view. Fig. 4 is an end view showing two different positions. Fig. 5 is an end view of a modified construction. Fig. 6 is a transverse sectional view showing a further modification. Fig. 7 is a longitudinal sectional view showing a further modification.

Referring to Figs. 1 to 4, the blade-holder A is of conventional shape and construction and adapted to receive the back of a safety-razor blade B. The blade-holder projects from the end of an arm C, projecting laterally from the upper end of a tube D. A rod E extends longitudinally through the tube D, so as to project from both ends of the same, and at the upper end of the tube D the rod E is bent to form the elbow or bend F, from which the guard-wire G projects parallel with the blade-holder and a distance from the same slightly greater than the width of the blade B, so that when a blade is placed into the blade-holder its cutting edge will be parallel with and a short distance from the guard-wire G, or, in other words, the guard-wire G will be in close proximity to, parallel with, and directly in front of the cutting edge of the blade B. The arm C is provided with two lugs or wings H on its upper edge, and between them the bend or elbow F can swing slightly to one side or the other.

A helical spring J, surrounding the tube D, is secured between its ends to the tube D, and the lower end is secured to the projecting lower end part of the rod E, and the upper end of the spring is secured to a cap K, fitting on a handle L, having a bore for receiving the tube D and spring J, or the upper end of the spring J can be secured to the handle itself. The tube D can turn freely in the cap K, and the cap is fixed on the handle L. Two springs J and J^3 may be used in place of the single spring, as shown in Fig. 7. The blade to be stropped is placed into the holder A, and the spring J holds the blade in line with the guard-wire G, so that the latter is normally held directly in front of the cutting edge.

The apparatus is placed upon the strop in such manner that the guard-wire G extends transversely across the strop and the plane of the blade is at right angles to the strop. If the handle is now moved up or down along the strop, the blade will lie flat on the strop, and the spring J is brought in tension, for the reason that the guard-wire G and the blade-holder A are both parallel to the central longitudinal axis of the handle, but eccentric thereto. The blade will always be brought into position with its back in the direction toward which the device is being moved, because the blade is held on that eccentric arm or part opposite the one placed upon the strop, and as the part placed upon the strop forms the fulcrum the guard-wire acts as the fulcrum. As the pressure on the handle is exerted at the inner end of the bend F, said bend swings toward the strop, and thus the arm C, in which this bend is located, also swings toward or upon the strop, and as the blade is held at its back in the blade-holder projecting from said arm it follows that the blade is swung upon the strop, and when the device continues its movements which caused the above position of parts the back of the blade will move in advance of the cutting edge. As the blade is pressed upon the strop the spring-pressed guard-wire G yields slightly, so as not to interfere with the cutting edge of the blade coming properly in contact with the strop. At the end of the stroke the pressure on the handle ceases, and the spring J, which all this time has been strained torsionally, throws the holder and blade into a position with the plane of the

blade at right angles to the strop, and if now the handle is moved inversely the blade is thrown upon the strop to the other side, the back again moving in advance of the cutting edge. In order to accomplish what has just been described, a spring must act on the part carrying the blade-holder and guard-wire to hold the same in a normal position—that is, to bring this carrying part to a normal position after it has been forced out of this normal position to the right or left—and the guard-wire must always be a certain distance from the holder, so as to be in front of the cutting edge.

As shown in Fig. 5, the guard-wire G′ can be attached to the holder and in such case must be made more or less yielding, and the spring J′ can be attached at one end to an arm M of the handle and at the other end to a short arm N of the rod O, carrying the holder; but here again we have the holder and guard-wire parallel and also parallel to the rod O, and said holder and guard-wire are eccentric to the rod O.

As shown in Fig. 5, a heart-cam P can be fixed on the rod O′, and a spring P′, bearing on the edge of the heart-cam, always brings the rod O′ and the holder on the same to the normal position.

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

1. In a stropping device the combination with a handle, of a swinging blade-holder parallel with said handle and eccentric thereto, a guard-wire on said holder and parallel therewith and eccentric to the handle, but opposite the holder and a spring acting on said holder to return it to normal position, substantially as herein shown and described.

2. In a stropping device, the combination with a handle of a tube mounted longitudinally in the same to turn axially, of an arm on the upper end of said tube, a blade-holder on the outer end of said arm, a wire passing longitudinally through the tube and having its upper end bent to form a guard-wire, a short distance from the blade-holder, and a spring surrounding the tube and attached thereto and having one end secured to the handle and the other to said rod, substantially as herein shown and described.

Signed at New York, in the county of New York and State of New York, this 11th day of March, A. D. 1901.

ALFRED FORNANDER.

Witnesses:
OSCAR F. GUNZ,
N. M. FLANNERY.