

No. 626,186.

Patented May 30, 1899.

W. H. NICHOLLS.
RAZOR STROPPING DEVICE.

(Application filed Aug. 24, 1898.)

(No Model.)

Fig. 1.

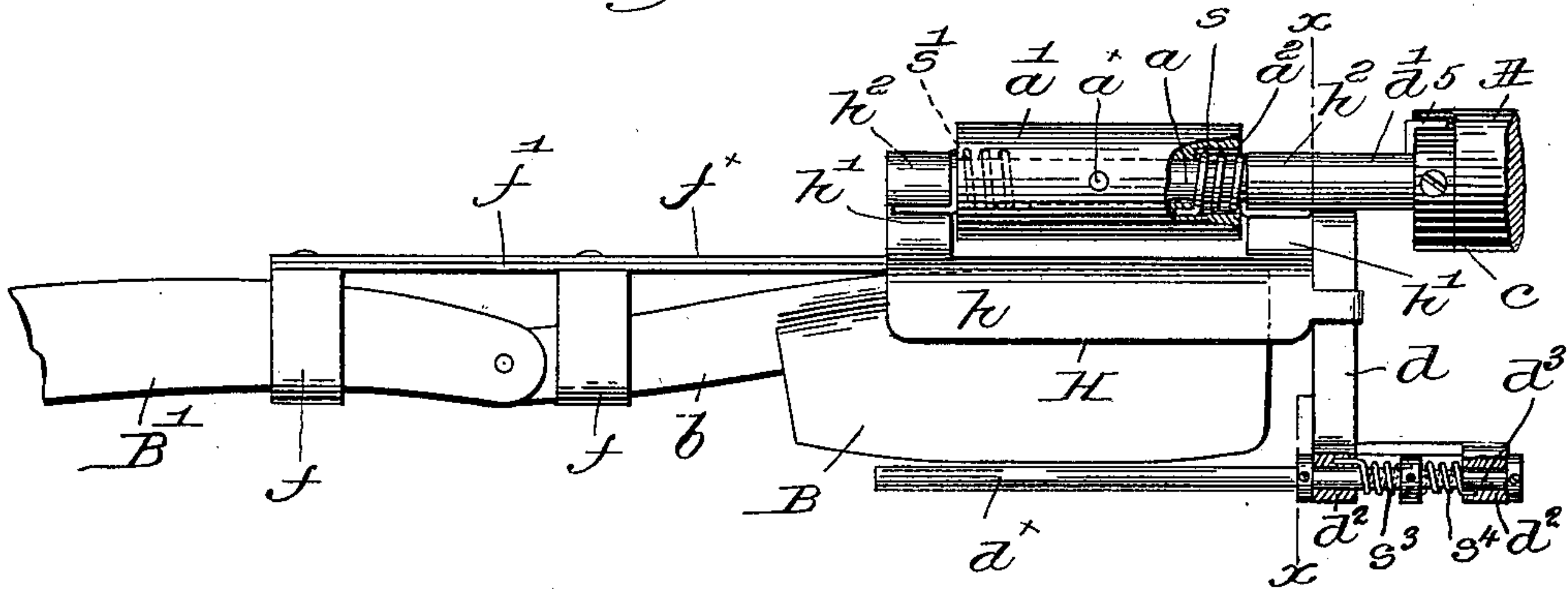


Fig. 2.

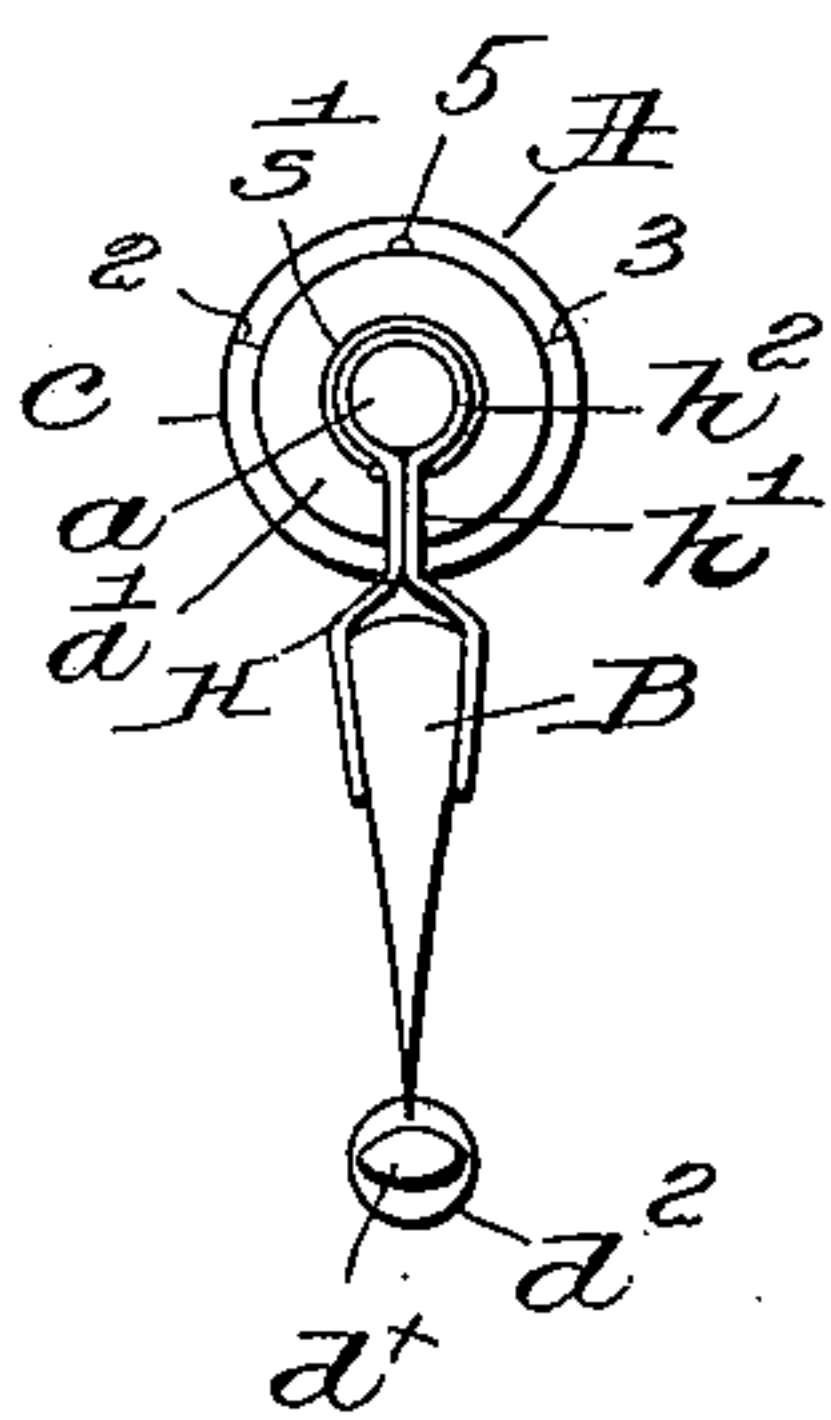


Fig. 4.

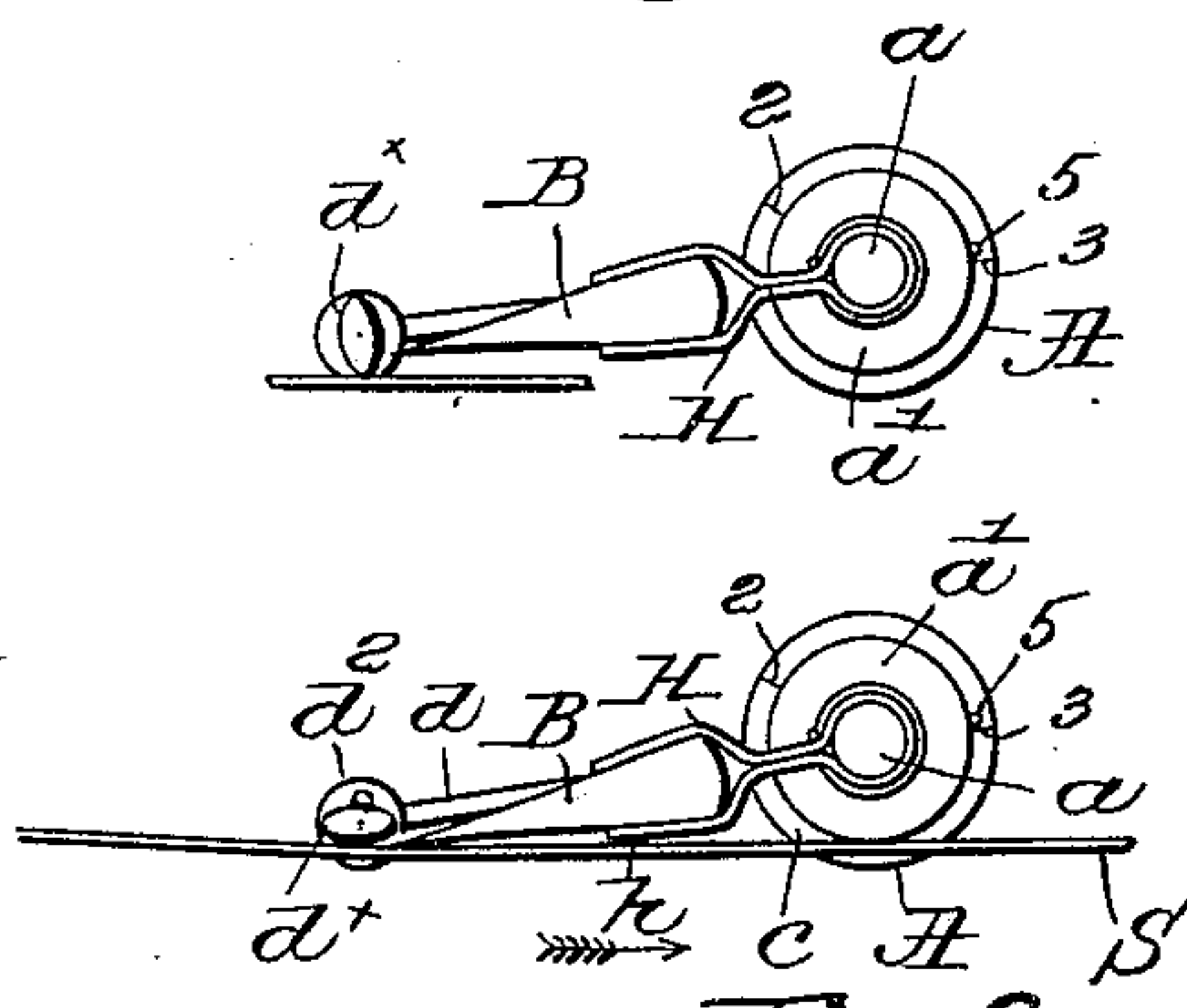
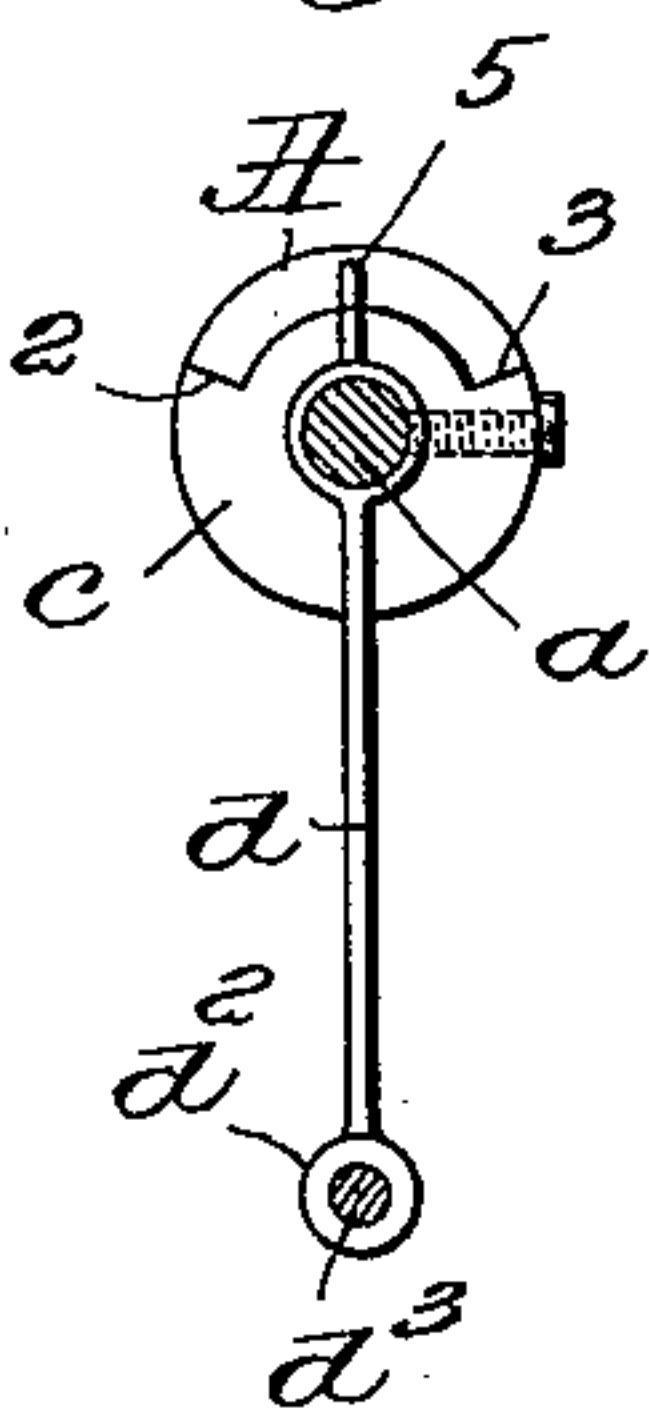


Fig. 3.

Fig. 5.



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UNITED STATES PATENT OFFICE.

WALTER H. NICHOLLS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO LIBBY,
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RAZOR-STROPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 626,186, dated May 30, 1899.

Application filed August 24, 1898. Serial No. 689,399. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. NICHOLLS, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Razor-Stropping Devices, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

10 This invention has for its object the production of a simple and effective device for holding the blade of a razor while stropping it, means being provided for changing the position of the blade-holder relative to its support at the end of the stroke, so that the blade will be in proper position for the beginning of the return stroke.

20 In my present invention the razor-blade is not turned over the back thereof, and in order to prevent turning the edge of the blade I have provided a guard which operates to lift the edge of the blade clear of the strop at the beginning and end of each stroke.

25 Various constructional details will be hereinafter described, and particularly pointed out in the claims.

30 Figure 1 is a side elevation, partly in section and with the handpiece or handle broken off, of a razor-stropping device embodying my invention. Fig. 2 is a left-hand end view thereof, with a different form of blade, however. Fig. 3 is a similar view of the device, but showing the parts in the relative positions assumed when the blade is pressed upon the razor-strop. Fig. 4 shows the operation of the edge-guard in lifting the edge of the blade from the strop at the end of the stroke; and Fig. 5 is a transverse sectional view on the line xx , Fig. 1, looking toward the right.

40 The handle A, of any suitable shape adapted to be conveniently grasped by the hand, has rigidly secured thereto a spindle a , which supports the blade-holder H, shown as having longitudinal resilient lips h to receive and hold the blade B between them with its back toward the spindle. The blade-holder is provided with two parallel arms h' near its ends, having loops h^2 , through which the spindle a extends, the blade-holder being thus pivotally mounted thereupon and capable of angular movement relative thereto. Between

the arms h' I have herein shown a sleeve a' , secured to the spindle by a pin a^x and socketed at its ends at a^2 to receive two oppositely coiled or acting springs $s s'$, one end of each spring being attached to the sleeve and the other end bearing against one of the arms h' , the opposite action of the springs tending to normally center the blade-holder no matter in which direction it may be swung, the two springs acting precisely as would a single spring coiled in opposite directions at its ends and fastened to the spindle.

When the device is in use, the sleeve a' travels along the strop S, (see Fig. 3,) while the pressure of the blade B upon the strop is resisted by one of the springs, and as soon as the user of the device raises his hand at the end of the stroke the compressed spring returns the blade-holder and blade to a position substantially at right angles to the strop, (see Fig. 2,) after which downward pressure of the hand and movement in the opposite direction compresses the other spring as the blade-holder is swung about the spindle.

35 In order to prevent undue angular movement of the blade-holder, I prefer to provide limiting-stops, and herein I have shown a segmental collar c , which may be attached to the spindle adjacent the end of the handle A or to the latter, a projection or lug 5 on the edge-guard arm coöperating with one or the other of the faces 2 3 of the segment. The lug 5 is shown against the face 3 in Figs. 3 and 4.

45 As the blade does not turn over its back when reversed it is necessary to protect the edge of the blade at such time, and for this purpose an arm or guard carrier d , having a bearing d' , is mounted on the spindle a between the blade-holder and handle, said arm at its free end having bearings d^2 , Fig. 1, for the cylindrical shank d^3 of the guard d^x , which is preferably made substantially elliptical in cross-section, as shown in Figs. 2, 3, and 4. Centering-springs $s^3 s^4$ (clearly shown in Fig. 1) tend to return the guard into the position shown in Figs 1, 2, and 4 whenever external pressure upon the guard is removed, retaining the guard with its longer diameter substantially at right angles to the blade.

When the guard is rested upon the strop, as in Fig. 4, with the sleeve a' also upon the

latter, the normal position of the guard relatively to the blade will retain the edge of the latter above the strop until the stroke is begun, there being slight relative angular movement of the blade-holder and guard, and then the friction on the guard will turn it over until its flatter side rests upon the strop, as in Fig. 3, letting the blade edge travel along the stopping-surface. As soon as the end of the stroke is reached, however, and pressure released, the centering-springs s^3 s^4 turn the guard, lifting the edge of the blade, and the blade-holder is swung around its spindle, while the guard acts as a fulcrum.

The springs s^3 s^4 are made very light, just strong enough to effect the required centering of the guard, so that the friction of the guard on the strop will readily act to turn the guard, as described.

A clip h^5 on the blade-holder embraces the arm or carrier d of the guard and permits slight relative angular movement of said guard and blade-holder, so that the edge of the blade can be brought to bear upon the strop from the position shown in Fig. 4.

A short cutting-blade may be held in the blade-holder H, or an ordinary razor may be held by my device, and, as shown in Fig. 1, the handle B' and tang b of the blade are held in suitable spring-clamps f , attached to a metal strap f' , having a leaf-spring f^x fastened at one end thereto, the free ends of said spring and strap being inserted in the blade-holder back of the blade.

My invention is not restricted to the precise construction and arrangement herein shown, for obviously modifications of construction and rearrangement of parts may be made without departing from the spirit and scope of my invention.

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

1. In a razor-stropping device, a blade-holder, a spindle on which it is pivotally mounted, a handle to which the spindle is rigidly secured, and yielding controlling means for the blade-holder, substantially as described.

2. In a razor-stropping device, a handle, a spindle rigidly connected therewith and a swinging blade-holder yieldingly connected with the spindle and laterally offset therefrom, substantially as described.

3. In a razor-stropping device, a blade-holder, a spindle on which it is pivotally

mounted, a handle to which the spindle is rigidly secured, stops to limit the angular movement of the blade-holder relative to the spindle, and means normally tending to retain the blade-holder midway between the stops, substantially as described.

4. In a razor-stropping device, a handle provided with a spindle, a swinging blade-holder yieldingly connected with and mounted upon the spindle, and an edge-guard movable with the blade-holder, substantially as described.

5. In a razor-stropping device, a handle provided with a spindle, a swinging blade-holder yieldingly connected with and mounted upon the spindle, an edge-guard carried by the spindle, and a connection between the guard and blade-holder permitting slight relative movement, substantially as described.

6. In a razor-stropping device, a supporting-spindle, a blade-holder and an edge-guard pivotally mounted thereupon, spring-controlling means to normally return said blade-holder to a certain angular position relative to the spindle, and stops to limit the pivotal movement of the blade-holder, substantially as described.

7. In a razor-stropping device, a swinging blade-holder, a supporting-spindle with which it is yieldingly connected, an edge-guard substantially elliptical in cross-section, an arm between it and the spindle, and spring-actuated means to normally hold the guard with its longer diameter at right angles to the blade, substantially as described.

8. In a razor-stropping device, a spindle, a spring-controlled blade-holder and a spring-controlled edge-guard, both mounted on the spindle and connected, said edge-guard being extended adjacent the blade edge when in use, and stops to limit the angular movement of the blade-holder, substantially as described.

9. In a razor-stropping device, a blade-holder, a spindle on which it is pivotally mounted, a handle to which the spindle is rigidly secured, and means normally tending to retain the blade-holder in a fixed angular position relative to the spindle, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WALTER H. NICHOLLS.

Witnesses:

JOHN C. EDWARDS,
LAURA MANIX.