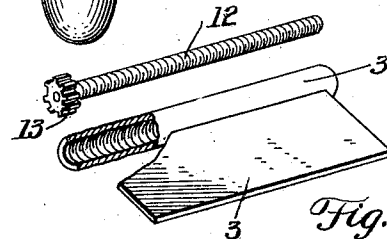
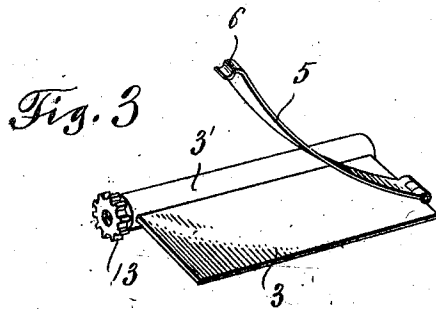
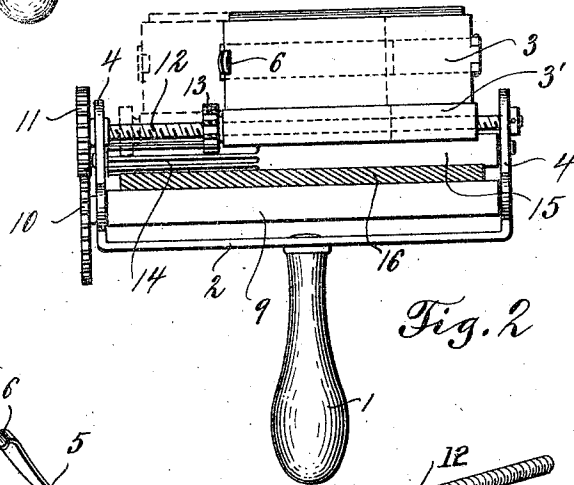
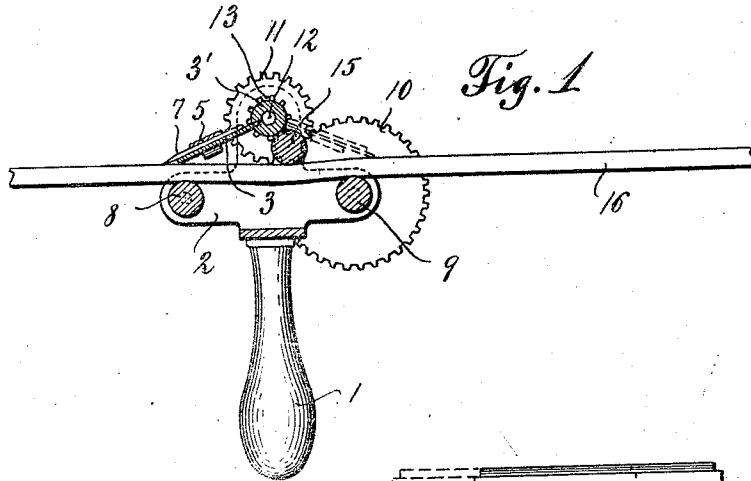


J. F. MACINDOE.
MECHANICAL RAZOR STROPPING DEVICE.
APPLICATION FILED MAR. 1, 1911.

1,014,602.

Patented Jan. 9, 1912.



WITNESSES:

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MECHANICAL RAZOR-STROPPING DEVICE.

1,014,602.

Specification of Letters Patent.

Patented Jan. 9, 1912.

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To all whom it may concern:

Be it known that I, JOHN FRANKLIN MACINDOE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Mechanical Razor-Stropping Devices; of which the following is a specification.

This invention comprises improved means for mechanically stropping razor blades, and is designed especially for use in sharpening blades of the class ordinarily employed for safety razors.

The popularity of the safety type of razors so much used at the present time, has resulted in the invention of various devices for resharpening the razor blades after use thereof. Practically all of the mechanical or automatic stropping devices on the market provide means for carrying the blade in contact with a strop and reversing the same as the movement of the device along the strop is reversed.

In stropping a razor I have attained the best results by forcing the blade diagonally across the strop in the up and down strokes of the blade in contact therewith. Having the above in view, the device of the present invention provides means for imparting transverse movement to the blade holder as the latter is moved longitudinally of the strop and, both on the forward and reverse strokes of the device, the efficiency of the invention and its practical value for the purpose of resharpening blades are materially increased by reason of the above advantageous construction.

For a full understanding of the present invention, reference is to be had to the following description and to the accompanying drawings, in which—

Figure 1 is a vertical sectional view showing a stropping device constructed in accordance with this invention, arranged operatively with respect to an ordinary strop; Fig. 2 is a side view of the device, the strop being shown in section; Fig. 3 is a detail perspective view of the blade holder. Fig. 4 is a sectional detail view showing part 3' interiorly threaded.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring to the drawing, 1 denotes a

suitable handle which is attached to a frame 2. Mounted on the upper portion of the frame 2 is a blade holder 3 journaled for partial rotary movement in bearings provided in the sides 4 of the frame 2. The blade holder 3 may be of any general construction so far as the means for attaching the blade holder is concerned, the construction shown including a suitable spring clamping member 5 pivoted to one end of the holder and having a catch 6 for engagement with the other end of the holder to securely fasten the blade 7 and hold the same during the operation of the device. A guide roller 8 and an operating roller 9 are mounted in suitable bearings in the lower portion of the frame 2, and the roller 9 has one of its journals projecting through the frame so as to receive thereon an operating gear 10 rotatable with the roller. The gear 10 meshes with the small gear 11 secured to the end of a threaded shaft 12 mounted on the sides 4 of the frame 2 adjacent to the blade holder. The blade holder is formed with a tubular internally threaded portion 3' through which the threaded shaft 12 passes, thereby supporting the holder for proper operation by the shaft 12 and other associated parts. At one end of the tubular portion 3' of the blade holder 3 is secured a pinion 13 which is in mesh with an elongated toothed portion 14 of a roller 15 mounted on the sides 4 of the frame 2, said roller 15 being arranged to engage the upper side of the strop 16 and to be rotated as the device is reciprocated longitudinally of the strop.

In the operation of the invention, the strop is passed between the rollers 8 and 9, and the roller 15 and by grasping the handle the device is moved back and forth along the strop in the customary manner of operation of mechanical stropping means ordinarily in use. During the movement of the device as above mentioned, the roller 9 turns the gear 10 and motion is imparted to the threaded shaft 12 through the gear 11 so that as the shaft 12 is rotated, by reason of its threaded connection with the blade holder 3, the latter will move transversely of the strop during its longitudinal movement therealong. The above action causes the desirable diagonal movement to the blade in resharpening the same. The roller 15 is a reversing roller and rotates in

one direction as the device is moved forwardly on the strop, and in the opposite direction as the movement of the device is reversed. It will be apparent that the reversal of the rotation of the roller 15, by means of the teeth 14 meshing with the pinion 13, will reverse the position of the blade holder with respect to the strop simultaneously with the reversal of the direction of movement of the stropping device.

Having thus fully described my invention, what is claimed as new is:—

1. In a device for mechanically stropping razor blades, the combination of a supporting frame movable lengthwise of a strop, a revoluble threaded transverse shaft in said frame, a blade holder movable endwise of the shaft and transversely of the frame, and means for actuating said shaft as the frame is moved bodily along the strop.

2. In a device for mechanically stropping razor blades, the combination of a frame adapted to be moved bodily along a strop, a revoluble threaded transverse shaft in said frame, strop actuated shaft revolving means carried by the frame, a blade holder mounted on said shaft, said shaft and blade holder being connected for moving the latter transversely of the frame during bodily movement of the frame along the strop.

3. In a device for mechanically stropping razor blades, the combination of a supporting frame movable lengthwise of a strop, a revoluble threaded transverse shaft in the frame, said shaft being connected with a blade holder to move the latter transversely of the frame, means for actuating said shaft as the frame is moved bodily along the strop, and means for reversing the position of the blade holder when the movement of the frame with respect to the strop is reversed.

4. In a device for mechanically stropping razor blades, the combination of a frame adapted to be moved bodily along a strop, a revoluble threaded transverse shaft in said frame, strop actuated shaft revolving means carried by the frame, a blade holder mounted on said shaft, said shaft and blade holder being connected for moving the latter transversely on its shaft with respect to the frame during bodily movement of the frame along the strop, and means associated with the blade holder for reversing its position with respect to the strop when the movement of the frame is reversed.

5. In a device for mechanically stropping razor blades, the combination of a supporting frame adapted to be moved bodily along a strop, a threaded shaft mounted trans-

versely in said frame, a blade holder having threaded connection with said shaft, and means for rotating the threaded shaft as the frame is moved bodily, whereby to cause transverse movement of the blade holder on the shaft.

6. In a device for mechanically stropping razor blades, the combination of a frame, a handle connected thereto for actuating same, a strop contacting roller mounted therein, a revoluble threaded transverse shaft in said frame, a blade holder reversibly mounted on said shaft, a reversing roller mounted in the frame, gearing connecting the threaded shaft and the strop contacting roller, and means connecting said reversing roller with the blade holder to reverse the latter when the rotation of the strop contacting roller is reversed.

7. In a device for mechanically stropping razor blades, the combination of a supporting frame, a blade holder mounted thereon for transverse movement, a reversing roller mounted in the frame, means for imparting transverse movement to the blade holder during bodily movement of the frame, and a sliding connection between the blade holder and the strop reversing roller, whereby the latter is reversed when the rotation of the roller is reversed.

8. In a device for mechanically stropping razor blades, the combination of a supporting frame, an operating roller mounted therein, a reversing roller mounted on the frame, a threaded shaft carried by the frame, a blade holder supported by said shaft, gearing connecting the threaded shaft and the operating roller and a sliding connection between the reversing roller and the blade holder.

9. In a device for mechanically stropping razor blades, the combination of a supporting frame, an operating roller mounted therein, a reversing roller mounted on the frame, a threaded shaft carried by the frame, a blade holder supported by said shaft, gearing connecting the threaded shaft and the operating roller, and a pinion carried by the blade holder, the reversing roller having teeth meshing with the pinion and permitting sliding movement of the latter with respect to the reversing roller.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN FRANKLIN MACINDOE.

Witnesses:

MAHLON VAN BOOSKIRK.
JAMES S. CLIFFORD.