

J. A. HARRINGTON.
STROPPING DEVICE.
APPLICATION FILED JUNE 1, 1911.

1,065,243.

Patented June 17, 1913.

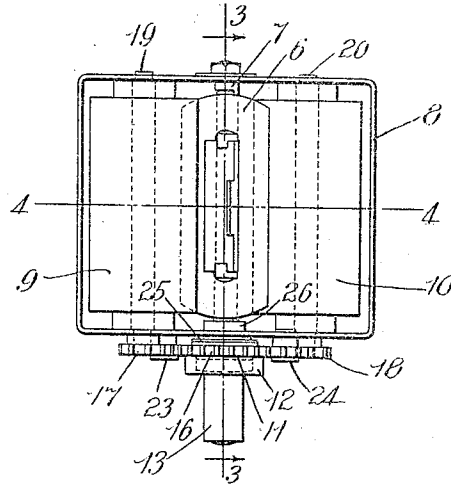


Fig. 1.

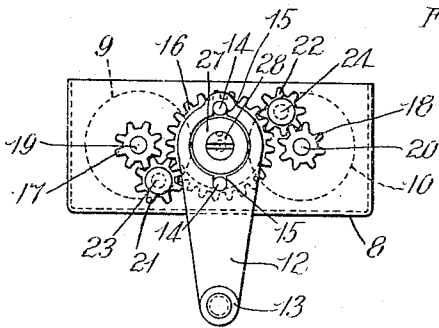


Fig. 2.

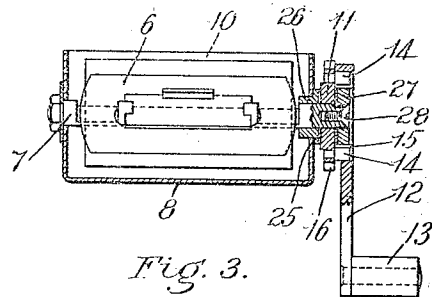


Fig. 3.

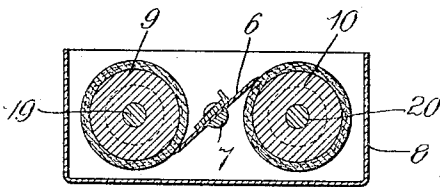


Fig. 4.

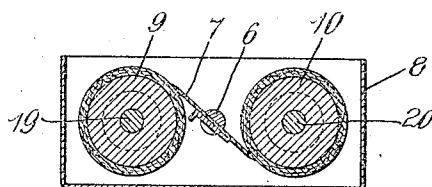


Fig. 5.

Witnesses.
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Leonard A. Powell.

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Joseph A. Harrington,
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Charles S. Gooding.

UNITED STATES PATENT OFFICE.

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STROPPING DEVICE.

1,065,243.

Specification of Letters Patent.

Patented June 17, 1913.

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To all whom it may concern:

Be it known that I, JOSEPH A. HARRINGTON, a citizen of the United States, residing at South Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Stropping Devices, of which the following is a specification.

This invention relates to improvements in razor stropping devices of that class in which the stropping surface consists of drums having a suitably prepared surface and while the present embodiment of my invention is particularly adapted for stropping safety razor blades and especially double edge blades, the device is readily adapted to other classes of blades.

The object of my invention is to provide a simple, convenient and effective stropping device by means of which a blade may be stropped by rotating a suitable manually operated actuating member alternately in opposite directions and by such rotation the blade may be presented to the stropping surface or surfaces first on one face and then on the other and the direction of rotation of the drums shall be changed automatically with the reversal of the blade.

To this end, my invention consists in the novel features of construction and in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings: Figure 1 is a plan of a razor stropping device embodying my invention. Fig. 2 is a front elevation of the stropper. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1, looking toward the right. Fig. 4 is a sectional view taken on line 4—4 of Fig. 1, showing the blade in the same position as that in which it is shown in Fig. 1. Fig. 5 is a sectional view also taken on line 4—4 of Fig. 1, showing the blade reversed.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 6 is a razor blade which may be of any usual or desired type and which, in the present instance, is shown as being of the double edge type. It will be distinctly understood, however, that the device, while particularly desirable for stropping this type of blade, is not limited in its application thereto, but may be used for stropping single edge blades. The blade is

mounted on and secured in any suitable manner to a suitable blade holder 7 which is mounted to rock about an axis in suitable bearings provided in the frame or casing 8. Also journaled in suitable bearings in the frame 8, I provide a pair of stropping drums, which are designated by numbers 9 and 10. Preferably, the blade and its holder are mounted between the drums in such a manner that as the blade is rocked to and fro both sides of both edges of the blade will be stropped without removing the blade from the holder and reversing the same.

To operate the blade holder and the drums, I provide a suitable manually operatable actuating member 11 consisting of a wheel journaled on the blade holder 7 and provided with a crank 12 having a handle 13. This crank may be either permanently or detachably attached to the wheel 11 and preferably the latter, and for this purpose, in the present instance, I have shown said wheel as being provided with lateral projecting pins 14, 14 fitting into recesses 15, 15, respectively, provided in the crank 12. The wheel 11 is connected with the drums 9 and 10 to rotate the same and for this purpose I employ suitable gearing preferably of the spur type so that the driving connection between the wheel 11 and the drums 9 and 10 is a positive one. To this end, the wheel 11 is provided with spur teeth 16 thereby constituting the same a driving gear. The drums 9 and 10 are provided with gears 17 and 18 secured to their respective shafts 19 and 20, these gears being connected to the driving gear 16 by intermediate idler gears 21 and 22, respectively, journaled on studs 23 and 24. The use of these intermediate gears gives the drums the proper rotation to correspond with the positions assumed by the blade with respect thereto. The wheel 11, which constitutes the driving member, is connected to the blade holder by suitable frictional rotary driving means which, in the present instance, consists of a spring washer 25 interposed between the wheel 11 and a collar 26 fixed on the holder 7. The proper amount of friction of the driving surfaces is obtained by means of an adjusting nut 27 having screw-threaded engagement with the blade holder 7 and an adjustment locking screw 28, the head of which bears against said nut and locks the same after it has been properly adjusted.

The operation of the stropping device hereinbefore specifically described is as follows: Assuming that the blade is in place on the holder with the crank 13 attached to the wheel 11, the user holds the frame or casing 8 in one hand or places the same upon a suitable support and with the other hand grasps the handle 13. He then rotates said handle alternately in opposite directions, preferably several rotations in each direction. Assuming that at the start, the blade occupies the position shown in Fig. 4 and the handle is rotated clockwise, Fig. 2, it will be evident that the drums 9 and 10 will be positively rotated by reason of the gearing connecting the same to the driving gear 16, while at the same time since the connection between the gear 16 and the blade holder 7 is a slipping driving connection, a slipping action will immediately take place, since the blade is in connection with the drums 9 and 10, and it will be evident that this frictional driving connection which has just been referred to forms a means for furnishing the desired pressure of the blade against the stropping drums. If now, after several turns of the handle in a clockwise direction, the direction of the handle be reversed it will be evident that the position of the blade will be reversed, since the blade will move freely across the intervening space between the drums until the blade occupies the position shown in Fig. 5, whereupon the blade encountering the drums, ceases to rotate, is held with the proper pressure against the drums, and the drums are then rotated in an opposite direction or, in other words, counterclockwise. The operator continues to rotate the handle alternately in opposite directions until the blade has been sufficiently stropped, after which the blade may be removed from its holder.

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

1. A stropping device having, in combination, a pair of journaled drums, a holder for a two-edged blade mounted to rock

about an axis intermediate said drums and adapted to carry the opposite edges of said blade into and out of contact with said drums alternately, a rotary actuating element rotatably mounted upon said holder, means forming a slipping driving connection between said element and said holder and means forming a positive driving connection between said element and said drums.

2. A stropping device having, in combination, a pair of journaled drums, a holder for a two-edged blade mounted to rock about an axis intermediate said drums and adapted to carry the opposite edges of said blade into and out of contact with said drums alternately, means arranged to rotate about the axis of said holder adapted to impart a positive rotation to said drums and frictional driving means interposed between said rotating means and said holder adapted to impart a rocking motion to said holder, whereby said drums may be positively rotated and the opposite edges of said blade may be simultaneously held with a yielding pressure against the peripheries of said drums.

3. A stropping device having, in combination, a pair of journaled drums, a blade-holder mounted to rock about an axis between and located in the plane containing the axes of the said drums to carry the blade into and out of contact with said drums alternately, a wheel adapted to rotate about the axis of said holder having frictional rotary driving connection with said holder, manually operable driving means for said wheel and gearing connecting said wheel to said drums, said gearing including intermediate gears whereby the peripheries of said drums travel away from the cutting edge of said blade.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH A. HARRINGTON.

Witnesses:

LOUIS A. JONES,
SYDNEY E. TART.