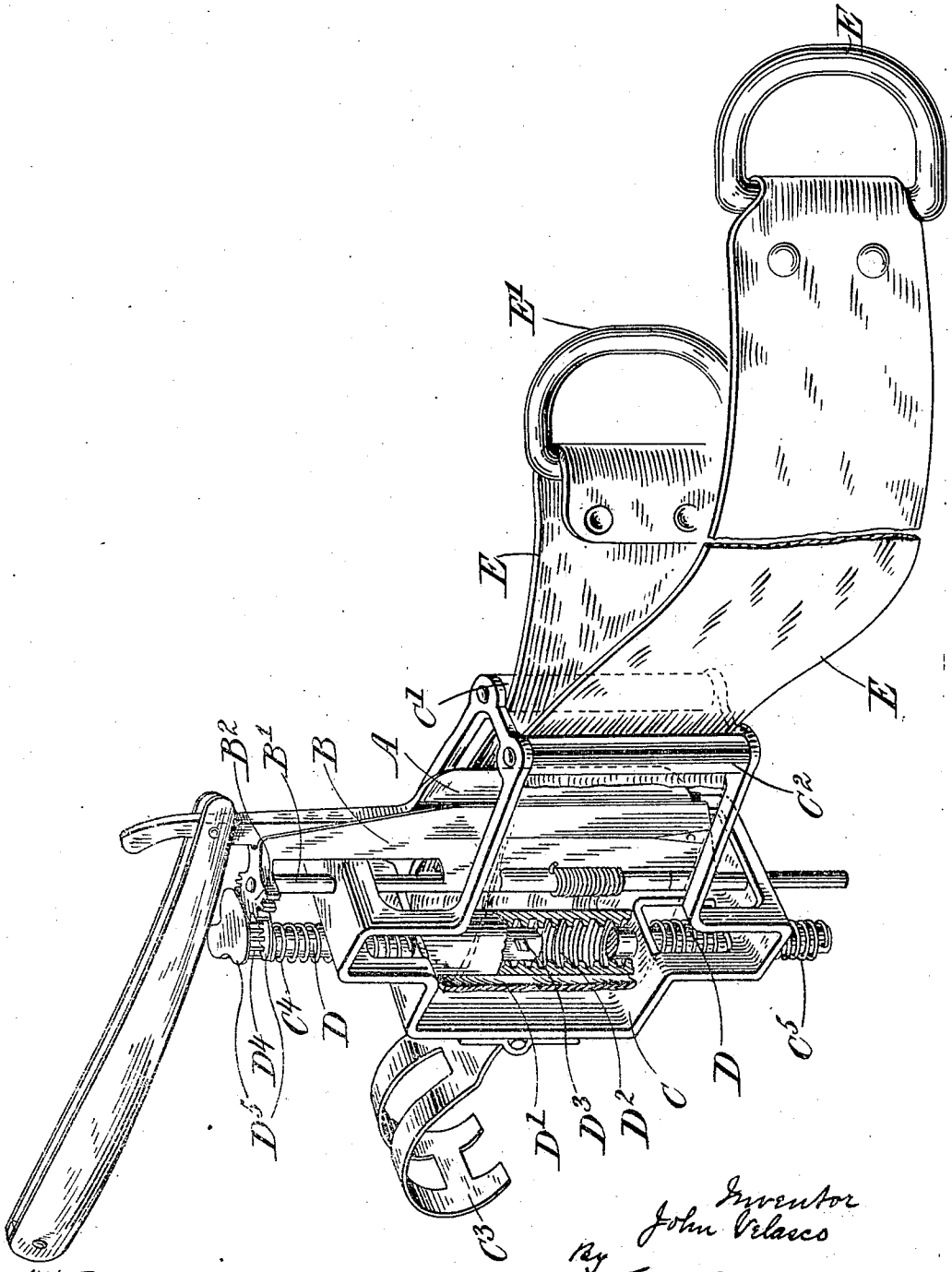
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J. VELASCO.

RAZOR STROPPING DEVICE.

APPLICATION FILED AUG. 26, 1905.



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RAZOR-STROPPING DEVICE.

No. 825,947. Specification of Letters Patent. Patented July 17, 1906.

Application filed August 26, 1905. Serial No. 275,957.

To all whom it may concern:

Be it known that I, JOHN VELASCO, a subject of the King of England, residing at Clapham Common, London, England, have invented a certain new and useful Improved Razor-Stropping Device, of which the following is a specification.

This invention relates to that class of razor-stropping devices wherein a razor clamped in a carrier is subjected on opposite sides alternately to the action of a strap or band which is drawn to and fro around a guide mounted so as to partially rotate in opposite directions alternately under frictional contact with the strap, the axis of said guide being so connected to the clamp as to cause the latter to oscillate and present the edge portion of the razor-blade at the proper angle to frictional contact with the moving strap or band. In such stropping devices no provision has hitherto been made for giving to the razor-blade that movement in the direction of its own length during the stropping operation which is imparted to it when skilfully stropped by hand. Such movement is essential for properly "setting" the razor; and the object of the present invention is to remedy this defect, so as to enable any person however unskilled to obtain mechanically, and consequently with certainty, a result equal to that obtainable by a skilled person using an ordinary strop.

The invention consists, essentially, in providing means whereby not only does the razor receive the usual oscillatory movement, but the relative position of the razor-blade and strop is caused automatically to vary continuously in such manner that as the strop is drawn past the razor-blade the latter receives a movement transversely of the strop, or vice versa, the resultant of the two movements being equivalent, in effect, to the oblique movement of the blade relatively to the strop hitherto obtainable only in hand-stropping.

A machine for carrying out the invention comprises in addition to the usual holder for the razor blade and strop movable to and fro over the razor-blade mechanism actuated by the movements of the strop to produce relative movement between the blade and the strop in a direction transverse to the actuating movement of the strop.

In order that the invention may be fully understood, a razor-stropping machine embodying a preferred form of the invention will now be described, by way of example only and not of limitation, with reference to the accompanying drawing, which shows a perspective view with parts cut away, of such a machine.

The spring-clamp B, in which the blade A of the razor is held, is carried on a rod B′, mounted in bearings in the frame C of the machine, so as to be capable not only of oscillation, as usual in machines of this type, but also of endwise movement. To the rear of and parallel with the rod B′ is a spindle D, carried in bearings in the frame C, so as to be capable, like the rod B′, of both rotary and endwise movement. Surrounding the middle portion of the spindle D is a sleeve or tubular roller D′, held from endwise movement by portions of the frame C, as clearly shown in the figure. The roller D′ forms the rear guide for a leather band E, which constitutes the strop, the ends of the strop passing forward, one on each side of the razor-clamp, between guide-rolls C′ C^2 in a manner usual in these machines.

As the strop is drawn to and fro the roller D′ is oscillated, and means are provided in connection with the roller and spindle to convert all but the initial part in either direction of rotary movements of the former into endwise movement of the latter, and through the latter to the razor-clamp. Preferably, as shown in the drawing, the inside wall of the roller is provided with a female screw-thread D^2, with which engages a tooth D^3 or teeth fixed on the spindle. The top of the spindle D is provided with a toothed segment D^4, of which the teeth engage with those of a corresponding segment B^2, fixed on the top of the rod B′, which, as before described, carries the razor-clamp. One of the segments—say, as as shown, D^4—is formed with top and bottom plates D^5, which project beyond the teeth and engage the other segment—say B^2—between them, so that both rotatory and endwise movements of the spindle will be communicated to the razor-clamp.

The operation of the machine is as follows: As the operator stands in front of the machine and pulls the strop-handle E′, held in his right hand, toward him the friction of the strop rotates the roller D′ in a direction which first, through the toothed segments D^4 B^2, throws the razor-clamp over toward the right hand and brings the one face of the razor-blade in contact with the portion of the strop between the roller D′ and guide-roll C′, as shown in the drawing. The clamp is thus prevented from revolving farther in that direction, and rotation of the spindle D is changed into rectilinear endwise movement, moving the razor-blade transversely across the strop as the latter is drawn over the blade. On the operator reversing the movement and exerting a pull on the left-hand strop-handle E^2 the razor-blade is immediately thrown over into contact with the portion of strop on the opposite side of the frame between the roller D′ and guide C^2, and the blade is then given rectilinear endwise movement in the reverse direction.

The frame is provided as usual with means to removably attach it to some fixture when in use—say a hook C^3, as shown—and means are provided, as is usual, for enabling the razor to be readily placed in and removed from the clamp. A pair of coiled springs C^4 C^5, surrounding the spindle, each held between one end thereof, and a portion of the frame C may also be provided in order to normally retain the clamp in its mid-angular position.

Although the machine hereinbefore described embodies the invention in a preferred form, it is evident that the construction described may be varied without departing from the spirit of the invention. For instance, instead of the roller D′ giving endwise movement to the spindle D, and thereby to the razor-holder, these latter may be held from such movement and the roller D′ caused to move along the spindle, so that relative movement between the razor blade and strop transversely to the direction of the actuating movement of the strop would be caused by a movement of the strop and not, as hereinbefore described, by a movement of the razor-holder.

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

1. In a machine for stropping razors the combination with a razor-blade holder, and a strop movable to and fro on each side of the holder, of means actuated by the said movements of the strop to produce relative movement between the holder and the strop in a direction transverse to the actuating movements of the strop.

2. In a machine for stropping razors the combination with a razor-blade holder and a movable strop, of means actuated by movements of the strop to give endwise movement to the holder.

3. In a machine for stropping razors the combination with a razor-holder and a roller to which oscillatory movements are given by the strop, of means whereby oscillation of the roller causes endwise movements of the holder.

4. In a razor-stropping machine and in combination, a frame, a razor-blade holder carried so as to have endwise movement therein, a rod likewise carried in the frame parallel to the holder and capable of endwise movement in the frame, a connection between the holder and the rod so that endwise movement of the latter is communicated to the former, a sleeve surrounding a portion of the rod, so as to rotate thereon and held from endwise movement by portions of the frame, a strop arranged to be drawn to and fro over said sleeve and oscillate the same and an operative connection between the sleeve and the rod so that rotation of the sleeve gives endwise movement to the rod, and through the rod to the holder.

5. In a razor-stropping machine and in combination a frame, a razor-blade holder carried therein capable of both endwise movement and a partial sidewise swinging movement, a rod carried in the frame parallel to the holder and capable of endwise and partial rotatory movement, an operative connection between the holder and the rod so that both movements of the latter communicate corresponding movement to the holder, a sleeve surrounding a portion of said rod so as to rotate thereon and held from endwise movement by portions of the frame, a strop arranged to be drawn to and fro over said sleeve and on each side of the holder, guide-rolls and the strop carried in the frame in front of said holder and an operative connection between the sleeve and the rod so that movement of the sleeve gives both a partial oscillation and an endwise movement to the rod and through the rod to the holder.

6. In a razor-stropping machine, a blade-holder, and means to move it rectilinearly endwise.

7. In a razor-stropping machine, an oscillating blade-holder, and means to move it rectilinearly endwise.

8. In a machine of the class described, the combination with a blade-holder and a strop, of means to effect an oblique relative movement between said holder and said strop.

9. In a machine of the class described, the combination with a blade-holder and a relatively movable strop, of means actuated by the movements of the strop to oscillate and reciprocate the holder.

10. In a machine of the class described, the combination with an oscillating blade-holder

and a strop, of means to effect an oblique relative movement between said holder and said strop.

11. In a machine of the class described, the combination with a blade-holder and a relatively movable strop, of means actuated by the strop to give rectilinear endwise movement to the holder.

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

JOHN VELASCO.

Witnesses:
T. H. RANDOLPH,
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