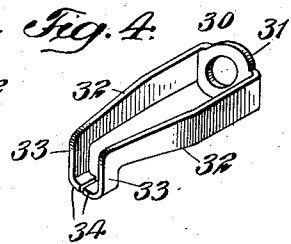
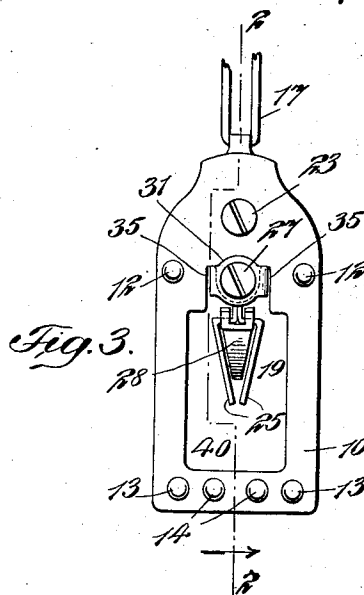
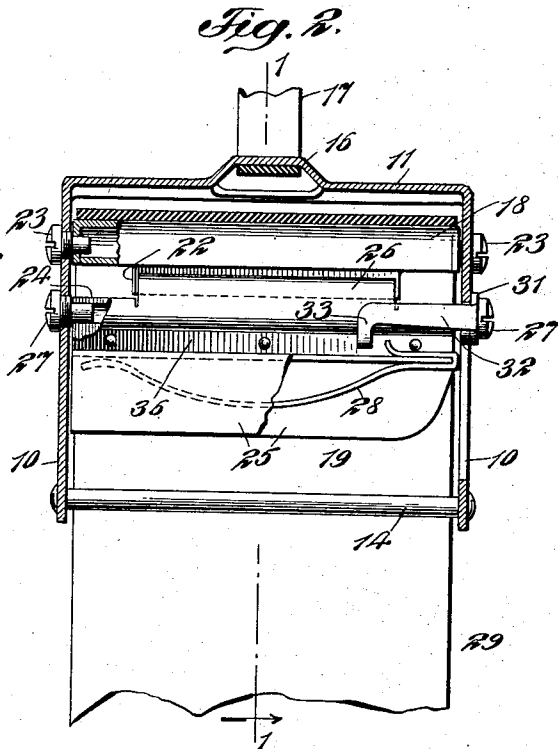
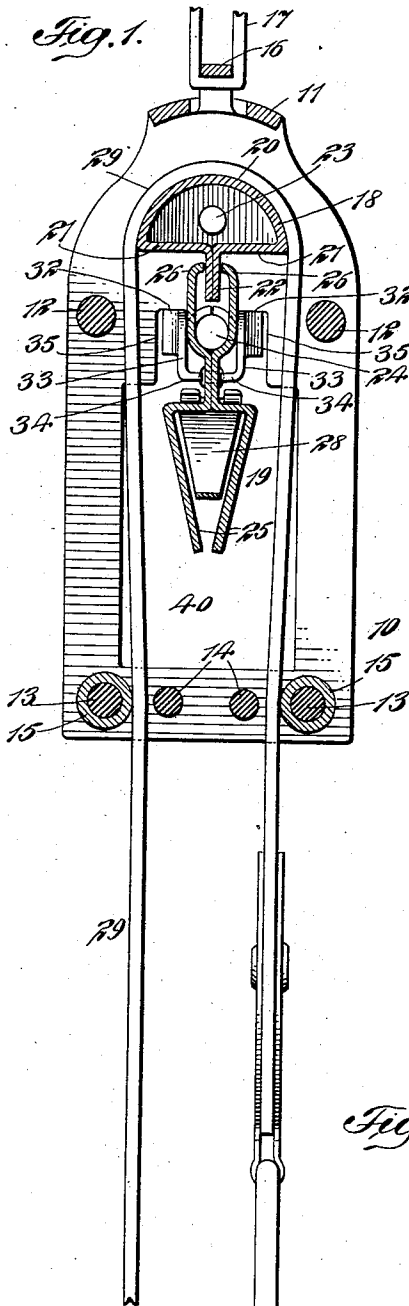


M. L. BRANDT.  
 RAZOR STROPPING MACHINE.  
 APPLICATION FILED MAY 18, 1911.

1,025,120.

Patented May 7, 1912.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

MAURICE L. BRANDT, OF BROOKLYN, NEW YORK.

RAZOR-STROPPING MACHINE.

1,025,120.

Specification of Letters Patent.

Patented May 7, 1912.

Application filed May 18, 1911. Serial No. 627,964.

*To all whom it may concern:*

Be it known that I, MAURICE L. BRANDT, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Razor-Stropping Machines, of which the following is a specification.

The invention relates to improvements in razor stropping machines of the class comprising a frame through which a strop is threaded and is to be alternately pulled at its ends, and a blade holder located between the reaches of the strop and adapted to alternately carry the blade thereto as said reaches are alternately pulled outwardly in line with their length, the blade moving to one reach as it is pulled outwardly and to the other reach when it is pulled outwardly, and said invention consists in the novel features hereinafter described, and particularly pointed out in the claims.

One object of the invention is to provide novel mechanism for automatically moving the blade from the strop when the pulling strain is relieved therefrom and to automatically retain the blade holder in a central initial position ready to receive or release a blade.

A further object of the invention is to provide a razor stropping machine composed of but few parts and very durable and capable of having its parts conveniently assembled.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a vertical transverse section through a razor stropping machine constructed in accordance with and embodying the invention, a portion of the razor strop being broken away; Fig. 2 is a central vertical longitudinal section through the same, taken on the dotted line 2-2 of Fig. 3; Fig. 3 is a detached end view, on a reduced scale, of the same, the loop by which the machine is suspended and the strop used in the machine being partly broken away; and Fig. 4 is a detached perspective view of a tension spring for returning the blade holder to its central position when the strain on the strop is relieved.

In the drawing I illustrate the main frame of the machine as comprising ends 10 and a top connecting bar 11 in one integral piece

of sheet metal, said ends 10 being connected by rods 12, 13 and 14, and the rods 12 being suitably near the upper end of said frame and the rods 13, 14 at the lower end thereof. Upon the rods 13 I provide rotary sleeves 15, as usual in this art. The upper transverse bar 11 of the frame has slit and stamped up from its central portion a loop 16 to receive a strap or the like 17 by which the stropping machine may be suspended from a hook or other support in a customary manner. The exterior frame of the machine comprising the ends 10, top bar 11, and loop 16 is in one integral piece.

Between the upper portions of the ends 10 is pivotally mounted a hollow rockable frame 18 and a blade holder 19, each being of sheet metal and said frame 18 having a convex or curved upper surface 20, a horizontal base portion 21 and depending central longitudinal flanges 22, the whole being formed out of sheet metal bent at its middle portion to form the convex surface 20 and having its end portions turned inwardly on horizontal lines to form the base portion 21 and then downwardly on parallel lines to form the flanges 22, as may be understood by reference to Fig. 1. The frame 18 is pivotally secured to the ends 10 of the main frame by screws 23 which are screwed into threaded openings and at their inner smooth ends enter openings in the ends of the frame 18. The inner ends of the screws 23 operate as trunnions upon which the frame 18 may have a rocking movement. The screws 23 may be very readily applied to position and also readily detached when it may be desired to remove the frame 18 from the frame 10.

The blade holder 19 is preferably formed of two corresponding pieces of sheet metal riveted together and bent to form at the ends of the holder tubular members 24, a lower blade receiving member comprising corresponding downwardly converging jaws 25 and an upper member formed of upwardly extending separated parallel flanges 26 which extend upwardly along the outer faces of the flanges 22 and at their upper edges turn inwardly into close relation to said flanges 22, as shown in Fig. 1. The lower portions of the flanges 22 are received with reasonable freedom between the flanges 26. The tubular members 24 of the blade-holding frame 19 are provided to receive the inner smooth ends of screws 27 which oper-

ate as trunnions upon which the holder 19 may have a rocking movement. The screws 27 are screwed into threaded openings in the ends of the frame 10, and, as will be understood without detailed explanation, may be readily applied to position and also detached from the machine if for any reason it might be desired to withdraw the holder 19 therefrom. The tubular members 24 are formed by cutting away portions of the plates from which the holder 19 is formed and then bending the upper edges of the ends of said plates inwardly toward each other, as shown more clearly in Fig. 1. Between the tubular members 24 the remaining upwardly extending portions of the plates comprising the holder 19 constitute the flanges 26, as represented in Fig. 2. The jaws 25 of the blade-holding frame 19 are adapted to receive between them a razor blade, not shown, either alone or held within an auxiliary blade holder in a manner customary in this art, and within the space formed between said jaws 25, I provide a bowed spring 28 adapted, as is customary, to hold a razor blade applied between the jaws firmly with its cutting edge exposed below the same.

I regard the special construction of spring 28 shown herein as novel and have embodied it in a separate application for Letters Patent filed January 12, 1911, Serial Number 602,133. The spring 28 will not, therefore, be specifically described herein, nor is the invention claimed herein limited to the special construction of spring 28 shown.

The strop 29 is folded at its middle portion over the frame 18 and its reaches extend between the rollers 13, 14, as shown in Fig. 1. It is obvious that by alternately pulling on the reaches of the strop 29 in the manner customary in this art the frame 18 will have a rocking movement imparted to it and cause through the engagement of the flanges 22, 26 the blade-holding frame 19 to have a corresponding rocking movement, with the result of causing the edge of the blade to turn against first one reach of the strop when the same is moving outwardly and then against the other reach of the strop when that reach is moving outwardly. In order, however, that the machine should be effective means must be provided for normally holding the blade-holding frame 19 centrally; as shown in Fig. 1, and quickly relieving the edge of the blade from the outwardly moving reach of the strop the moment the reach has had the strain relieved therefrom, and one purpose of my invention is the providing of adequate, convenient, and highly efficient means for yieldingly holding the frame 19 centrally and quickly moving the same to that position when the action of the strop and rocking frame 18 has been relieved from the

frame 19. The means provided by me for yieldingly holding the frame 19 in its central position is the special spring 30 shown in Fig. 4, and this spring is formed from an integral strip of metal bent to constitute an apertured end 31 and two side spring arms 32, the latter at their inner ends having fingers 33 which extend downwardly and then turn inwardly, as at 34. The spring 30 is held by one of the screws 27 which passes through the end of the frame 10 and the aperture in the end 31 of said spring, and in addition said spring is further secured by reason of the fact that the outer ends of the arms 32 of the spring are within vertical slots 35 (Fig. 3) cut in the end of the frame 10. The presence of the slots 35 receiving the outer ends of the arms 32 serves to prevent the spring from rocking on the screw 27. The arms 32 when the spring is in position clasp at their inner ends the opposite sides of the upper portion of the blade-holding frame 19 represented by the flanges 26, and the inwardly extended ends 34 of the fingers 33 engage the opposite sides of the narrow portion 36 of the blade-holding frame 19 located between the jaws 25 and flanges 26 thereof, as the drawings clearly represent. The spring 30 may be introduced to position through the open end of the frame 10 and may be readily secured by means of the screw 27 and as readily detached when desired by withdrawing said screw.

A great deal of difficulty has heretofore been experienced with respect to providing proper spring means for returning the blade-holding frame 19 to its central position, and my invention is designed to remedy the objections heretofore experienced and provide spring means capable of ready attachment to and detachment from the machine and capable of efficiently yieldingly holding the blade-holding frame in its central position. If, for any reason, the spring 30 should become damaged or lose its effective action, it may be detached and a new spring substituted therefor without inconvenience and without the necessity of cutting rivets or sending the machine to the factory for repairs. The spring 30 constructed and applied in the manner shown and described is highly durable and efficient, and while not likely to require any replacement is capable, should the necessity arise, of being very conveniently withdrawn from the machine.

The operation of the machine will largely be understood from the description hereinbefore presented, since the method of alternately pulling outwardly on the reaches of the strop for the purpose of rocking the blade-holding frame 19 is well understood in this art. The frame 18 is caused to rock on the screws 23 by the movement of the

strop 29, said frame first turning in one direction and then in another and imparting through the flanges 22 a simultaneous rocking movement to the blade-holding frame 19, the latter being thus caused to have a rocking movement on the screws 27 between the reaches of the strop 29. When the frame 18 is turned downwardly and to the right, looking at Fig. 1, it will act through the left hand flange 22 to turn the blade-holding frame 19 at its lower portion toward the right, thereby causing the edge of the blade to be engaged by the reach of the strop then being pulled outwardly, and when the frame 18 is turned to the left by a pull on the left hand reach of the strop, it will act through the right hand flange 22 to reversely rock the blade-holder 19 and cause it to carry the blade toward the left and against the left hand reach of the strop then being pulled outwardly. When the stropping of a razor has ceased the spring arms 32 acting against the frame 19 and returning to their normal position, shown in Fig. 1, restore the blade-holding frame to its central position and likewise return the frame 18 to its normal position, said spring arms 32 being under tension when out of their normal position.

One of the essential features in razor stropping machines of the class to which my invention pertains, is to secure the sudden release of the razor blade from the strop the moment the pull on the latter is relaxed so as to avoid injuring the strop and the edge of the razor, and the attainment of this result is one of the objects accomplished by my invention.

A further very desirable purpose, which my invention attains, is to so construct razor stropping machines that they may be durable and lasting, but that if repairs should be necessary they may be confined to parts which are readily removable and capable of renewal at slight expense. One end of the main frame contains a large opening 40, and hence when the screws 27 are withdrawn the entire blade-holding frame 19 may be lowered and removed endwise through said opening. The frame 18 may then likewise be removed upon the withdrawal of the screws 23.

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

1. A stropping machine, comprising a main frame, a pivotally mounted rockable frame (18) therein having a base part and at the longitudinal center thereof a downwardly extending member, a strop folded over and adapted when pulled at either end to actuate said rockable frame, a pivotally mounted blade-holder having an upper mem-

ber in operative engagement with the downwardly extending member of said rockable frame, and spring arms (32) secured to said main frame and at their inner portions extended along the upper portion of said blade-holder for yieldingly holding the latter in a central position, said spring arms being secured to the outer side of the end of said main frame and said frame being recessed (at 35) to receive the outer ends of said arms and thereby prevent swiveling action in the same; substantially as set forth.

2. A stropping machine comprising a main frame, a pivotally mounted rockable frame (18) therein having a base part and at the longitudinal center thereof a downwardly extending member, a strop folded over and adapted when pulled at either end to actuate said rockable frame, a blade-holder (19) adapted to hold a razor blade and having an upper member in operative engagement with the downwardly extending member of said rockable frame, screws (27) engaging the ends of said main frame and having inner trunnion-ends engaging and pivotally supporting said blade-holder, and a spring member comprising spring-arms (32) secured to the end of said main frame by one of said screws and at their inner portions extended along the upper portion of said blade-holder for yieldingly holding the latter in a central position; substantially as set forth.

3. A stropping machine comprising a main frame, a pivotally mounted rockable frame (18) therein having a downwardly extending longitudinal member, a strop folded over and adapted when pulled at either end to actuate said rockable frame, a blade-holder (19) to hold in its lower portion a blade to be stropped and having upwardly extending flanges (26) at the sides of said downwardly extending member of said rockable frame, screws (27) engaging the ends of said main frame and having inner trunnion-ends engaging and pivotally supporting said blade-holder, and a spring member comprising spring-arms (32) secured to the end of said main frame by one of said screws and at their inner portions extended along the upper portion of said blade-holder for yieldingly holding the latter in a central position; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 17th day of May A. D. 1911.

MAURICE L. BRANDT.

Witnesses:

CHAS. C. GILL,  
ARTHUR MARION.