

No. 658,490.

Patented Sept. 25, 1900.

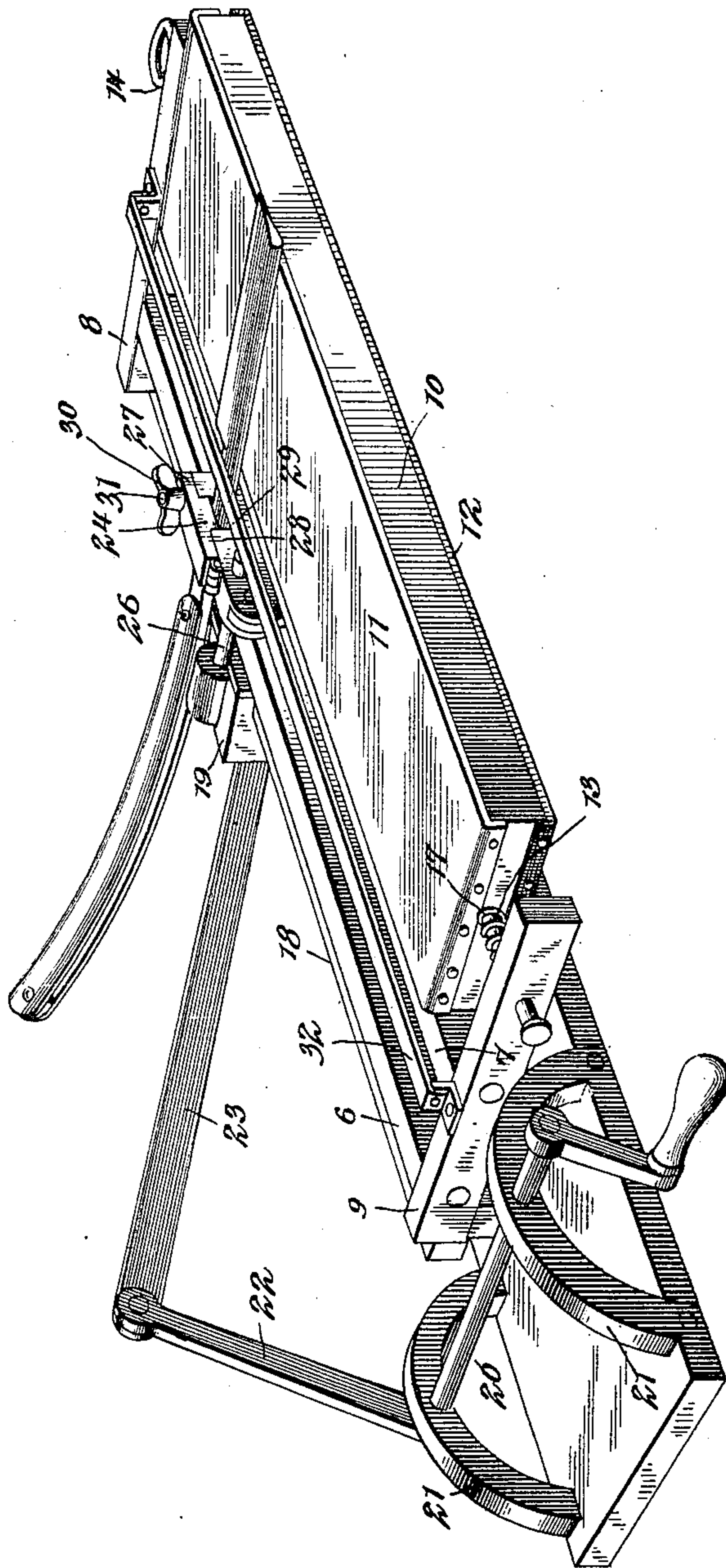
W. W. PATRICK.
RAZOR STROPPING MACHINE.

(Application filed May 8, 1900.)

(Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses
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2 Sheets—Sheet 2.

Fig. 2.

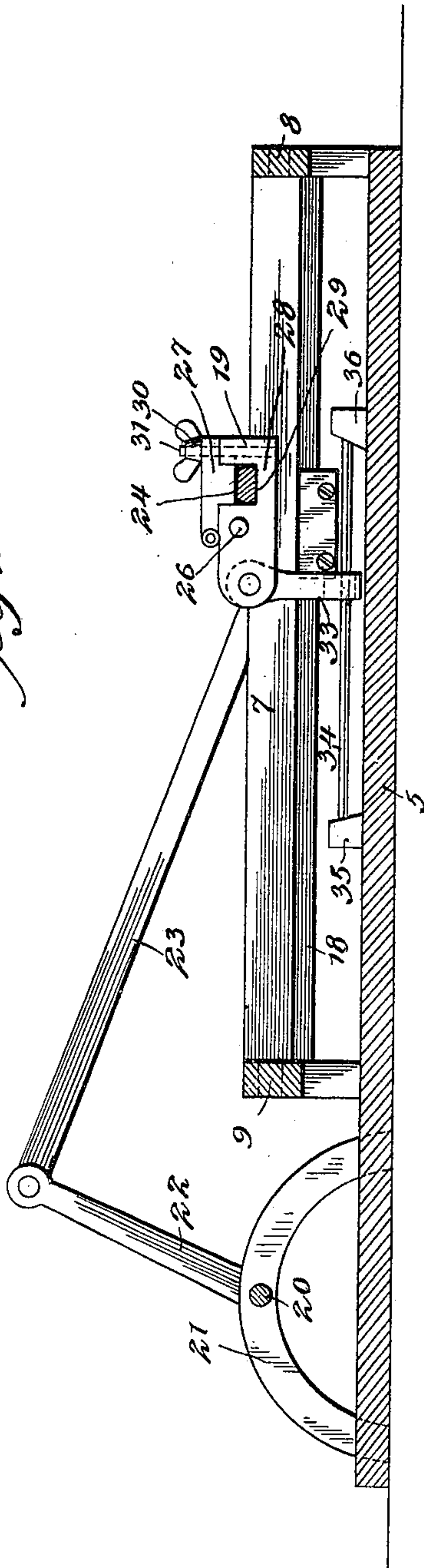


Fig. 4.

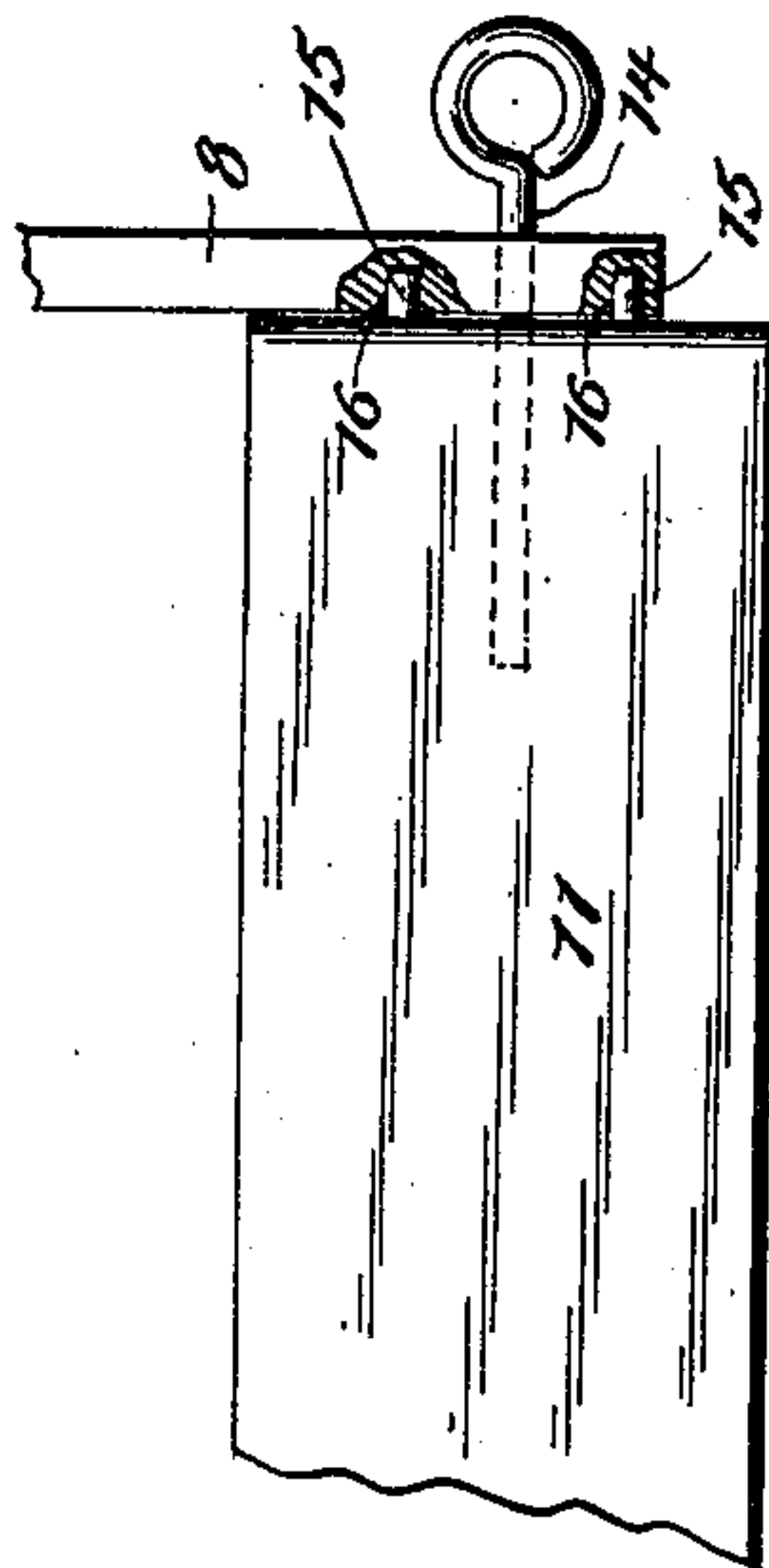
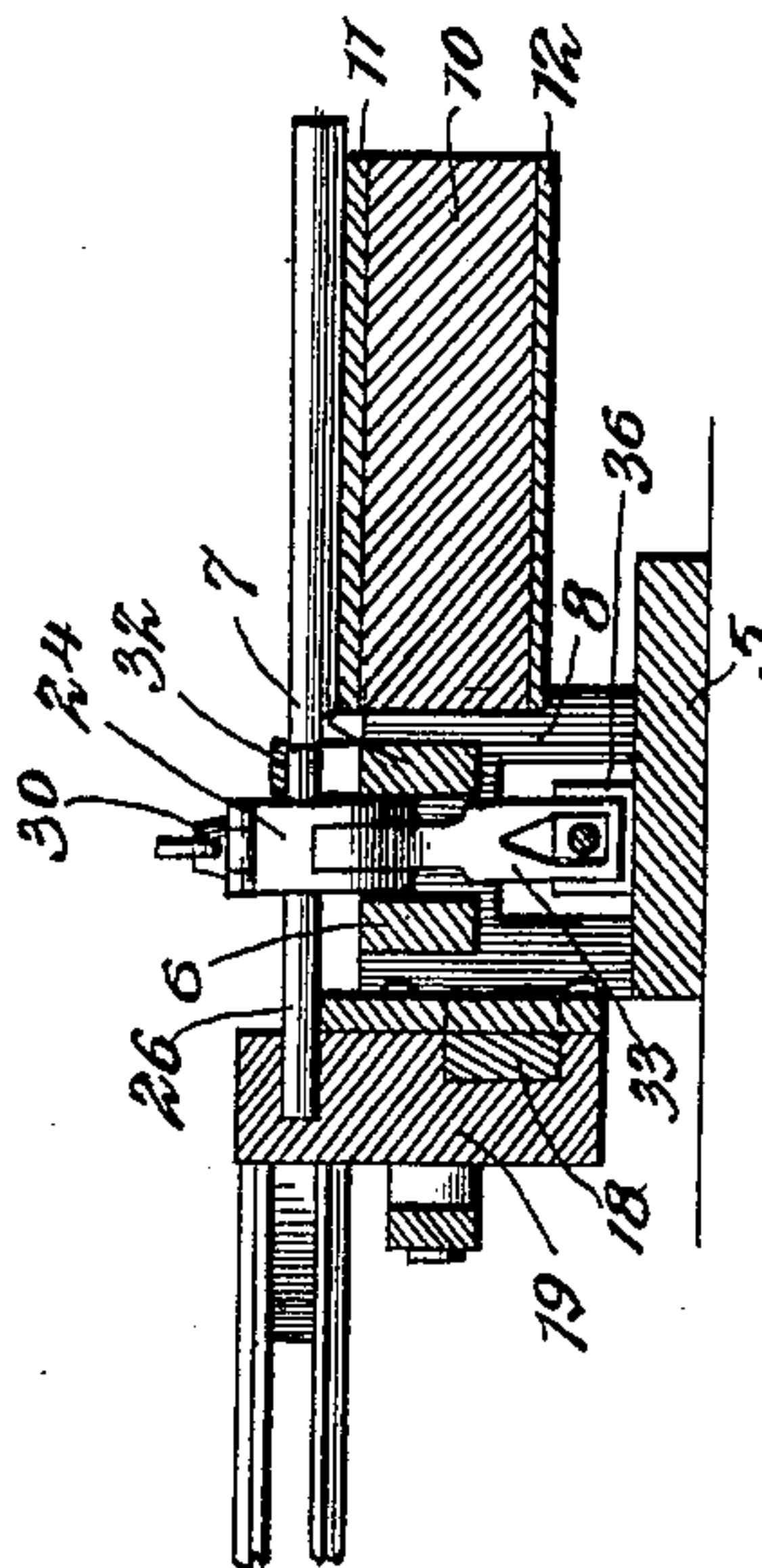


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM W. PATRICK, OF OLIVE HILL, TENNESSEE.

RAZOR-STROPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 658,490, dated September 25, 1900.

Application filed May 8, 1900. Serial No. 15,969. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM W. PATRICK, a citizen of the United States, residing at Olive Hill, in the county of Hardin and State of Tennessee, have invented a new and useful Razor-Stropping Machine, of which the following is a specification.

This invention relates to machines for stropping razors, although the principles involved may be applied to machines designed specifically to sharpen other cutlery; and the object of the invention is to provide a machine in which the razor may be held in a clamp and may be moved over the strop first with one face and then with the other face against the strop, as is usual in honing by hand, a further object of the invention being to so construct and arrange the parts that the resultant machine will be simple, cheap, and efficient.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view showing the complete device with a razor in position for stropping. Fig. 2 is a longitudinal section taken in the rear of the razor-clamp and looking in the direction of the stropping-block. Fig. 3 is a transverse section of the apparatus, taken in the rear of the razor-clamp and showing the position of the razor upon the stropping-block. Fig. 4 is a plan view of one end of the strop, a portion thereof being broken away to show the means for holding the strop from pivotal movement.

Referring now to the drawings, the present machine comprises a base 5, upon which is mounted a frame comprising guide-rails 6 and 7, separated by an interspace forming a guideway, and which rails are connected at their ends by end pieces 8 and 9, which project laterally beyond them.

The strop proper consists of a block 10 of wood or other suitable material, having a leather face 11 and a canvas face 12, the leather and canvas being held in place in the usual manner. Engaged with the ends of the block 10 are trunnions 13 and 14, which are rotatably mounted in the projecting ends of the end pieces 8 and 9 at one side of the guide-rails. In order to hold the strop normally against pivotal movement, pins 15 are en-

gaged with one end thereof, and these pins are held in engagement with perforations 16 in the end piece 8 by means of a helical spring 17, which encircles the trunnion at the opposite end of the strop and bears against the end piece 9 and the adjacent end of the strop. This spring permits movement of the strop to disengage its pins from the perforations, and when thus disengaged the strop may be rotated to bring into action the opposite face of the strop.

Upon the ends of the cross-pieces 8 and 9 opposite to the strop is secured a guide-rod 18, which lies parallel with the guide-rails and is preferably angular in cross-section, and on this guide-rod is slidably disposed a carriage 19, which is adapted to be reciprocated on the rod by means of a crank-shaft 20, which is rotatably mounted in bearings in blocks 21 upon the base 5, the crank-arm 22 of the crank-shaft being connected with the carriage through the medium of a connecting-rod 23. The length of the crank-arm 22 is one-half the length of travel of the carriage, so that as the shaft is rotated the carriage will be moved throughout the entire length of its operative movement.

The razor to be sharpened is moved over the strop by means of this carriage and is mounted directly in a clamp 24, which is pivotally mounted upon a stub-shaft 26, which is carried by the carriage and projects laterally therefrom and above the guideway between the guide-rails 6 and 7. This clamp includes an upper jaw 27 and a lower jaw 28, the lower jaw being mounted directly on the stub-shaft and the upper jaw being hinged to the lower jaw, as shown. The lower jaw has a recess 29 therein to receive the stem of the razor and is held in this recess by the upper jaw, which is held thereagainst by means of a clamping thumb-nut 30, which is adapted for engagement with a bolt 31, passed upwardly through the jaws.

The razor clamp or carrier is held at the proper elevation by reason of the carriage 19 engaging with the guide-rail shown at 18, which is mounted upon the end pieces of the strop-frame.

After each stroke of the razor upon the strop it is of course necessary to reverse the position of the razor, and for this purpose the

lower jaw 28 has its rear end bifurcated and between the resultant arms is pivoted a link 33, which hangs loosely from the clamp and has an opening at its lower end, through which is passed a rod 34, mounted at its ends in blocks 35 and 36, which lie in the path of movement of the link. The pivotal mounting of the link in the jaw 28 is below the center of the stub-shaft 26, and hence when the block 35 arrests the movement of the link continued movement of the carriage under the influence of the crank-shaft will raise the clamp upon its pivot and will project the clamp at the opposite side of the stub-shaft, thus bringing the opposite face of the razor against the strop. The carriage is next moved in the direction of the block 36, and when the link strikes the block it is stopped, and the continued movement of the carriage throws the clamp to its opposite position. Thus by operation of the crank-shaft the razor is reciprocated and is reversed at the ends of its reciprocations, the parts of the device being properly proportioned to secure these results. It will of course be understood that in practice any suitable materials and proportions may be used for the various parts of the structure and that modifications of the structure shown may be made without departing from the spirit of the invention.

In order to hold the razor snugly against the strop during the operation of the apparatus, an elastic band 32 is secured to plates 32' upon the end pieces 8 and 9 of the strop-frame and lies against the upper side of the razor-blade. This band may, however, be inelastic and have elastic connection with the plates, if desired.

What is claimed is—

1. A device of the class described comprising a strop, a carriage adapted for reciprocation adjacent to the strop, a razor-clamp pivoted to the carriage, a link pivoted to the clamp at one side of its pivotal connection with the carriage, a guide-rod passed through the link, and stops upon the guide-rod in the path of the link to arrest its movement prior to the

termination of movement of the carriage, whereby the clamp will be moved pivotally to reverse the razor.

2. A device of the class described comprising a frame having a strop mounted therein, said frame including a guide-rail, a reciprocatory carriage at one side of the rail, a stub-shaft carried by the carriage and resting upon the rail, a clamp pivoted upon the shaft between the strop and the rail, said rail being adapted to receive and support the razor in the clamp, a link connected with the clamp, and a guide-rod passed through the link and having stops for engagement by the link for reversing the clamp at the ends of movement of the carriage.

3. A device of the class described comprising a reciprocatory carriage provided with a stub-shaft, a razor-clamp pivotally mounted on the shaft, a guide-rail adapted to receive the stub-shaft and the razor to support them, a link pivoted to the clamp below the stub-shaft, blocks for engagement by the link to arrest its movement, and a rod passed through the link and engaged with the blocks, whereby the clamp may be continued in its movement beyond the link to reverse the clamp.

4. A device of the class described comprising a frame including guide-rails and cross-pieces, a reversible and reciprocatory razor-clamp for movement in the frame, said frame including also end pieces, and a strop including a block having trunnions rotatably mounted in the end pieces, perforations in one of the end pieces, pins upon the block for engagement with the perforations, and a spring disposed between the opposite end of the block and the opposite end piece, to hold the pins yieldably in engagement with the perforations.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM W. PATRICK.

Witnesses:

H. H. HINKLE,
J. R. HARDIN.