No. 771,455. PATENTED OCT. 4, 1904.

J. W. BOUCHARD.

RAZOR STROPPING DEVICE.

APPLICATION FILED MAR. 4, 1904.

NO MODEL.

Fig. 1.

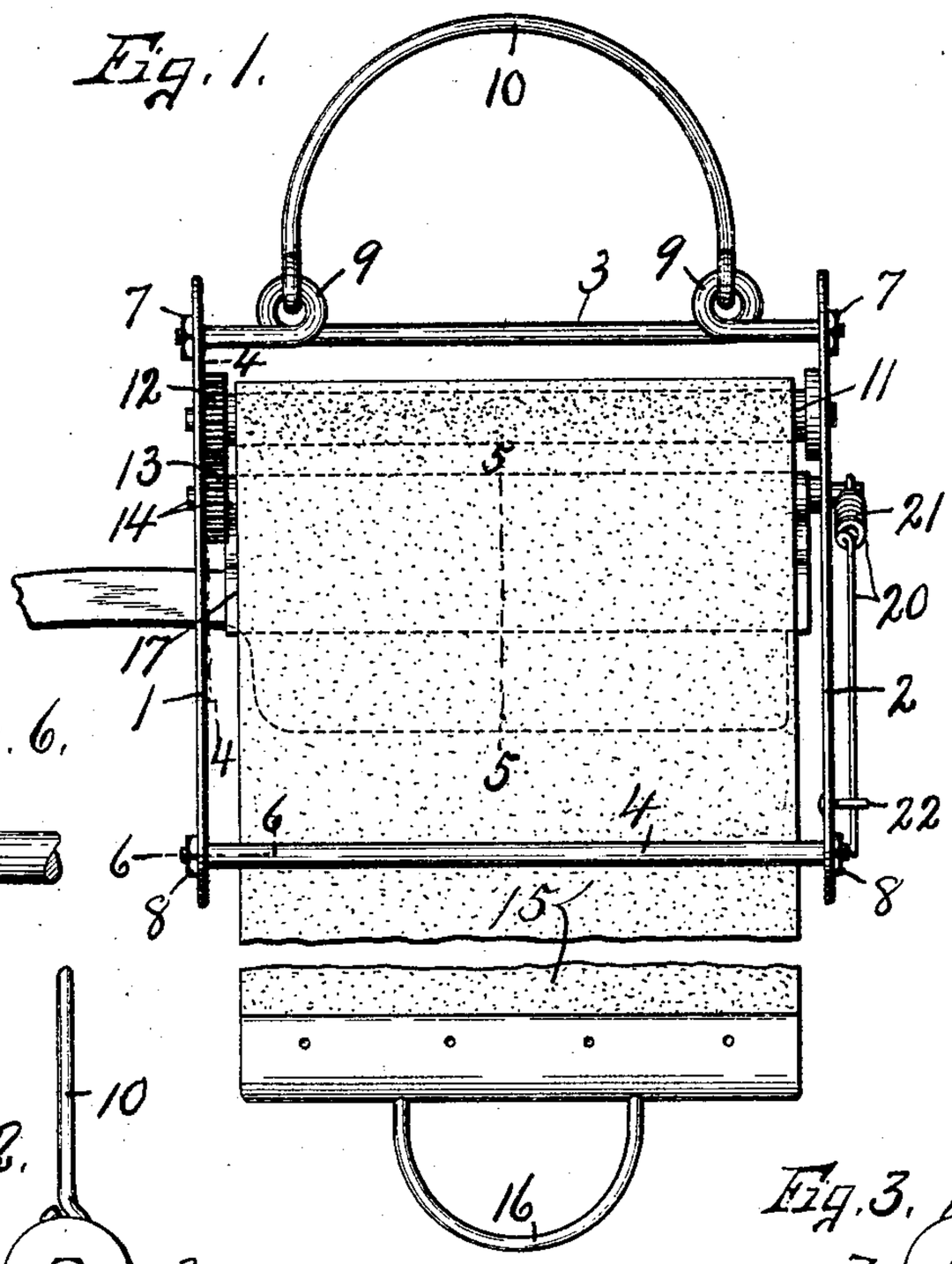


Fig. 5.

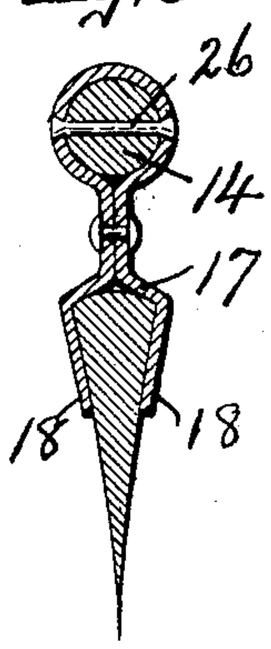


Fig. 6.

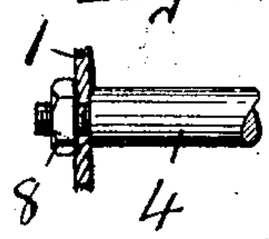


Fig. 2.

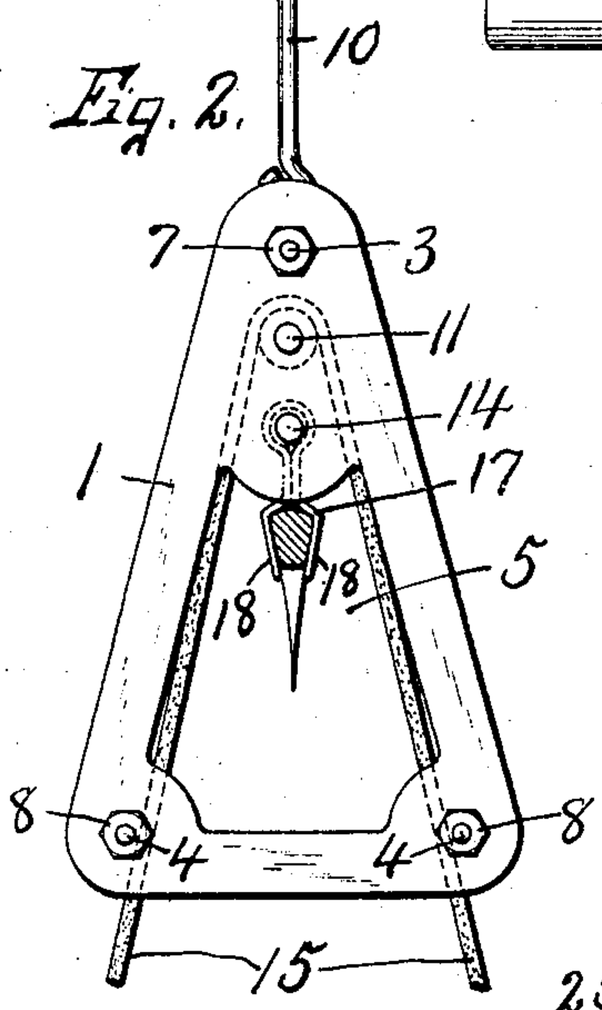


Fig. 4

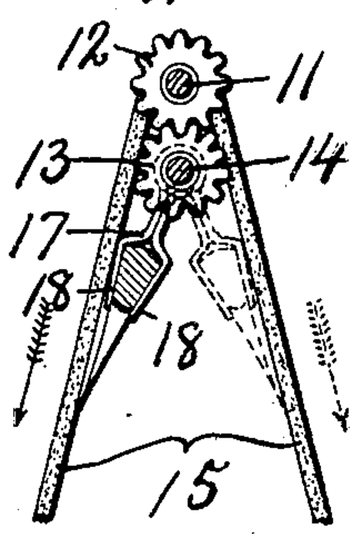


Fig. 3.

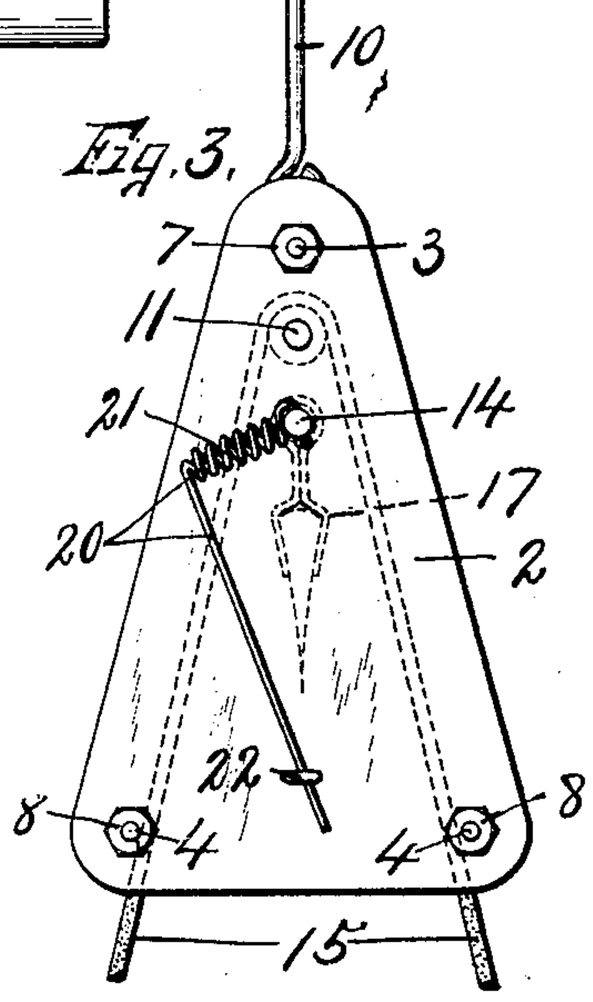
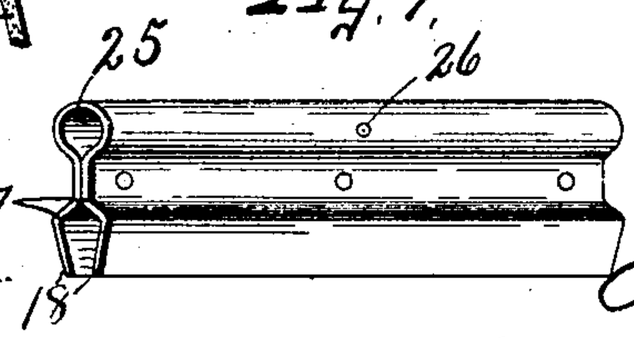


Fig. 7.



WITNESSES,

B. E. Robinson.

H. E. Chase

INVENTOR,

Joseph W. Bouchard

by

Howard P. Denison

ATTORNEY.

No. 771,455. Patented October 4, 1904.

UNITED STATES PATENT OFFICE.

JOSEPH W. BOUCHARD, OF CANASTOTA, NEW YORK.

RAZOR-STROPPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 771,455, dated October 4, 1904.

Application filed March 4, 1904. Serial No. 196,539. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. BOUCHARD, of Canastota, in the county of New York, in the State of New York, have invented new and useful Improvements in Razor-Stropping Devices, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in razor-stropping devices in which a razor-blade is suspended in an oscillating clamp and brought into action by the sliding action of the strop rendering over the rock-shaft to which the clamping device is connected.

The object of this invention is to bring the opposite sides of the razor flatwise against the strop while the latter is being reciprocated and to provide means for holding the razor-clamp in a normal position midway between the sides of the strop to prevent accidental cutting of the strop.

Other objects and uses will appear in the following description.

In the drawings, Figure 1 is a face view of my improved stropping device, showing the razor-blade in operative position. Figs. 2 and 3 are opposite end views of the device seen in Fig. 1. Figs. 4, 5, and 6 are sectional views taken on lines 4 4, 5 5, and 6 6, Fig. 1. Fig. 7 is a perspective view of the detached razor-clamp.

Similar reference characters indicate corresponding parts in all the views.

This razor-stropping device comprises opposite end plates 1 and 2, which are connected together by upper and lower tie-rods 3 and 4, the end plate 1 having its central portion cut away to form an opening 5, through which the razor may be inserted into the razor-clamp presently described. These end pieces 1 and 2 are triangular in general outline, and their apex ends are clamped to the opposite ends of the upper tie-rod 3 by suitable nuts 7, while the opposite ends are clamped to the tie-rods 4, in this instance two, by similar clamping devices, as nuts 8.

The upper tie-rod 3 is provided with eyes 9, into which are fastened a suitable handle or loop 10, whereby the device may be attached to any suitable support and suspended therefrom.

A roller 11 extends between and its opposite ends are journaled in the end pieces 1 and 2, just beneath the tie-rod 3, and this roller is provided with a gear 12, which meshes with a similar gear 13 on a rock-shaft 14. This rock-shaft is also journaled at its opposite ends in the end pieces 1 and 2, directly beneath the roller 11, and the gears 12 and 13 are secured to their respective shafts, so that any rocking motion of the roller 11 transmits a similar motion to the rock-shaft 14.

A razor-strop 15 is mounted upon and renders over the roller 11, and its opposite ends are extended downwardly at opposite sides of the rock-shaft 14 and between the tie-rods 4, said ends being provided with suitable handles 16 to be engaged by the operator, whereby the said strop may be moved endwise upon the roller 11 for rotating the same. This rotation of the roller transmits a rocking movement to the shaft 14, to which is secured a razor-clamp 17, having opposite spring-jaws 18, between which the heel of the razor-blade is inserted. The distance between the end pieces 1 and 2 is sufficient to receive the full length of the blade, and the razor-strop is of su ostantially the same or of slightly greater width than the length of said blade, and the draft of the strop is at substantially right angles to the edge of the blade. The gears 12 and 13 are connected in such manner that when the roller 11 is rotated in one direction by the strop the razor-clamping blade, with the razor within, is oscillated in the same diretion—that is, when either side of the strop is drawn downwardly or outwardly the razor-clamp is rocked toward the outwardly-moving side to bring the edge of the razor flatwise against the outwardly-moving side of the strop, so that in operation the strop is always drawn against the adjacent side of the razor from its heel toward its edge.

One important advantage of this razor-clamping device is that the jaws are beveled in such manner that when thrown toward the outwardly-moving side of the strop the adjacent side or jaw of the clamp is substantially

tangential to the periphery of the roller 11, thereby causing the blade of the razor to lie flatwise against the strop, and the lower tie-rods 4 are disposed in such manner as to limit the spread of the ends of the strop to effect this flatwise contact of the blade and prevent undue wear of the cutting edge.

The means for holding the clamp 17 in its normal position midway between the opposite sides of the strop consists of a spring 20, having a coil 21, one end of which is inserted in an aperture in the shaft 14, and the other end is movable in an eye 22 on the end piece 2; but it is evident that any other form of spring may be used to produce this result.

The razor-clamp 17 is formed from a single piece of spring metal, having its intermediate portion bent into the form of an eye 25, which fits upon the shaft 14 and is secured thereto by one or more pins 26, while the opposite longitudinal edges of the clamp are bent to conform to the heel of the razor and have a slight spring action toward each other to frictionally hold the razor in place, it being understood that the razor is placed between the jaws from one end through the opening 5.

The operation of my invention will now be readily understood upon reference to the foregoing description and the accompanying drawings, and it will be noted that the essential feature of difference over the prior art consists in connecting the shafts 11 and 14 by the gears 12 and 13 and arranging the jaws of the clamp 17 so as to bring the blade flatwise against the side of the strop as it is pulled outwardly, another feature of novelty being the means for holding the clamp in its normal position midway between the opposite sides of the strop.

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

1. In a razor-stropping device, the combination of opposite end pieces and tie-rods connecting the same, one of the end pieces having an opening therein to permit the insertion and removal of the razor, rock-shafts journaled in the end pieces and provided with intermeshing gears, a razor-strop engaged with one of the shafts to rock the same and a razor-clamp secured to the other shaft for receiving the razor.

2. In a razor-stropping device, the combination of opposite end pieces and tie-rods connecting the same, one of the end pieces having an opening therein to permit the insertion and removal of the razor, rock-shafts journaled in the end pieces and provided with intermeshing gears, a razor-strop engaged with one of the shafts to rock the same and a razor-clamp secured to the other shaft for receiving the razor, and means for holding the clamp substantially midway between the opposite sides of the razor-strop.

3. In a razor-stropping device, the combination with a supporting-frame and a roller journaled therein, a razor-strop rendering over the roller to operate the same, an oscillatory razor-clamp, gears for transmitting motion from the roller to the clamp and a spring operatively connected to yieldingly hold the clamp midway between the opposite sides of the strop.

4. In a razor-stropping device, the combination of opposite end plates and tie-rods connecting the same, one of the plates having an opening through which the razor is inserted and removed, two shafts journaled in the frame and geared to each other, a strop rendering over one of the shafts to rock the same, a razor-clamp secured to the other shaft and provided with spring clamping-jaws for engaging the opposite sides of the heel of the razor, and a spring operatively connected to the clamp-shaft for holding it in its normal position of rest.

In witness whereof I have hereunto set my hand this 2d day of February, 1904.

JOSEPH W. BOUCHARD.

Witnesses:

H. E. CHASE,

MILDRED M. NOTT.