J. M. WELCH.

RAZOR BLADE SHARPENER.

APPLICATION FILED NOV. 16, 1916.

1,215,893.

Patented Feb. 13, 1917.

Fig. 1.

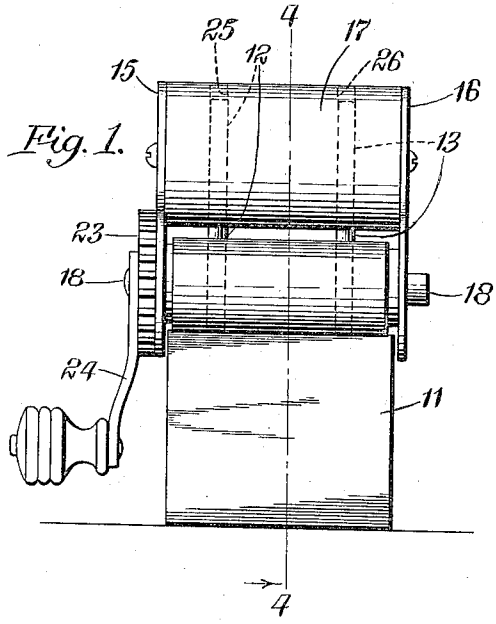


Fig. 2.

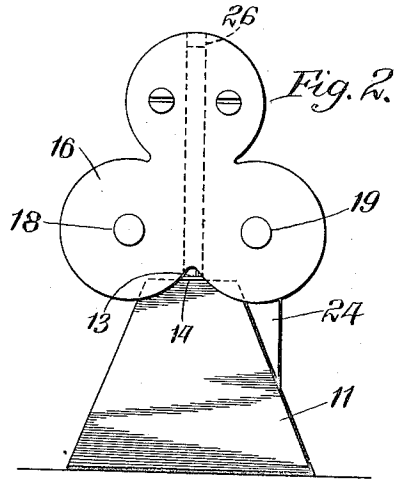


Fig. 3.

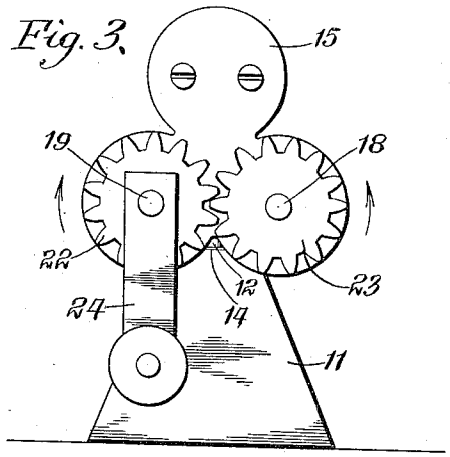
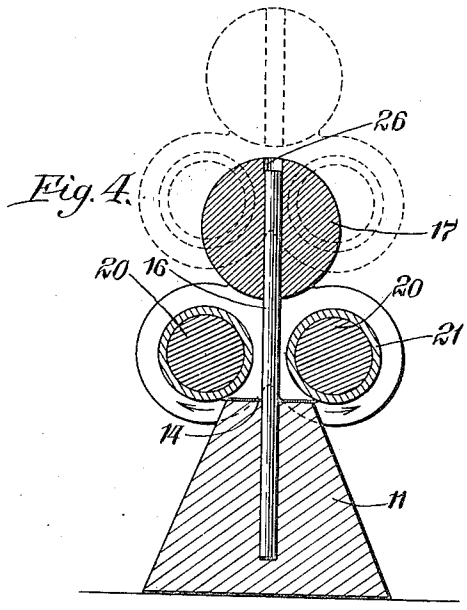


Fig. 4.



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UNITED STATES PATENT OFFICE.

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RAZOR-BLADE SHARPENER.

1,215,893. Specification of Letters Patent. Patented Feb. 13, 1917.

Application filed November 16, 1916. Serial No. 131,730.

To all whom it may concern:

Be it known that I, JOHN MARTIN WELCH, a citizen of Canada, residing at Albany, State of New York, have invented a new and useful Improvement in Razor-Blade Sharpeners, of which the following is a specification.

This invention relates to razor sharpeners of the type that resharpen safety razor blades and its object is to produce a sharpener more simple in both construction and operation than any heretofore devised and one that is very cheap to manufacture and to sell.

With these objects in view, the invention consists in the arrangement, construction and combination of parts hereinafter described and particularly pointed out in the claim, it being understood that I do not intend to limit myself to the details of construction.

The invention is illustrated by drawings in which—

Figure 1 is a front elevation of my device.

Fig. 2 is a side elevation.

Fig. 3 is an elevation of the side opposite to the one shown in Fig. 2 and

Fig. 4 is a sectional view taken along the line 4—4 of Fig. 1.

In the drawings, the numeral 11 indicates a substantially truncated wedge shaped base block having secured therein two vertical rods 12 and 13 projecting upwardly therefrom and spaced apart as shown in Fig. 1 and of a distance such that the present apertures in the razor blade 14 will be engaged by these rods so that the blade may be seated upon the upper face of the block 11 as shown in Fig. 4. This comprises one of the two separable parts of my invention. The second part comprises the sharpening element and consists of two substantially clover leaf shaped plates 15 and 16 secured to a hand gripping piece 17 preferably round. Journaled in the center of the lower sections of the clover leaf are two shafts 18 and 19 equipped with sharpening drums 20. These drums may be wholly composed of a sharpening substance or else may have only a surface covering 21 of a substance such as leather which may be either in one encircling piece of in transversely extending rings or laminations. On one end of each shaft 18 and 19 beyond one of the side plates such as 15, I provide two meshing gears 22 and 23 and an operating handle 24 is carried beyond the gears by one of the shafts, such as 19. The drums 20 are spaced apart as shown in Fig. 4 so that they will operate solely upon the beveled edges of the blade which projects slightly beyond the top of the block 11, as shown in Fig. 4, and also to permit passage of the rods 12 and 13 between the drums and through passages 25 and 26 extending vertically through the handle member 17, all as indicated.

The operation of my device is as follows:

Assuming the device to be in the position shown in Fig. 1 with the two parts superimposed but without a blade in position. The handle member 17 is taken hold of and raised in a fashion indicated by dotted lines in Fig. 4 until that separable part is entirely free from the base part and its rods. The blade to be sharpened 14 is then slipped over the rods 12 and 13 until it is seated as shown in Fig. 4. The sharpening separable element is then dropped into place by letting the rods 12 and 13 pass into the passages 25 and 26 in the handle member, whereupon the sharpening element will drop by gravity into the position shown in the drawings. When in this position, the handle 24 is rotated several times and the upper beveled edges of the blade 14 will be sharpened. The sharpening element is then raised once more until free of the rods, whereupon, the blade is raised from its seat and free of the rods, turned over, replaced, the sharpening element replaced, the handle 24 turned so that the other edges of the blade will be sharpened and then the blade is removed as previously described. It may facilitate matters to remove the blade from its seat after its upper faces have been sharpened and the sharpening element lifted by tilting the block 11 either forwardly or rearwardly until the blade slides down the rods by gravity. It

is only necessary then to pick it up and replace it upon its seat, because the sharpened faces fall face down.

What I claim is:

A razor blade sharpener consisting of a base, a seat thereon for supporting a two edged safety razor blade, vertical guide rods carried by said base, a removable frame, sharpening rolls carried by the frame, means for turning the rolls, and a handle on the frame above the rolls having perforations adapted to be engaged by the guide rods.

JOHN M. WELCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."