April 20, 1926. 1,581,199

W. W. GRAVES

RAZOR SHARPENER

Filed Jan. 9, 1924

Fig. 1.

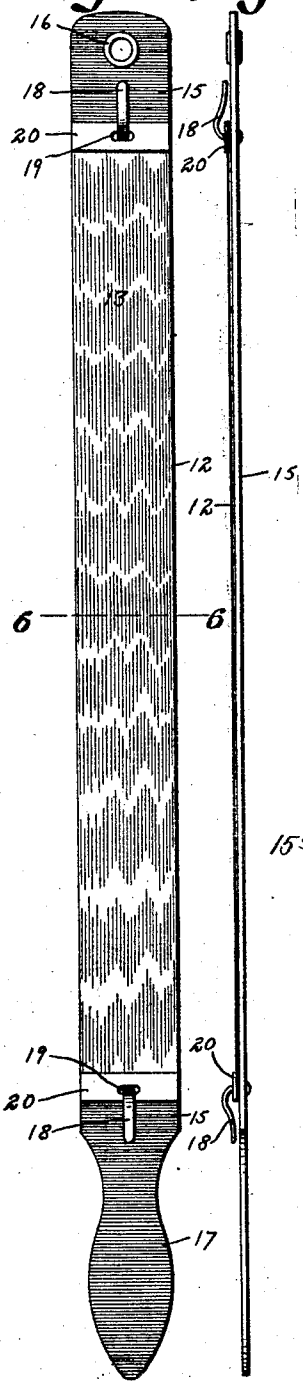


Fig. 2.

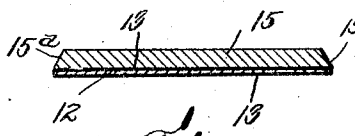


Fig. 6.

Fig. 5.

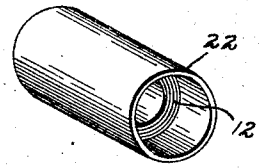


Fig. 3.

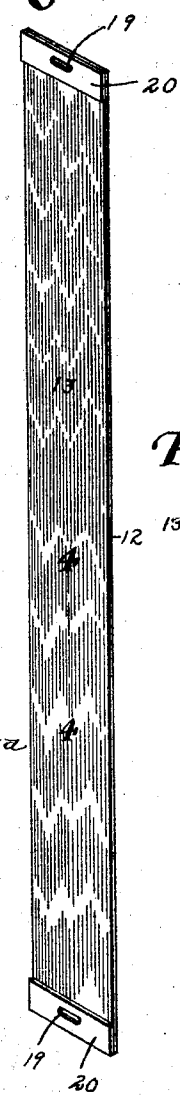
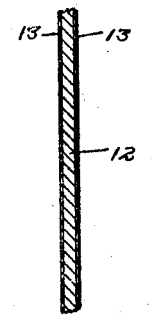


Fig. 4.



Inventor
William W. Graves
by Wright Brown Quinby & May
Attys.

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UNITED STATES PATENT OFFICE.

WILLIAM W. GRAVES, OF BROCKTON, MASSACHUSETTS.

RAZOR SHARPENER.

Application filed January 9, 1924. Serial No. 685,143.

To all whom it may concern:

Be it known that I, WILLIAM W. GRAVES, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented new and useful Improvements in Razor Sharpeners, of which the following is a specification.

This invention relates to a razor sharpener usually called a strop, and including an elongated flexible strip, adapted at one end to be hung on a fixed support, such as a wall hook, and at the other end to be grasped by one hand of the user and controlled while a razor is applied to one side of the strip by the other hand, the strip being of leather, or other non-metallic material, which is inert, or has little or no resilience, and a ribbon-like body of thin resilient sheet metal, such as sheet steel, provided with a coating of a relatively soft metal, such as silver or nickel, intimately united with the ribbon, and constituting a frictional face adapted to impart a satisfactory edge to a razor moved on said face, either with the edge forward, as in honing, or with the edge following, as in stropping. A ribbon thus characterized is disclosed by my Patent No. 1,443,259, dated January 23, 1923.

The present invention is embodied in the combination with a resilient sheet metal ribbon, or ribbon-like body, characterized as above stated, and adapted for razor honing and stropping, of a flexible non-metallic holding strip, adapted to be used like an ordinary strop, and as a holder or backing for the metal ribbon, the holding strip and the ribbon constituting a sharpener presenting a metallic side, adapted for both stropping and honing, and a non-metallic side adapted to finish the edge imparted by the metallic side, and improved means for detachably securing the ribbon to the holding strip. The invention is also embodied in an improved form of the edges of the holding strip, whereby liability of cutting the same is prevented.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a side view of a razor sharpener embodying the invention.

Figure 2 is an edge view of the same.

Figure 3 is a perspective view of the metal ribbon.

Figure 4 is a fragmentary section, much enlarged, on line 4—4 of Figure 3.

Figure 5 is a perspective view, showing the metal ribbon coiled in a cylindrical holder.

Figure 6 is a section on line 6—6 of Figure 1.

The same reference characters indicate the same parts in all of the figures.

My improved sharpener comprises an oblong strip or ribbon 12, of thin resilient sheet metal, which is harder than either of the surfacing metals hereinafter mentioned, and is preferably tempered sheet steel, of about the thickness of ordinary letter paper. Intimately united with the ribbon 12, is a coating 13, preferably covering both sides of the ribbon, as shown by Figure 4, and composed of a relatively soft metal, having a frictional surface to which the side of a razor blade tends to cling when being moved thereover, as in stropping and honing. The preferred coating metal is nickel, although other metals such as copper, silver, or tin may be employed, a metal capable of being applied to and united with the strip 12 by electrodeposition being preferred. The thickness of the ribbon and its coating is much exaggerated by Figure 4, the aggregate thickness of the ribbon and coating being preferably not more than twice the thickness of the ribbon without the coating, although it is obvious that the coating may have any desired thickness.

The ribbon 12 is provided with means whereby it may be engaged with a holder, whereby the ribbon may be movably supported, and permitted to be flexed by the pressure of a razor blade against it. I prefer to employ as the holder a flexible holding strip 15 of leather, or other non-metallic material usually employed as the material of a razor strop, provided at one end with means, as an eyelet 16, for engaging a fixed support, such as a wall hook, and shaped at the other end as a handle 17, adapted to be grasped by one hand of the user, to manually tension the holding strip.

The holding strip 15 is provided with coupling members 18, which are oppositely projecting hooks secured to the holding strip, and overhanging one of its sides. The metal ribbon 12 is adapted to engage said coupling members, by slots 19 in its end portions, which are reinforced by metal layers 20, united by brazing, or otherwise, to the ribbon, said slots receiving the coupling members 18. The flexibility of the holding

strip and the ribbon enables portions of the ribbon containing the slots to be readily engaged with the coupling members. The couplings tension the ribbon when the holding strip is manually tensioned.

I find that when the coating 13 is smooth and polished, it constitutes an excellent surface for stropping a razor, the cutting edge being the rear edge when the blade is moved over the coating, and for honing a razor, the cutting edge being the forward edge, when the blade is moved over the coating. I finish the coating 13 at each side of the ribbon 12, by buffing and polishing the coating, to render the same smooth and lustrous.

I find that a perfect edge may be produced on a razor which is not in need of a stone hone, by giving the razor first, a few honing strokes and then a few preliminary stropping strokes on the metallic ribbon, and then a few final stropping strokes on the non-metallic holding strip 15.

When the coating at one side of the metal ribbon has been rendered useless by wear, the ribbon may be removed, reversed side for side, and again applied, the acting coating being thus renewed.

The combination of the resilient ribbon of hard metal, having a coating of softer metal, and a non-metallic strip adapted to finish the edge imparted by the metallic ribbon, provides a sharpening instrumentality which is a marked improvement over any for a similar purpose, of which I am aware.

The metallic ribbon takes the place of the strip of canvas commonly used beside a strip of leather in a razor strop, and is much more effective than canvas, because it is adapted both for the honing and for preliminary stropping.

The holding strip 15 is preferably composed entirely of leather.

I do not limit myself to a sharpener in which the metallic ribbon is provided on both sides with a soft metal coating. The ribon may be faced with soft metal on one side only, and its end portions may be riveted to the holding strip and practically inseparable therefrom.

The longitudinal edges 15[a] of the holding strip 15 may be bevelled, as shown by Figure 6, to form obtuse angles at their intersection with the outer face of the strip, and thereby reduce liability of cutting the edge portions of said face by a razor blade. The ribbon 12 backs the acute angles formed by said bevelled edges. The obtuse angles are adapted to yield so that there is less liability of cutting the edge portions of the outer face of the strip 15 by a razor blade, than would be the case if the edges 15[a] were at right angles to the outer face.

I claim:

1. A razor sharpener comprising a flexible, non-metallic holding strip adapted to be used as a finishing strop, and provided at its end portions with oppositely projecting coupling hooks overhanging one of its sides; and a resilient sheet metal ribbon of relatively hard metal having on each side a coating of relatively soft metal, and reinforced end portions provided with slots adapted to receive said coupling hooks when the holding strip is flexed, the arrangement being such that the hooks tension the ribbon when the holding strip is tensioned, said ribbon and strip constituting a flexible two part sharpener presenting two metallic sides, each adapted for honing and for preliminary stropping and adapted to be used interchangeably, and a non-metallic side adapted for final stropping.

2. A razor sharpener comprising a flexible non-metallic holding strip adapted to be used as a finishing strop, and a resilient sheet metal ribbon of relatively hard metal, having a coating of relatively soft metal and adapted to bear on one side of the holding strip, means being provided for connecting the ribbon with the strip, said ribbon and strip constituting a sharpener presenting a metallic side and a non-metallic side, the longitudinal edges of the non-metallic strip being bevelled to form obtuse angles at the intersection of said edges with the outer face of the strip, and acute angles at the intersection of the edges with the inner face of the strip backed by edge portions of the ribbon, the edge portions of the outer face of the strip being adapted by the form of said longitudinal edges to yield and reduce liability of cutting said edge portions by a razor blade.

In testimony whereof I have affixed my signature.

WILLIAM W. GRAVES.