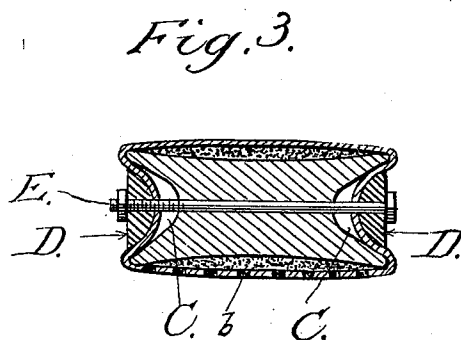
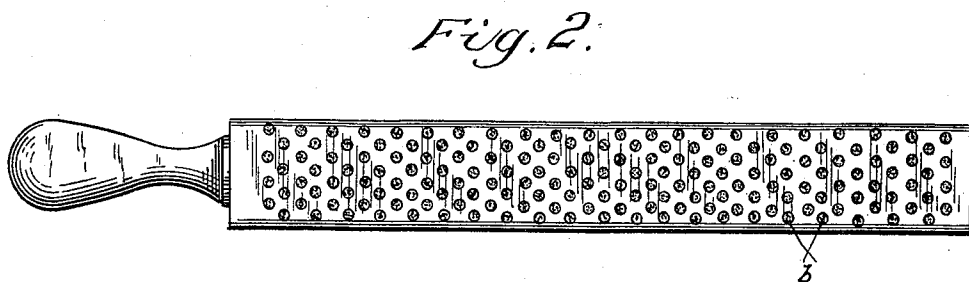
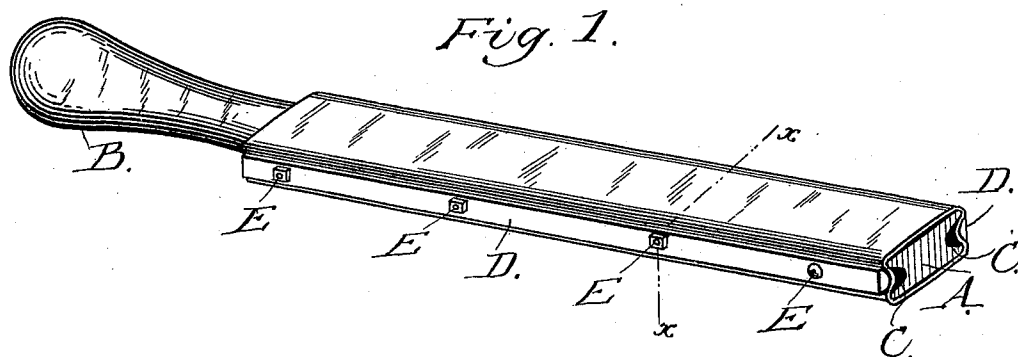


(No Model.)

J. D. & J. T. RADER.
STROP.

No. 587,328.

Patented Aug. 3, 1897.



WITNESSES.
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UNITED STATES PATENT OFFICE.

JOHN D. RADER AND JACOB T. RADER, OF CLYDE, OHIO.

STROP.

SPECIFICATION forming part of Letters Patent No. 587,328, dated August 3, 1897.

Application filed December 29, 1896. Serial No. 617,365. (No model.)

To all whom it may concern:

Be it known that we, JOHN D. RADER and JACOB T. RADER, citizens of the United States, residing at Clyde, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Strops, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to that class of devices generally known as "razor-strops;" and it consists, essentially, of a strop in which the outer covering, of leather, canvas, or other flexible material, is connected with adjustable means whereby it is stretched laterally or in
15 a plane at right angles to the length of the strop and the path of movement of the blade of the razor or other article of cutlery to maintain the surface of the strop under tension
20 and to practically renew the friction-surface of the covering during each period of stretching.

Our invention also consists of a strop having a core or body with longitudinally-grooved
25 edges, a flexible envelop or covering for said core or body, clamping-plates fitted against the sides of the envelop, and adjusting screws or bolts passed through the plates and sides of the envelop and into the core, whereby
30 when the screws are tightened the plates are forced more deeply into the grooved sides of the block and an increased tension is given the envelop, for a purpose hereinafter stated.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts, Figure 1 is a perspective
35 view of our improved strop. Fig. 2 is a plan view of the opposite side. Fig. 3 is a cross-sectional view on the line *x x* of Fig. 1.

40 In the manufacture of strops it has heretofore been the practice to tighten the friction-surface thereof after the same has been subjected to use by means which stretched the leather, canvas, or other covering in the direction of the length of the strop and parallel
45 with the line of movement of the blade in its sweep back and forth over the strop. This mode of tightening a strop is found by experiment not to be the best for the reason
50 that in such stretching the pores of the leather are closed and the fibers of other material are

compacted in such a manner that the friction-surface of the strop soon becomes hard and polished and ceases to be the active agent for rendering keen the cutting edge of the razor 55 or other blade.

With a view of providing a simple, cheap, durable, and efficient construction of strop we so arrange the parts that tension is applied to the side edges of the strop to stretch 60 the flexible outer covering transversely or in a plane at right angles with the sweep of the blade over the strop, whereby upon each tightening of this covering practically new parts or surfaces or pores are opened and presented to the action of the edge of the blade, thereby insuring a keen edge to the latter with a minimum of labor. This result is due to the following construction:

The strop has the usual wood or other hard 70 core or body A, to which the handle B may be secured in any appropriate manner. The opposite edges of the core or body are formed with grooves C, and the opposite sides of the core are preferably slightly sunken or grooved 75 to form shallow depressions adapted to contain on one side tallow or other oleaginous material, which permeates that side of the covering, and on the other side any suitable abrading composition for honing the blade— 80 for instance, one in which the flour of emery and suitable oily substance of paste form constitutes an essential part. The outer covering of this core or body is of flexible material, preferably leather, formed substantially like 85 an envelop or other open-ended tube of such dimensions that when drawn endwise over the core or body it will fit the same substantially close. In other words, this envelop or outer covering is formed of one piece with no 90 line of severance longitudinally, and one of its sides is preferably perforated with numerous small openings or slits *b*. When the envelop or covering is thus in place, we take two metal or other rigid plates D, whose cross- 95 sectional shape or whose inner sides preferably approximate in shape the grooves in the edges of the body and fit them into said grooves. The plates are pressed into the grooves, carrying the adjacent narrow sides 100 of the envelop with them and thereby increasing the tension of the covering and causing

the paste-like composition on the side of the core or body next to the perforated or slitted side of the covering or envelop to be squeezed into the perforations or slits and slightly ooze from their outer sides to furnish the required abrading material for honing the blade and pressing the oleaginous material through the pores of the covering on the opposite or strop side of the strop. These plates we secure fixedly in place by means of screws or bolts E, which pass through them and the covering or envelop and enter or pass through the wood core or body, as shown in Fig. 3.

From this description it will be seen that when the parts are thus assembled and the friction-surface of the perforate or imperforate sides of the flexible covering or envelop have become loose or are rendered hard because of the drying of the exposed abrading material and lubricant or because the pores of the material have become closed and the surfaces are so compacted that it is not easy to put the proper keen edge on the blade we simply tighten up the screws E, which sinks the plates more deeply into the grooves of the core or body and thereby stretches the flexible envelop in the direction of its width and at right angles to the path of movement of the blade when being swept back and forth in the act of honing a blade in the usual manner. This transverse stretching of the material results in the pores which had been closed by the action of the blade and other new pores being opened, thereby presenting practically a new friction-surface each time the adjustment is made, and during each of said adjustments a fresh supply of lubricant and abrading material is supplied to said surfaces. Thus each time an adjustment is made the friction-surfaces of the strop are practically renewed, whereby the life of the strop is greatly prolonged and its effectiveness is always present.

We are aware that it is not broadly new to provide a strop with a body having grooves in its edges in which the outer covering is secured by a wire holder whose outer portion forms the handle of the device, and this we do not claim, as in this case the only tension that is applied to the outer covering is the initial tightening when the parts are first assembled. Therefore such a construction is open to the objections before noted and does not result in a renewing of the friction-surfaces of the strop after continued use, which is the essential feature of our invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a strop having an outer flexible covering, a means for renewing the friction-surface of said covering after it has become impaired by use, consisting of a pressure device applied thereto and adapted to stretch the

covering transversely and in the direction of the width thereof.

2. In a strop, the combination, of the central core or body, a flexible envelop or covering closely fitting the same, having one side perforate and the other side imperforate, a paste-like abrading substance beneath the perforate side and adapted to fill the perforations thereof, an oleaginous substance in rear of the imperforate side, and means for renewing the friction-surface after it has become impaired by use and which stretches the covering transversely or in a plane at right angles to the length thereof whereby the pores of the material are kept open to allow the abrading material and oleaginous substance to escape, and to renew the friction-surface of the strop.

3. In a strop, the combination, of a central core or body having grooved edges, a flexible envelop or covering fitted to said body, clamping-plates fitted in said grooves and against the contiguous narrow side of the envelop or covering and means for adjusting said plates against said sides whereby the covering is stretched transversely of the strop and of the line of movement of the blade in its sweep across the same.

4. As an article of manufacture, a strop having an outer envelop or covering one side of which forms a strop-surface and the opposite side a hone-surface, and means for stretching said envelop transversely of the path of movement of the blade after its friction-surface has become impaired by use, and thereby opening the pores of the material and renewing the friction-surfaces, and automatically supplying lubricant and abrading material thereto.

5. The combination, of a core or body having shallow depressions on opposite sides and having grooved edges, a flexible envelop or sheath for said body, having a perforate or hone side, and an imperforate or strop side, a lubricant in one of the depressions behind the imperforate side of the covering, a combined lubricating and abrading substance in the other depression behind the perforate side, adapted to enter the perforations thereof, and means consisting of clamping-plates in said grooved edges and adjustable securing devices for stretching the envelop transversely after its friction-surface has become impaired by use, to open the pores of the material and force the lubricant and combined lubricant and abrading material to the outer surfaces of the covering, and renewing said surfaces.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN D. RADER.
JACOB T. RADER.

Witnesses:

LAUREL E. ROBINSON,
JOHN H. RHODES.