No. 718,172. PATENTED JAN. 13, 1903.

E. TENNIS.

RAZOR STROP.

APPLICATION FILED JUNE 30, 1902.

NO MODEL.

Fig. 1.

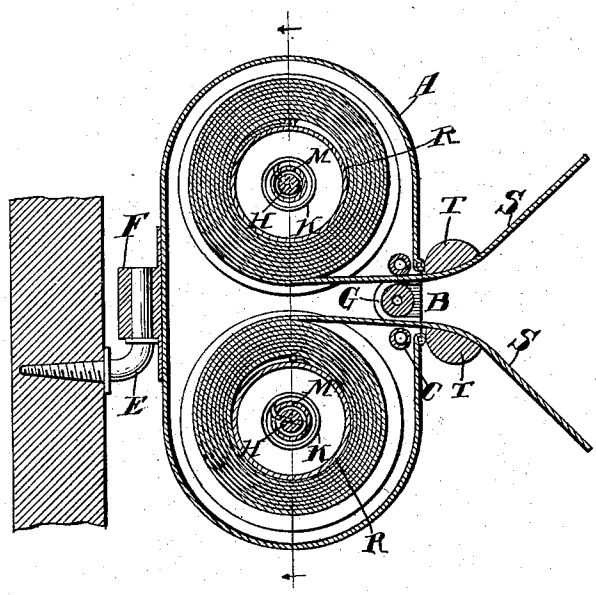


Fig. 2.

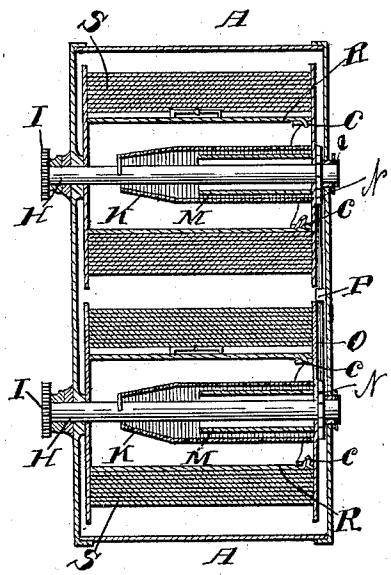


Fig. 3.

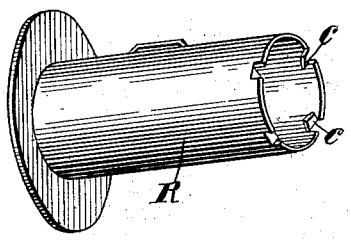


Fig. 5.

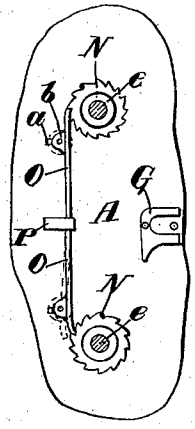
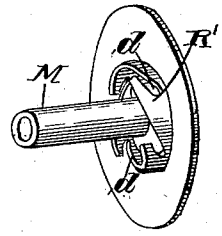


Fig. 4.



Witnesses:
Isa D. Perry
J. B. Weir

Inventor:
Edward Tennis
by
Brown & Darby
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD TENNIS, OF CHICAGO, ILLINOIS.

RAZOR-STROP.

SPECIFICATION forming part of Letters Patent No. 718,172, dated January 13, 1903.

Application filed June 30, 1902. Serial No. 113,712. (No model.)

To all whom it may concern:

Be it known that I, EDWARD TENNIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Razor-Strops, of which the following is a specification.

This invention relates to an improvement in razor-strops; and its object is to provide a casing for one or more strops and arrange such strops so that they will be efficiently protected while not in use and may be readily withdrawn for use.

The invention consists, substantially, in the construction hereinafter more particularly described, and pointed out in the claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross-section of a case with a pair of strops applied thereto and supported on a bracket. Fig. 2 is a vertical longitudinal section of the case and strops wound on the drum therein. Fig. 3 is a detail perspective of the drum with one end removed. Fig. 4 is a detail perspective of the other end of the drum with a short sleeve applied thereto; and Fig. 5 is an end view in elevation of a portion of one end of the case, showing a pair of ratchets on the shafts of the winding mechanism with the shafts in cross-section and the duplex pawl applied to such ratchets.

Like reference-letters apply to similar parts in the several figures of the drawings.

It is well understood by those conversant with the tonsorial art that the strops upon which razors are sharpened must be protected from dust and other impurities while not in use if it is desired to render them readily effective, as they are liable to accumulate gritty and other matters capable of injuring the edge of the razor instead of improving it, and at the same time it is obvious that the strops should be of easy access and kept in a convenient location. To attain these objects, numerous cases for razor-strops have been devised, in some of which the strops were wound with springs and capable of being withdrawn, and it is to this latter class of devices that the present invention is applied, with a view of improving devices for this purpose heretofore in use.

Referring to the accompanying drawings, A designates a suitable case, which may be of any proper material, but which I prefer to make of sheet metal on account of its lightness and ready and easy manufacture to the desired shape. This case is preferably just a little wider than the width of the strop which it is to contain and should be of such a height as to conveniently afford a receptacle for one or more strops, and I find it desirable to utilize it with the usual two strops necessary for the perfect sharpening of the razor. It has been found advantageous to provide it with the proper socket for application to a simple bracket, such as is shown in Fig. 1 of the drawings. The bracket and socket may be formed so as to produce a pivot on which the case may turn, so as to permit the user to pull the case around when withdrawing the strop, and in the form shown this result will be effected. The front side of the case should be provided with a transverse opening sufficiently large to permit of the movement of the strop or two strops, as the case may be, back and forth through such opening. When two strops are employed, it has been found desirable to mount a roller between them near the transverse opening, so as to prevent their sliding into contact and producing excessive friction, and a small roller near the transverse opening and just under the lower strop may also be advantageous. The intermediate roller just above referred to is designated by the reference-letter B and the lower small roller by the letter C. The bracket is designated by the reference-letter E and the socket by the reference-letter F.

For convenience in obtaining access to the case for the insertion or removal of interior parts it is desirable to make the case in several sections—for instance, a central section and two end sections, whose flanges extend inward and fit over the edge of the central section—and these parts may be secured together in any suitable manner, but preferably in a manner which will be hereinafter described. Inasmuch as there are various widths of razor-strops in use and any one of such strops may be chosen to apply to a case of this description and for the sake of economy the case should be of standard width, it has been found desirable to provide such case with a device for adjusting the width of

the opening through which the strops travel, and to that end I have devised a simple and economical adjustment, which is shown at G in the several figures of the drawings. This adjusting device is in the present instance formed of a piece of brass or other metal which can be sprung or bent and is applied to the interior of the case near the opening for the strops by solder or a rivet or otherwise, with a free end extending somewhat inward, and this free end may be bent or forced farther inward if the strop is narrow or farther outward if the strop is wide. It is advantageous to apply one of these adjusting-clips to each side of the case, so as to center the strop, and in case two strops are used the adjusting-clip is advantageously made in a yoke or U form, one arm of the yoke bearing against the upper strop and the other arm bearing against the lower strop.

The winding-shaft, which is designated by the reference-letter H, is journaled transversely of the case in the customary manner and may conveniently be secured to one side of the case by a pin passing through the shaft exteriorly of the case and at the other end by a thumb-nut, which may be screwed upon its end on the outside of the case and will serve to hold the sides of the case together. It has been found advantageous in this connection to use this thumb-nut not only as a securing device, but when its limit of adjustment has been reached to utilize it as a handle by which to turn the shaft so as to wind the spring, as will hereinafter be specified. The thumb-nut is designated by the letter I. One end of the spiral spring K is secured to this shaft, and the other end of such spring is secured to a drum upon which the strop is wound. By experiment it has been found that unless some provision is made to prevent the clinging of the spring to the shaft such spring when tightly wound will adhere to the shaft and will not readily unwind, thus neutralizing its proper action, and to avoid this I introduce a short sleeve M between a portion of the spring and the shaft and secure this sleeve to the end of the drum. Inasmuch as the drum turns independently of the shaft, it will therefore be impossible for the spring when tightly wound to adhere to the shaft, as it bears upon the short sleeve, and will thus have an independent action. This feature has been found of some importance in practice. This drum is designated by the letters R R'. Upon each shaft which is employed it has been found desirable to secure a ratchet, one form of which is shown at N in Figs. 2 and 5 of the drawings, and a suitable pawl or detent is secured to the end of the case to detain the ratchet after the shaft is wound. In the form shown this pawl or detent is in the shape of a spring O, which is secured at its center and has its ends bearing, respectively, against the teeth of the respective ratchets. In order to prevent vertical displacement of this spring, a latch P is secured to the case and bears upon a recess cut in the top of the spring. When the coil or winding of the spring is wound too tight and it is desired to loosen the same without taking the case apart, this may be done by moving the pawl out of engagement with the teeth of the ratchet, and to accomplish this a slot is cut through the side or end of the case and a pin projected from an enlargement on the spring through this slot, so that such pin may be manipulated by the fingers from the outside. This slot is shown at *a* and the inner end of the pin at *b*.

The drum is shown in perspective in Figs. 3 and 4 and in section in Figs. 1 and 2 of the drawings. It is designated by the reference-letters R R', R being the main cylinder and R' an end. For convenience in attaching and detaching these parts it is advantageous to form tongues of metal in the part R, which are bent inward and register in the curved slots in the part R', or vice versa, and thus when the parts are turned so that the tongues fully enter the curved slots they are held together. On one of the drums the slots extend inward to the right and in the other to the left, and they are so arranged that whenever the strop is being pulled upon it tends to keep the parts of the drum together or to tighten them. The tongues are designated by the reference-letter *c* and the curved slots by the reference-letter *d*.

The strops are in the drawings designated by the reference-letter S and may have buttons T to prevent their entering the case. One is of course the usual coarse strop and the other the fine strop; but various kinds of strops may be employed at the will of the user. It may be also observed as a matter of improved detail construction that the ratchets are journaled in the case by a short journal *e*, which passes through the case, and then the end of the shaft rests in this journal and is secured thereto, so as to turn with it, by means of a pin on the exterior of the case before mentioned. The advantage of this construction is that the ratchet is always in place as a part of the case, and the shaft may be removed without disturbing the ratchet by simply withdrawing the pin, which detaches the shaft from the ratchet hub or journal.

It is obvious that many of the detail parts described may be used without the others and applied to other forms of apparatus and that a skilled mechanic may vary the form and number of the parts without departing from the essence of the construction or the principle of operation.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a case for a pair of razor-strops, of a winding mechanism for each of said strops, one arranged above the other, and the case provided with a transverse opening arranged between the winding mechanisms, whereby both strops are permitted

to be withdrawn for use either alternately or together; substantially as and for the purpose set forth.

2. The combination with a case for a razor-strop, a shaft journaled in the case and having a drum upon which the strop may be wound, a spring having one end secured to the shaft and the other end to the drum, and a sleeve arranged between the spring and the shaft and secured to a part of the drum; substantially as and for the purpose set forth.

3. The combination with a case composed of detachable parts, a shaft extending through the case and bearing a winding-drum and a spring, of a ratchet having a short sleeve or hub journaled in the case and forming a bearing for one end of the shaft, and a fastening device for securing the hub of the ratchet and the shaft together; substantially as and for the purpose set forth.

4. The combination with a case composed of several parts, a shaft journaled in such case and having its ends extend through such case, a spring having one end secured to the shaft and the other end to a drum supported by the shaft, of a pin arranged exteriorly of the case and passing through one end of the shaft, and a thumb-nut arranged exteriorly of the case and screwed to the other end of such shaft, whereby the several parts of the case are clamped together, and the thumb-nut also serves as a means for winding the spring, as and for the purpose set forth.

5. The combination with a case and two razor-strops wound therein and having their ends projected through an opening in the front of the case, of a roller arranged adjacent to such opening and between such strops for preventing the frictional contact of such strops; substantially as and for the purpose set forth.

6. The combination with a razor-strop case, of a pair of strops arranged upon drums therein, a spring mechanism for winding the same, of a ratchet for each strop, and a single spring-pawl having its two ends bear upon the ratchets; substantially as and for the purpose set forth.

7. The combination with a razor-strop case, of two strops supported upon the winding mechanism therein and projecting through an opening in the front of the case, of a ratchet for each strop, and a single spring-acted pawl, the ends of which engage such ratchets, and a clip on the spring-pawl, for preventing displacement; substantially as and for the purpose set forth.

8. The combination with a case, of a winding-drum for a razor-strop composed of two parts, one having tongues and the other curved slots for engagement therewith; substantially as and for the purpose set forth.

9. The combination with a case, of a pair of drums for supporting a pair of razor-strops, each drum having tongues or lugs on one part adapted to engage curved slots on the other part, and the respective drums having the tongues and slots of one arranged to lock in the reverse direction from the tongues and slots of the other; substantially as and for the purpose set forth.

10. The combination with a razor-strop case having a lateral slot for the passage of the end of the strop, and an adjusting device for varying the width of such slot to accommodate it to different widths of strops; substantially as and for the purpose set forth.

11. The combination with a razor-strop case provided with a lateral slot for the passage of the strop, of an adjustable clip secured to the side of the case adjacent to each end of the slot to vary the width of the same; substantially as and for the purpose set forth.

12. The combination with a razor-strop case provided with a lateral slot or opening, and a pair of strops adapted to pass through such slot, of a U or yoke shape clip secured to the case adjacent to each end of the slot and adapted to bear against the edge of each strop; substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 28th day of June, 1902, in the presence of the subscribing witnesses.

EDWARD TENNIS.

Witnesses:
JOHN PLATNER,
ROBT. A. RIDLEY.