

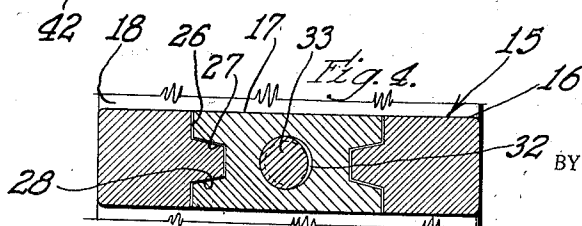
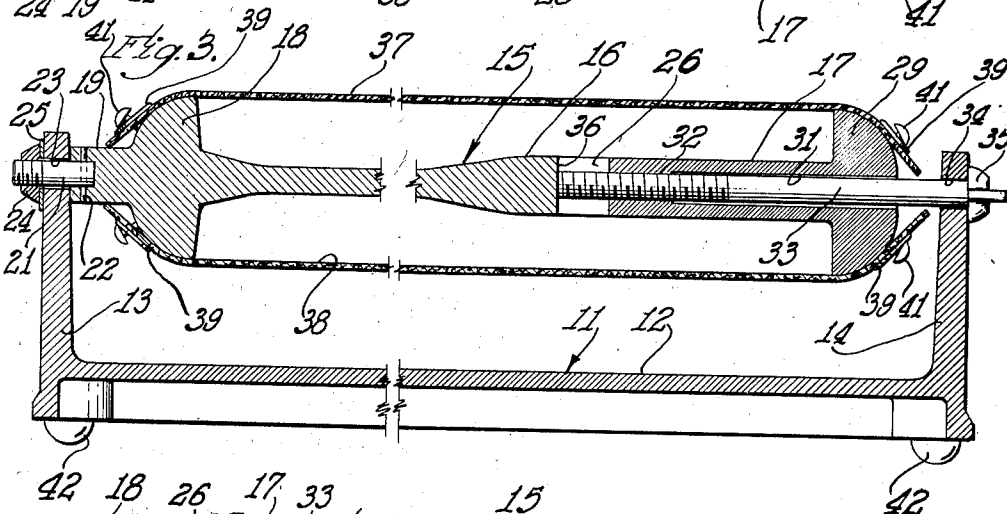
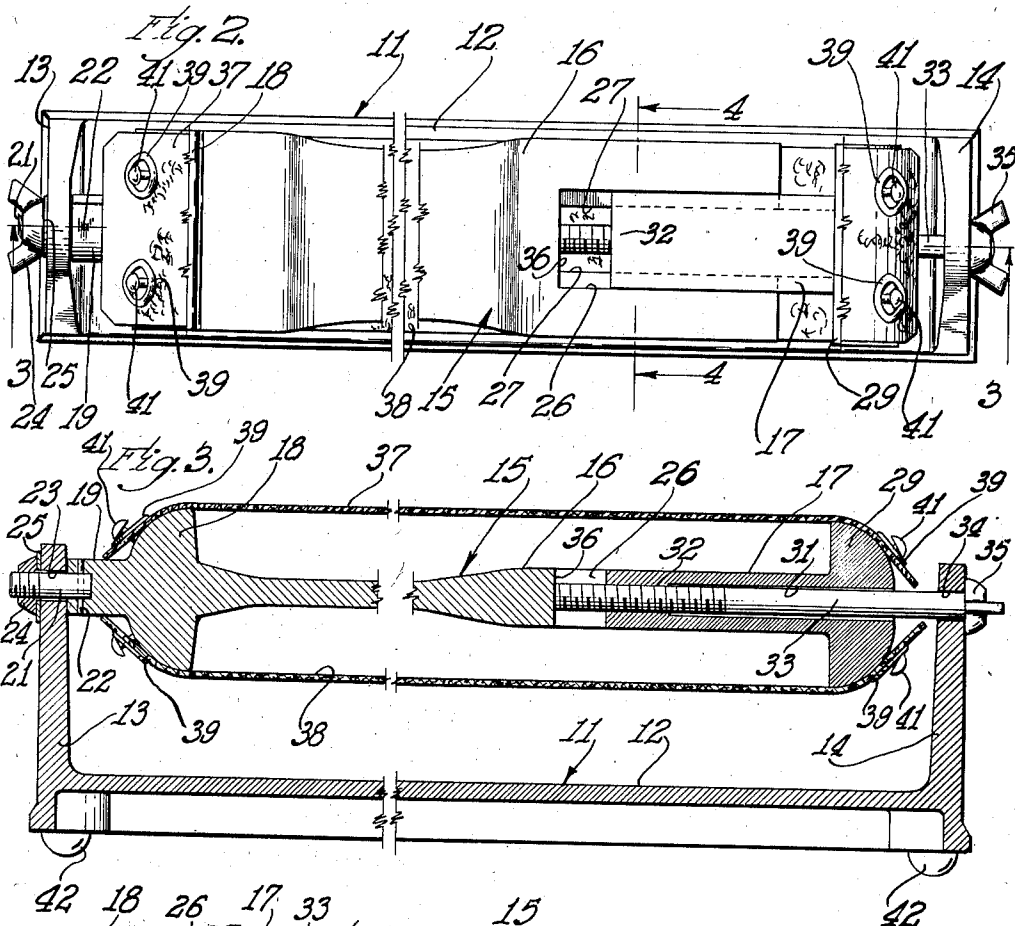
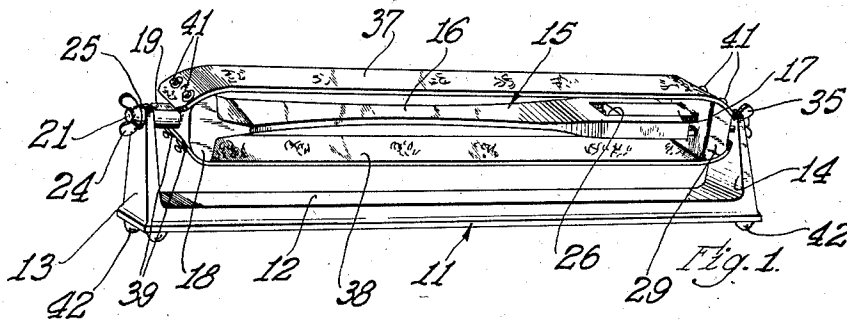
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STROP MOUNTING

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STROP MOUNTING

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2 Claims. (Cl. 51—203)

This invention relates in general to strop mountings and more particularly to a strop mounting which is adapted to have a plurality of strops mounted thereon in tensioned relationship.

A principal object of the invention is the provision of a strop mounting which is simple in design and construction and is adapted to provide a uniform tension to a plurality of strops simultaneously without lessening the effectiveness of either of the strops.

An important object of the invention is the provision of a strop mounting adapted to be used in stropping Microtome knives with a minimum amount of effort being necessary to obtain the best results.

In stropping Microtome knives, it is always advisable to use two or more strops, one strop having its surface impregnated with an abrasive substance, such as diamond dust, or the like, for sharpening the edge of the knife and a second strop adapted to provide a finish to the edge and remove any rough surfaces formed in the edge. An important object of the invention, therefore, is the provision of a strop mounting having two strops mounted thereon under a uniform tension, the strops and the tensioning unit upon which they are mounted being adapted to be rotated so that either of the two strops are available for immediate use by merely rotating the tensioning unit until the desired strop is brought into operative position.

Another important object of the invention is the provision of a strop mounting having two or more strops mounted thereon under tension which is applied by means of a screw, the latter, after it is tightened, remaining fixed and requiring no further adjustment, thus allowing the use of both hands to control the knife or razor.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, when taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

In the drawing,

Figure 1 is a perspective view of the mounting illustrating the strops in tensioned position;

Figure 2 is an enlarged top plan view of the mounting, with the center portion of the tensioning unit and strops broken away;

Figure 3 is a vertical sectional view of the mounting taken substantially on the line 3—3 of Fig. 2; and

Figure 4 is a detail sectional view of the ten-

sioning unit taken substantially on the line 4—4 of Fig. 2.

Referring more particularly to the drawing, reference numeral 11 indicates in general a stand portion, which may be formed as an aluminum casting or from any other suitable material, and comprises a base portion 12 and two upright supporting members 13 and 14.

Rotatably mounted between the supports 13 and 14 is a tensioning unit, indicated generally by reference numeral 15. The unit 15 comprises two members 16 and 17 which are mounted upon the stand 11 as an integral unit between the supports 13 and 14. The member 16 is usually made as an aluminum casting, but may be formed in any other suitable manner, and has a head portion 18 at one end which is considerably larger than the main body portion of the member. Extending outwardly from the end portion 18 is a protuberance 19 in which a stud 21 is fastened in any suitable manner, such as by a pin 22, or the like. The stud 21 extends through an aperture 23 formed in the support 13, and is held securely in place by a wing nut 24. Positioned between the nut 24 and the support 13 is a lock washer 25 which, together with the wing nut 24, locks the member 16 in any desired position, when the nut 24 is screwed up tightly on the stud 21.

An elongated slot 26 is formed in the member 16 at the end opposite the head portion 18, and inwardly extending tongues 27 are provided on the side surface of this slot which are adapted to slidably engage in corresponding grooves 28 formed in the outer side surfaces of the member 17, so that the unit 15 may be lengthened or shortened by the operator as desired. The member 17 has a head portion 29 which is similar in size and shape to the head portion 18 of the member 16. Extending longitudinally through the center of the member 17 is an aperture 31. The aperture 31 is internally screw-threaded for a short distance at the end opposite to the head portion 29 and is adapted to receive the threaded portion 32 of an elongated bolt 33. The bolt 33 extends through and is journaled in an aperture 34 formed in the support 14, and has a suitable head member 35 formed integrally therewith or fastened thereto at its outer end to facilitate rotation thereof. The threaded portion 32 of the bolt 33 abuts against the inner end 36 of the slot 26 so that, as the bolt 33 is turned in a clockwise direction (Figs. 2 and 3), the member 17 will move to the right or outwardly relative to the member 16 to extend the effective length of the unit 15. Conversely, when the bolt 33 is turned

in a counter-clockwise direction, the member 17 will be moved to the left and the unit 15 will be shortened accordingly.

A pair of strops 37 and 38 are removably mounted upon the unit 15 by means of a plurality of eyelets 39 formed adjacent the ends thereof which are engageable over small studs 41 rigidly secured in any suitable manner to the outer curved surfaces of the head portions 18 and 29. As pointed out above, when the bolt 33 is tightened, the effective length of the unit 15 will be increased, and this lengthwise adjustment of the unit 15 may be selectively varied to place the desired tension upon the strops 37 and 38.

The stand 11 has small rubber cushions or feet 42 mounted on the lower surface of the base 12 to provide a firm footing and to prevent the stand from moving about when the device is being used. Although the device as a whole is portable, the stand 11 is made sufficiently heavy to accomplish this result.

An extremely sharp knife is necessary in laboratories to cut thin slices from a specimen, so that the same may be placed under a microscope for detailed examination. These knives are usually special knives called Microtome knives having an edge which is necessarily very sharp. Heretofore, after such a knife had been used for a short period of time, the edge would become dulled and a perfect cut could not be made, and the knife would have to be sent to an expert grinder who would regrind and hone the edge.

The instant device is adapted to enable the resharpening of these knives by the operator, without necessitating the same being sent to a grinder. The strop 37 is usually one adapted to be used for initial sharpening, and is preferably made of pig skin which is impregnated with an abrasive dust, such as diamond dust or any other suitable abrasive material which is adapted to cut a hardened surface. The strop 38 is usually a finishing or shell strop, and is made from a finer grade of hide, usually being cut from the hind portion thereof.

To make a clean cut which will leave no marks on the surface of the slice, a uniform and even cutting edge must be had. To produce such an edge the knife is preferably first properly honed, and is then sharpened on the strop 37. The strop 37 produces a plurality of fine lines in the surface of the cutting edge which makes the same ideal for cutting. The lock nut 24 is then loosened, the unit 15 rotated upon the stand 11 to bring the strop 38 into operative position, and the lock nut 24 tightened to retain the unit 15 in such position. The knife edge is then finished on the strop 38, whereby the lines, which were formed in the surface thereof by the strop 37, will be smoothed and straightened, so that when a specimen is cut a smooth surface will be assured.

While the device is preferably adapted to be used for Microtome knives or laboratory knives, it will be apparent that it is also adapted to be used on other sharp cutting implements, such as razors or the like.

From the above description, it will be seen that a device is provided upon which a pair of strops are mounted which may be selectively tensioned to any desired degree without applying undue strains or stresses to the device, and which will maintain the tension uniform upon both of the strops. At the same time, the tensioning unit forming part of the device may be selectively adjusted to bring a desired strop into operative position, and may be locked in such position, thereby enabling the operator to use both hands in guiding the knife, rather than necessitating the tiring and inefficient method of holding the strop taut with one hand while stropping. It will also be apparent that provision may readily be made for the mounting of two additional strops, if desired, upon the unoccupied sides of the tensioning unit 15.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. In a device of the class described, a stand portion, and a tensioning unit mounted upon said stand portion, comprising a plurality of strops, a pair of interengaging members for removably supporting said strops, means for moving said members relative to each other to apply a desired degree of tension to said strops, means mounting said tensioning unit for rotation upon said stand portion to enable the positioning of a selected strop in operative position, and threaded locking means cooperating with said mounting means for rigidly locking said tensioning unit in any desired position against rotation upon and relative to said stand portion.

2. A mounting for a plurality of strops, comprising a stand portion, a first member, a first stud joined to and rotatably supporting said first member upon said stand portion, a second member slidably engageable with said first member for movement relative thereto, a second stud for supporting said second member on said stand portion for rotation with said first member and operable to impart sliding movement to said second member relative to said first member, said members being provided with means for removably engaging opposite ends of a plurality of strops, whereby sliding movement of said members relative to each other will apply a desired degree of tension to said strops and rotation of said members relative to said stand portion will enable the positioning of a selected strop in operative position, and wing nuts respectively engaging said studs for locking said members and said strops as a unit in any desired selected position.

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