(No Model.)

T. T. HOSACK.

KNIFE OR SCISSORS SHARPENING DEVICE.

No. 522,373. Patented July 3, 1894.

Fig. 1.

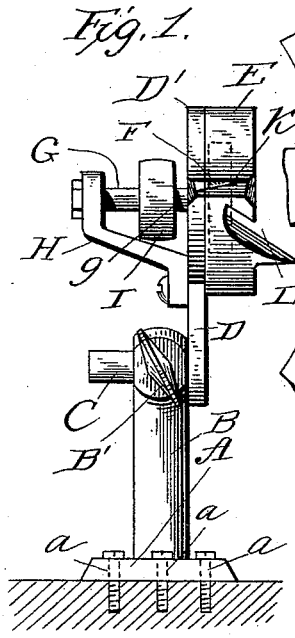


Fig. 2.

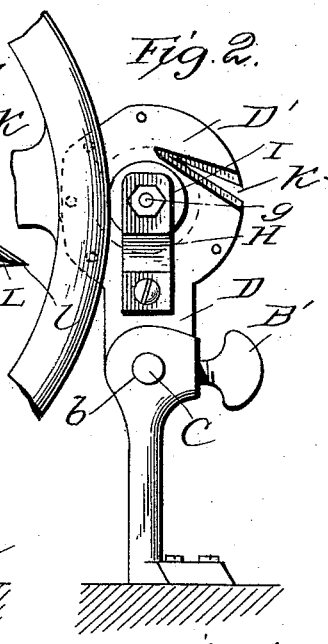


Fig. 3.

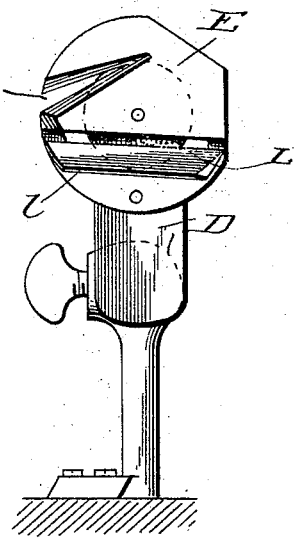
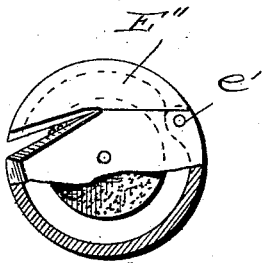


Fig. 4.



Attest
Walter Macdonald
F. L. Middleton

Inventor
Thomas T. Hosack
By Ellis Spear
Atty

UNITED STATES PATENT OFFICE.

THOMAS T. HOSACK, OF OIL CITY, ASSIGNOR OF TWO-THIRDS TO ANSLEY S. SERVICE AND SAMUEL K. POTTER, OF SHARON, MERCER COUNTY, PENNSYLVANIA.

KNIFE OR SCISSORS SHARPENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 522,373, dated July 3, 1894.

Application filed December 5, 1893. Serial No. 492,808. (No model.)

To all whom it may concern:

Be it known that I, THOMAS T. HOSACK, a citizen of the United States of America, residing at Oil City, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Knife or Scissors Sharpening Devices, of which the following is a specification.

My said invention relates to a knife and scissors sharpening device designed for attachment to a sewing machine and to be operated thereby, and by means of which device knives or scissors may be readily sharpened in a correct manner by unskilled persons.

The invention consists of an attachment embodying a casing containing an emery or other suitable grinding wheel mounted upon a shaft extending through the casing and adapted to be operated by the sewing machine wheel, with slots into which the knife or scissors blade may be inserted to bring the edge into contact with the emery wheel at the proper angle.

The invention also consists in the arrangement and details of construction as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings which illustrate the invention—Figure 1 is a front elevation of the attachment. Fig. 2 is a side elevation of the device looking from the left, and Fig. 3 is a similar view looking from the right of Fig. 1. Fig. 4 represents a modification.

Referring by letter to the drawings, A represents a suitable base provided with screw holes *a*, *a*, *a*, by means of which it may be secured to the machine table. This base carries an upright post B, having an opening or bearing *b*, in its upper end in which is mounted the shaft C, which carries the main portion of the device.

A set screw B′ threaded into the post may be adjusted to bear with its point against the shaft and by this means the portion carried upon the shaft may be adjusted and securely held in any desired position as hereinafter described.

I prefer to construct the portion which is mounted upon the shaft C substantially as shown in the drawings in which the plate D, extends vertically upward from the said shaft and has its upper portion enlarged to form a circular disk D′ corresponding to the size of the casing which incloses the wheel and one side of which it forms. This casing E, which is preferably cast in the shape shown, is secured by means of screws to the disk D′ and contains within it the grinding wheel of emery or other material, shown at E, which is mounted upon a shaft G, journaled in the walls of the casing. The portion *g*, of this shaft extends through the wall or plate D′ and has its outer end journaled in a bracket H, the lower end of which is screwed or bolted to the plate or disk D′. A pulley I, preferably of rubber, is mounted upon the portion *g*, of the shaft G, and it will thus be seen that when the pulley is brought into contact with the periphery of the hand wheel of the sewing machine the shaft and grinding wheel will be driven at a high rate of speed. A slot K is made in the front edge of the casing extending inward and upward to the periphery of the grinding wheel, so that a knife blade may be inserted in the slot far enough to bring its edge into contact with the periphery of the disk and at the proper angle to give the most desirable bevel to the said edge. In order that scissors may be properly sharpened by the device I provide a second slot L in the side of the casing. This second slot is larger and is arranged at a different angle to the side of the wheel in order to give the proper bevel to the scissors edge. As the wall of the casing is comparatively thin at this point I find it desirable to provide a ledge *l*, which forms a continuation of the lower wall of the slot and serves to support the scissors blade at the proper inclination. This ledge may be cast integral with the wall of the casing.

Instead of having the casing containing the emery or grinding disk formed in the manner shown in Figs. 1, 2, and 3, and in which, in order to obtain access to the disk for any purpose other than grinding the knife or scissors it is necessary to remove the side wall of the casing it is in some instances desirable to divide the casing horizontally or approximately so on the line of the opening for the admission of the knife edge, substantially as

shown in Fig. 4, in which case the upper portion E'' of the casing is hinged to the lower portion by a suitable hinge at *e'* and may be swung back to expose the upper portion of the grinding disk.

It will be understood that while I have described the device as designed more particularly for application to a sewing machine I do not desire to be limited to this application as the device might be applied to other machines as well.

It will also be understood that while I have shown a rubber pulley placed upon the shaft of the emery disk and designed to operate the said disk by frictional contact with some moving wheel, I might substitute for this rubber wheel a grooved pulley and connect it by a belt with some suitable source of power. This, however, is a substitution which would so readily occur that I have not deemed it necessary to illustrate it in the accompanying drawings.

Having thus described my invention, what I claim is—

1. An attachment for sewing machines comprising a standard having a casing adjustably mounted thereon, and a shaft journaled in the walls of the casing carrying a grinding disk and adapted to be operated by the wheel of the sewing machine, said casing having inclined slots adapted to embrace the blade to be sharpened, substantially as described.

2. In combination the standard, the casing adjustably pivoted in said standard, a grinding disk located within the casing, a shaft supporting said disk and having one end extended through the wall of the casing, a pulley mounted upon said extended end, said casing having slots in its side and edge arranged at different angles, substantially as described.

3. In combination with the standard, the casing mounted thereon carrying a grinding disk within it adapted to be operatively connected with a sewing machine wheel, said casing having an inclined slot in its edge and a second inclined slot in its side wall, and a ledge forming a continuation of the lower wall of said second inclined slot, substantially as described.

4. In combination with the standard, the casing mounted thereon carrying a grinding disk within it adapted to be operated by the sewing machine, the casing having an inclined slot in its side, and a ledge forming a continuation of the lower wall of said side slot, said casing being divided approximately on the line of its edge slot and having a suitable hinge whereby the upper portion may be swung back to expose the upper portion of the disk, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS T. HOSACK.

Witnesses:
A. W. WILLIAMS,
ELLA BOYCE.