P. W. ANDREWS

COMBINED SCISSOR AND KNIFE SHARPENER

Filed March 7, 1952

INVENTOR.

PERCY W. ANDREWS

BY

Edw. S. Higgins
ATTORNEY
This invention relates to a portable sharpener for sharpening knives and scissors and the like-edge tools requiring sharpening on one or both sides.

A prime object of the present invention is to provide a sharpener of this kind that is simple and inexpensive to manufacture and that can easily be manipulated by an unskilled person.

Another object is to provide improved means for supporting and guiding a knife blade to the sharpening element and for supporting and guiding a scissors blade to the sharpening element.

Another object is to provide a sharpener of this kind with ample supporting surfaces for a scissors blade whereby the blade may be held in a better and more firm operative position for sharpening purposes.

Another object is to provide a sharpener in which the sharpening element is easily removed for repair and replacement purposes.

Another object is to provide a sharpener of this kind that is characterized by fewness of parts and is attractive in appearance.

Other objects and advantages of the invention will be apparent from the description thereof to follow taken in connection with the accompanying drawings in which—

Fig. 1 is a perspective view of a sharpener embodying one form of my invention.

Fig. 2 is a perspective view of another modified form of my invention.

Fig. 3 is a perspective view of still another modification of the invention.

Fig. 4 is a perspective view of a sharpener embodying yet another modified form of the invention.

Fig. 5 is an end view of the form of Fig. 4, parts being shown in section.

Fig. 6 is a front view thereof, parts being shown in section.

With particular reference to Fig. 1, the combined knife and scissors sharpener shown herein comprises a one-piece body 5 preferably formed of plastic material and formed by either the extrusion or molding process. The body is substantially rectangular in shape with a central opening 6 extending through the body. The body has a top wall 1, bottom wall 8 and side walls 9 and 10. At the juncture between the top wall and the side wall 10, the body is formed with a slot 11 communicating with the central opening 6. The top wall 1 adjacent the slot is cut at a sharp angle as indicated at 12 leading inwardly to a shoulder 13 slanting at an angle of approximately 71°. The inner surface of the side wall 10 at the slot is inclined at approximately 28° as indicated at 14 and leads to a shoulder 14 formed at the lower end of said side wall. The upper surface of the bottom wall 8 is formed below the slot 11 with a shoulder 15 slanting at an angle of approximately 71° and disposed in a line with the shoulder 13 in the top wall. The upper surface of the bottom wall 8 between the shoulders 14 and 15 forms the floor 16 of the slotted portion 11 and is cut at an angle to the horizontal to the same degree as the portion 12 of the top wall 7 which forms the roof of the slotted portion 11.

The slanted roof 12, floor 16 and shoulders 13, 14 and 15 form an elongated seat square in cross section for a sharpening stone 17 which is also elongated and square in cross section to fit in said seat. When thus seated, the stone is tilted at an angle to the horizontal so that its front face 18 is disposed at an angle of approximately 71° and is exposed through the slot 11.

The rear face 19 of the stone is disposed at the same angle and is exposed through the central opening 6. The stone may be made of Alundum, or other suitable material or composition.

In operation, when sharpening an instrument with a single cutting edge such as a knife blade, the knife blade is placed against the slanted surface 13° of the front wall 16 with its edge pressed against the sharpening stone 17. The blade is then moved back and forth its entire length at the same time holding the blade with a slight pressure against the slanted surface 13°.

When sharpening a scissors blade, the blade is inserted into the opening 6 and while resting on the floor of said opening with its edge pressed against the rear face 19 of the sharpening stone 17, the blade is moved in and out over the face 19 the full length of the blade until sufficiently sharpened.

In the form of the invention shown in Fig. 2, the body is formed of sheet metal and comprises an elongated shallow channel shaped body portion 20 having a bottom wall 21, front wall 22 and rear wall 23. Seated in the channel body portion is an elongated sharpening stone 24 square in cross-section and fitted snugly between the walls of the body, with the major portion of the stone extending above and being exposed above the front and rear walls. A lug 25 extending upwardly from the bottom wall at each end thereof is bent over the stone to hold it against longitudinal displacement.

Formed integrally with the front wall 22 and slanting upwardly therefrom at an angle of approximately 28° is a knife supporting plate 26. This plate extends upwardly to a point approximately to the top of the stone. A similar plate 27 for supporting a scissors blade is formed integrally with the rear wall 23, this plate also slanting at approximately 71°. A handle 28 preferably of wood is fastened in any suitable manner to the bottom surface of the bottom wall 21.

In this form, a knife edge is sharpened similarly to the form shown in Fig. 1 by placing the
knife blade against the plate 26 with its edge pressed against the front face of the stone 24 and by stroking the blade back and forth.

A scissor blade is placed on plate 27 with its edge against the rear face of the sharpening stone 24 and stroked back and forth as in the form of Fig. 1.

In Fig. 3, a combined knife and scissors sharpener formed of sheet metal is also shown. This sharpener comprises a one-piece body having a channel-shaped portion including a bottom wall 30, front wall 31 and rear wall 32. A sharpening stone 33 is seated in the channel-shaped portion between its walls. A knife supporting plate 34 elants from the top edge of the front wall 31 forwardly at an angle of approximately 28° and extends to the top of the sharpening stone.

Extending from the upper edge of the rear wall 32 is a plate member 35, looped shape in cross section, forming a hollow handle portion. The upper reach of the looped plate terminates at its inner end in a flat strip 36 resting on the top surface of the stone, and between said strip and the looped portion is a vertical shoulder portion 37 adapted to engage the upper corner of the stone. A lug 38 formed on each end of the strip 36 is bent over the adjacent end of the stone to prevent longitudinal displacement thereof.

In this form of sharpener, the knife blade is placed against the plate 34 with its edge pressing against the front face of the stone 33 and stroked the same as in the form of Fig. 1. The scissor blade is inserted through the hollow handle portion 35 and while resting on the floor of the opening therein with its edge pressed against the rear wall of the sharpening stone, it is moved back and forth the same as in the form of Fig. 1.

In the form illustrated in Fig. 4, the sharpener comprises a body in the shape of a block having an upper section 40 and a lower section 41. The block is shown formed of wood, but may be made of any other suitable material, and the sections may be fastened by fastening elements, such as nails 42. The upper and lower block sections have flat outer surfaces so that the block may be supported on either section.

The lower section 41 is formed with a cut-away portion 45 at its upper surface at its rear, forming a rear shoulder 44. Said upper surface is inclined downwardly toward the front of the section as indicated at 45 and communicates at its forward end with a channel portion 46 formed at the front of section 41.

The upper section 40 has its inner or under surface formed with an inclined portion 47 tapering downwardly toward the front of the section, which inclined portion is spaced from the inclined portion 45 of the lower section 41. Inclined portion 47 terminates at its rear in a squared portion 48 which fits in the cut-away portion 45 of the lower section. The lower edge of the front of the upper section is formed with a tapered wall 49 which terminates at its rear in a horizontal portion 50 and said horizontal portion terminates in a vertically disposed shoulder portion 51.

Slidably mounted in the channel portion 46 of the lower section 41 is a sharpening stone 52. This stone is the same length as the block and is substantially square in cross section, thereby presenting four available sharpening surfaces. The stone seats in the channel portion and its upper end corner seats and is clamped in the space formed by the shoulder portion 51 and the horizontal portion 50 and is held against displacement longitudinally by clips 53 driven into the upper and lower sections and across the space therebetween and across the end faces of the stone. The inner elongated face 54 of the stone forms the front wall of the slot 55 provided by spacing the inclined portions of the sections apart, the squared portion 48 of the upper section forming the rear wall of said slot.

The front horizontal portion of the upper section 40 is spaced sufficiently above the front wall of the lower section 41 to provide an opening or space 56 along the front of the block exposing the front or outer face 57 and the top face 58 of the sharpening stone. The tapered wall 45 of the lower edge of the front of the upper section leads to the rear of the top face 58 of the sharpening stone.

The slot 55 is arranged at an angle of approximately 71° and the tapered front wall edge 45 is arranged at an angle of approximately 28°. In using the device, the blade of a scissors or the like is inserted into the slot 55 with its edge facing the stone 52. The flat surface of the scissor blade is placed on the inclined surface 45 of the lower section 41 whereby it is given the correct angle for sharpening purposes. The body of the scissor blade is then moved back and forth over the inner face 54 of the stone until the desired edge is obtained.

When it is desired to sharpen a knife blade 60, the knife blade is placed against the tapered wall 49 with its edge against the top face of the sharpening stone. The edge is then drawn back and forth until the desired sharp edge is obtained. The knife blade is then reversed and drawn back and forth across the face of the stone to sharpen the opposite side of the knife edge.

The construction of the sharpener described herein is so simple and the manipulation thereof so easy that any unskilled person can sharpen a knife or scissors as effectively as a professional could do the job.

I claim:

A combined knife and scissors sharpener comprising an elongated one-piece substantially rectangular-shaped body having flat upper and lower walls and curved side walls and having a central U-shaped opening continuing at one side of the body into a slot opening outwardly of the upper wall, the floor and roof of the U-shaped opening adjacent the slot each slanting downwardly and inwardly to provide shouldered seats, one wall of said slot slanting downwardly and inwardly from the top wall of the body, and an elongated sharpening stone, rectangular in cross-section, positioned in said slot against said shouldered seats so that one side of the stone is disposed at an angle and exposed in the slot and the opposite side of the stone is disposed in the U-shaped opening and exposed therein for sharpening a knife blade and scissors blade respectively.

PERCY W. ANDREWS.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>564,403</td>
<td>Whitney</td>
<td>July 21, 1896</td>
</tr>
<tr>
<td>673,933</td>
<td>Wallace</td>
<td>May 14, 1901</td>
</tr>
<tr>
<td>2,471,307</td>
<td>Freeman</td>
<td>May 24, 1949</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>565,812</td>
<td>Great Britain</td>
<td>Nov. 14, 1944</td>
</tr>
</tbody>
</table>