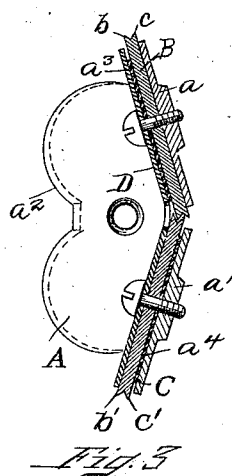
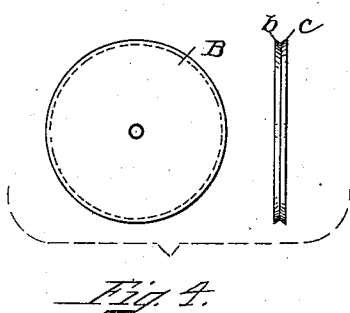
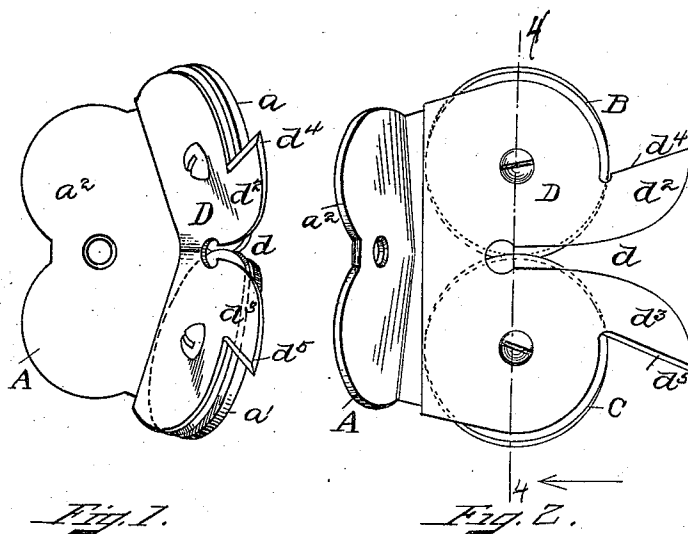


(No Model.)

C. K. BRADFORD.
SHARPENER FOR KNIVES, &c.

No. 501,267.

Patented July 11, 1893.



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UNITED STATES PATENT OFFICE.

CHARLES KEMPTON BRADFORD, OF LYNNFIELD, MASSACHUSETTS.

SHARPENER FOR KNIVES, &c.

SPECIFICATION forming part of Letters Patent No. 501,267, dated July 11, 1893.

Application filed July 7, 1892. Serial No. 439,221. (No model.)

To all whom it may concern:

Be it known that I, CHARLES KEMPTON BRADFORD, of Lynnfield, in the county of Essex and State of Massachusetts, have invented an Improved Universal and Reversible Sharpener for Knives, Scissors, and Like Articles, of which the following is a specification, reference being had to the accompanying drawings, in which—

10 Figure 1 is a plan, and Fig. 2 a perspective of my improved sharpener. Fig. 3 is a section on line 4—4 of Fig. 2. Fig. 4 illustrates the disk used.

My invention relates to that class of sharpening devices in which two cutting edges are held adjacent in a suitable support and between which the blade of a knife or the like is drawn to be sharpened.

20 The invention has for its object to produce a device which may be used for a much greater length of time than those heretofore made and which will accomplish the purpose intended in a more efficient manner than heretofore.

25 In the drawings in which I have shown the best form of my invention A represents a supporting piece which is centrally bent as shown and formed in two upwardly extended arms a a' secured to the base a^2 so as to lean outwardly. Upon the arms a a' are secured the sharpening disks B, C, which are grooved in their peripheries to form four cutting edges b c b' c' . The disks when secured in place will be disposed obliquely, owing to the bend 35 in the supporting piece A and inclined out from the base as described. It is desired that the cutting edges of the disk should overlap, and to effect this I use washer a^4 between arm a' and disk C, and washer a^3 between disk B and a backing piece D which is bent to conform to the angle of the disks and has the slit d to form a guide for the article to be sharpened. It will be observed that this arrangement permits one edge of one disk to 45 be between the two edges of the other so that in use only the two inner edges of the disk

engage the article to be sharpened. The backing piece D has two projections d^2 d^3 one of which is provided with a cutting edge d^4 to furnish a thread cutter, the other d^3 serving as a guide when scissors are to be sharpened.

The device having been secured upon a desirable rest, a blade is inserted in slit d with the edge between the disks and drawn through 55 against the edges in a direction from the base a until properly sharpened. The advantages of the invention will now be readily understood. The disks being arranged to lean outwardly from the base in one direction in which 60 the blade is drawn, greatly facilitates its smooth travel while if they were perpendicular the blade would often jump and stick impairing the edge to a great degree. The grooves in the disks provide two cutting edges 65 for each so that they may be reversed when dulled and new edges exposed to the article to be sharpened, the inclination of the disks permitting but one edge of each to come into contact with the knife blade or other article 70 to be sharpened. The cutting edges being circular may be revolved as they become worn, so that the device is both reversible and universal in its use.

I claim as my invention—

75 1. In a sharpener two disks, B, C, each grooved about its periphery to form circular cutting edges b , c , and b' c' relatively disposed to form an angle, and with one cutting edge of one between the two cutting edges of the other, substantially as described. 80

2. The improved sharpener comprising cutting disks disposed outwardly at an angle and inclined from the base, a groove upon the periphery of each to form two cutting edges 85 one edge of one disk lying between two edges of the other, and a brace for holding them, substantially as described.

CHARLES KEMPTON BRADFORD.

Witnesses:

JONATHAN CILLEY,
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