R. J. DEARBORN.

KNIFE SHARPENER.

APPLICATION FILED NOV. 14, 1912.

1,069,768. Patented Aug. 12, 1913.

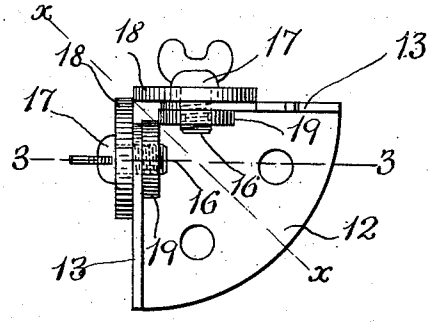

Fig. 1

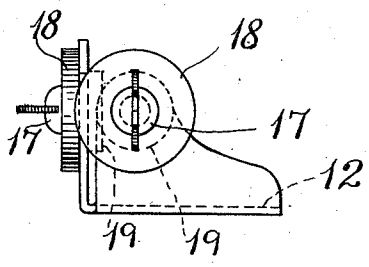

Fig. 2.

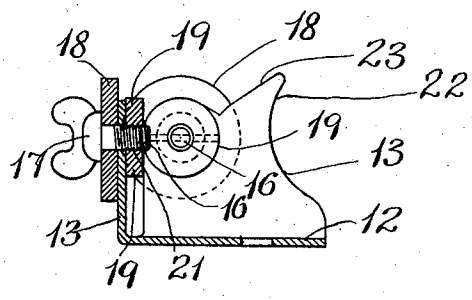

Fig. 3.

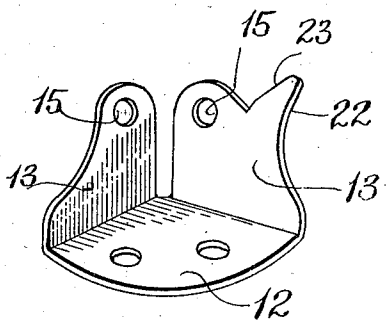

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

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KNIFE-SHARPENER.

1,069,768. Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed November 14, 1912. Serial No. 731,286.

To all whom it may concern:

Be it known that I, RICHARD J. DEARBORN, a citizen of the United States, and a resident of Beverly, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Knife-Sharpeners, of which the following is a specification.

This invention relates to a knife sharpener adapted to be secured to a table or other support and comprising a base and two pairs of sharpening disks supported thereby, the disks of one pair being smaller than those of the other pair, and the disks of each pair being arranged in planes substantially at right angles with each other, the arrangement being such that a knife blade drawn between the adjacent portions of the peripheries of the disks will be sharpened by the planing action of the disks.

The invention has for its object to simplify the construction of a sharpener of this character and reduce to the minimum the number of parts and the expense of construction.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings:—Figure 1 represents a top plan view of a sharpener embodying my invention. Fig. 2 represents a side view of the same. Fig. 3 represents a section on line 3—3 of Fig. 1. Fig. 4 represents a perspective view of the base separated from the sharpening disks.

The same reference characters indicate the same parts in all the figures.

In the drawings, 12 represents a base adapted to be screwed or otherwise attached to a support such as a table, and provided with two upwardly projecting ears 13 arranged substantially at right angles with each other, each ear being provided with an opening 15 which is preferably a circular aperture. In the opening 15 of each ear is inserted a stud 16 which has a head 17 at its outer end, its body portion being provided with a screw thread terminating at the inner end as shown by Fig. 3. Each stud 16 supports a larger sharpening disk 18 and a smaller sharpening disk 19, these disks being preferably made of hardened steel and the sides of the disks forming pronounced angles with the peripheries thereof. The studs 16 are arranged at right angles with each other as shown by Fig. 1, and the disks on said studs are therefore arranged in planes at right angles with each other. The larger disks 18 are at the outer sides of the ears 13, while the smaller disks 19 are at the inner sides of said ears, the disks being thus spaced apart. Each larger disk 18 has a central opening which receives the corresponding stud 16 without having a screw thread engagement therewith. Each smaller disk 19 has an internally threaded central orifice 21 which engages the screw thread of the accompanying stud 16. Each smaller disk 19 therefore constitutes a nut which coöperates with the stud 16 in maintaining a frictional engagement between the adjacent sides of the disks 18 and 19 and the sides of the accompanying ear 13. By rotating the stud 16 in one direction the smaller disk 19 is pressed firmly against the inner side of the corresponding ear 13 and the inner side of the larger disk 18 is at the same time pressed firmly against the outer side of said ear, so that the disks are firmly held against accidental rotation. When it is desired to rotatively adjust the disks, the stud 16 is turned outwardly to loosen the disks and permit their rotative adjustment. Provision is thus made for bringing new portions of the peripheries of the disks into operative position, the disks being arranged as shown by Fig. 3, so that portions of the peripheries of the larger disks are in close proximity to each other, and portions of the smaller disks are also in close proximity to each other, so that a knife blade moved in the path indicated by the line x, x, will be acted on simultaneously by the two pairs of disks.

It will be seen that by utilizing the smaller disks 19 as nuts in the manner described, I reduce the number of parts and the expense of construction to the minimum, no independent nuts being required.

One of the ears 13 is provided with a scissors blade rest 22, having an inclined face 23 which extends outwardly from the periphery of one of the larger disks 18, and is arranged at such angle to the portion of the periphery from which it projects, that one side of a scissors blade may be guided by the face 23 while the edge of the blade is being sharpened by the periphery of the disk.

I claim:—

A knife sharpener comprising a base having two ears substantially at right angles

with each other, each ear having a stud-receiving opening, headed screw-threaded studs inserted in said openings, and two pairs of sharpening disks supported by said studs and including larger and smaller disks separated from each other by said ears, the smaller disks having threaded apertures engaged with the studs and serving as nuts adapted to frictionally engage the inner sides of the ears, and hold the larger disks in frictional engagement with the outer sides of the ears, each stud supporting a larger and a smaller disk, and the disks on each stud being substantially at right angles with the disks on the other stud.

In testimony whereof I have affixed my signature, in presence of two witnesses.

RICHARD J. DEARBORN.

Witnesses:
C. F. BROWN,
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