

(No Model.)

P. E. COMSTOCK.

TOOL SHARPENER.

No. 332,187.

Patented Dec. 8, 1885.

Fig. 1.

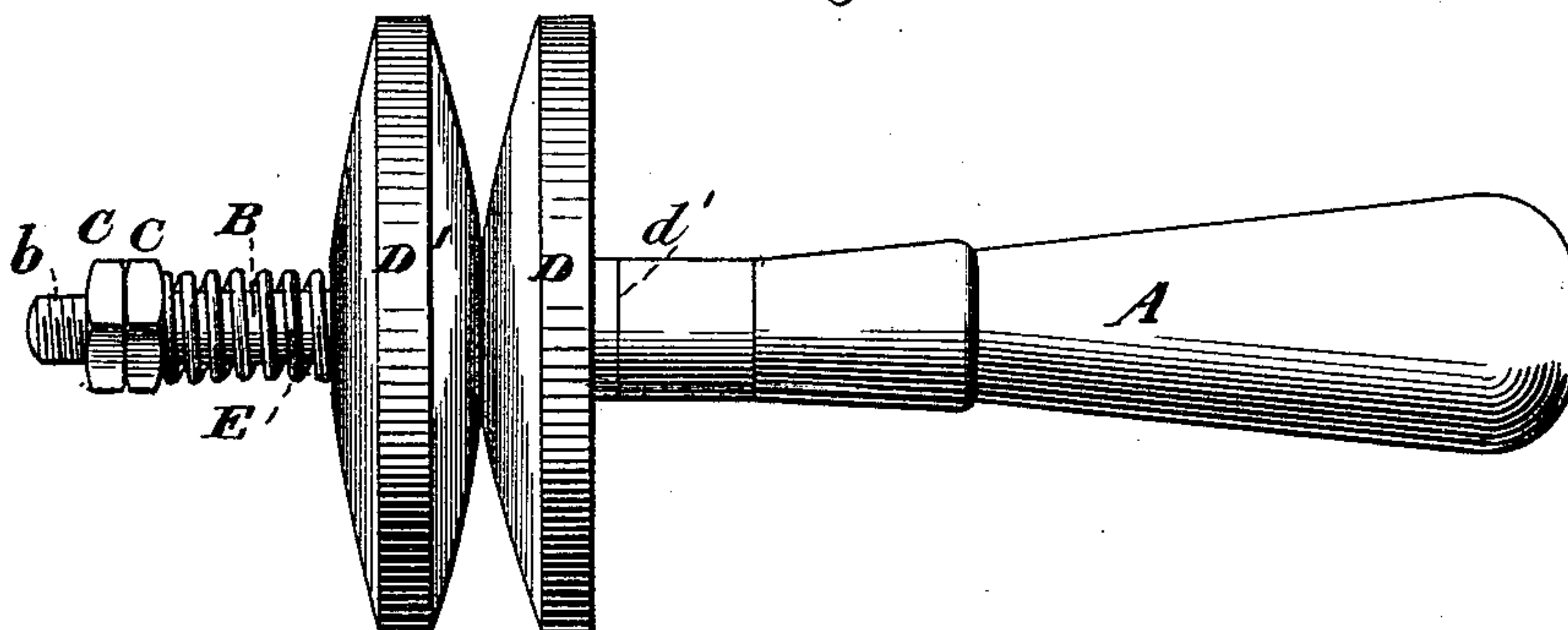
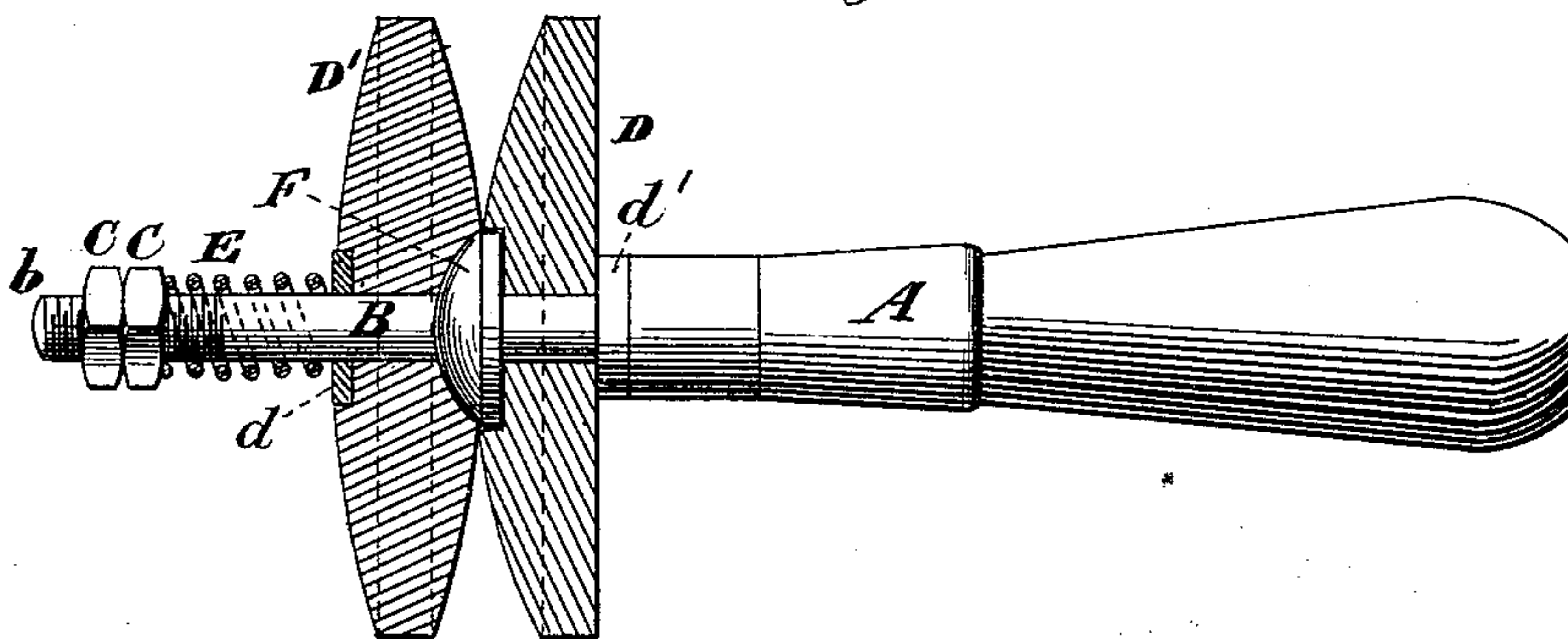


Fig. 2.



Witnesses.
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PHILO ELEAZER COMSTOCK, OF ASCUTNEYVILLE, VERMONT, ASSIGNOR OF
ONE-HALF TO JOHN GARDNER POLLARD, OF WORCESTER, MASS.

TOOL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 332,187, dated December 8, 1885.

Application filed December 3, 1884. Serial No. 149,409. (No model.)

To all whom it may concern:

Be it known that I, PHILO E. COMSTOCK, of Ascutneyville, in the county of Windsor and State of Vermont, have invented a Manual Tool-Sharpener, of which the following is a specification.

The special object of the invention is to supply a household want of some convenient means for sharpening knives and scissors, so that they may always be kept with a proper edge and do their work in the best manner; also, for the use of shoe-makers, butchers, and surgeons, who always require a keen edge in order that their instruments may operate accurately and to the best advantage.

The invention will first be described in connection with the drawings, and then clearly pointed out in the claims.

Figure 1 of the drawings is an elevation showing some of the parts of my invention together and in their proper local relation. Fig. 2 is a longitudinal central section of Fig. 1 to show the connection of the several parts.

In the drawings, A represents the handle, in which is secured at the front end a shaft, B, which is enthreaded at *b*, and receives one or more set-nuts, C, so as to regulate the tension of a spiral spring, E.

D D' are two emery-disks arranged to rotate side by side upon the shaft B, and in contact at their greatest points of convexity. The disk D' slides laterally on the shaft B, and is held up to the non-sliding disk D by the spiral spring E, which surrounds said shaft, and is placed between the nuts C and the washer *d*.

F is a guard-block, made fast on the shaft and fitting between the disks, so as to prevent the knife or other article from striking on the shaft when being drawn back and forth.

The disks D D' are provided upon their opposite faces with cavities, which together receive the guard and allow the apices of the con-

vexities of the two disks to come into contact, or nearly so. These cavities are made sufficiently capacious to allow the disks to approach each other more and more nearly as they wear, said wear being thus automatically taken up. The disk D rotates between the guard F and washer *d*, and is not laterally adjustable. The oppositely-convexed faces of the disks D D' are of coarse emery, so as to give a rough edge, while the disk D' is convexed on its outer face and made of fine emery, to give a keen edge where it is wanted.

The handle may be used to hold the sharpener; or instead thereof I may use a frame suitable for attachment to a table, shelf, or other fixture.

The article which is to be sharpened is to be drawn back and forth between the inside convex faces of coarse emery, or on the outside convex face of disk D', where the emery is fine and adapted to make the edge very keen.

Having thus described all that is necessary to a full understanding of my invention, what I desire to protect is specified in the following:

1. In a two-disked sharpener, the combination, with the shaft and disks, of the guard-block F, arranged on the shaft and between the disks, as and for the purpose specified.

2. The combination, with the two disks D D', having the opposite cavities, the shaft-carrying guard-block F, and the spiral spring arranged to keep the two disks together and automatically take up wear, substantially as described.

3. The combination, with a handle or other suitable holder, of an end-threaded shaft, B, one or more set-nuts, the two disks D D', the spiral spring, the guard F, and the washers, as and for the purpose set forth.

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Witnesses:

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