

(No Model.)

J. T. KNAGGE.
PENCIL SHARPENER.

No. 300,375.

Patented June 17, 1884.

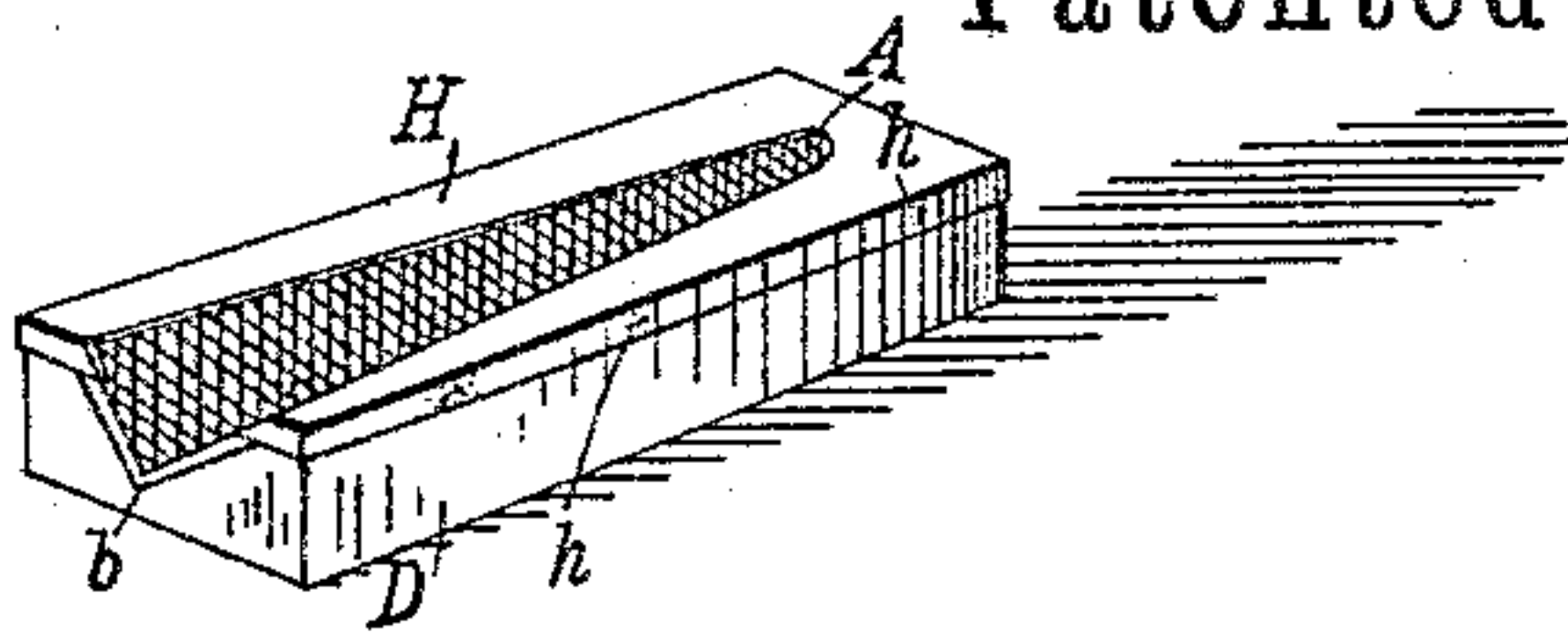


Fig. 1.

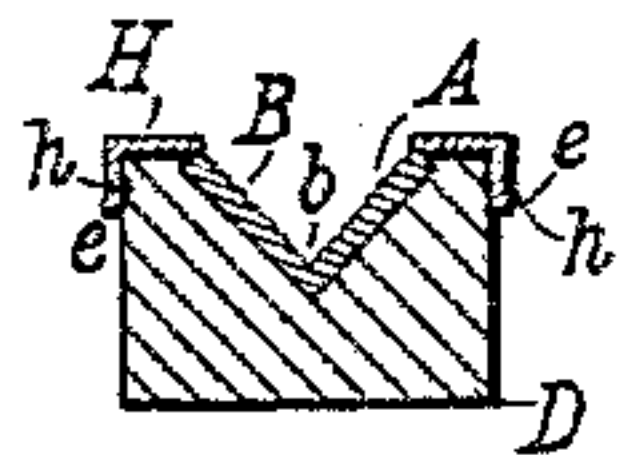


Fig. 2.

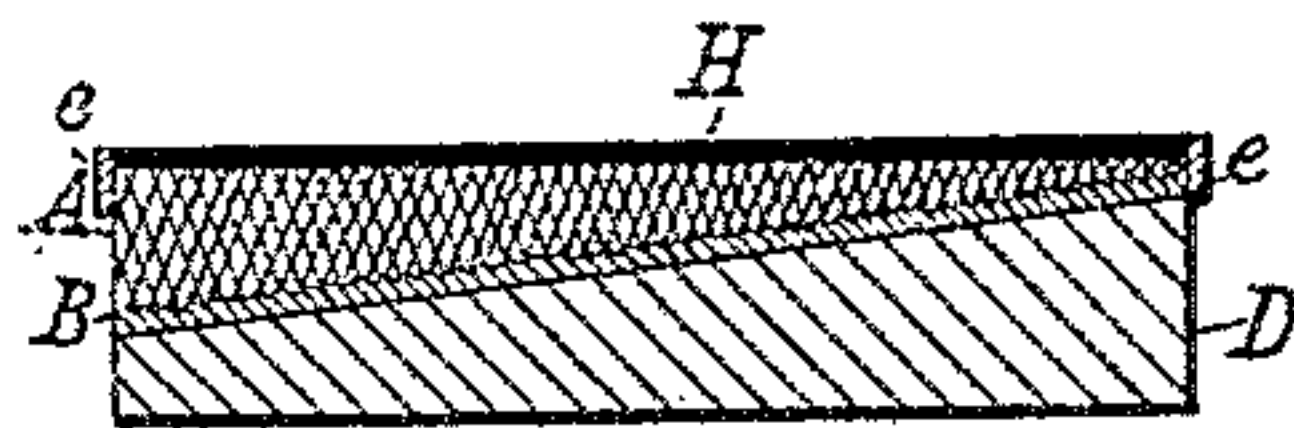


Fig. 3.

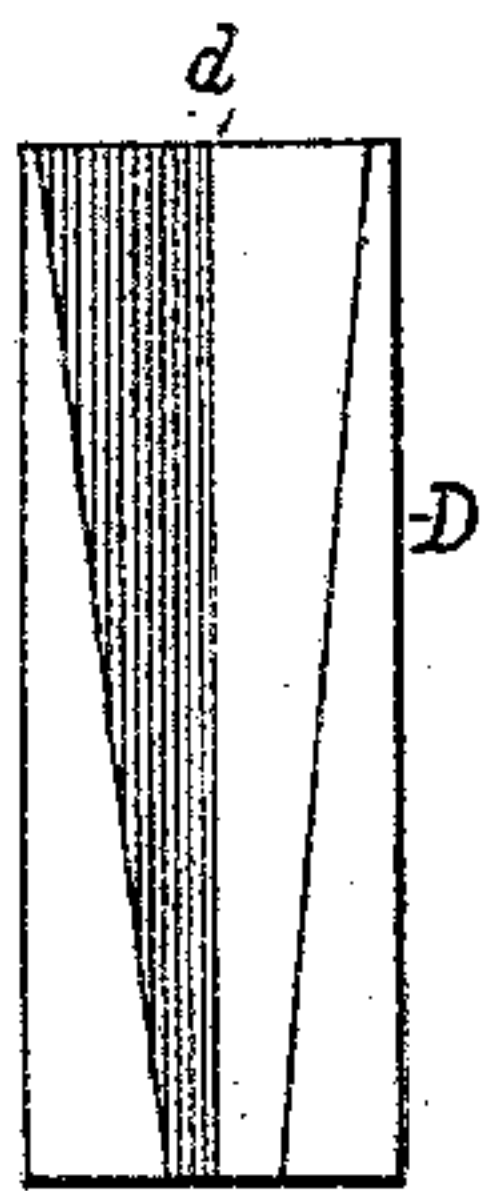


Fig. 4.

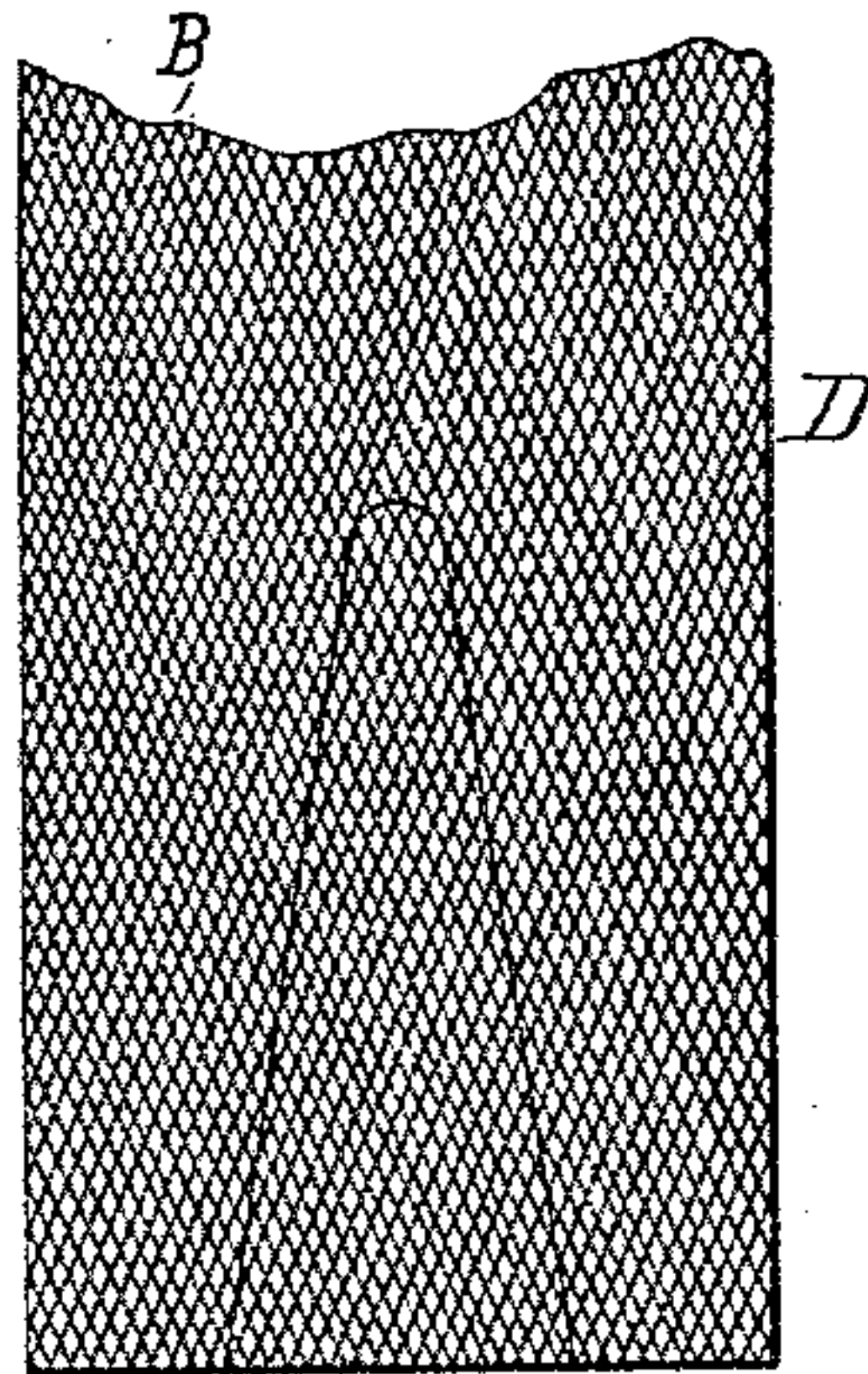


Fig. 5.

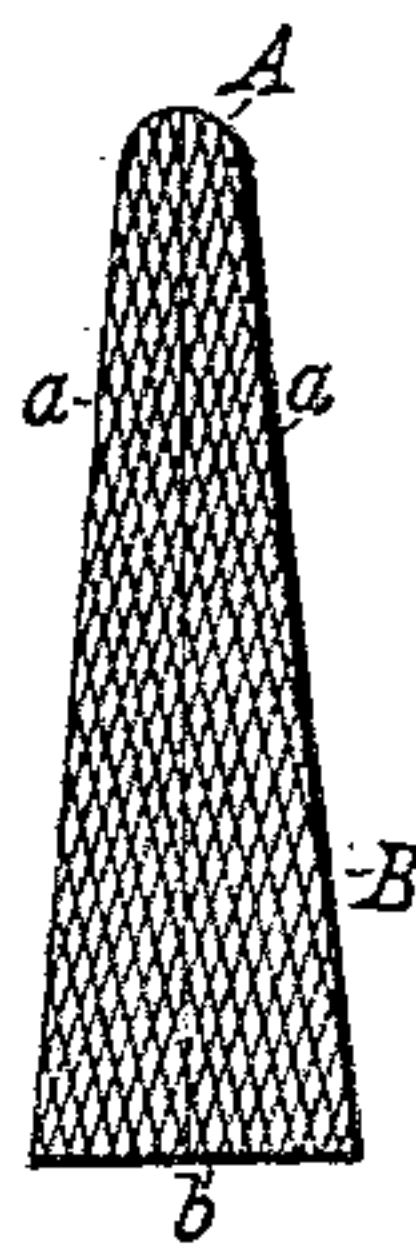


Fig. 6.

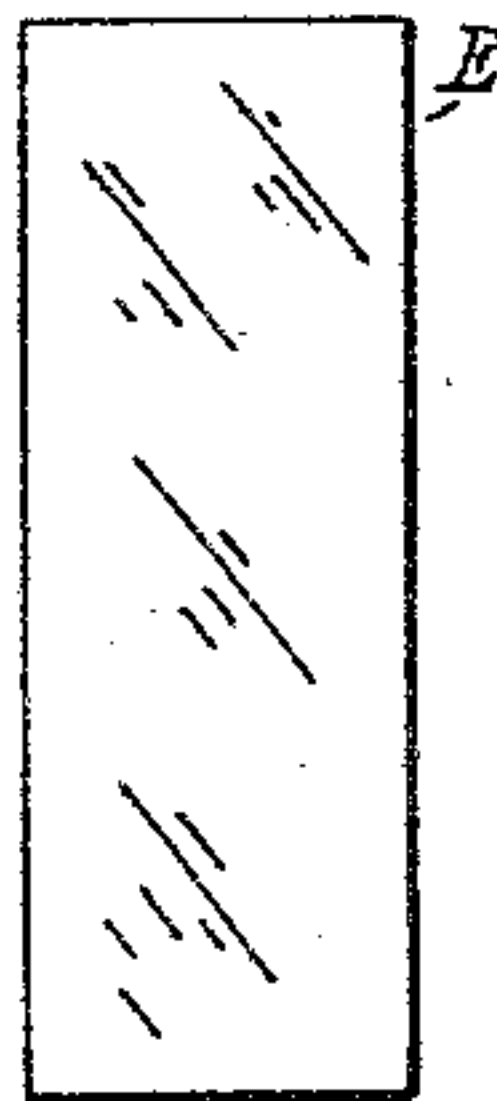


Fig. 7.

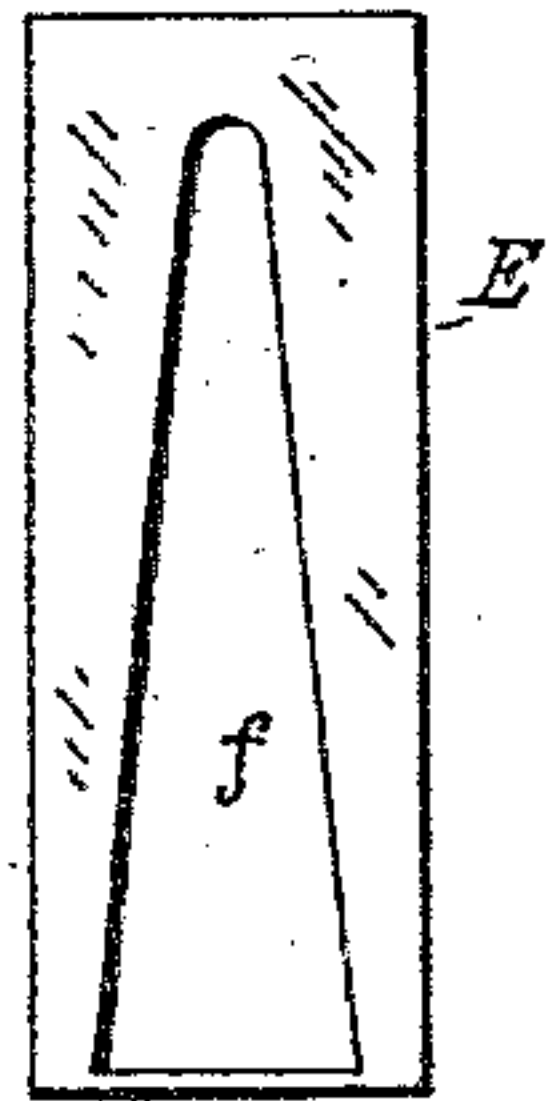


Fig. 8.

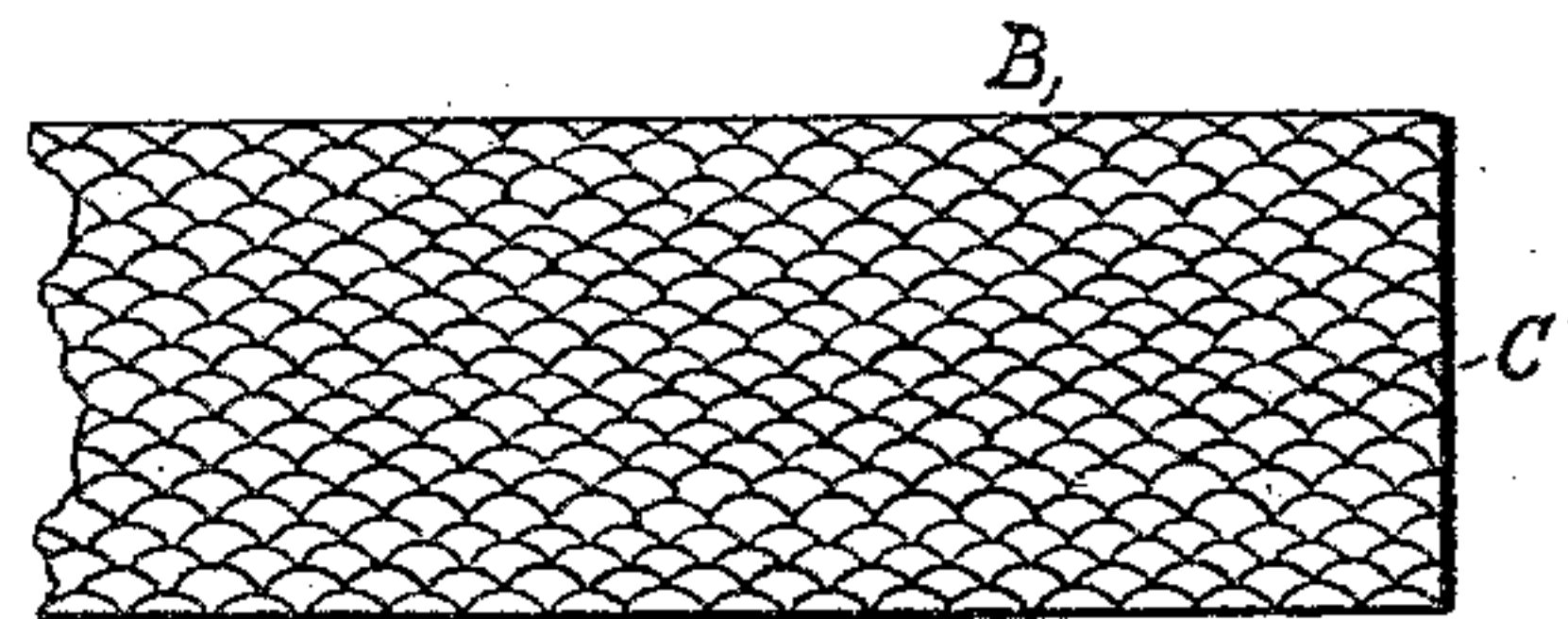


Fig. 9.

Attest
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Jno. W. Frehli.

Inventor
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per Wm. Hubbell Fisher, Atty

UNITED STATES PATENT OFFICE.

JOHN T. KNAGGE, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO
GEORGE HERZOG, OF SAME PLACE.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 300,375, dated June 17, 1884.

Application filed January 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. KNAGGE, a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Pencil-Sharpeners, of which the following is a specification.

The several features of my invention and the various advantages resulting from their use, conjointly or otherwise, will be fully apparent from the following specification.

In the accompanying drawings, Figure 1 represents a view in perspective of a pencil-sharpener illustrating certain features of my invention. Fig. 2 represents a vertical central cross-section of the devices shown in Fig. 1. Fig. 3 represents a vertical central longitudinal section of the devices shown in Fig. 1. Fig. 4 represents a top view of the holder on which the sharpening-plate is supported when constructed as shown in Fig. 1. Fig. 5 represents a top view of a blank from which the sharpening-plate is cut, and also showing the preferred shape of the cut blank out of which the sharpening-plate is to be formed. Fig. 6 represents a top view of the sharpening-plate formed out of the blank shown in the preceding figure. Fig. 7 represents a blank out of which is cut the plate or clamp which may be used as a means for holding the sharpening-plate in the holder, such as is shown in Fig. 1. Fig. 8 affords a top view of the blank last named after being punched or cut; and Fig. 9 represents a top view of a blank out of which the blank for the sharpening-plate may be cut, said blank being introduced to show the preferred form of file cut upon the sharpening-plate when the more common mode of using my pencil-sharpener is to be employed.

A indicates the sharpening-plate. The blank C upon which the sharpening-plate is made is provided on one side with a file or rasp surface, B.

I have found that it is desirable to provide a large plate, as D, (see Fig. 5,) of requisite and even thickness, and of any preferred length and breadth, and indent the upper surface of this plate, so as to form proper file or rasp teeth, and then to cut out of this blank the blank C for my sharpening-plate. The sharpening-plate blank C preferably tapers, as shown, the sides

aa of said blank approaching each other as they continue toward one end of the blank, and diverge from each other as they are followed toward the other end of the blank. The side edges, *a a*, of the sharpening-plate blank C are bent upward, thus forming the blank into a finished plate, A. The bottom of the groove or channel *b* thus formed in the plate A may be rounded in cross-section, or consists of a very narrow flat portion; but it preferably consists of a mere line, as shown in Figs. 1 and 2. It will be observed that when the top of the edges *a a* of the plate are horizontal the bottom of the groove will incline upward from where the groove is widest to where the groove is narrowest. The object of this formation of the groove will be apparent hereinafter when the mode of using the pencil-sharpener is described. The sharpening-plate is to be supported in any desired manner. A preferred form of support when the sharpener is to be made portable consists as follows: A block, as D, of suitable material, preferably of wood, is provided. This block is preferably of about the length of the sharpening-plate A, and a groove, *d*, of the shape of the bottom of this plate, is formed in said block. (See Figs. 1, 2, 3, and 4.) Into this groove *d* the plate A is fitted.

Various modes of securing the plate in place may be employed, a convenient one of which is as follows: A blank, E, of thin sheet metal, preferably tin, is formed, and the edges *e* on the sides and ends are bent up. A triangular opening, *f*, is then punched or otherwise made in the blank. (See Fig. 8.) The central portion of the uncut strip *g* of the blank E is also cut away. The blank E has now been converted into a cover, H, and this cover is placed over the top of the block D, holding, as aforementioned, the sharpening-plate A. (See Fig. 1.) The edges *e* of the cover respectively engage the sides and ends of the block. The cover is now fastened to the block in any suitable manner by nails, screws, glue, &c., but preferably by forming indentations *h* in the edges *e* of the cover. These indentations enter the wood or material of the block D, and thus the cover is securely held in place upon the block.

The mode of employing the pencil-sharp-

ener is as follows: The end of the pencil to be sharpened is placed in the groove of the sharpening-plate, the length of the pencil coinciding with the length of the groove. The pencil is gently held or pressed down upon the file-plate, and is drawn back and forth in the direction of its length. One side of the front end of the pencil is now rapidly sharpened. As the bottom of the groove inclines upward as well as that the sides of the groove converge, the side of the end of the pencil will be systematically sharpened. By turning the pencil around and continuing the operation, the other side or sides of the pencil will be systematically sharpened. Should it be desired to form a short point on the pencil, the latter is held so that its axis of length is substantially parallel to the top edges of the sharpening-plate. On the other hand, if it be desired to form a long point on the pencil, the latter is laid on the bottom portion of the groove, the axes of length of the groove and the pencil coinciding.

Any suitable description of file or rasp teeth may be employed; but the preferred form of teeth to be employed is that known as the "fish-scale" cut, which teeth cut in both directions, (see Fig. 9,) so that the end of the pencil will be reduced during both the forward and opposite movements which are imparted to it while applied to the sharpening-plate. For sharpening lead-pencils, the file-teeth are preferably coarser than for slate-pencils, unless the sharpener is to be used exclusively for pointing the leads of lead-pencils, and then the teeth of the sharpening-plate will be very fine.

When preferred, the sharpener may be made out of a thick piece of metal provided with a groove substantially of the shape described, the surface of the groove being roughened.

While the various features of my invention are preferably employed together, one or more of them may be employed without the remainder, and, when desired, one or more of said features may be employed, so far as applicable, in connection with pencil-sharpeners of descriptions other than that herein specifically specified.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. A pencil-sharpener consisting of a tapering roughened plate bent along a central line, to bring the roughened faces at about right angles to each other, substantially as described.

2. The combination of the sharpening-plate provided with groove *b*, inclined at bottom and sides, and the block D and cover H', provided with opening *f* and flanges *e*, respectively engaging the sides and ends of the block D, substantially as and for the purpose specified.

3. The combination of the sharpening-plate provided with groove *b*, inclined at bottom and sides, and the block D and cover H', provided with opening *f* and flanges *e*, respectively engaging the sides and ends of the block D, and having indentations *h* in its flanges, said indentations entering the block, substantially as and for the purposes specified.

JOHN T. KNAGGE.

Witnesses:

JOHN W. STREHLI,
O. M. HILL.