## J. S. HALL. Pencil-Sharpeners.

No.154,982.

Patented Sept. 15, 1874.

Fig. 1

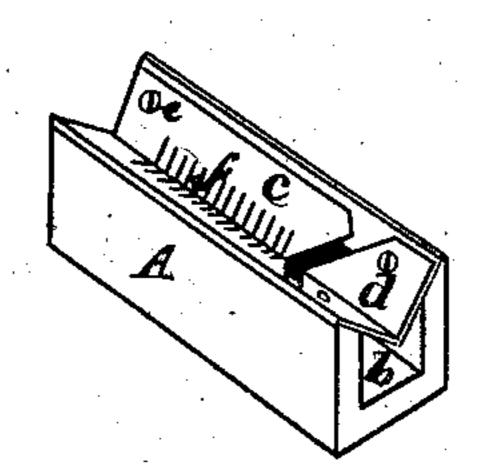


Fig. 3.

 $\frac{c}{d}$ 

Witnesses John L. Boone Col Richardson

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by his attorneys
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## UNITED STATES PATENT OFFICE.

JOHN S. HALL, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN PENCIL-SHARPENERS.

Specification forming part of Letters Patent No. 154,982, dated September 15, 1874; application filed April 4, 1874.

To all whom it may concern:

Be it known that I, John S. Hall, of San Francisco city and county, State of California, have invented an Improved Pencil-Sharpener; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to a simple and cheap implement for sharpening lead-pencils.

In order to explain the construction and arrangement of my invention, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view of my pencil-sharpener. Fig. 2 shows the cutter elevated. Fig. 3 shows the relative position of the cut-

ter and discharge for the chips.

A represents a block of wood, metal, or other suitable material of the desired length, and having a deep groove, b, cut or otherwise formed in one side of it. The upper portion of this groove is beveled outward toward the side edges of the block, as shown. C is a piece of properly-tempered steel plate, which is formed into an angle corresponding to the angle of the beveled edges of the groove b, so that it can be placed in the groove b, and thus form a V-groove inside of it. This angleplate is secured in place by a single screw at e, which permits it to be turned outward or opened, as shown at Fig. 2, the screw serving as a pivot. The free end of this angle-plate is beveled from the bottom to the top, so as to form a beveled V-shaped opening at its end, the angular sides of which are sharpened so as to provide a cutting upper edge. The Vplate C extends from one end of the block A to within a short distance of the opposite end, and a short angle-plate, d, similar to the plate C, is secured in this end of the groove, in front of the cutting-points. This plate d is thinner than the plate C, and the ends which

is next to the cutting bits or points of the plate C are cut at an opposite angle to them, and are set at a short distance in advance of the cutting-points, thus leaving a narrow space between the edges which leads into the groove b below. In the bottom of the V-plate C I make a file, f, by roughening the plate a short distance up the sides and along the bottom of the V-groove.

Now, as the plate d is thinner than the cutting-edges of the plate C, if a lead-pencil be held at the proper angle and drawn back and forth through the **V**-groove, the cutting points or bit will take off a thin shaving at each stroke, and if the pencil be turned continually it will be beveled to a point in the manner of

sharpening a lead-pencil.

The cutting edge or bit is only intended to cut away the wood of the pencil and have the lead exposed; a few rubs of the exposed lead will then point it reads for rec

will then point it ready for use.

The shavings of the wood will pass through the slot or space between the edges of the two plates C d, into the groove b beneath, from whence they can be easily removed by pushing the pencil through the hole or groove.

When the cutting-edge becomes dull it will only be necessary to open or turn the V-plate C outward upon its single screw or pivot and whet the points upon a stone in the manner of sharpening a V-chisel.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-

ent. is—

The block A, having the groove b, with its beveled corners, in combination with the V-plate C, with its angular cutting-edges and file f, and the angular gage-plate d, all combined and arranged substantially as above described.

In witness whereof I hereunto set my hand and seal.

JOHN S. HALL. [L. S.]

Witnesses:

JOHN L. BOONE, C. M. RICHARDSON.