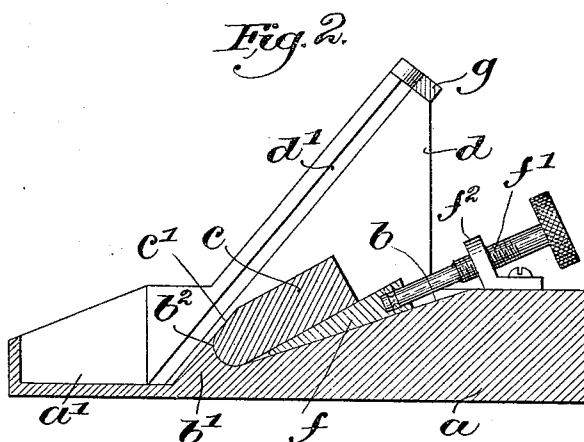
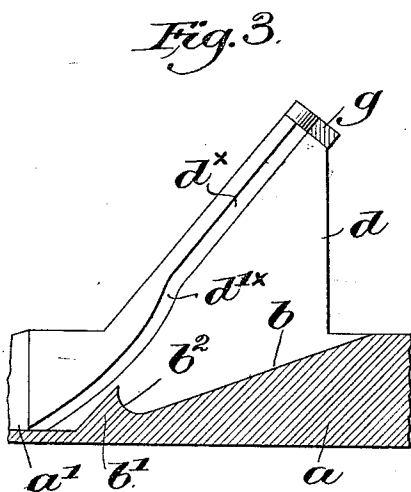
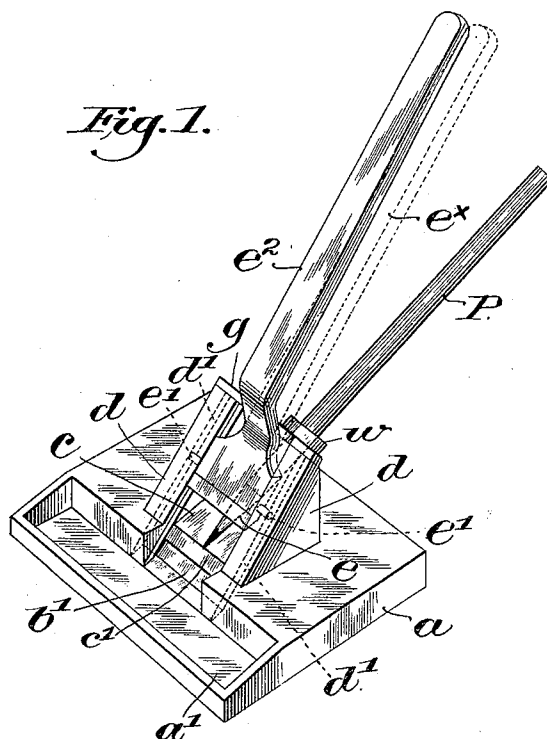


(No Model.)

J. L. HALL.
PENCIL SHARPENER.

No. 521,313.

Patented June 12, 1894.



Witnesses.

A.C. Harmon

Fred S. Gumbaf.

Investor;

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by Crosby & Gregory *attys.*

UNITED STATES PATENT OFFICE.

JAMES L. HALL, OF KINGSTON, MASSACHUSETTS.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 521,313, dated June 12, 1894.

Application filed February 26, 1894. Serial No. 501,526. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. HALL, of Kingston, county of Plymouth, State of Massachusetts, have invented an Improvement in Pencil-Sharpeners, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a simple and effective apparatus for sharpening pencils, whereby the pencil may be conveniently and rapidly sharpened without danger of breakage.

In accordance therewith, my invention in a pencil sharpener consists of a reciprocable cutting blade, and means to direct its movement, combined with a yielding bed located beneath the path of movement of the blade, to support the pencil beneath its point and rearwardly therefrom while being sharpened, substantially as will be described.

Other features of my invention will be hereinafter described and particularly pointed out in the claims.

Figure 1 is a perspective view of a pencil sharpener embodying my invention. Fig. 2 is a vertical longitudinal sectional view thereof, on an enlarged scale, and Fig. 3, a similar view of a modification to be described.

I have herein shown my invention mounted upon a base *a* of wood, metal or other suitable material, having a chip trough *a'* at its front. The base is cut away centrally to leave preferably an inclined seat *b* and an upturned lower end *b'*, concaved at its inner side, as at *b''*, to receive the convex end of a pencil supporting bed, herein shown as a rectangular block *c*, of preferably yielding material, as for instance, rubber or leather. As shown in Figs. 1 and 2, the upper surface of the bed *c* inclines from front to rear, and it is slightly chamfered at *c'*, adjacent its lower convex end. Suitable projections or ears *d* are erected upon or form a part of the base *a*, at the sides of the seat *b* and inclosing the yielding bed *c*, as best shown in Fig. 1. The projections *d* have a track or groove *d'* formed in the inner face of each, see dotted lines in Fig. 1, and at an angle of about forty-five degrees with the base *a*. These tracks or grooves *d'* are adapted to be entered by and form guides for trunnions *e'*, see dotted lines Fig. 1, projecting

from the sides of a cutting blade *e*, shown only in Fig. 1, the blade having a bent handle *e''*, to be grasped by the operator to move the blade back and forth above the bed *d*, the curvature of the handle preventing contact with a bridge *g*, to be described.

In order to adjust the inclination of the bed *c* according to the point to be given the pencil, I have interposed a wedge-like block *f*, shown only in Fig. 2, between the seat *b* and the bed *c*, controlled by an adjusting screw *f'* longitudinally movable in a threaded ear *f''* secured to the base. The screw is free to rotate in the block *f*, but moves longitudinally therewith, so that rotation of said screw in one or the other direction will raise or lower the inner end of the bed *c* to alter the inclination of its upper surface.

In the operation of the device the pencil *P* to be sharpened is placed upon the bed *c* and the blade *e* is moved back and forth chipping the wood from the point of the pencil, which is rotated from time to time to present a fresh portion to be cut. By varying the angle of the bed, a long or short point may be obtained, and by varying the pressure on the blade handle a great variety in the form of point may be had, suitable for any work, the blade *e* turning more or less on its trunnions *e'*. The grooves *d'* serve to support the blade in its movements, and to guide it, while permitting variations in the path of its cutting edge, as described.

In the modification shown in Fig. 3, the track *d''* is curved at *d'''* to alter the path of the blade automatically irrespective of the movement imparted to it by the operator, tending to give a concave or scoop-shaped point, and preferably the handle of the blade will in such instance be made straight, as at *e''*, see dotted lines Fig. 1, said handle resting upon and moving over a bridge *g* connecting the upper ends of the projections *d*.

A washer *w* of rubber or other material may be slipped over the pencil *P*, as shown in Fig. 1, to rest against the bridge and prevent forward longitudinal movement of the pencil as it is sharpened.

By the apparatus shown and described, a great variety of points may be made, long or short, or concaved, the lead being chisel-pointed or rounded.

It is obvious that the edge of the blade may be inclined to give a shearing cut, or the same result may be obtained by moving the blade handle to the right or left during its cutting movement.

My invention is not restricted to the exact construction or arrangement herein shown, as the same may be altered without departing from the spirit of my invention.

I claim—

1. In a pencil sharpener, a reciprocable cutting blade, and means to direct its movement, combined with a yielding bed located beneath the path of movement of the blade, to support the pencil beneath its point and rearwardly therefrom while being sharpened, substantially as described.

2. In a pencil sharpener, an adjustable bed to support the pencil to be sharpened, combined with a reciprocable cutting blade movable above the bed, and guides for and in which the blade is pivotally supported, substantially as described.

3. In a pencil sharpener, an elastic bed to support the pencil to be sharpened, and means to alter the angle of said bed, combined with a cutting blade adapted to be moved above the bed, trunnions on said blade to enter guides and pivotally sustain the knife in its

movement, and guides at the sides of the bed substantially as described.

4. In a pencil sharpener, an elastic bed to support the pencil, and guides at the sides of and inclined with relation to said bed, combined with a cutting blade movable above the bed, and trunnions on said blade to enter the guides and pivotally support the blade, substantially as described.

5. In a pencil sharpener, a yielding bed, beneath and to support the pencil adjacent its point, a reciprocable cutting blade movable thereover, guides for the knife, and a removable stop adjustable on and to limit longitudinal movement of the pencil, substantially as described.

6. In a pencil sharpener, a yielding bed, a cutting blade movable thereover, and irregularly shaped guides to direct the blade and positively regulate the shape of the cut, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES L. HALL.

Witnesses:

JOHN C. EDWARDS,
FREDERICK L. EMERY.