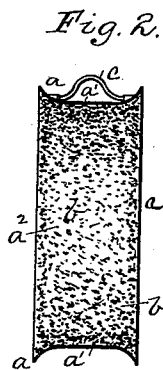
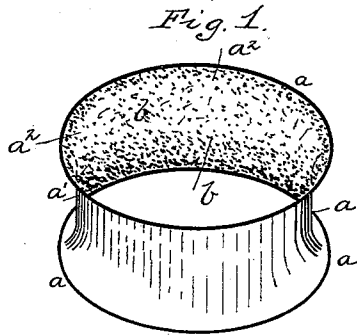


(No Model.)

J. D. EGLER.
PENCIL SHARPENER.

No. 466,077.

Patented Dec. 29, 1891.



Witnesses:

J. N. Cooney.
Robt. D. Fatten

Inventor,

Jacob D. Egler
By James D. Hays
Attorney

UNITED STATES PATENT OFFICE.

JACOB D. EGLER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO JOHN GAMBLE, OF SAME PLACE.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 466,077, dated December 29, 1891.

Application filed November 28, 1890. Serial No. 372,803. (No model.)

To all whom it may concern:

Be it known that I, JACOB D. EGLER, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Pencil-Sharp-
5 eners; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to pencil-sharpeners, its object being to provide a simple yet efficient device which can be manufactured so cheaply that the average primary scholar may possess one for personal use.

Many forms of pencil-sharpeners have been
15 devised, the most general forms being provided with cutting or grinding faces in the shape of knives or files, into contact with which the pencil is brought and by a movement imparted to the cutting-faces or the pencil itself, whereby the pencil, through the cutting action of the knives or files, is sharpened to the desired degree. These knives or files, however, increase the cost of the sharpeners and place them beyond the possession of the
25 average scholar.

My improved sharpener is so simple that it may be used with effect by small children; and it consists, generally stated, in a ring of metal or other suitable material having its
30 inner surface coated with an abrading substance, so that when the end of the pencil is brought into contact with the inner surface of said ring and is swung around within the same, thus causing its point to travel over the abrading substance, a sharp point is rapidly
35 formed on the pencil.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying
40 drawings, in which—

Figure 1 is a perspective view of my improved sharpener. Fig. 2 is a cross-section thereof.

Like letters indicate like parts.

The ring *a* may be formed of metal or any
45 other suitable material possessing the requisite strength and of any curvilinear outline. The said ring *a* is preferably constructed with the concave periphery *a'* and the consequent
50 convex surface *a²*, although a flat inner and

outer surface may be employed with almost similar results. The inner surface *a²* is coated with some suitable abrading substance *b*, such as emery or other gritty material, applied in such a manner as to adhere tena-
55 ciously to the said inner surface *a²*, the said periphery having had first applied to it some mucilaginous substance for retaining the abrading material thereon.

Upon the periphery *a'* is the loop or ring *c*,
60 to which a cord may be attached to suspend the sharpener from the slate or person of the scholar.

To sharpen a pencil with my improved sharpener, the ring *a* is grasped in one hand,
65 with the fore finger and thumb resting in the concave periphery *a'* at opposite sides thereof. The pencil is held in the other hand, and when brought into contact with the inner convex surface *a²* a quick swinging or circular
70 movement is imparted to the end of the pencil, with the end thereof always in contact with the abrading substance *b* and following the direction of the periphery of the ring *a*. This swinging movement is continued until
75 the pencil has been reduced to a fine point. The convex inner surface *a²* tapers the point more readily than a flat face, while the concave periphery enables the ring to be grasped more firmly during the operation of sharpen-
80 ing.

Practical experience has proven that a pencil-sharpener embodying the construction shown is very durable and can be produced at small cost.
85

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

1. A pencil-sharpener consisting of a ring of metal or other suitable material having its inner surface coated with an abrading sub-
90 stance, substantially as and for the purposes set forth.

2. A pencil-sharpener consisting of a ring of metal or other suitable material having a convex inner surface coated with an abrad-
95 ing substance, substantially as and for the purposes set forth.

3. A pencil-sharpener consisting of a ring of metal or other suitable material having a concave periphery, the inner surface of said
100

periphery being coated with an abrading substance, substantially as and for the purposes set forth.

4. A pencil-sharpener consisting of a ring
5 of metal or other suitable material having a concave outer periphery and a convex inner surface coated with an abrading substance, substantially as and for the purposes set forth.

5. The combination of the ring a , having
10 the concave outer periphery a' , the inner con-

vex surface a^2 , the abrading substance b , and the loop c , substantially as and for the purposes set forth.

In testimony whereof I, the said JACOB D. EGLER, have hereunto set my hand.

JACOB D. EGLER.

Witnesses:

J. N. COOKE,

ROBT. D. TOTTEN.