No. 689,223. Patented Dec. 17, 1901.

# D. R. PHILLIPS.

## PENCIL SHARPENER.

(Application filed Apr. 20, 1901.)

(No Model.)

Fig. 1.

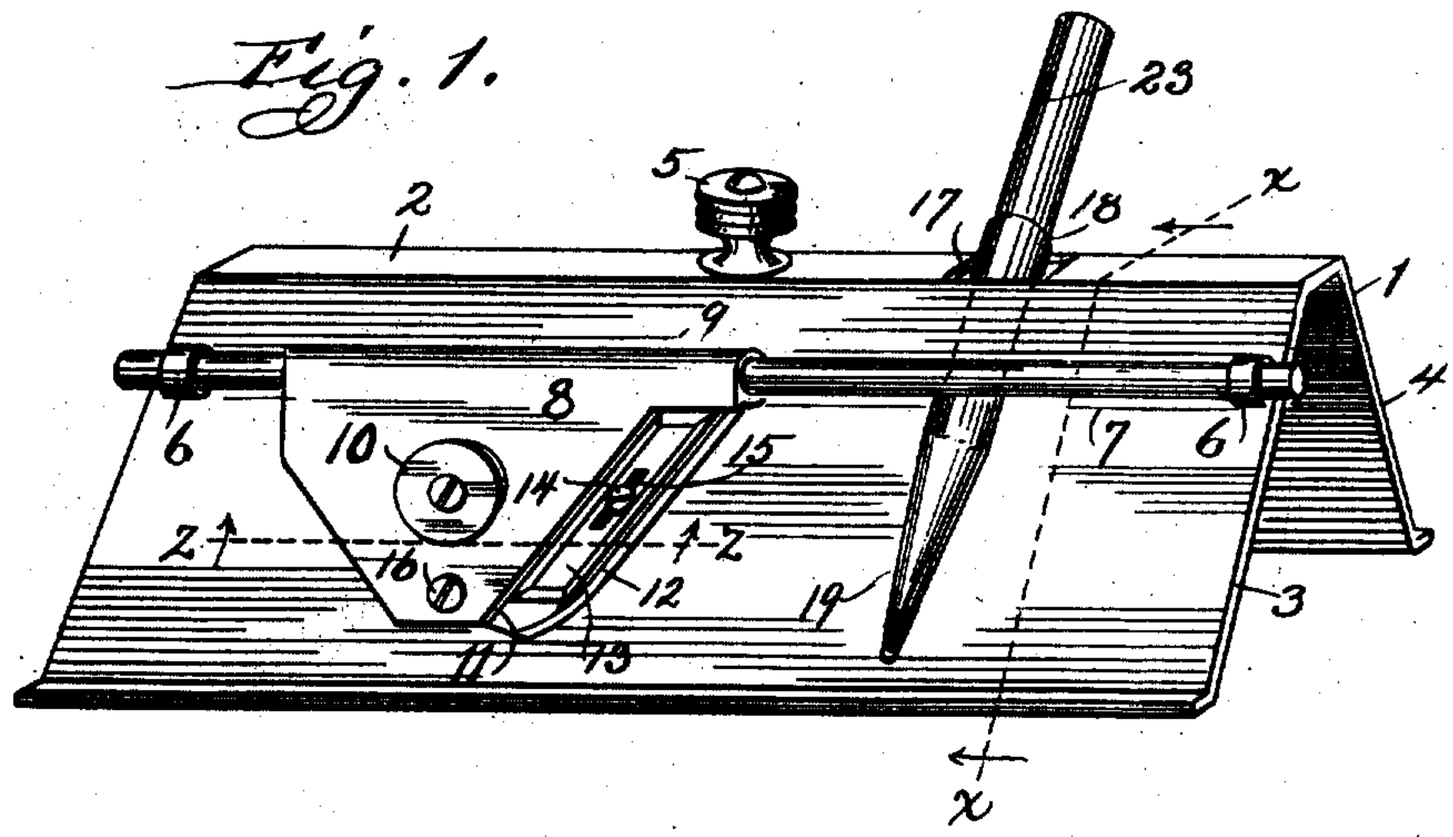



Fig. 2.

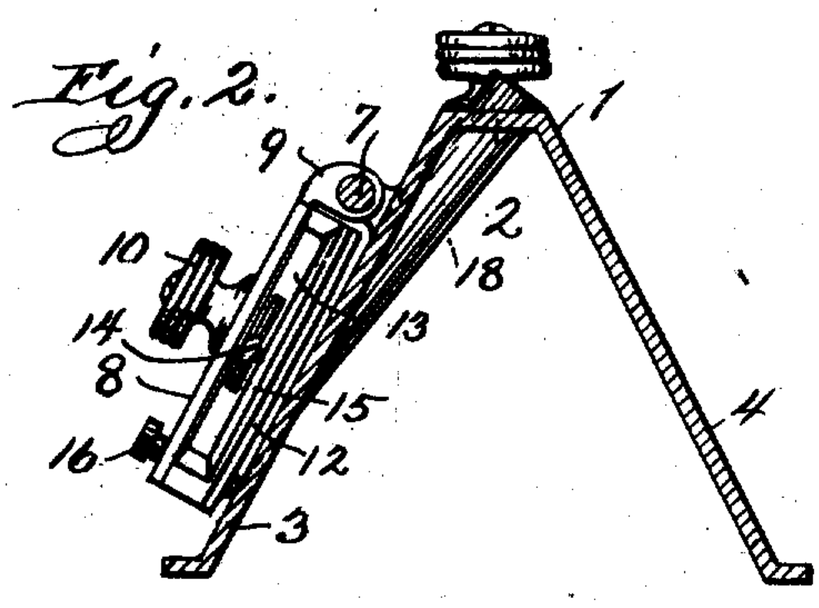



Fig. 3.

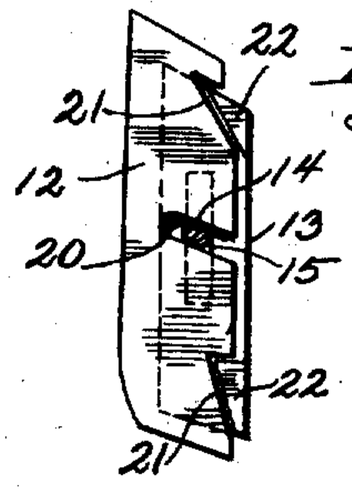



Fig. 4.

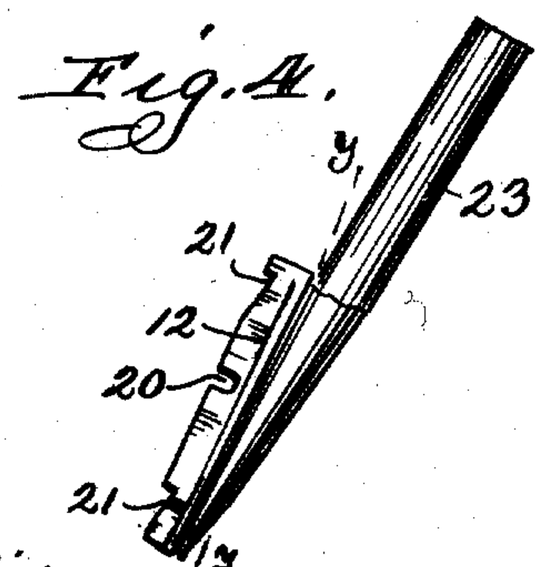
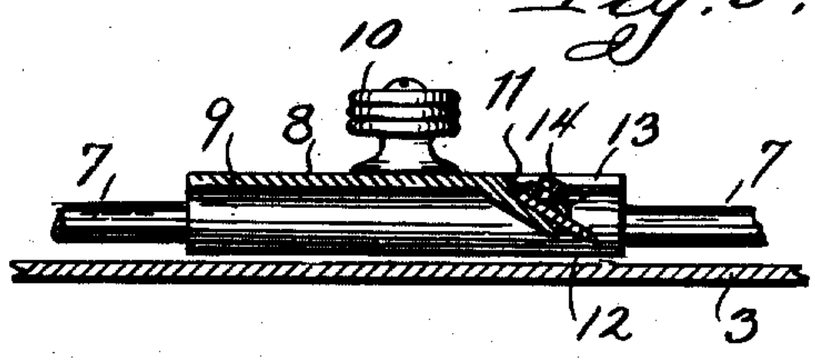



Fig. 5.

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# UNITED STATES PATENT OFFICE.

DEAN R. PHILLIPS, OF FRANKLIN GROVE, ILLINOIS.

## PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 689,223, dated December 17, 1901.

Application filed April 20, 1901. Serial No. 56,708. (No model.)

*To all whom it may concern:*

Be it known that I, DEAN R. PHILLIPS, a citizen of the United States, residing at Franklin Grove, in the county of Lee and State of Illinois, have invented certain new and useful Improvements in Pencil-Sharpeners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to pencil-sharpeners, and seeks to produce some results not heretofore attained by instruments of that class. Like some other devices of this kind, one of its purposes is to prevent the fingers becoming soiled in the process of sharpening a lead-pencil, as is likely to be the case when a sharpener is not used. It is also possible in my invention to regulate the length of cut of the blade, so as to increase or diminish the length of the pencil-point, and also to produce what I term a "working diameter" on the end of the lead, the lead being greatly reduced in size and of uniform diameter for some distance from the end thereof. I also employ some novel features in the construction and manner of securing in place the cutting-blade.

In the drawings, Figure 1 is a view of my device in perspective. Fig. 2 is a cross-section thereof in the broken line *x x* of Fig. 1. Fig. 3 is a plan view of the under side of the blade and clamp. Fig. 4 represents a pencil provided with a working diameter, showing the relation of the blade thereto. Fig. 5 is a longitudinal section of the blade-carrier in the line *z z* of Fig. 1.

Similar numerals refer to similar parts throughout the several views.

1 is a metallic plate bent so as to form the top 2 and side plates 3 and 4, which support each other at a desired angle to the plane upon which they rest. Secured to the top 2 is a handle 5, by means of which the instrument can be lifted.

At each end of the front of the plate 3 is a support 6, by means of which a guide-rod 7 is secured to such plate 3 a short distance therefrom.

8 is a triangular-shaped carrier having on its upper edge a sleeve 9, adapted to loosely engage the rod 7 and render such carrier susceptible of longitudinal reciprocating motion along the face of the plate 3. Secured to the outer face of the carrier 8 is a knob or handle 10.

The front edge of the carrier 8 has a shoulder 11 and is beveled therefrom toward the plate 3. A blade 12 is secured to the carrier 8 by means of the clamp 13 and screw 14 passing through the slot 15 therein and into the carrier 8. The edge of the blade 12 is in close proximity throughout its length to the face of the plate 3 without touching the same, the lower side of the carrier 8 being sustained a desired distance from the plate 3 by means of a set-screw 16 passing through the carrier 8 and impinging such plate 3, or a lug of suitable thickness may be provided (not shown) on the inner face of such carrier. By means of the set-screw 16 the lower part of the carrier 8 and the lower end of the blade 12 can be forced outwardly away from the plate 3.

Secured in the rear of the plate 3 and passing upwardly through the aperture 17 in the top 2 is the tube or guide 18, which gradually diminishes downwardly, ending in a slot 19 in the plate 3, such slot conforming in shape to the point of the pencil.

The blade 12 is provided with a slot 20 and recesses 21 21 on its rear edge, such recesses conforming to the wedge-shaped projections 22 22 on the under face of the clamp 13. (See Fig. 3.)

23 represents the pencil which is being sharpened. The cutting edge of the blade 12 instead of being formed with an angle at the lower corner is curved slightly backward.

In operation the device is first placed on a piece of waste paper or some other material from which the shavings and dust can be easily removed. The pencil is then introduced into the guide 18 and turned gradually by one hand of the operator as the process continues. With the other hand the carrier 8 is operated backward and forward, each forward movement thereof slicing off a portion

of the wood and lead of the pencil until the desired point is produced. It will be seen that the direction of movement of the carrier 8 is at right angles to the axial plane of the pencil and that when the pencil is being cut by the blade 12 there is no tendency to draw the pencil forward, as is the case in pencil-sharpeners which cut longitudinally of the pencil and toward the point thereof.

If in time the blade 12 becomes worn, such wear can be compensated for by loosening the screw 14 and forcing the clamp 13 slightly downward, the projections 22 at the same time forcing the blade 12 slightly forward, bringing the edge thereof nearer to the plate 3. The downward movement of the clamp 13 and coincident forward movement of the blade 12 are facilitated by reason of the slots 15 and 20 being transverse of one another, and it is apparent that the blade 12 can be easily removed from the carrier for any purpose by simply loosening the clamp 13 and without removing the same.

The blade 12 is supported at each end by the projections 22, which prevent any movement of such blade upon the screw 14, its pivotal point, and one edge of the clamp 13 rests at all times against the shoulder 11 of the carrier. By this means a firm seating and positive action of the blade 12 are assured.

The stability of the blade 12 is further aided by the projection of the sleeve 9 beyond such blade, rendering the action thereof more steady and preventing it from "jumping" when it strikes the pencil. The end of the sleeve 9 comes in contact with the forward support 6 and prevents the blade 12 from projecting beyond the end of the plate 3.

The device can also be used as a paper-weight, and the plate 4 can be provided with a calendar, a small looking-glass, or other useful article, or either plate can be devoted to advertising purposes.

If it is desired to lengthen the cut of the blade, the lower corner of the carrier is thrown outward by means of the set-screw 16, as hereinbefore described. The pencil-point then projects farther beyond the face of the plate 3, and a longer cut is made thereon. When the edge of the blade 12 is in its normal position, it is in close proximity to the plate 3 throughout the length of such blade, and the cut made upon the end of the pencil thereby will be practically straight and will result in bringing such pencil to a sharp point; but when the lower end of the blade is forced away from the plate 3, as shown in Fig. 2 and 4, (the dotted lines *y y* in Fig. 4 representing the face of the plate 3,) the lower or curved portion of the blade ceases to come in contact with the lead, and instead of being brought to a sharp point a long point is gradually formed on the lead, the diameter thereof being greatly less than it was originally and being uniform for some distance from the end of the lead. The pencil can then be used for a long time for tracing, retouching, or other work of a more delicate nature without resharpening.

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

1. In a pencil-sharpener, the combination of the plate 3 and means of support thereof; the rod 7, secured to such plate; the carrier 8, provided with the handle 10, slidingly mounted upon the rod 7; the blade 12 secured to the carrier 8; tube 18, ending in the slot 19; substantially as set forth.

2. In a pencil-sharpener, the combination of the plate 3, and means of supporting same; the rod 7, secured to such plate; the carrier 8, provided with the sleeve 9 and handle 10; the blade 12 secured to the carrier 8; set-screw 16; tube 18, ending in the slot 19; substantially as described.

3. The combination of the carrier 8, provided with a shoulder 11; the blade 12, having a slot 20 and recesses 21; the clamp 13, provided with the slot 15, and projections 22; the screw 14; and means for operating the carrier 8; substantially as shown and set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DEAN R. PHILLIPS.

Witnesses:
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F. A. GOULD.