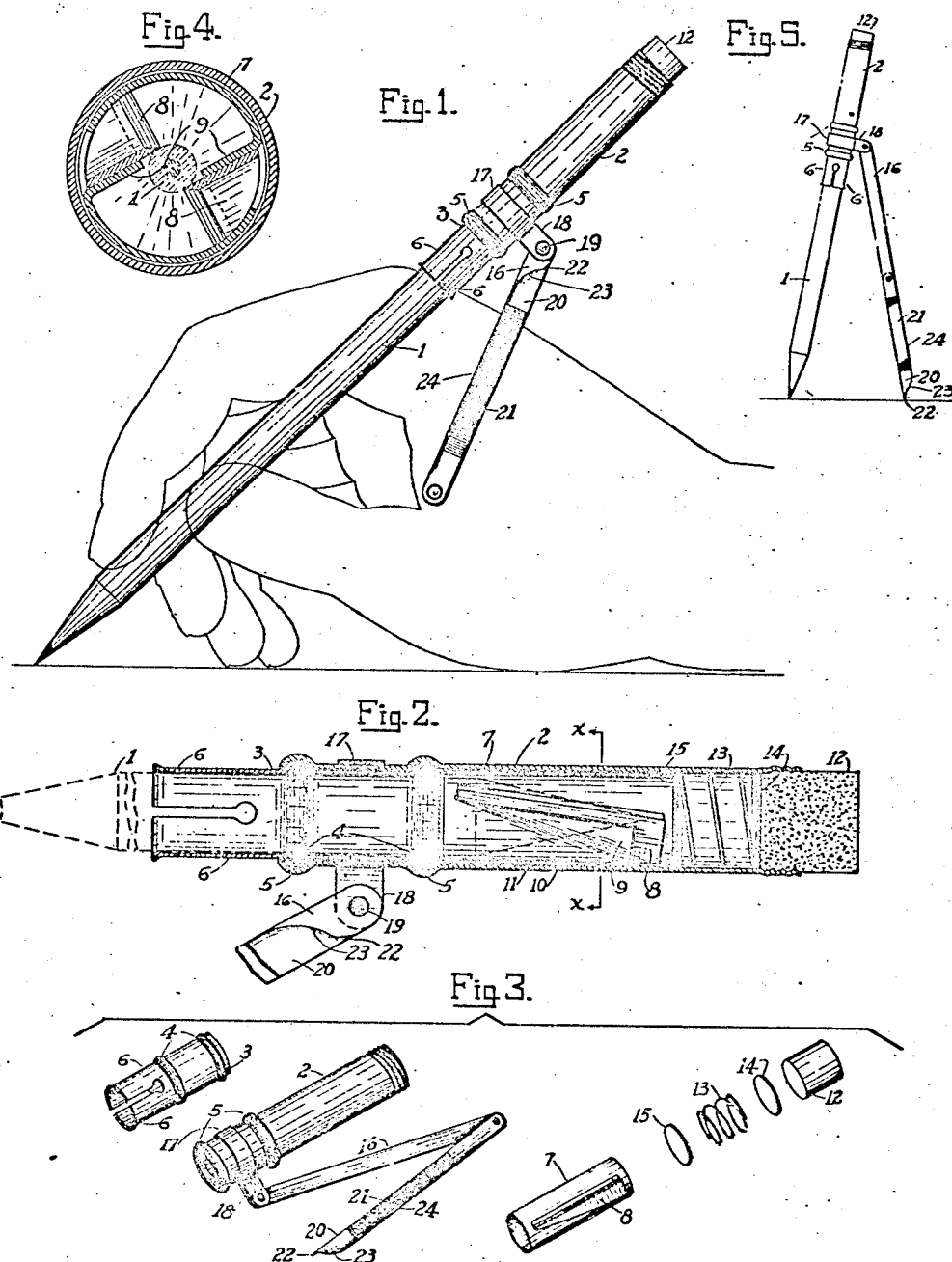


No. 895,188.

PATENTED AUG. 4, 1908.

A. W. MUELLER.
LEAD PENCIL SHARPENER.
APPLICATION FILED NOV. 13, 1907.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ARTHUR W. MUELLER, OF CINCINNATI, OHIO.

LEAD-PENCIL SHARPENER.

No. 895,188.

Specification of Letters Patent.

Patented Aug. 4, 1908.

Application filed November 13, 1907. Serial No. 401,954.

To all whom it may concern:

Be it known that I, ARTHUR W. MUELLER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Lead-Pencil Sharpeners, of which the following is a specification.

It is the object of my invention to provide a lead pencil sharpener by means of which the pencil may be sharpened during its employment in writing or other use of the pencil, and the invention consists in providing a pencil sharpener constructed and arranged and provided with attachments by means of which this may be accomplished, and in the construction, arrangement and combinations of parts hereinafter more fully described and claimed.

In the drawing: Figure 1 is a side elevation of my improved device having the outline of a hand shown in connection therewith to illustrate the manner of holding the same. Fig. 2 is a central longitudinal section of my improved device having the obstructing-bar broken away. Fig. 3 is a perspective view showing the parts of my improved device in separated relation. Fig. 4 is a detail in cross-section on a line corresponding to the line $x-x$ of Fig. 2; and Fig. 5 is a side elevation of my improved device showing the same employed as a compass or divider.

1 represents the pencil of the general type of that which it is the object of my improved device to sharpen.

2 is a barrel in which a ferrule 3 is adapted to freely rotate, the ferrule being limited in its longitudinal movement with relation to the barrel by providing the ferrule with ribs 4 received within ribs 5 of the barrel. The ferrule has clamping wings 6 and forms a clamp for the pencil.

7 is a knife-holder and is preferably in the form of a sleeve in which one or more knives 8 are suitably diagonally secured. The securing means for the knives may comprise wings 9 which are struck up and bent inwardly from the sleeve, to which wings the knives may be soldered. The sleeve extends above the ferrule and is preferably held against rotation with relation to the barrel while being permitted to be moved longitudinally thereof, as by means of a teat 10 which is struck inwardly from the barrel and received in a slot 11 in the sleeve.

12 is a rubber eraser at the upper end of

the barrel, a spring 13 being between the eraser and the knife-holder for normally pressing the knife-holder toward the ferrule. Washers 14 15 may be interposed respectively between the spring and the eraser and between the spring and knife-holder so that the spring may readily exert its pressure evenly throughout the sleeve without danger of displacement of the spring, for pressing the knife or knives lengthwise of the pencil which is firmly gripped in the pencil-clamp.

16 is an obstructing-bar which is secured to the barrel. I have shown this securing means as a band 17 received about the barrel and rigidly secured thereto as by being soldered thereon. The band has lugs 18 between which the obstructing-bar is pivoted on a pintle 19. This obstructing-bar may be jointed and have an extension 20 thereon and may embody a file-face 21. The extension may also be pointed at its end as shown at 22 and have a tapering end as shown at 23 and be further provided with a cutting edge as shown at 24.

In operation the pencil to be sharpened is slipped into the ferrule with its end against the knife or knives. One end of the pencil being sharpened it is ready for use. The end of the pencil not being used at the time is slipped through the ferrule and against the knife or knives, the pencil being pushed inwardly, thereby pushing the knife-holder toward the cutting end of the barrel, the distance to which the knife-holder is pushed being limited by the teat 10 and slot 11, the pencil being finally held in the ferrule.

Users of pencils have a tendency to unconsciously turn their pencils while writing or otherwise using the same, and it is the object of my invention to employ this movement for sharpening the pencil. The pencil is held in the ordinary manner as indicated in Fig. 1, and the obstructing bar is placed against the side of the hand in suitable position, for instance, adjacent the base of the thumb so as to prevent the barrel and the knife-holder from turning. When the writer turns the pencil while writing or during other use of the pencil, its end being sharpened will rotate across the knife or knives, the spring in the meantime forcing the sleeve and consequently the knife or knives downwardly against the pencil. These knives are placed at an angle to the longitudinal axis of the barrel and pencil, making a shear cut. The downward movement of

the knives continues as the pencil is cut away until the upper wall of the slot 11 strikes the test 10, when the pencil will have been sharpened and further longitudinal movement of the sleeve will cease, the pencil in the meantime having been clamped in the ferrule so that the movement of the knives has taken place longitudinally of the pencil for sharpening the same.

10 The extension 20 may be swung so as to bring its point downwardly, in which relation the holder with the pencil may be used as a compass or divider. The tapering end 23 and the file-face 21 may also be employed 15 for manicuring purposes, and the extension for a letter opener. When used as a letter opener the obstructing-bar with its extension is swung upwardly.

20 Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. A pencil sharpener comprising a barrel, a revoluble pencil-clamp therefor, a knife-holder longitudinally movable in said barrel 25 and limited in rotation with relation thereto, and a spring for urging said knife-holder toward said pencil-clamp, substantially as described.

2. A pencil sharpener comprising a barrel, 30 an obstructing-bar thereon, a pencil-clamp rotatable with relation to said barrel, a knife-holder having movement longitudinally of said barrel and held against rotation with relation thereto, and a spring for pressing said 35 knife-holder toward said pencil-clamp, substantially as described.

3. In a pencil sharpener, the combination of a barrel, a rubber-eraser at one end thereof, a pencil-clamp rotatable with relation 40 to said barrel at the other end of said barrel, a knife-holder and knife therefor in said barrel between said eraser and pencil-clamp, means for permitting longitudinal movement between said knife-holder and barrel and holding 45 said knife-holder against rotation with relation to said barrel, and a spring between said eraser and knife-holder for normally urging said knife-holder toward said pencil-clamp, substantially as described.

50 4. In a pencil sharpener, the combination of a barrel, a pencil-clamp rotatable with relation thereto, a knife-holder in said barrel held against rotation and movable longitudinally of said barrel, a spring for normally 55 urging said knife-holder toward said pencil-clamp, and an obstructing-bar secured to

said barrel and arranged for contacting the hand of the user of the pencil for holding said barrel against rotation and operating substantially as described.

5. In a pencil sharpener, the combination of a barrel, a pencil-clamp rotatable with relation thereto, a knife-holder in said barrel held against rotation and movable longitudinally of said barrel, a spring for normally 60 urging said knife-holder toward said pencil-clamp, an obstructing-bar secured to said barrel and arranged for contacting the hand of the user of the pencil for holding said 65 barrel against rotation, said obstructing-bar having an extension pivoted thereto for permitting employment of said pencil sharpener with its pencil as a compass, substantially as 70 described.

6. In a pencil sharpener, the combination 75 of a barrel, a pencil-clamp rotatable with relation thereto, a knife-holder in said barrel held against rotation and movable longitudinally of said barrel, a spring for normally 80 urging said knife-holder toward said pencil-clamp, and an obstructing-bar secured to said barrel and arranged for contacting the hand of the user of the pencil for holding said 85 barrel against rotation, said obstructing-bar having an extension pivoted thereto for permitting employment of said pencil sharpener with its pencil as a compass, said extension 90 having a tapering end and file-face thereon, substantially as described.

7. In a pencil sharpener, the combination 95 of a barrel, a pencil-clamp rotatable with relation thereto, a knife-holder in said barrel held against rotation and movable longitudinally of said barrel, a spring for normally 100 urging said knife-holder toward said pencil-clamp, and an obstructing-bar secured to said barrel and arranged for contacting the hand of the user of the pencil for holding said 105 barrel against rotation, said obstructing-bar having an extension pivoted thereto for permitting employment of said pencil sharpener with its pencil as a compass, said extension 110 having a cutting edge thereon for employment of the same as a letter opener, substantially as described.

In testimony whereof, I have subscribed my name hereto in the presence of two subscribing witnesses.

ARTHUR W. MUELLER.

Witnesses:

FLORENCE QUINN,
SAMUEL B. HAMMEL