(No Model.)

G. H. COURSEN.

LEAD PENCIL SHARPENER.

No. 388,533. Patented Aug. 28, 1888.

Fig. 1.

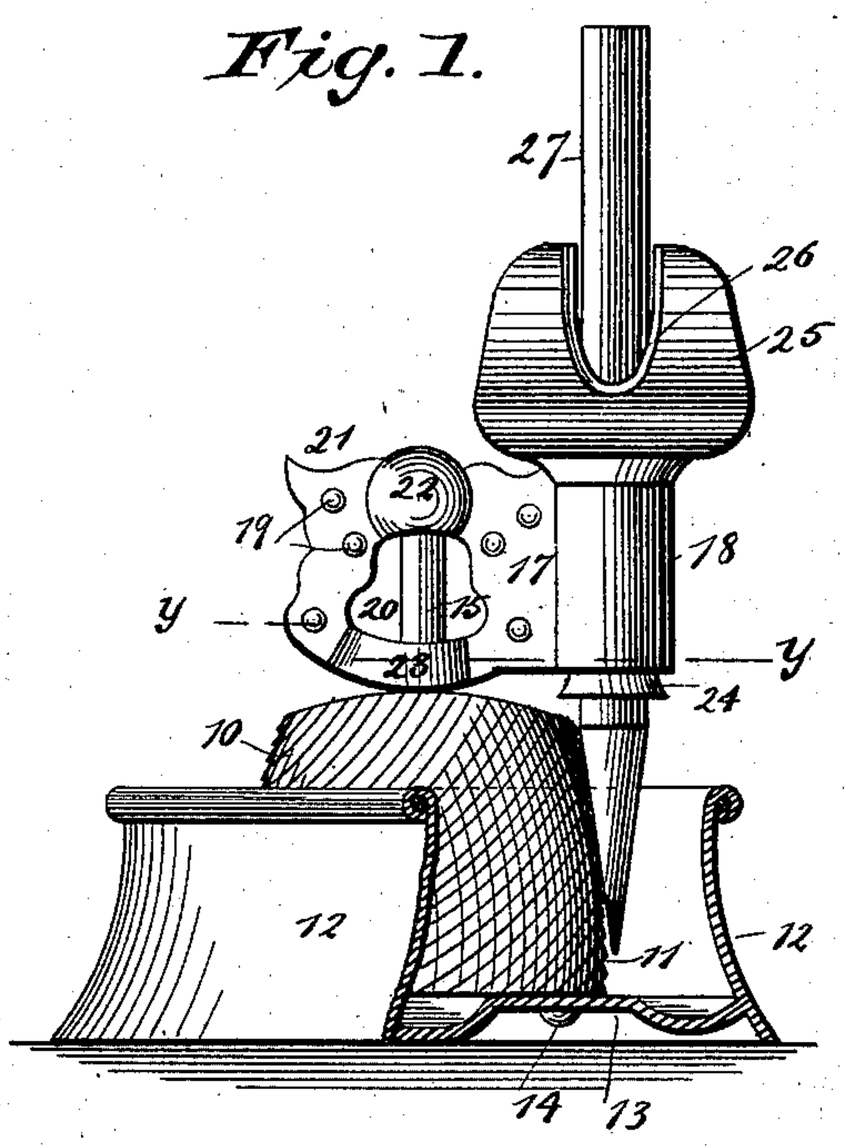


Fig. 2.

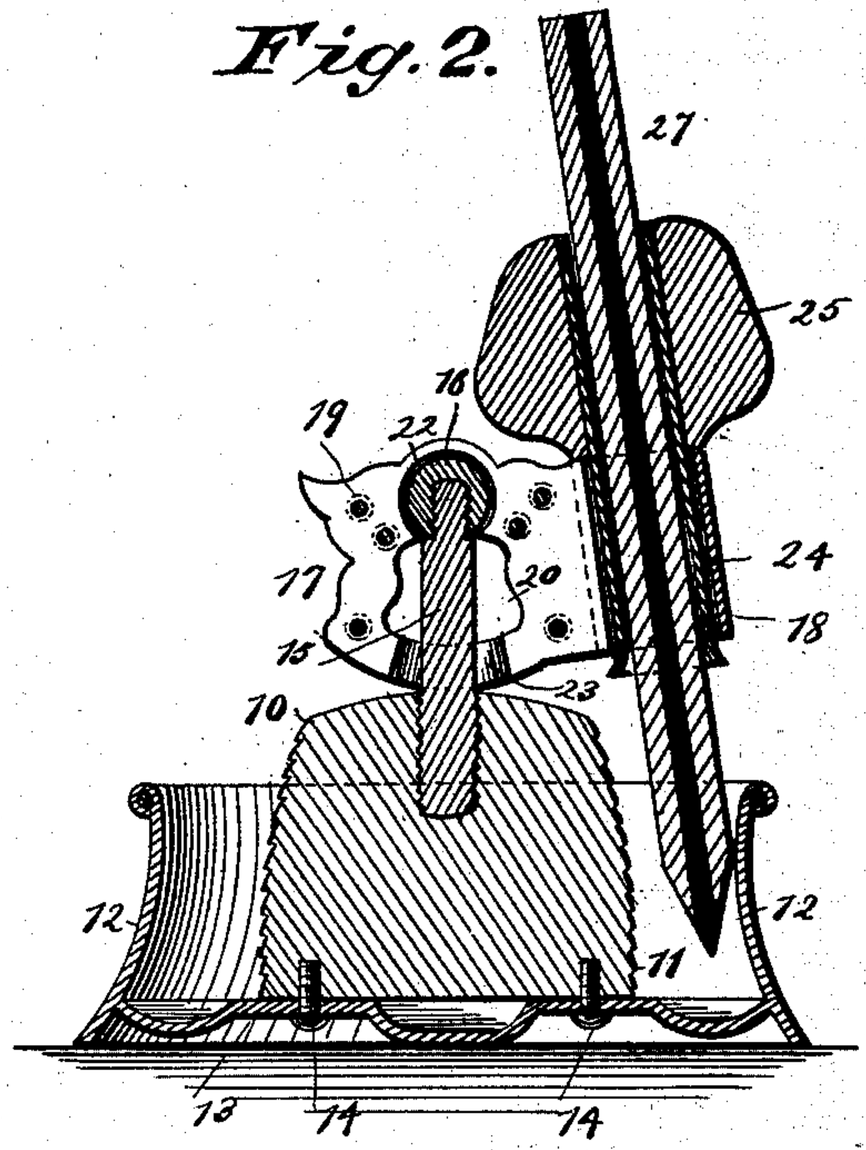


Fig. 3.

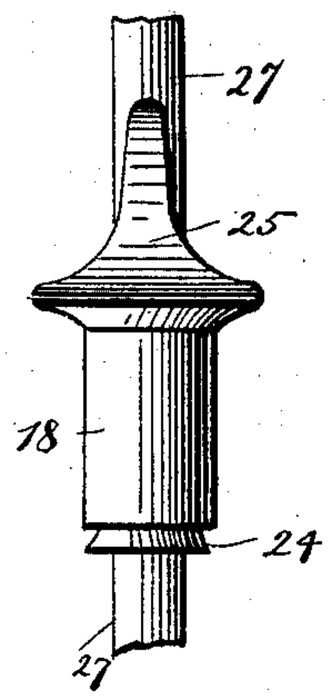
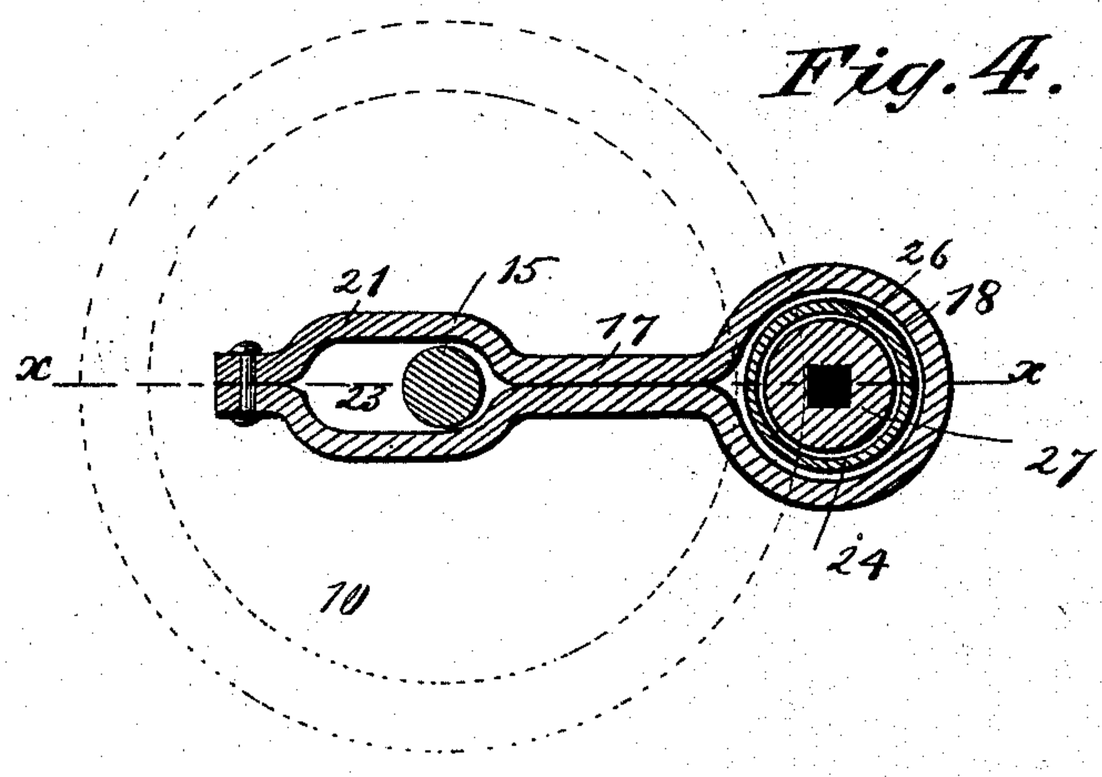


Fig. 4.



WITNESSES:

Phil. C. Dieterich.

C. Sedgwick.

INVENTOR:

G. H. Coursen.

BY Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE HAMPTON COURSEN, OF BALTIMORE, MARYLAND.

LEAD-PENCIL SHARPENER.

SPECIFICATION forming part of Letters Patent No. 388,533, dated August 28, 1888.

Application filed June 6, 1888. Serial No. 276,232. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAMPTON COURSEN, of Baltimore, in the State of Maryland, have invented new and useful Improvements in Lead-Pencil Sharpeners, of which the following is a full, clear, and exact description.

My invention relates to an improvement in lead-pencil sharpeners, and has for its object to provide a simple and effective device which will not require constant sharpening, and wherein the said device may be effectively used for a great length of time.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully described, and set forth in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation, partly in section. Fig. 2 is a vertical central section on line *x x* of Fig. 4. Fig. 3 is a front elevation of the finger-piece and carrying-tube, and Fig. 4 is an enlarged horizontal section on line *y y* of Fig. 1.

Lead-pencil sharpeners operating by means of a cutting-edge have heretofore been cheaply made and rendered more or less effective for a time. The cutting-edge, however, quickly becomes dull, whereupon but few persons take the trouble to resharpen it, even if it is possible to do so, and the device becomes useless.

It is the prime object of the present invention to provide a device which will impart to a pencil a long concave tapering point, and also to provide a sharpener which may be used constantly for years without getting out of order. To that end a more or less cone-shaped metal body, 10, is employed, which may be either solid or hollow, preferably constructed of file-steel, and having the outer face, 11, roughened or cut in imitation of a file, as is best shown in Figs. 1 and 2. The file-like surface is ordinarily obtained by producing in the outer face of the cone a series of parallel cuts which are sloped, as shown in Figs. 1 and 2, beginning at the top and extending, essentially, in a spiral downward.

The conical file-body 10 is mounted in a base, 12, preferably cup-shaped, the bottom whereof is ordinarily struck up or otherwise manipulated to form an interiorly-embossed ring, 13, encircling the center, upon which ring the file-body 10 rests, as best shown in Fig. 2, being retained in position by screws 14, or equivalent fastening device, passing through the ring 13 into the under face of the said body. In the upper face of the body at the center a perpendicular post, 15, is screwed or otherwise secured, having a ball, 16, integral with the outer extremity or attached thereto. The ball 16 is adapted to carry a swinging arm, 17, consisting of a piece of sheet metal bent upon itself to form the vertical tube 18, the opposing faces of the two ends being brought together and riveted, as shown at 19 in Fig. 2.

An opening, 20, is provided in the body 21 of the swinging arm, and in the contiguous walls of the said body above the opening opposing hemispherical recesses 22 are produced, adapted to receive the ball 16 of the post 15 and embrace the same. Below the opening 20 the opposing walls of the body are bent outward in any approved manner to form the loop or integral link 23, through which the post 15 projects, as best shown in Figs. 1 and 2. The loop or link 23 so encircles the post that the swinging arm will have comparatively no side-play, permitting, however, a limited movement of the said arm endwise, or in direction of its horizontal axis, as best shown in Fig. 2, by reference to which figure it will be observed that the arm is permitted to tilt backward but not fall below an imaginary horizontal line.

A ferrule or sleeve, 24, is passed downward through the tube 18 of the swinging arm, provided at the lower end with an attached ring or band, or having said end flared outward, whereby the sleeve is held in position within the tube.

To the upper end of the sleeve a finger-piece, 25, is secured, in which finger-piece a vertical central bore, 26, is produced, adapted to receive the pencil 27. The pencil may be brought in contact with the walls of the bore, or the sleeve may be continued upward through the finger-piece, as shown. The opposing side faces of the finger-piece are concaved, as best shown in Figs. 1 and 3, this shape being important to it in order that the fingers while grasping it may also hold the pencil firmly in position.

In operation the swinging arm is tilted back to the position illustrated in Fig. 2, such movement being permitted by the ball-bearing and the body-link. The pencil is then inserted in the tube 24, so that the lower end thereof is in the position demonstrated by experience to be correct. The finger-piece is now gripped and the pencil held likewise, and the swinging arm is revolved, whereupon by pressing down upon the said arm simultaneously with revolving every part of the circumference of the pencil is presented to the file during one revolution of said arm.

By raising or lowering the pencil a coarse or fine point may be obtained, and, owing to the large bearing of the pencil against the file-cone, there is no danger of breaking the most delicate point. The cutting ceases when the swinging arm becomes horizontal.

I desire it understood that although specific constructions have been described other equivalent constructions may be employed without departing from the spirit of the invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a fixed essentially-conical body having a file-like outer face, of a swinging arm pivoted upon the body, provided with a pencil-holding tube, said arm having a rotary motion, substantially as shown and described.

2. The combination, with a fixed essentially-conical body having a file-like outer face, of a swinging arm pivoted upon the body, a pencil-holding tube integral with said arm, and a finger-piece loosely supported by said tube, substantially as shown and described.

3. The combination, with a fixed essentially-conical body having a file-like outer face, and a post projected from the upper surface of the body, of a swinging arm universally pivoted upon said post, a pencil-carrying tube integral with said arm, a sleeve loosely mounted in said tube, and a finger-piece secured to said sleeve, substantially as shown and described, whereby the arm may be worked upon and revolved around the post, as and for the purpose specified.

4. The combination, with a fixed essentially-conical body having a file-like outer face, a cup-like base, and a post projected from the upper face of the body, of a swinging arm universally pivoted upon the post, a limiting-link, and a pencil-carrying tube integral with said arm, a sleeve loosely mounted in said tube, and a finger-piece secured to said sleeve, all combined to operate substantially as shown and described.

GEORGE HAMPTON COURSEN.

Witnesses:
FELIX R. SULLIVAN,
L. RABILLON.