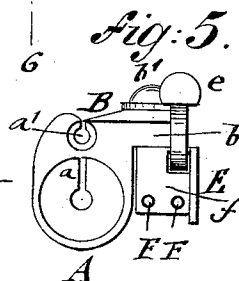
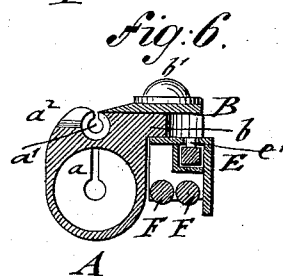
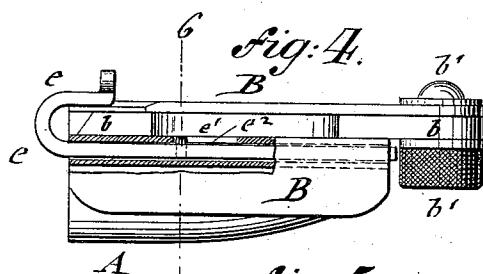
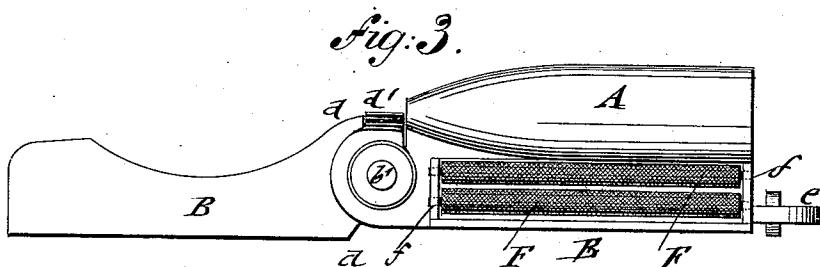
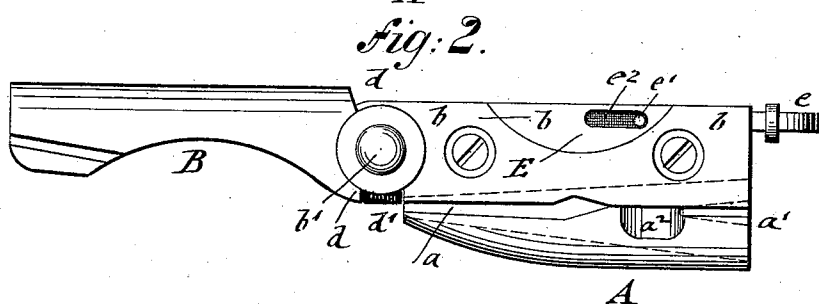
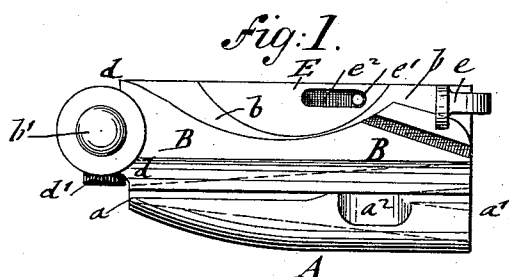


(No Model.)

A. LACHENMEYER.
PENCIL SHARPENER.

No. 471,747.

Patented Mar. 29, 1892.



WITNESSES:
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UNITED STATES PATENT OFFICE.

AUGUST LACHENMEYER, OF NARROWSBURG, NEW YORK.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 471,747, dated March 29, 1892.

Application filed December 19, 1891. Serial No. 415,677. (No model.)

To all whom it may concern:

Be it known that I, AUGUST LACHENMEYER, a citizen of the United States, and a resident of Narrowsburg, in the county of Sullivan and State of New York, have invented certain new and useful Improvements in Pencil-Sharpeners, of which the following is a specification.

The pencil-sharpeners heretofore in use were objectionable because the cutting-knife became soon dulled for the reason that the wood which incloses the lead-core is cut across the grain and that the same portion of the blade is always called into action. Another objection is that a fine point cannot be imparted to the pencil-point and that when it is attempted to do so the lead is broken off.

The object of my invention is to supply a pencil-sharpener in which not only the cutting-knife remains sharp for a considerable length of time, but in which the knife can be readily sharpened whenever required, while provision is made to impart even the finest point to the lead, so that the sharpener can be used by draftsmen, artists, and others whose business necessitates a fine point of the pencil.

My invention consists of a pencil-sharpener composed of a conical guide-socket having a laterally-extending shoulder or bracket, a cutting-blade pivoted to the said bracket and adapted to be locked so as to project into a longitudinal recess of the guide-socket or into line with the shoulder, so that it can be used in the latter position like an ordinary knife for cutting off the surplus wood. At the under side of the shoulder and sidewise of the guide-socket are arranged two roughened rollers, by which the pencil-point can be sharpened to a fine point whenever required, said rollers being protected by a downwardly-bent flange, which serves, together with the guide-socket, as a holding device for the sharpener when using the same for trimming off the wood.

The invention consists, further, of certain details of construction, which will be fully described in the specification, and finally set forth in the claims.

In the accompanying drawings, Figure 1 represents a top view of my improved pencil-sharpener, showing the same in position for use as a sharpener. Fig. 2 is a top view of

the same, showing the cutting-knife turned on its pivot into line with its supporting-shoulder so as to be used as an ordinary knife for chipping off the wood. Fig. 3 is a bottom view of Fig. 2. Fig. 4 is a side elevation, partly in section, of the same; and Figs. 5 and 6 are respectively an end view and a transverse section of the same on line 6 6, Fig. 4.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a conical guide-socket for the pencil-point, which socket is provided at its tapering end with a longitudinal recess *a*, into which the cutting-blade B, that is supported at a slight inclination to the axis of the guide-socket A, is extended. The guide-socket A is provided with a laterally-extending shoulder or bracket *b*, to the rear end of which the cutting-blade B is pivoted, the pivot *b'* being provided with friction-plates between the heads of the pivot and the blade and shoulder, respectively, so that the blade B can be moved from a position sidewise of the guide-socket A into position in line with the shoulder or bracket *b*, as shown, respectively, in Figs. 1 and 2.

The tang of the blade B is provided with shoulders *d* at its front and rear part, which shoulders abut against a stop *d'*, that is rigidly attached to the pivot of the blade B, so that the cutting-blade is arrested when moved in outwardly-open position or sidewise of the guide-socket A. In the latter position it is locked by means of a suitable catch *e*, which is guided along a flanged plate E, that is attached to the under side of the shoulder or bracket *b*. The shank of the catch *e* is guided by a pin *e'* in a slot of the plate E, said slot and pin defining the motion of the catch and preventing it from getting detached. Any other retaining device for locking the blade in position alongside of the guide-socket A can be used. The cutting-blade B is provided at its outer end with a groove for being engaged by the thumb-nail in opening the blade. Above the larger end of the guide-socket A is arranged a smaller conical guide-socket *a'*, having a longitudinal slit and a lateral recess *a''*, as shown clearly in Fig. 1, which serves for the insertion of the pencil-point and the pointing of the same by turning it against the outer portion of the blade B. The flanged

plate E is preferably provided with bent-up ends *f*, which support parallel rollers F, that are provided with roughened surfaces, so that the pencil-point can be sharpened to a very
 5 nice point on passing the same forth and backward between the rollers. As the same turn loosely in their bearings they can be readily shifted on their axis so as to expose new portions of their surface to the pencil-
 10 points sharpened on the same. The downwardly-bent flange of the plate E extends over the sharpening-rollers, which are thus snugly stored away between the guide-socket A and the flange E, so that they do not come
 15 in contact with the fingers when holding the sharpener during the operation of cutting off the wood and grinding off the point.

The guide-socket A, with its auxiliary socket *a'* and the shoulder or bracket *b*, is
 20 preferably made of cast metal, such as type-metal, which is finished by nickel-plating, while the flanged plate that supports the sharpening-rollers is preferably made of brass and nickel-plated, the cutting-knife being
 25 made of steel.

For sharpening a pencil the device is used as follows: The blade is first moved on its pivot in a position in line with the supporting-bracket, as shown in Fig. 2, and the surplus wood chipped off from the pencil in the
 30 usual manner, the same as with ordinary pocket-knives, preferably, however, in the direction away from the hand holding the pencil. When the surplus wood is taken off, the
 35 knife is returned into its position along the guide-socket A, as shown in Figs. 1, 4, 5, and 6, and the trimmed-off point inserted into the same, so that a regular conical form is imparted to the same until the lead projects a
 40 sufficient distance from the wood. The pencil is then removed from the main guide-socket and the lead either placed into the auxiliary socket and sharpened by turning it in the same against the blade or when a
 45 very fine point is required the lead-point is sharpened by moving it to and fro on the roughened rollers at the under side of the bracket. After use the trimmed-off wood and the lead-dust are removed from the sharpener
 50 by striking the device several times on the table, after which it is ready for the next sharpening operation.

By placing the cutting-blade into line with the supporting-shoulder and trimming off the
 55 blade the edge of the blade is not only saved to some extent, so that it can sharpen a greater

number of pencils, but it has also the advantage that the cutting-blade can be readily and conveniently sharpened on the grindstone
 60 whenever it has become dull, so that the pencil-sharpener will last as long as the blade can be used.

In connection with the devices for giving a fine point to the lead a pencil-sharpener of superior quality and durability is thus supplied, and thereby the well-founded objections to the sharpeners heretofore in use effectively
 65 overcome.

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

1. The combination, with a guide-socket having a longitudinal slit in its tapering point and a laterally-extending shoulder or bracket,
 75 of a blade pivoted to said bracket and adapted to be locked alongside of the slit of the guide-socket or in line with the bracket, and the flanged plate attached to said bracket, substantially as set forth.

2. The combination, with a guide-socket having a longitudinal slit in its conical end and a laterally-extending shoulder or bracket,
 80 of a blade pivoted to the outer end of the bracket, and a locking device for retaining it alongside of said guide-socket, and the flanged plate attached to said bracket, substantially
 85 as set forth.

3. The combination, with a guide-socket having a longitudinal slit in its conical end
 90 and a laterally-extending shoulder or bracket, of a cutting-blade pivoted to the outer end of said bracket, said cutting-blade having shoulders at its tang and a fixed stop for the blade, so as to arrest the same when it is in position
 95 alongside of the guide-socket or in line with the bracket, substantially as set forth.

4. The combination of a guide-socket having a longitudinal slit in its conical end and a laterally-extending shoulder or bracket,
 100 a cutting-blade applied to said bracket, a flanged plate attached to the under side of the bracket, and parallel roughened rollers supported in bearings of said plate between the guide-socket and the flange of the plate, sub-
 105 stantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

A. LACHENMEYER.

Witnesses:

PAUL GOEPEL,
 CHARLES SCHROEDER.