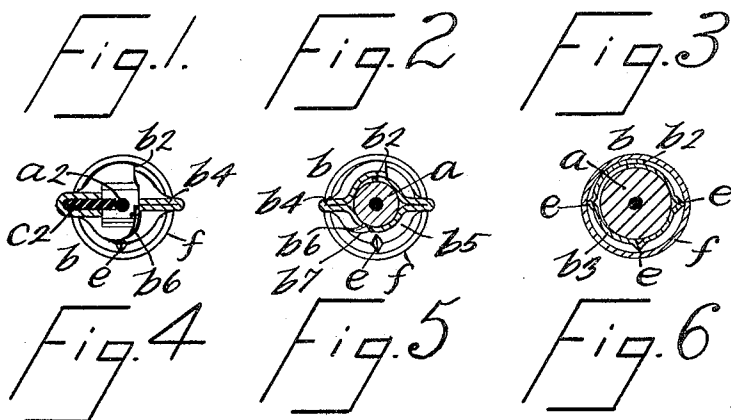
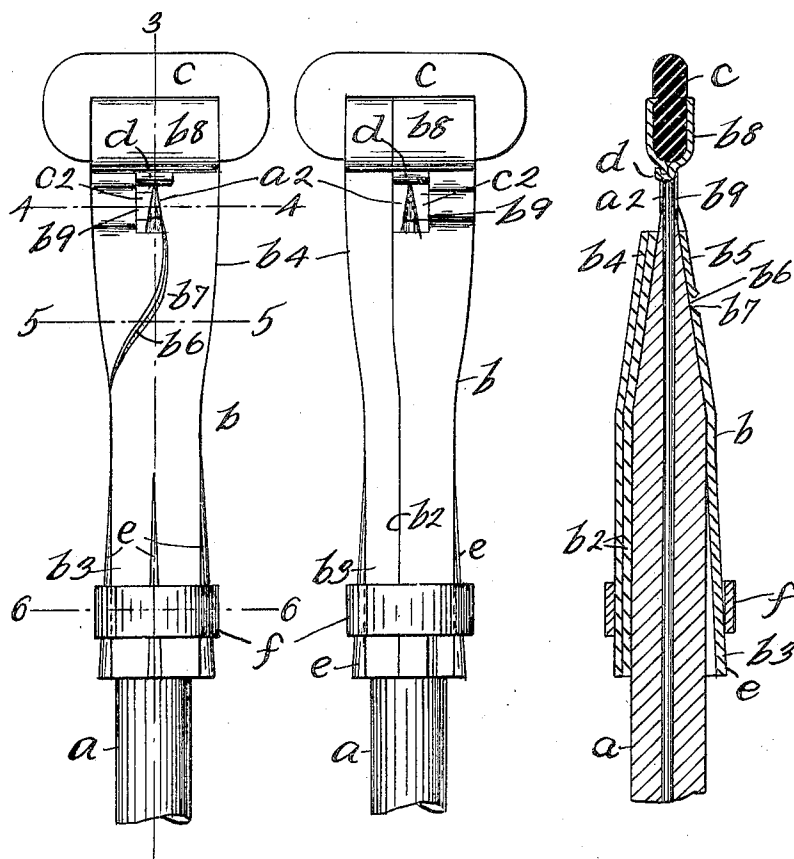


No. 822,375.

PATENTED JUNE 5, 1906.

F. LAGERHOLM.
PENCIL SHARPENER.

APPLICATION FILED NOV. 25, 1905.



WITNESSES

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FRITHIOF LAGERHOLM, OF BROOKLYN, NEW YORK.

PENCIL-SHARPENER.

No. 822,375.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed November 25, 1905. Serial No. 289,010.

To all whom it may concern:

Be it known that I, FRITHIOF LAGERHOLM, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Pencil-Sharpener, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to pencil-sharpening devices; and the object thereof is to provide an improved device of this class which may be conveniently carried in the pocket or which may be retained on one end of a pencil and which will serve as a holder for a rubber or eraser; and with this and other objects in view the invention consists in a device of the class specified, constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of and one end of a pencil and showing the use of my improved pencil-sharpener; Fig. 2, a view of the reversed side of the pencil and sharpener as shown in Fig. 1; Fig. 3, a longitudinal section on the line 3 3 of Fig. 1; Fig. 4, a transverse section on the line 4 4 of Fig. 1; Fig. 5, a transverse section on the line 5 5 of Fig. 1, and Fig. 6 a transverse section on the line 6 6 of Fig. 1.

In the drawings forming part of this specification I have shown at *a* one end of a lead-pencil, and in the practice of my invention I provide a pencil-sharpener *b*, which is composed of sheet metal, preferably sheet-steel, and which consists of a sheet of steel folded so that the edges overlap, as shown at *b*² in Figs. 3 and 6. One end of the sharpener *b* is cylindrical in form or circular in cross-section, as shown at *b*³, and the other end is flattened, as shown at *b*⁴, and provided with a central tapered portion *b*⁵. The flattened end is provided opposite the overlapping edges of the sheet from which the sharpener is formed with a spiral slot or opening *b*⁶, and at the right-hand edge of said slot or opening the sheet of metal from which the sharpener is formed is provided with a cutting edge *b*⁷, and said cutting edge may be formed integrally with the sheet of metal from which the sharpener is formed, or it may consist of a spiral

blade formed independently and secured to or at the right-hand side of the slot or opening *b*⁶. At the end of the flattened portion *b*⁴ of the pencil-sharpener is a U-shaped or yoke-shaped eraser-holder *b*⁸, in which is placed an ordinary rubber eraser *c*, and in the flattened portion *b*⁴ of the pencil-holder adjacent to the eraser-holder *b*⁸ is a transverse and longitudinally-arranged opening *b*⁹, at the left-hand side of which is a laterally-arranged rubber bearing *c*², against which the pointed portion *a*² of the pencil *a* rests in the operation of sharpening a pencil or at the end of said operation, and at the outer end of the opening *b*⁹ is a transverse metal lip or buffer *d*, against which the point of the pencil bears longitudinally when the operation of sharpening the pencil is complete.

The cylindrical or circular end *b*³ of the pencil-sharpener is provided with longitudinally-arranged ribs *e*, any desired number of which may be employed and three of which are shown in Fig. 6, and mounted on said cylindrical or circular end portion of the eraser is a clamp-band *f*, which is adapted to slide thereon, and the ribs *e* increase in depth from the outer end of said portion of the pencil-sharpener inwardly, and by sliding the band *f* outwardly the pencil-sharpener may be caused to securely grasp and hold the pencil, and by sliding said band inwardly the pencil-sharpener may be easily removed from the pencil.

In the operation of sharpening a pencil the end of the pencil is inserted into the holder, as shown in Figs. 1, 2, and 3, and in this operation the pencil is turned to the right, and the cutting edge *b*⁷ gradually cuts away and sharpens the pencil, and in this operation the pencil is gradually forced into the sharpener until the point thereof strikes the lip or buffer at *d*, and at this time the said point is supported laterally by the rubber bearing at *c*². The cutting edge or blade *b*⁷ is preferably extended up to or substantially to the buffer *d*, as shown in Fig. 1, so as to give the point of the pencil the proper taper; but this is not absolutely essential, and the cutting edge or blade may terminate at the inner end of the opening *b*⁹, if desired.

The use of the eraser *c* is similar to that of other devices of this class, and my improved pencil-sharpener may be carried on one end of the pencil at all times, and both ends of the pencil may be sharpened, if desired, or the pencil-sharpener may be carried in the pocket.

This device is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, and changes in and modifications of the construction as shown and described may be made without departing from the spirit of my invention or sacrificing its advantages.

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

1. A pencil-sharpener composed of a sheet of metal folded, and one end of which is circular in cross-section, and the other flattened and provided with a central tapered portion, said flattened portion being provided with a spiral slot or opening at one side of which is a cutting edge and with a transverse opening with which said slot or opening communicates, substantially as shown and described.

2. A pencil-sharpener composed of a sheet of metal folded and one end of which is circular in cross-section and the other flattened and provided with a central tapered portion, said flattened portion being provided with a spiral slot or opening at one side of which is a cutting edge and with a transverse opening with which said slot or opening communicates, and adjacent to said transverse opening with an eraser-holder, substantially as shown and described.

3. A pencil-sharpener composed of a sheet of metal folded, one end thereof being cylindrical or circular in cross-section, and the other end being flattened and provided with a central tapered portion at the end of which is a transverse opening having a rubber bearing at one side thereof, said flattened portion being also provided with a spiral slot or opening which communicates with said transverse opening and one side of which is pro-

vided with a cutting edge, substantially as shown and described.

4. A pencil-sharpener, composed of a sheet of metal folded, one end thereof being cylindrical or circular in cross-section, and the other end being flattened and provided with a central tapered portion at the end of which is a transverse opening having a rubber bearing at one side thereof, said flattened portion being also provided with a spiral slot or opening which communicates with said transverse opening and one side of which is provided with a cutting edge, said end of said sharpener being also provided with an eraser-holder, substantially as shown and described.

5. A pencil-sharpener composed of a sheet of metal folded, one end thereof being cylindrical or circular in cross-section, and the other end being flattened and provided with a central tapered portion at the end of which is a transverse opening having a rubber bearing at one side thereof, said flattened portion being also provided with a spiral slot or opening which communicates with said transverse opening and one side of which is provided with a cutting edge, said end of said sharpener being also provided with an eraser-holder, and the cylindrical or circular end thereof being provided with longitudinally-arranged ribs and a slidable clamp-band, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 23d day of November, 1905.

FRITHIOF LAGERHOLM.

Witnesses:

C. E. MULREANY,
F. A. STEWART.