

912,357.

A. B. BLY.
PENCIL SHARPENER.
APPLICATION FILED MAY 11, 1908.

Patented Feb. 16, 1909.

Fig. 1.

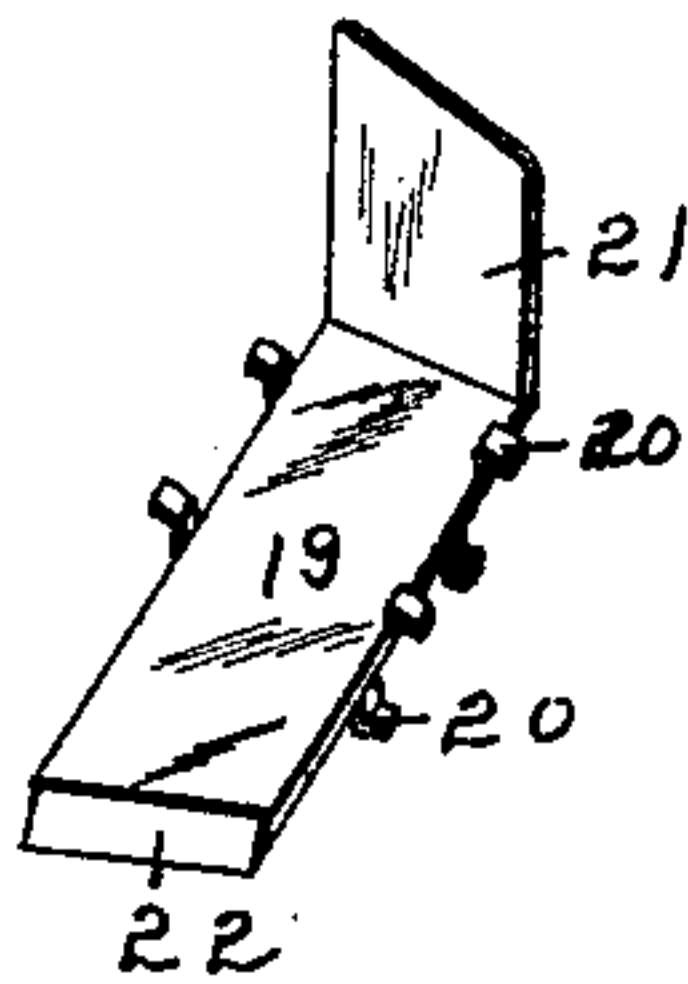


Fig. 2.

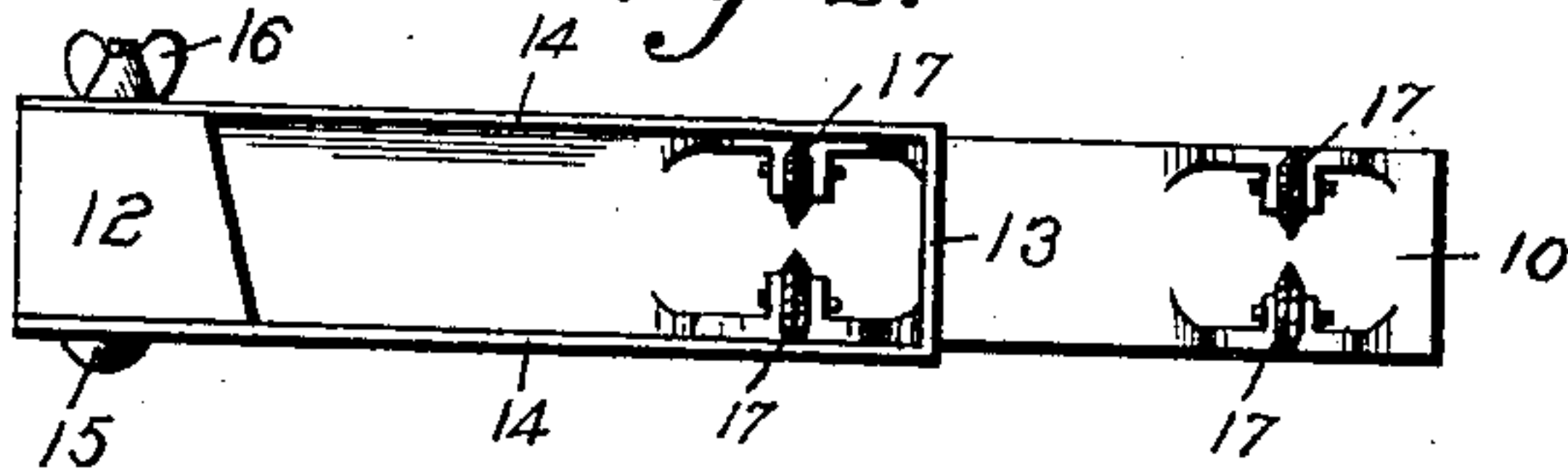


Fig. 3.

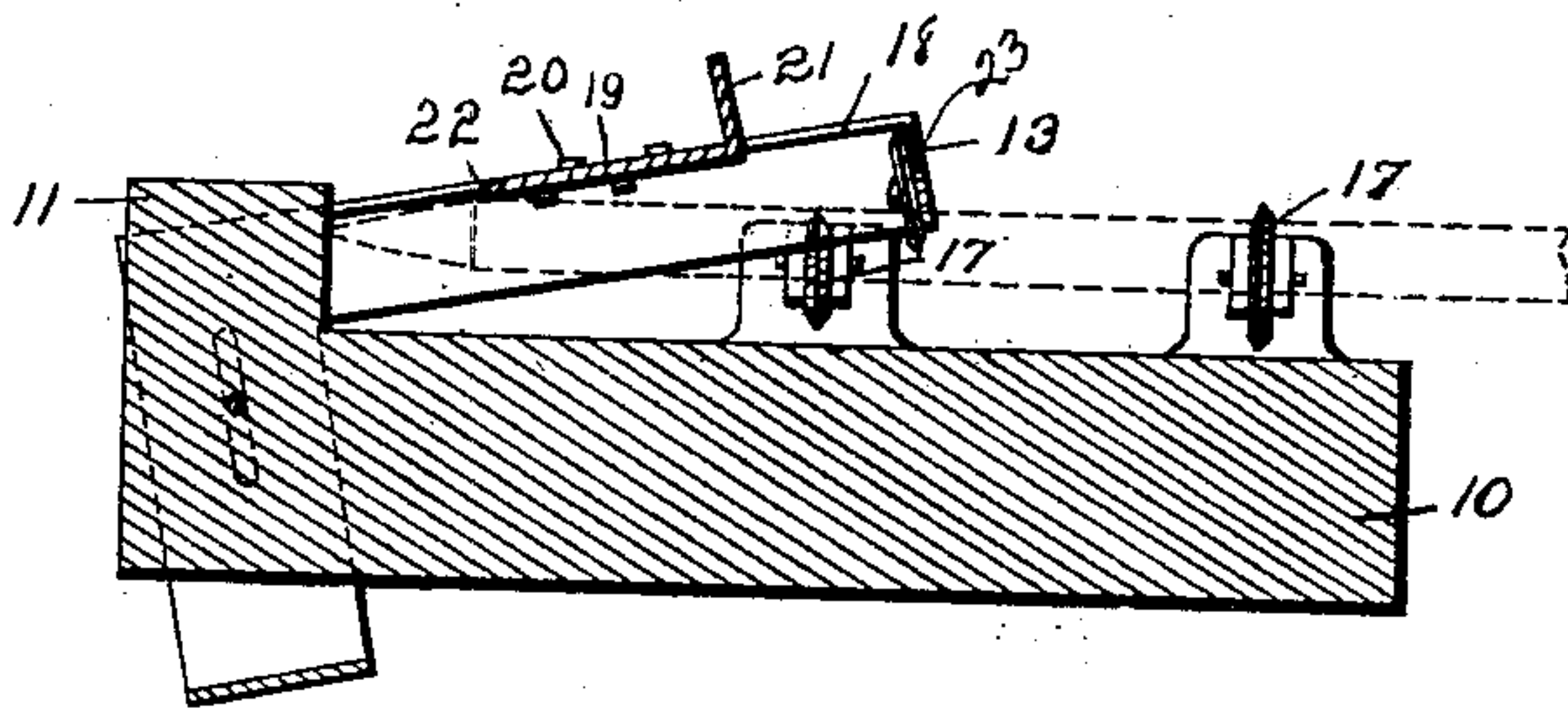
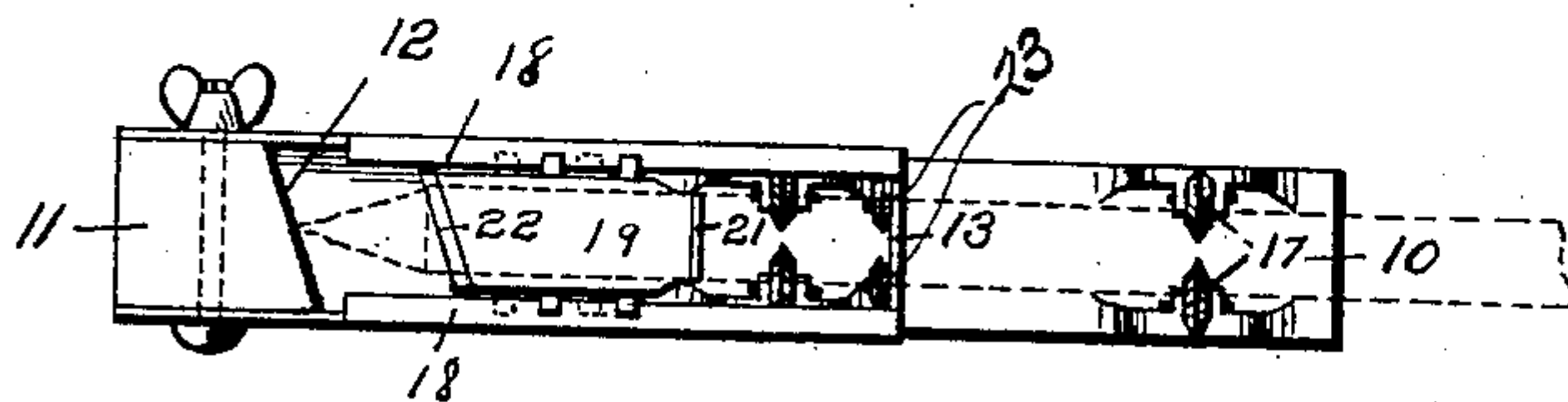


Fig. 4.



Witnesses.
F. C. Dahlberg.
A. S. Hague.

Inventor.
Albert B. Bly.
by *Orin Lane* atty.

UNITED STATES PATENT OFFICE.

ALBERT B. BLY, OF DES MOINES, IOWA.

PENCIL-SHARPENER.

No. 912,357.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed May 11, 1908. Serial No. 432,053.

To all whom it may concern:

Be it known that I, ALBERT B. BLY, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Pencil-Sharpener, of which the following is a specification.

The object of my invention is to provide a pencil sharpener of simple, durable and inexpensive construction, so arranged that the pencil sharpening device and a pencil, may be held in an operator's one hand and the pencil turned by the same hand, and the operator may with his other hand operate the cutting blade or an ordinary knife blade, for the purpose of sharpening the pencil.

A further object is to provide a device of this kind which may be set to sharpen a pencil at any desired angle, and may also be adapted for sharpening pencils of different thickness.

A further object is to provide a sharpener of this kind in which the pencil point is relieved from pressure so that it is not likely to be broken during the act of being sharpened.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 shows a detail perspective view of the pencil sharpening knife detached. Fig. 2 shows a top or plan view of the complete device of the form designed to be used in connection with an ordinary knife. Fig. 3 shows a vertical longitudinal sectional view of a modified form of the device in which a knife blade is slidingly mounted in the holder. The dotted lines in this view show the position of a pencil therein, and—Fig. 4 shows a top or plan view of the device having a sliding knife blade in position.

Referring to the accompanying drawings, I have used the reference numeral 10 to indicate the body portion or base of the device. This may be made of a size and shape that may be conveniently held in an operator's one hand. At one end of the base is a block 11 that projects above the base, and that is provided with an inclined face 12 adjacent to the central portion of the base.

The knife guiding device comprises a frame 13 that is provided with parallel

knife guiding portions 14 at its sides. A bolt 15 is passed through the slots in the knife guiding frame and through the base 10. A winged nut 16 is placed on side bolt so that the knife guiding frame may be tilted to any desirable angle relative to the base, and may be firmly clamped in such position. The slots provide for the vertical adjustment of the knife guiding frame relative to the base.

Mounted upon the base are two sets of pencil guiding rollers 17, the rollers of each set of pair being arranged in line with each other, and preferably having pointed or sharpened peripheries. Said rollers are of such size and shape that a pencil may be placed between them and may be easily rotated by means of the fingers on the operator's hand that is grasping the base. Furthermore, the sharpened edges of said roller tend to prevent the pencil from moving longitudinally because as the pencil is rotated said rollers will form grooves in the pencil which will hold it against longitudinal movement.

The form of pencil sharpener illustrated in Fig. 2 is used as follows: First, the operator elevates the knife guiding frame and then he inserts a pencil between the rollers 17 with the point of the pencil in engagement with the block 12. He then turns the pencil several revolutions until grooves have been formed therein to receive the sharpened rollers, and thus hold the pencil against longitudinal movement. He then places the knife guiding frame at the desired angle and he then takes an ordinary knife blade and slides it on top of the knife guiding frame toward and from the block 12, and with each movement of the blade cuts a shaving from the pencil. During the time that this cutting operation is in progress, the pencil is turned by the operator's fingers so that in a short time, the pencil is sharpened smoothly and evenly on all sides, and the point is made perfectly true. Furthermore, the pressure of the knife blade upon the pencil point would ordinarily tend to crush the point against the block 12. This, however, is prevented by the rollers 17. After the knife guiding frame is set to the proper position, it need not be re-adjusted, but any number of pencils may be sharpened in the same way. If however, it is desired to use the device in connection with pencils of greater or less diameter, then the device

may be quickly and easily adjusted to suit the requirements. If it is desired to change the angle of the pencil points, this may be done by tilting the knife guiding frame to the desired angle. I have also provided a sliding blade to be permanently connected with the knife guiding frame, and when said blade is used, I provide at the upper edges of the sides 14 two inwardly projecting guide flanges 18, and I also provide a knife blade comprising a body portion 19 having outwardly projecting lugs 20 at its sides to overlap the flanges 18. The rear end of the blade is provided with upwardly projecting handle portion 21, and the forward end of the blade is sharpened at 22. In this connection, I have arranged the top of the handle portion 21 and the sharpened edge 22 at such an angle that both of said edges may be placed on a grindstone for the purpose of sharpening the blade 22, and when so placed, the upper edge of the handle portion 21 serves as a guide for holding the cutting edge 22 in proper position on a grindstone. I have also provided an extra pair of lead pencil engaging wheels 23 secured to the knife guiding frame and shown in Figs. 3 and 4, for the purpose of engaging the top of a pencil, and co-acting with the rollers 17 to hold the pencil in position.

I claim as my invention:

1. In a device of the class described, the combination of a base, a block at one end of the base, a knife guiding frame connected to the base, said base and frame being shaped to admit a pencil between them with the point of the pencil resting against said block and said knife guiding frame being designed to stand at an angle relative to the base to guide a knife in a direction toward the block, and pencil guiding devices adapted to permit a pencil to rotate and to prevent longitudinal movement of the pencil.

2. In a device of the class described, the combination of a block designed to be held in an operator's hand, pencil guiding devices connected with the block and adapted to permit the free rotation of the pencil and to prevent movement of the pencil either laterally or longitudinally, and a knife guiding frame pivotally connected with the block

and having two parallel sides to engage and guide a knife, and means for clamping said frame to the block at different angles.

3. In a device of the class described, the combination of a block designed to be held in an operator's hand, two pairs of rollers fixed to the block in line with each other, and having sharpened edges and designed to receive a pencil and to permit said pencil to freely rotate therein, and to hold said pencil against longitudinal and lateral movement, and a knife guiding frame connected with the block and having parallel sides to engage and guide a knife blade.

4. In a device of the class described, the combination of a body portion designed to be held in an operator's hand, a block at one end thereof, a knife guiding frame pivotally and adjustably connected to said block, and a pair of rollers attached to the knife guiding frame to engage a pencil.

5. In a device of the class described, the combination of a body portion designed to be held in an operator's hand, a block at one end thereof, a knife guiding frame pivotally and adjustably connected to said block, a knife blade slidably mounted in said guide frame, said knife blade comprising a flat body portion and an up-turned handle at the rear end thereof, the upper edge of said handle and the front edge of the knife being inclined in such a manner that both may be made to lie flat upon a grindstone substantially as set forth.

6. In a device of the class described, the combination of a base designed to be held in an operator's hand, a block at one end of the base, a knife guiding frame comprising parallel sides having slots therein, a bolt passed through said slots and through the base, an adjusting nut on said bolt, the sides of said frame being provided with inwardly projected flanges, and a knife blade arranged between the sides of the frame and provided with lugs to engage said flanges for guiding the blade within said frame.

Des Moines, Iowa, March 19th, 1908.

ALBERT B. BLY.

Witnesses:

S. F. CHRISTY,
RALPH ORWIG.