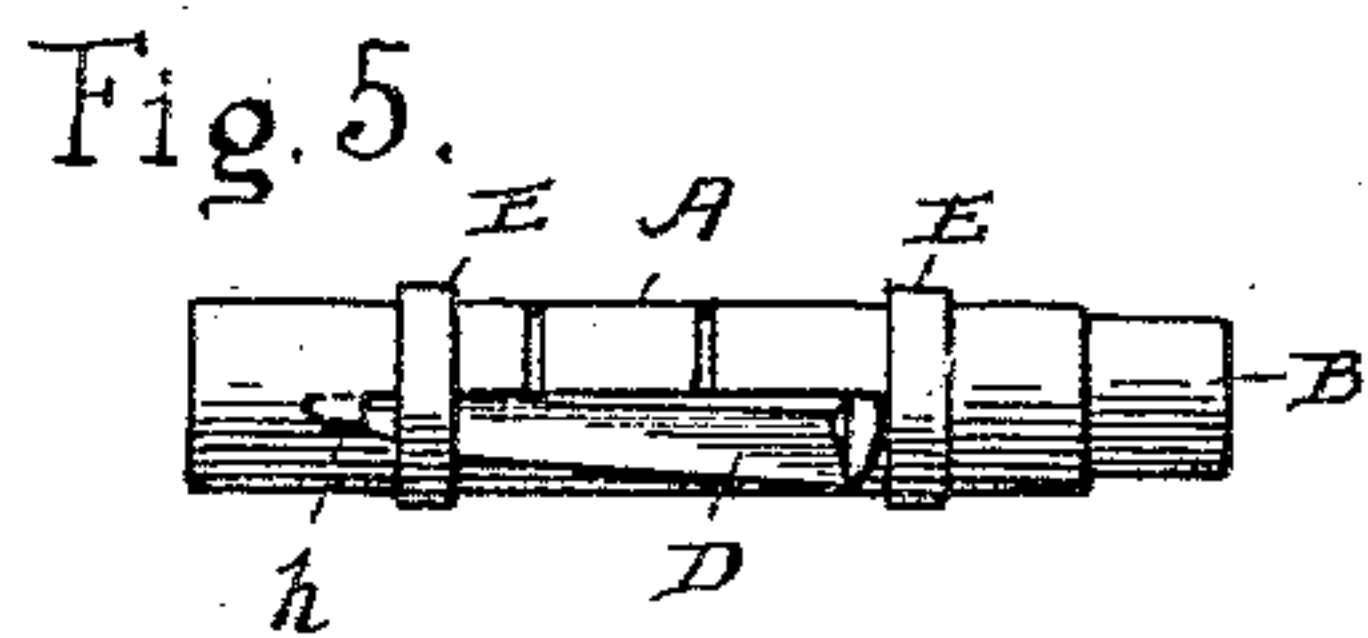
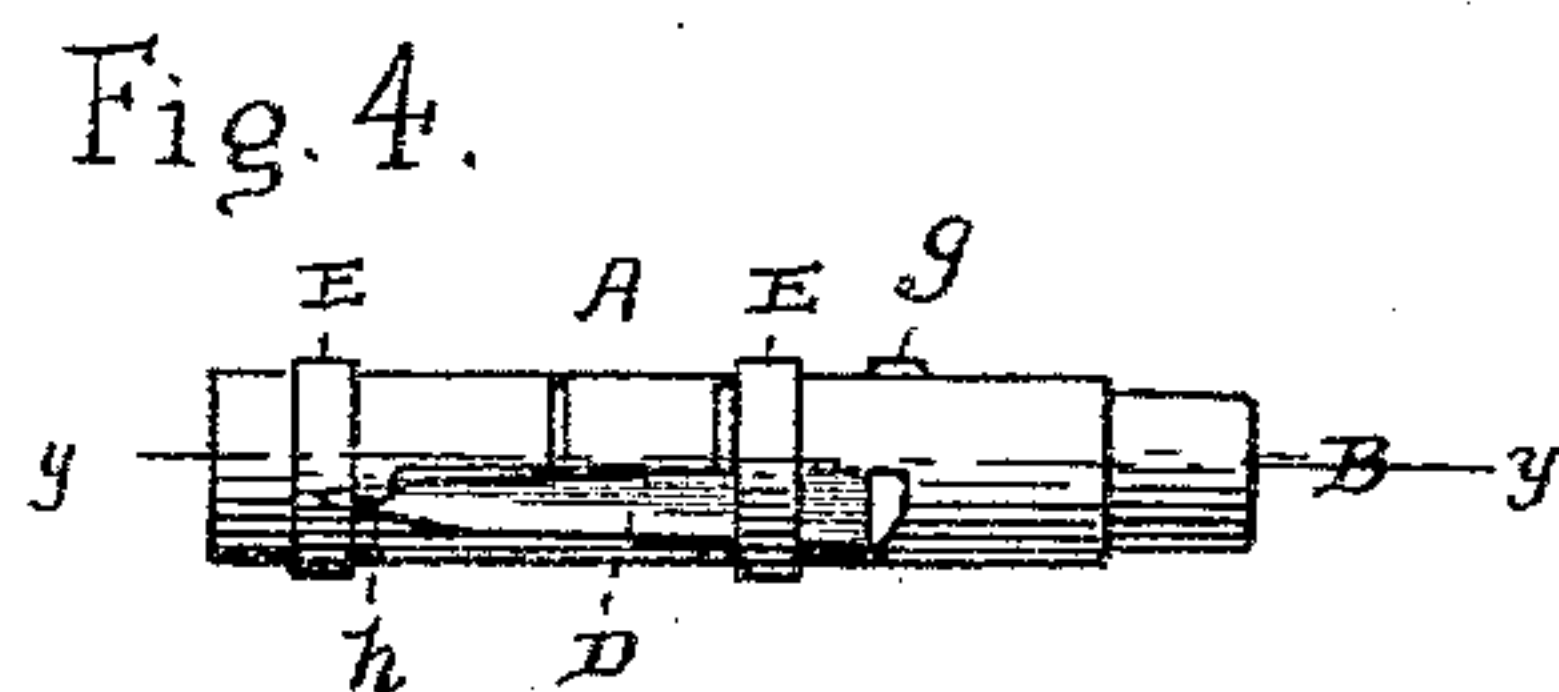
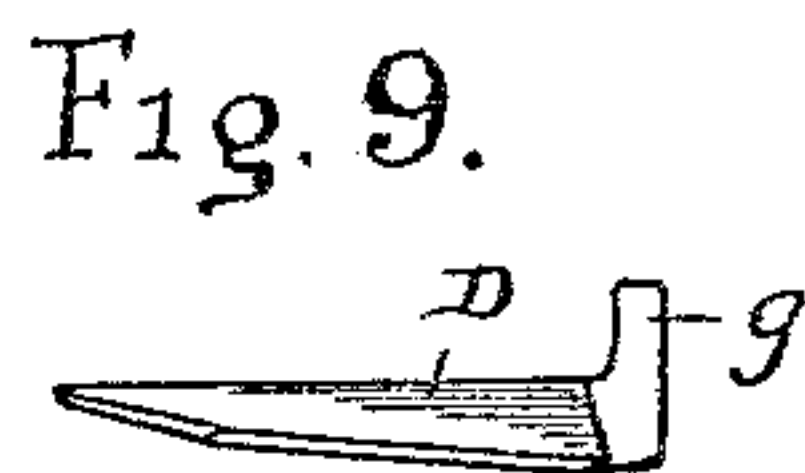
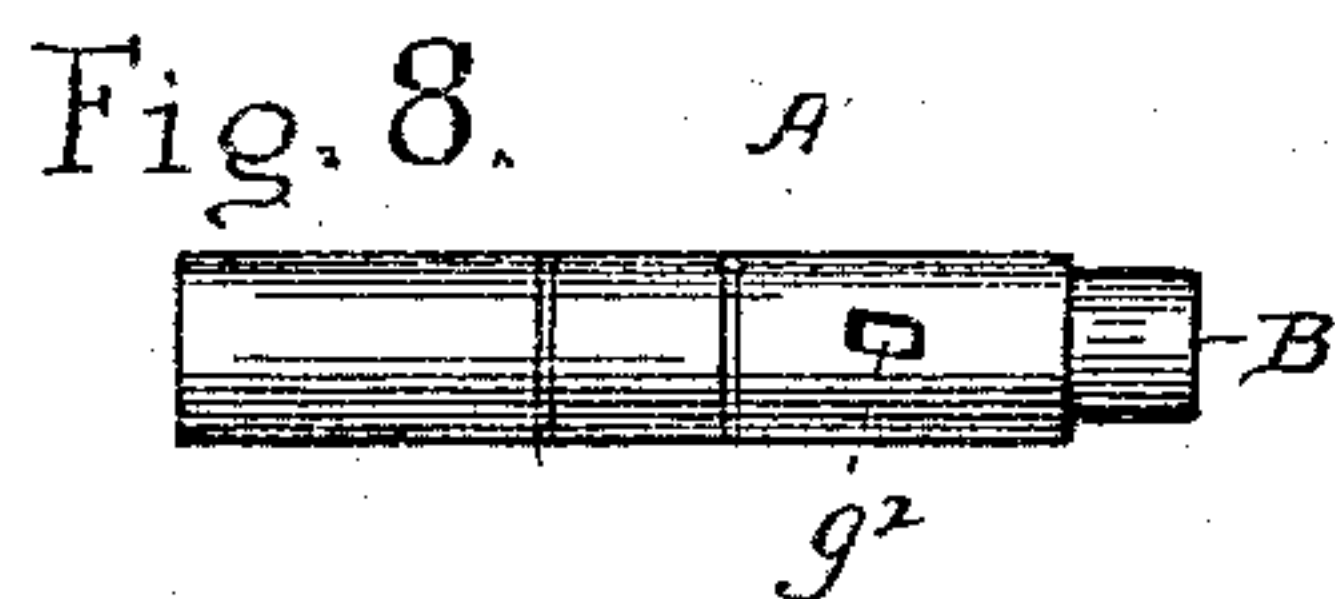
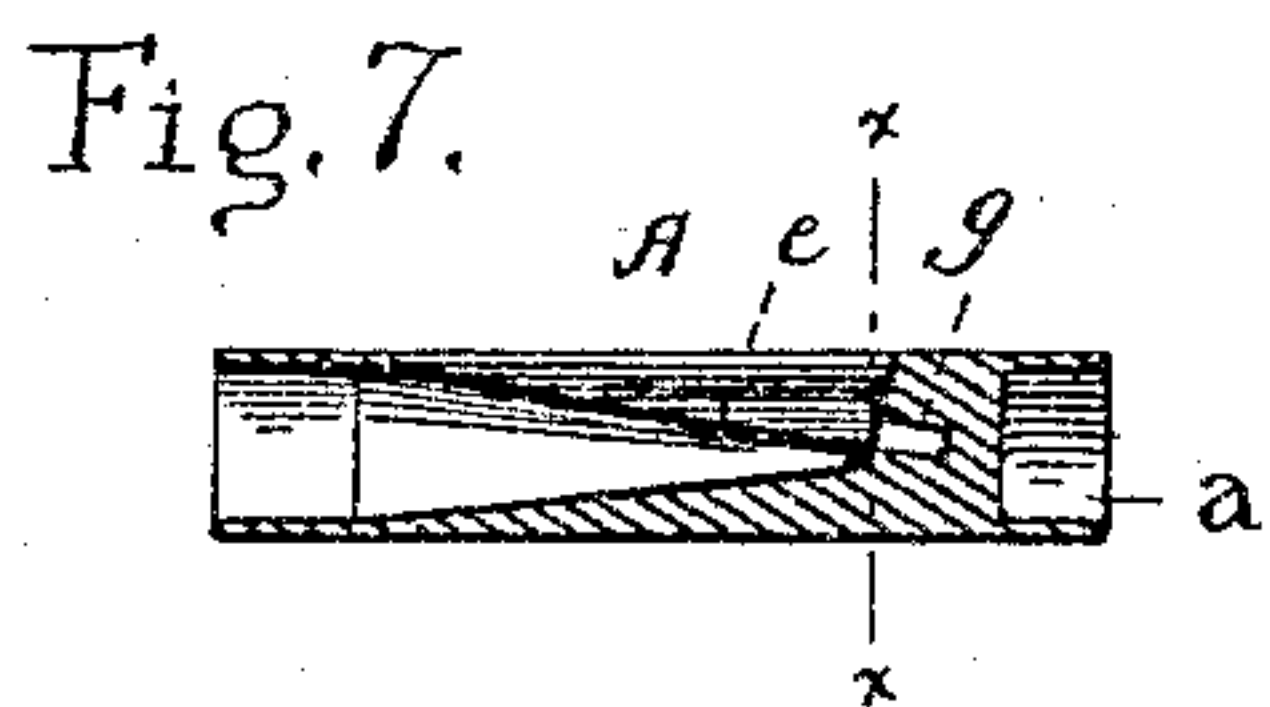
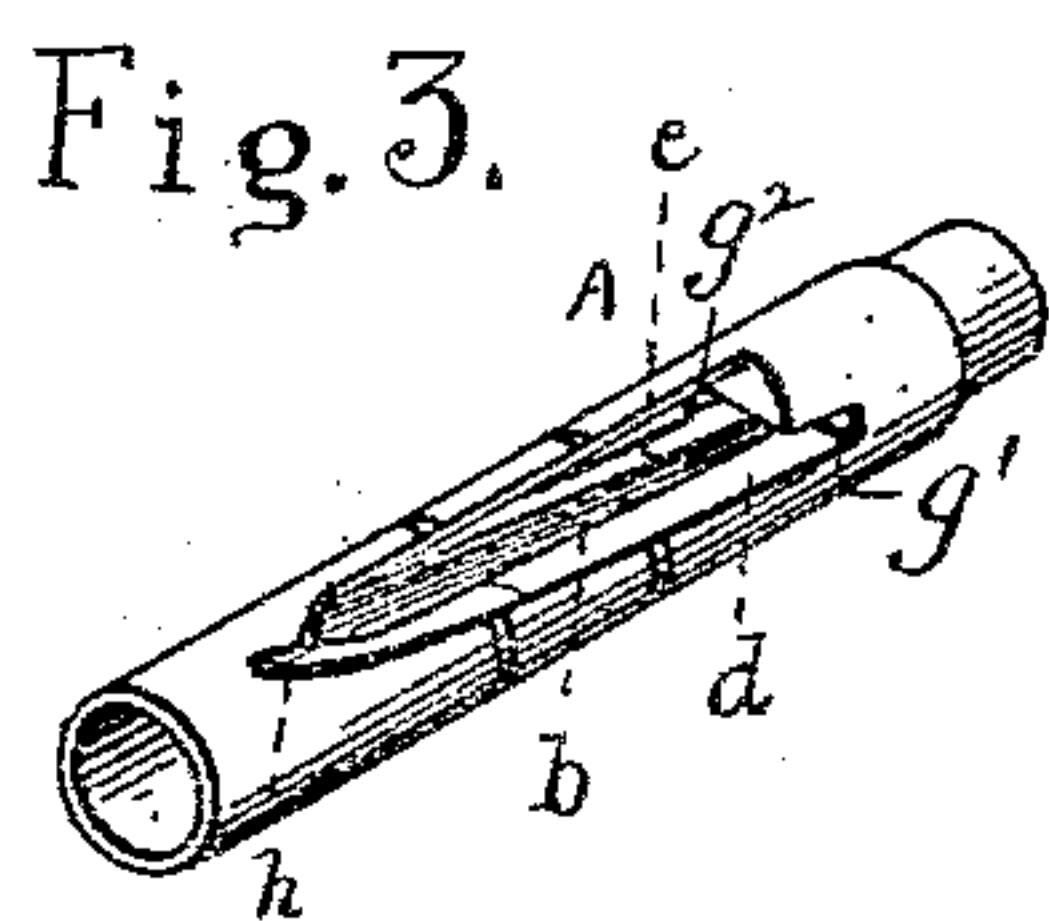
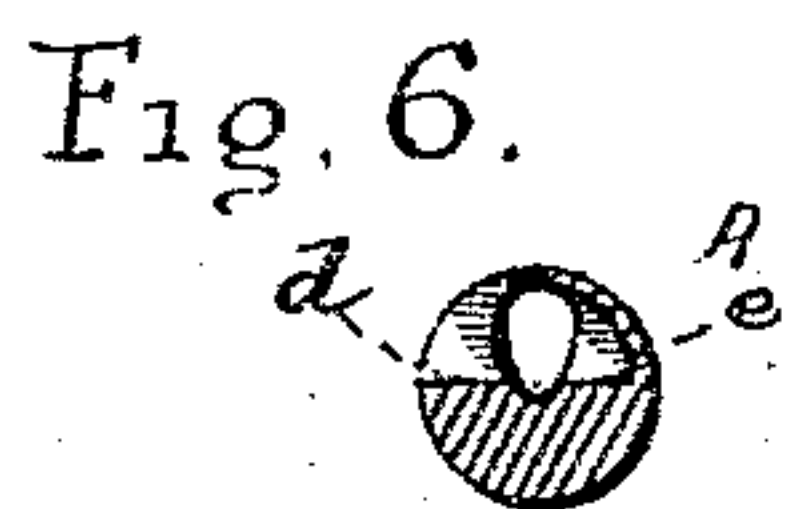
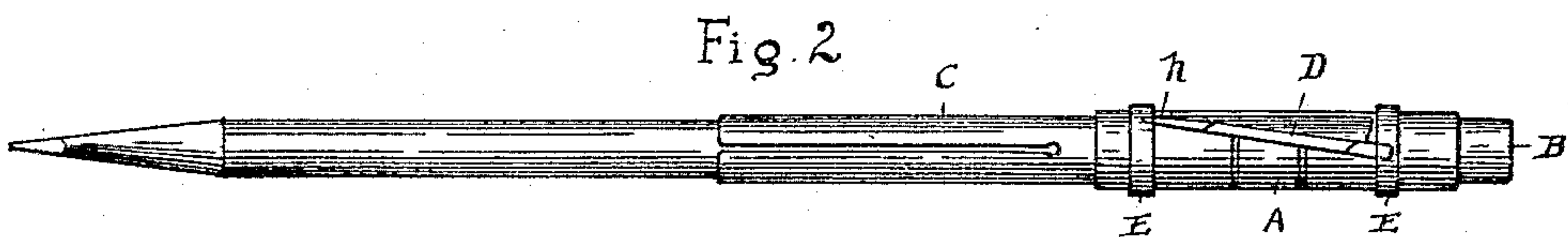
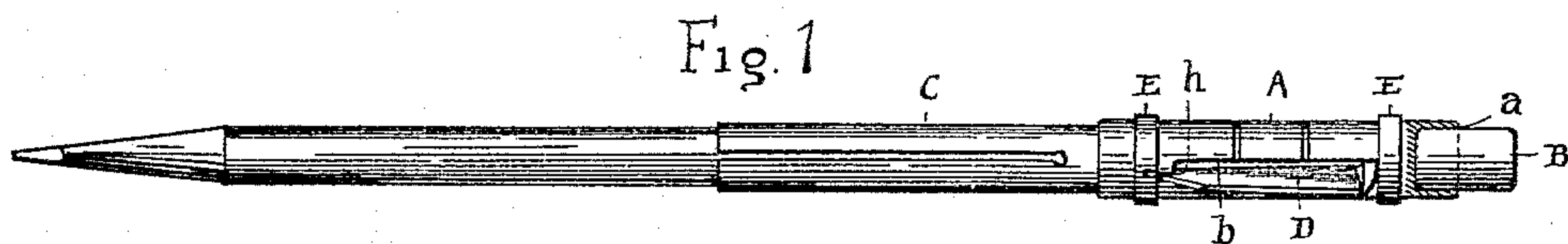


(Model.)

A. PRADER.
PENCIL SHARPENER.

No. 551,402.

Patented Dec. 17, 1895.



WITNESSES

Philip C. Masi.
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UNITED STATES PATENT OFFICE.

ANDREW PRADER, OF SPOKANE, WASHINGTON.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 551,402, dated December 17, 1895.

Application filed January 31, 1895. Serial No. 536,869. (Model.)

To all whom it may concern:

Be it known that I, ANDREW PRADER, a citizen of the United States, and a resident of Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Pencil-Sharpeners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of the invention applied. Fig. 2 is a side elevation of same. Fig. 3 is a perspective view of invention with knife and rings removed. Fig. 4 is a plan view of sharpener with rings arranged to increase depth of cut. Fig. 5 is a similar view with rings arranged to take up wear of knife. Fig. 6 is a cross-section on line $x x$, Fig. 7. Fig. 7 is a section on line $y y$, Fig. 4, with rings, knife, and rubber removed. Fig. 8 is an elevation of the other side of sharpener. Fig. 9 is a detail view of knife.

The object of this invention is to provide a pencil-sharpener adapted to be carried on the end of a pencil, being provided with an eraser-tip and having an adjustable knife which can be readily removed and sharpened.

With this object in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates the body of the sharpener, having in one end portion thereof a socket a to receive an eraser-tip B, and which is chambered to admit the pencil to be sharpened and to fit upon the non-pointed end of a pencil or preferably upon a split sleeve C, in which the pencil is held. The chamber is of conical form, slotted at b to receive the knife D, which is seated upon an inturned, oblique and tapered lip d , opposite which the inner wall of the chamber is formed with a similar tapered and oblique surface e , which completes the conical form of the chamber.

D designates the knife, having a tapered blade and formed at the end opposite the point with a lateral projection g , to receive

which the body is formed with a notch g' and aperture g^2 . The point of the knife has an abutment or bearing in a small niche h .

E E are two rings or bands which slide upon the body, and which secure the knife in place. By sliding these rings or bands toward and away from the eraser-tip, the knife may be adjusted to cut to the proper depth or to the proper position should the blade become worn and narrow by use and re-sharpening, owing to the tapered or wedge form of the back of the blade, against which said rings or bands bear. The engagement of the rings with this tapered or cam edge of the knife prevents or limits the outward movement of the said knife, which is, except when at its extreme inward adjustment, free to a greater or less extent to move inward. When, however, the pencil is inserted into the sharpener and is turned to sharpen it, its engagement with the knife thrusts it against the rings or bands and holds it there, which prevents any looseness or play of the knife during the operation. The engagement of the lateral projection g against the wall of its bearings g' g^2 also holds the knife steady. The rings or bands E E should fit the body of the sharpener neatly, so that they will not slide so loosely thereon as to destroy the effectiveness of their bearing upon the knife.

By slipping the rings or bands beyond the points where they bind on the knife, the latter may be readily removed for sharpening.

The sharpener, with the exception of the blade, is preferably made of aluminum.

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

1. A pencil holder and sharpener, consisting of a slotted body portion conically chambered to receive the end of the pencil to be sharpened and adapted to be carried on the non-sharpened end, a knife movably and removably seated in said body portion, said knife having its back tapered or beveled to form a cam edge and having also a projection at its heel end which has a bearing or abutment in the said body portion, and the sliding bands or rings which bear upon the said cam edge, whereby the adjustment of the said knife may be varied, substantially as specified.

2. The pencil sharpener consisting of the conically chambered body portion slotted at *b* and having the inturned beveled and tapered lip *d*, the opposite surface *e*, the notched
5 aperture *g*² and niche *h*, the knife having the lateral projection at the end opposite the point, and adapted to fit the notch and aperture on said body portion, the point of said knife being adapted to engage the niche *h*,
10 and the slidable rings or bands which adjustably secure said knife, substantially as specified.

3. In a pencil sharpener, the combination of the slotted sleeve, the body portion adapted
15 to fit said sleeve and which is conically cham-

bered, the knife movably and removably held in said body portion, said knife having its back beveled or tapered to form a cam edge and at its heel portion a projection which has a bearing or abutment in said body portion. 20 and the two sliding bands or rings which slidably engage said cam edge, one at the point and one at the heel portion thereof, substantially as and for the purpose specified.

In testimony whereof I affix my signature 25 in presence of two witnesses.

ANDREW PRADER.

Witnesses:

DAVID HERMAN,
WM. CRAMER.