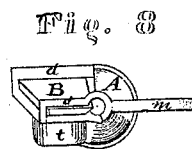
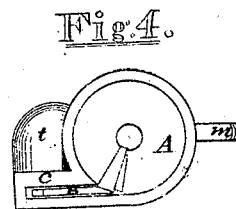
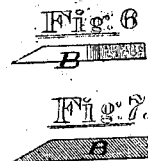
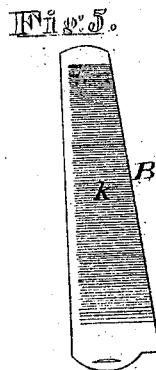
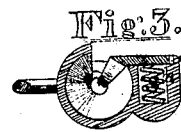
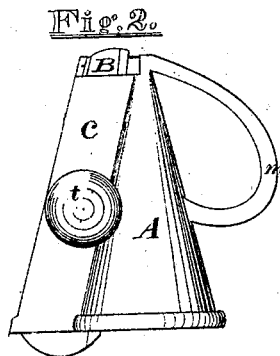
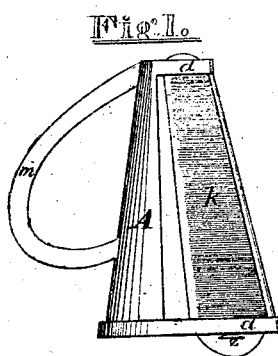


A.G. Batchelder,

Pencil Sharpener.

No. 109100.

Patented Nov. 8. 1870.



Witnesses.

*Chas. H. Jones,
Genl. Mgr.*

Inventor.

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United States Patent Office.

ASAHIEL G. BATCHELDER, OF LOWELL, MASSACHUSETTS.

Letters Patent No. 109,100, dated November 8, 1870.

IMPROVEMENT IN PENCIL-SHARPENERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ASAHIEL G. BATCHELDER, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and valuable Improvement in Pencil-Sharpeners; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a top view of my invention.

Figure 2 is a bottom view of the same.

Figures 3, 4, 5, 6, 7, 8, are details.

My invention relates to means for sharpening pencils, and consists in the construction of a conical guide, of metal, with a removable blade, provided with a filing surface, and held in place by means of a spring.

The letter A of the drawing designates the conical guide. It is formed of metal, and serves to keep the end of the pencil in proper position with regard to the edge of the blade.

B designates the blade arranged to lie upon the ledge or shelf c, formed on the cone A, and kept in place by means of the arms d d passing over it at each end, and by the pressure of the spring s, fixed in the recess n, underneath the blade.

A flanch, e, is formed along the outer edge of the ledge c, and serves as a bearing for the back of the blade when in operation.

The blade B consists of a thin plate of steel, beveled on one side to form the cutting edge. Its form

is somewhat tapering, the back and cutting edge gradually approaching each other.

The upper or exposed surface of the blade is serrated to form a filing surface, K, for the purpose of finishing the point of the pencil after it has been shaped by the edge of the blade.

The boss t on the under side of the ledge c, which is recessed to hold the spring s, serves to strengthen the ledge and to give a purchase for the forefinger in operating the instrument.

The handle m also serves to give width to the instrument, thereby facilitating its operation, as it can be held perfectly steady during the turning of the pencil.

A nick, z, is made in the end of the blade, which serves as a purchase for the end of the nail in withdrawing the blade for sharpening or other purpose.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the conical guide A, having the ledge c, handle m, and confining arms d d, the removable blade B, as and for the purposes specified.

2. In combination with a conical guide, A, having confining arms d d, and friction-spring s, the removable blade B, as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

ASAHIEL G. BATCHELDER.

Witnesses:

WILLIAM GORDON,
JAMES O. ABBOTT.