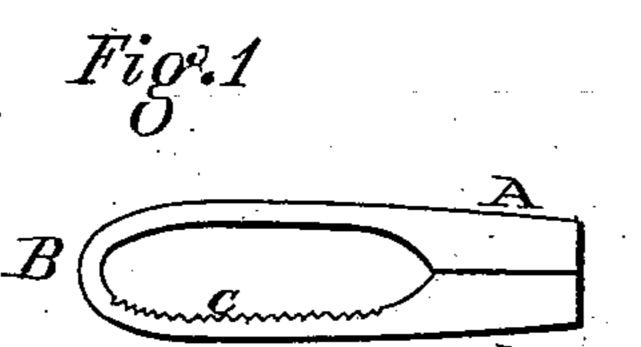
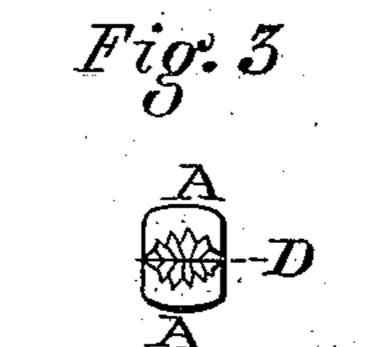
J. R. TEAL & G. MOULDER.

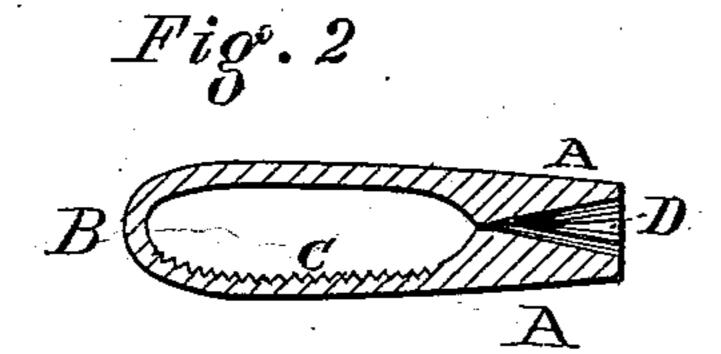
SLATE-PENCIL SHARPENER.

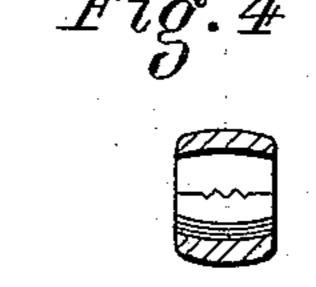
No. 187,067.

Patented Feb. 6, 1877.









Witnesses.

Solver Alfrant

D. Louis Shires

James R. Teal and James Moulder Jun Edw Brown Attorney.

UNITED STATES PATENT OFFICE.

JAMES R. TEAL AND GARRETT MOULDER, OF PHŒNIXVILLE, PA.

IMPROVEMENT IN SLATE-PENCIL SHARPENERS.

Specification forming part of Letters Patent No. 187,067, dated February 6, 1877; application filed November 17, 1876.

To all whom it may concern:

Be it known that we, James R. Teal and Garrett Moulder, both of Phœnixville, Chester county, Pennsylvania, have invented a new and useful Improvement in Slate-Pencil Sharpener, which improvement is fully set forth in the following specification and accompanying drawing, in which—

Figure 1 is a side view of the slate-pencil sharpener. Fig. 2 is a longitudinal section thereof. Fig. 3 is an end view of the same.

Fig. 4 is a cross-section.

This invention consists, briefly, in a tool having spring-jaws, within which jaws there is formed a conical die, having file-like teeth. Within the loop formed by the spring a file-like surface is formed, by which the end of the slate-pencil is first reduced. It is then inserted into a conical die, turned backward and forward, and brought to a point without any risk of breaking.

A A are the jaws, and B the spring, forming a loop, within which are cut file-like teeth C. Within the jaws A there is formed a conical die, D, having longitudinal file-like teeth. The front end of the die is oblong in form, (see Fig. 3,) and the teeth run off to a point at the

rear, as shown in Fig. 4.

The spring B causes a constant pressure of the serrated die upon the slate-pencil, and the oblong form given to the mouth of the die prevents the point of the pencil being broken by any slight lateral strain.

The tool is made of steel or similar hard metal, and is polished outside, making it convenient for the pocket. The teeth C, being within the loop B, are prevented from tearing the pocket.

The use of this tool by the pupils of a school will obviate the disagreeable noise made by

sharpening the pencils with a knife.

We claim—

1. As a new article of manufacture, a slate-pencil sharpener consisting of a spring-loop, B, connecting the two halves of a metal block, each block having formed within it the half of a conical abrading-cavity, the point of the said cavity being toward the loop B, and the base of the cavity having an elliptic section, as shown in Fig. 3.

2. As a new article of manufacture, a pencil-sharpener consisting of two separated halves of a metal block, each having formed within it the half of a conical abrading-cavity, the said parts of the metallic block being connected and closed together by the spring-loop B, having an interior abrading-surface, C, sub-

stantially as herein described.

JAMES R. TEAL. GARRETT MOULDER.

Witnesses:
R. H. DAVIES,
JOHN PRINTZ.