(No Model.)

J. O. BROOKBANK.

PENCIL SHARPENER.

No. 458,654. Patented Sept. 1, 1891.

Fig. 1.

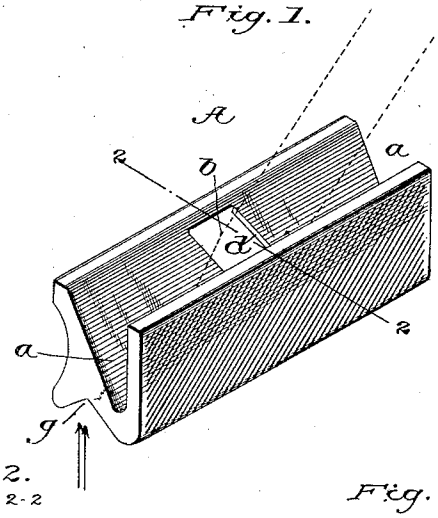


Fig. 2.
on line 2-2

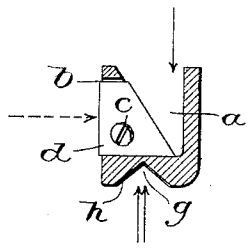


Fig. 3.

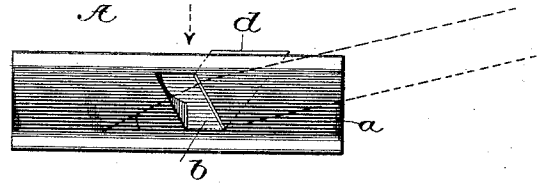


Fig. 4.

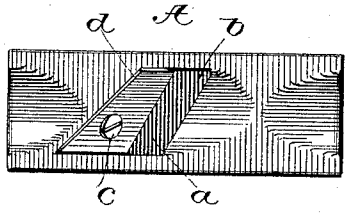
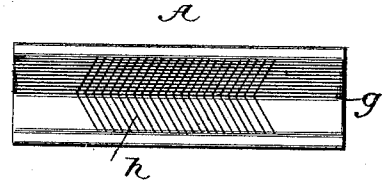


Fig. 5.



Witnesses:
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By his Atty
Phil T. Dodge

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES O. BROOKBANK, OF DRIFTWOOD, PENNSYLVANIA.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 458,654, dated September 1, 1891.

Application filed January 23, 1891. Serial No. 378,825. (No model.)

To all whom it may concern:

Be it known that I, JAMES O. BROOKBANK, of Driftwood, in the county of Cameron and State of Pennsylvania, have invented certain Improvements in Pencil-Sharpeners, of which the following is a specification.

The aim of my invention is to produce a small and inexpensive device for sharpening both lead and slate pencils.

In the accompanying drawings, Figure 1 is a perspective view of my sharpener. Fig. 2 is a cross-section of the same on the line 2 2. Fig. 3 is a top plan view in the direction indicated by the arrows in Figs. 1 and 2. Fig. 4 is a side elevation looking in the direction indicated by broken arrows in Figs. 2 and 3. Fig. 5 is a bottom plan view looking in the direction indicated by double arrows in Figs. 1 and 2.

Referring to the drawings, A represents a metallic block or body having in its upper side a deep longitudinal groove or channel *a* of diminishing width toward its bottom, or, in other words, with converging side walls. One of these walls is preferably vertical and the other inclined, as shown.

Through one side of the block is formed an opening *b*, and in this opening is secured by screw *c* a flat blade or cutter *d*, one edge of which is projected through and slightly beyond the inner face of the wall, somewhat after the manner in which a plane-bit is projected beyond the face of the stock or body. The edge of the blade is arranged in a position inclined or oblique to the vertical.

In making use of this cutter the end of the pencil is inserted and repeatedly drawn through the channel in an inclined position, with its tapered end resting on one side against the vertical wall and on the other side against the opposite wall, subject to the action of the blade. After each cut the pencil is given a slight rotary motion. By continuing these actions the wood and lead may be rapidly and smoothly cut away without danger of fracturing the lead. The length and taper of the point may be varied as desired by simply changing the angle at which the pencil is presented to the groove. It will be noticed that the blade acts with a draw or shear cut, and that the point receives support opposite the edge of the knife from the opposing wall. In the lower side of the body I form a longitudinal V-groove *g*, and in the surface of this groove I form a series of transverse obliquely-disposed cutting-teeth *h*, somewhat similar to those of a file. The teeth on each side are parallel, but in oblique relation to those on the opposite side. They serve to reduce and sharpen the end of the pencil-lead or of a slate-pencil drawn through the groove in an inclined position. The convergence and oblique relationship of the teeth on the opposite sides of the groove cause them to cut rapidly and clearly.

As an additional means of pointing pencils I propose to provide the body on its flat side with file-teeth, as shown in Fig. 1.

Having thus described my invention, what I claim is—

1. In a pencil-sharpener, the body having the V-groove therein, and the cutting-blade projected through one of the walls of said groove.

2. In a pencil-sharpener, the body having the V-groove therein, in combination with the cutting-blade having its cutting-edge extended through one side of the groove in a position oblique to its length.

3. The pencil-sharpener having the internal groove, the cutting-blade therein, and the outside groove with the series of converging teeth therein.

In testimony whereof I hereunto set my hand, this 8th day of January, 1891, in the presence of two attesting witnesses.

JAMES O. BROOKBANK.

Witnesses:
GEO. L. SMITH,
M. P. WHITING.