

(No Model.)

A. THURBER.
SLATE CLEANER.

No. 473,033.

Patented Apr. 19, 1892.

Fig. 1.

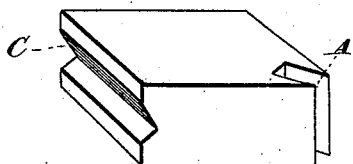


Fig. 3.

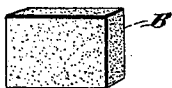


Fig. 2.

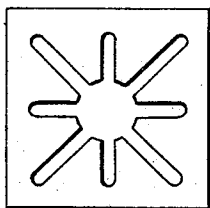
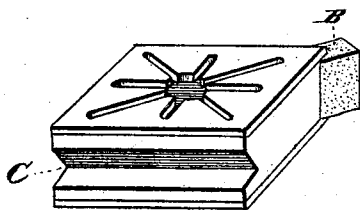


Fig. 4.



Witnesses:
J. Russell
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UNITED STATES PATENT OFFICE.

ALFRED THURBER, OF SAN PABLO, CALIFORNIA.

SLATE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 473,033, dated April 19, 1892.

Application filed September 22, 1891. Serial No. 406,514. (No model.)

To all whom it may concern:

Be it known that I, ALFRED THURBER, a citizen of the United States, residing at San Pablo, in the county of Contra Costa and State of California, have invented an Improvement in a Combined Slate-Cleaner, Eraser, and Pencil-Sharpener; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in school-slate cleaners to be used without the aid of water or moisture of any kind, in combination with an eraser of lead-pencil lines or writing and a lead or slate pencil pointer.

It consists of a square or other-formed block of wood or other material and radially-slotted pieces of fur hat-felt or similar fur felt, to be fastened to one or both faces of the block, and a piece of rubber fastened in one corner or side of the block and extending a third of an inch or more outward from the block; also, of a groove in one side of the block to hold a piece of sand-paper, emery-cloth, or a small file, all for the purposes herein specified.

Figure 1 represents the block with the opening A in the corner to receive the erasing-rubber B and the groove C in the side to hold the sand-paper, emery-cloth, or file. Fig. 2 represents the radially-slotted fur felt to be fastened to the face of the block to clean the slate. Fig. 3 represents the erasing-rubber to be fastened in the corner of the block at A.

The fur felt is fastened to the face of the block by glue or other fastening. The slots radiating from the center of the piece of felt aid greatly in removing the pencil-marks. The edges of the slots cut away the pencil-dust. By radiating the slots from the center toward the periphery of the piece of felt they

furnish a large amount of cutting-edge in proportion to the surface of the felt, which I claim is of great value in the slate-cleaner, and at the same time the felt retains enough pencil-dust on its surface to scour the surface of the slate clean. Three-fourths of the slots act as cutters of the pencil-marks in any direction the cleaner may be moved across the surface of the slate. The surface of the felt is to equal in extent the face of the block to which it is fastened, thereby enabling the user to remove single figures, letters, or lines with the corners or edges of the felt without injury to the rest of the work on the slate. The rubber in the corner is always convenient to erase lead-pencil writing or lines, the block serving as a handle. The angular groove in the side, containing the sand-paper, emery-cloth, or file, enables the pupil to obtain a sharp point to a lead-pencil or slate-pencil, when desired, by placing the point in the groove and sliding the pencil back and forth with the pencil in line of direction with the groove.

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

1. The combination, in a slate-cleaner, of the block and the radially-slotted fur felt and the rubber eraser, substantially as set forth.

2. The combination, in a slate-cleaner, of the block with the groove holding the sand-paper, emery-cloth, or file, the rubber, and the radially-slotted fur felt, all substantially as set forth, and for the purposes herein specified.

ALFRED THURBER.

Witnesses:

A. RUMRILL,
WM. F. BELDING.