No. 618,759. Patented Jan. 31, 1899.

C. L. YEO.

BLACKBOARD ERASER.

(Application filed Apr. 2, 1898.)

(No Model.)

Fig. 1.

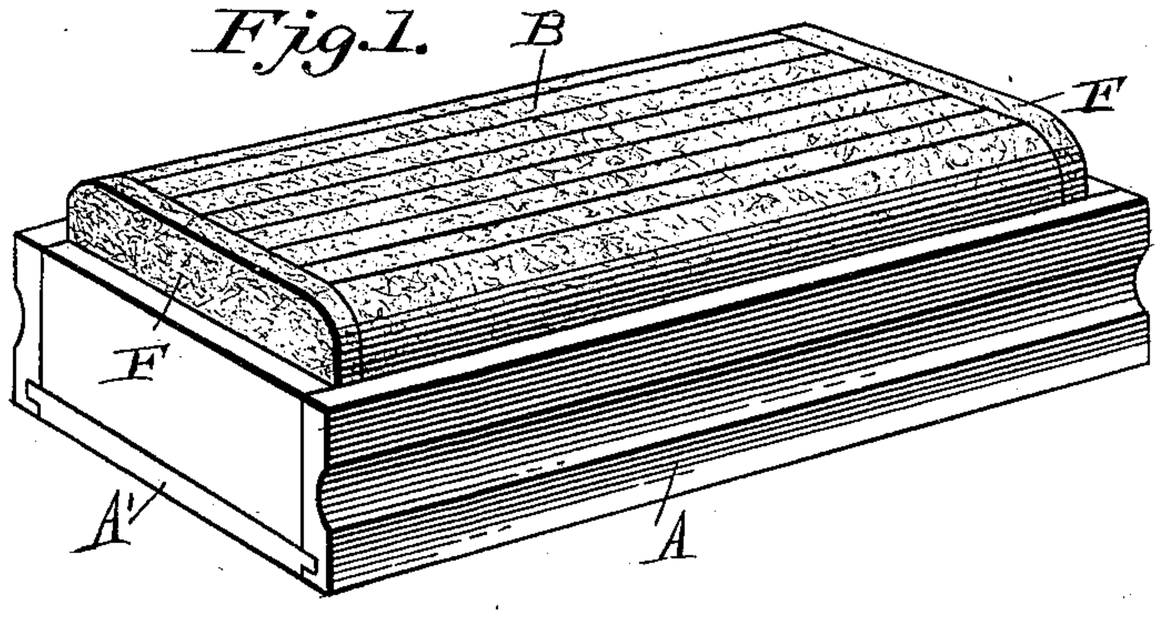


Fig. 2.

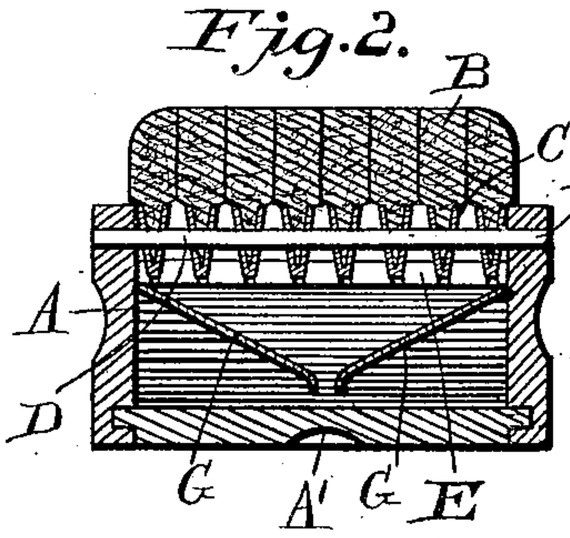


Fig. 3.

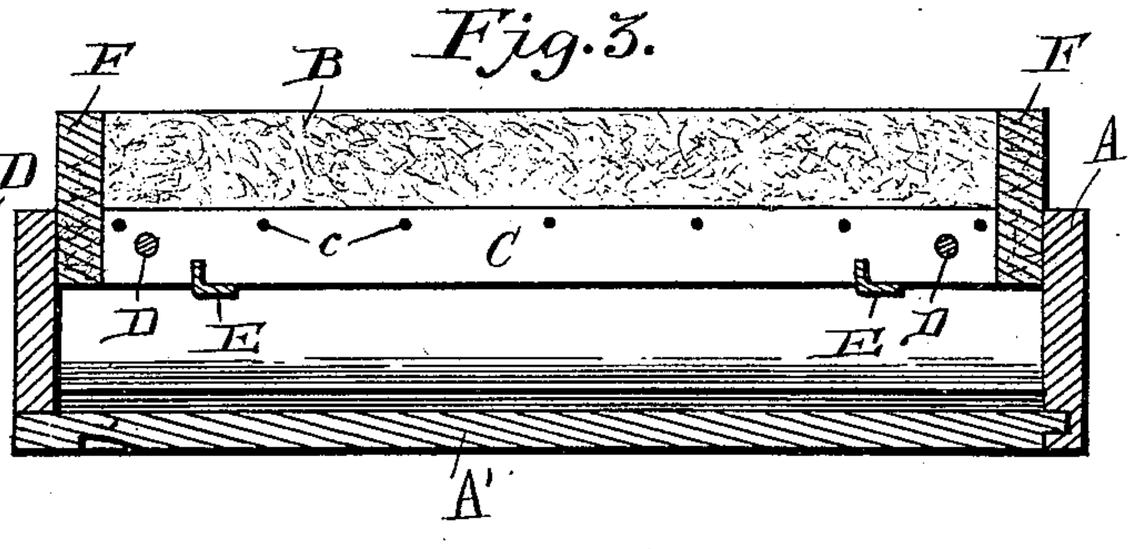
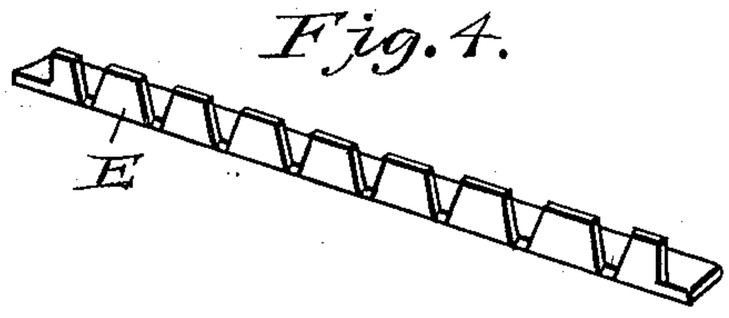


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES LEROY YEO, OF BATTLE CREEK, MICHIGAN.

BLACKBOARD-ERASER.

SPECIFICATION forming part of Letters Patent No. 618,759, dated January 31, 1899.

Application filed April 2, 1898. Serial No. 676,243. (No model.)

To all whom it may concern:

Be it known that I, CHARLES LEROY YEO, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Blackboard-Erasers; 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 of the drawings is a perspective view of an eraser embodying my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a longitudinal vertical section, and Fig. 4 is a detail perspective view of one of the bridge-pieces.

This invention is designed to provide a blackboard-eraser which is constructed in such a manner as to absorb and collect the chalk-dust instead of throwing it off into the air, which is self-cleaning and cannot be overcharged with dust, and which is constructed in such a manner that the rubbers can be readily removed and replaced, if desired.

With these objects 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 frame or body of the eraser, which is in the form of a hollow box closed at the bottom by a removable slide A′ and open at the top, except for the rubbers B. The rubbers consist each of edgewise-disposed strips of felt secured in metal holders C and placed side by side in parallel positions in the upper portion of the box. The holders C consist each of a piece of sheet metal bent longitudinally upon itself to form a U-shaped clasp, in which the inner edge portion of the felt is placed and secured by punching or indenting the metal, as shown at *c*. The holders are each perforated near each end and are slipped upon transverse rods or wires D, supported in the lateral portions of the box. The holders are also preferably supported by transverse notched bridge-pieces E, upon which they rest. A transverse edgewise-disposed piece of felt F is usually placed at each end of the series of rubbers, as shown. The rubbers are also preferably arranged so as to form a slightly-convex rubbing-surface.

Placed in the box underneath the rubbers are two longitudinal inclined plates G, which form a trough open at the center.

The operation of the eraser is as follows: When the eraser is moved in one direction over the board, the strips or sections are all pressed or lean in one direction. This gives the face of the eraser a corrugated form and allows the chalk-dust to catch and settle in the spaces or depressions thereof. When the motion is reversed and the eraser is shoved in the opposite direction, the strips or sections are pressed or lean in the opposite direction and the dust works through between them and falls into the trough. The natural handling and turning of the eraser and the jar cause the dust to fall through the slit in the bottom of the trough into the dust-receptacle, from whence it cannot get back into the trough.

The accumulated dust may be removed from the receptacle at any time by removing the slide A′. It will be seen, therefore, that the eraser is perfectly self-cleaning in its action and that the rubbers cannot become overcharged with dust and throw it off into the air.

The slightly rounded or convex face of the eraser serves to keep the dust nearer the center and in better position to be absorbed. A perfectly flat-faced eraser has somewhat of a tendency to shove the chalk-dust ahead of it and drop it.

When the felt sections or strips become worn out, they may be readily removed from the box by removing the rods or wires D, and new sections or strips may be supplied.

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

1. The herein-described blackboard-eraser, consisting of the box-like body, one side of which is a removable slide, a rubber composed of a number of independent strips of felt or other suitable material, removably secured in the opposite side of said body, and arranged to permit chalk-dust to pass between them into said body, and a longitudinally-arranged trough within said body with its open side

facing the rubber and having a slot at its bottom, substantially as specified.

2. The herein-described eraser, consisting of a box-like body having a slide at one side, the rubber composed of a number of perforated metal-bound rubbing-strips arranged side by side to permit chalk-dust to pass between them into said body, the removable wires or rods which engage the perforations of said strips and secure them in said body, the transverse notched bridge-pieces which support the said strips intermediately of the transverse wires or rods, and the trough arranged in the said body with its open side facing the said strips and having a slot in its bottom, substantially as specified.

3. In a blackboard-eraser, the box-like body, the trough therein having a slot at its bottom, the independent metal-bound rubbing-strips, the transverse rods or wires which secure the said strips, and the transverse bridge-pieces which support said strips, substantially as specified.

4. In a blackboard-eraser, the box-like body or holder, having the removable slide, the slotted trough in said body or holder, the independent, narrow, edgewise-disposed metal-bound rubbing-strips, supported over the said trough, the transverse wires or rods which secure the said strips, and the transverse bridge-pieces which support said strips intermediately of the wires or rods, substantially as specified.

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

CHARLES LEROY YEO.

Witnesses:
GEO. F. NEALE,
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