July 22, 1941. J. H. OXLEY 2,249,912

BLACKBOARD ERASER

Filed Sept. 16, 1939

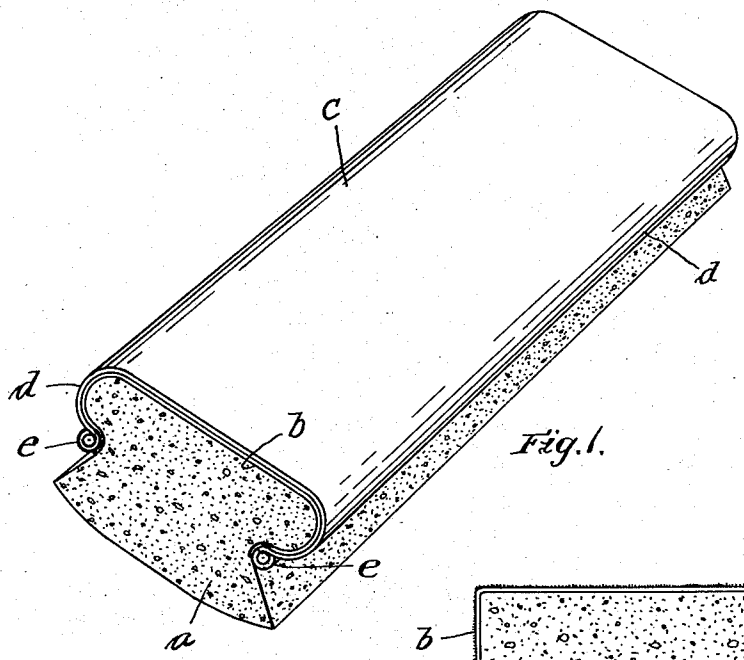


Fig. 1.

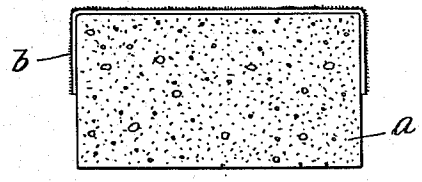
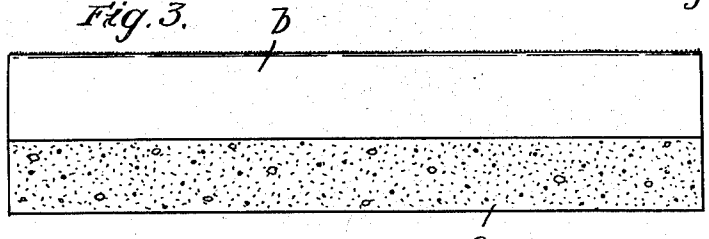


Fig. 2.

Fig. 3.



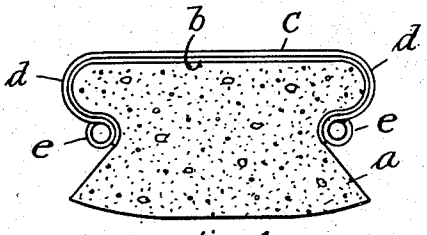


Fig. 4.

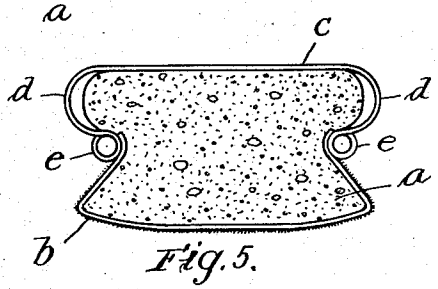


Fig. 5.

Inventor.
John H. Oxley
by L. W. Cammack
Atty.

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BLACKBOARD ERASER

John H. Oxley, Watertown, Mass., assignor to The American Crayon Company, Sandusky, Ohio, a corporation of Ohio

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3 Claims. (Cl. 15—244)

This invention relates to certain improvements in devices primarily designed for use in erasing chalk marks from blackboards, such as are in common use in schools.

Prior to my invention various substances have been used for this purpose such as felt, cloth, pieces of carpet, and sheep skin from which the wool has been partly removed by shearing.

The principal objection to these materials is that, while they usually obliterate the chalk marks to a sufficient extent, they only partly remove the chalk dust, but leave a whitish surface. While chalk dust may be removed by washing with water, the use of water on blackboards is highly objectionable, as it injures the surface, and its use is usually prohibited by regulations, but such regulations are difficult to enforce and are often disregarded.

Moreover all materials which are used for erasing chalk marks become filled with chalk dust when used, so that they need to be washed, beaten or vacuum cleaned to remove the dust. These methods are often ineffective and, in some instances, not practical, as washing spoils the material for future use as an eraser.

The object of my invention is to provide a cleaning device which is effective for use as an eraser for obliterating chalk marks and is also effective for use as a cleaner for removing chalk dust, and which may be washed when desired, without injury to the material.

I accomplish this object by providing an eraser which consists in part of cellular latex, in block form, which is compressible and resilient and is provided with a supporting covering of thin leather having a soft, absorbent surface such as ooze leather, said covering extending over one side and a portion of the edges of the block, in combination with a rigid holder into which the block is insertable when compressed and is adapted to be held in position to expose either the covered or uncovered side, so that the exposed side of the block may be used as an eraser and the covered side may be used as a cleaner to remove chalk dust left by the erasing operation.

For a more complete disclosure of my invention, reference is now made to the following specification in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of a preferred embodiment of my invention.

Fig. 2 is an end view and Fig. 3 a side view of the erasing block separate from the holder.

Fig. 4 is an end view of the block in the holder with the uncovered side exposed and

Fig. 5 is a similar view with the covered side exposed.

According to my invention I provide an elongated oblong block *a* of cellular latex, which is rectangular in cross section and of uniform width and thickness, the material being compressible, elastic and resilient and somewhat resembling sponge rubber, but is a different rubber product, having inter-connected air cells and is produced by beating air into liquid latex until it acquires a foamy consistency and then is water cured, the resulting product being sold under the trade name of "Airfoam." It will be understood in this connection that no claim is made for this material per se.

The block *a* is covered on one side with a backing *b* of thin leather, the flesh side of which is soft and slightly roughened, said backing being extended onto each edge for at least half the thickness of the block and having its grain side adhesively secured thereto so that its flesh surface is exposed. I consider ooze leather, having its grain side retained, better adapted for the purpose than split leather, as it has greater stability.

I further provide an elongated holder *c* of stiff sheet metal having a flat middle portion, which extends for the length and width of the block, and convergently extending side portions *d* of semi-cylindrical formation, the edges thereof preferably being rolled into cylindrical form, as indicated at *e*. Said side portions are preferably rigid or substantially unyielding with relation to the middle portion and the distance between the edges of said side portions is substantially less than the width of the block *a*.

In use the block of cellular latex, or rubber, being compressible, may be readily forced into the holder between the sides *d*, as indicated in Figs. 1 and 4, and when in this position the middle portion of the block is compressed and the roughened or flesh surface of the covering is gripped adjacent its edge portions by the sides *d* throughout the length thereof. The block *a* is thus securely held in the holder against displacement when its exposed face is rubbed in any direction on the surface of the blackboard, as the frictional engagement of the holder with the covering is amply sufficient to hold the block in position therein. It will be noted, on reference to Figs. 1 and 4, that the portion of the block within the holder completely fills the space therein between the sides, so that the full benefit of the frictional engagement of the covering with the holder is secured.

With the parts in this position the block may be effectively used as an eraser to obliterate chalk marks, and I have ascertained by use that the cellular latex material is much more effective for this purpose than any other material of which I am aware, as it not only erases, but removes the chalk dust more effectively. It does not, however, entirely remove all chalk dust, so that at the end of a day's use, a final cleaning is desirable.

To clean the board thoroughly by removing all chalk dust, the block is removed from the holder and reinserted therein with its covered side exposed, as shown in Fig. 5. The flesh side of the leather may then be used as a cleaner as by rubbing the surface therewith, all chalk dust will be completely removed. From extensive tests the flesh surface of ooze leather has been found to be much more effective for cleaning purposes than any other material of which I am aware.

In the position of Fig. 5 the edge portion of the covering is still gripped by the edge portions of the sides, so that the block is securely held in the holder.

While the covered side of the block completely fills the space within the holder, as shown in Figs. 1 and 4, so that the entire surface of the covering is effective in holding the block in position in the holder, when the block is in the reversed position of Fig. 5, the uncovered portion of the rubber within the holder does not expand sufficiently to fill the space within the holder completely, but the frictional engagement of the sides of the holder with the covering is amply sufficient to hold the block in position therein, when the covering is used as a cleaner, as the lateral strain on the block is much less than when the uncovered surface is used as an eraser. However, without the covering the cellular latex rubber would not be retained by the holder when it is used as an eraser, as the frictional engagement thereof with the holder is insufficient to retain it therein.

The block as thus constructed may be removed and washed, so as to free both the rubber and covering entirely from chalk dust without injury to either, as neither material will be injured by water, and it may be twisted to expel the water without injury to the material.

It will be noted that the covering thus serves two important functions, as it provides an effective means for retaining the cellular latex rubber within the holder and provides an effective means for removing the chalk dust from the board after the rubber has been used as an eraser.

While the above described device is considered to be primarily useful as a blackboard eraser it is useful for other cleaning purposes, such as washing window glass or cleaning wind shields of automobiles.

I claim:

1. A chalk eraser comprising an elongated holder of substantially rigid material and consisting of a top portion and convergently disposed side portions, providing a recess therebetween, an oblong block of compressible resilient latex material having inter-connected air cells therein, and a covering of thin leather having its grain side adhesively connected to said block and extending over one side and a portion of the opposite edges thereof, one side portion of said block being disposed in said recess and having the intermediate portions of its edges compressed between the edges of said sides of the holder contacting the edges of said covering.

2. A chalk eraser comprising an elongated holder of substantially rigid material and consisting of a top portion and convergently disposed side portions, providing a recess therebetween, an oblong block of compressible resilient latex material having inter-connected air cells therein, and a covering of thin leather having its grain side adhesively connected to said block and extending over one side and a portion of the opposite edges thereof, one side portion of said block being disposed in said recess and having the intermediate portions of its edges compressed between the sides of the holder contacting the edges of said covering.

3. A chalk eraser comprising an elongated holder of substantially rigid material and consisting of a top portion and convergently disposed side portions comprising a substantially flat-backed recess therebetween, and oblong block of compressible resilient latex material having inter-connected air cells, the thickness of said block being about half its width, and a covering of thin leather adhesively connected to said block and extending over one side and portions of opposite edges thereof, approximately half the depth of said block filling said recess, and being more compressed by the sides of said holder at midheight than elsewhere, the intermediate portions of the block edges being compressed between the sides of the holder contacting the edges of said covering, and the edges of the block out of said recess being free, whereby the exposed side is convex.

JOHN H. OXLEY.