J. W. HYATT.

SLATES.

No. 187,145. Patented Feb. 6, 1877.

Fig. 1.

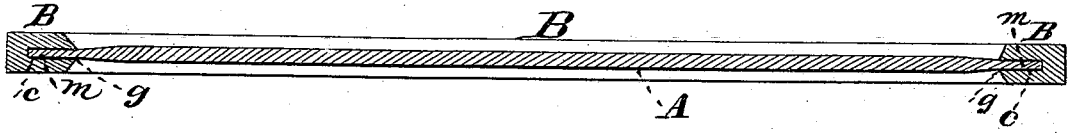


Fig. 2.

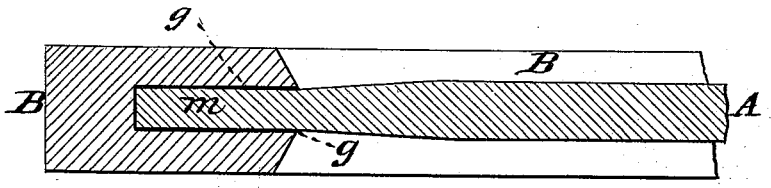
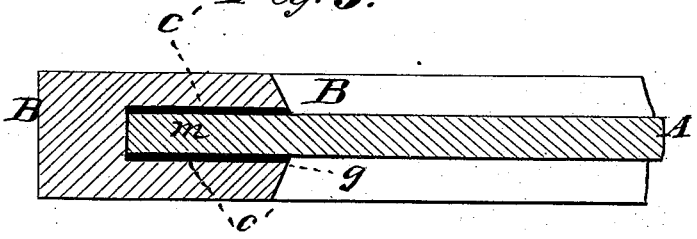


Fig. 3.



Witnesses.
John Becker
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UNITED STATES PATENT OFFICE.

JOHN W. HYATT, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN SLATES.

Specification forming part of Letters Patent No. **187,145**, dated February 6, 1877; application filed September 18, 1876.

To all whom it may concern:

Be it known that I, JOHN W. HYATT, of Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Framed Slates for Schools and other purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to the framing of slates, and has for its object the secure attachment of the frames to the borders or margins of framed slates, without the necessity of bending, mortising, pinning, wedging, or otherwise joining the corners of the frame by any of the usual methods, whereby the cost of manufacture is cheapened, and a better article is supplied.

The invention consists in a framed slate, having its frame composed of separate side pieces, each independently attached to the margin of the slate by cementing said separate side pieces to said slate.

Figure 1 in the accompanying drawing is a cross-section through a slate framed according to my improvement. Fig. 2 is an enlarged detail of the same. Fig. 3 illustrates a modification of my invention.

A represents the slate proper, and B the frame thereof, the separate side pieces of which are independently secured by cement to the margin of the slate A. The frame B, as shown in Figs. 1 and 2, has a groove, *g*, cut therein, in the usual manner, for the reception of the slate-margin *m*, which is dressed off to a uniform thickness, to adapt it to said groove, and to secure its firm attachment at all points when cemented. The thin layer of cement is indicated in Figs. 1 and 2 at *c*.

I have advantageously employed a cement composed of linseed-oil and glue; but this cement forms no part of my invention, and other cements, made of dissolved shellac, shellac composition, &c., may also be employed.

In one way of affixing the frame, the liquefied or melted cement is put into the grooves *g* of the several parts of the frame B, which then being pressed, driven, or otherwise forced upon the margin of the slate proper, the cement *c*, Figs. 1 and 2, is forced out between the sides of the grooves *g* and the margin of the said slate proper, thus forming a layer of nearly uniform thickness, and, if the said cement be properly placed in the said grooves, extending over that portion of the surface of the slate proper covered by the sides of said grooves, upon the solidifying of the cement the frame is firmly fastened to the slate.

In another way of carrying out my improvement, as shown in Figs. 1 and 2, I first put the liquefied, fused, or dissolved cement upon the margin of the slate proper, making the same as nearly as possible of uniform width and thickness, and the width of the cement layer corresponding with the depth of the groove in the frame. After the cement has solidified, the frame is placed in position, and the slate is then heated, which fuses the cement and causes it to adhere to the frame as well as the slate proper, and, when solidified by cooling, to firmly attach the frame to the slate proper.

In Fig. 3 is shown still another way of carrying out my invention. The groove *g* in the frame B is, in this case, made of a width somewhat exceeding the thickness of the margin of the slate proper, in order to avoid the necessity of dressing off the margin *m*. The slate-margin *m* being placed in said groove, liquid cement *c'* is poured into said groove, being guided into and retained in said groove by suitable appliances, till the solidification of the cement is accomplished. In this modification of my invention, plaster-of-paris may be used as a cement.

These examples sufficiently illustrate different ways of carrying out my invention.

I claim—

A framed slate, having its side pieces each independently secured by cement to the margin of the slate, substantially as herein described.

JOHN W. HYATT.

Witnesses:
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