(No Model.)

C. B. & J. M. HAYS.

SLATE.

No. 253,864. Patented Feb. 21, 1882.

Fig. 1

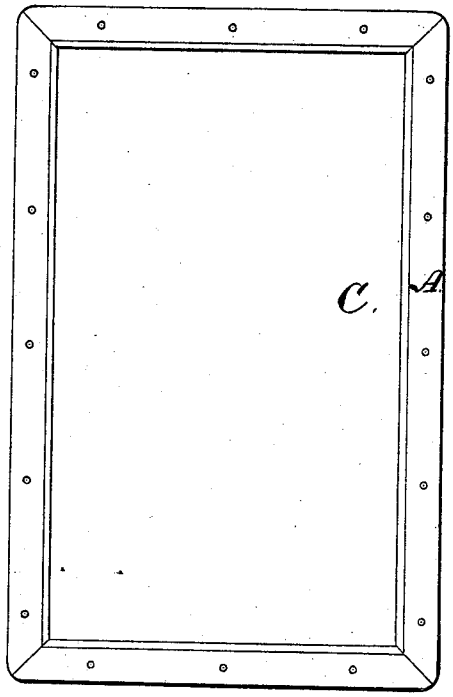
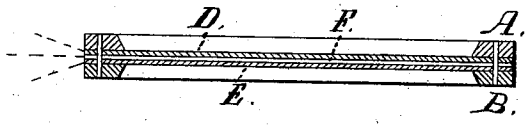


Fig. 2



Attest:

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By Horace Harris Atty

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UNITED STATES PATENT OFFICE.

CHARLES B. HAYS AND JAMES M. HAYS, OF NEWARK, NEW JERSEY.

SLATE.

SPECIFICATION forming part of Letters Patent No. 253,864, dated February 21, 1882.

Application filed September 7, 1880. (No model.)

To all whom it may concern:

Be it known that we, CHARLES B. HAYS and JAMES M. HAYS, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Slates, of which the following is a specification.

This invention relates to the manufacture of slates from celluloid or other pyroxyline materials, such slates being designed for use in schools, or as pocket slates or tablets.

In the accompanying drawings, Figure 1 represents a plan view of a slate. Fig. 2 is a transverse section of the same.

In our manufacture of the slates we usually take plates or sheets of celluloid or pyroxyline material and by cement unite them with a suitable base or interlining, one or both sides of such base being coated with the material according to the use of one or both sides of the slate. The base may be of any material having strength and tenacity, as textile or fibrous fabric, wood, or tin. In some instances the celluloid plate alone may be used where the plate or tablet is small, the base or interlining being required only to give stiffness and strength in slates of large dimensions.

To render the surface of the slate effective in receiving marks, we add to the surface a powder of emery or similar material, as follows: After the slate is prepared there is sifted on the surface, or on the die on which it is to be pressed, the flour of emery or like material. The slate is then heated and the emery rolled or pressed into the surface, which, when dry, has a hard, smooth finish suitable for marking; or the emery may be worked into the plastic mass of celluloid. Marks made on slates thus prepared may be readily rubbed out the same as from common slates or tablets.

For marking with lead-pencils the celluloid surfaces alone will ordinarily be found sufficient to receive a distinct mark, and to provide a slate for use with either a lead or a slate pencil, as desired, a slate is provided with two surfaces of celluloid, one only of which is treated with emery, as above stated, for use with a slate-pencil, the other surface being left plain for use with a lead-pencil.

For slates of large size we prepare a frame to preserve the slate from shrinking or warping. This frame is constructed with double strips A and B, one on each side of the edge of the slate C, as shown in Fig. 2, having two surfaces of celluloid, D and E, and the interlining F. The slate is cemented or glued between the strips, which are also secured by rivets binding the frame and the slate firmly together. The frames, however, may not be required for all kinds of slates.

We do not claim broadly slates manufactured of celluloid or pyroxyline material; but

We claim as follows:

1. Celluloid plates treated with emery-powder or like material, as and for the purposes described.

2. Slates of celluloid treated with emery-powder, as set forth and described.

3. Slates composed one side of celluloid and one of celluloid treated with emery-powder, as set forth and described.

4. Slates composed wholly of celluloid treated with emery-powder, or partly of celluloid and partly of celluloid treated with emery-powder, and re-enforced with a lining, as set forth and described.

CHARLES B. HAYS.
JAMES M. HAYS.

Witnesses:
HORACE HARRIS,
JAMES GRAVES.