## C. J. HIGGINS. Slate.

No. 214,298.

Patented April 15, 1879.

Fig:1.

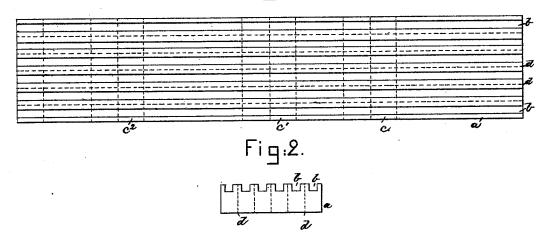


Fig:3.

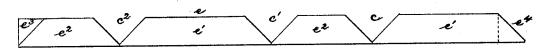
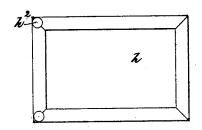


Fig.4.



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## UNITED STATES PATENT OFFICE.

CHARLES J. HIGGINS, OF HALLOWELL, MAINE.

## IMPROVEMENT IN SLATES.

Specification forming part of Letters Patent No. 214,298, dated April 15, 1879; application filed January 10, 1879.

To all whom it may concern:

Be it known that I, CHARLES J. HIGGINS, of Hallowell, county of Kennebec, State of Maine, have invented an Improvement in Slates, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to an improvement in slates, and has special reference to the frame which I have made, as hereinafter de-

scribed. I have also covered the frame with a flexible tubing composed of fibrous material.

My invention consists in a slate-frame, preferably in one piece, longitudinally grooved to receive the edges of the slate, and transversely notched to bend opposite the corners of the slate and form square corners; also, in the hereinafter-described method of covering a slate-frame, which consists in drawing a tubular covering over the frame before it is applied to the slate, and bent to fit the edges of the same.

Figure 1 represents, in top view, a piece of plank or board grooved longitudinally and notched transversely, preparatory to being sawed up into separate frames; Fig. 2, an end elevation thereof; Fig. 3, one of my improved frames in side view; Fig. 4, a section of the same covered, and with a piece of slate set into the longitudinal groove of the frame; and Fig. 5 represents a square-cornered slate provided with my improved one-piece frame.

To make my improved frame, a board or plank, a, is grooved longitudinally, as at b, and notched transversely, as at c  $c^1$   $c^2$ , and then sawed or separated, on the dotted lines d d, between the grooves b, to form separate frames e, as shown in Fig. 3. In said figure the parts  $e^1$  serve as the sides of the slate-frame, and the parts  $e^2$  as the ends of the frame. This frame is, at one end, provided with a tongue,  $e^3$ , to enter a groove at the other end,  $e^4$ , of the frame when the frame is bent into the shape shown in Fig. 5, where the ends are pinned together, as usual.

It will be noticed that I construct the blank preferably of one piece, and notch it so as to form three of the corners; but it is obvious that the frame may be composed of two or more pieces without departing from the spirit of my invention, which consists, essentially, in the method of forming one or more of the

corners of the slate-frame of a piece of wood without separation by notching, as described.

The frame, before being bent, is covered with a seamed or tubular covering, g, and, as herein shown, is a piece of cloth made water-proof by a sizing, say of shellac or other well-known water-proof or water-repellent compound; but instead of cloth the tubular covering may be of enameled or rubber cloth, or felt, or any other suitable material.

When the frame is bent about the slate-body h, as in Fig. 5, the covering at the corner of the body h is placed in the space c  $c^1$   $c^2$  of Fig. 3, and thus held by the abutting ends of the parts  $c^1$   $c^2$ . The corner-pieces  $h^2$ , of cloth or cork, keep the body of the frame up from the desk

I am aware that a continuous one-piece slateframe with round corners is not new, and also that a fibrous covering is old.

I claim-

1. As a new article of manufacture, a slate having a frame constructed of a single continuous piece of wood grooved longitudinally to receive the edges of the slate, and notched transversely to form the square or right-angled corners, and applied to the slate, substantially as described.

2. The herein-described method of covering slate-frames, consisting in first enveloping the entire surface of the frame-blank in a finished tubular covering, and then bending such covered blank into shape to form the frame proper, all substantially as set forth.

3. A slate-frame provided with a tubular covering, the material of which is held at the corners of the slate between the abutting edges of the frame, substantially as described.

4. A slate-frame blank composed of a piece of wood grooved longitudinally to receive the edges of the slate, and notched transversely to form, when bent at right angles, any one or all of the corners of the frame, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES J. HIGGINS.

Witnesses:

G. W. GREGORY, N. E. WHITNEY.