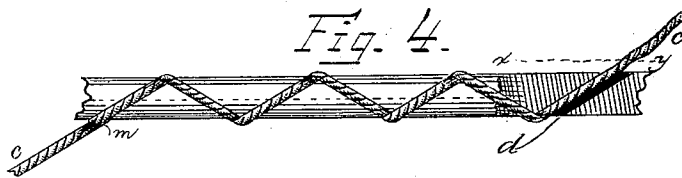
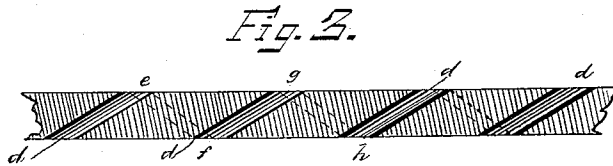
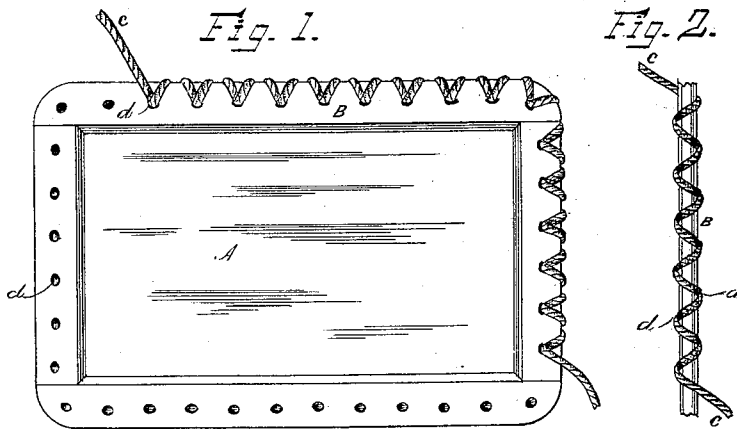


(No Model.)

H. S. SEMMEL.  
SLATE FRAME.

No. 471,902.

Patented Mar. 29, 1892.



WITNESSES  
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His Attorney

# UNITED STATES PATENT OFFICE.

HOWARD SAMUEL SEMMEL, OF SLATINGTON, PENNSYLVANIA, ASSIGNOR OF  
ONE-HALF TO JOHN W. BALLIET, OF SAME PLACE.

## SLATE-FRAME.

SPECIFICATION forming part of Letters Patent No. 471,902, dated March 29, 1892.

Application filed July 6, 1891. Serial No. 398,500. (No model.)

*To all whom it may concern:*

Be it known that I, HOWARD SAMUEL SEMMEL, of the borough of Slatington, county of Lehigh, and State of Pennsylvania, have invented certain new and useful Improvements in Noiseless Slate-Frames, of which the following is a specification.

This invention is an improvement in muffled slate-frames; and it consists in the novel manner and means of attaching the muffling-cord to the frame, as will be clearly understood from the following description.

In the drawings, Figure 1 represents a face view of a slate with the muffling-cord applied to part of the frame thereof. Fig. 2 is a detail edge view of the frame with muffling-cord. Fig. 3 is a sectional view through part of the frame, showing the inclinations of the perforations. Fig. 4 is an enlarged detail edge view, partly in section, of a portion of frame, showing the manner of applying the cord.

Referring to the drawings by letters, A designates a slate, and B the frame thereof, of ordinary appearance and construction; but the frame has a series of diagonal perforations or holes *d d* near its outer edge, which extend through the frame and all incline in one direction along the length of side or end of frame, so that if the perforations were sufficiently close they would "overlap."

C is a muffling-cord of any suitable material, which is threaded through the openings *d* successively in the following manner, preferably: It is first passed upwardly through the left-hand perforation *d* of the series, then turned down over the edge of frame, and a second time passed upwardly through the same perforation *d*, so that the exterior part of the cord on the edge of frame is inclined or diagonal and parallel with the perforation. From the upper end of the perforation it is carried down over the edge of frame to the bottom of the next perforation to the right and passed up therethrough, taken back and repassed thence onto the next opening, and so on around the entire frame. By this manner of winding the cord is applied to the edge of frame in alternately-opposite directions,

forming a continuous zigzag muffling around the entire frame, the parts of cord between points *d e* and *f g* inclining oppositely to the intermediate parts of cord between *e f* and *g h*, as shown in Figs. 3 and 4. In repassing the cord through the perforation it is tightly bound therein, and as the perforations are preferably slightly less in diameter than two thicknesses of cord it is fastened at each perforation, so that should the cord be cut or broken after attachment to frame it is not likely to become loose or useless. When the wrapping is completed, if the frame be laid flat on its side and then compressed vertically the perforations would be closed upon the cord.

By reason of the inclined perforations a single cord wrapped as described forms a zigzag muffling on the edges of frame, and it is less laborious to apply and more readily fastened, and when applied is less liable to ravel out than in the ordinary means and manner of applying muffling-cords through perpendicular perforations, which require two cords to be used or that the single cord shall be carried twice around the frame, thus requiring more time.

I am well aware that slate-frames have been muffled by cords passed through perforations extending at right angles to the frames and by cords caught in grooves, slots, notches, &c., along the edges of frames. Such I do not desire to use, and disclaim herein, claiming, however, as my invention—

A slate-frame having a series of diagonal perforations near its outer edge and provided with a single muffling-cord passed through each perforation over edge of frame, back through the same perforation, and then over the edge of frame to the next perforation, substantially as specified.

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

HOWARD SAMUEL SEMMEL.

Witnesses:

S. J. SCHAFFER,  
W. M. SELL.