April 21, 1925. 1,534,142

C. A. ROLFE

KEYED INSULATING BOARD

Filed Aug. 17, 1921

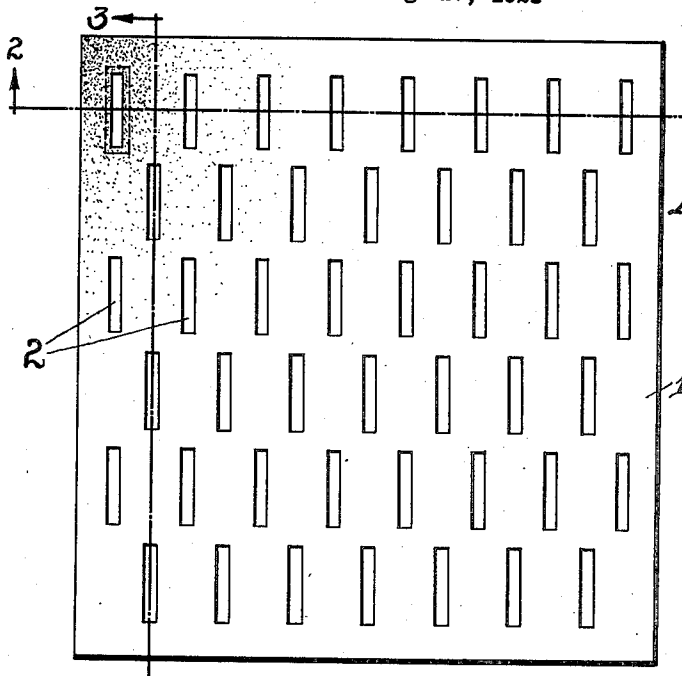


FIG. 1



FIG. 2

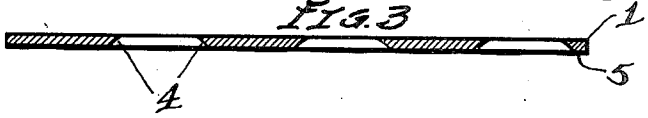


FIG. 3

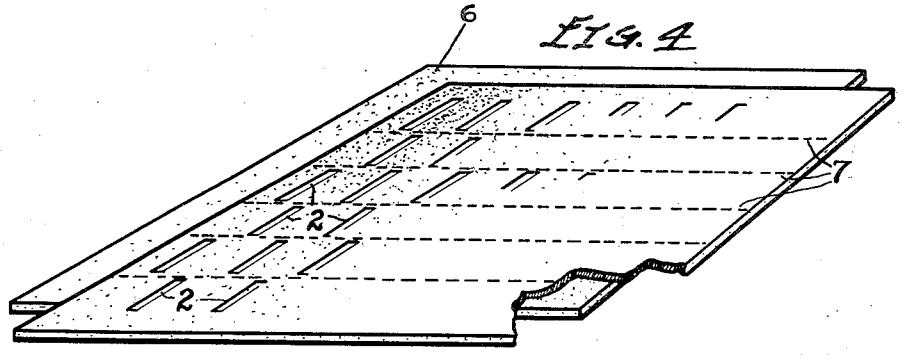


FIG. 4

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UNITED STATES PATENT OFFICE.

CHARLES A. ROLFE, OF ST. PAUL, MINNESOTA.

KEYED INSULATING BOARD.

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To all whom it may concern:

Be it known that I, CHARLES A. ROLFE, a citizen of the United States, and a resident of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Keyed Insulating Boards, of which the following is a specification.

One object of my invention is to provide in an insulating board an improved form of key for locking plaster thereto.

Another object is to provide a face and back in a keyed insulating board wherein the face, which has the keys therein, will be of a firmer texture and hence of greater strength than the back, which will be of a looser texture and having higher insulating qualities than the front.

Another object is to provide improved means for fastening the face and back together.

In the drawing Fig. 1 is a side elevation of the face portion of a board embodying my invention; Fig. 2 is a section taken on the line 2—2, Fig. 1; Fig. 3 is a section taken on the line 3—3, Fig. 1 and Fig. 4 is a perspective view of the complete board.

The face 1, Figs. 1, 2 and 3 is made of compressed pulp and is preferably of a quite hard nature, its density being comparatively high so it will have a high breaking strength.

Keys 2 are formed therein preferably by a gang milling cutter operated on the back face of the board.

The cutter is of such shape as to form a a dovetail slot as clearly shown at 3, Fig. 2, and as the cutter is fed down into the board from the back the ends of the cutter are formed as at 4, Fig. 3 so the lock formed for the plaster by this cutter is substantially bevelled on all four sides.

The bank face 5 of this board may be coated with a mastic compound so it will firmly adhere to the back board 6, Fig. 4.

This back board is preferably of a looser texture than the face board and hence will have a higher insulating quality; one face of this board may also be coated with a mastic compound so the two may be joined together by means of the mastic coating on the two boards as shown in Fig. 4.

The face board may be superimposed on the back board as shown in Fig. 4 so that when a number of such boards are mounted on studding the joints may be broken on the studding and also on the top and bottom of the boards.

In addition to the union effected by the mastic coating the two boards may be stitched together by wire staples or any suitable form of stitching as indicated at 7, Fig. 4.

While the board may be made of any suitable area and thickness, I prefer to make it four foot square, which will take four studdings set on sixteen inch centers and have the rows of stitching sixteen inches apart so as to be intermediate of the studding.

Such a board when properly placed on the studding makes it stiffer than a sheath because the face of the board is strong and rigid, yet it provides a practically perfect insulation as the back may be of a material having very high insulating qualities.

By staggering the keys as shown in Fig. 1 the strength of the board is not impaired as it would be if the keys ran longitudinally straight across the face of the board, yet the hold on the plaster is stronger than such a construction would give and furthermore because the face board is hard and has a firm surface the suction on the plaster is much greater than would be the case where the plaster is put directly on a board having high insulating qualities.

In manufacturing the face board can be made in various thicknesses and the back board can also be made in various thicknesses so that by joining the various thicknesses of face board with various thicknesses of back board any desired combination of strength and insulating qualities may be obtained.

While I have described my invention and illustrated it in one particular design, I do not wish it understood that I limit myself to this construction, as it is evident that the application of the invention may be varied in many ways within the scope of the following claims.

Claims:

1. In an insulating board the combination

of a face board of firm texture and considerable thickness having a definite mechanical strength and a backboard of loose texture and considerable thickness joined thereto having lesser strength but having high insulating properties, the two boards forming the completed composite board being of comparatively equal thickness.

2. In a keyed insulating board the combination of a face board of a firm texture of considerable thickness having plaster keying means and a back board of considerable thickness formed with loose texture and of high insulating qualities joined thereto, said boards being of comparatively the same thickness.

CHARLES A. ROLFE.