Dec. 28, 1965 R. T. CURTIS 3,226,284

WALL BOARD HAVING COMPRESSIBLE EDGE STRUCTURE

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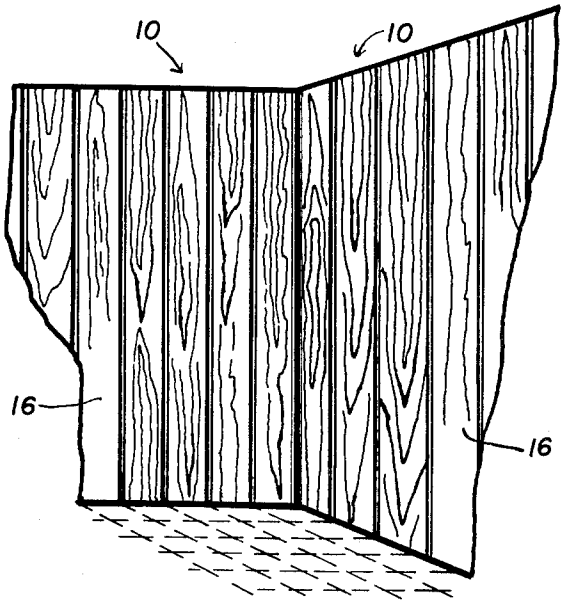


FIG. 1

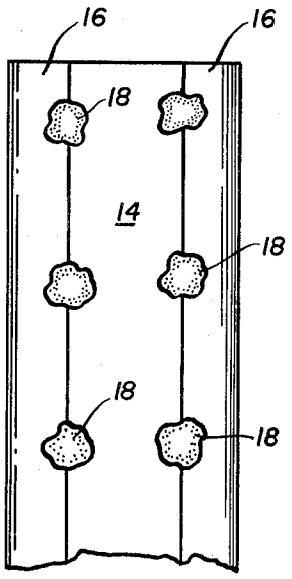


FIG. 3

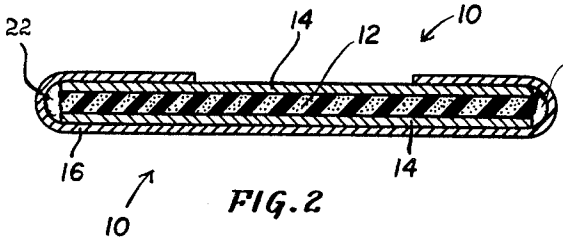


FIG. 2

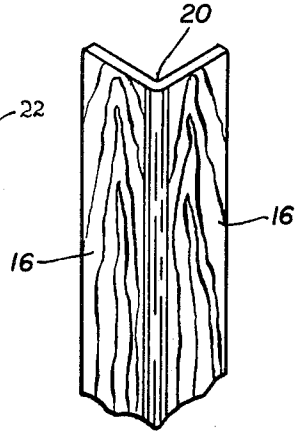


FIG. 4

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WALL BOARD HAVING COMPRESSIBLE EDGE STRUCTURE

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2 Claims. (Cl. 161—44)

This invention relates to a compressible wall board product and a method of fabricating the same. More particularly, the invention is directed to a product constituted of a rigid or semi-rigid material in which one or both faces and edges thereof are covered with a flexible sheet material of veneer, vinyl, paper or the like.

It is an object of the present invention to provide a construction material, such as, wall board, which may be applied to new construction or existing walls in which the wall boards may be installed preferably by means of a mastic-type adhesive.

It is a further object of the present invention to provide wall boards which may be installed in abutting, contiguous relationship without the necessity for using jointing material or tape to correct imperfections in the fit. The present wall board, when installed, gives the appearance of planked walls or a patterned surface, and achieves a desirable decorative effect.

It is another object of the present invention to provide a wall board with internal core material which has a high K factor, thereby performing the function of an insulator and wind barrier.

A still further object of the present invention is the provision of wall board construction in which outside and inside corners may be made without the need for molding.

Another object of the present invention is to provide a flexible sheet material facing for the wall board which is washable and readily cleaned.

Another object of the present invention is to provide a novel method of manufacturing the wall board which is fabricated simply and inexpensively.

It is a further object of the present invention to provide a method and product which is reliably effective for the purposes intended.

The above and other features, objects and advantages of the present invention will be fully understood from the following description considered in connection with the accompanying illustrative drawings.

FIG. 1 is a fragmentary perspective view of a series of compressible wall boards constructed in accordance with the teachings of the present invention and installed in abutting relationship on a wall.

FIG. 2 is a cross-section view of the wall board.

FIG. 3 is a fragmentary rear view of a wall board showing the applied adhesive and,

FIG. 4 is a fragmentary perspective view of a wall board bent to fit around an outside corner of a room.

Referring more particularly to the drawing, a wall board referred to generally by the numeral **10** is constituted of an insulating, compressible core material **12**, such as a polystyrene, with a cardboard or heavy paper panel **14** covering one or both sides of the core material **12**. The front face of the cardboard **14** is further covered by a flexible sheet material **16** such as a veneer, vinyl resin, paper, etc. The flexible sheet material **16** extends around the edges of the core material **12** forming tubular-shaped hollow pockets **22** at each edge of the wall board **10**. The flexible sheet material may cover part or all of the rear side of the wall board **10**.

FIG. 3 illustrates the rear side of the wall board **10** in which small mounds of mastic adhesive **18** are placed at random in spaced relationship on the wall board. It

should be noted that it is not necessary to cover the entire rear surface of the wall board with adhesive if one wishes to cement the wall board to a wall but that relatively small amounts of adhesive spatially located will suffice. Subsequently, when the wall board is pressed against the wall the adhesive mounds **18** flatten out and are self levelling thereby enabling the wall board to be installed flush with an existing wall. Alternatively, the wall board may be nailed or screwed to a wall or studs.

It is also important to note that the wall board has precise, hollow, round, and resilient edges thus enabling the contiguous, resilient edges of abutting wall boards to be firmly engaged with a slight amount of pressure and eliminating interstices between the wall boards, thus doing away with the need for jointing, interlocking or taping the spaces present between the wall boards. Resilient hollow edges accommodate expansion and contraction of planks or surfaces to which they are adhered.

FIGURE 4 discloses a wall board arrangement for an outside corner of a room. The rear panel of cardboard **14** is grooved at **20** to permit the wall board **10** to be bent longitudinally into two sections at approximately 90° to each other. Adhesive may be applied to the rear of this corner wall board and the latter may be pressed on an outside corner of a room without the need for a covering molding strip. It is also within the scope of the present invention to groove or slit the wall board in such a manner that an inside corner of a room may be covered by a bent wall board.

The process of manufacturing wall boards constructed in accordance with the above description is as follows: An insulating flat core material, having a high K factor and being compressible, is covered with cardboard or heavy paper panels on both sides thereof. A thin flexible sheet material such as vinyl covered hardwood veneer is coated with a contact type adhesive and placed on the core material. The assembly is then passed through bonding rollers and compressing rollers. Thereafter, the free edges of the flexible sheet material ar recoated with the contact type adhesive. A folding machine then rolls the free edges of the flexible sheet material about the side edges of the core material to give precise side edges to the product. Finally, the sheet material is contacted with adhesive again on the back of the wall board.

It should be apparent that the present compressible wall board permits the installation of the same by unskilled persons since no cutting, shaping or fitting is required. Therefore, covering of a wall with the present wall board may be accomplished rapidly and with the aid of few tools. The resultant wall has the pleasing appearance of a continuous covering and may have the design effect or a wood paneling effect.

While I have shown and described the preferred embodiment of my invention, it will be understood that the latter may be embodied otherwise than as herein specifically illustrated or described and that in the illustrated embodiment certain changes in the details of construction and in the arrangement of parts may be made without departing from the underlying idea or principle of the invention within the scope of the appended claims.

What I claim is:

1. A wall board comprising a substantially flat core which has elongated substantially straight edges and includes core material which is at least semi-rigid, flexible sheet facing material covering at least one of the sides of said core and extending laterally beyond said edges and around said edges to the other side of said core and enclosing said edges and leaving sufficient free space between the edges of said core and the flexible sheet material extending therearound to promote compressibility of said

flexible sheet material enclosing said edges in directions transverse to the directions of elongation of said edges, and adhesive means securing said flexible sheet material with said one of said sides and securing to the other of said sides the portions of said flexible sheet material which extend around said core edges to said other side of said core.

2. A wall board comprising a substantially flat insulating core which has elongated substantially straight edges and includes a compressible core material having a heavy paper cover on both sides of said core material, a flexible facing including thin vinyl resin sheet material covering at least one of the heavy paper covers on one side of said core and extending laterally beyond said edges of said core and around said edges to the other side of said core and enclosing said edges and leaving sufficient space between the edges of said core and the sheet material extending therearound to promote compressibility of said flexible facing enclosing said edges in directions transverse to the directions of elongation of said edges, and adhesive means securing said flexible facing with said one of said paper covers and securing to the other of said paper covers the

portions of said facing which extend around said core edges to said other side of said core.

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