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T. A. SNAPP

3,511,009

COMPOSITE WALL PANELING

Filed Jan. 26, 1968

2 Sheets-Sheet 2

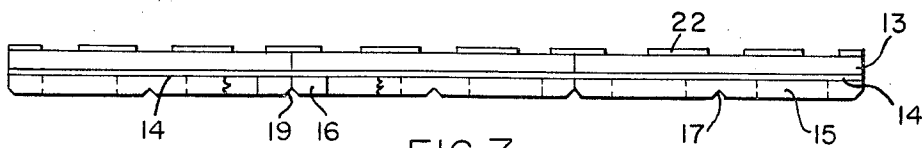


FIG. 7.

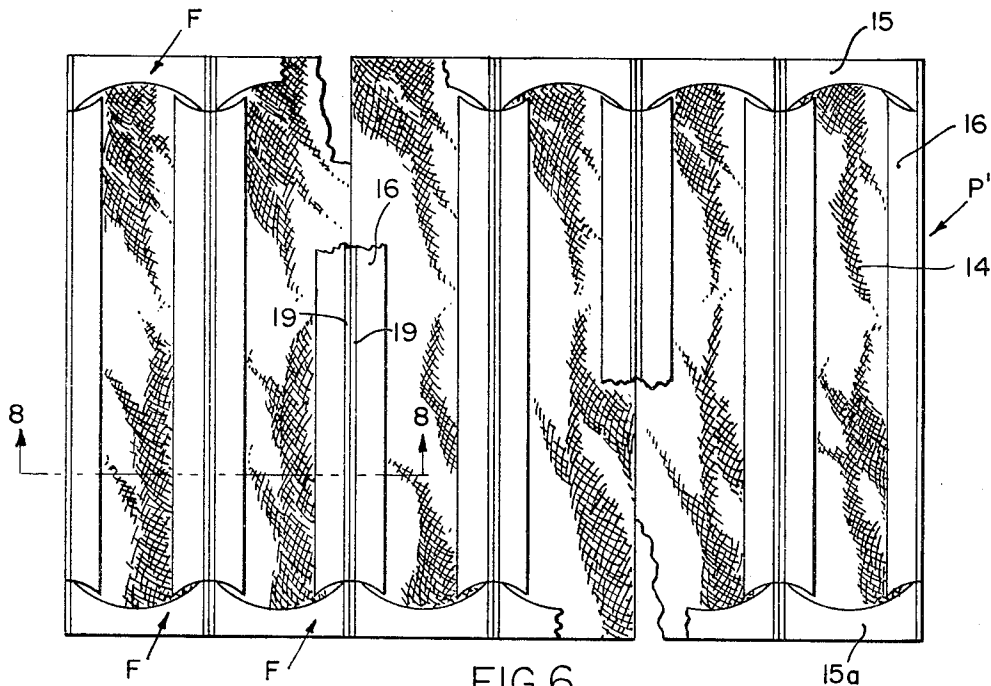


FIG. 6.

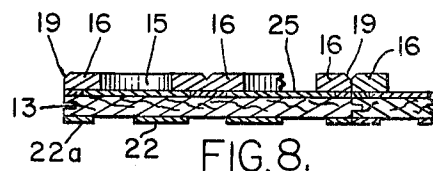


FIG. 8.

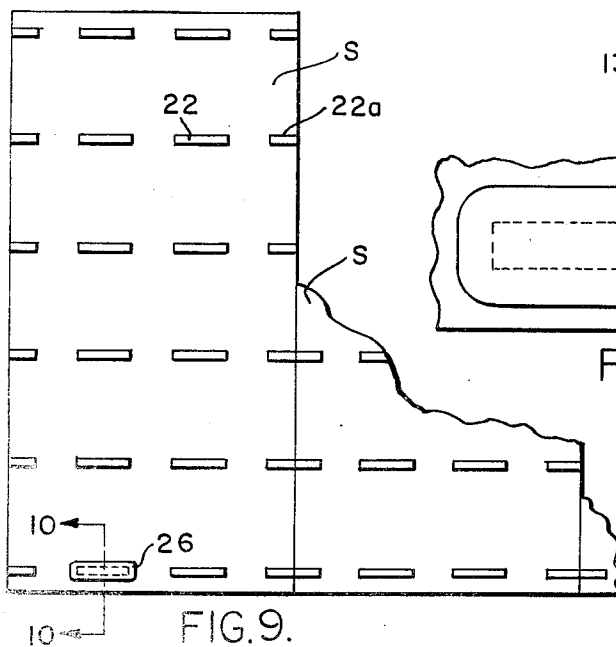


FIG. 9.

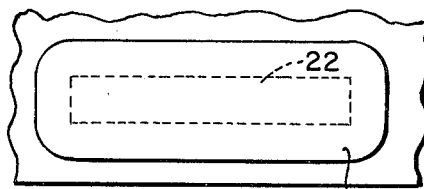


FIG. 11.

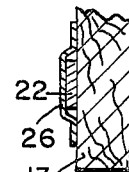


FIG. 10.

INVENTOR.
THOMAS A. SNAPP

BY

Learman, Learman & McCulloch

1

3,511,009

COMPOSITE WALL PANELING

Thomas A. Snapp, 2005 Huron Parkway, Apt. 3,
Ann Arbor, Mich. 48104

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U.S. Cl. 52—311

10 Claims

ABSTRACT OF THE DISCLOSURE

An interior side wall wherein a rigid backboard wall surface extends between a floor and ceiling, decorative background fabric or like material is fixed over the backboard wall surface, and a plurality of side-by-side panel frames extend substantially between the floor and ceiling and comprise decorative, rigid, open frames with top, bottom and side edge portions, bordering essentially vertical strips of the background material, and which are of such thickness that the background material is substantially recessed behind each frame and a three-dimensional effect is achieved.

Wood veneer paneling has become commercially popular as a side wall surface in homes and commercial buildings but has, from an interior designer's or architect's point of view, certain important limitations. While such wood paneling presents an attractive appearance and can be mass produced in a manner to place it price-wise within the budget of the average consumer, it presents essentially a two-dimensional surface and its use is limited in a design sense because the range of possible colors, configurations and textures is limited. Thus, in conventionally wood paneled rooms the designer normally achieves the desired ornate balance by utilizing accessories in the room which have configuration, color and texture to complement the relative austerity and monotony of the wall surface.

A primary object of the present invention is to provide a composite, rigid wall paneling utilizing a fabric or like material which may be rich in color and texture as background for a plurality of side-by-side panel frames which may be fashioned of ornately configured wood strips. Such a panel provides an essentially three-dimensional surface quality of great beauty which may be produced in an almost infinite variety of styles and designs to achieve the visual effect and symmetry desired.

A further object of the invention is to provide a rigid, composite wall panel of the character described which is well-suited to volume production in a variety of designs and which will provide a custom quality appearance.

Another object of the invention is to provide paneling of the character described which may be prefabricated in a relatively economical, reliable manner and then installed easily by relatively unskilled workmen in a manner such that seams, nail holes, fastening members and the like are not discernible.

Another object of the invention is to provide a composite, rigid wall paneling which may be installed by simply pressing sections into place against a wall surface, contact cement being provided on the paneling in predetermined locations to line up with conventionally spaced wall studding so that the installation is simple and can be effected more rapidly than an installation using paneling which must be nailed.

Still another object of the invention is to provide a composite, rigid wall paneling of the type described which is well suited to the accommodation of acoustical devices such as concealed speakers and in which the background material and backboard may be constructed of sound-absorbent material.

2

Other objectives and advantages of the invention will be pointed out specifically or will become apparent from the following description when it is considered in conjunction with the accompanying drawings, in which:

FIG. 1 is a fragmentary, front elevational view of a wall incorporating the composite wall paneling of the invention;

FIG. 2 is a fragmentary, top plan view of the paneling only;

FIG. 3 is a transverse sectional view taken on the line 3—3 of FIG. 1 and illustrating one embodiment of the invention;

FIG. 4 is a similar view illustrating an alternate form of construction;

FIG. 5 is a fragmentary, perspective view of a continuous top frame strip which may be employed;

FIG. 6 is a front elevational view similar to FIG. 1 and illustrating a modified wall paneling construction;

FIG. 7 is a top plan view thereof;

FIG. 8 is a transverse, sectional view taken on the line 8—8 of FIG. 6;

FIG. 9 is a fragmentary, rear elevational view of the wall paneling construction illustrated in FIG. 6;

FIG. 10 is an enlarged, vertical sectional view taken on the line 10—10 of FIG. 9 through a protected contact cement pad; and

FIG. 11 is an enlarged, rear elevational view of the covered contact cement pad illustrated in FIG. 10.

Referring now more particularly to the accompanying drawings, and in the first instance to FIGS. 1—3 and 5, wherein a first embodiment of the invention is illustrated, a letter P generally indicates my composite wall paneling which is shown secured in position between a ceiling 10 and floor 11 in a manner to provide a rigid, load supporting wall of considerable beauty. The paneling P is a composite, rigid structure, which includes a backboard 13, preferably constructed of hardboard or plywood and typically may be about one quarter of an inch in thickness. The backboard 13 extends from floor to ceiling over the entire wall surface to be covered and is shown as covered with a special decorative background material such as fabric or cane 14 which may be stapled, glued, or otherwise secured to the backboard 13.

Framing members are then applied over the background material 14 in a manner to provide a plurality of side-by-side open panels or frames generally designated F as illustrated particularly in FIGURE 1. As FIGURE 1 indicates, each frame section F includes top and bottom strip portions 15 and 15a, respectively, and side strip portions 16. As FIG. 5 particularly indicates, the top strip sections 15 of each frame section F are formed by a continuous member having vertically extending V-grooves 17 and it is to be understood that the bottom strip sections 15a may be formed by a similar continuous member extending the length of the wall section, which also is provided with vertically extending V-grooves 17. For the sake of symmetry the edges of the strips 15 and 15a are preferably beveled as at 18 (see FIG. 1), and the endmost side frame strip sections 16 are similarly beveled as at 19.

In the case of side strips 16 which are disposed inter-jacent the ends of the wall paneling P, a single, vertical strip intermediately grooved as at 20 may be provided which forms a side strip section for each of a pair of abutting frames F. Screws 21 or any other suitable fastening devices may be provided in a manner to secure the preferably wood frame strips 15, 15a and 16 to backboard 13. Provided on the rear face of the backboard 13 in predetermined locations are adhesive strips of contact cement 22, which will later be described in more detail and which may be employed to secure the composite paneling to the usual wall studs 23 which extend between

plates on the ceiling and floor of a building to provide the necessary side wall framework.

The frame sections 15, 15a and 16 are preferably formed of wood to provide the rich appearance which can be achieved with wood, but it would be quite feasible to form them also of wood veneer, plastic or metal. It is necessary that the strips 15, 15a and 16 be of sufficient thickness so that a three-dimensional effect is provided with these overlaying pieces. The aligned groovings 17 and 20 which are provided not only enhance the appearance of the composite wall structure, but more importantly aid in correctly positioning the strips 15 and 15a with respect to the strip 16. The entire wall paneling P, shown in FIG. 1-3 and 5, is fabricated for pre-assembly at the site, and installation as a one-piece unit by simply pressing contact cement pads 22 and half pads 22a into engagement with the studding 23.

In FIG. 4 I have illustrated a slightly modified form of the invention in which like parts have been given the same numerals. This embodiment of the invention differs from the embodiment just described only in that the backboard fabric 14 is provided in longitudinally spaced apart vertical strips and a suitable contact adhesive or the like 24 is provided between the fabric strips 14 for securing the strips 16 directly to the backboard 13.

In FIGS. 6-11 I have shown another slightly modified form of the invention in which the wall paneling generally designated P' is made up of a plurality of panel sections generally designated S. As shown, each panel section S includes a pair of frame sections F with the composite wall otherwise constructed as previously described and accordingly identical numerals have been employed to identify the identical parts. Because the beveled edges 19 of abutting panel sections S are identical in appearance to the grooves 20, it is apparent that the wall P' has the same appearance as the wall P. The separate panel sections S, as FIG. 8 indicates, preferably have a tongue and groove interlock 25, and may be prefabricated at the factory so that no assembly is necessary at the site.

As FIG. 9 particularly indicates, the contact adhesive pads or strips 22, which may comprise any commercial contact adhesive such as the various epoxy types, are normally covered by a tacky, plastic tape protective strip 26, which is stripped off just before the panel is to be applied to the wall studding 23. The plastic film strip 26, which is of the type having a tacky adhesive surface on one side so that it will stick to the backboard 13, serves to seal the adhesive strip 22 or 22a in an enclosed space and prevents it from drying out. When the strips 22 and 22a are pressed against the studs 23 and exposed to air at room temperatures, they set and are no longer adhesive in character. The intermediate tape strips 22 shown in FIG. 9 are eight inches in length and disposed on sixteen inch centers to line up with the normal studding encountered in building constructions. At the edges of section S the half strips 22a are four inches in length, and at the abutting edges of a pair of sections S the half-strips 22a tend to flow together when pressure is applied, thus adding to the structural rigidity of the wall paneling P' when they set.

It should be apparent that the composite wood paneling which has been described will provide a new tool for the architect and interior decorator and will find wide usage not only in private homes but also in various commercial buildings, restaurants, hospitals, professional offices and apartments. The wall paneling units which are used may extend across the width of an entire room on one or more walls or may, of course, optionally extend the width of only several panels S. Because various decorator fabrics in various colors may be used, a panel is provided which has texture and achieves a startlingly attractive three-dimensional effect.

It is to be understood that the drawings and descriptive matter are in all cases to be interpreted as merely illustrative of the principles of the invention rather than

as limiting the same in any way, since it is contemplated that various changes may be made in the various elements to achieve like results without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. In an interior load bearing side wall construction: backboard structure extending between a floor and ceiling; nonload supporting, decorative background fabric or like material on said structure; and a plurality of side-by-side, decorative, rigid frame sections having top, bottom, and side portions bordering strips of the background material and being of such thickness that said background strips are recessed sufficiently behind said frame sections to achieve a three dimensional effect; said background material comprising a separate sheet for each frame section secured to the undersurface of each of the top, bottom, and side frame portions; said sheets being spaced apart and adhesive being employed between the sheets to secure the side portions of the frame sections to the backboard structure.

2. In an interior load bearing side wall construction: backboard structure extending between a floor and ceiling; non-load supporting, decorative background fabric or like material on said structure; and a plurality of side-by-side, decorative, rigid frame sections having top, bottom, and side portions bordering strips of the background material and being of such thickness that said background strips are recessed sufficiently behind said frame sections to achieve a three dimensional effect; and strips of contact adhesive provided on said backboard structure in predetermined locations to secure said backboard structure to wall studding.

3. The combination defined in claim 2 in which said adhesive strips are protected by a plastic cover until the paneling construction is pressed into position against the wall studding.

4. The combination defined in claim 2 in which said paneling is made up of abutting panel sections and half strips of adhesive are provided at the edges which flow together and unite to rigidify the structure when abutting sections are pressed into assembled position on the studding.

5. In an interior, side wall construction: rigid backboard structure extending between a floor and ceiling; non-load supporting, decorative exposed background fabric or like material on said structure; and a plurality of side-by-side, decorative, rigid frame sections having top, bottom, and side portions, the top and bottom portions extending along the top and bottom edges of the backboard structure and forming bordering strips for the background material extending substantially from one end of the backboard structure to the other, the strips being of such thickness that said background strips are recessed sufficiently behind said frame sections to achieve a three dimensional effect; and fastening means extending from said backboard structure into said frame sections to secure the frame sections to said backboard structure.

6. In an interior, side wall construction: spaced apart vertical studding structure extending substantially between a floor and ceiling; rigid backboard structure also extending substantially between the floor and ceiling; means extending between said backboard structure and studding structure to secure the backboard structure thereto; non-load supporting, decorative exposed background fabric or like material on said backboard structure; and a plurality of side-by-side, decorative, rigid frame sections having top, bottom, and side portions, the top and bottom portions extending continuously along the top and bottom edges of the backboard structure and forming bordering strips for the background material extending substantially from one end of the backboard structure to the other, the strips being of such thickness that said background strips are recessed sufficiently behind said frame sections to achieve a three dimensional effect; and securing means extending between said backboard

5

structure and frame sections to secure the top, bottom and side portions of said rigid frame sections to said back-board structure.

7. The combination defined in claim 6 in which the frame sections are provided on side-by-side panels.

8. The combination defined in claim 7 in which tongue and groove structure interlocks the side-by-side panels.

9. The combination defined in claim 6 in which said side portions of adjacent frame sections comprise common strips and extend to said top and bottom portions of the frame sections.

10. A method of constructing an interior wall covering extending substantially from floor to ceiling to provide a rigid load bearing three-dimensional wall surface comprising: securing the rear face of each of a plurality of side-by-side contiguous, ornately configured, rectilinear wood frames disposed over flexible textured background sheeting to backboard structure; and attaching the back-

6

board structure in vertical position between the ceiling and floor.

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JOHN E. MURTAGH, Primary Examiner

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