

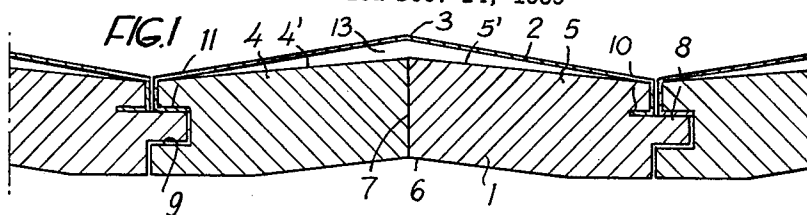
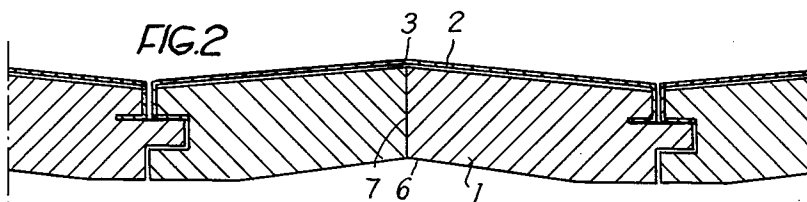
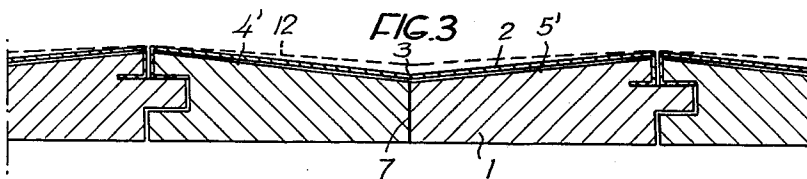
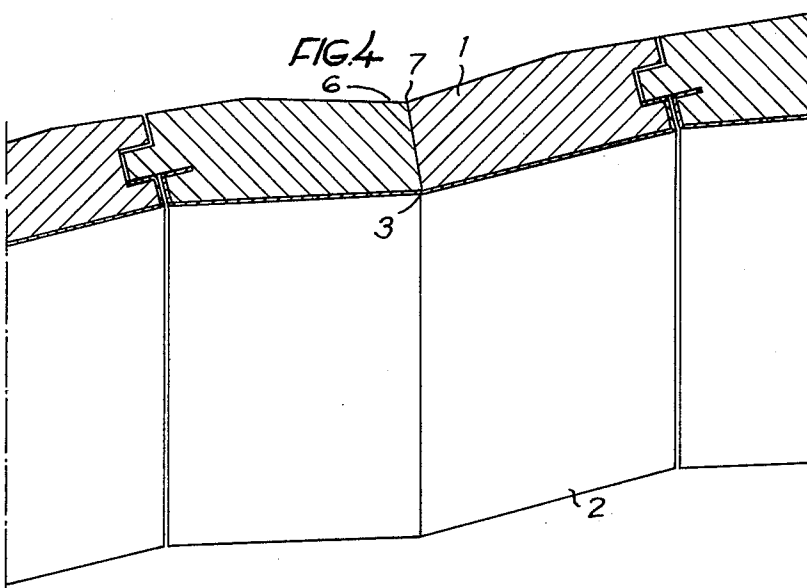
May 5, 1964

S. H. PERSSON-MELIN

3,131,442

BOARD FOR PANELS AND SIMILAR COVERING MATERIAL

Filed Dec. 14, 1959



INVENTOR.
SIGNE HARRIET
BY PERSSON-MELIN
Irvin S. Thompson
ATTY.

1

2

3,131,442 BOARD FOR PANELS AND SIMILAR COVERING MATERIAL

Signe Harriet Persson-Melin, Sanekullavagen 16,
Malmo V, Sweden

Filed Dec. 14, 1959, Ser. No. 859,251

Claims priority, application Sweden June 4, 1959
2 Claims. (Cl. 20—91)

The present invention relates to boards for panels and similar covering material particularly for roofs and walls for buildings.

The main object of the invention is to provide a weather-proof board of the type referred to which can be manufactured from relatively cheap material and yet may have a considerable strength.

The board comprises a wooden base of substantially rectangular configuration and a covering of sheet material such as metal or artificial resin mounted on one side of the base, and it is a particular object of the invention to give such a form to the base and the covering that no disadvantages arise as to the strength of the board in spite of the different changes of dimensions of the wooden base and the covering sheet material which take place as a consequence of changes of the moisture in the atmosphere. The wood shrinks and swells to a relatively great extent as a result of moisture changes whereas such sheet material as metal and artificial resin or other plastics is substantially insusceptible of such changes.

With the mentioned objects in view the wooden base of the board has longitudinal grooves in the longitudinal edges thereof and has one side formed as a plurality of planes intersecting each other along a line parallel with the longitudinal edges of the base, and the covering sheet material applied to said side of the base has its edges formed to engage the longitudinal grooves in the longitudinal edges of the base. If a panel composed of such covered boards is subjected to drying, the covering will be pressed outwardly from the base or inwardly toward the same, wherein no alteration of the shape takes place other than that the angle at the line along which the covering is broken is changed so as to become more acute. The edges of the covering are then taken to be securely united with the lateral edges of the base, so that no displacement can occur here. If the wooden base swells again, said angle becomes more obtuse, that is to say, the covering is smoothed out more or less.

The base may take the configuration of the ridge of a roof or be fluted in a corresponding way, and the covering is formed in a similar manner, it being then attended so that a requisite play should be provided between the covered side of the base and the covering itself, when the base is dry, in order to permit swelling of the base, without the covering material being subjected to tensile strains.

A base of the construction set forth may be made from two longitudinally extending members united along a longitudinally extending middle line, so that they form an angle with one another. This formation involves stiffening of the board, permitting the same to be made from a thinner material than otherwise.

The uncovered side of the board may also be formed along two angularly set planes, whereby it will be possible to pile a number of panels on top of each other with the least possible requirement of space, whereby the packing and conveying facilities of the panels are improved.

A few examples of applying the invention are illustrated in the drawings. FIGS. 1 and 2 show a cross section through a panel made in accordance with the invention in a dry and moist condition, respectively.

FIG. 3 shows a modified construction, likewise in section. FIG. 4 is a perspective view of a portion of the panel the cross section of which is to be found in FIG. 2.

In the drawings, 1 designates a wooden base comprised in a wooden panel, and 2 denotes a covering of sheet metal, plastic or the like. The base of the board may be made integral, or it may be composed of two narrower boards 4, 5, glued or otherwise united along a longitudinally extending middle edge 7. The covered side of the base is formed along two planes 4', 5', which form an angle with each other. In FIG. 1, the covered side has a shape similar to that of the ridge of a roof.

The longitudinally extending edges of the base are provided with a tongue and a groove, 8 and 9, respectively. The covering sheet 2 is folded with its edges 10 and 11 into a groove at the tongue 8 and into the groove 9, respectively. It is bent along a longitudinally extending line 3, preferably at the middle thereof, so as to take a shape similar to that of the ridge of a roof. When the wooden base is dry, there is a play 13 between the base and the covering, as shown in FIG. 1. If the base absorbs moisture, the covering is stretched and is caused to bear on the base, as shown in FIG. 2. The angle between the portions of the covering located on both sides of the longitudinally extending line 3 will in other words become more obtuse. When the base dries anew, the middle portion of the base will be pressed upwardly. It is then assumed that these edges are rigidly united with the edges of the base.

The uncovered side of the board may be provided with a depression or groove 6, the plane sides of which form an obtuse angle with one another. Hereby the requirement of space is reduced, if a plurality of panels are piled on top of each other in a suitable manner.

In the construction according to FIG. 3, the covered side of the wooden base 1 is formed as before as two planes 4', 5' forming an obtuse angle with each other, it is true, but here it is fluted instead of taking a shape similar to that of the ridge of a roof. The covering 2 is folded inwardly along the line 3 in a corresponding manner. In a dry state, the covering bears on the surfaces 4', 5', as shown in FIG. 3, but if the wooden material swells, the covering will be stretched, for instance along the dotted line 12, so that the angle at the breaking line 3 becomes more obtuse.

A panel may be composed of an arbitrary number of boards of the construction described. The drawing shows a whole middle board and portions of two boards located at both sides thereof and united with the middle board by means of a tongue and a groove.

What I claim is:

1. A building board comprising a substantially rectangular foundation board member having upper, lower and side surfaces, each side surface having a groove disposed therein extending toward the center portion of said board member and being substantially parallel to the upper and lower surfaces, said upper surface being formed by two surfaces intersecting each other at an angle along a line parallel with the side surfaces, and a covering material of substantially rigid material being applied to said upper surface, said covering material having longitudinal edges thereof disposed within the groove of said side surfaces, the covering material being bent along another line contained in a plane extending through said first-mentioned line and which is parallel with said side surfaces to form two surfaces intersecting along said other line in the same manner as the two surfaces of said upper surface, said other line being spaced away from said first line so that a space is provided between the upper surface and the inner

surface of said covering material whereby when the board member expands or contracts the space between the lines changes.

2. A building board according to claim 1 wherein said lower surface is formed by at least two surfaces forming an obtuse angle with each other and intersecting one another along a further line disposed in said plane.

References Cited in the file of this patent

UNITED STATES PATENTS

192,400	Worthen	June 26, 1877	
271,776	Blanchard	Feb. 6, 1883	
514,233	Kubach	Feb. 6, 1894	
665,642	Link	Jan. 8, 1901	15
722,817	Grees	Mar. 17, 1903	

5

10

15

870,721
965,595
1,363,413
2,091,012
2,181,074
2,270,218
2,426,943
2,592,482
2,797,448
2,797,449
2,856,647
2,961,804
3,000,093

154,017

Garrett ----- Nov. 12, 1907
Nicholson ----- July 26, 1910
Hester ----- Dec. 28, 1920
Pratt ----- Aug. 24, 1937
Scott ----- Nov. 21, 1939
Palmer ----- Jan. 13, 1942
Morden ----- Sept. 2, 1947
Sperry ----- Apr. 8, 1952
Revell ----- July 2, 1957
Revell ----- July 2, 1957
Beckman ----- Oct. 21, 1958
Beckman ----- Nov. 29, 1960
Wredenfors ----- Sept. 19, 1961

FOREIGN PATENTS

Great Britain ----- Nov. 25, 1920