

July 31, 1951

J. B. EEN

2,562,779

MOUNTING OF CONSTRUCTION BOARDS

Filed Sept. 8, 1947

2 Sheets-Sheet 1

Fig. 1.

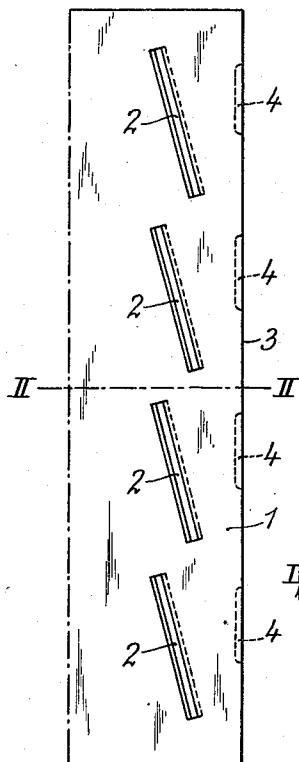


Fig. 3.

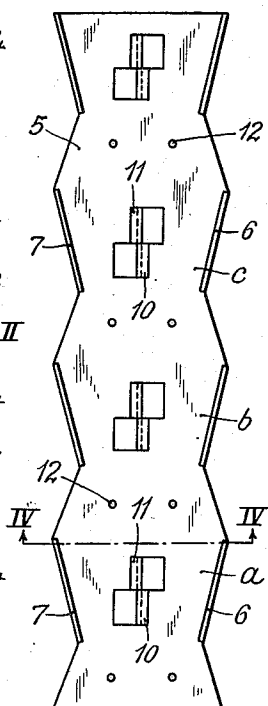


Fig. 5.

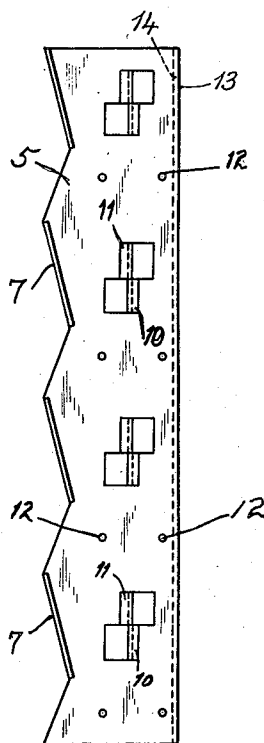


Fig. 2.

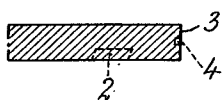
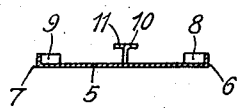


Fig. 4.



Inventor:

J. B. Een

By *E. J. Wenderoth*

Attorney

July 31, 1951

J. B. EEN

2,562,779

MOUNTING OF CONSTRUCTION BOARDS

Filed Sept. 8, 1947

2 Sheets-Sheet 2

Fig. 6.

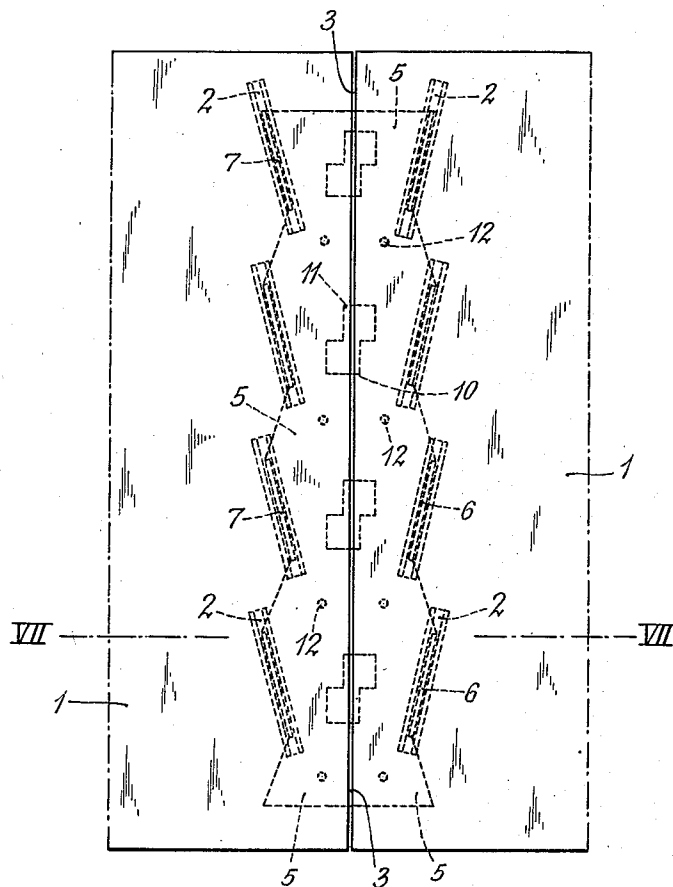
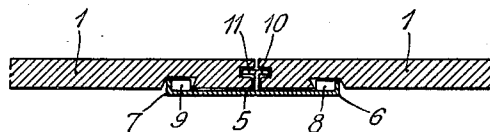


Fig. 7.



Inventor

J. B. Een

By *Q. J. W. Underhill*

Attorney

UNITED STATES PATENT OFFICE

2,562,779

MOUNTING OF CONSTRUCTION BOARDS

Johannes Brynjulvsen Een, Oslo, Norway

Application September 8, 1947, Serial No. 772,850
In Sweden August 22, 1944Section 1, Public Law 690, August 8, 1946
Patent expires August 22, 1964

2 Claims. (Cl. 20—92)

1

This invention relates to the mounting of construction or building boards, for instance fiber boards of any kind.

It is an object of my invention to provide means and arrangements whereby very tight joints between adjacent construction boards, say insulating fiber wall boards, may be obtained.

Another object of the invention is to provide construction boards adapted to cooperate with such means for obtaining very close or tight joints.

A further object is to provide a connection member for construction boards which is of simple form, is cheap and easy to manufacture and which needs only a few nails or the like for the mounting operation.

To accomplish these objects I provide in the under side of the construction boards a number of grooves parallel to one another located at an angle to an edge which is to partake in the formation of a joint, and further I provide a connection member having along a side thereof projections adapted to be slidably received in said grooves in a construction board and having along an edge thereof means, such as a flange or flanges, adapted to cooperate with an adjacent construction board for keeping the latter in a desired relation to the first mentioned construction board.

Said edge of the connection member may be substantially parallel to the longitudinal axis of the strip and have a flange adapted to grip an edge or side of an adjacent construction board. Also on the other edge of the connection member there may be formed substantially a duplicate of the first mentioned edge of the connection member and which is adapted to be received in corresponding grooves provided in the under side of an adjacent construction board.

Moreover a connection member of any of the types described above may be provided with spaced hooks, adapted to be received in corresponding grooves provided in the side of any or both of the construction boards that partake in forming a joint.

In the following are, by way of example, described more in detail two embodiments of my invention in conjunction with the drawing.

In the drawing:

Figure 1 is a plan view, as seen from the under side, of a fragment of a construction board according to the invention.

Figure 2 is a section taken substantially along line II—II in Figure 1.

Figure 3 is a plan view, as seen from the under

2

side, of part of a connection member according to the invention.

Figure 4 is a section taken substantially along line IV—IV in Figure 4.

Figure 5 is a plan view similar to Figure 3, but shows a modified form of connection member.

Figure 6 is a plan view of two construction boards joined together by a connection member; and

Figure 7 is a section taken substantially along line VII—VII in Figure 6.

Referring to the drawing 1 indicates a construction board, such as a fiber board. In said board are provided a series of grooves 2 extending from the bottom surface of the board into the body thereof but not entirely through the same. Said grooves are arranged at an acute angle to the edge 3 of the board, but are parallel to one another. The edge 3 of the board is, moreover, provided with a series of notches or grooves 4, as shown in Figures 1 and 2.

The connection member 5, Figures 3 and 4 consists of thin, rigid material, for instance of a strip of iron or steel and is subdivided into a number of sections a, b, c, . . . having side edge portions 6 and 7 respectively. The edge portions 6 extend in parallel directions, and so do the edge portions 7, and both the edge portions 6 and the edge portions 7 extend at an angle to the longitudinal axis of the connection member.

The edge portions 6 and 7 are provided with flanges 8 and 9 respectively, extending substantially at right angles to the main plane of the member 5. The flanges 8 and 9 are adapted to be received into the grooves 2 of the board 1 upon assembling.

At intervals along the central axis of the connection member 5 are arranged a number of hook-like organs 10 and 11 respectively. These may conveniently be made by punching slots through the material of member 5 and bending the material between such slots first at right angle to the main plane of member 5 and then in parallel relation thereto, as will be understood by inspecting Figures 3 and 4.

Figures 3 and 4 show an embodiment of the connection member which is of substantially symmetrical shape.

Figure 5 shows an embodiment which differs from that of Figures 3 and 4 in that only one side thereof has edge portions 7 extending in the same manner as in Figure 3, whereas the other side 13 is straight. Said straight side 13 preferably is provided with a flange portion 14,

3

which may or may not extend for the entire length of said side 13.

In member 5 there may at suitable places be provided holes 12 (Figures 3 and 5) for passage of nails or screws.

The operation for joining building boards by means of a connection member according to the invention is as follows:

The connection member 5 is first joined with the board 1 by inserting the flanges 9 of the edges 7 in the parallel grooves 2 of the board. If the hook shaped members 11 are provided on the connector, these hook members are inserted in the recesses 4 when the connector and board 1 are assembled. In this assembled condition approximately one-half of the connection member 5 will be covered by the board 1 whereas the remaining half will not be covered by the board 1 but will freely extend therefrom. In this assembled condition, the connection member and the board are secured to a wall to be covered by means of nails or the like in a readily apparent manner. A second board which is to be joined to the first mentioned board is now placed over the freely extending part of the connection board 5 so that the flanges 8 thereon are received in the grooves 2 of this second board and the hooks 10, if used, are entered into the corresponding recesses or notches 4. Subsequently, the last placed board is shifted longitudinally with respect to the connection member 5 and due to the angular position of the grooves 2 and the flanges 8 the board will simultaneously be displaced in a lateral direction. Due to this longitudinal and lateral movement of the second board a very tight joint may be obtained between adjacent boards. The second board may now be secured to the wall by means of nails or the like as considered desirable.

When the connecting member 5 is provided with hooks 10 and 11 it is possible to secure the boards to a wall without nails or screws becoming visible. Member 5 is first secured to one board by means of nails or screws introduced from the rear side of member 5. Then the board and the connecting member 5 are placed upon the wall and secured thereto by nails or screws inserted through the extending part of member 5. Then the second board is placed as described above, care being taken that the hooks 10 are received in the notches 4. The second board is wedged in position by being longitudinally shifted and a stable connection is obtained, needing no further nails.

4

Preferably about 20 hooks per meter are used in such case, each hook being 2 x 10 mm., giving in total a holding area of 400 mm.². This will be far better than using 20 nails each of 4 mm.² head surface, since the total holding area then would be 80 mm.² only.

I claim:

1. A building construction comprising adjacent coplanar boards having parallel abutting edges, a face on each said board having a plurality of short grooves therein extending partially through the thickness thereof, said grooves in each said board being inwardly spaced from an edge of said board and at an acute angle thereto but parallel to each other, a connector joining abutting boards, said connector having an edge thereof having disconnected portions extending parallel to said grooves in said boards and to each other and at an angle to the longitudinal axis thereof, flanges on said edge portions substantially at right angles to the longitudinal axis of said connector, said boards having inwardly extending notches substantially centrally in an edge thereof and wholly contained therein, hooks secured to a face of said connector on the same side as said flanges and having inwardly directed ends, said hooks being inserted in and coacting with said notches for anchoring said connector to said board, said flanges being inserted in said grooves in said boards upon assembly of a construction and wedged thereon by relative displacement of said boards.

2. In a building construction as claimed in claim 1, said hooks being assembled in pairs and having upright portions thereon extending substantially at right angles to the plane of said connector and bent portions thereon extending substantially parallel to said plane, the bent portion of one of said hook members of a pair being in opposite direction to the other.

JOHANNES BRYNJULVSEN EEN.

REFERENCES CITED

45 The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,875,576	Een et al.	Sept. 6, 1932
1,936,795	Lee et al.	Nov. 28, 1933
1,971,320	Cederquist	Aug. 21, 1934
2,066,813	Williams	Jan. 5, 1937
2,110,485	Hunt	Mar. 8, 1938
2,149,918	Komorous	Mar. 7, 1939