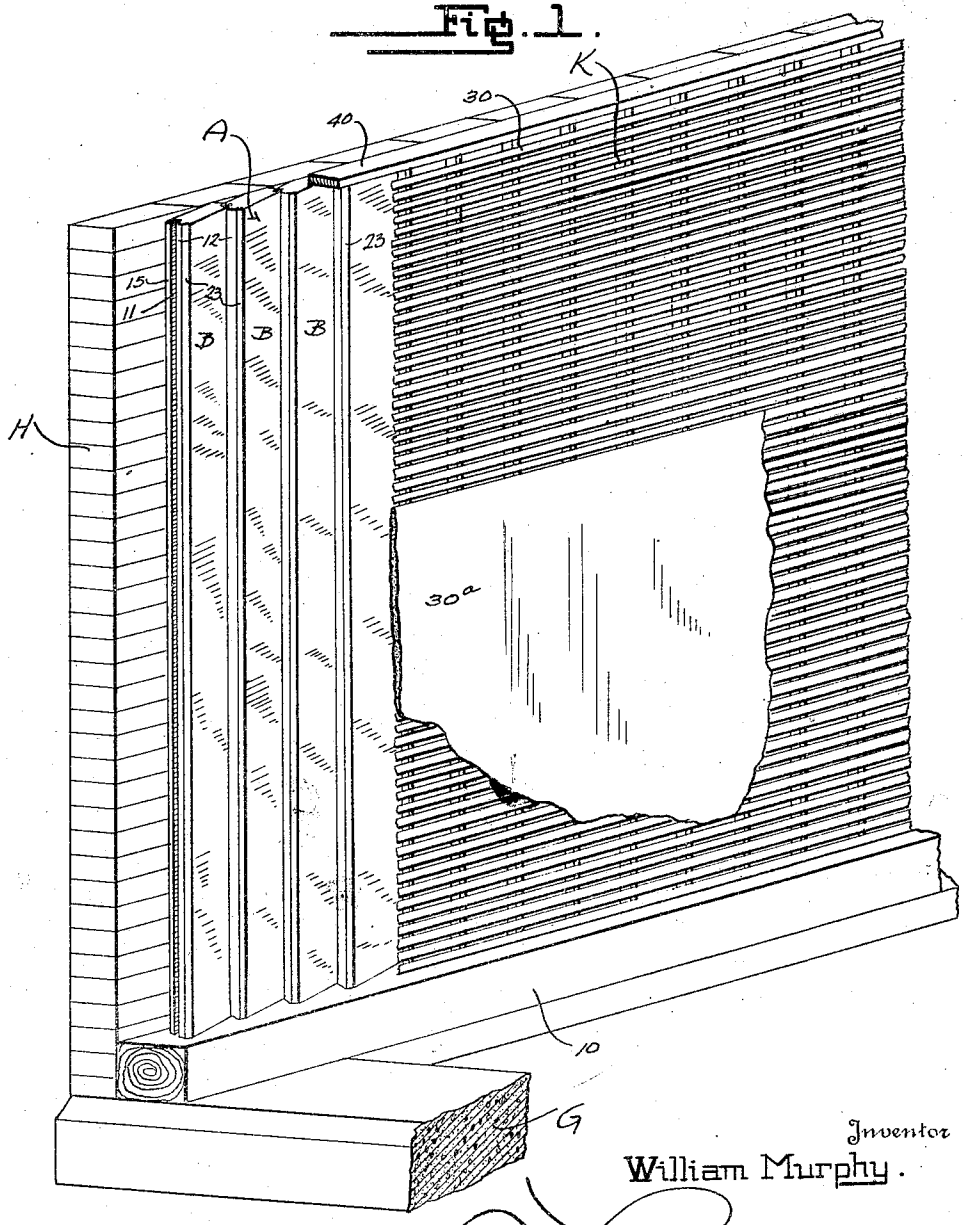
Aug. 26, 1924. 1,506,656

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BUILDING CONSTRUCTION

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Fig. 1.



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Fig. 2.

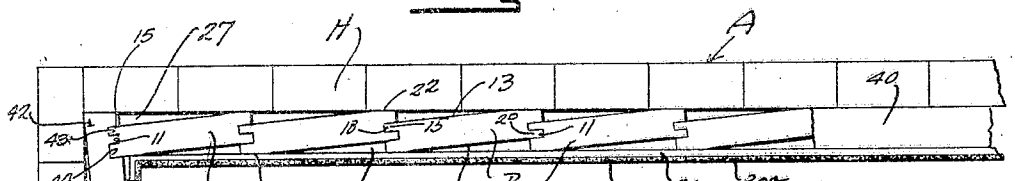
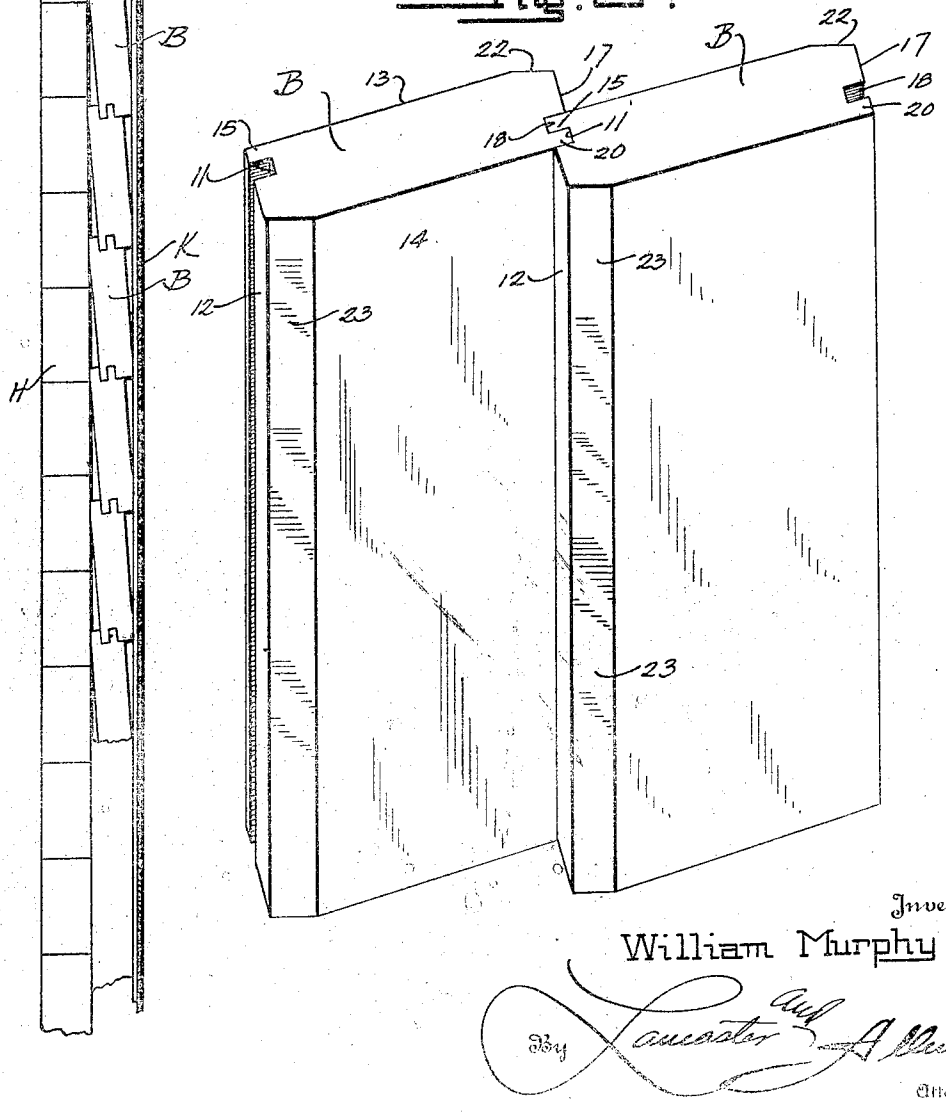


Fig. 3.



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Fig. 4.

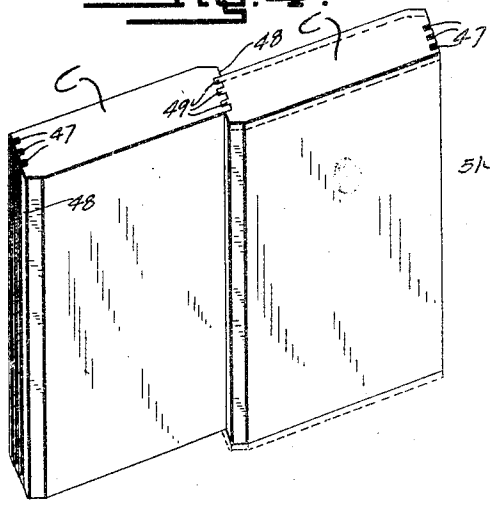


Fig. 5.

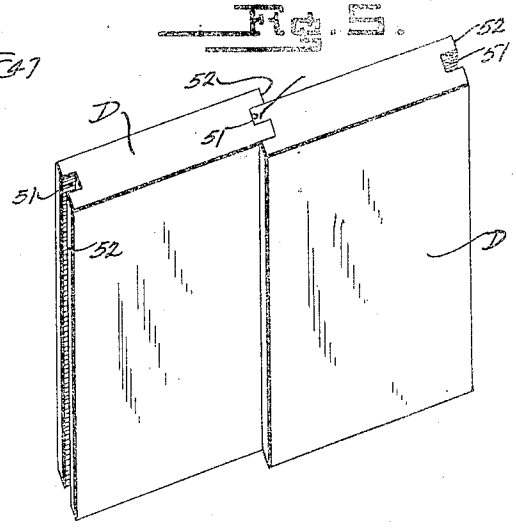


Fig. 6.

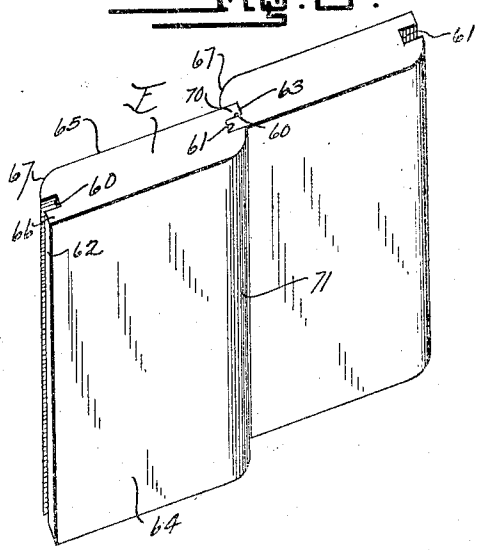
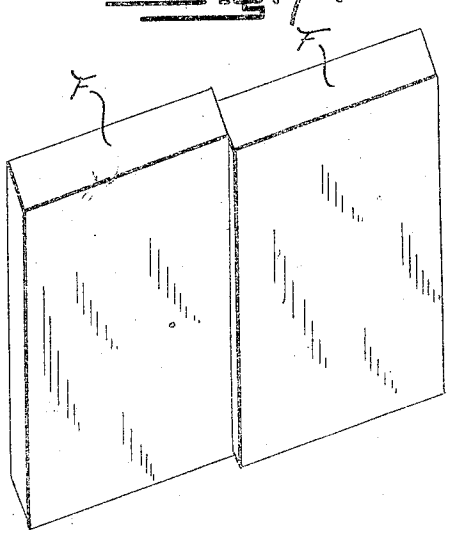


Fig. 7.



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Patented Aug. 26, 1924. 1,506,656

UNITED STATES PATENT OFFICE.

WILLIAM MURPHY, OF MONTREAL, QUEBEC, CANADA.

BUILDING CONSTRUCTION.

Application filed August 2, 1923. Serial No. 655,321.

To all whom it may concern:

Be it known that I, WILLIAM MURPHY, a subject of the King of Great Britain, residing at Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Building Constructions, of which the following is a specification.

This invention relates to improvements in building constructions.

The primary object of this invention is the provision of an improved type of building construction, particularly well adapted for use in the construction of walls, embodying a novel and economical principle of wall construction.

A further object of this invention is the provision of an insulated wall construction of relatively simple nature, which contemplates the provision of interlocking planks or like members having inner and outer encasing walls or finishings so related thereto as to provide inner and outer air spaces in the wall construction.

A further object of this invention is the provision of a wall construction of the above mentioned character which is so constructed that capillary attraction is reduced to a minimum, thus providing a weather proof structure.

A further object of this invention is the provision of a relatively simple type of wall construction of such nature that liability of settlement of walls will be reduced to a minimum.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawings, forming a part of this specification, and wherein similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a fragmentary perspective view of the improved wall construction.

Figure 2 is a horizontal cross sectional view, taken through a building construction, showing the corner connection of walls constructed after this system.

Figure 3 is a perspective view of planks, strips, or other members, so arranged and connected that they may receive inner and outer wall finishings to provide a hollow wall construction of relatively simple and economical nature.

Figure 4 is a fragmentary perspective view of a modified form of plank or strip used in this invention.

Figure 5 is a perspective view of a further form of plank which may be used in connection with this invention.

Figure 6 is a further modified form of plank or strip preferably adapted for use in the construction of bungalows or the like, where it is not desired to apply outer finishing or facing thereof.

Figure 7 is a further form of plank which may be used in connection with this invention.

In the drawings, wherein for the purpose of illustration is shown but the preferred embodiment of this invention, the letter A may generally designate a wall construction which may be formed of the interlocked planks B, C, D, E, or F, upon a foundation structure G, and in connection with the outer finishing H, and inner finishing K.

Referring to the improved wall construction A, the foundation G may be of any approved type, and upon which the wall sill 10 may be placed. The planks or members B may be of various sizes, and are of any length, being vertically arranged in interlocked relation upon the tops of the sill 10. The plank B is preferably provided with a groove 11 upon one longitudinal edge 12 thereof, which is arranged closer to the side or face 13 than with respect to the other side or face 14. Between the groove 11 and the surface 13, a tongue 15 is thus provided. The opposite edge 17 is similarly formed, having the longitudinally extending groove 18 therein, which is preferably disposed closer to the face 14 than with respect to the face 13, differing in this respect from the groove 11. A longitudinally extending rib or finger portion 20 is thus provided at the edge 17 of the plank B. Diagonally opposite corners of the plank B are longitudinally bevelled, as at 22 and 23; the bevelled portions 23 and 22 being arranged adjacent the edges 12 and 17 and respectively on the opposite corners from the tongues 20 and 15.

Referring to the method of assembling the planks or members B, as before men-

tioned, they are vertically arranged upon their ends in resting relation with respect to the sill 10. However, the same are disposed in interlocked relation, the tongues or longitudinal ribs 15 and 20 extending respectively into the grooves 18 and 11 of adjacent blocks B, substantially as is illustrated in Figure 3 of the drawings. In this relation, the planks B are in relatively offset relation, although the planes of the same are substantially parallel, and the bevelled outer edges 22 of the blocks B are all disposed in the same plane, as are also the inner bevelled edges or corners 23 disposed in the same plane at the opposite side of the planks B.

The planks B when assembled upon the sill 10 in their interlocked relation are each disposed at an acute angle with respect to the normal plane of the wall, as can readily be seen from the sectional view of Figure 2. With such an arrangement, when the outer finishing or wall structure H, which in most instances will be brick as illustrated in Figures 1 and 2 of the drawings, is placed, said wall or finishing structure H will rest in abutting relation against the bevelled corners or surfaces 22 of the interlocked planks to form an outer air space 27 intermediate the interlocked planks B and the outer wall structure or finishing H.

The inner wall structure or finishing K takes various forms, and in most instances will include the lathing 30 with the plaster coating 30a formed thereover. The lathing 30 can be secured, as by nailing, or otherwise, to the bevelled edging 23 of interlocked planks B, so that an inner air space 35 is provided between the interlocked plank B and the inner wall structure or finishing K. As the sill 10 of the wall structure A is relatively wider than the interlocked planks B in their wall formation, the air spaces 27 and 35, at the foundation G, will be closed. Similarly at the top of the interlocked planks B, it is preferred to lay a sealing member or platform 40 which closes the air spaces 27 and 35 at the top of the wall structure A, substantially as is illustrated in Figure 1 of the drawings.

At the juncture of the walls, it is preferred also to interlock the blocks or planks B. To this end, a corner plank 42 of the wall A, as is illustrated in Figure 2 of the drawings is made of somewhat novel formation, having longitudinally extending grooves 43 and 44 inwardly of a side surface 45 thereof, adapted to receive the longitudinally extending tongue portions of the plank B of the adjacent wall therein, substantially as is illustrated in Figure 2 of the drawings.

Referring to the modified form of plank or member C, the same follows in the main after the structure of the plank B, but is preferably provided with a plurality of grooves 47 inwardly of the longitudinal edges 48, thereof adapted to receive in interfitting relation therewith, any of a plurality of the longitudinally extending ribs 49 of an adjacent block C, substantially as is illustrated in Figure 4 of the drawings. The planks C otherwise are formed as the planks B, although it is not necessary to provide the bevelled corners 22 and 23 as is illustrated in the preferred form of the invention. When interlocked the planks C are in offset parallel relation, and are each likewise disposed at an acute angle to the normal plane of the wall in which they are positioned. However, with such planks C, the thickness of a wall may be regulated, as it is possible, to regulate the depth of the offset of the planks C by interfitting any of the tongues 49 in any of the longitudinal edge grooves 47.

Referring to the modified type of plank D, the same is of somewhat simpler construction than the form of plank B, merely contemplating the provision of grooves 51 disposed longitudinally inwardly of the side margins or edges 52 thereof, said grooves being equi-distant from the side faces of the plank B. The corners of this type of plank are not bevelled, as used in the preferred form of plank B. The cooperation of the planks D in their interlocked relation are the same as the planks B.

Referring to the type of plank E, the same is preferably provided for the construction of bungalows or the like, where it is desired to have somewhat of an ornamental appearance. This type of plank E is much the same construction as designated for the plank B. Each plank E is preferably provided with the grooves 60 and 61 extending inwardly of the opposite marginal edges 62 and 63 respectively thereof; the groove 60 being disposed closer to the inside surface 64 of the plank E than with respect to the opposite or outer side surface 65, whereas the groove 61 is disposed closer to the outer side 65 than with respect to the inner side 64. Between the longitudinal groove 60 and the inner side 64, a longitudinally extending rib or tongue 66 is provided, which is squared in cross section and adapted for cooperation in the longitudinal groove 61 of an adjacent plank E; the corner surfacing of the plank E from the groove 60 around to the outer side 65 being convex, as at 67. The groove 61 at the edge 63 of the plank E has a longitudinally extending tongue or rib 70, which may cooperate within the groove 60 of an adjacent plank E, substantially as is illustrated in Figure 6 of the drawings. From the groove 61 around toward the inner side 64 of the plank, a convex surface 71 is provided, which is at the diagonally opposite corner from the convex surface 67.

When the planks E are in interlocked relation as is illustrated in Figure 6 of the drawings, the exposed corners of the interlocked planks are all ornamentally convexed.

With this type of plank, no inner or outer finishing surface need be used, although it may be used if so desired.

Referring to the modified arrangement of interlocked or connecting planks, F, a wall structure formed of the same will probably be the most economical construction, as it is not contemplated to provide grooves or interlocked tongues on the edges thereof. The planks F are merely arranged upon a foundation or sill, and nailed in their relatively offset and parallel relation. They are, however, arranged similar to the planks B in the wall A, that is, they are disposed at an acute angle to the normal plane of the wall of which they form a part, so that it is possible to provide inner and outer spaces at the opposite sides thereof and in connection with inner and outer finishing wall construction.

From the foregoing description of this invention, it is apparent that a novel type of wall structure has been provided, which will be relatively simple and economical to construct, and yet effectively insulate the wall structure against temperature variations. It is thus possible to prevent frost, water and the like from traversing from the outside to the inside of the wall, and on the other hand it is possible to maintain a room or like enclosure heated more efficiently with the hollow wall construction than is possible with the solid type of wall. The plank members may be relatively assembled in units of any desired number, and then placed upon the sill 10 and nailed or otherwise secured thereto for vertical positioning. It is obvious that a relatively great area of wall construction can thus be economically built in a minimum of time, and after which the inner or outer encasing or finishing structures H and K may be added.

Various changes in the shape, size and arrangement of parts may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.

I claim:

1. A wall construction comprising elongated vertically arranged interlocked relatively offset planks encased in outer and inner finishings to provide air spaces at the sides of said interlocked planks.

2. That method of wall construction which consists in securing interlocking offset planks together, securing them to a foundation, and providing a finishing wall portion in abutment at a side of the offset planks to provide air spaces between the planks and the finishing wall portion.

3. A wall construction comprising vertically disposed interlocked offset planks arranged in acute angular relation along the plane of the wall which they define, and inner and outer casing structures for said interlocked planks in abutting relation with said interlocked planks and providing air spaces on each side of said interlocked planks.

4. A wall construction comprising a sill, vertically disposed elongated planks interlocked in offset relation, inner and outer finishing wall structures providing air spaces between the interlocked planks and said inner and outer wall structures, and means arranged over the tops of said walls to enclose said air spaces, said air spaces being enclosed at said sill.

5. A wall construction comprising a plurality of building planks, and means cooperatively formed on said planks for adjustably connecting said planks together in offset relation so that the dimension of the offset may be varied.

6. That method of wall construction which consists in securing vertically disposed planks in parallel offset relation, securing them on a foundation so that the planks are in acute angular relation to the normal plane of the wall which they form, and providing finishing encasing structures at each side thereof and in spaced relation therewith to provide air spaces.

WILLIAM MURPHY.