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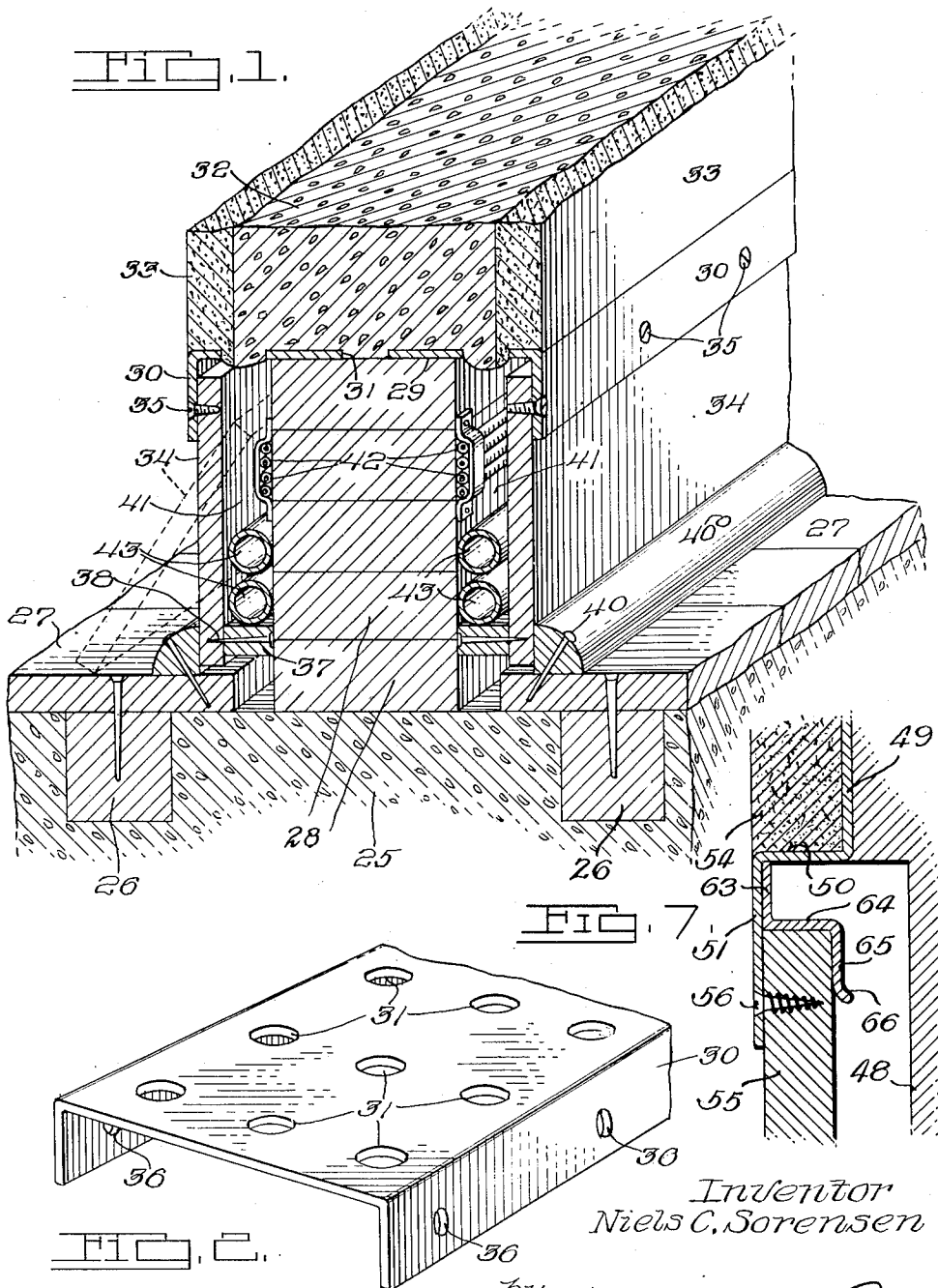
N. C. SORESENSEN

1,798,280

WALL CONSTRUCTION

Filed June 20, 1929

2 Sheets-Sheet 1



Inventor
Niels C. Sorensen

by *Harness, Sickey & Pierce*
Attorneys.

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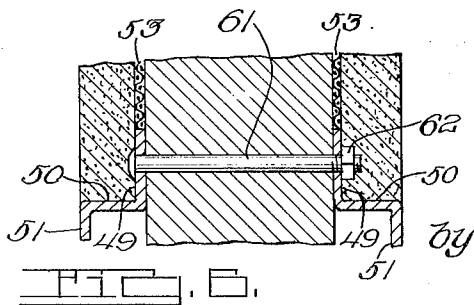
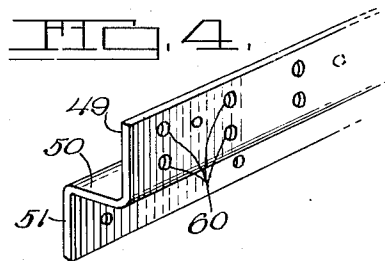
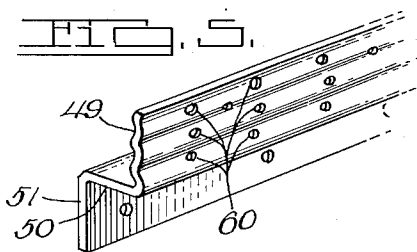
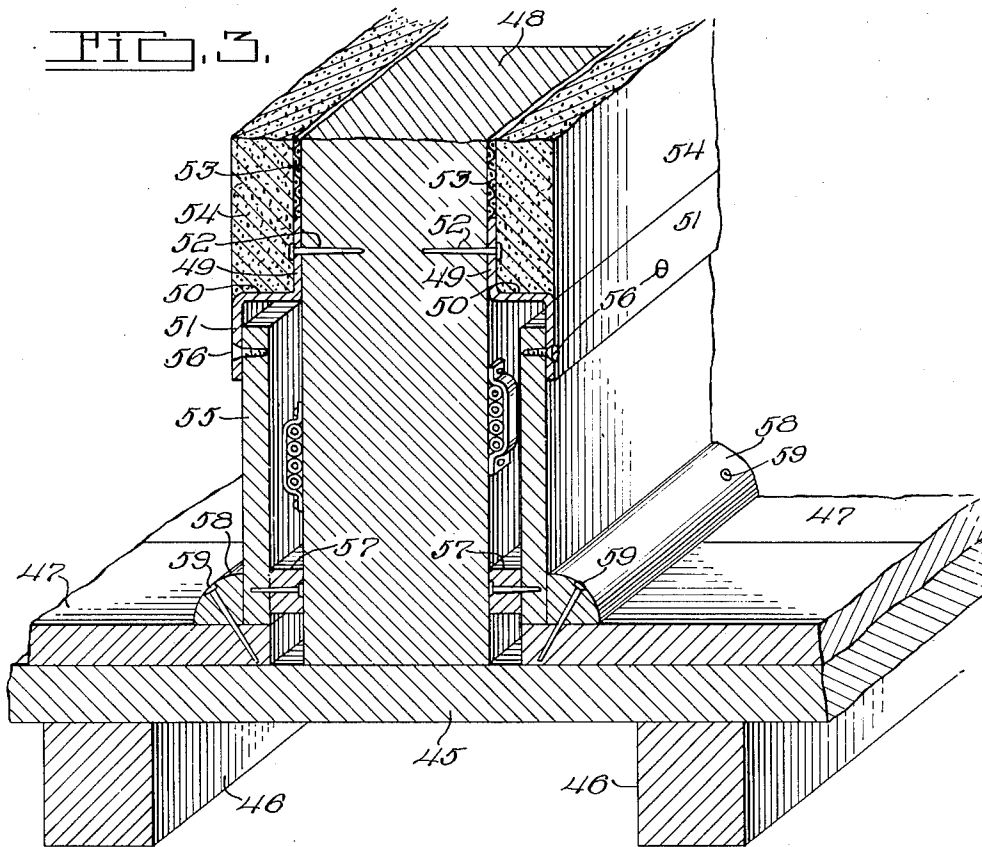
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Inventor:
Niels C. Sorensen

Harness, Dickey & Pierce
Attorneys.

UNITED STATES PATENT OFFICE

NIELS CHESTER SORENSEN, OF DETROIT, MICHIGAN

WALL CONSTRUCTION

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This invention relates to wall constructions and particularly to such constructions where a wooden finishing strip, such as a base or other board, is desired to be employed, the principal object being the provision of a new and novel means for securing such strips in position.

Another object is to provide means whereby a finishing strip may be incorporated in the wall structure without exposing a shoulder on which dust and dirt is liable to collect as in conventional constructions.

Another object is to provide a wall construction, including a removable base board or other finishing strip, so mounted that its outer surface is flush with or positioned inwardly of the wall surface.

Another object is to provide a wall structure, including a removable base board, providing a passage way for pipes, wires, or other conduits which are normally concealed by the base board.

Another object is to provide means for removably securing a base board to a wall structure, including a sheet metal member adapted to overlap and embrace the upper edge of the base board, and to which the base board is adapted to be secured.

Another object is to provide a masonry wall, including a base portion of relatively less thickness than the remainder of the wall, a sheet metal member being provided at the upper edge of the narrow portion of the wall and projecting outwardly and then downwardly therefrom, the downwardly extending portion of the sheet metal member being preferably flush with the wall surface above it, and a base board extending between the sheet metal member and the floor and being secured to the sheet metal member in spaced relationship with respect to the narrow portion of the wall.

Another object is to provide a wall structure including a relatively narrow base portion surmounted by a wider portion, with an inverted channel-shaped sheet metal member disposed between said portions.

Another object is to provide a wall structure including a Z section sheet metal member adapted to be secured to the wall in

spaced relationship with respect to an edge of the wall, the wall being provided with a plaster coat on one side of the member extending in a flushed relationship with respect to the outermost surface thereof, and a wooden finishing strip on the opposite side of the member received under and secured to said sheet metal member.

A further object is to provide a new and novel sheet metal member for removably securing a finishing strip to a wall structure.

The above being among the objects of the present invention, same consists in certain novel features of construction and combinations of parts to be hereinafter described with reference to the accompanying drawings, and then claimed, having the above and other objects in view.

In the accompanying drawings, which illustrate the suitable embodiment of the present invention, and in which like numerals refer to like parts throughout the several different views,

Fig. 1 is a fragmentary perspective sectional view of a wall structure constructed in accordance with the present invention.

Fig. 2 is a fragmentary perspective view of the sheet metal member shown incorporated in the construction illustrated in Fig. 1.

Fig. 3 is a view similar to Fig. 1 but showing a modified form of construction.

Fig. 4 is a fragmentary perspective view of one of the sheet metal members incorporated in the construction shown in Fig. 3.

Fig. 5 is a view similar to Fig. 4 but showing a slightly modified form of construction.

Fig. 6 is a fragmentary sectional view taken through a wall construction such as is illustrated in Fig. 3 but showing a modified means for securing the sheet metal members in position.

Fig. 7 is a fragmentary sectional view illustrating a slightly modified form of the type of construction illustrated in Figs. 3 to 6, inclusive.

In certain building structures it is preferable for the sake of appearance to employ finishing strips of various kinds, as for instance, base boards. The conventional form of base boards is, however, undesirable in

certain types of buildings, particularly in schools, hospitals, and other like buildings, for the reason that with such constructions a horizontally extending ledge or shoulder is provided upon which dust, dirt, or other foreign matter collects. It has been suggested, to my knowledge, to provide a sheet metal base board in flush relation to the surface of the wall but this construction involved a permanently positioned base board and is not adapted to be constructed of wood. Sheet metal for such uses is not favored because it does not result in the rich finish that is capable with a wooden member, and furthermore, is more difficult and expensive to refinish than a wooden member and is more expensive in initial cost. In accordance with the present invention, I provide a construction by which a wooden base board or other finishing strip or member may be incorporated in a wall construction in substantially flush or in inwardly offset relation with respect to the surface of the wall, whereby the objectionable dust-catching shoulder is eliminated, and, further, it may be secured in place or removed with a minimum amount of time and expense. Furthermore, the construction is such as to permit "breathing" of the floor when employed in connection with a base board without affecting the operativeness of the structure in any manner whatsoever.

It has also been suggested to my knowledge to provide behind a base board a space adapted for extending conduits, wires, or other like members, and the present invention provides a construction by which such space may be readily provided.

Furthermore, the present invention is applicable to either masonry or composite walls and is capable of modification to meet various conditions such as may be met in structures of various types.

Referring to Fig. 1, I show a construction particularly adaptable for use in connection with masonry walls. In this figure the numeral 25 represents a floor of concrete, or other like material. As is usual in such constructions, wooden stringers such as 26 are embedded in the concrete 25 in order to serve as a means for securing the wooden floor covering 27 in place. Where a wall is to be provided I prefer to first build up a section such as 28 of a height substantially equal to or greater than the height of the desired base board to be employed. In order to provide an ample conduit chamber I prefer to make this section 28 of relatively less thickness than the final thickness of the wall, and in order that it shall be of ample strength to carry the weight which will be imposed upon it I prefer to form it of some material having a relatively high compressive strength, such as brick or the like, as illustrated. I then position upon the portion 28 of the wall an inverted

channel sectioned member comprising a base 29 and downwardly turned lateral side flanges 30, the side flanges 30 being preferably spaced from each other a distance equal to the desired final thickness of the wall and preferably equally spaced outwardly from the sides of the portion 28. The base portion 29 of this member is preferably formed of a plurality of apertures such as 31 therein, best illustrated in Fig. 2, and upon it the body 32 of the wall above it may be built. The apertures 31 permit a suitable bond to be established directly between the wall portion 28 and the wall portion 32. The body 32 is then preferably faced with a plaster coating 33 which is brought out flush with the outer faces of the flange portions 30. A base board 34, preferably of wood, is then inserted, as indicated in dotted lines in Fig. 1, its upper edge being received back of and in contact with the inner face of the corresponding flanged portion 30, and it may be secured thereto by screws such as 35 inserted through openings such as 36 (see Fig. 2) in the flanges 30 and threaded into the base board 34. The base board 34 is preferably of such a height and is preferably secured in position so that its upper edge terminates short of the base portion 29, and its lower edge terminates short of the floor covering 27. Each base board is also provided on its inner surface and adjacent the lower edge thereof with one or more spacing members 37, which may be secured thereto by nails such as 38, and which spacing members are adapted to bear against the wall portion 28 to maintain the lower edge of the base board in proper spaced relationship with respect to the wall portion 28. The lower edge of the base board may be maintained from outward movement by the usual molding strip 39 secured to the floor covering 27 by nails such as 40 or other suitable means. A space 41 is thus formed between each of the base boards 34 and the corresponding face of the portion 28 of the wall, in which wire cables such as 42, pipes such as 43, or other conduits or members may be extended. It will be apparent that with this construction no restriction of the "breathing" action of the floor covering results.

In employing the present invention in connection with the composite type of wall, and particularly where a floor and wall not constructed of masonry is employed, a slightly modified form of construction may be used. Such modification is indicated in Fig. 3 in which the wooden floor 45 is supported upon the stringers 46 and provided with the usual wooden covering 47. At the walls the usual studs 48 are provided and secured directly to the floor 45 at their lower ends. The channel-shaped member 29—30 shown in Fig. 1 is modified to meet this modified construction by forming it as two separate Z-sectioned members, each of which is formed to provide

an inner upwardly extending flange portion 49, a horizontally outwardly extending flange portion 50, and a vertically extending flange portion 51 extending downwardly from the outer edge of the flange portion 50. The inner flange portions 49 may be secured directly to the studs 48 as by nails 52 at the proper distance from the floor. The studding 48 above the flange portions 49 may be provided with any suitable lathing such as 53 to support the plaster 54, which is preferably extended into flush relationship with the outer faces of the flange portions 51 in the same manner as that described in connection with Fig. 1. Wooden or other base boards 55 may be inserted under the flanges 51 and be secured in position thereby by means of screws 56 or other suitable means. Spacer members 57 corresponding to the spacer members 37 described in connection with Fig. 1 are also provided and the lower edge of the base boards are held against outward movement by means of the molding strips 58 secured to the floor covering 47 by nails such as 59, or other suitable means.

The inner flange 49 are preferably formed so as to provide a support for the plaster 54. This may take the form illustrated in Fig. 4 in which the flange 49 is shown as being provided with a plurality of openings 60. It may also be further increased as illustrated in Fig. 5 where, in addition to the openings 60 the flange 49 is corrugated in a direction perpendicular to its length, thus providing a better support for the plaster thereon.

Instead of employing nails such as 52 for securing these Z-shaped members to the studs 48, the construction as illustrated in Fig. 6 may be employed, in which case a plurality of bolts such as 61 are extended through the studs 48 and through the adjacent inner flanged portions 49, and the free ends of the bolts provided with nuts such as 62 for drawing the flange portions 49 into firm contact with the studs 61. Other means may also be employed for securing these Z-shaped members to studs, as will be readily apparent.

Various means may also be employed for removably securing the base boards 55 to the Z-sectioned members. One of such means is illustrated in Fig. 7 and comprises a Z-sectioned member of sheet metal secured to the downwardly extending flange portion 51 in reversed position to the main Z-shaped member. In other words, it comprises a vertically disposed outer flange portion 63 which is secured to the inner face of the flange portion 51 as by welding or the like, and an inwardly extending horizontal flange portion 64 from whose inner edge the downwardly depending flange portion 65 is provided. The flange portion 65 is preferably spaced from the inner face of the flange portion 51 a distance equal to the thickness of the base board 55 that is to be employed. It is also preferable to turn

the lower edge of the flange portion 65 inwardly as at 66 so that in inserting the base board in the socket thus formed for its upper edge, the inturned edge 66 will act to guide the base board into place. With this construction there is usually no necessity for further securing the upper edge of the base board 55, but if desired the screws 56 may be employed in addition.

It will be apparent that in actual practice the sheet metal members which I employ for securing the wooden finishing members in position are preferably of much lesser thickness than that shown, their thickness being exaggerated in the drawing for the purpose of illustrating the invention more clearly. It will also be apparent that the constructions illustrated are subject to various modifications as may be deemed necessary or desirable, depending upon the conditions under which they are employed. It is also to be understood that although I have shown the present invention in the drawings in connection with a base board only, that with the construction disclosed anyone skilled in the art may apply the same in connection with securing door frames, window frames, or other wooden frame members in place upon a wall, and it is to be distinctly understood that I do not limit the present invention solely to its application to base board constructions.

Formal changes may be made in the specific embodiment of the invention described without departing from the spirit and substance of the broad invention, the scope of which is commensurate with the appended claims.

What I claim is:

1. In a wall structure, in combination, a sheet metal member incorporated in said structure and comprising an outwardly extending portion terminating in a flange lying in a plane parallel to said wall, and a finishing strip received under and removably secured to said flange.

2. In a wall structure, in combination, a sheet metal member incorporated in said structure and comprising an outwardly extending portion terminating in a flange lying in a plane parallel to said wall, a finishing strip received under said flange and extending away from said outwardly extending portion in a plane parallel to the plane of said wall, and plaster extending from said outwardly extending portion in a direction opposite to said strip and with its outer surface substantially flush with said flange.

3. In a wall structure, in combination, a plaster coating terminating short of an edge of said wall, said terminal edge of said plaster being bounded by a sheet metal member permanently incorporated in said wall structure and having a marginal flange in substantially flush relation with respect to the surface of said plaster and extending towards

- said edge of said wall, and a finishing strip having an edge thereof received under and removably secured to said flange extending in the same direction as said flange.
4. In a wall structure, in combination, a plastered surface and an unplastered surface, a sheet metal member defining the line between said surfaces, said sheet metal member being permanently incorporated in said wall structure and including a flange substantially flush with the surface of said plastered surface and extending away therefrom, a wooden finishing strip disposed with an edge thereof received under said flange and extending away therefrom in approximately flush relationship with the surface of said plastered portion, and means for removably securing said finishing strip in position.
5. In a wall structure, in combination, a plastered surface and an unplastered surface, a sheet metal member defining the line between said surfaces, said sheet metal member being permanently incorporated in said wall structure and including a flange substantially flush with the surface of said plastered surface and extending away therefrom, a wooden finishing strip disposed with an edge thereof received under said flange and extending away therefrom in approximately flush relationship with the surface of said plastered portion, means for spacing said finishing strip from said unplastered portion, and other means securing said finishing strip to said flange.
6. In combination with a wall having a pair of parallel surfaces laterally offset from each other, a sheet metal member forming a permanent part of said wall structure and positioned along the line of offset of said surfaces, said member having a marginal flange in the plane of the outermost of said surfaces and extending over the innermost of said surfaces, and a wooden finishing strip overlying said innermost of said surfaces and having an edge thereof received under and secured to said flange.
7. In a building structure, in combination, a wall and a floor, a plaster coating on said wall extending downwardly into spaced relation with respect to said floor, a sheet metal member forming a permanent part of said wall bounding the lower edge of said plaster, a downwardly turned marginal flange on said member, a base board received under said flange and extending therefrom to adjacent said floor, and means securing the lower end of said base board against movement relative to said floor.
8. In a wall structure, in combination, a wall comprising a relatively thin lower portion and a thicker portion extending upwardly therefrom, and a Z-bar shaped metal member interposed between said portions with one flange of said Z-bar in spaced relation with respect to said thin lower portion.
9. In a wall structure, in combination, a wall comprising a relatively thin lower portion and a thicker portion extending upwardly therefrom, and a Z-shaped bar member interposed between said portions, said member being provided with openings there-through whereby a direct bond may be established between elements of said thicker portions.
10. In a wall structure, in combination, a plaster coated portion and an unplastered portion, a sheet metal Z-shaped member disposed between said portions, and a flange on said sheet metal member overlying a portion of said unplastered portion in spaced relation thereto.
11. In a wall structure, in combination, a plaster coated portion and an unplastered portion, a sheet metal member disposed between said portions, a flange on said sheet metal member overlying a portion of said unplastered portion in spaced relation thereto, and a base board received between said flange and unplastered portion and secured to said flange in spaced relation with respect to said unplastered portion.
12. In a wall structure, in combination, a core portion, a Z-shaped sheet metal member having one of its end flanges secured to said core portion and the other of said flanges in spaced and parallel relation with respect thereto, a layer of finishing material secured to said core portion on one side of said member, and a finishing strip having an edge thereof received back of and secured to said other of said flanges and extending away from said finishing material.
- NIELS CHESTER SORESENSEN.

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