

March 31, 1942.

F. M. SMALL

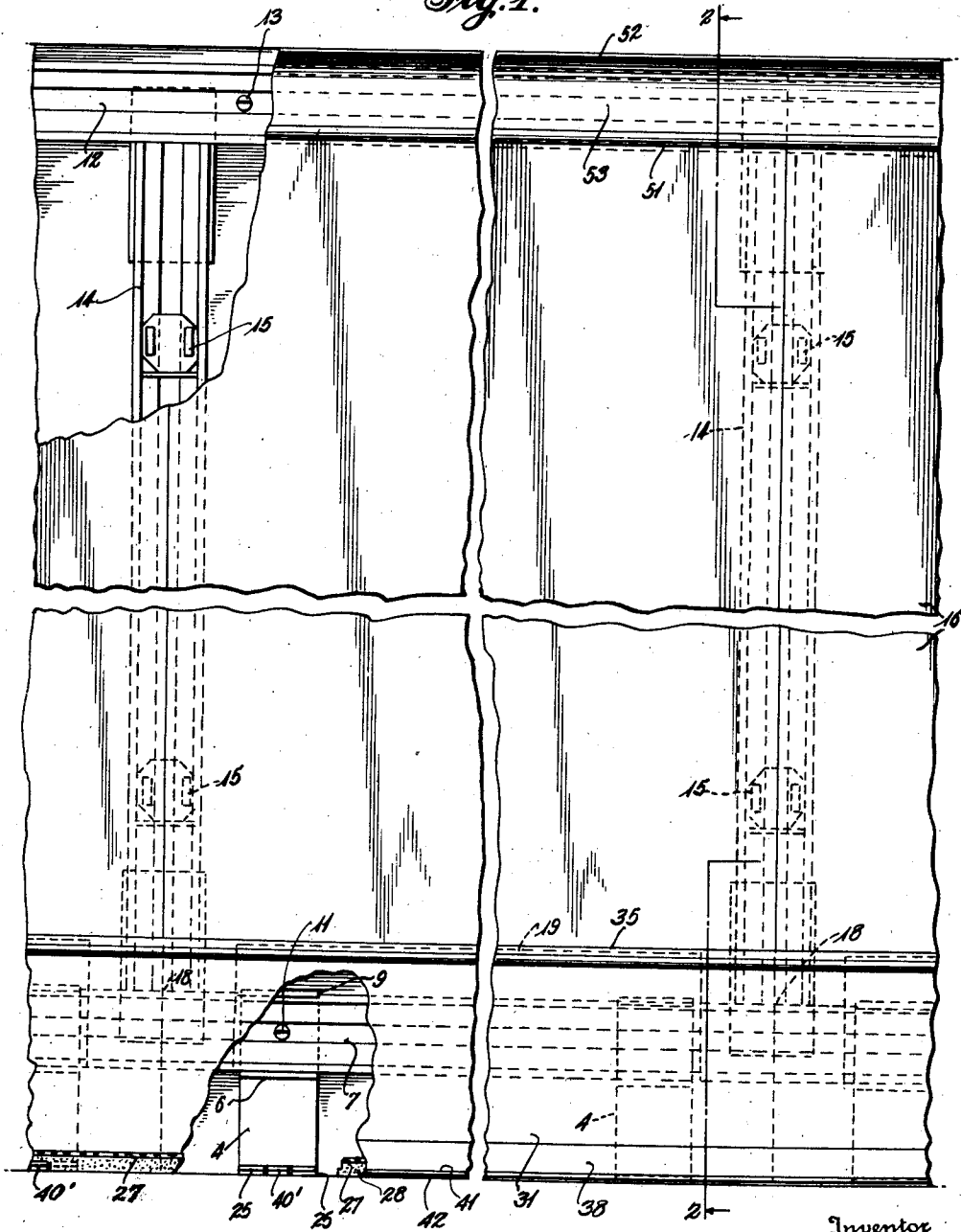
2,277,794

WALL CONSTRUCTION

Filed April 8, 1939

2 Sheets-Sheet 1

Fig. 1.



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2 Sheets-Sheet 2

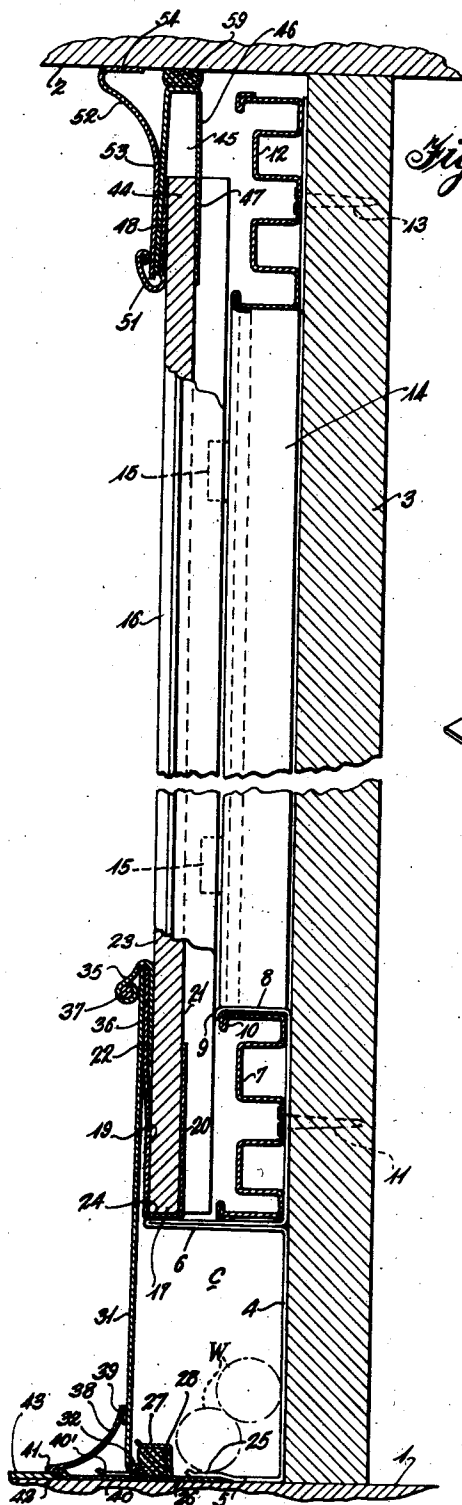


Fig. 2.

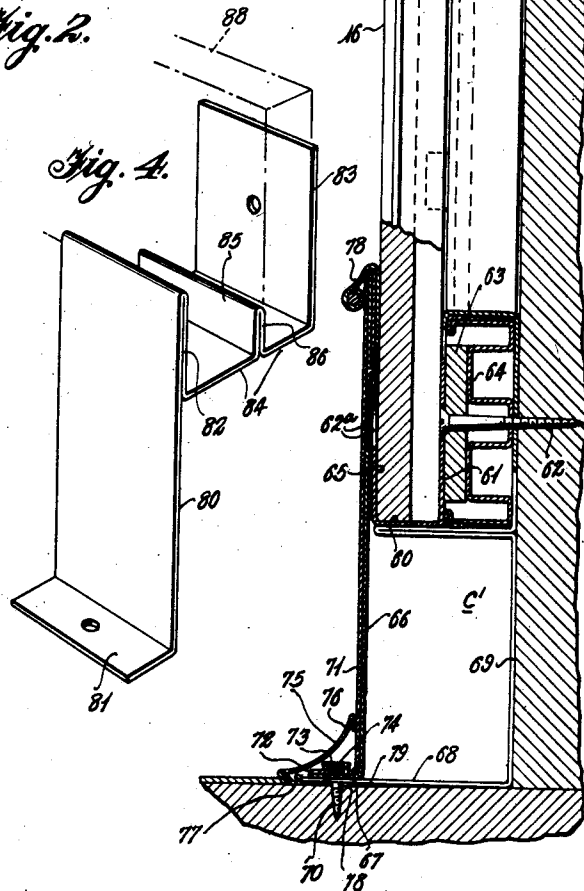


Fig. 3.

Fig. 4.

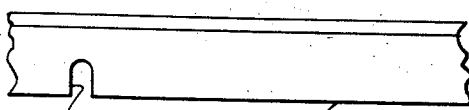


Fig. 5.

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UNITED STATES PATENT OFFICE

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WALL CONSTRUCTION

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11 Claims. (Cl. 189—85)

This invention relates to a wall construction which may be used in new buildings, or for renovating the walls of old buildings. More particularly, the invention relates to a wall construction comprising prefabricated wall sections, which may be mounted upon any suitable upright means and so arranged as to provide a conduit adjacent a floor for electric wires, telephone wires, etc.

The invention also includes a novel metallic baseboard that may, as one phase of its utility, be used to conceal wires in a conduit arranged adjacent a floor level. In accordance with the present invention, the baseboard is preferably made of sheet metal and is of relatively plain construction, inexpensive to manufacture, easy to install and readily detachable at all times to permit access to the conduit, if and when access should become necessary. It is to be understood, however, that the baseboard is not limited to use with a wall having a base conduit.

The invention further relates to a novel trim or composite ceiling molding which may be used with a wall of prefabricated sections for ornamentally finishing and concealing the upper ends of said sections. The trim or molding is designed to fit over the upper ends of the wall sections and comprises a channel member adapted to receive said ends, a cove molding which fits about the base of said channel member, and a beaded clip for covering the edge of the exposed flange of said channel member. One feature of this ceiling molding or trim is that the same can be so adjusted with respect to the upper ends of the prefabricated wall sections as to compensate for any reasonable out-of-level condition of the ceiling.

One object of the invention is to provide a wall construction comprising vertically disposed prefabricated wall sections in which the upper and lower ends of the wall sections are concealed in an ornamental and pleasing manner.

Another object of the invention is to provide a wall construction including means at the floor and ceiling for preventing heat losses from the room and for deadening or impairing the transmission of sound.

Another object of the invention is to provide a wall construction having a conduit for electric wires, and which conduit is conveniently arranged to facilitate quick installation of wiring and which will afford ready access to said wiring for purposes of inspection, replacement, or repair.

Still another object of the invention is to pro-

vide a metallic baseboard for use in buildings and/or with prefabricated wall sections which is simple in construction, easy to install and remove, and inexpensive to manufacture.

A further object of the invention is to provide a conduit cover in the form of a metallic baseboard which can be easily installed and subsequently readily removed at will to gain access to said conduit without the necessity of removing any bolts, screws, or like fastening means.

A still further object of the invention is to provide means for use in sectional prefabricated wall construction which will ornamentally conceal the upper ends of the prefabricated wall sections and also serve to compensate for any out-of-level condition of the ceiling.

Other objects and advantages of the invention will be apparent to those skilled in the art, and while more than one form of the invention is disclosed herein, it will be apparent that the same may be embodied in additional modifications and that the shape and proportions of the baseboard, base molding and ceiling trim may be varied as desired within the spirit and scope of the invention.

In the accompanying two sheets of drawings:

Figure 1 is a fragmentary elevational view of a portion of a wall comprising prefabricated wall sections or panels and illustrates the invention as practiced in renovating an old wall;

Figure 2 is an enlarged longitudinal sectional view taken on the line 2—2 of Figure 1 showing in detail the construction of the baseboard and ceiling trim;

Figure 3 is a sectional view of a modified form of bracket or panel support and baseboard;

Figure 4 is a perspective view of a modified form of bracket for use with the form of baseboard shown in Figure 3; and

Figure 5 is a fragmentary detail view of the base flange of a molding for use with the brackets shown in Figures 3 and 4 and a baseboard of the kind shown in Figure 3.

Referring now more particularly to Figures 1 and 2 of the drawings, the numeral 1 indicates a floor, 2 designates a ceiling, and 3 identifies an old wall structure that has been renovated by means of the present invention. However, it is to be understood that the invention is not limited to the renovation of old walls and that the same may obviously be applied directly to the studding of a new structure.

A bracket 4 is arranged at the juncture of the floor 1 and the wall 3 and includes a laterally extending flange 5 which normally rests upon the

floor 1. Vertically spaced from the flange 5 is a parallel flange 6 which is formed by reversely bending a portion of the material of the bracket 4. The flanges 5 and 6 thus form legs of what may be termed a U-shaped portion of the bracket 4. The flange 6 also forms a shoulder upon which rests a horizontal section of a metallic furring strip 7. The bracket 4 further includes a third laterally extending flange 8 which has a downwardly projecting flange 9 extending around an upper portion 10 of the horizontal furring strip 7. The flange 6 of the bracket 4 serves as a guide for spacing the furring strip 7 the desired distance from the floor 1, and the flanges 8 and 9 serve to retain the furring strip 7 in proper position relative to said bracket. The furring strip 7 is fixed in place by one or more screws 11 that extend therethrough and into the wall 3.

A section of horizontal furring strip 12 similar to the horizontal furring strip 7 is arranged adjacent to the ceiling 2 and is secured to the wall 3 by one or more screws 13 similar to the screws 11.

Intermediate the horizontal sections of furring strip 7 and 12 is arranged a plurality of vertical furring strips 14. These furring strips are spaced on centers equal to the width of the prefabricated wall sections with which they are to be used. The vertical furring strips 14 carry a series of panel retaining projections 15 for detachably securing the prefabricated wall sections 16 thereto with the longitudinal edges of said sections in abutment. The details of the preferred manner in which the projections 15 secure the wall sections or panels 16 in place are shown in my copending application Serial No. 266,890, filed April 8, 1939. Also, the details of a preferred form of panel are shown in my copending application Serial No. 266,889, filed April 8, 1939. As shown in said application Serial No. 266,890 the projections 15 on members secured to the furring members are received in resilient channels (not shown) formed in the edge portions of the panels 16. However, any desirable form of securing means and panel may be used within the contemplation of the present invention.

The brackets 4 are secured in spaced relation along the floor, and by means of the flange 6 serve to position the lower ends 17 of the prefabricated wall sections 16 a proper distance from the floor. The brackets 4, more specifically, are arranged so that one of said brackets is disposed adjacent each lower corner 18 of the wall sections 16.

Each of the prefabricated wall sections or panels 16 carries a resilient U-shaped member 19 at its lower end 17. Said U-shaped member is of less length than the width of the wall sections (see Fig. 1) and comprises a vertical flange 20 arranged to snugly engage an inner surface 21 of the panel and a substantially parallel flange 22 which lies against the outer face 23 of said panel, as shown in Fig. 2. The flanges 20 and 22 are connected by an intermediate horizontal portion 24 which lies in juxtaposition to the end portion 17 of the panels 16 and engages the flanges 6 of the brackets 4. The U-shaped member 19 is operatively assembled by slipping the same onto the lower end of a panel 16 and is frictionally retained thereon by the pressure of the flanges 20 and 22 bearing against said panel. The upper longitudinal edge of the flange 22 is adapted to be flexed outwardly away from the

panel face 23 for a purpose fully set out herein-after.

The flange 5 of the bracket 4 has a resilient finger 25 at each side thereof adapted to overlies and resiliently secure a retaining member 26 which extends horizontally between adjacent brackets 4. The retaining member 26 is formed with an angle portion 27 to receive a sealing strip 28 constituting a heat insulating and sound deadening means. The strip 28 is preferably of sponge rubber and is compressed into the channel formed between the angle portion 27 and the floor to form a seal. While sponge rubber is specifically mentioned, it will be apparent that felt or any other suitable material may be used in lieu thereof.

A metallic baseboard 31 is provided with an inwardly bent flange 32 at the lower longitudinal edge thereof which engages the sealing strip 28 to seal the baseboard to the floor 1. The upper longitudinal edge of the baseboard 31 is plain and terminates substantially in the same plane as the edge of the flange 22 of the channel member 19.

A clip member 35 is employed to detachably secure the baseboard 31 in place. The clip member 35 is preferably made of a suitable strip of resilient material and comprises a web 36 and a bead 37. The web 36 of the clip 35 is adapted to be inserted between the panel sections 16 and the vertical flanges 22 of the channel members 19 carried at the lower ends of said sections. The bead 37 of the clip member 35 lies against the outer face of the baseboard 31 and serves to press said baseboard against said flange 22. The channel member 19 is also preferably made of resilient material so that the flange 22 thereof tends to urge the web 36 of the clip 35 tightly against the outer face of the wall panels or sections 16. In the above manner, the plain longitudinal edge of the baseboard 31 is effectively concealed and secured in place.

The lower longitudinal edge of said baseboard is held in place by a strip of sheet metal cove molding 38. This strip of molding has a flange 39 which engages the outer face of the baseboard 31 and a flange portion 40 which is adapted to be inserted under a resilient finger 40' forming part of the flange 5 of the bracket 4. The resilient finger 40' is longer than the resilient fingers 25 and is disposed between the fingers 25 on each bracket 4. The flange 40 is inserted under the resilient finger 40' by springing the finger away from the floor and thus the flange 40 is tightly pressed against the floor and held in place. The positioning of the flange 39 against the baseboard 31 will simultaneously urge the edge portion of the flange 32 of the baseboard 31 into compressive engagement with the sponge rubber 30 and thus seal the baseboard to the floor. The cove molding 38 includes an offset portion 41 which may be of any suitable height from the floor. The purpose of said offset portion is to provide a recess 42 for receiving an edge portion of a floor covering 43.

It will be seen from Figure 2 of the drawings that the floor 1, the wall 3, the lower side of the horizontal furring strip 7, the lower edge 17 of the wall panel section 16, and the baseboard 31 cooperate to form a substantially rectangular conduit C. In the present instance, this conduit is designed to receive the usual wiring W for electric lights, telephone, etc. It will also be apparent from Figure 2 that access to the wiring W may be readily gained by simply removing the

resilient clip 35, the cove molding 38 and finally the baseboard 31. Thus, an arrangement is provided which greatly facilitates the original installation of wiring and also affords means whereby the wiring may be quickly and completely exposed for inspection, alteration, replacement or repair. It will be further apparent that to close the conduit C, it is merely necessary to replace the baseboard 31, the clip 35, and the cove molding 38.

Referring now to the upper portion of Figure 2, the upper ends 44 of the wall panel sections 16 are received in an opening 45 of a longitudinally extending resilient channel member 46. The channel member 46 comprises a substantially vertically extending inside flange 47 and a corresponding outside flange 48. The flange 47 engages the inner portion of the panel 16 to thus resiliently clamp the upper ends 44 of the sections 16 between the inner flange 47 and the outside flange 48. The exposed longitudinal edge of the flange 48 is covered by a resilient ornamental clip member 51 similar to the previously described clip 35.

A strip of molding 52 is mounted adjacent the channel member 46 and comprises a flange portion 53 which engages the outside flange 48 of said channel member and a second flange 54 which engages the ceiling 2. The molding 52 is held in position by the lower edge of its flange portion 53 being resiliently retained by the clip member 51.

A sealing strip 59 is compressed between the upper portion of the channel member 46 and the ceiling 2 and constitutes a heat insulating and sound deadening means. The strip 59 is preferably of sponge rubber and serves a purpose similar to that of the strip of rubber 30 adjacent the floor, but may be of felt or other similar material.

In forming a wall construction such as shown in Figures 1 and 2, the furring strips 7, 12 and 14 are first applied. The channel members 19 and 46 are then applied to the lower end 17 and the upper end 44 respectively of the panel 16. The lower ends of the panels carrying the channel members 19 are positioned so as to rest upon the flange 6 of the bracket 4. The panels or wall sections 16 are then secured in place upon the furring members 14 by the projecting fastening members 15. After all of the sections 16 are in place, the clip member 51 is inserted under the flange 48 of the channel member 46 adjacent the ceiling; the flange 53 of the molding 52 is inserted in the clip member 51 and the clip member driven upward to force the flange 54 of the molding and the sealing strip 59 against the ceiling 2. The baseboard 31, the molding 38 and the clip 35 are assembled at the floor 1 in a manner already described.

Instead of using the channel members 19 frictionally secured to the lower ends 17 of the panel sections, as shown in Figure 2, a modified channel 60 of the form illustrated in Figure 3 may be used. The channel 60, instead of being fastened directly to the lower end of the wall sections 16, is provided with an inner flange 61 which is secured to the wall 3 by means of a screw 62. A filler-block 63 is inserted between the flange 61 and a horizontal furring strip 64 similar to the stud 7. The channel member 60 also includes an outer web portion 65 arranged substantially parallel to the flange 61 and adapted to lie against the outer face of the wall sections 16. The flange 65 is reversely bent to

form a downwardly extending web 66 terminating in an outwardly extending flange 67. The flanges 65 and 66 are provided with openings 62a for the passage of a screw driver (not shown) whereby the screw 62 may be driven in place. The flange 67 rests upon a laterally extending flange 68 of a bracket 69, and the flange 67 is held against relative movement with respect to the flange 68 by a screw 70 which extends into the floor.

A metallic baseboard 71 lies against the flange 66 and is provided along one longitudinal edge thereof with a flange 72 containing a channel 73 which is preferably dove-tail-shaped in cross section. Said channel contains a strip of sponge rubber 74 or the like which is of sufficient height to fill the intervening space between the flange 72 and the floor. A strip of molding 75 includes a portion 76 which overlies the dovetail channel 73 and rests against the baseboard 71. The molding 75 also includes a flange portion 77 which is inserted between the flange 68 of the bracket 69 and the floor. The flange 77 is provided with recesses or notches 78 at spaced intervals to permit the edge 79 of said flange to be inserted beyond the body of the screws 70. One of said recesses is clearly shown in Figure 5.

The upper edge of the metallic baseboard 71 is of plain formation and is retained in position relatively to the flanges 65 and 66 of the channel member 60 by a resilient clip 78 similar to the clips 35 and 51.

The assembly and removal of the baseboard 71 is similar to that of the baseboard 31 previously described, but it will be noted that in removing the baseboard 71, the floor-sealing strip of sponge rubber 74 is removed therewith. The parts shown in Figure 3 cooperate to form a wiring conduit C' similar to the conduit C.

In lieu of using a channel member and bracket, such as the channel 60 and bracket 69 shown in Figure 3, a single member having the configuration shown in Figure 4 may be used. This figure illustrates a bracket member 80 including an outwardly extending flange 81, and vertical flanges 82 and 83 connected by a horizontal web 84 which is bent upon itself as indicated at 85 to form a third vertically extending flange 86. The vertically extending flange 83 is designed and intended to be directly secured to a stud or to a wall such as the wall 3. A strip of horizontal studding 88, indicated in dot and dash lines, and corresponding to the stud 7 shown in Figure 2, is adapted to be supported by the web 84 between the flanges 83 and 86. The stud 88 and the flange 83 may be jointly secured to a vertical stud or wall by a common screw, such as the screw 11 shown in Figure 2. The height of the flange 82 is such as not to interfere with the driving of such screw. It will be understood that a base plate such as the plate 71, shown in Figure 3, may be used with the bracket member 80 of Figure 4. It will be further understood that the structure shown in Figures 3 and 4 may be used with the ceiling trim shown in Figure 2 or with any other suitable form of trim.

While I have shown several embodiments of the invention, it will be understood that various modifications therefrom may be made without departing from the spirit of the invention or the scope of the annexed claims.

Having described my invention, I claim:

1. In combination, a wall, a metallic strip secured to said wall having a longitudinal edge portion which may be flexed outwardly from said

wall, a baseboard arranged adjacent to said strip, and means detachably securing said strip and baseboard in assembled relation, said means including a flange disposed between said wall and said strip and a member overlying one longitudinal edge of said baseboard for concealing said edge from view.

2. In combination, a wall, a metallic strip secured to said wall having a longitudinal edge portion which may be flexed outwardly from said wall, a baseboard arranged in confronting relationship to said strip, and means detachably securing said strip and baseboard in assembled relation, said means including a flange portion disposed between said wall and said strip and a second flange portion overlying the outer face of said baseboard.

3. In combination, a wall, a metallic strip secured to said wall having a longitudinal edge portion which may be flexed outwardly and away from said wall, a baseboard disposed in contacting relation with said strip, and means detachably securing said strip and baseboard in assembled relation, said means including a flange disposed between said wall and strip and a beaded portion overlying the outer face of said baseboard.

4. In combination, a wall panel, a member associated with said wall panel having a flange overlying a portion of the outer face of the lower end of said panel, a metallic baseboard disposed in confronting relation to said flange, and means detachably securing said flange and baseboard in assembled relation, said means including a member overlying one longitudinal edge of said baseboard for concealing said edge from view.

5. In combination, a wall panel, a member associated with said wall panel having a flange portion overlying a portion of the outer face of said wall panel, a metallic baseboard disposed in confronting relation to said flange, and means detachably securing said flange and baseboard in assembled relation, said means comprising a clip having portions thereof overlying said flange and the outer face of said baseboard, respectively.

6. In combination, a wall panel, a member associated with said wall panel having a flange portion overlying a portion of the outer face of said wall panel, a metallic baseboard disposed in confronting relation to said flange, and means detachably securing said flange and baseboard in assembled relation, said means comprising a clip having a flange disposed intermediate said panel and the flange of said member and a beaded portion overlying a portion of the outer face of said baseboard.

7. In combination, a wall, a strip secured relatively to said wall and having a longitudinal edge portion which can be flexed outwardly from said wall, a member having a portion U-shaped in cross section disposed below said strip and providing an open conduit for wiring, a baseboard disposed in confronting relation to said strip, and means detachably securing said strip and baseboard in assembled relation, said means including a member overlying one longitudinal edge of said baseboard for concealing said edge from view.

8. In combination, a wall, a strip secured relatively to said wall and having a longitudinal edge portion which can be flexed outwardly from said wall, a member having a portion U-shaped in cross-section and disposed below said strip and providing an open conduit for wiring, a baseboard engaging said strip, means detachably securing said baseboard and strip in assembled relation and concealing one longitudinal edge of said baseboard, and a molding concealing the opposite longitudinal edge of said baseboard.

9. In combination, a wall, a strip secured relatively to said wall and having a longitudinal edge portion which can be flexed outwardly from said wall, a member having a portion U-shaped in cross-section and disposed below said strip and providing an open conduit for wiring, a baseboard contacting said strip, means detachably securing said baseboard and strip in assembled relation and concealing one longitudinal edge of said baseboard, and a molding concealing the opposite longitudinal edge of said baseboard, said molding having a flange portion engaging with a flange of said U-shaped member.

10. In combination, a wall, a metallic strip secured to said wall having a longitudinal edge portion which may be flexed outwardly from said wall, a trim member arranged in confronting relationship to said strip, and means detachably securing said strip and trim member in assembled relation, said means including a flange portion disposed between said wall and said strip and a second flange portion overlying the outer face of said trim member.

11. In combination, a wall panel, a member associated with said wall panel having a flange portion overlying a portion of the outer face of said wall panel, a trim member disposed in confronting relation to said flange, and means detachably securing said flange and trim member in assembled relation, said means comprising a clip having portions thereof overlying said flange and the outer face of said trim member, respectively.

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