Aug. 25, 1936. E. L. GARRETT 2,052,346

BUILDING CONSTRUCTION

Filed Oct. 18, 1933 2 Sheets-Sheet 1

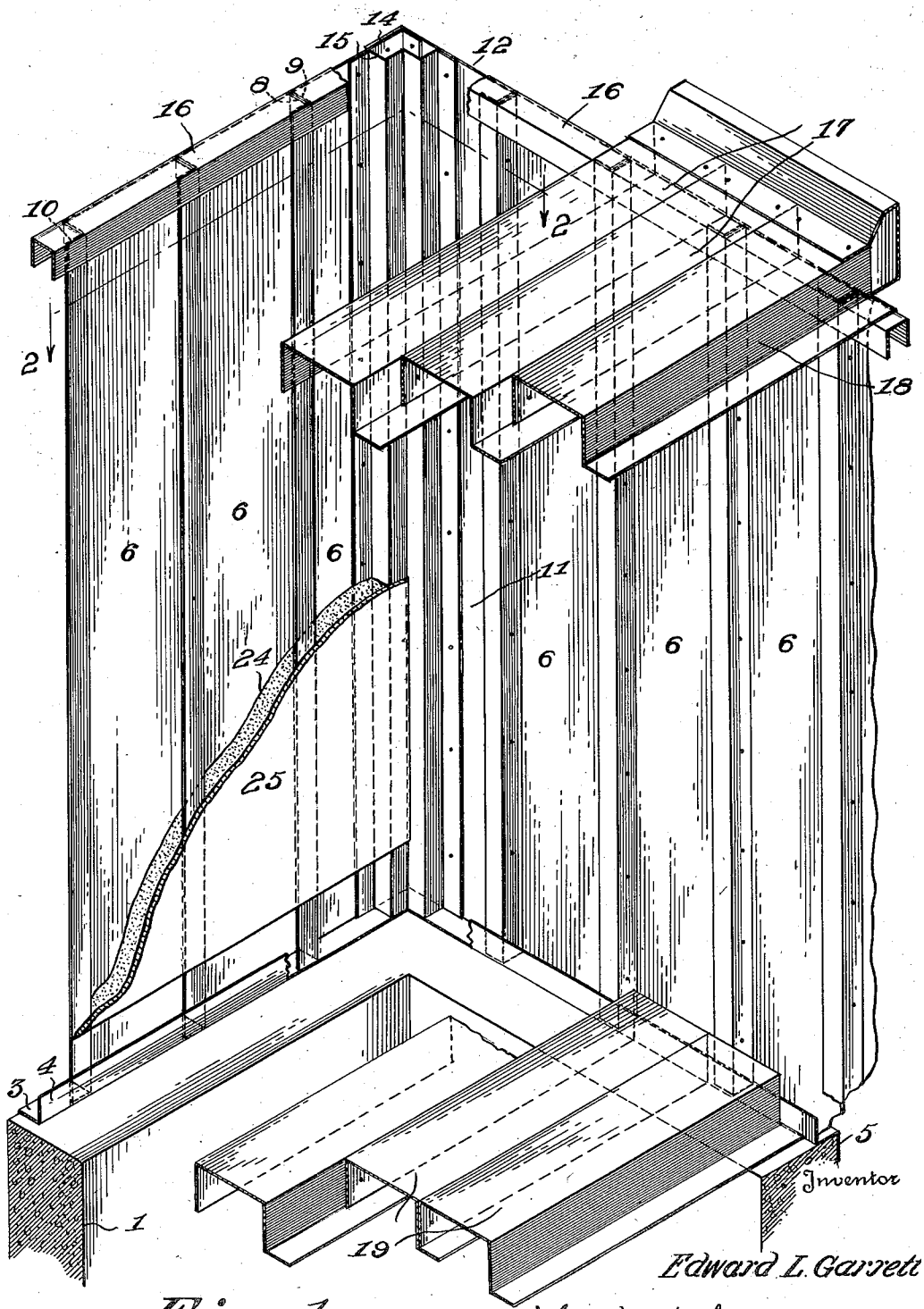


Fig. 1.

Inventor

Edward L. Garrett

By Wray N. Hoffman

Attorney

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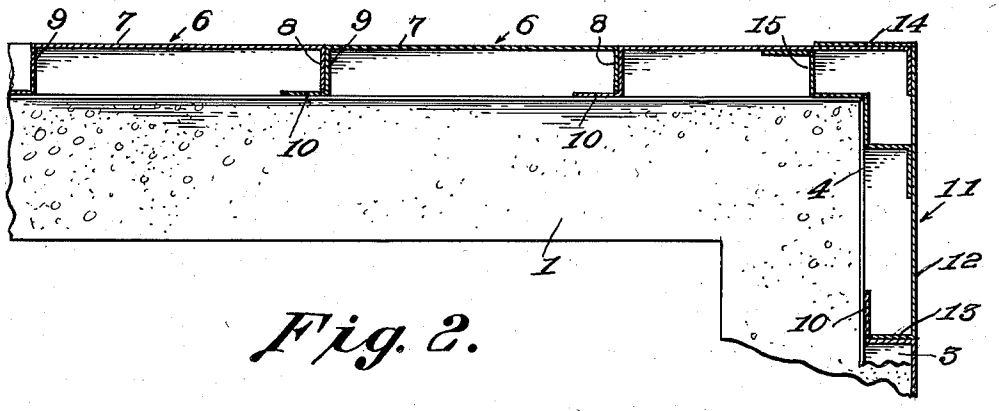


Fig. 2.

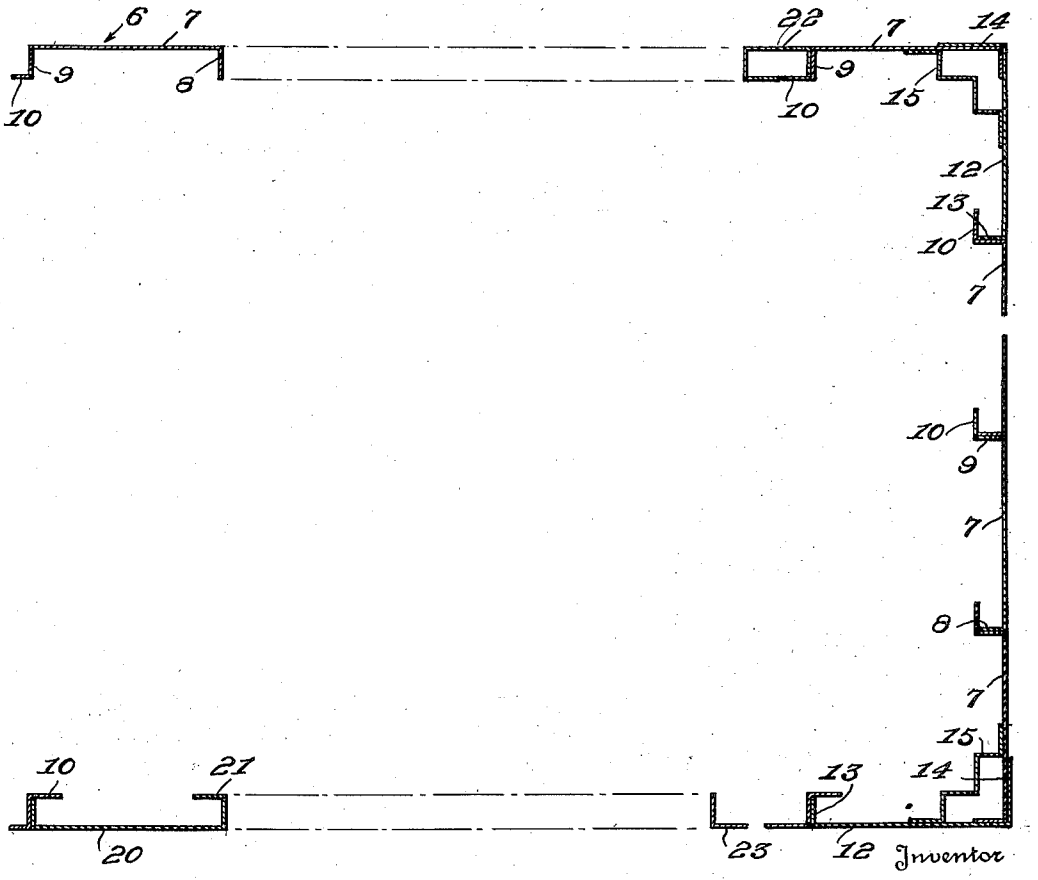


Fig. 3.

Inventor

Edward L. Garrett

By Wray H. Hoffman

Attorney

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2,052,346

BUILDING CONSTRUCTION

Edward L. Garrett, Zanesville, Ohio

Application October 18, 1933, Serial No. 694,187

5 Claims. (Cl. 189—1)

This invention relates to a building construction, and more particularly to a construction which is made of metal.

An object of the invention is to provide metallic sheeting units which can be easily and quickly assembled to provide a strong, durable, and comparatively inexpensive structure.

Another object of the invention is to provide metallic sheeting units of such structure as to obviate the necessity of either a temporary or permanent frame work.

Still another object of the invention is to provide metallic sheeting units or elements of such structure that they may be assembled with the parts properly adjusted and secured without the exercise of great skill, and without great care on the part of the workmen.

Further objects and advantages thereof will be apparent from the following description taken in conjunction with the accompanying drawings, in which

Figure 1 is a perspective view, with parts broken away, of a building construction made in accordance with this invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1, illustrating the formation of the individual metallic units and the manner in which they are assembled to form the building construction.

Figure 3 is a plan view illustrative of the manner of joining together the metallic units according to this invention in a building construction.

Referring to the drawings, the numeral 1 designates the foundation wall upon which is disposed a sill plate. The sill plate is made of a metal sheet bent so as to form a modified Z section, said section comprising a flat intermediate portion 3, a flange 4 extending upwardly therefrom, and a flange 5 extending downwardly therefrom, both of said flanges being at right angles to said intermediate portion. The sill plate is mounted upon the foundation wall 1 in such manner that the flange 5 bears against the front face of said wall and the intermediate portion 3 rests upon the top of said wall.

Resting upon and supported by the intermediate portion 3 of the sill plate 2 are a plurality of wall plates 6 arranged in abutting and overlapping relation to form a wall of the building. Each of the wall plates 6 is made of a metal sheet bent so as to form a channel having a flange projecting laterally from one of the legs thereof, said channel comprising a web portion 7, a leg portion 8, and a leg portion 9 having a flange 10 projecting laterally therefrom in a direction parallel to said web portion. The respective wall plates 6 are so arranged with respect to each other that the leg portion 8 of one of the plates abuts the leg portion 9 of the adjacent plate with its edge resting against the flange 10 of said last-named plate. The plates form the walls of the building and are held in assembled relation by means of bolts or other suitable means which connect the leg portion 8 of the one plate to the leg portion 9 of the adjacent plate.

At the corners of the building the construction of one end plate of each wall is modified by forming the flange 10 as a continuation of the leg portion 9 instead of as a lateral extension of such leg portion as in the case of the wall plates 6. There is thus formed an end plate 11 in the form of a channel having leg portions of unequal width, said channel comprising a web portion 12 and leg portions 13 and 14. The end plate 11 of each wall is so arranged with respect to the terminal wall plate 6 of the meeting wall that the leg portion 14 overlies the web portion 7 of said terminal wall plate. A sheet metal reinforcing and bracing member 15 of triple-stepped construction extends in a generally diagonal direction from the web portion 12 of the end plate 11 to the web portion 7 of the terminal wall plate 6, and is secured to said web portion by any suitable fastening means.

Mounted upon the top of the walls are sheet metal cap members or plates 16 which enclose the upper ends of the wall plates 6 comprising the wall. Resting upon the cap plates 16 of opposite walls is a roof 17 comprising a plurality of sheet metal channel members 18 arranged in abutting and partially overlapping relation, each of said channel members being of a structure similar to the wall plate 6 except for the dimensions of the parts thereof. The channel members 18 are arranged upon the cap plates 16 with the channels facing downwardly and with their laterally projecting flanges underlying and supporting the leg portion of an adjacent channel member. The floor 19 is of like construction, and rests upon and is supported by the foundation base 1.

In the case of a building of the type wherein openings in the side walls are desired for the reception of window or door frames, one or more of the wall plates 6 may be omitted, and a wall plate 20 differing from the wall plate 6 in that its laterally projecting flange 21 extends toward the interior of the channel substituted for the wall plate 6 whose lateral flange could otherwise extend into the opening as shown in Figure 3. In

the event that the width of the desired opening is not an exact multiple of the width of the wall plates **6**, a wall plate **22** or **23** of such width as to compensate for the difference between the width of the opening formed by the omission of the necessary number of wall plates **6** and the width of the desired opening may be substituted.

Within the channels of the wall plates an insulating composition **24** is inserted in any known manner. To the faces of the laterally extending flanges of the wall plates is secured wall board **25**.

Having fully described the invention, what I claim as new and desire to secure by Letters Patent is:

1. Building construction comprising a sill plate mounted upon a foundation wall, a plurality of wall plates resting upon and supported by said sill plate arranged in abutting and overlapping relation to form the walls of the building construction, one of said walls meeting another of said walls at an angle, each of said walls comprising wall plates being made of a metal sheet bent so as to form a channel, each channel having a web portion and angularly disposed leg portions depending from said web portion, one of said leg portions being provided with a flange projecting laterally in a direction parallel to said web portion of the channel, said wall plates being so arranged with respect to each other that a leg portion of the channel of one of the plates abuts the leg portion of the channel of the adjacent plate with its edge resting against the flange of said last-named plate, one of said walls having an end plate in the form of a channel having leg portions of unequal width so arranged with respect to the terminal wall plate of the meeting wall that the leg portion of the greater width overlies the web portion of the channel of said terminal wall plate, a reinforcing and bracing member of triple-stepped construction extending in a generally diagonal direction from the web portion of the channel of said end plate to the web portion of the channel of the terminal wall plate of the meeting wall, and means for connecting the abutting leg portions together.

2. Building construction comprising a sill plate mounted upon a foundation wall, said sill plate including a flat intermediate portion having flanges extending in opposite directions and at right angles thereto, the sill plate being so mounted that the downwardly extending flange bears against the front face of said wall and the intermediate portion rests upon the top of said wall, a plurality of wall plates resting upon and supported by said sill plate arranged in abutting and overlapping relation to form the walls of the building construction, one of said walls meeting another of said walls at an angle, each of said walls comprising wall plates being made of a metal sheet bent so as to form a channel, each channel having a web portion and angularly disposed leg portions depending from said web portion, one of said leg portions being provided with a flange projecting laterally in a direction parallel to said web portion of the channel, said wall plates being so arranged with respect to each other that a leg portion of the channel of one of the plates abuts the leg portion of the channel of the adjacent plate with its edge resting against the flange of said last-named plate, one of said walls having an end plate in the form of a channel having leg portions of unequal width so arranged with respect to the terminal wall plate of the meeting wall that the leg portion of the greater width overlies the web portion of the channel of said terminal wall plate, a reinforcing and bracing member of triple-stepped construction extending in a generally diagonal direction from the web portion of the channel of said end plate to the web portion of the channel of the terminal wall plate of the meeting wall, means for connecting the abutting leg portions together, and a cap member mounted upon the upper ends of the assembled wall plates and enclosing the same.

3. Building construction comprising a sill plate mounted upon a foundation wall, a plurality of wall plates resting upon and supported by said sill plate arranged in abutting and overlapping relation to form the walls of the building construction, one of said walls meeting another of said walls at an angle, each of said walls comprising wall plates being made of a metal sheet bent so as to form a channel, each channel having a web portion and angularly disposed leg portions depending from said web portion, one of said leg portions being provided with a flange projecting laterally in a direction parellel to said web portion of the channel, said wall plates being so arranged with respect to each other that a leg portion of the channel of one of the plates abuts the leg portion of the channel of the adjacent plate with its edge resting against the flange of said last-named plate, each of said walls having a channeled terminal plate, a reinforcing and bracing member of triple-stepped construction extending in a generally diagonal direction from the web portion of the channel of the terminal wall plate of one of the meeting walls to the web portion of the channel of the terminal wall plate of the adjacent meeting wall, and means for connecting the abutting leg portions together.

4. Building construction comprising a sill plate mounted upon a foundation wall, a plurality of wall plates resting upon and supported by said sill plate arranged in abutting and overlapping relation to form the walls of the building construction, one of said walls meeting another of said walls at an angle, each of said walls comprising wall plates being made of a metal sheet bent so as to form a channel, each channel having a web portion and angularly disposed leg portions depending from said web portion, one of said leg portions being provided with a flange projecting laterally in a direction parallel to said web portion of the channel, said wall plates being so arranged with respect to each other that a leg portion of the channel of one of the plates abuts the leg portion of the channel of the adjacent plate with its edge resting against the flange of said last-named plate, one of said walls having an end plate in the form of a channel having leg portions so arranged with respect to the terminal wall plate of the meeting wall that one of the leg portions overlies the web portion of the channel of said terminal wall plate, a reinforcing and bracing member of triple-stepped construction extending in a generally diagonal direction from the web portion of the channel of the terminal wall plate of one of the meeting walls to the web portion of the channel of the terminal wall plate of the adjacent meeting wall, and means for connecting the abutting leg portions together.

5. Building construction comprising a sill plate mounted upon a foundation wall, a plurality of wall plates resting upon and supported by said sill plate arranged in abutting and overlapping relation to form the walls of the building construction, one of said walls meeting another of said

walls at an angle, each of said walls comprising wall plates being made of a metal sheet bent so as to form a channel, each channel being composed of one web portion and two angularly disposed leg portions depending from said web portion, one of said leg portions only being provided with one flange projecting laterally in a direction parallel to said web portion of the channel, said wall plates being so arranged with respect to each other that a leg portion of the channel of one of the plates abuts the leg portion of the channel of the adjacent plate with its edge resting against the flange of said last-named plate, means for connecting the abutting leg portions together, and a cap member mounted upon the upper ends of the assembled wall plates and enclosing the same.

EDWARD L. GARRETT.