H. BROOKS.

SHEET METAL WALL FOR BUILDINGS.

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1,250,551. Patented Dec. 18, 1917.

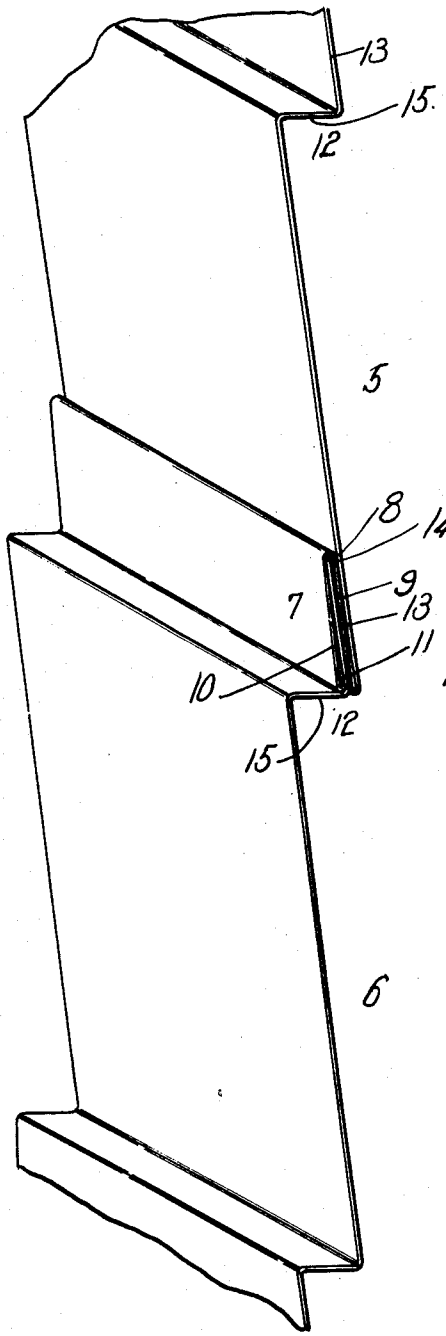


Fig. 1.

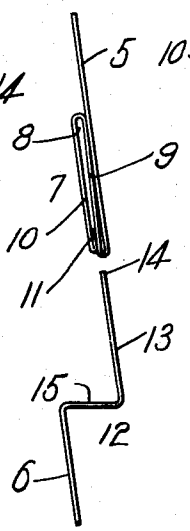


Fig. 3.

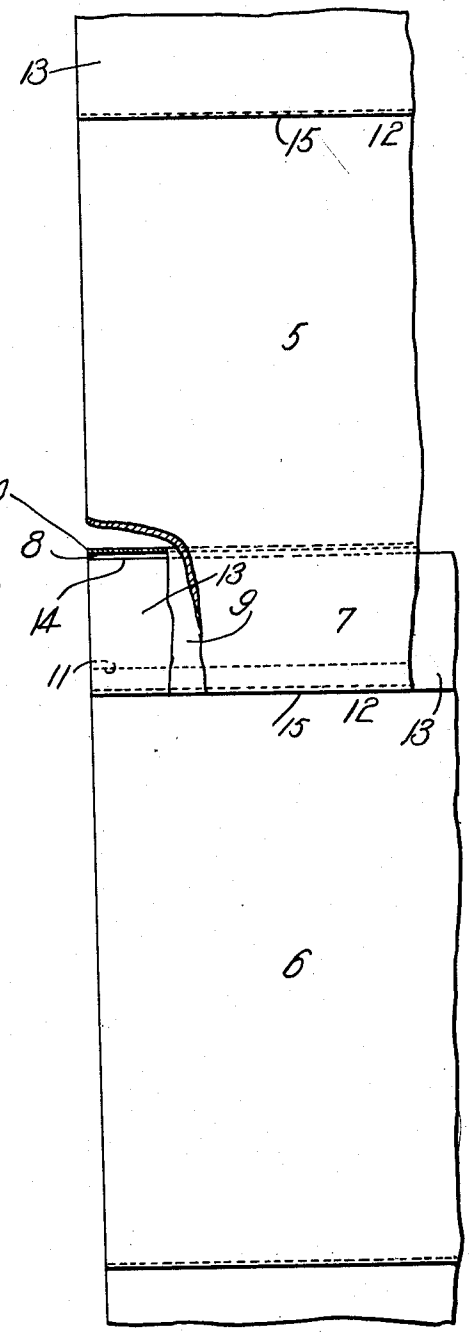


Fig. 2.

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UNITED STATES PATENT OFFICE.

HAROLD BROOKS, OF WEYMOUTH, MASSACHUSETTS.

SHEET-METAL WALL FOR BUILDINGS.

1,250,551. Specification of Letters Patent. Patented Dec. 18, 1917.

Application filed December 26, 1916. Serial No. 138,789.

To all whom it may concern:

Be it known that I, HAROLD BROOKS, a subject of King George V, residing at Weymouth, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Sheet-Metal Walls for Buildings, of which the following is a specification.

This invention relates to a sheet metal wall for buildings, the same being particularly adapted for the walls of portable garages.

The object of the invention is to provide a sheet metal wall for buildings which has all the appearance of a clapboard wall which is easily erected and which is watertight and air-tight, the essence of the invention residing in the peculiarly formed joint whereby the adjacent edges of different sheets of metal are firmly joined together and are joined together by said joint in such a manner that it is not perceptible when viewing the building from the outside.

The invention consists in a sheet metal wall for buildings such as hereinafter set forth in the specification and particularly as set forth in the claims.

Referring to the drawings:

Figure 1 is a perspective view of a portion of a sheet metal wall constructed in accordance with my invention as viewed from the inside of the building.

Fig. 2 is a side elevation of a portion of a wall broken away and viewed from the outside of the building.

Fig. 3 is a detail edge elevation illustrating the adjacent edges of two metal plates as they are about to be joined together.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 and 6 are two sheet metal plates corrugated longitudinally thereof to represent clapboards. The lower edge of the plate 5 terminates in a double U-shaped flange 7 forming a socket 8, one leg 9 of said socket bearing against the inner face of the plate 5, the other leg 10 of said double U-shaped structure being doubled inwardly at its free edge to form an auxiliary flange 11 which constitutes a weather stop. Said auxiliary flange normally bears against the inner face of the leg 9 as illustrated in Fig. 3, the lower end of said auxiliary flange terminating above the lower end of the leg 9.

The upper edge of the plate 6 terminates in an angle portion 12. The vertical leg 13 of said angle portion, when the plates are joined together as illustrated in Figs. 1 and 2, projects between and in contact with the auxiliary flange 11 and the leg 9 of the double U-shaped structure 7, with its free upper edge 14 bearing against the inner face of the leg 10 of said double U-shaped structure, while the auxiliary flange 11 bears against the horizontal leg 15 of said angle portion 12.

In forming the plates with the double U-shaped structure the leg 9 is preferably formed in such a manner as to bear against the inner face of the plate 5 as illustrated in Fig. 3, and the auxiliary flange 11 normally bears against the inner face of the leg 9, said double U-shaped structure being so formed that the auxiliary flange 11 bears against the inner face of the leg 9 with a spring pressure. When the vertical leg 13 of the angle portion 12 is forced upwardly between the auxiliary flange 11 and the leg 9, the leg 10 is sprung inwardly to allow said vertical leg to be inserted in the socket 8 and the upper edge 14 bears against the inner face of the leg 10 as shown in Fig. 1.

The auxiliary flange 11 terminates at its lower edge at a sufficient distance above the lower edge of the leg 9 so that when the two plates 5 and 6 are joined together, as illustrated in Fig. 1, the under face of the horizontal portion 15 will be substantially flush with the under edge of the plate 5 so that as viewed from the outside no joint whatever is visible.

The joint is weather-tight, that is, tight against wind, rain or snow by reason of the fact that the vertical leg 13 is clamped between the auxiliary flange 11 and the leg 9, due to the spring pressure of the leg 10. The upper edge 14 bears against the inner face of the leg 10 and the flange 11 bears against the leg 13 with a spring pressure. Therefore, any wind, water or snow to pass from the outside of the building to the inside would have to first pass between the vertical leg 13 and the lower end of the leg 9; then it would have to pass upwardly and between the upper edge 14 of the leg 13 and the inner face of the leg 7; after that, to get into the interior of the building it would have to pass by the auxiliary flange 11 and around beneath and between said flange and the horizontal portion 12.

Said auxiliary flange forms a stop to prevent wind, snow or water passing the same by and into the interior of the building. It

will, therefore, be seen that there are three points where the weather would have to pass by two surfaces closely pressed together. As a matter of fact the joint in practical use is found to be perfectly weather-tight.

I claim:

1. A sheet metal wall for buildings comprising a plate, one edge of said plate terminating in a double U-shaped structure forming a socket, one leg of said double U-shaped structure bearing against one face of said plate, the other leg of said double U-shaped structure normally bearing at its free end against said first-named leg, and another plate having one edge thereof projecting into said socket with its free edge bearing against the inner face of one of said legs.

2. A sheet metal wall for buildings comprising a plate, one edge of said plate terminating in a double U-shaped structure forming a socket, one leg of said double U-shaped structure being adjacent to one face of said plate, the other leg of said double U-shaped structure being doubled inwardly at its free end to form an auxiliary flange constituting a weather stop, said auxiliary flange normally bearing against said first-named leg, and another plate projecting between and in contact with said auxiliary flange and said first-named leg, with its free edge bearing against the inner face of one of said legs.

3. A sheet metal wall for buildings comprising a pair of plates corrugated longitudinally thereof to represent clapboards, the lower edge of one of said plates terminating in a double U-shaped structure forming a socket, one leg of said structure being adjacent to the inner face of said plate, the other leg of said double U-shaped structure normally bearing at its free end against said first-named leg, the upper edge of said other plate terminating in an angle portion, the vertical leg of said angle portion projecting into said socket, with its free edge bearing against the inner face of one of said legs.

4. A sheet metal wall for buildings comprising a pair of plates corrugated longitudinally thereof to represent clapboards, the lower edge of one of said plates terminating in a double U-shaped structure forming a socket, one leg of said structure being adjacent to the inner face of said plate, the other leg of said double U-shaped structure being doubled inwardly at its free end to form an auxiliary flange constituting a weather stop and terminating above the lower end of said first-named leg, said auxiliary flange normally bearing against said first-named leg, and another plate, the upper edge of said other plate terminating in an angle portion, the vertical leg of said angle portion projecting between and in contact with said auxiliary flange and said first-named leg, with its free edge bearing against the inner face of one of said legs and with the lower end of said auxiliary flange bearing against the horizontal leg of said angle portion.

In testimony whereof I have hereunto set my hand.

HAROLD BROOKS.