

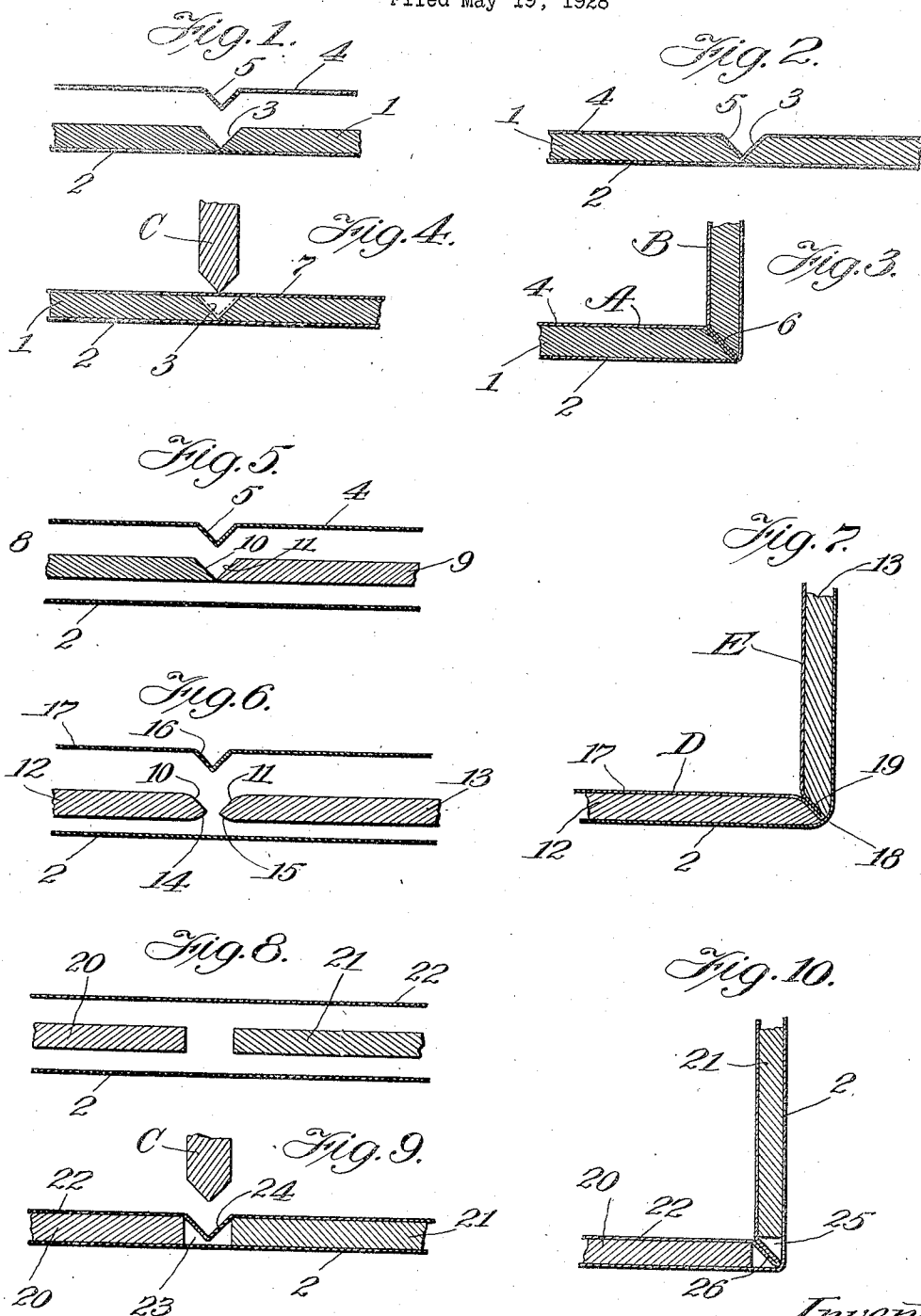
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WALL AND METHOD OF MAKING THE SAME

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WALL AND METHOD OF MAKING THE SAME.

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Metal sheathed lumber is largely used in making boxes, cabinets and other structures having walls arranged at an angle to each other; two adjacent walls being produced by bending a panel that has been properly grooved, so that the metal on the outer side will be continuous. Usually panels sheathed on one side only have been employed, the groove or grooves being cut through the wooden core. In any event, there has been only a single thickness of material, namely the outer metal sheathing, at the corners.

The object of the present invention is to make it possible to produce a continuous wall arranged in two sections lying at an angle to each other from lumber sheathed with metal on both sides, without interrupting the continuity of the metal on either side, and without subjecting the glued joints between the metal and the core to injurious stresses.

A further object of the present invention may be said to make it possible to produce a continuous wall comprising two sections arranged at right angles to each other and forming a sharp corner from lumber sheathed with metal on both faces, without interrupting the continuity of the metal on either side.

In carrying out my invention, I form the usual or any suitable groove in the core member of the panel and cause the sheathing on the side to be extended into the groove as a lining therefor. Then, when the panel is bent along the line of the groove, a fold is produced in the sheathing on the inner side; this fold constituting a rib extending diagonally in the outward direction toward or in proximity to the outer corner. This rib therefore constitutes a stiffening member so that, viewed in one of its aspects, my invention may be said to have for its object to produce a continuous wall comprising two sections arranged at an angle to each other from lumber sheathed with metal on both sides, wherein there will be a metal strengthening rib in the angle of the wall.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but, for a full understanding of my invention and of its objects and advantages, reference may be had to the following de-

tailed description taken in connection with the accompanying drawing, wherein:

Figure 1 shows in cross-section a panel sheathed with metal on one side and a sheathing for the other side, separated from each other, and prepared for assembly; Fig. 2 shows the completed panel; Fig. 3 shows the panel bent to form two wall sections at right angles to each other; Fig. 4 is a cross-section of a panel in which the gluing has been completed and the metal on one face is about to be pressed down into a groove, to illustrate another embodiment of my invention; Fig. 5 is a view similar to Fig. 1, showing the sheathing elements and the core elements separated from each other preparatory to the gluing operation, according to another form of my invention; Fig. 6 is a view similar to Fig. 5, illustrating a condition to bring about a rounded corner; Fig. 7 is a view similar to Fig. 3, showing the panel of Fig. 6 glued and bent to produce two wall sections at right angles to each other; Fig. 8 is a view similar to Figs. 1, 5 and 6, illustrating another modification; Fig. 9 is a section through the panel made by gluing together the elements shown in Fig. 8, the sheathing on the inner side having been depressed into the groove; and Fig. 10 is a cross-section through the wall formed by bending the panel of Fig. 9 to produce two wall sections at right angles to each other.

Referring to Fig. 1 of the drawing, 1 represents a core of wood or any other suitable material to one face of which is glued a thin sheet of metal 2. Across the core is cut a V-shaped groove 3 the wide portion of which opens out from the unsheathed face of the core while the apex is at or in proximity to the sheathing. In accordance with my invention I provide a second sheet metal sheathing 4 deformed, as indicated at 5, to produce a trough-like part that will fit into the groove 3 when the sheathing is laid on the exposed face of the core. In this form of my invention two gluing operations are required to complete the panel; the members 1 and 2 being first glued together and, after the groove has been cut, a second gluing operation is performed, whereby the sheathing 4 is attached to the core as indicated in Fig. 2. After the panel has been completed it may be

bent along the line of the valley to produce two sections arranged at right angles to each other, as indicated at A and B in Fig. 3. It will be seen that in bending the panel the elements forming the sides of the trough 5 in the sheathing on the inner side come together so as to produce a fold 6 extending diagonally through the structure at the corner. This fold constitutes a stiffening rib that may be engaged with the metal of the outer sheathing at the angle in the latter. This stiffening rib serves not only as a column or post, but also as a strut or abutment lying behind and engaged with the outer sheathing at the corner to stiffen the corner.

Instead of pre-forming the sheathing that is to lie on the inner side of the wall a flat sheet, such as indicated at 7 in Fig. 4, may be glued to the exposed face of the core after the groove has been cut in the same. After the gluing operation has been completed, the metal overlying the groove may be pressed down into the same, as indicated in dotted lines in Fig. 4 by any suitable means as, for example, by a die C.

In Fig. 5 there is illustrated another modification in which the core is made of two sections 8 and 9 beveled at their meeting edges, as indicated at 10 and 11, so that when they are placed together a V-shaped groove is formed between them. The two sheathings 2 and 4, are like those shown in Fig. 1. Glue is applied between the core and both sheathing sheets and, when the parts are properly assembled, the gluing is effected by a single operation.

The method illustrated in Fig. 5 lends itself well to the production of wall sections arranged at an angle to each other and forming a rounded outer corner. Thus, as shown in Fig. 6, the core sections 12 and 13, in addition to being beveled as at 10 and 11, are also beveled on the opposite side as indicated at 14 and 15. The trough-like element 16 in the upper sheathing 17 is the same as the trough 5 in Figs. 1 and 5, but somewhat shallower. After the several elements have been glued together, the panel may be bent to form two walls arranged at right angles to each other, as indicated at D and E in Fig. 7, the corner 18 being rounded instead of sharp. The rib 19 produced by the fold in the sheathing on the inner side extends diagonally through the wall to the outer sheathing, as indicated at 19.

If desired, instead of employing a V-shaped groove in the core, the core may be made as in Fig. 8, comprising sections 20 and 21 having vertical edges. In assembling the elements of a panel together for the purpose of gluing them, the core sections are placed between the plain metal sheets 2 and 22 with their edges spaced apart. When the panel is glued, it will have a chamber 23, rectangular in cross-section, extending entirely across the same. The sheathing 22

is then rolled or pressed down into this chamber, as indicated at 24, by means of a roller or die C. When the panel is bent a chamber 25 will be left in the corner, as indicated in Fig. 10. The rib 26, formed by the bringing together of the two sides of the trough 24, extends diagonally across this chamber, preferably into engagement with the outer sheathing at the bend in the latter.

I have illustrated my invention as applied to walls arranged in sections at right angles to each other, with sharp and rounded corners; but it will of course be understood that the size of the angle may be varied to suit the conditions. It will furthermore be understood that any desired number of bends may be made in the same panel, since additional bends require only a duplication of the features heretofore explained.

It will thus be seen that I have produced a simple and novel continuous wall construction and method of making the same, whereby two sections arranged at any desired angle to each other and having a sharp or a rounded corner will be provided with a continuous metal sheathing on both the inside and the outside and with a stiffening and reinforcing rib for the corner.

While I have illustrated and described with particularity only a few preferred ways of carrying out my invention, I do not desire to be limited to the details thus illustrated and described; but intend to cover all forms and methods coming within the definitions of my invention constituting the appended claims.

I claim:—

1. A structure comprising a continuous wall in two sections at an angle to each other, said wall consisting of a core sheathed on both faces with sheet metal, the metal on the inner side being folded into a rib extending diagonally through the core at the corner.

2. A structure comprising a continuous wall arranged in two sections at an angle to each other, said wall consisting of a core covered on both faces with sheet metal cemented thereto, and a metal rib extending diagonally through the core at the corner.

3. A structure comprising a continuous wall arranged in two sections at an angle to each other, said wall consisting of a core sheathed on both faces with sheet metal cemented thereto, the inner sheathing being folded upon itself at the corner to form a rib containing sufficient metal to compensate for the difference in length between the inner and outer sheathings in the zone of the corner.

4. A structure comprising a continuous wall arranged in two sections at an angle to each other, said wall consisting of a core sheathed with metal on both faces, the core being cut away at the corner between the two sections, and the sheathing on the inner

side being folded into the space between the adjacent ends of the core.

5 5. The method of producing a wall in two sections arranged at an angle to each other, which consists in producing a flat panel comprising a core sheathed on both faces with metal with a portion of the sheathing on one

face depressed into a valley extending across the wall, and then bending the wall along the line of the valley to bring the sides of the valley toward each other. 10

In testimony whereof, I sign this specification.

FRANK M. CURRAN.