

S. BROWN.
 COLLAPSIBLE SHEET METAL WALL.
 APPLICATION FILED OCT. 12, 1914.

1,156,053.

Patented Oct. 12, 1915.

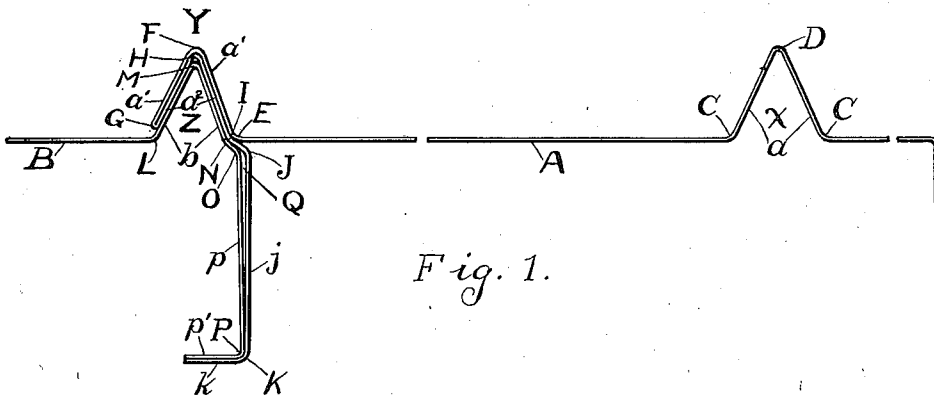


Fig. 1.

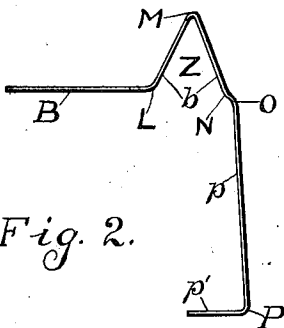


Fig. 2.

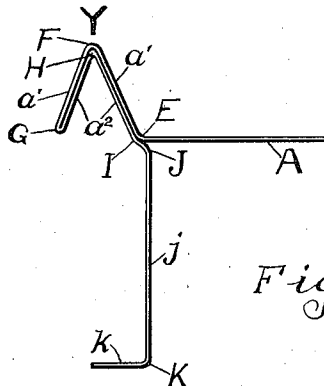


Fig. 3.

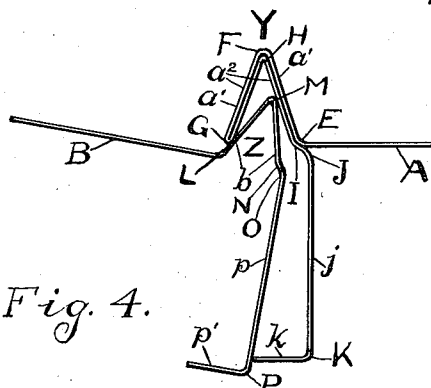


Fig. 4.

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STEWART BROWN, OF CHICAGO, ILLINOIS.

COLLAPSIBLE SHEET-METAL WALL.

1,156,053.

Specification of Letters Patent.

Patented Oct. 12, 1915.

Application filed October 12, 1914. Serial No. 866,323.

To all whom it may concern:

Be it known that I, STEWART BROWN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Collapsible Sheet-Metal Walls, of which the following is a specification.

This invention relates to collapsible sheet metal walls which are adapted to be used as partitions, and as the outer walls of buildings, such as garages, summer cottages, sheds, and the like.

The objects of the invention are to obtain a collapsible sheet metal wall which will be rigid, when erected; which can be taken apart, when desired, and again erected; which will consist of substantially duplicate members; and which will not require men particularly skilled in mechanics to erect them.

A further object is to obtain duplicate members to form said wall which can be formed up in a die press.

Further objects are to obtain walls which will be proof against rain, snow, sleet, and the like; and which will present an appearance, when viewed from the outside, of a non-collapsible wall.

In the drawing accompanying and forming a part hereof Figure 1 is an end view of a portion of two members of a wall embodying this invention, attached together at adjacent edges. Fig. 2 is an end view of one edge of one of the members which is illustrated in Fig. 1. Fig. 3 is an end view of one edge of the other member which is illustrated in Fig. 1. And Fig. 4 is an end view of adjacent edges of said members in a partially joined (or partially collapsed) condition.

A reference character applied to designate a given part indicates said part in all the figures of the drawing, wherever the same appears.

To make a wall embodying this invention a sheet of metal, say of galvanized iron, of the length required to make a wall of the height desired, and of the thickness which said wall is designed to be, is taken, and on one edge thereof the bends E, F, G, H, I, J, and K are made; while on the other edge the bends L, M, N, O and P, are made. In the body of the sheet of metal as many bends C, D, C, are made to obtain stiffening ribs,

as are desired. The stiffening ribs obtained by bends C, D, C, are lettered X in Fig. 1. The bends E, F, G and H obtain stiffening ribs, which I have lettered Y, in Figs. 1, 3 and 4; and said bends (E, F, G and H,) together with the bends I, J and K, form the part of the joining means of the several members of the wall which are on one edge of said members. Bends L and M form a stiffening rib on one edge of said members, (the edge opposite to rib Y) and is lettered Z, in Figs. 1, 2 and 4. Said stiffening rib Z fits in rib Y, when two of said members are joined together. Bends L, and M, with bends N, O and P, form the part of the joining means of the several members of the wall which are on the other edge of said members from the edge which is illustrated in Fig. 3. Fig. 2 thus illustrates one edge of one member of the wall, and Fig. 3 the other edge of said member. And when two members having like edges are to be joined together one edge of one of said members is joined to the other edge of the other member, as in Fig. 1.

A is the sheet of metal to the right, in Fig. 1 and B is the sheet to the left in said Fig. 1; and while, as stated, like bends are made on like edges of duplicate sheets I have preserved said lettering, (A and B) in all the figures.

Between bends C and D the portion of the sheet of metal which enters into rib X is lettered a . The portion of said sheet of metal between bends E, F, and F, G, is lettered a^1 ; the portion between bends G and H, and H, I, is lettered a^2 ; and the portion between bends J, K, is lettered j . In sheet B the portion of said sheet which is between bends L, M, and M, N, is lettered b , and the portion between bends O, P is lettered p . The portion of sheet A which is beyond bend K is lettered k ; and the portion beyond bend P, (in sheet B), is lettered p^1 .

It will be noticed that the bends N, O, are reverse bends, like bends I, J, in sheet A, but said bends do not fit so closely together but what the space Q, (Fig. 1) between parts j and p is obtained. This space Q is to permit the insertion of a tool to separate the joint which is made by securing adjacent edges of sheets A and B together as hereinbefore described, (and as illustrated in Fig. 1). To join said adjacent edges together they are brought into the position

which is illustrated in Fig. 4, and then forced, or sprung into the joined position, illustrated in Fig. 1.

I find that by making the bends E and L, respectively, an obtuse angle; and making the several bends F, H, and M acute angles, the edges can be forced or sprung together, as described; and when so joined they cannot be parted, except by inserting a tool in space Q, as described. I also find that said joining makes a stiffening rib; performing the same function as does rib X.

I claim:—

A joint between sheets of metal comprising two sheets of metal meeting in adjacent edges, the adjacent edge of one sheet being doubled upon itself and bent to form a rib,

the sides of which meet in an acute angle, the adjacent extremity of the sheet being bent at right angles to the plane of the sheet to form a web, and a flange formed on the free edge of the web substantially parallel to the plane of said sheet, the adjacent edge of the other sheet having a rib fitting within the first mentioned rib and having a web and flange fitting within the first mentioned web and flange.

Signed at Chicago this 10th day of October, 1914.

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Witnesses:

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