

1,083,773.

Patented Jan. 6, 1914.

2 SHEETS-SHEET 1.

Fig-2

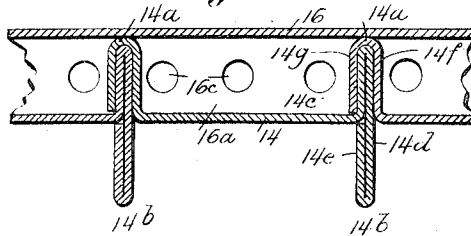
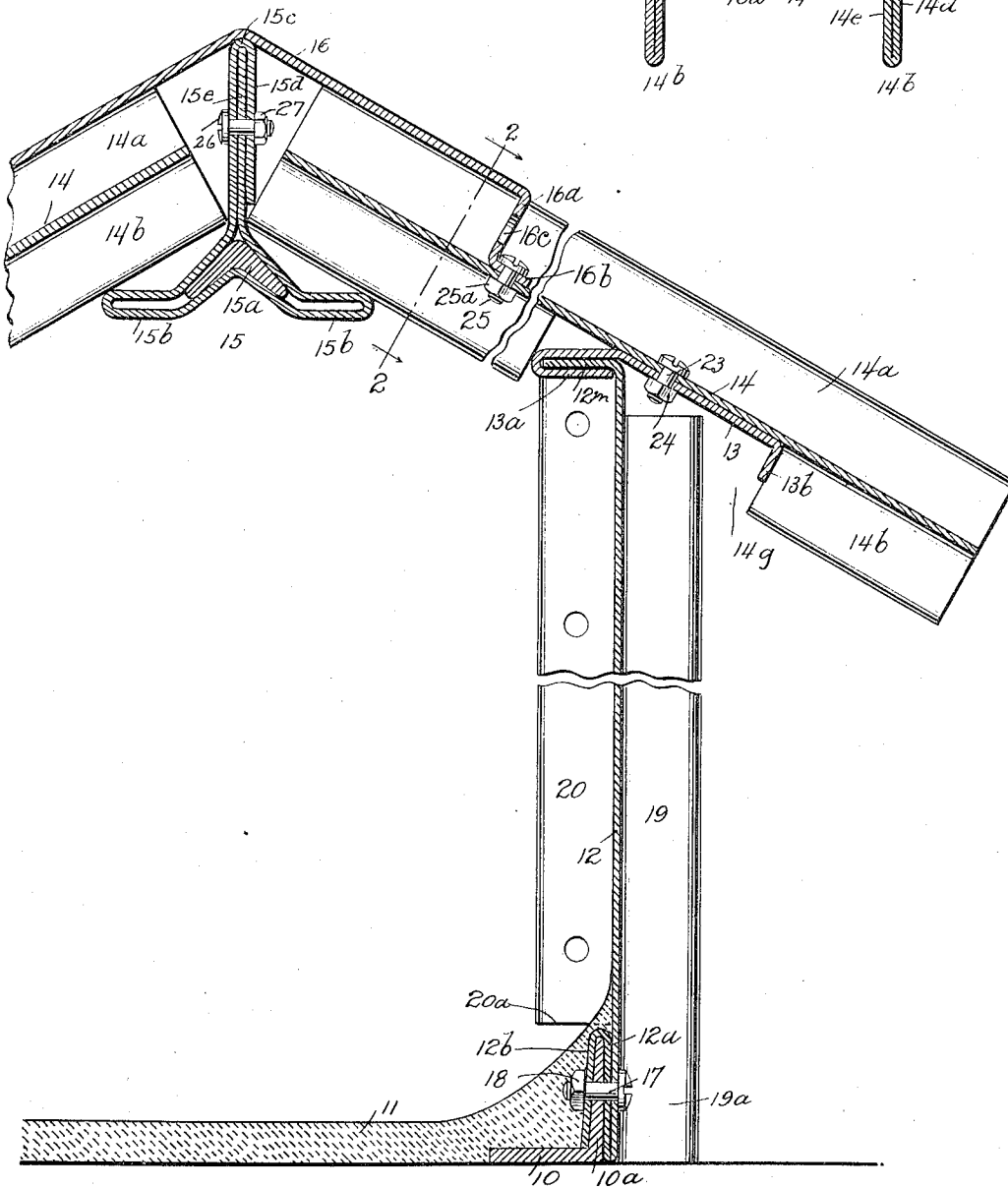


Fig-1



WITNESSES

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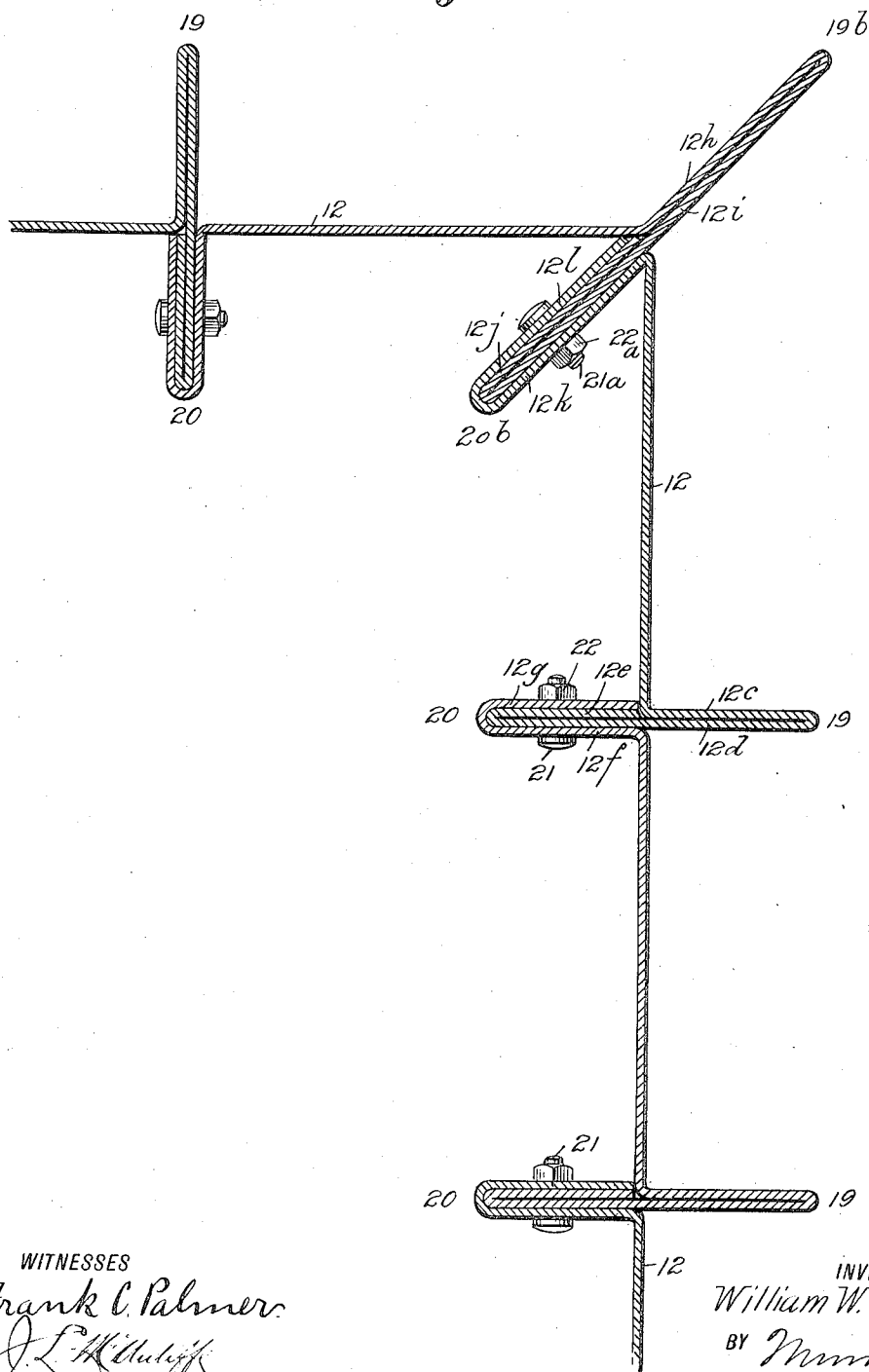
Mumma

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METALLIC BUILDING.
APPLICATION FILED MAR. 14, 1913.

2 SHEETS—SHEET 2.

Fig-3-



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM W. TAYLOR, OF MONTCLAIR, NEW JERSEY.

METALLIC BUILDING.

1,083,773.

Specification of Letters Patent.

Patented Jan. 6, 1914.

Application filed March 14, 1913. Serial No. 754,216.

To all whom it may concern:

Be it known that I, WILLIAM W. TAYLOR, a citizen of the United States, and a resident of Montclair, in the county of Essex and State of New Jersey, have invented a new and Improved Metallic Building, of which the following is a full, clear, and exact description.

My invention relates to metallic buildings adapted to be shipped in knocked-down form, and more particularly the invention relates to a building especially adapted for use as a garage.

It is a design of my invention to provide a structure of the indicated character, in which the various elements 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.

It is a further design of the invention to provide between the siding plates or sheets, and between the roofing plates or sheets, joints of increased strength; to provide joints, including the base joint, that will effectively exclude rain; to provide a base, and base joint of increased strength and simplicity; and to provide an improved form of ridge and novel ridge cover, the latter being adapted to provide for ventilation when the same is deemed desirable.

The invention will be particularly explained in the specific description following.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a transverse vertical section showing a portion of a building embodying my invention; Fig. 2 is a detail vertical cross section on the line 2—2 of Fig. 1; and Fig. 3 is a horizontal section on a larger scale, showing the siding plates and their joints.

In forming the building parts in accordance with my invention, I employ for the base, angle bars 10 which in practice after the building is erected, are covered with the cement flooring 11. On the several angle bars of the base, siding plates 12 are placed, which are adapted to receive roof-supporting plates 13, to carry the roofing plates or sheets 14 and so formed as to dispose the roof at the proper predetermined pitch. A ridge 15, hereinafter described, is provided between the sides of the roof, and a cover plate 16 extends along the ridge and part

way down the roofing plates. The lower edges of the siding plates 12 are provided with channels opening downwardly to fit over the vertical members 10^a of the angle bars 10. The channel is produced by returning the lower edge of each siding plate twice on itself, as at 12^a, 12^b, the return-bends being spaced and flaring downwardly to have a wedging fit over the member 10^a, which in practice, tapers upwardly. The siding plates and their return-bends, as well as the members 10^a of the base, are orificed to receive bolts 17 having securing nuts 18. The vertical edges of the siding plates 12 are formed with joints, each presenting a vertical rib 19 at the outside and an inner vertical rib 20, the ribs being disposed at a normal angle to the plane of the siding plates, or approximately so. To produce the joints with the indicated ribs one edge of each plate is flanged in one direction at a right angle, then returned in the opposite direction to cross the joint to the opposite side and again returned to the body of the plate, while the opposite end of the plate is channeled to receive the described bends on the opposite edge of the adjacent plate; thus, the plate at one edge is first bent outwardly at right angles, as at 12^c, then returned as at 12^a close against the portion 12^c, the return-bend extending across the joint transecting the plane of the plate, and again returned, as at 12^c, the extreme edge terminating close against the inner side of the plate. Thus double thicknesses are presented in the form of inner and outer ribs, the one thickness extending in unbroken continuity between the ribs and being common to the two. The opposite edge of the plate is bent inwardly as at 12^d, and then return-bent, as at 12^e, the said bends being spaced to provide a channel to receive the inner bends of the companion plate. The joint is completed by bolts 21 having nuts 22, the bolts extending transversely to the several members constituting the inner rib 20. The same formation is adopted at the corner, the difference being only that the outer rib 19^b and the inner rib 20^b are diagonally disposed, as clearly shown in Fig. 3, the rib members being produced at one edge of the plate by bending the plate outward, as at 12^h, and returning it as at 12ⁱ to the inside, and again returning as at 12^j, the members at the inside being received in the channel presented by the inward bend 12^k and return-bend 12^l,

and there being bolts 21^a and nuts 22^a for securing the respective members of the inner rib 20^b.

As will be seen from Fig. 1, the outer ribs 19^a on the siding plates extend downwardly to the bottom of the base bars 10, outside of the vertical members 10^a thereof, while the inner ribs 20 are cut away to terminate as at 20^a above the bends 12^a, 12^b, that provide the channel for the said vertical member. In practice, the cement flooring 11 covers the bends 12^a, 12^b, and the angle bars 10, the surface of the cement desirably rounding from the floor to the siding plates, so that the base joint will be covered and a smooth rounding outer surface presented that may be conveniently and properly cleaned.

The roof-supporting plates 13 range lengthwise along each side at the top of the siding plates 12, and are formed at the inside with return-bends 13^a constituting a channel, and presenting a hook formation to hook over the inwardly bent top edge 12^m of the siding plates 12, between adjacent inner ribs 20, 20^b. The body of the plate 13 is inclined downwardly from the inner channeled end to receive the roofing plates or sheets 14 and determine the pitch thereof, as well as to serve in so locating the roofing plates that all will have a proper alinement. At the outer overhanging ends the connection between the roofing sheets and the supporting plates 14 can be effected by any approved means, such as screw bolts 23 and nuts 24. The roofing plates or sheets are formed with inner and outer ribs 14^a, 14^b, at the joints, similarly to those described in connection with the siding plates, there being a difference, however, that the final bend of the outer rib terminates at the under side, that is to say, the inner side as compared with the siding plates, in order to better exclude the rain; thus one side edge of a roofing plate is first bent downwardly as at 14^c and return-bent as at 14^d, said return-bend being continued across the plane of the roofing plate to the under side, and return-bent on itself as at 14^e, to form the inner rib. The described bends at the upper side are received in a channel presented by the opposite edge of the adjacent plate, the channel being produced by bending the edge of the plate first upwardly, as at 14^f, and then downwardly as at 14^g, the said bends being spaced apart to receive the mating bends on the opposite plate. The under ribs 14^b are cut away to provide recesses or openings 14^h, that receive the supporting plates 13 and permit the roofing plates to fit over said supporting plates. Desirably the outer edges of the supporting plates are formed with down-turned flanges 13^b to strengthen the same and provide a better contact surface

with the adjacent portions of the under ribs 65 of the roofing plates.

The ridge 15 has a core 15^a in the form of an angle bar disposed with its apex uppermost, and around said core is bent a sheet of plate metal which follows approximately the general angular formation of the core 15^a, and is then extended outwardly, as at 15^b, and then return-bent to provide lateral, approximately horizontal wings or flanges 15^b. From the wings 15^b, the opposite sides of the plate are brought against the core 15^a and then continued upwardly, and so formed as to provide a vertical rib 15^c, the one side being returned in a downward direction as at 15^d over upwardly extending terminals 15^e of the other side. Bolts 26 provided with nuts 27 extend transversely through the several members of the vertical rib 15^c. The roofing plate 16 is placed over the ridge and inclines downwardly from the peak of the roof over the upper ends of the roofing plates 14. At the lower ends the cover 16 is bent downwardly at substantially a right angle, as at 16^a, to contact with the outer surface of the roofing sheets and again bent at approximately a right angle to provide securing feet 16^b, bolts 25 and nuts 25^a or equivalent means being employed to secure the said feet to the roofing plates. It will thus be seen that since the body of the cover 16 rests on the outer ribs 14^a, a space is produced between the cover and the bodies of the roofing plates 14, and the space is open at the upper end between the roofing plates and the ridge and communicates with the spaces between the under ribs 14^b at the under side of the roofing plates, so that if there be holes 16^c formed in the down-turned portions 16^a of the cover 16, there may be a circulation of air upward from the interior of the building between the under ribs 14^b, around the upper ends of the roofing plates, and outward beneath the cover 16 through the holes 16^c.

It will be apparent that the described construction gives a maximum strength to the building, particularly with regard to the ribbed joint between the separate sheets forming the sides and roof, and the elements are so fashioned and have so simple a form, that particular skill or special care is not necessary on the part of the workmen charged with assembling the parts.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:

1. In a metallic building, inclosing sheets or plates having mating joint members on the meeting edges of the sheets forming inner and outer ribs projecting laterally at substantially a normal angle to the plane of the sheets, the joint member on one sheet being twice returned on itself, presenting a

lateral flange at a normal angle to the body, a returned member lying close against the said flange and extending across the joint, to be thus disposed inside and outside of the plate and transecting the plane of the plate, there being a second return bend in the plane of the flange and close against the transecting member, the terminal edge abutting the face of the plate opposite the said flange; and the joint member on the opposed edge of the adjacent plate presenting a U-bend receiving therein the adjacent portion of the joint member on the adjacent plate, and having its terminal edge abutting the adjacent face of the said adjacent plate.

2. In a metallic building, siding plates having mating joint members on the adjacent edges of the sheets forming inner and outer ribs projecting laterally at substan-

tially a normal angle to the plane of the sheets, a base bar presenting an upwardly projecting member, the lower edges of the siding plates being twice return-bent, presenting a downwardly-opening channel receiving the vertical member of the base, the outer ribs of the vertical joints extending downwardly outside the vertical member of the base, and the inner ribs terminating above the said upper vertical member and above the channel on the siding plates.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM W. TAYLOR.

Witnesses:

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