M. I. JACOBS.

GREENHOUSE CONSTRUCTION.

APPLICATION FILED MAR. 15, 1913.

1,103,773. Patented July 14, 1914.

Fig. 1.

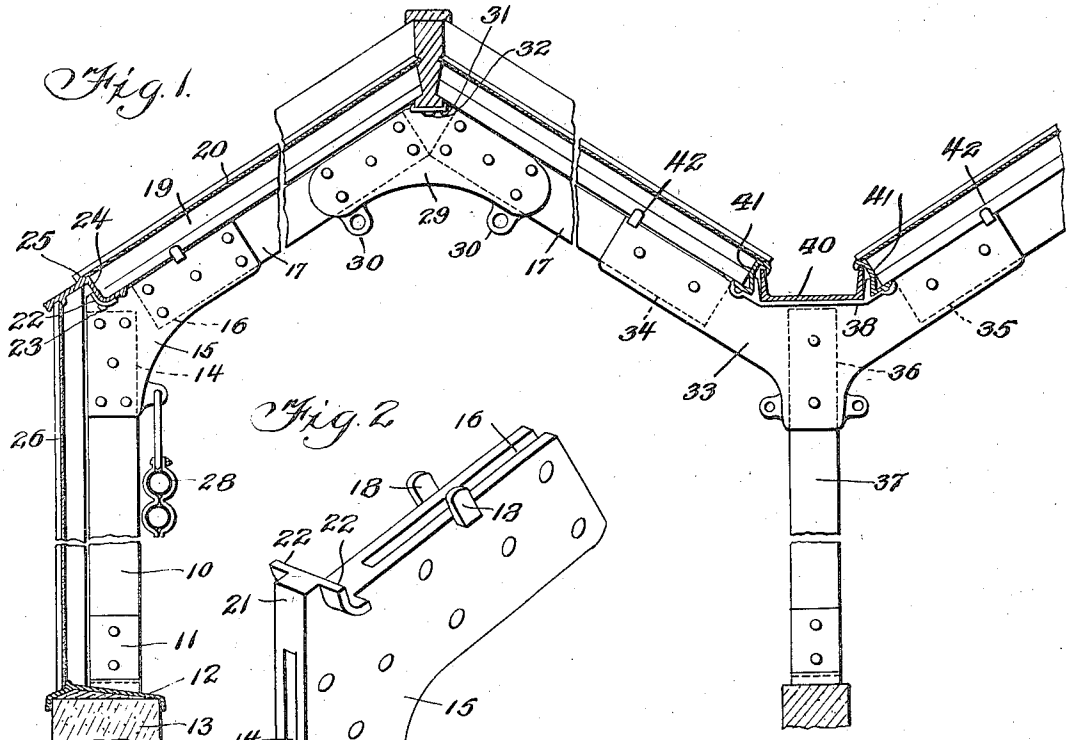


Fig. 2.

Fig. 3.

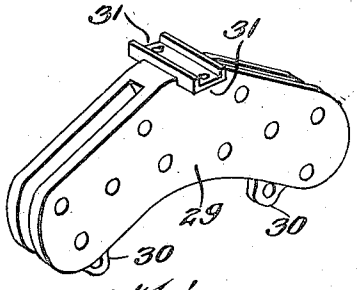


Fig. 4.

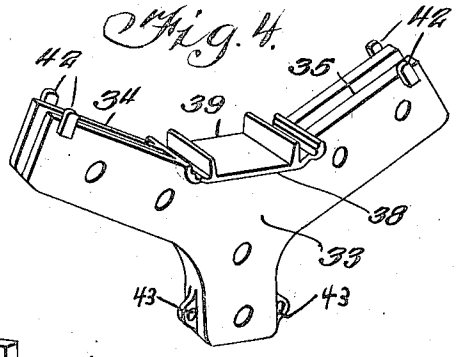
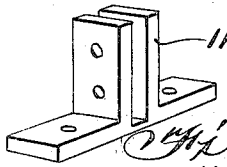


Fig. 5.



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GREENHOUSE CONSTRUCTION.

1,103,773. Specification of Letters Patent. Patented July 14, 1914.

Application filed March 15, 1913. Serial No. 754,568.

To all whom it may concern:

Be it known that I, MAURICE I. JACOBS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Greenhouse Construction; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fittings for steel structures and more particularly to the structural work used in greenhouses and the like.

An object of this invention is to provide fittings adapted to receive the ends of rafters, posts or the like and to hold them in fixed relation to one another and to further reduce the cost of construction to a minimum.

A further object of this invention is a provision of a valley fitting which in addition to securing the rafters in fixed relation to one another permits the use of a gutter and troughs to collect both the exterior moisture and the condensation which forms on the inside of the roof.

Further objects will be apparent from the following specification, appended claims and drawings in which,

Figure 1 is a sectional view through the greenhouse showing several brackets in elevation, Fig. 2 is a perspective view of a fitting used in securing the rafters to one side wall and the roof, Fig. 3 is a similar view of the fitting securing the rafters of the roof as used on the ridge, Fig. 4 is a similar view of the Y shaped fitting used in supporting the rafters forming the valley between two greenhouses, and Fig. 5 is a perspective view of the foot piece for the vertical rafters.

In building greenhouses and the like it is desirable that the structural work may be easily assembled in the construction and the cost is minimized when the several parts may be made standard. By the use of fittings to be hereinafter described, it is possible that the material used may be shipped in a small compass and with the least possible injury.

Referring to the drawings 10 indicates a side post which has the lower end thereof secured in the foot piece 11 which is mounted upon the sill 12 carried by the wall 12. The upper end of this post engages a pocket 14 formed in the cornice fitting 15 and may be bolted or otherwise secured therein. The opposite arm of the fitting 15 has a pocket 16 formed therein in which one end of the rafter 17 is bolted or otherwise secured. Lugs 18 are formed integral with the fitting 15 and are adapted to receive a roof bar 19 which supports the glazing 20 and prevents lateral movement of the bar 19 with respect to the rafter 17. The fitting 15 is further provided with the projection 21 from which extends the lateral flanges 22 which flanges may be drilled to receive a screw or the like 23. Secured to the flanges 22 is a Z-shaped cornice bar 24 which forms a trough to collect the condensation from the underside of the glazing 20 and rising from the flat surface of a portion of said bar is a bead or series of lugs 25 which arrests the downward movement of the glass 20. This Z shaped bar also has a channel 24′ on its under side to receive the frame work of the side walls in which the glazing 26 is secured. The fitting 15 may be provided with the perforated ear 27 from which a heating coil 28 may be suspended. The ridge of the greenhouse is supported by a fitting 29 whose arms have pockets formed therein in which the upper ends of the rafters 17 are securely held. This ridge fitting may be provided with the perforated ears 30 in which a bar may be mounted for the proper manipulation of ventilators. In order that the ridge pole may be secured to the fitting 29 said fitting is provided with the lateral channeled ears 31 through which a screw or other fastening means 32 may pass.

When it is desired that two houses should be built beside one another, a substantially Y-shaped valley fitting 33 may be employed in which the pockets 34 and 35 are formed in the lateral arms thereof and in which pockets the ends of the rafters 17 are placed and secured. The stem of this fitting is provided with a socket 36 in which the upper end of a post 37 fits and is secured. The fitting is provided across its top with a plate 38 having upright ribs 39 along its sides producing a channel in which the gutter 40 will lie, and flanges 39′ outside said ribs shaped to receive the lower arms of Z-bars 41. Said arms underlie the lower edges of the glazing 20 and collect condensation, while the upper arms of the Z-bars take the

thrust of the roof bars 19 and hook over the sides of the gutter at 41′ to shed the surface moisture into it. The arms of the valley fitting may be provided with lugs 42 between which the roof bars are placed and if so desired the stem may be provided with the perforated ears 43 from which the heating coils may be suspended.

Pockets 14, 16, 34 and 35 forming shoulders against which the ends of the side posts or rafters inserted in said pockets abut so that the strain exerted by said side posts and rafters is relieved from the fastening means.

Modifications may be made within the scope of this invention and I do not restrict myself to the identical form shown which is for illustrative purposes only, and

Having thus described my invention, I claim:

In a valley structure for greenhouses and the like, a post, converging rafters, and a Y-shaped fitting having sockets for the adjacent ends of said members, such fitting having across its top a plate provided with upright spaced ribs and flanges outside the ribs; combined with a channel member, a pair of Z-shaped bars, the lower arm of each of which rests on one of said flanges and is adapted to underlie the lower edge of the glazed roof to collect condensation therefrom and its upper arm being hooked over the adjacent flange of said channel member, the roof bars whose lower ends engage said Z-bars, and the glazing mounted thereon.

In testimony whereof I affix my signature in presence of two witnesses.

MAURICE I. JACOBS.

Witnesses:
GEORGE L. THOM,
HELEN VAN ETTEN.