J. F. GORMAN.

EAVES CONSTRUCTION.

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1,067,603. Patented July 15, 1913.

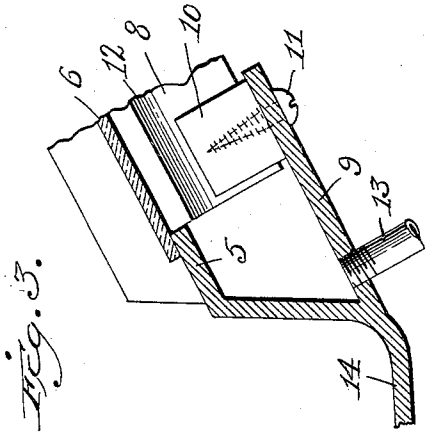


Fig. 3.

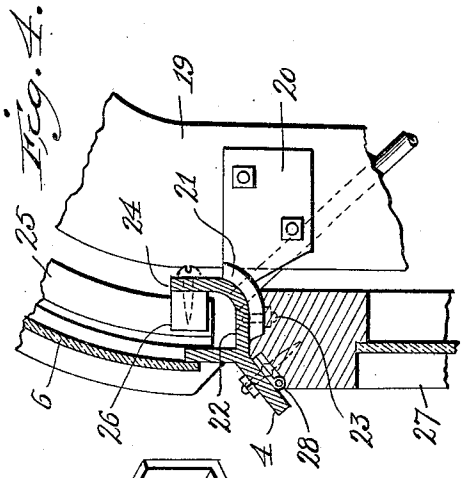


Fig. 4.

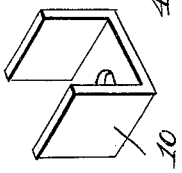


Fig. 2.

Fig. 1.

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EAVES CONSTRUCTION.

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To all whom it may concern:

Be it known that I, JAMES F. GORMAN, a citizen of the United States, residing in the borough of Manhattan, city of New York, State of New York, have invented new and useful Improvements in Eaves Construction, of which the following is a specification.

My invention relates to greenhouse construction, wherein are found glass covered roofs, and has for its object more particularly to provide an improved means for collecting and leading away the water of condensation which accumulates on the inner face of the glass and the roof glazing bars.

In carrying out this broad idea my invention contemplates certain minor detailed improvements, as will be hereinafter more definitely pointed out and claimed, reference being had to the accompanying drawing, in which:

Figure 1 is a transverse sectional view taken at one side at the eaves of the structure, showing my improved construction. Fig. 2 is a detail perspective view of my improved metal shoe employed in connection with my improved condensation gutter and roof glazing bar support. Fig. 3 is a view similar to Fig. 1, illustrating a slightly modified construction. Fig. 4 is a view similar to Fig. 1, illustrating still another modification.

In the said drawing, referring more particularly to Figs. 1 and 2, the reference numeral 1 denotes the usual top longitudinal bar for the side wall of the greenhouse, the same being hollowed out on its top face to conform to the configuration of a condensation gutter or trough 2. Said gutter or trough 2 is formed of metal, is retained in position on the top bar 1 by means of the screws 3, and is extended at its outer side into an eaves plate 4 and at its inner side into a supporting and stop plate 5, upon which the roof glass 6 and the outer upper projecting end of the roof glazing bar 7 rest, as shown. The under outer end of said bar 7 is squared, as shown at 8, and, by reason of the stop afforded by the plate 5, terminates short of the outer side of the gutter 2 a distance sufficient to leave ample room for the water of condensation in said gutter without danger of keeping the lower ends of said glazing bars wet, with its resultant rotting of the same. Said gutter 2 is also extended at its inner side into a plate 9 lying parallel with the roof glazing bar 7 and stop plate 5, and by which the inner lower end of said bar 7 is supported, a metallic shoe 10 being provided, shaped, as shown in Fig. 2, to embrace the outer end of bar 7, and disposed intermediate said bar and said plate 9. Said shoe is apertured centrally in its lower face to register with a similar aperture in plate 9 and through it passes a suitable screw 11 for uniting said parts to the roof glazing bar 7. Said shoe 10 thus not only prevents the end of the bar 8 from splitting, but through the screw receiving holes therein and in plate 9 I am enabled to accurately space the bars 7 apart to accurately receive the proper width of roof glass 6. In order to provide for the effectual removal of the water of condensation which accumulates on the inner faces of the glass 6 and roof glazing bars 7, and which has always been more or less troublesome, I provide said bars, as usual, with the drip grooves 12 arranged longitudinally thereof below and parallel with the glass 6, said grooves discharging directly into the gutter or trough 2 underlying the lower ends of the same. By this construction the lower ends of the roof glazing bars 7, which are made of wood, are kept free from any accumulation of the water of condensation, which is readily carried off by the gutter or trough 2, suitable discharge pipes 13 being provided for the same at intervals. By this construction I provide an effectual support for the lower ends of the glazing bars 7 without necessitating that they be specially beveled, and yet which will provide an ample gutter at the lower ends thereof to receive the water of condensation.

I prefer to bolt to the metallic rafter 15 of the structure a plate 16 which carries and supports a seat 17 receiving the trough 2, the two being connected by a screw bolt 18.

In Fig. 3 I have shown a slightly modified construction in which the eaves plate 4 is replaced by a suitable eaves trough or gutter 14 formed integral with the gutter or trough 2, and serving to take care of the water on the outside of glass 6.

In Fig. 4 I have shown still another modification illustrating my improvement applied to the well known curved eaves type of greenhouse. In this construction the metallic rafter 19 extends upwardly to the apex of the roof, and the plate 20 bolted thereto has formed integral therewith a seat

21, acting like the seat 17 of Fig. 1, to support the trough 22 and to attach it to the rafter 19 by means of the screw bolt 23. In this construction the trough 22 is so tilted as to bring the plate 24 into a vertical plane to correspond with the lower end of the curved roof glazing bar 25, the shoe 26 corresponding to shoe 10 being interposed and fastened in a similar manner. In this construction I have shown the side sash 27 hinged at 28 so as to be capable of being opened and closed in the well known manner, and it will be understood that in all the shown constructions the side sashes may be either fixed, as shown in Fig. 1, or hinged, as shown in Fig. 4.

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

1. In an eaves for greenhouses, a curved gutter or trough adapted to be supported by the side wall top bar inside the roof, an inwardly extending flat bottom plate formed integral with said gutter or trough, an inwardly extending stop plate also formed integral with said gutter or trough and extending from the upper edge thereof parallel with said bottom plate, and a series of roof glazing bars having their lower ends supported by said bottom plate and abutting against said stop plate.

2. In an eaves for greenhouses, a curved gutter or trough adapted to be supported by the side wall top bar inside the roof, an inwardly extending flat bottom plate formed integral with said gutter or trough, an inwardly extending stop plate also formed integral with said gutter or trough and extending from the upper edge thereof parallel with said bottom plate, a series of roof glazing bars having their lower ends disposed above said bottom plate and abutting against said stop plate, and a series of shoes fitting the lower ends of said bars and adapted to rest on and be supported by said bottom plate.

3. In an eaves for greenhouses, a curved gutter or trough adapted to be supported by the side wall top bar inside the roof, an inwardly extending flat bottom plate formed integral with said gutter or trough, an inwardly extending stop plate also formed integral with said gutter or trough and extending from the upper edge thereof parallel with said bottom plate, a series of roof glazing bars having their lower ends disposed above said bottom plate and abutting against said stop plate, and a series of shoes fitting the lower ends of said bars and adapted to rest on and be supported by said bottom plate, said bottom plate and shoes being apertured to receive common screws whereby said shoes and bars will be positioned.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

JAMES F. GORMAN.

Witnesses:
MARTIN H. SCHRENKEISEN,
FRED W. TRAPP.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."