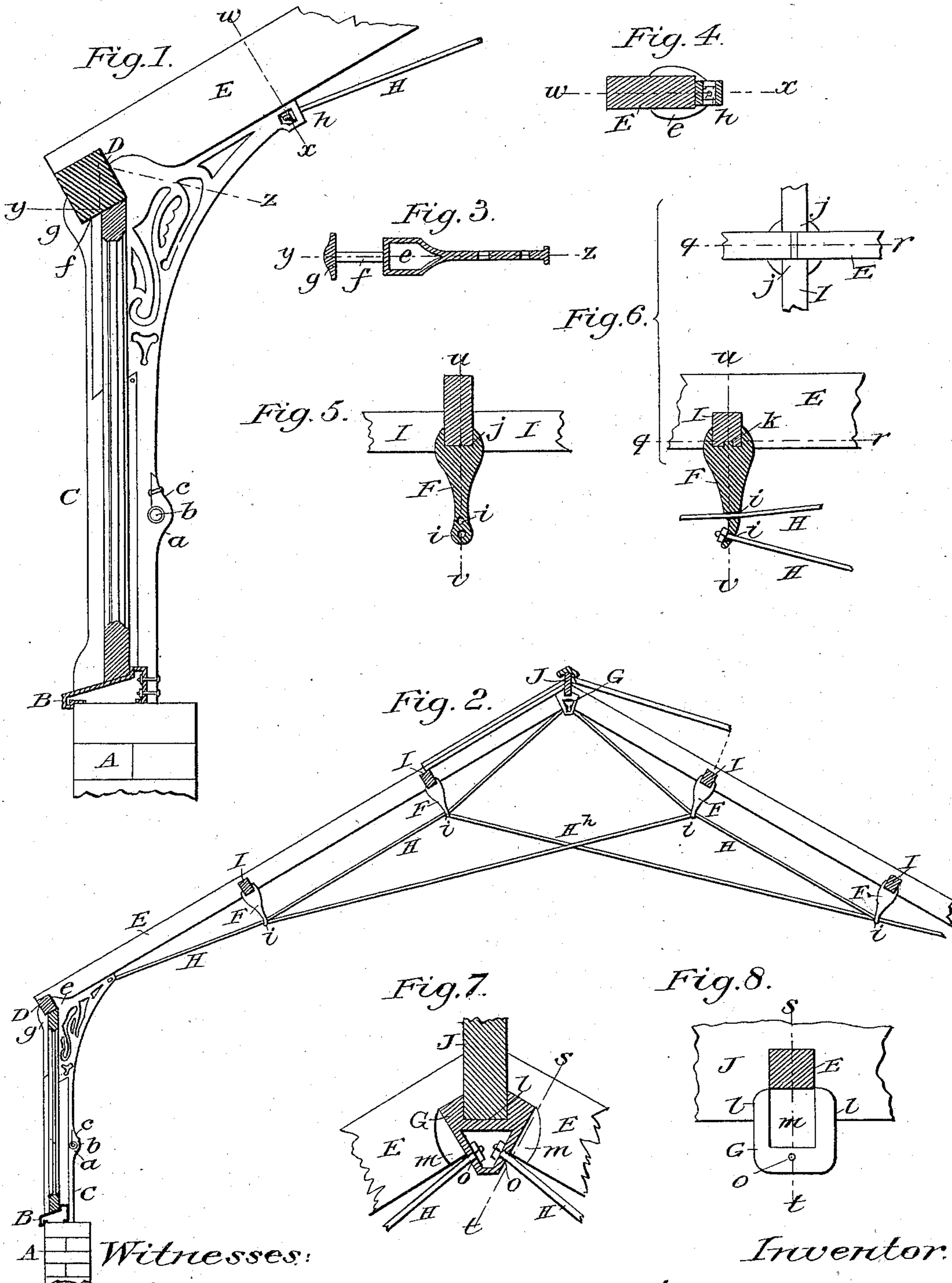


(No Model.)

J. PLENTY.
HORTICULTURAL BUILDING.

No. 335,145.

Patented Feb. 2, 1886.



Witnesses:

J. J. Peristone
E. S. Peristone

Inventor:

Jos: Plenty.

UNITED STATES PATENT OFFICE.

JOSEPHUS PLENTY, OF JERSEY CITY, NEW JERSEY.

HORTICULTURAL BUILDING.

SPECIFICATION forming part of Letters Patent No. 335,145, dated February 2, 1886.

Application filed May 29, 1885. Serial No. 167,056. (No model.)

To all whom it may concern:

Be it known that I, JOSEPHUS PLENTY, a subject of the Queen of Great Britain, but having declared my intention to become a citizen of the United States, and residing at Jersey City, in the county of Hudson, in the State of New Jersey, have invented certain new and useful Improvements in the Structure of Horticultural Buildings; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings.

This invention has for its object improvements in the construction of horticultural buildings, or buildings for horticultural purposes—such as, for example, conservatories, greenhouses, vineries, plant-houses, winter gardens, orchid-houses, and other such structures.

It having been found that buildings constructed entirely of iron prove unsatisfactory for horticultural purposes, from expansion and contraction caused by alternate heat and cold, and from the giving off of heat too rapidly in cold and severe weather, and also that wood in large sizes or scantlings for sills, posts, and rafters rots and decays very rapidly from the moisture necessary to the growth of plants, this invention has for its object to retain the lightness and strength of the iron, and thereby to strengthen the wood in rafters, plates, and such like, and thus to diminish the sizes of said rafters, and also to decrease the amount of labor required to frame and put up or erect horticultural and other such buildings when said buildings are erected after the old or usual method. I attain these objects by the arrangement illustrated in the accompanying drawings, in which—

Figure 2 is a cross-section on a small scale of my method of construction, showing its essential parts, and Figs. 1, 3, 4, 5, 6, 7, and 8 show its various parts on a larger or increased scale.

Similar letters refer to similar parts throughout the several views.

Upon a foundation or underpinning of brick or stone, as A, Figs. 1 and 2, I lay a sill of iron or wood, as B, Figs. 1 and 2, said sill, if of iron, being laid with cement or concrete,

which fills the hollow part up and holds it in position. To this sill B, I attach by bolts and rivets a post or stud, C, made of iron, having a fixed bracket, *a*, for the support of ventilating-shafting *b*, said shafting being held in position by a movable piece, *c*, the said post also being provided with stops and holes for pivoting or hinging the wooden ventilating-sash thereto. The top of said post or stud C is carried under rafter E to support the same, and is provided with a shoe or socket, *e*, to receive the end or foot of the rafter, as more fully shown by Fig. 4, and the front or outside of the post is provided with bed *f* and flange or lip *g*, for holding in position the plate D, while the post is held upright in its place by the rod H, fastened with screw and nut at *h*, passed through the struts F to the ridge, and there fastened to cradle-piece or chair G, and braced by the cross-rods H^h, which are fastened by screws and nuts to the struts F. The struts F are formed with holes *i i*, Figs. 5 and 6, through which to pass the rods H and H^h, and the socket or shoe or chair *j*, for supporting the purlins I and the projection *k*, which is notched or let into the rafter E, at *k*, Fig. 6, to retain it in place when the tension-rods are screwed up tight.

The ridge, chair, or cradle G is cast in one piece, as shown in section in Figs. 7 and 8, and is provided with sockets or shoes *l m m*, to hold the heads or tops of rafters E, and also to hold or support the ridge-piece J in position, and holes *o o*, through which to pass the rods H, so that by screwing up or tightening the nuts at *h* and *j* the roof can at all times be kept or prevented from sagging and the sides or posts from spreading outward, and is very securely braced together, and the whole forms a well-supported and light structure upon which to lay the sash-bars, which can be used in very small sizes to obstruct as small a quantity of light as possible, which is a striking advantage of my invention.

I am aware that prior to my invention roofs of buildings have been trussed with iron rods forming triangles. I therefore do not claim such a combination; but

What I claim as my invention, and desire to secure by Letters Patent, is the following:

1. The post or stud C, having bracket *a*, movable piece *c*, shoes and sockets *e* and *h*, bed *f*, and flange or lip *g*, substantially as and for the purpose set forth.
- 5 2. The strut F, with holes *i i* and the sockets or chairs *j*, and projection *k*, substantially as and for the purpose set forth.
3. The ridge chair or cradle G, with shoes or sockets *l* and *m m* and holes *o*, substantially
10 as and for the purpose set forth.

4. The combination of the post C, the struts F F, the ridge piece or cradle G, and rods H and H^h, substantially as and for the purpose set forth.

JOSEPHUS PLENTY.

Witnesses:

J. F. PENISTON,
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