C. Y. DAVIDSON.

HOTHOUSE FRAME.

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1,167,276. Patented Jan. 4, 1916.

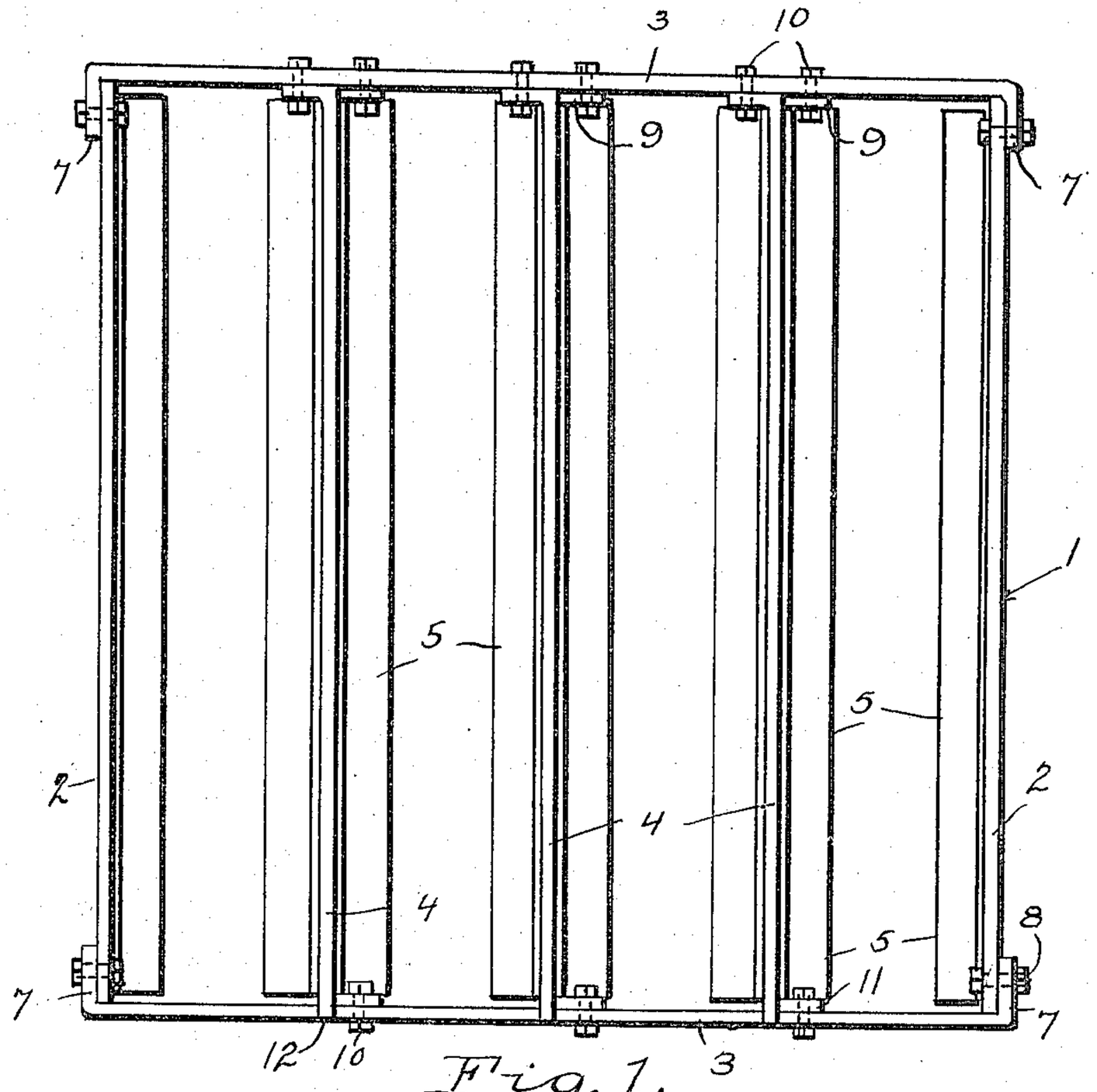

Fig. 1.

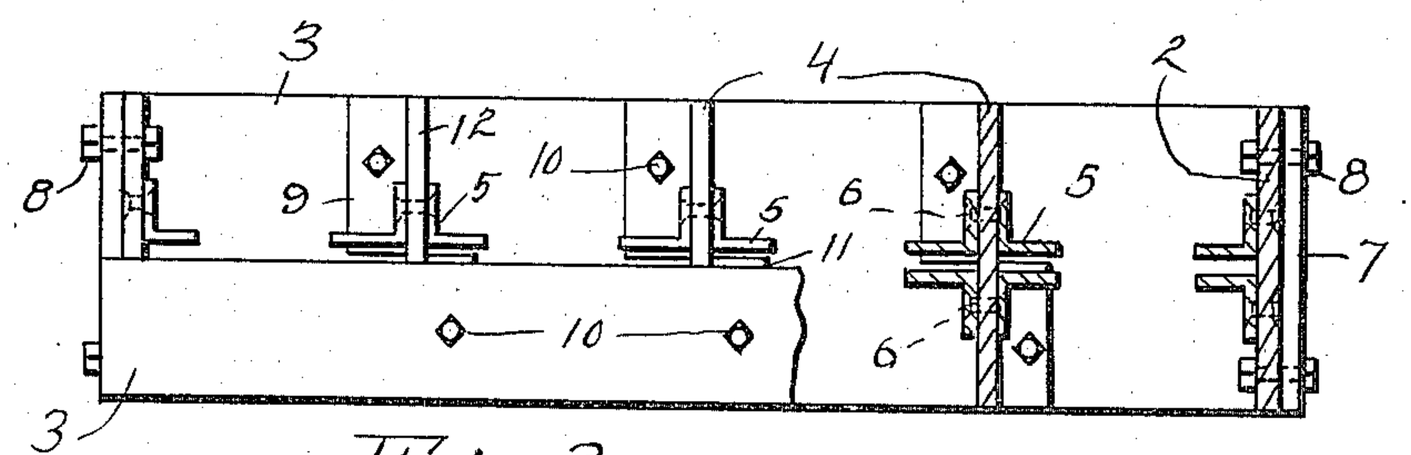

Fig. 2.

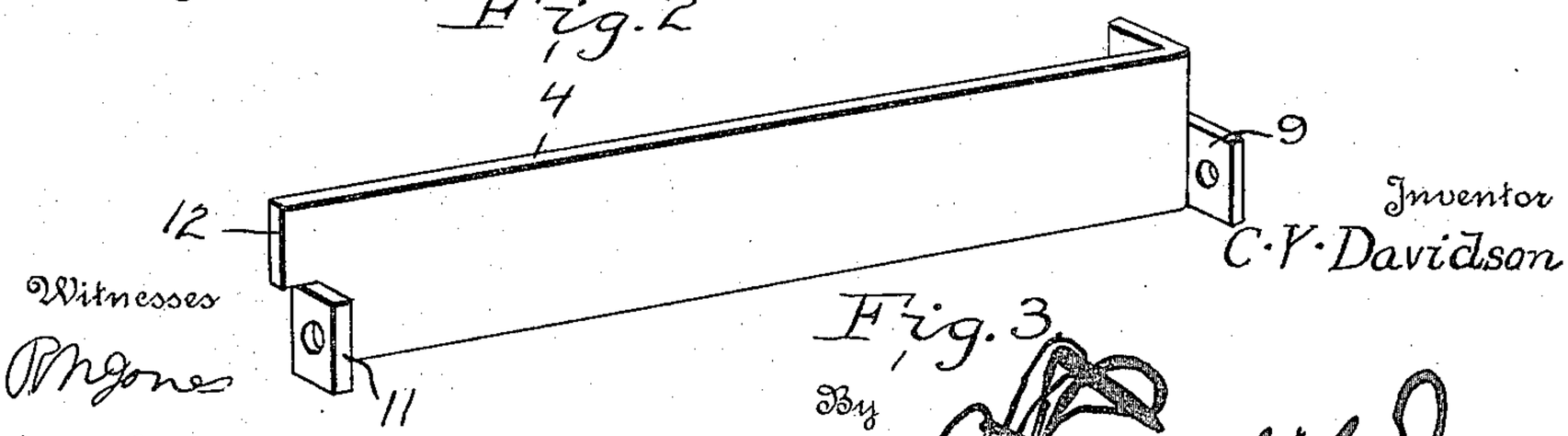

Fig. 3.

Witnesses

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HOTHOUSE-FRAME.

1,167,276. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed June 17, 1914. Serial No. 845,662.

To all whom it may concern:

Be it known that I, CLARENCE Y. DAVIDSON, a citizen of the United States, residing at Hazleton, in the county of Gibson and State of Indiana, have invented certain new and useful Improvements in Hothouse-Frames, of which the following is a specification.

My invention comprehends improvements in hot house structures and relates particularly to a reliable, simple, inexpensive frame work, that will hold glass panes in a reliable manner and enable expeditious construction of a hothouse or the like.

An object of importance is to provide a metallic frame arranged to hold a number of panes of glass so that a covering for flowers, plants and the like will be provided and ventilation for the plants permitted.

My invention further aims to improve hot house structures so as to render them more practical, simple as to construction, reliable and efficient and inexpensive to manufacture and install.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification and then more particularly pointed out as claimed.

With reference to the drawings, wherein I have illustrated the preferred embodiment of my invention as it is reduced to practice, and throughout the several views of which similar reference numerals designate corresponding parts, Figure 1 is a top plan view of my improved hot house frame showing the same with the glass panes removed, Fig. 2 is an end elevation partly in section, and Fig. 3 is a detail perspective view of one of the side plates of the frame.

Referring to the drawings by characters of reference, the numeral 1 designates as an entirety, my improved frame that comprises metallic rectangular side plates 2 and end plates 3 that are secured to the side plates.

A plurality of equidistantly spaced partition plates 4 are secured at their ends to the end plates 3 of the frame and are disposed parallel to the side plates 2. The side plates 2 and partition plates 4 are equidistantly spaced with relation to each other to provide a number of compartments. Mounted on opposite sides of each of the partition plates 4 and upon the inner faces of the side plates 2 are spaced angle bars 5, arranged in pairs and forming guides to receive window panes not shown. One angular portion of each of the bars 5 is riveted as at 6 to the side and partition plates. The pairs of angle bars 5 are arranged centrally of the upper and lower edges of the side and partition plates and are designed to support panes of glass not shown, centrally of the edges of the plates.

One of the end plates 3 is provided at its ends with right angularly extending securing flanges 7 that engage the outer end faces of the side plate 2 and are secured thereto by bolts 8 or other suitable fastening means. The other end plate 3 is provided with similar flanges and secured in the same manner to the side plate 2 but is approximately one-half the width of the first end plate as shown in Fig. 2 in the drawing. By virtue of having one end plate of a width less than the other end plate, and disposing the same to one side of the panes of glass, as shown in Fig. 2 of the drawing, a space will be provided between the said end plate having the less width and the panes of glass, so that air will have access to the plants contained within the hot house.

The partition plates 4 are provided at one end with right angularly extending flanges 9, arranged one above the other on opposite sides of the plates.

The flanges 9 are designed to engage and be secured to one of the end plates 3, the larger one, by bolts, pins or other suitable fastening means. At the other ends of the partition plates 4 a slit is formed approximately centrally of the upper and lower edges thereof so as to provide an inwardly offset right angularly extending flange 11 similar to the ones 9, and extensions 12. The flanges 11 are secured to the smaller end plate 3 so that the extensions 12 engage the upper edge of the smaller end plate 3 and are flush at their ends with the outer side face of the end plate. The flanges 9 and 11 are apertured to enable the bolts to be readily inserted therethrough.

It will be readily seen with reference to the foregoing description and accompanying drawings that I have provided an extremely simple, strong and durable frame for use in connection with hot houses and the like that will support panes of glass in a reliable

manner so as to provide a housing or part of a housing that beds of flowers may be covered or housed.

In practice, I have found that the form of my invention, illustrated in the drawings and referred to in the above description, as the preferred embodiment, is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of my device will necessarily vary, I desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of my invention, as set forth.

What is claimed is:—

1. A hot house frame comprising end plates, side plates, right angular securing flanges formed on the ends of the end plates and overlapping the ends of the side plates, means to secure the flanges to the side plates, a plurality of equidistantly spaced partition plates secured at their ends to the end plates and being parallel with the side plates, means to support panes of glass between the side and several partition plates at points approximately centrally of the upper and lower edges of said plates, said partition, and side plates and one end plate having the same width and the other of the end plates being approximately half the width of the other plates and disposed to one side of the glass pane support for the purpose specified.

2. A hot house frame comprising rectangular metallic side and end plates secured to each other, a plurality of partition plates located between the side and end plates and in spaced relation and parallel with each other and with the side plates, glass holding means associated with the partition plates, one of the end plates having a width less than the width of the partition plate and the other end plate and located below the glass holding means, the said partition plates having their ends adjacent the wider end plate provided with oppositely extending flanges adapted to engage and to be secured to said end plates, and the opposite ends of the partition plates being slitted longitudinally and having a portion thereof offset laterally to provide a flange adapted to be secured to the end plate having the less width, and an end extension projecting beyond the offset flanges and adapted to rest on one of the longitudinal edges of the last-mentioned end plate.

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

CLARENCE Y. DAVIDSON.

Witnesses:

CHAS. H. MCGUIRE,

ERNEST B. LONDIN.