

F. W. SCHWARZ.
 MINIATURE GREENHOUSE.
 APPLICATION FILED JAN. 6, 1911.

1,005,078.

Patented Oct. 3, 1911.

2 SHEETS—SHEET 1.

Fig. 1

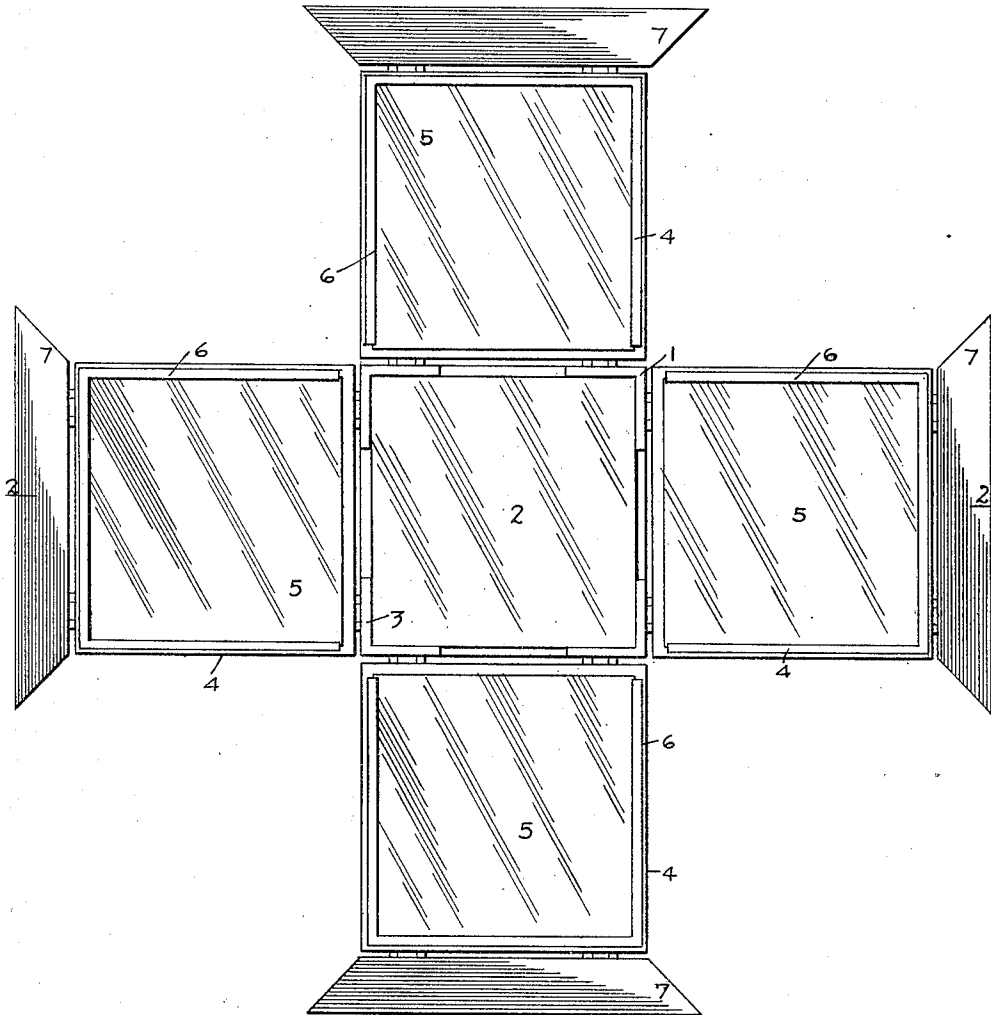
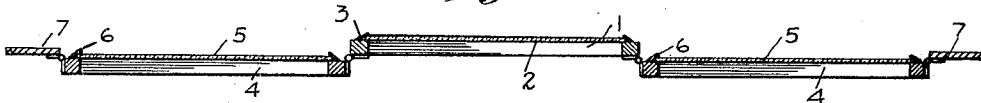


Fig. 2



WITNESSES

J. D. Smith
Thos. F. Tuckel

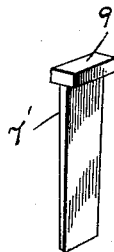
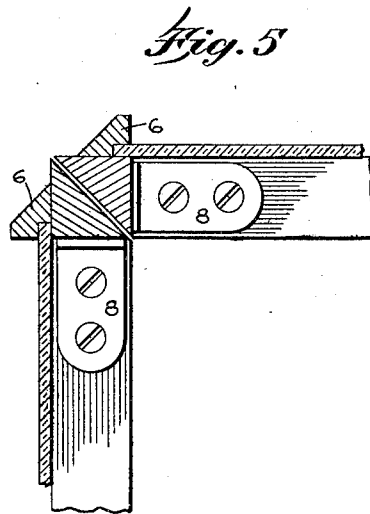
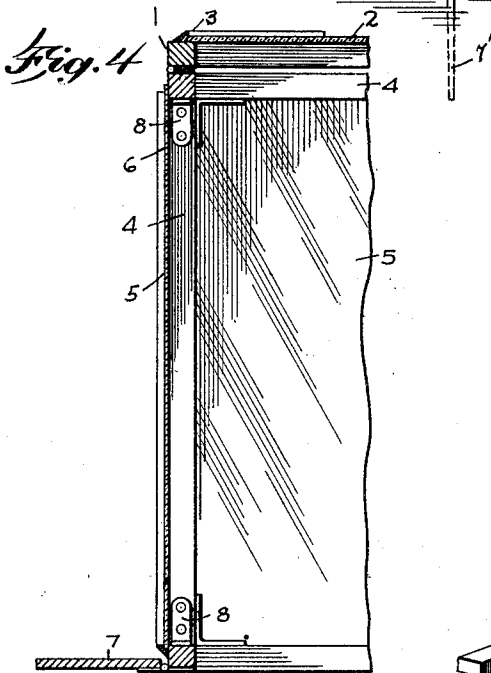
INVENTOR

Frederick W. Schwarz

BY

1,005,078.

2 SHEETS—SHEET 2.



WITNESSES
F. D. Smith
Wm. F. Nickel

Fig. 6

INVENTOR
Frederick W. Schwarz
BY Mumfco
ATTORNEYS

UNITED STATES PATENT OFFICE.

FREDERICK WILLIAM SCHWARZ, OF COLUMBUS, OHIO.

MINIATURE GREENHOUSE.

1,005,078.

Specification of Letters Patent.

Patented Oct. 3, 1911.

Application filed January 6, 1911. Serial No. 601,073.

To all whom it may concern:

Be it known that I, FREDERICK W. SCHWARZ, a citizen of the United States, and a resident of Columbus, in the county of Franklin and State of Ohio, have invented a new and Improved Miniature Greenhouse, of which the following is a full, clear, and exact description.

My invention consists of a device of the kind mentioned, which is simple in construction and efficient in operation, and which can be made in any size required and put into use in any garden or field. The parts thereof are hinged to one another so that the whole structure can be set up at once and can be taken down and stored away so as to occupy a minimum amount of storage room.

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 top view of the device with all hinged parts thereof spread out into a single plane; Fig. 2 is a transverse section on the line 2—2 of Fig. 1; Fig. 3 is a perspective view of the greenhouse, showing the parts in the position occupied by each when in use; Fig. 4 is a vertical section of one of the sides and part of the top; Fig. 5 is a horizontal section through a corner of the greenhouse, when set up as in Fig. 3, showing the manner in which the glass plates are held in position in the sides, and the manner in which the adjacent edges of any one of the sides are made to engage each other; and Fig. 6 is a view of an anchor wedge to hold the greenhouse in place.

My greenhouse consists of a top member 1, which comprises an open frame carrying a plate of glass or other suitable material 2, held in place at the corners by means of L-shaped retaining members 3. These retaining members are undercut, as shown in Fig. 2, so as to overlap the edges of the plate 2 and hold it firmly in position. Side members 4 are also provided, each side member being hinged along its top edge to one side of the top or central member 1. These side members also support plates of glass or other material 5, which are held in place by retaining strips 6 arranged along the bottom and sides of each side member. These retaining strips are also undercut so as to slightly overlap the edges of the plate 5 and

hold the same in position. When the greenhouse is set up, these plates 5 may be removed, if desired, or replaced, by sliding them upward past the top edge of the side members. Along the bottom edge of each of the side members is arranged, by means of hinges or other suitable means, a bottom member 7. These bottom members have their adjacent ends beveled so that their adjacent ends face each other when the greenhouse is set up, as shown in Fig. 3, leaving a small space between them.

The top member is made of pieces of wood or other suitable material, which are square in cross-section, as shown in Fig. 4, and so are the top and bottom parts of the side members 4. The side edges, however, of the side members 2 are beveled, as shown in Fig. 5, so as to form corresponding engaging surfaces. As a result, when the greenhouse is set up, as shown in Fig. 3, the side frame members support the top frame member thereon, and the adjacent sides of each side frame member fit snugly together along the beveled surfaces above described.

The side frame members are preferably braced at the corners by angle-pieces 8, as shown in Figs. 4 and 5, so that the device may be constructed of light material and at the same time be strong and rigid throughout. The corners of the top may be similarly braced.

In use, my greenhouse is set up with the parts in the position shown in Fig. 3, and with the bottom members 7 resting upon the ground around the lower edges of the side frame members 2. The vegetables or other plants are inclosed by the greenhouse, and earth may be lightly heaped up around the lower part of the greenhouse so as to cover the bottom member 7 and seal the structure against intruders of all kinds, such as mice and insects which might otherwise burrow underneath the sides and enter the interior. The plants or the like are placed inside the greenhouse, and the rays of sunlight passing through the transparent walls heat up the interior, as in the case of hot-houses, in a well-known manner. Wedges 7' having heads 9 are driven between the members 7.

Although I use glass plates for the top and side members, it is obvious that the side members may be provided with plates of opaque material, if desired, leaving simply one glass plate in the top; or I might leave the top entirely open, allowing sunlight to

enter in the daytime, and close up the top with boards or the like to protect the plants at night; or I might make the plate in the top member opaque and employ glass in the side members only, using one or more plates if desired; or I might leave one or more of the sides entirely open to permit access of sunlight and air in the daytime, and seal them up with a thick cloth or boards at night.

I have shown the top and side frame members as square in shape, but, obviously, I may make the top frame member of any polygonal shape, and may make the side frame members rectangular and of such dimensions that each of the side members will have two of its sides corresponding in length with one of the edges of the top member. Further, I may attach handles or bails 2' to the frame 1 by means of blocks 3' to facilitate carrying the greenhouse about. Also, I may substitute strips similar to the strips 6 for the L-shaped members 3, or I may employ members of any suitable shape to engage the edges of the plate 2 at the middle thereof.

My greenhouse is capable of a great variety of uses and may be employed as a show-case in stores and at fairs.

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

1. In a miniature greenhouse, the combination of a top member comprising a frame, side members comprising frames hinged to

the top member around the edges of the latter, and having their adjacent sides beveled for engagement with each other, said side members being arranged to swing outward, so that the entire greenhouse can be spread out flat for storage or shipment, bottom members having their adjacent ends beveled, connected to the lower edge of the side members, said beveled ends being spaced apart, and anchor wedges adapted to be driven between the ends of the bottom members to hold the greenhouse in place.

2. In a miniature greenhouse, the combination of a top member comprising a frame, side members comprising frames hinged to the top member around the edges of the latter and having their adjacent edges adapted for engagement with each other, said side members being arranged to swing outward, and bottom members connected to the lower edges of the side members, so that the entire greenhouse structure can be spread out flat for storage or shipment, the bottom members being of such a length that their adjacent ends will be spaced apart when the greenhouse is set up, to enable anchor pegs to be driven between said ends to hold the greenhouse in place.

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

FREDERICK WILLIAM SCHWARZ.

Witnesses:

E. L. HYNEMAN,
GEO. A. BORDEN.