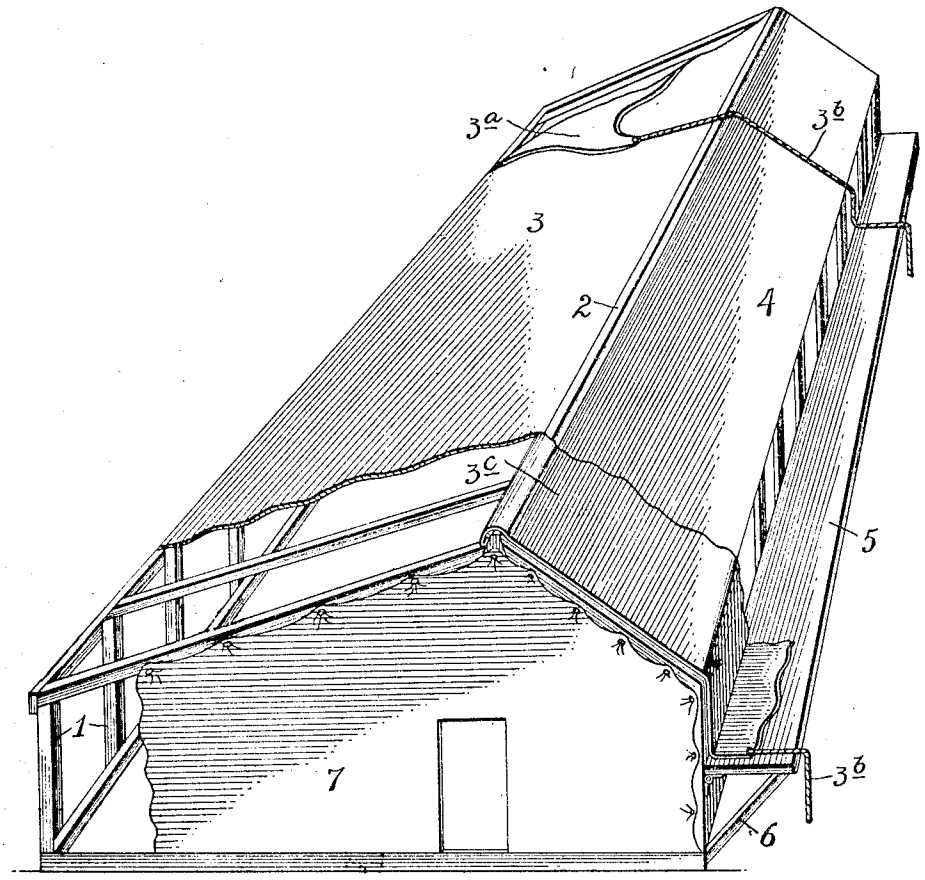
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GREENHOUSE.

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926,119.

Patented June 29, 1909



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GREENHOUSE.

No. 926,119. Specification of Letters Patent. Patented June 29, 1909.

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To all whom it may concern:

Be it known that I, ELBERT A. HOLT, a citizen of the United States, and a resident of the city and county of Montgomery, State of Alabama, have invented certain new and useful Improvements in Greenhouses, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

My invention relates to greenhouses of that class of which the covering is readily removable for the admission of air and sunshine, and the principal objects of the invention are to provide means for conveniently permitting withdrawal of the covering with a minimum of labor, and at the same time of preventing the destructive effects of wind. A source of objection to structures of this class is the fact that so much surface is presented to the wind that the house must either be made very substantial and therefore expensive, or it is subject to total or partial collapse, particularly when the wind blows into the structure and underneath the roof or a portion thereof. These difficulties are entirely obviated and the objects of my invention obtained by the means and apparatus hereinafter set forth.

In the drawing the figure is a general view in perspective of the greenhouse embodying the improvements referred to.

Referring to the drawing it will be seen that the house is composed of a plurality of bents or supporting frames such as 1, suitably connected and braced by a ridge member; the general structure not being different from the usual type. The roof is preferably divided in about the manner shown into two slopes, the one considerably longer than the other; the long slope being disposed to face the general direction of the sun. The side wall next the short slope of the roof is permanently closed for the lower portion of its height, the remaining portion being normally open unless closed as hereinafter described. Along the wall in question and at or near the top of the permanent portion is a platform 5 at a convenient height, preferably supported by hinges upon which it may turn upward and against the side frames and thus completely close the side of the structure. Suitable supports or braces as at 6 serve to uphold it normally in the position shown. The remaining walls and roof surfaces of the structure are provided with readily removable coverings of some suitable textile material or the like, except the covering of the surface of the narrower roof slope which is permanently attached to the frames, or at least may be. Such covering is indicated at 4, and extends from the ridge member 2 to the edge of the slope as shown. An end covering, shown partly broken away, is indicated at 7, and in one or both of the ends a suitable door may be arranged. The wider slope of the roof is covered with a suitable material which is secured along the ridge member 2 but only temporarily attached by buttons, tie strings, or other fastenings at the eaves, and is adapted to be drawn back and over the narrower slope whenever desired. The wider roof cover is shown at 3, one of its corners 3^a being shown partly pulled back or doubled upon itself and attached to a rope or cord 3^b the purpose of which will be described.

At 3^c is shown a portion of the wider roof cover indicated as broken away from the remainder and drawn back over the ridge member and in part hanging down in front of the open upper side of the side of the structure. When entirely drawn back the wider roof covering is disposed as the fragment shown. The remaining side of the structure is preferably covered in like manner to the ends. By providing the rope 3^c at one or both ends of the wider roof cover the roof may be readily opened. The operator throws the free end of the rope over the house, goes around to the side to which the rope has been thrown and by pulling upon the rope draws over a corner of the wider covering. By walking along the platform 5, which is conveniently adapted for the purpose, he can readily withdraw the wide cover without assistance.

It will be seen that by forming the removable cover of an entire fabric only one rope or cord is required, and no matter how long the roof, it can be withdrawn by successive portions. When the wider cover is withdrawn and occupies the position shown for the fragmentary portion 3^c it will be seen that the upper portion of the side of the house next the narrow roof slope is covered in such manner as to afford a valve or safety outlet for wind. Wind blowing into the open side of the house and which, if not allowed vent or escape, might lift the permanent roof portion, by blowing outward the loose end of the

retracted roof covering, may go completely through the house from side to side. On the other hand, winds from the reverse direction, which will usually be winds not desirable in character, are prevented from entering by the loose flap or valve and the permanent covering of the side and roof. The structure being so arranged as to present its strongest face against winds of this direction, and the wind not being allowed to blow against the under side of the roof, the tendency to overturn or collapse the structure is much less than with winds blowing into the house and beneath the roof. The valve readily releases destructive winds and prevents entrance of those which will generally be undesirable.

While I have shown my invention in an approved form it is evident that various modifications as to proportion may be had without departure from the invention. It will be found that the arrangement shown and described may be conveniently varied by allowing the longer roof slope to extend to the ground, dispensing with the side wall for that side of the structure, or only extending it upward sufficiently to have the roof above whatever plants may be disposed in the house.

Having described my invention what I claim is:—

1. In a structure of the class described, a roof with two slopes, one wider than the other, a removable covering for the wider slope, and a platform along the side of the structure adjacent to the narrower slope.

2. In a structure of the class described, a roof with two slopes, one wider than the other, a removable covering of textile material for the wider slope permanently attached along the junction between the two slopes and capable of being drawn over and beyond the eaves of the narrower slope.

3. In a structure of the class described, a roof with two slopes, one wider than the other, a removable covering of textile material for the wider slope attached to the structure along the line of junction of the two slopes and capable of overlying and extending beyond the eaves of the narrower slope when retracted from the wider slope.

4. In a structure of the class described, a roof with two slopes, one wider than the other, a removable covering of textile material and formed as a unit for the wider slope attached to the structure along the line of junction of the two slopes and capable of overlying and extending considerably beyond the eaves of the narrower slope when retracted from the wider slope.

5. In a roof for greenhouses and the like, two slopes, one wider than the other, and a textile covering for the wider slope capable of overlying and extending beyond the eaves of the narrower slope when retracted from its normal position over the wider slope, said covering attached to the roof frame along the junction between the two slopes.

6. In a greenhouse, a portion of one wall thereof provided with a covering attached above and free below and supported against wind pressure from without but free to move under the influence of wind pressure acting from within said greenhouse.

7. In a structure of the class described, a portion of the wall thereof supported against wind pressure directed toward the interior thereof but free to move under wind pressure directed against it from the interior thereof.

8. In a structure of the class described, a series of roof frames connected by a common ridge member, a common ridge member, a removable covering of textile material attached along said ridge member and capable of withdrawal from the portion of the roof normally covered thereby so as to lie upon the adjacent portion of the roof and extend below the same.

9. In a structure of the class described, a plurality of roof frames, a common ridge member connecting the same and dividing the roof into a wide and a narrower slope, a removable covering of textile material normally covering the wider slope and attached along the ridge member and capable of being folded back over the narrower slope and beyond the eaves thereof to form a portion of the side wall.

10. In a structure of the class described, a safety valve against excessive wind pressure consisting of a portion of the wall provided with a flap of textile material braced from the inside but free to move from its normal position under wind pressure from within the structure.

11. In a structure of the class described, a safety valve against excessive wind pressure consisting of a portion of the covering of said structure attached along one edge of such portion and braced against wind pressure from without but free to move under wind pressure from within.

12. In a structure of the class described, a safety valve against wind pressure consisting of a portion of its roof covering withdrawn from its normal position and hanging down against braces against wind pressure from without and free to move outwardly under wind pressure from within.

13. In a greenhouse, an opening in the wall thereof, a shelf hinged to the wall near the lower edge of said opening and adapted to close said opening, and a flexible covering supported from above said opening and braced against wind pressure from without but free to move under the influence of wind pressure within said greenhouse.

14. In a greenhouse, an opening in the wall thereof, a platform hinged along the lower edge of said opening and adapted to

close said opening but normally supported in an approximately horizontal position, braces normally supporting said platform, and a flexible covering for said opening normally supported over the same and free to move under the influence of wind pressure from within the greenhouse.

15. In a greenhouse, a portion of the side wall connected by hinges to the remaining portion and capable of forming a platform along the level of the top of such remaining portion, and a flexible covering normally supported over the opening caused by withdrawal of the platform.

16. In a greenhouse, a portion of the wall thereof covered by a textile fabric attached above and free to move under the influence of wind pressure from within but braced against wind pressure from without and a shelf along the lower side of the portion of wall so covered.

17. In a greenhouse, an opening in the wall thereof, a covering for said opening attached above said opening and braced against wind pressure from without the greenhouse but free to move outwardly, and a shelf beneath the lower edge of said opening.

Witness my hand this 22nd day of December, 1908.

ELBERT A. HOLT.

In the presence of—
LUCY GERALD,
J. T. LETCHER.