S. K. GREEN.

PLANT PROTECTOR.

APPLICATION FILED MAR. 8, 1915.

1,172,983. Patented Feb. 22, 1916.

FIG. 1.

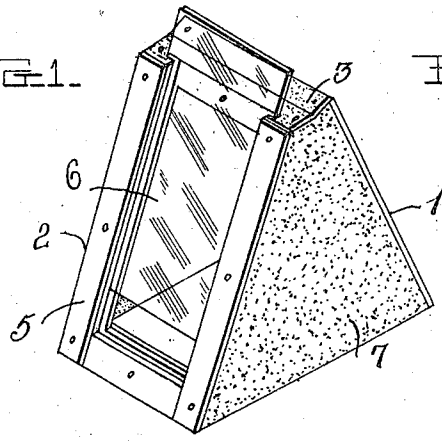


FIG. 2.

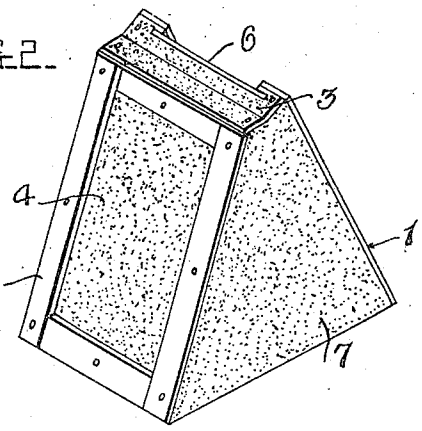


FIG. 4.

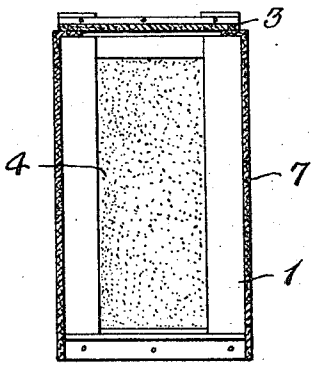


FIG. 5.

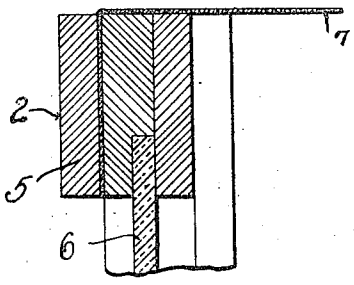


FIG. 3.

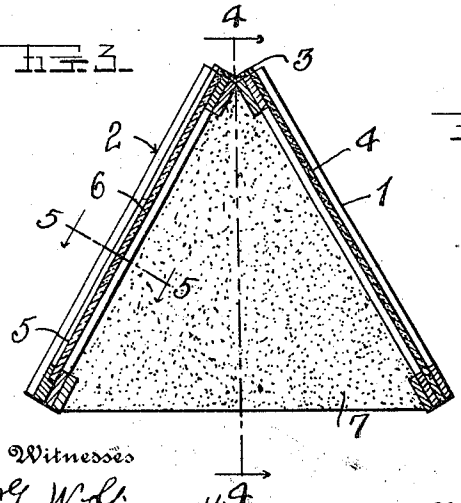
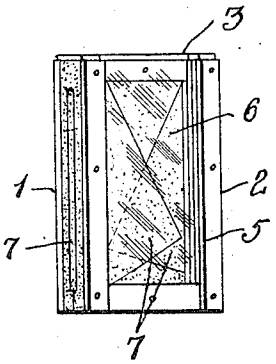


FIG. 6.



Witnesses

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PLANT-PROTECTOR.

1,172,983. Specification of Letters Patent. Patented Feb. 22, 1916.

Application filed March 6, 1915. Serial No. 12,996.

To all whom it may concern:

Be it known that I, SAMUEL K. GREEN, a citizen of the United States, residing at Paris, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Plant-Protectors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in nursery appliances, and more particularly to an improved form of plant protector and growth promoter.

The main object of the invention is to provide such a device so constructed as to effectively shield the plants from frost, yet to allow the proper amount of light and heat to enter.

Another object is to construct the device in such a manner as to allow it to be folded compactly for storing during the winter months.

With these objects in view, the invention resides in certain novel features of construction and combination hereinafter described and claimed.

In describing the invention, I shall refer to the accompanying drawing wherein like reference characters denote corresponding parts throughout the various views and wherein;

Figures 1 and 2 are perspective views of the invention looking in opposite directions; Fig. 3 is a vertical longitudinal section; Fig. 4 is a transverse section as seen along the plane indicated by the line 4—4 of Fig. 3; Fig. 5 is a detail horizontal section as seen along the plane indicated by the line 5—5 of Fig. 3; and Fig. 6 is a perspective view, on a small scale, showing the device folded for storage.

In this drawing, constituting a part of the application, the numerals 1 and 2 designate a pair of upwardly converging rectangular frames which are hingedly connected at their upper ends by the provision of a strip of canvas 3 or other appropriate means. Secured in any appropriate manner to the frame 1 is a panel 4 which is preferably formed of muslin coated with paraffin, thus providing a translucent roof section through which a considerable amount of light may travel. The frame 2 is provided with flat upright guide strips 5 having grooves opening through their rear side and inner edges, in which grooves the edges of a glass panel 6 are slidably received, whereby said panel may be adjusted vertically to allow more or less air to enter the protector. It is to be observed that the panel 6 contacts with the outer side of the body of the frame 2, and that one edge of the hinge strip 3 is formed with an elongated notch receiving snugly therein the upper end of the panel 6. Thus it will be evident that the frictional contact existing between the hinge strip and the panel in question will effectively prevent movement of said panel after being once adjusted vertically. Furthermore, the entrance of cold air into the protector at this point is prevented. Secured at their upwardly converging edges to the opposite edges of the frames 1 and 2, is a pair of flexible gables 7 which are likewise preferably formed of muslin coated or impregnated with paraffin, these gables being therefore translucent, whereby to coöperate with the translucent panel 4 to supply sufficient light to the interior of the protector. It will be understood, however, that although considerable heat from the sun will travel through the gables and the panel 4, the majority of such heat is radiated through the glass panel 6.

I have found by actual experience, that by placing protectors constructed in the above described manner, over early spring plants, such as hills of melons, tomato plants, cucumbers, and other garden truck, and by properly regulating the glass panels 6 to supply the necessary heat and air to the plants, they may be marketed from four to six weeks earlier than those produced in the open. Furthermore, there is no danger whatever of the plants freezing within the protector, since the heat generated therein during the day, is sufficient to prevent the plants from being excessively chilled at night.

It is of importance that the two gables 7 and the inclined roof section 4 be of translucent material and that the panel 6 be transparent, since by this construction, the protector may be so positioned over a plant as to allow the sun's rays to be projected directly through the transparent panel in the early morning when such rays are comparatively weak during the early spring months, but in the afternoon when the rays are intensely hot, they will be interrupted

by certain of the translucent parts of the device, thereby decreasing the heat which would otherwise be so intense as to wilt the plant. This is also true, to a great extent, when the sun is directly overhead, since the device may be so positioned as to then allow the plant to be shielded from the direct rays. It is therefore evident that the device is more efficient than those made totally of transparent material, or devices all parts of which are translucent, since with the former the rays are often too hot, while with the latter, although sufficient heat may be transferred to the plant after the sun has risen to a comparatively high point, the weak morning rays thereof will not be as effective as possible when they may project through a panel of glass or the like.

From the foregoing description, taken in connection with the accompanying drawing, it will be evident that although the device is very simple and inexpensive, it possesses a great number of advantages.

I claim:—

1. A plant protector comprising an inclined rectangular roof section of translucent material, and an inclined rectangular frame converging upwardly in respect to each other and hingedly connected at their upper ends, guides on the inclined side bars of the frame, a transparent panel slidable in said guides, and flexible translucent gables secured to the opposite edges of the frame and to such edges of the roof section.

2. A plant protector comprising a pair of upwardly converging rectangular frames, a covering secured at its edges to one frame, a pair of flat guide strips secured to the inclined side bars of the other frame and having longitudinally disposed grooves opening through their inner edges and through their rear sides, a rectangular panel contacting slidably with the outer side of the last named frame and having its edges received slidably in the aforesaid grooves, a flexible hinge strip secured in contact with the extreme upper ends of the two frames and in contact with said upper ends of the guide strips, said hinge strip having one edge formed with an elongated notch receiving the upper end of the panel snugly therein, whereby to frictionally bind said panel to hold it in adjusted position and at the same time to prevent the entrance of cold air into the protector at this point, and a pair of flexible gables secured at their edges to the edges of the two frames.

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

SAMUEL K. GREEN.

Witnesses:

HENRY CREDE,

ARCHIE E. WOODS.