

W. G. COWART.
PLANT PROTECTOR.
APPLICATION FILED JULY 3, 1912.

1,051,692.

Patented Jan. 28, 1913.

Fig. 1.

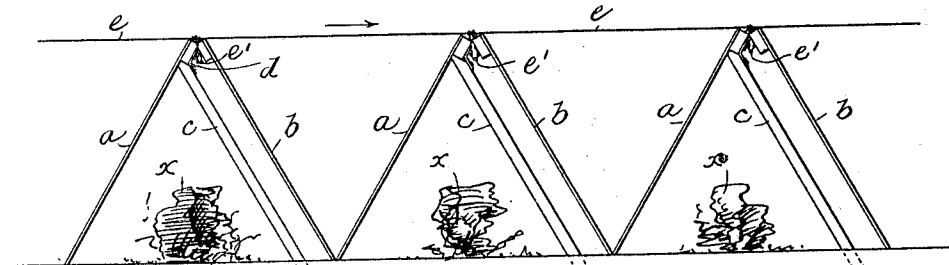


Fig. 2.

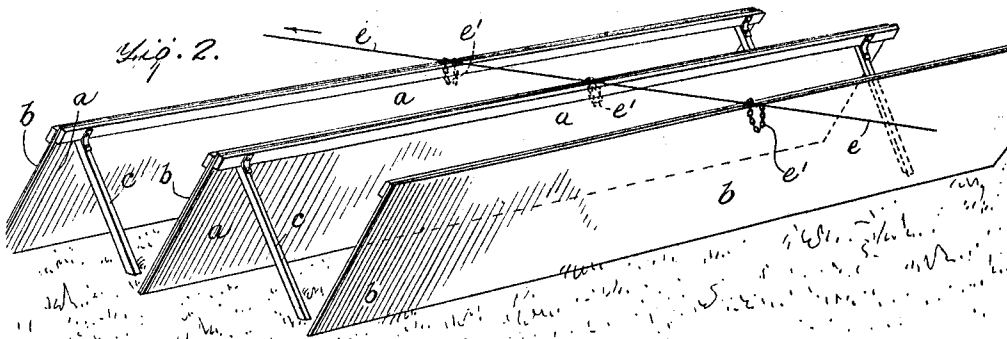


Fig. 3.

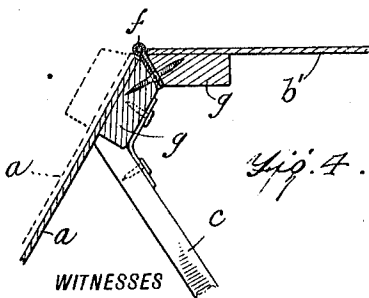
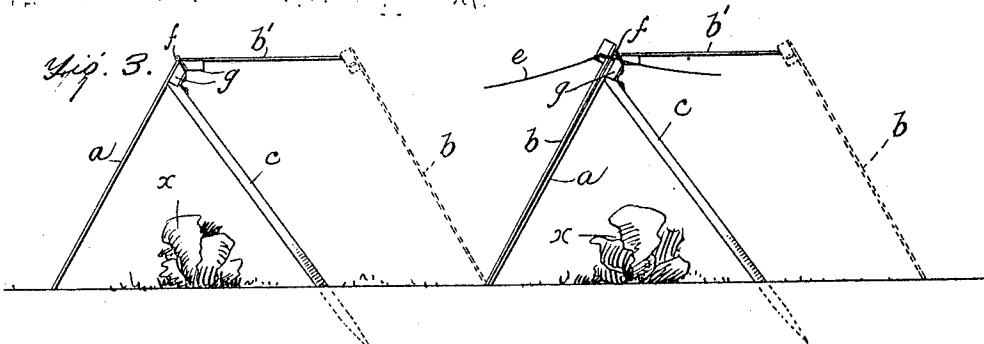


Fig. 4.

WITNESSES

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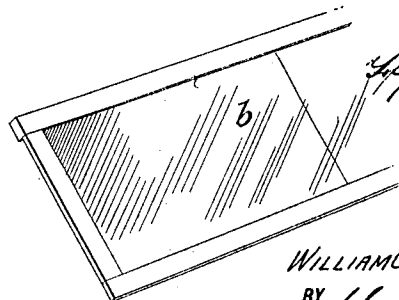


Fig. 5.

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WILLIAM GREENE COWART, OF NOCATEE, FLORIDA.

PLANT-PROTECTOR.

1,051,692.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM G. COWART, a citizen of the United States, and a resident of Nocatee, in the county of De Soto and State of Florida, have invented an Improvement in Plant-Protectors, of which the following is a specification.

My improved protector is formed of fixed and movable parts consisting of panels and supporting stakes. A series of oblong panels constructed of light material is supported in fixed position inclined, say 30° to the vertical, by means of stakes which are set in the ground and inclined in opposite direction, the upper ends or heads of the stakes being connected with the top or ridge bars of the panels. These panels are placed near and parallel to a row of plants requiring protection. Another portion of the protector is composed of a series of adjustable panels which are set at the base of the fixed panels and adapted to swing laterally toward or from the latter. A third series of panels may be employed, the same being hinged to the tops of the fixed panels and adapted to be placed in horizontal position, extending over the plants, or to be folded back upon the fixed panels, thus fully exposing the plants.

The details of construction, arrangement, and operation are as hereinafter described, and illustrated in the accompanying drawing, in which—

Figure 1 is an end view of a series of protectors arranged adjacently and parallel, the adjustable or movable panels being shown in the closed position. Fig. 2 is a perspective view showing the adjustable or movable panels in open position. Fig. 3 is an end view illustrating a modification in which a second or supplemental movable panel is employed. Fig. 4 is a view illustrating the connection between the fixed panel and the supplemental movable panel. Fig. 5 is a perspective view illustrating the construction of a panel with a glass side.

I will first describe the invention as illustrated in Figs. 1 and 2. The oblong fixed panels are indicated by *a* and the adjustable or movable panels by *b*. The fixed panels are supported in an inclined position, say at a vertical angle of about 30°, by means of stakes *c* which are driven into the ground and inclined in the opposite direction, their upper ends being connected with the top or ridge bar of the panel. This connection

may be effected in various ways, say by means of a metal bracket or hinge *d*. Each of the movable or adjustable panels *b* is hinged at the base of the fixed panels *a* and is thus adapted to swing laterally in either direction. Thus, a complete protector is formed of the two panels *a* and *b* when they are arranged at an angle to each other, their upper edges being in contact, as shown in Fig. 1.

It will be understood that a series of protectors is arranged parallel and adjacently so that when the movable panels *b* are swung to the left, their upper edges will rest against the upper edges of the fixed panels *a*. When the movable panels are thrown back against the panels *a*, as shown in Fig. 2, it is obvious that the plants *x* will be exposed, or, in other words, the several protectors will be completely open on one side, so that the sun and air may have free access to them.

In practice, the protectors will ordinarily run east and west, the several sections being arranged in alinement but separated by a slight space which will permit free operation of the movable panels without touching each other. The direction in which the protector will run will, however, depend upon the climate and the prevailing direction of the high or cold winds, it being understood that in all cases, the fixed panels will be arranged on that side of the plants from which the prevailing winds come.

The movable panels *b* may be adjusted manually to the left against the fixed panels *a* and reversed so as to lie back against the opposite fixed panels, as illustrated in Figs. 1 and 2; but for convenience of operation of a greater or less number of movable panels simultaneously, I employ a cord or wire *e* which is secured to the top of each movable panel.

It will be apparent that by pulling the cord or wire *e* to the right or in the direction of the arrow in Fig. 1, the movable panels may be thrown back simultaneously into the position shown by full lines in Fig. 1; and contrariwise, by pulling the cord in the direction indicated by arrow in Fig. 2, the movable panels will be thrown over against the fixed panels, so as to assume the position shown in Fig. 1. In brief, the cord or wire *e* furnishes a simple, cheap, but efficient device for simultaneous operation of a large number of movable panels and thus the pro-

tectors of a large field may be easily and quickly adjusted by a simple operation. A short chain *e'* is preferably used to connect wire *e* with the movable parts.

- 5 In Figs. 3 and 4, I show a second movable panel *b'* which is hinged at *f* to a fixed panel *a*, the portions of the parts *a*, *b'*, being reinforced by blocks or strips *g* of wood applied at that point, as will be readily understood.
- 10 The shoulders or adjacent edges of the blocks or strips *g* are inclined relative to each other in such manner that when the movable panels *b'* are thrown over to the right, they are self-supporting in horizontal
- 15 position and thus extend over the plants *x*. Movable panels *b* may be thrown over to the left, as shown by dotted lines in Fig. 3, and rest against the free edges of the supplemental movable panels *b'*, thus affording,
- 20 when required, additional protection to the plants.

In practice, I propose to construct the panels of light material, say veneer, and to provide them with panes of glass when desired, so that the effect of the sun's rays may not be cut off from the plants even when it is requisite to protect them from a high or cold wind.

What I claim is:—

- 30 1. A plant protector, comprising fixed panels arranged at a vertical inclination, supporting stakes set in the ground and in-

clined oppositely to said panels to whose upper edge the heads of the stakes are secured, and movable panels hinged at the bottom and adapted to swing toward the fixed panels and to lie at an inclination thereto and in contact with the upper edge of the same, as described. 35

2. A series of protectors arranged adjacent and parallel, each composed of a fixed panel inclined to the vertical, stakes supporting such fixed panels, and movable panels which are hinged to the bottoms of the fixed panels and adapted to swing laterally, so as to lie at an inclination to the fixed panels as required to cover plants and to fold against the panels to which they are hinged to uncover plants, as described. 40 45

3. In a plant protector, the combination of fixed panels inclined at a vertical angle, stakes supporting the same, movable panels hinged to the upper edge of such fixed panels and adapted for self-support when arranged horizontally, and movable panels hinged at the bottom and adapted to fold against adjacent fixed panels or against the movable panels when arranged in horizontal, as shown and described. 50 55

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Witnesses:

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