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PLANT PROTECTOR.
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UNITED STATES PATENT OFFICE.

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PLANT-PROTECTOR

995,657.

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To all whom it may concern:

Be it known that I, Joseph Bolt, a citizen of the United States, residing at Brooklyn, in the county of Clay and State of Florida, have invented a new and useful Plant-Protector, of which the following is a specification.

My invention relates to plant protectors, and particularly to that type of protectors 10 adapted to be placed over young plants to protect the same from extreme heat or cold, and at the same time provide sufficient ventilation for the same.

One of the objects of my invention is to provide an improved protector of few parts, which may be manufactured at a small cost, will be durable, and which may be shipped "knocked-down" and folded into shape when required for use, or disconnected and packed away for future use.

The invention consists of a sheet of flexible material, preferably waterproofed, folded to form a cover, and a wire support bent at its upper end to form a clip adapted to engage the top of the cover, and a clip slidably mounted on the support and adapted to engage the lower edge of the cover and retain the same in position on said support, the extreme lower end of the support provided with a means for anchoring the same in the ground.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the appended claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Referring to the drawings, Figure 1 is a perspective view of the device complete and shown in use. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a plan view of the blank forming the cover before being folded into shape. Fig. 4 is a detail view of the upper end of the cover showing the same folded and engaged by the clamp on the upper end of the support. Fig. 5 is a perspective view of the support, showing the integral clamp at the top and the slid-55 able clamp at the bottom. Fig. 6 is a side

view of the integral clamp, and, Fig. 7 is a view of a modification.

In the drawings, 8 indicates a blank of paper, wood veneer or other suitable flexible material cut in the shape of a semicircle, and having a small hole cut out at the center, forming a semicircular notch, 9. The semicircular blank 8 is adapted to be folded in the shape of a conical cup or cover open at its apex, the radial straight edges 65 of the same overlapping each other, and held together in a manner hereinafter described.

10 is a support of any suitable material, but preferably of wire, the lower end of 70 which is adapted to be inserted in the ground and at its upper end bent back upon itself to form a downwardly extending elongated loop which is adapted to enter the opening, formed by the cut out portion 9 75 at the apex of the conical protector 8 and clamp the upper ends of the overlapped edges together, said loop having parallel spaced sides 11 and 12, the side 11 connected at its upper end to the support 10 by the 80 curved or loop portion 13, and the sides 11 and 12 being connected at their lower ends by the curved or loop portion 14. The sides 11 and 12 are also parallel with the supporting rod 10 but are spaced on each side 85 thereof. The lower end 14 of the loop is preferably curved outwardly and spaced a short distance from the supporting rod 10, thus providing an easy entrance for the overlapped edges of the protector into said 90 loop. The upper end of side 12 projects slightly above the loop 13 connecting side 11 and supporting rod 10, thus providing a handle or finger piece 15 by which the device as a whole may be moved from place to 95 place.

Slidably mounted on the supporting rod 10 is a clip or retainer in the form of an upwardly projecting elongated loop having parallel spaced sides 16 and 17 the lower ends of which are spirally wound as at 18 around the supporting rod 10, providing an eye or guide through which the supporting rod 10 extends. The sides of the loop are arranged on each side of, and are disposed in a plane common to that of the supporting rod 10. Thus it will be readily seen that engaging members or clamps for both the top and bottom of the overlapped edges of the cone have been provided.

In assembling the device, the operator folds the blank into the form of a cone or protector having the radial straight edges of the same overlapping. Grasping the sup-5 porting rod by the finger piece 15 at the upper end thereof, and placing the downwardly extending elongated loop toward the protector, forces the loop downwardly through the opening 9 thus clamping the upper ends 10 of the overlapped edges between the said loop and the supporting rod 10. Still holding the support by the finger piece 15, the operator with the other hand grasps the sliding loop at the lower end of the support 15 by its spirally wound portion or eye 18, and positioning the loop so that it will enter the inner side of the conical protector while the protector lies flat against the supporting rod, slides the clamp upwardly on the rod 10, 20 thus securely binding the lower end of the overlapped edges between the supporting rod 10 and the sliding loop clamp.

It will be observed from Fig. 2 that the overlapped edges of the protector are clamped together on the support, at the top and bottom ends thereof, and are prevented from bulging outwardly by the supporting rod 10 which extends on the outer side of the protector and parallel to said overlapped edges. The support 10 is provided at its extreme lower end with a ground anchoring means in the form of a lug or projection 19, preferably formed by bending said rod outwardly or at right angles.

A modified form of sliding clamp is shown in Fig. 7, and is in the form of an elongated metal plate 20, provided at its lower ends with a struck up portion 21 which provides a longitudinally extending aperture through which the supporting rod 10 is adapted to

extend.

It will be readily observed from Fig. 2 how the improved protector is placed over a plant. The support is preferably forced 45 into the earth, to the windward of the plant so that the wind in striking the protector will force the same downward over the plant thus protecting the same from the force of the wind, the curved or bent anchoring lug 50 preventing the support from being withdrawn from the earth by the force of the wind. In extreme cold weather loose soil may be thrown up around the lower edges of the protector to prevent undue draft 55 through the same, the opening 9 at the top of said protector providing ample ventilation for the plant.

Having thus described my invention, what I claim as new and desire to secure by Let60 ters Patent, is:—

1. In a plant protector, the combination of

a conical cover, a support for said cover, clamping means integral with said support for engaging one edge of said cover and clamping means movable on said support 65 for engaging the other edge of said cover.

2. In a plant protector, the combination of a conical cover consisting of a sheet of flexible material having overlapped edges, a support for said cover composed of a wire body arranged along one side of the overlapped edges and having its upper end formed with a rigid clip opening downwardly and adapted to be slipped into engagement with the overlapped edges at the upper end, and 75 a movable clip opening upwardly and slidably mounted on said wire body so as to engage with the overlapped edges at the lower end, the lower extremity of the wire body being turned outwardly at an angle in a direction away from the cover, for the purpose set forth.

3. In a plant protector, the combination of a conical cover open at its apex, a support for said cover, said support being provided 85 at its upper end with an integral downwardly extending and downwardly open loop adapted to be inserted in said opening and clamp the upper edge of said cover between said loop and support, said loop hav- 90 ing parallel spaced sides arranged one on each side of said support, and one of said sides extending above said loop and providing a handle, and an upwardly extending and upwardly open loop slidably mounted 95 on said support and adapted to engage the lower edge of said cover and clamp the same between said loop and support, said loop having parallel spaced sides arranged one on each side of said support, the lower ends 100 of said loop encircling said support to provide a guide for said loop.

4. In a plant protector, the combination of a conical cover consisting of a sheet of flexible material having overlapped edges and 105 open at the top, with a support for said cover arranged longitudinally along one side of the overlapped edges, an integral clamp provided at the upper end of the support to engage the upper end of the overlapped edges, 110 and a slidable clamp mounted on the support and adapted to be brought into engagement with the lower end of the said over-

In testimony, that I claim the foregoing 115 as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH BOLT.

Witnesses:

J. H. RITCH, E. P. DUNCAN.