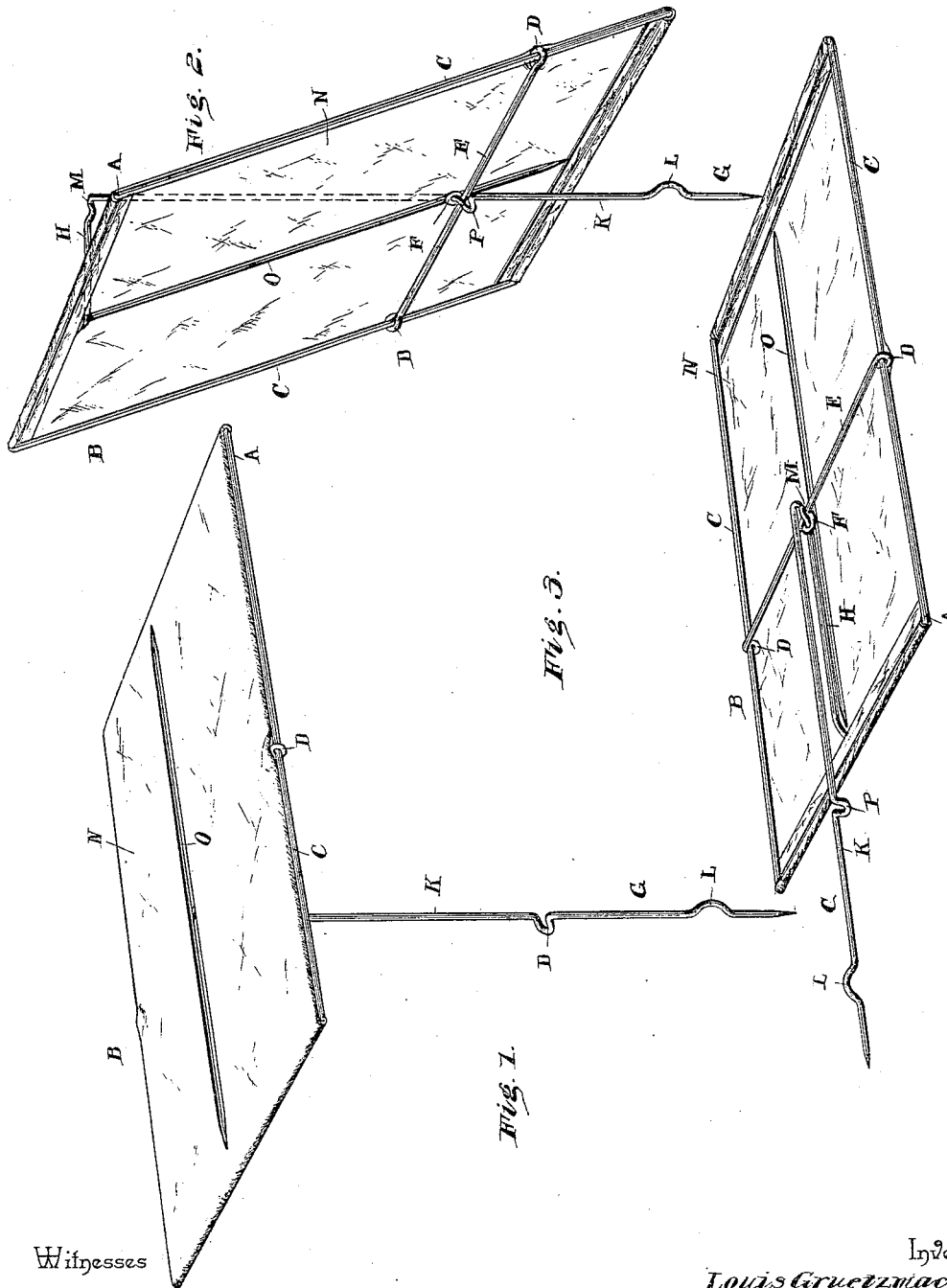


(No Model.)

L. GRUETZMACHER.
PLANT PROTECTOR.

No. 493,400.

Patented Mar. 14, 1893.



Witnesses

Charles Ford.

C. E. Delf.

Boynis Attorneys,

Calnow & Co.

Inventor

Louis Gruetzmacher.

UNITED STATES PATENT OFFICE.

LOUIS GRUETZMACHER, OF GALVESTON, TEXAS.

PLANT-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 493,400, dated March 14, 1893.

Application filed July 25, 1892. Serial No. 441,159. (No model.)

To all whom it may concern:

Be it known that I, LOUIS GRUETZMACHER, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented a new and useful Plant-Protector, of which the following is a specification.

My invention relates to a plant-protector or shade adapted to be adjusted in proximity to a plant or in a flower-bed, to protect the plant or plants from the direct rays of the sun, the object of my invention being to provide a protector or shade which is adjustable so as to enable it to be arranged to suit the inclination of the rays of light.

A further object of my invention is to provide a protector or shade which will defend the plant from the direct rays of the sun, and which will at the same time allow a sufficient amount of light to penetrate thereto.

Further objects of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

In the drawings: Figure 1 is a perspective view of my improved protector or shade arranged in operative position. Fig. 2 is a similar view with the shade proper adjusted at an inclination. Fig. 3 is a similar view of the protector folded for transportation.

The frame A, of the shade B, is formed of one continuous strand of wire, and while it may be of any preferred shape, I have found the rectangular form shown in the drawings to be the most convenient.

Upon the opposite parallel sides C C, are mounted to slide the eyes D D, which are attached to the ends of the adjustable cross-wire E, said cross-wire being provided at its center with a loop F, through which passes the standard G. The standard is formed as a continuation of the wire forming the frame of the shade proper, and is provided with an upper arm H, which is normally in the plane of said frame, and a vertical arm or upright K, which is adapted to be inserted at its lower end in the ground, said vertical arm or upright being provided near its lower end with a curve L, which is designed to prevent said standard from rotating while in the ground and allowing the shade to be turned out of the desired position. The standard is provided, near the

junction of its arms, with a bend or loop M, to engage the loop at the center of the cross-wire to lock the latter in position when the protector is desired to be arranged in the position shown in Fig. 1.

The cover N, which is attached firmly at its ends to the ends of the frame, and is loose at its side edges to enable the eyes in the ends of the cross-wire to slide freely upon the sides of the frame, is provided at its center with a longitudinal slot or opening O to permit the angle of the standard to pass therethrough when the parts are arranged in the position shown in Fig. 2. To adjust the parts in said position, disengage the loop at the center of the cross-wire from the bend near the angle of the standard, and pass said loop over the opposite end of the frame and allow the upright portion of the standard to slip through the said loop until it reaches the stop P, near the lower end of said upright. The horizontal arm of the standard will bend sufficiently to enable the parts to assume the position shown in Fig. 2. To fold the protector for shipment, bend the standard at its angle until both arms thereof lie in the plane of the frame of the shade. The wire forming the frame and standard is pliable to enable it to be bent repeatedly without fracture, and may be of copper.

It will be seen from the above description that the protector may be adjusted at any desired angle from vertical to horizontal to intercept the rays of the sun, and by employing a cover composed of a fabric which is thin enough to allow the light to penetrate therethrough and at the same time thick enough to protect the plant from the direct and strong rays of the sun, the protector may be used at all times without interfering with the proper growth of the plant.

Having thus described my invention, I claim—

1. In a protector for plants, in combination with a frame having a slitted cover, a bent standard having one arm loosely connected to the frame and a movable cross-wire engaging the other arm of the standard at an intermediate point to adjust the position of the shade, substantially as specified.

2. In a protector for plants, in combination

with the covered frame, the standard having an upper arm secured at one end to the frame, and a vertical arm adapted to be inserted in the ground, and the adjustable cross-bar engaging an intermediate point of said standard, and mounted at its ends to slide upon the side-bars of said frame, substantially as specified.

3. In a protector for plants, the combination with a frame having parallel side-bars, and provided with a cover, of the bent standard having one arm attached terminally to one end of said frame, and the other arm free to be inserted in the ground, and a sliding cross-wire mounted at its ends upon said side-bars and provided at its center with a loop to engage the standard, substantially as specified.

4. The combination of the frame composed of a single strand of wire, and a bent standard formed as a continuation of said strand

and having a vertical portion to be inserted at its lower end in the ground, said frame being provided with a slitted cover, substantially as specified.

5. In a protector for plants, the combination with the frame, and a centrally-slotted cover secured thereto, of the standard having a horizontal arm which is attached to one end of the frame, and a cross-wire mounted at its ends on the sides of the frame and provided at its center with a loop to engage said standard, substantially as specified.

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

LOUIS GRUETZMACHER.

Witnesses:

TIM FINN,

EDWARD T. DODDS.