L. PETZLER.

APPLIANCE FOR TRAINING PEA VINES AND OTHER CLIMBING PLANTS.

APPLICATION FILED APR. 7, 1909.

950,639. **Patented Mar. 1, 1910.**

2 SHEETS—SHEET 1.

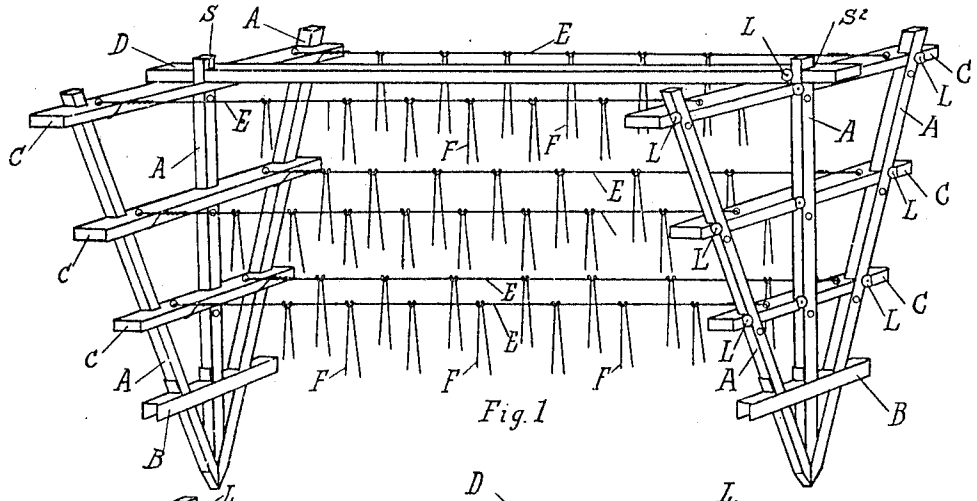


Fig. 1

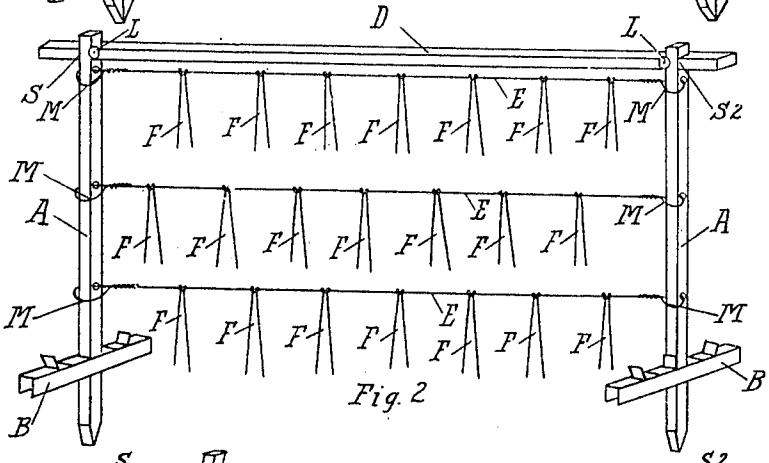


Fig. 2

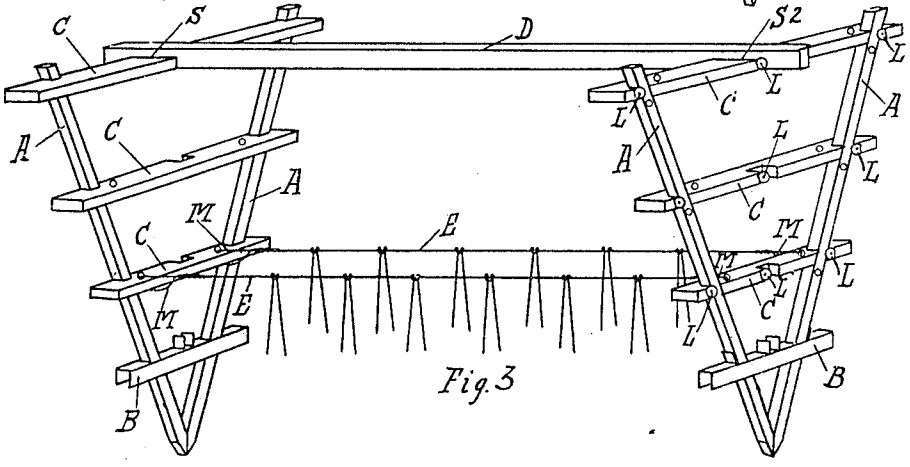


Fig. 3

WITNESSES:

H. Pedwood

W. H. Watson

INVENTOR.

Louis Petzler

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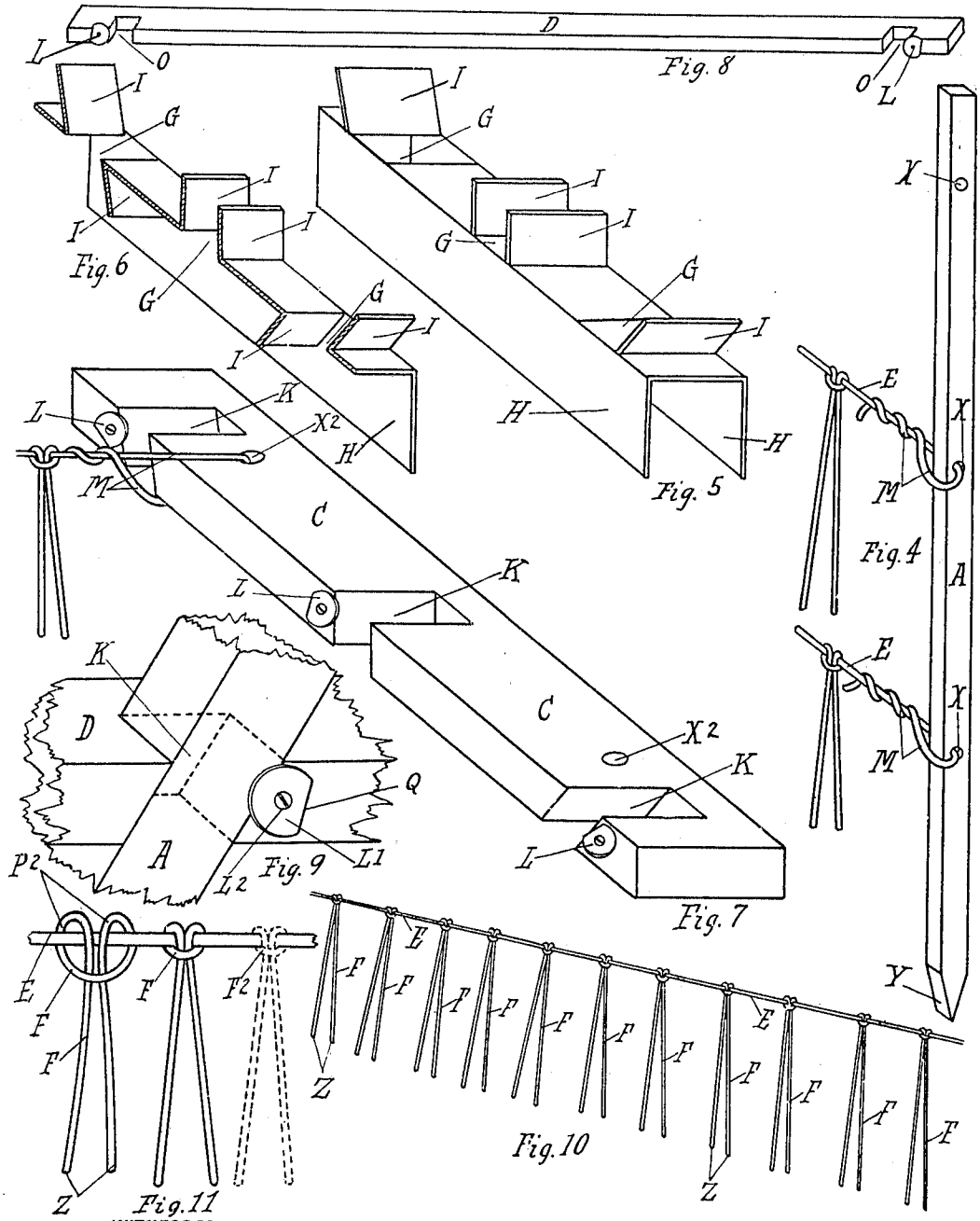
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2 SHEETS—SHEET 2.



WITNESSES:

INVENTOR

ANDREW B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LOUIS PETZLER, OF EMERICK, NEW YORK.

APPLIANCE FOR TRAINING PEA-VINES AND OTHER CLIMBING PLANTS.

950,639. Specification of Letters Patent. Patented Mar. 1, 1910.

Application filed April 7, 1909. Serial No. 488,532.

To all whom it may concern:

Be it known that I, LOUIS PETZLER, a citizen of the United States, residing at Emerick, Albany county, of the State of New York, have invented a new and useful Appliance for Training Pea-Vines and other Climbing Plants, of which the following is a specification.

My invention relates to supporting the vines of plants that are known as climbers.

The object of my invention is—First—to support the vines of plants that climb. Secondly—to allow of a free circulation of air through the vines by having a minimum of supporting surface. Thirdly—to facilitate the gathering of flowers and fruit from the vines of climbing plants especially those of the pea. Heretofore these objects have been gained by the use of brush-wood and other crude devices. In place of these I use a combination rack or supporter of a special form constructed of metal, wood, braided or other wire and ratan cane or other filament. I attain these objects by the use of the combination rack or supporter illustrated on the accompanying drawings in which—

Figure 1, is a perspective view of the rack or supporter when all its members are in combination. Fig. 2, is a modified view of the rack or supporter. Fig. 3, is a more modified view of the rack or supporter. Fig. 4, is a detail view of an end standard rod with sections of entangling device attached. Fig. 5, is a detail view in perspective of a metal tie-piece. Fig. 6, is a sectional view of Fig. 5. Fig. 7, is a perspective view of a tie-piece of wood or metal with section of entangling device attached. Fig. 8, is a view of the brace rod. Fig. 9, is a detail view of a revolving washer fastener. Fig. 10, shows a view of a portion of an entangler. Fig. 11, shows an enlarged view of a portion of an entangler.

Referring to the accompanying drawings the rack or supporter which is constructed of separate members comprising rods A. of any desired length formed of wood or metal with holes X. through which the entanglers Fig. 10. are connected to the rods A. at M. when in use thereon, one end of rods A. being cut in the form of a wedge Y. to facilitate entrance of rods A. into the ground through the openings G. in the tie-pieces of metal B. at the same time are guided into an angle with the tie-piece B. as fixed by the angles of the guide lugs I. which angles conform with angles of slots K. of other tie-pieces C. The tie-pieces B. being constructed with flanges H. These engaging with the soil give a firm and rigid foundation, when setting up the rack or supporter.

The tie-pieces of wood or metal C. of different lengths with angular slots K. cut to conform with other tie-pieces and capable of being fastened securely in their relative positions by a specially constructed revolving washer fastener L. when in position with the rods A. and tie-piece B. make a rigid end standard of the rack or supporter. The tie-pieces C. have holes X^2, through which the entanglers Fig. 10, are connected to the tie-pieces C, at M, when in use thereon. The entanglers Fig. 10, are constructed preferably of braided, though other wire may be used. The fringe of ratan cane or other filament F. being joined to the braided or other wire E. by loop as shown at P^2 Fig. 11, the ends being free as shown at Z Z. Preferably the entanglers are attached to the rods A. and tie-pieces C, as shown at M. the end of the braided or other wire being run through the holes X, in the tie-pieces C or rods A, and brought under or over them and twisted around the braided or other wire E. A brace rod D, with slots O. O., cut at right angles to its length is used to tie the standards described, by fitting the slots over the top tie-pieces C, from S. to S^2 when set up, and fastened securely in position by the revolving washer fasteners L.

From the foregoing description it will be seen that the rack or supporter is a combination of separate and individual members capable of being set up in the form as described and illustrated, and forming a rigid structural rack that is larger at the top than the bottom, with an entangling device Fig. 10, that is free and flexible allowing of elasticity to wind force, with vibratory movement of the ends Z, of the filament F, until entangled with the tendrils or stems of the plants cultivated, and capable of being adjusted at different spaces on the braided or other wire E. by the loop P^2. A rigid foundation of the rack is attained by the peculiar construction of the iron tie-piece B, in that the flanges H, give a large friction surface when in their position in the soil,

and that the angles of the lugs I, allow of perfect triangular stress through the different members of the end standards when set up.

Changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim is—

1. A rack for climbing vines comprising supports adapted to be inserted into the ground, rigid bracing means connecting said supports and a plurality of flexible elements connecting said supports, and a plurality of flexible filaments attached intermediate their ends to each of said flexible elements so as to hang with their free ends downward, substantially as specified.

2. In a rack for climbing vines comprising supports adapted to be inserted into the ground, rigid bracing means connecting said supports, a flexible element capable of connecting said supports and a plurality of flexible filaments attached intermediate their ends to said flexible element so as to hang with their free ends downward 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 PETZLER.

Witnesses:

FK. GEO. WOOD,

W. F. PATISON.