L. H. TITUS.

Portable Ladder for Gathering Fruit.

No. 210,168. Patented Nov. 19, 1878.

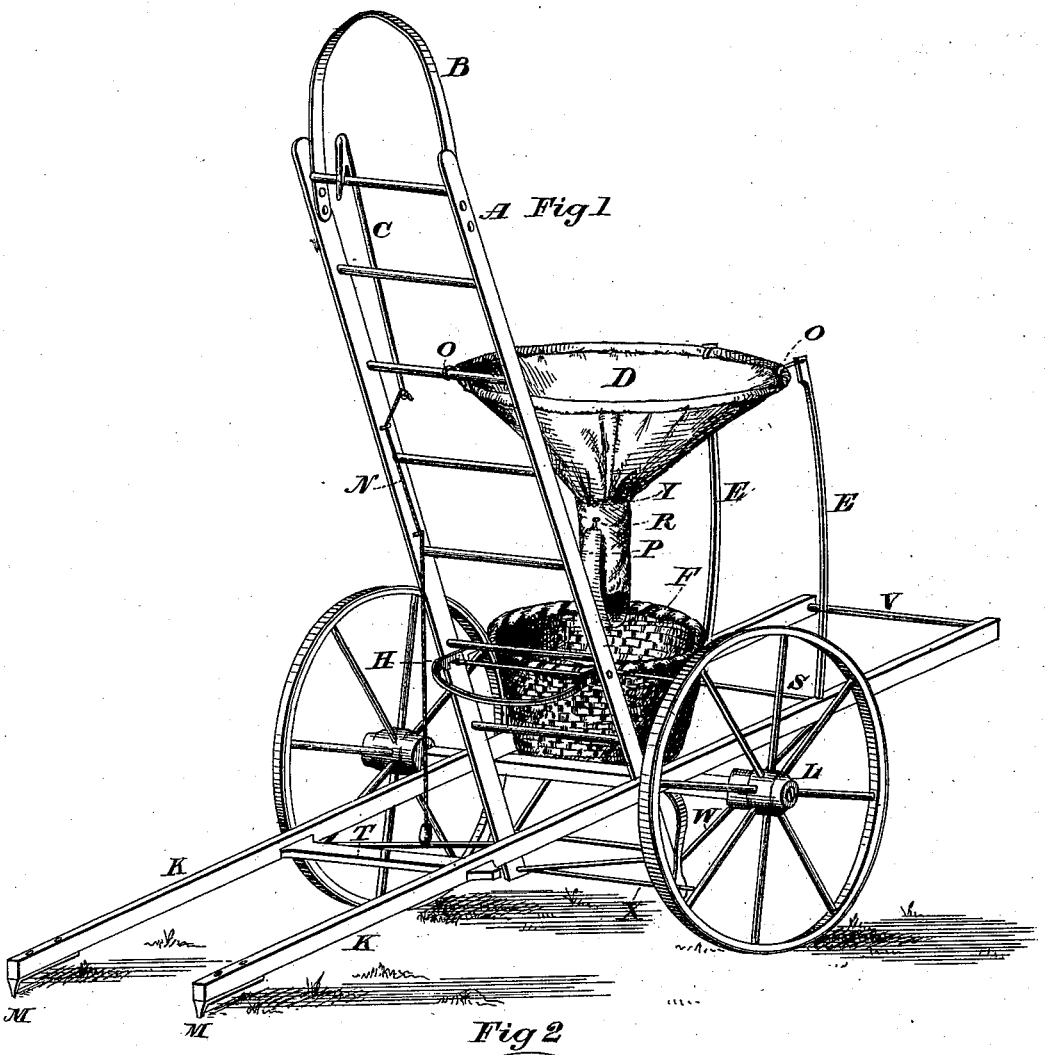
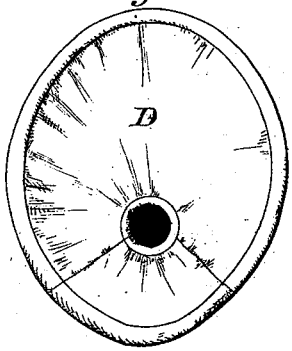


Fig 1

Fig 2



Attest:

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UNITED STATES PATENT OFFICE.

LUTHER H. TITUS, OF SAN GABRIEL, CALIFORNIA.

IMPROVEMENT IN PORTABLE LADDERS FOR GATHERING FRUIT.

Specification forming part of Letters Patent No. **210,168**, dated November 19, 1878; application filed May 10, 1878.

To all whom it may concern:

Be it known that I, LUTHER HARVEY TITUS, of San Gabriel, Los Angeles county, State of California, have invented a Portable Ladder for Gathering Fruit, of which the following is a specification:

The instrument or invention is to be used in picking or gathering fruit from trees.

Figure 1 of the drawings is a perspective view of my improved fruit-gatherer. Fig. 2 is a plan view of the hopper.

The invention as a whole consists of a ladder, A, with a bow, B, attached at the top thereof. C is a hook, with cord attached at lower end, running through staples at N, to the end of which cord a weight of one or two pounds is fastened. D is a hopper, fastened to the ladder and two standards at points O, at which points are rubber fastenings of sufficient strength, on which rubber fastenings are hooks for convenient use.

The hopper D is about five feet in diameter, consisting of canvas put over a hoop. To this hopper is attached a canvas tube, Y, extending down into the basket F.

B is a bow to support or steady the person while standing on the top rounds of the ladder.

E are flexible standards for the support of the hopper D, attached thereto, as described, under D above. F is an ordinary fruit-basket. P is an adjustable apron, adjusted by the ring and hooks at R. L are wheels and axle, of ordinary make, to which axle is attached the upper part of the device.

H is an iron adjustable ratchet or notched brace or bail, attached to the horizontal timbers at S with bolts. This brace passes within the lower part of the ladder over an iron rod running through the ladder. The notches in this brace fit down firmly over the rod, so as to securely hold the ladder in position as it is inclined at a greater or less angle to the horizontal frame K.

K is a frame, consisting of two parallel timbers, about two by three inches by fourteen feet, fitted onto the axle, and bolted and braced by cross-brace at T and V with iron under-brace W. W is an iron under-brace, attached to the horizontal frame and to the axle by an upright iron from X. At X an iron rod extends through the lower end of the ladder and out through the brace W, this brace and rod having sufficient strength to firmly sustain the ladder with person on it gathering fruit, on which rod X the ladder works as a hinge.

M are spikes or anchors bolted to the ends of the horizontal frame, of sufficient length to run down into the ground, thereby blocking the wheels and holding the whole device firmly and immovably in position for use, and while the person is on the ladder gathering fruit.

V is a brace in the horizontal frame, used as a handle for conveniently handling the device and moving it from place to place.

Under the basket E is a small shelf for the support of the basket. The shelf is fastened to under side of the horizontal frame K. The ladder A passes in front of the axle and moves snugly within the horizontal frame K. The horizontal frame K is fastened to the axle, so that over half the length is in front of the axle. This frame is about fourteen feet long. The various joinings are securely riveted or bolted, so as to hold the parts in place.

The device is to be so constructed and proportioned that the center of gravity always falls in front of the axle and in front of the bottom of the ladder. The strength of the various parts is to be such as to safely sustain a person on the ladder while picking fruit. The length of the ladder is determined by the height of the fruit-trees, and the horizontal frame is proportioned in all cases to the height of the ladder.

The device is operated by first taking hold of the handle V and pushing it up to a fruit-tree, so that the ladder comes sufficiently close to the fruit. When the hands are removed from the handle V the spikes or anchors at M enter the ground, and thus firmly hold the device in place. The ladder is then adjusted nearer the fruit by use of the adjustable ratchet or notched brace or bail H, if needed. The person then ascends the ladder, takes the hook C, reaches out and catches a limb of the tree or twig, and draws it within reach. The weight at the end of the cord N keeps the cord tight, and by placing the foot against the cord and pressing against the side of the ladder the limb of the tree is held, while both hands are free for use in picking fruit. As the fruit is gathered it is thrown into the hopper D and rolls

down through the tube into the basket, the fall being broken by the canvas hopper D and apron P. As the basket is filled it is replaced with an empty basket.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The fruit-gatherer consisting of the horizontal frame K, supported midway by the two wheels, and having spikes or anchors at one end, the ladder pivoted to hangers below the axis of said wheels and adjustable in inclination, and the hopper D, with its chute suspended above the frame in suitable relation to the ladder, substantially as described.

2. The combination, with the frame mounted and rocking upon the two wheels, of anchors or spikes secured at one end thereof, substantially as and for the purpose stated.

3. In a fruit-gatherer, the hook C and attached cord passing through staples at N in the side of the ladder, the cord having a weight attached to its lower end, all substantially as and for the purpose stated.

LUTHER H. TITUS.

Witnesses:
R. M. WIDNEY,
WILLIAM HALL.