

B. A. WRIGHT.
FRUIT PICKER.

Patented May 8, 1894.



UNITED STATES PATENT OFFICE.

BUSHNELL ANDREWS WRIGHT, OF SAN JACINTO, CALIFORNIA.

FRUIT-PICKER.

SPECIFICATION forming part of Letters Patent No. 519,371, dated May 8, 1894.

Application filed October 25, 1893. Serial No. 489,128. (No model.)

To all whom it may concern:

Be it known that I, BUSHNELL ANDREWS WRIGHT, a citizen of the United States, residing at San Jacinto, in the county of Riverside and State of California, have invented certain new and useful Improvements in Fruit-Pickers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in fruit-pickers.

The object of my invention is to produce a fruit-picker which will reduce the handling of the fruit to a minimum and will avoid all danger of bruising it.

My invention consists of such features, details and combinations of parts, as will first be described in connection with the accompanying drawings, and then particularly pointed out in the claims.

In the drawings—Figure 1 is a perspective view of a device embodying my invention, the guy poles being in their folded or closed position. Fig. 2 is a front elevation of the same. Fig. 3 is a detail view showing the lower end of the tube or conductor, which illustrates the manner in which the fruit is emptied into the receptacle. Figs. 4 and 5 are detail views.

Referring to the drawings, A is a ladder, preferably of the same width at the top that it is at the bottom, in order that the operator, in picking, may have plenty of room in which to stand. The ladder has the usual legs, *a*, which, however, instead of being hinged directly to the ladder, are hinged to a pivot-board, I, pivoted centrally by a bolt, *i*, secured in a back-board, K, fixed to the back of the ladder, a pair of guide-irons, *k*, being fixed to the back-board, one at each end of the pivot-board, the central portion, *k'*, of these guide-irons being larger than the width of the pivot-board, in order that the latter may play up and down in the guide-irons, thereby permitting the legs to adjust themselves to uneven ground, each leg being provided with a disk-shaped shoe, *a'*, preferably of metal, and having a projecting spud or point, *a''*, to prevent the leg from slipping, the disk serving to keep the leg from sinking into the earth.

To each side of the ladder is attached a guy-pole, B, each pole having a hook, *b*, in its upper end, which may be inserted into any one of a series of staples or eyes, *a³*, secured to its respective side of the ladder. The lower end of each guy-pole is provided with a shoe, *b'*, similar to those on the legs of the ladder and for a similar purpose.

To hold the guy-poles to the sides of the ladder, when in their closed position, a pair of spring-hooks, C, are provided one attached to each side of the ladder, each having its inner end loose, so that the guy-poles may be forced between the loose end of their respective spring-hooks and the sides of the ladder. By means of the series of staples or eyes, *a³*, the guy-poles may be set at different angles, when the ladder is on sloping ground.

To the top of the ladder is attached a supporting ring, D, preferably by constructing the ring in the form of a circular loop with a straight arm, *d*, projecting from it, the arm being inserted into staples or sockets, *d'*, secured to the top step of the ladder, the loop or hoop portion projecting from one corner of the ladder.

From the supporting hoop or ring, D, is suspended a flexible conductor tube, E, preferably of canvas, drilling, or similar material, the tube being enlarged at the bottom and having its lower end cut at an angle for a purpose hereinafter described. This extremity of the tube has a stop device, *e*, preferably a ring, attached to the tube in any suitable manner. A contracting ring, F, encircles the tube or conductor, E, being freely movable up or down on the tube. To this ring is attached one end of a cord or wire, G, provided at suitable intervals with loops or small rings, *g*, arranged to hook over a stud or button, *g'*, fixed to the top of the ladder.

The operation of my device is as follows: The ladder is placed beneath the tree in the usual manner, the guy-poles being extended to prevent any lateral motion of the ladder. The contracting ring is drawn up on the tube to a position near the top, being held there by placing the first of the small rings, *g*, over the stud or button, *g'*, a basket or other receptacle being placed beneath the lower end of the tube, if desired. The operator, standing on the ladder, picks the fruit and places

it in the upper end of the tube, where it is held from dropping to the basket below by the ring, F. When the upper end of the tube is filled with fruit, the first small ring, g, is unhooked from the stud, g', and the second small ring placed over said stud, whereupon the weight of the fruit will force the contracting ring, F, down on the tube, thus lowering the fruit and leaving an empty space in the tube above the fruit, which space is then filled by the operator, and the contracting ring again lowered, as before, the operation being repeated until the tube is filled. To empty the tube, it is only necessary to loosen the cord, when the weight of the fruit will force the contracting ring to the extreme limit of its downward movement and will escape through that portion of the sloped open end above the contracting ring, the latter being prevented from slipping entirely off the tube by the stop device, e. When the tube is empty, the operator, without descending the ladder, may pull up the lower end of the tube by means of the cord, and may then slide the ring, F, up to its position for commencing the picking operation.

The feet of the ladder are provided with shoes, H, to prevent them from sinking into soft ground, these shoes each consisting of a broad strap of iron bent upward at each end, as shown in the drawings, and screwed or nailed to the ladder ends.

I do not claim herein the novel points of construction of the ladder herein described, as they form the subject-matter of a new application filed by me on the 28th day of February, 1894, Serial No. 501,868.

What I do claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a ladder and a conducting tube supported from the ladder, of a contracting ring movable on the tube, a cord attached to the contracting ring, and means for securing the cord to the ladder at any desired point, whereby the ring may be raised and lowered or held on the tube at any height, substantially as set forth.

2. The combination, with a ladder and a conducting tube supported from the ladder, of a contracting ring movable on the tube, a cord attached to the contracting ring, a series of rings attached to the cord at suitable intervals, and a stud fixed to the top of the ladder and arranged to be engaged by any one of the rings on the cord, substantially as set forth.

3. The combination, with a ladder and a conducting tube supported from the ladder and having its lower end cut at a slope, of a contracting ring movable on the tube, and means for lowering the ring below the upper end of the sloped portion, substantially as set forth.

4. The combination, with a ladder and a conducting tube supported from the ladder and having its lower end cut at a slope, of a contracting ring movable on the tube, means for lowering the ring below the upper end of the sloped portion, and a stop-device attached to the tube at its extreme lower end, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BUSHNELL ANDREWS WRIGHT.

Witnesses:

LAWRENCE GUBSER,
JNO. C. DALY.