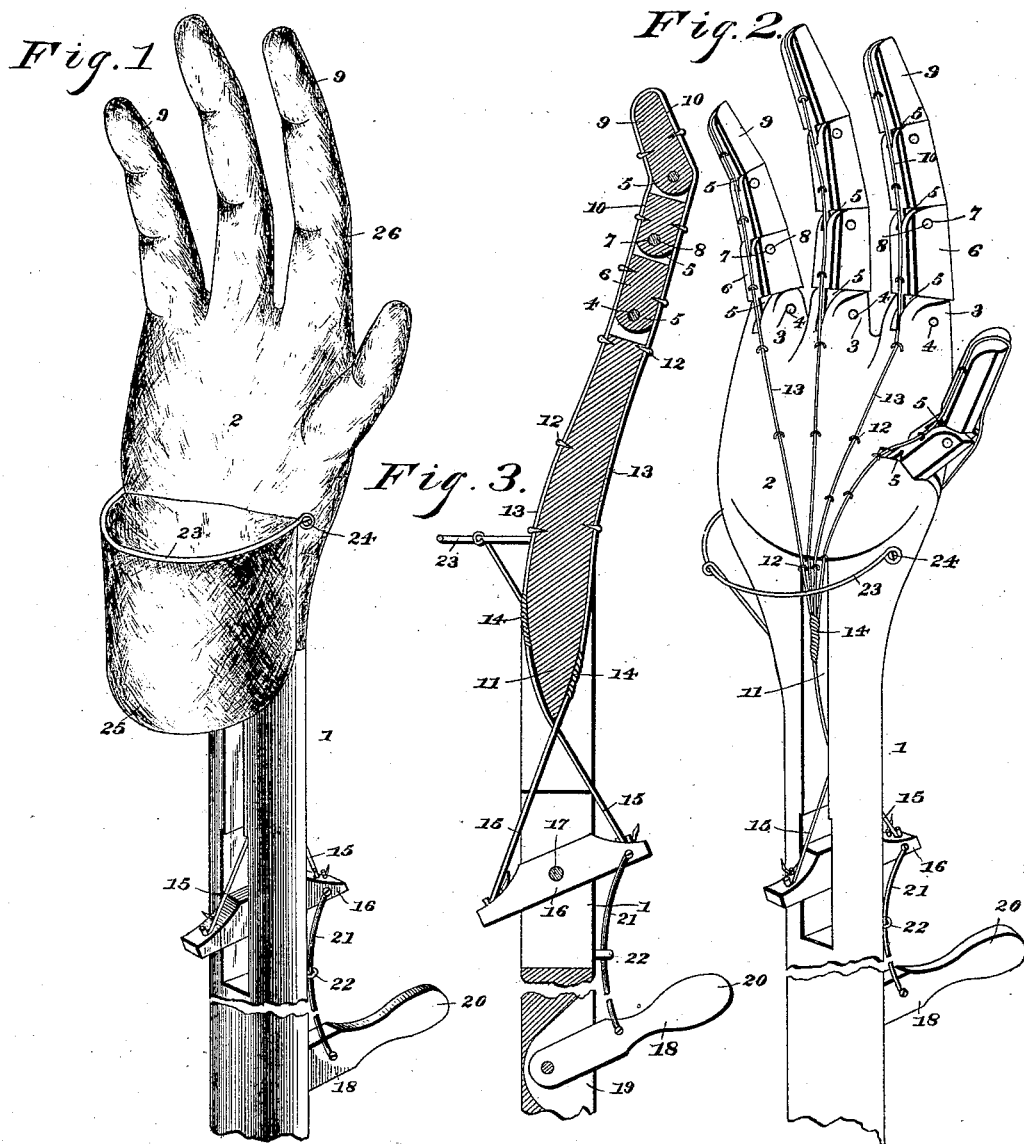


(No Model.)

H. CALDWELL.
FRUIT GATHERER.

No. 422,373.

Patented Mar. 4, 1890.



Witnesses;

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HARPER CALDWELL, OF PINEVILLE, MISSOURI.

FRUIT-GATHERER.

SPECIFICATION forming part of Letters Patent No. 422,373, dated March 4, 1890.

Application filed October 12, 1889. Serial No. 326,834. (No model.)

To all whom it may concern:

Be it known that I, HARPER CALDWELL, a citizen of the United States, residing at Pineville, in the county of McDonald and State of Missouri, have invented a new and useful Fruit-Gatherer, of which the following is a specification.

This invention has relation to fruit gatherers or pickers, and among the objects in view are to provide a gatherer or picker adapted to be used on delicate fruit or where a very careful handling of the same is necessary in order to avoid bruising.

For the above purpose the human hand has been found to possess undoubted advantages, and I have therefore designed my invention after the same and operating upon the same principle, the invention consisting, principally, of a palm, which I will herein designate as a "base," and a series of flexible fingers arranged upon the edge of the palm, and means for simultaneously opening and closing the fingers in imitation of the hand.

Referring to the drawings, Figure 1 represents a perspective of a fruit-picker constructed in accordance with my invention. Fig. 2 is a similar view, the covering being removed. Fig. 3 is a vertical section.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a pole or section of the picking-pole, and the same is provided at its upper end in this instance with an integral flared inclined base 2, which is in a shape of the palm of a hand. At one side of the base and along the upper edge of the same at intervals there are formed pairs of lugs 3, in each pair of which there is pivoted by a pin 4 a tenon 5, which projects from the lower end of a lower section of a finger 6. The upper ends of these sections are bifurcated, as at 7, and in the same are pivoted by pins 8 to tenons 5 of the next section of the fingers, the upper ends of which are likewise bifurcated for the reception of the tenons 5 of the tip-sections 9, and thus completing the series of fingers. I have herein shown the base as provided with three fingers and a thumb; but it is evident that the number of fingers may be varied and the width of the base likewise varied for the accommodation of larger or smaller fruit. The thumb, also, like the hu-

man hand, comprises two sections—the lower section and the upper or tip section 9. Each of the fingers throughout their length and at their front and rear sides and extending over the tips are provided with a small groove 10, which grooves are continued down the front of the base and also at its rear, the grooves converging and terminating in a transverse slot 11, formed in the pole-section 1. The grooves are also provided at intervals with small staples or guide-eyes 12, and each of the fingers and thumb is provided with an operating string or wire 13, fixedly connected at the upper ends of the tip-sections, and having its terminals passed through the eyes at the front and rear of the fingers and base, the rear terminals of each finger meeting at the point where the grooves merge into the open slot and likewise the front terminals. At these points the two opposite series of terminals are wrapped, as at 14, and are connected by heavier operating-cords 15 to the ends of a rocking lever 16, pivoted, as at 17, within the open slot, said operating cords or wires being crossed within the slot and connected near their ends of the lever.

At any suitable and convenient point of the pole, or it may be a lower section of the same, there is pivoted a lever 18 in a slot 19, the outer end of the lever forming a handle 20. A wire 21 serves to connect the handle or operating-lever with the rocking lever and in a pivotal manner, said wire being maintained in position by a series of guide-eyes or staples 22.

23 represents a U-shaped bail, preferably formed of wire and having its terminals connected at opposite sides of the inclined base by screws 24, and from the bail there depends a flexible sack 25, the mouth of which occurs at the lower end of the inclined base. If desired, the base and fingers, which in appearance resemble a hand, may be provided with a textile or other glove-like cover 26.

The operation of my invention will be readily understood, but may be briefly stated as follows: The handle-lever is elevated, which through the medium of the connecting-rod elevates the adjacent end of the rocking lever, and consequently depresses or lowers the opposite end of said lever, to which are connected the rear terminals of the picking-fin-

gers. This, it will be apparent, opens said fingers, and in this position the picker is introduced over the fruit. Now by lowering the operating-lever a reverse movement of the parts takes place, and the fingers and thumb close gently upon the fruit in the same manner as a hand. The fruit is now gently disengaged from the branch or limb and the operating-lever again elevated or raised, which straightens the fingers and releases the fruit and the same rolls down the inclined base or palm and into the receptacle located at the lower end of the same, and may be subsequently removed by the operator.

Having described my invention, what I claim is—

1. In a fruit-picker, a base mounted upon a pole provided with a series of pivoted fingers, in combination with cords secured to and leading from the front and rear of the fingers and adapted to open and close the same over the base, and means for simultaneously operating either the front or rear series of cords, substantially as specified.

2. In a fruit-picker, the combination, with an inclined base mounted on the pole, a series of picking-fingers pivoted to the upper end of the base, and opposite series of cords secured to the front and rear of the fingers for opening and closing them, of a receptacle located at the lower end of the base, and means for simultaneously operating either series of cords, substantially as specified.

3. In a fruit-picker, the combination, with a base mounted upon a pole, of a series of flexible picking-fingers pivotally connected thereto, an opposite series of cords connected to the back and rear of said fingers, each se-

ries terminating in a single cord, and a pivoted lever connected with the cords at opposite sides of its pivot and adapted to operate either series of cords to bend the fingers, substantially as specified.

4. In a fruit-picker, the combination, with a base provided at its edges with pairs of perforated lugs, of a series of fingers pivoted in the lugs and formed of sections flexibly pivoted to each other, grooves formed in the front and rear faces of the fingers and extending down each side of the base and converging and terminating in a slot, a rocking lever mounted in the slot, and a series of cords, each of which is connected with the tips of the fingers and mounted in the grooves and extending down their respective slots, the entire series terminating at a common point, and oppositely-disposed operating-cords connecting the terminal points of the series to the opposite point of the rocking lever, and a pivoted lever connected to the rocking lever for operating the same, substantially as specified.

5. The combination, with an inclined base having a bail secured to the lower end thereof and a flexible sack depending therefrom, of a series of jointed pivotal fingers mounted at the edge of the base, and a series of cords passed over and secured to each of the fingers and adapted to open and close the same over the base, substantially as specified.

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

HARPER CALDWELL.

Witnesses:

J. H. MOFFETT,
S. A. FARMER.