

Fruit-Gatherer.

Patented Aug. 14, 1866.



UNITED STATES PATENT OFFICE.

ELIJAH EVANS, OF SPARTA, OHIO.

IMPROVEMENT IN FRUIT-PICKERS.

Specification forming part of Letters Patent No. 57,106, dated August 14, 1866.

To all whom it may concern:

Be it known that I, ELIJAH EVANS, of Sparta, in the county of Morrow and State of Ohio, have invented a new and useful Improvement in Fruit-Pickers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, made part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a transverse section of the working mechanism; Fig. 3, a section showing the mode of operating the jaws; Fig. 4, a view of one of the jaws; Figs. 5 and 6, sections through the pulleys.

The same letters are employed in the different figures to indicate identical parts.

The following description will enable persons skilled in the art to construct my fruit-picker, which is intended for picking all kinds of fruits from the tree without injuring the fruit, as always results from its falling upon the ground, and enabling the fruit to be gathered from all parts of the tree.

A is the handle, which is made hollow to receive the cord or chain A', which is actuated by the bell-crank I, inserted in a slot in the handle, passing over a pulley in the handle A², and is attached to the cord or chain C.

The ends of the cord C are attached, respectively, to the grooved faces of the pulleys D and D', around which they are wound, so that the pulleys shall be made to revolve toward one another as the cord C is drawn down by the cord A'.

The pulley D is formed with a recess to receive within the rim the coiled spring E, the inner end of which is attached to the boss E', through the center of which the axle of the pulley passes. This boss is held stationary by two pins, E², which pass through the cap F. The other end of the spring E is attached to the rim of the pulley D.

The spring E is coiled, so that by drawing down the cord C the spring is tightened, and by relaxing the cord the spring carries the pulley D back to its original position.

The rim of the pulleys has two grooves in the faces. The cord G, attached to the upper part of the pulley D, is carried across to and attached so as to pass under the pulley D'. The spring thus causes both pulleys to return with equal force.

A pin, D², on the pulley D, and a like pin

on the pulley D', pass through slots in the lugs C', which are riveted to the back of the quarter-spherical jaws C. The jaws C each form the fourth-segments of spherical shells. They have lugs C² at each end, through which they are riveted to the plate inside the cap F, between the pulleys on one side, and on the other to a lug projecting from the cylindrical case H. On the side next the pulleys they are set upon the same rivet upon which they turn, and on the opposite side they are attached to the lug on the case H by separate rivets set, say, three-fourths of an inch apart. The opposed edges of the jaws are sharpened, and by reason of the mode of attaching them they do not come directly together, but, commencing at the point where they are on the same rivet, they approach one another as a pair of shears, closing one over the other.

The cylindrical case H is attached to the handle and immediately below the jaws, which, when open, extend back into it. It has a flange around the bottom, to which is secured the sack B, which, passing along the handle, receives the fruit as cut by the jaws.

A spring, I', passing under the angle, presses against the arm of the bell-crank I, to which is attached the cord or chain. This spring is only necessary, where a chain is used, when it is desirable to preserve under all circumstances the tension of the chain to prevent kinking.

The case H being placed over the fruit to be gathered—say an apple—the hand, grasping the bell-crank and handle, presses down the former, thus drawing down the cords A' and C, the pulleys D and D' revolve, and the pin D², acting upon the slots C', draw together the jaws C, which, rising over the apple, shear off the stem, and the apple drops into the bag B. The stiffness of the material of which this bag is formed regulates the rapidity of the descent of the apple. The bell-crank being released, the spring E opens the jaws.

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

1. A fruit-picker in which two quarter-spherical jaws, C, are caused to close by mechanism operating substantially as set forth.

2. Attaching the jaws C by a single rivet on one side and by separate rivets on the other, so as to produce a shearing motion by the junction of their edges, substantially as set forth.

3. In combination with the jaws C, the lugs

C' and pins D², actuated substantially as set forth.

4. The device for actuating the jaws of a fruit-picker, consisting of the pulleys D and D', the spring E, cords G, C, and A, or their equivalents, and bell-crank I, attached to the handle A, said several parts being respectively constructed and the whole combined for use substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELIJAH EVANS.

Witnesses:

R. MASON,

JOHN S. HOLLINGSHEAD.