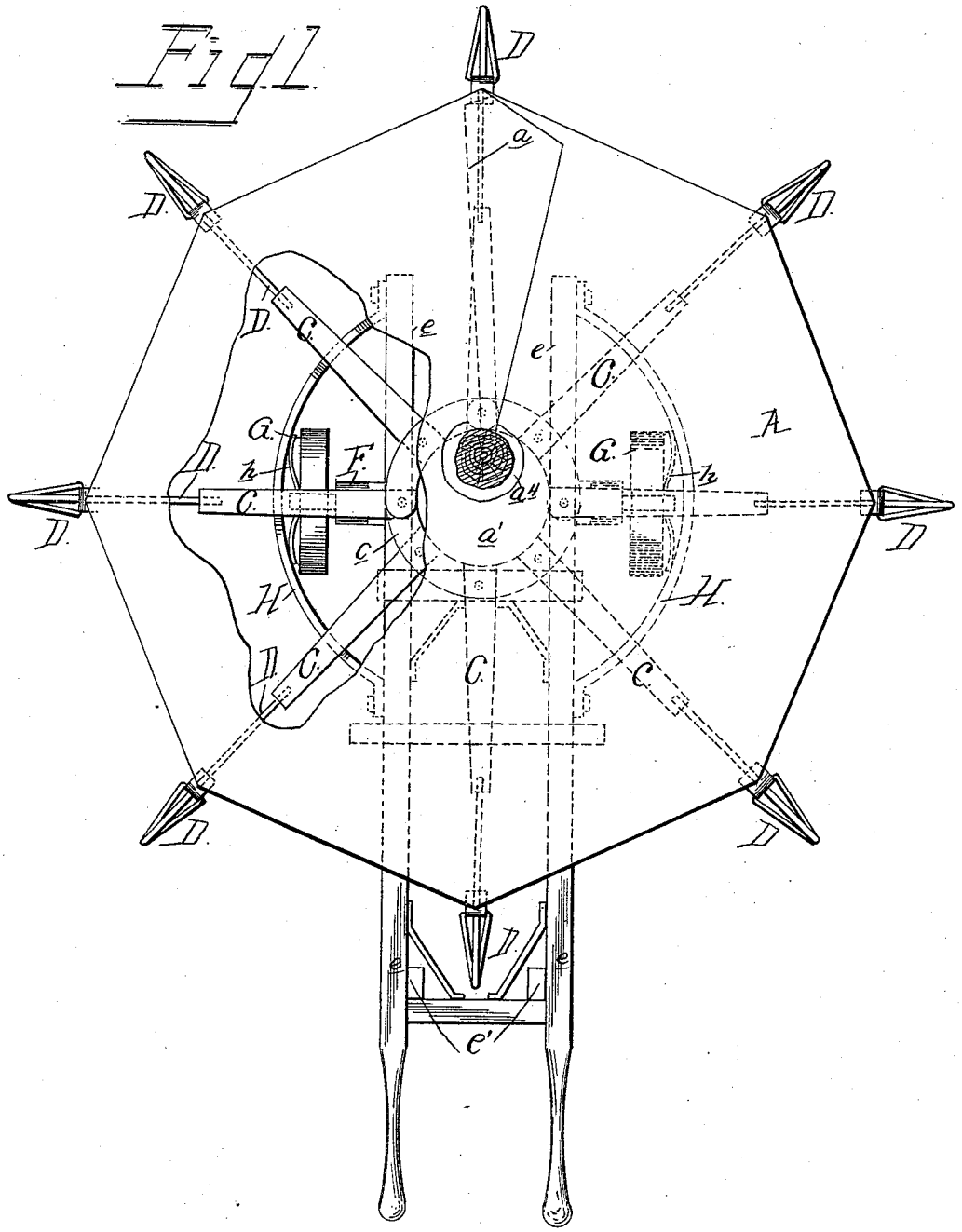
(No Model.) 2 Sheets—Sheet 1.

S. E. BALL.

FRUIT GATHERER.

No. 492,952. Patented Mar. 7, 1893.

Fig 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

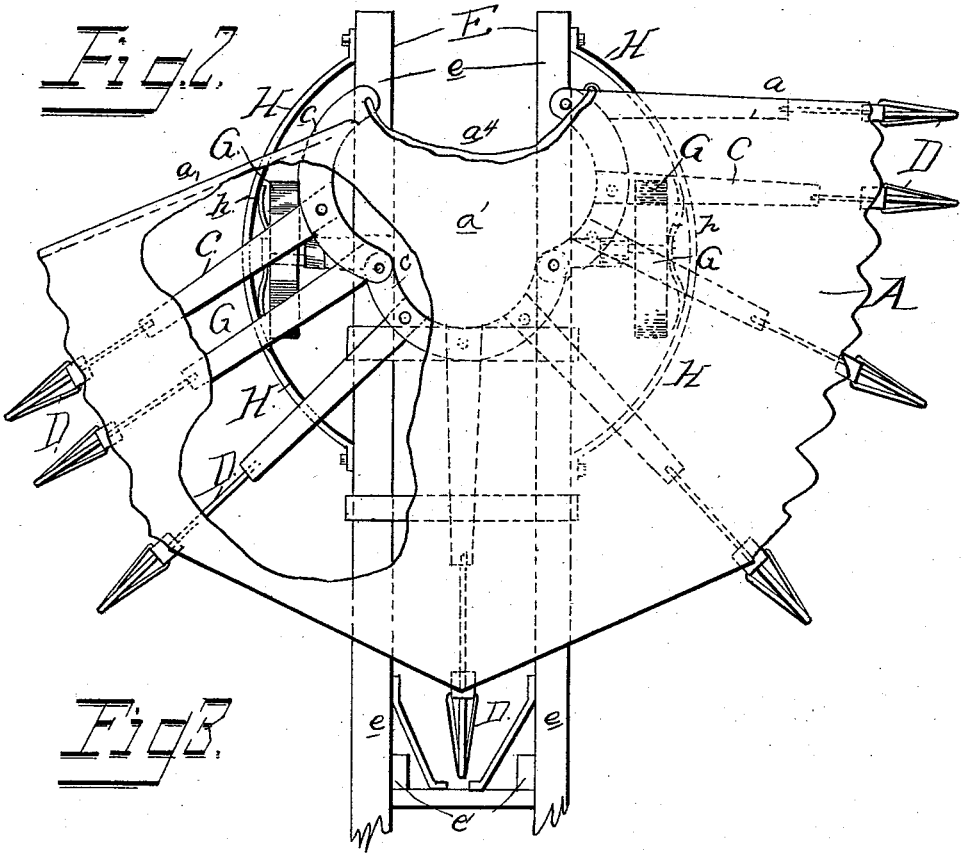
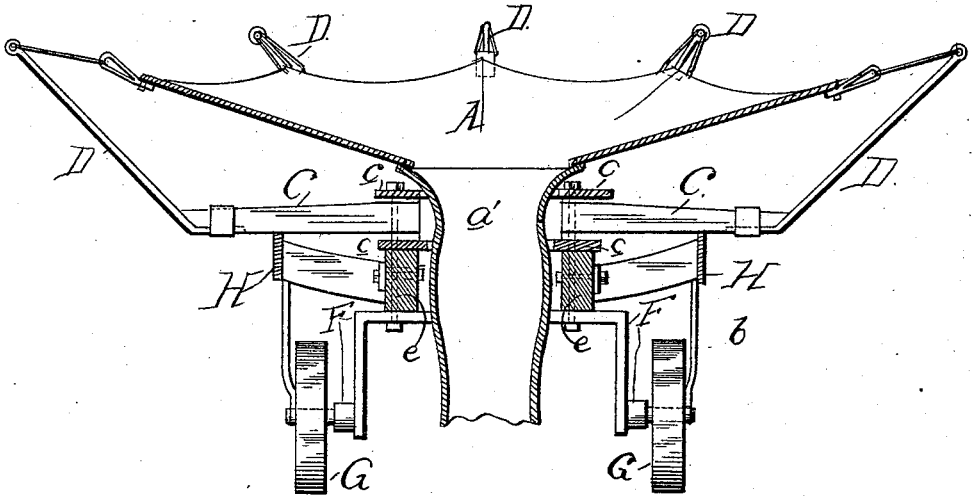


Fig. 3.



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UNITED STATES PATENT OFFICE.

SAMUEL E. BALL, OF WINTERS, CALIFORNIA.

FRUIT-GATHERER.

SPECIFICATION forming part of Letters Patent No. 492,952, dated March 7, 1893.

Application filed August 12, 1892. Serial No. 442,926. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. BALL, a citizen of the United States, residing at Winters, Yolo county, State of California, have invented an Improvement in Fruit-Gatherers; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of fruit gatherers exemplified by my Letters Patent of the United States, No. 478,903, dated July 12, 1892, and in which an expansible and collapsible receiver is adapted to encircle the tree trunk.

My invention consists in the novel means of mounting and carrying said receiver, as I shall hereinafter fully describe and specifically point out in the claims.

The object of my invention is to simplify the carrying device of the receiver, rendering it possible to transport it and to manipulate it with less labor and fewer hands, and at the same time providing for all necessary adjustments to suit the lay of the land.

Referring to the accompanying drawings for a more complete explanation of my invention,—Figure 1 is a plan of my fruit gatherer, showing the receiver expanded about a tree trunk, a portion of the receiver being broken away to show the parts below. Fig. 2 is a view showing the receiver partially collapsed. Fig. 3 is a vertical cross section.

The receiver A consists of a funnel-shaped piece of material of some strong fabric. Its center is open and said receiver is divided on a radial line *a*. Secured to its open center is a discharge spout or neck *a'* which is tubular, and where it crosses the line of the radial opening is fitted with an elastic strip a^4 hemmed into it, so that when the receiver is fitted around the tree trunk by passing its radial opening *a* on each side thereof, and meeting and overlapping on the back, the elastic portion of the spout top will press around said trunk to fit it closely while the spout itself will hang down beside the trunk, all substantially as shown and described in my former patent.

C are the radially extending supporting arms of the receiver, having at their outer ends the standards D, to the tops of which the rim of the receiver is attached. The arms C are all pivoted at their inner ends between the separated curved plates of the sectional or divided hub *c* whereby said arms may turn backwardly to substantially parallel planes to collapse the receiver and to radial planes to expand it like an inverted umbrella. The ends of elastic strip a^4 are attached to the separated ends of the hub. The operation of these parts thus described is the same as that described in my former patent.

When approaching a tree the arms C are all turned backwardly, the sectional or divided hub is open, and the receiver is collapsed, with the elastic edge of its spout crossing the open hub and front of the receiver. When the tree is reached, the elastic portion of the spout is pressed up against the trunk, the arms C are turned to radial planes, the sectional or divided hub embraces the trunk and stretches the elastic edge of the spout *a'* around the trunk and the receiver itself is closed about the trunk, the edges of its radial opening overlapping and being secured. The branches of the tree are then shaken and the fruit drops into the receiver and is thence discharged through the spout which hangs down beside the trunk and is in communication with a suitable receptacle below.

In my former patent I showed a wagon for carrying the device, and an adjustable bracket and connections for adjusting the receiver to position independently of the lay of the ground.

In my present invention the mounting and carrying of the receiver are as follows:—A frame E is composed of side bars *e* and suitable cross bars. The side bars, at their rear ends, are formed into handles and their front ends are separated sufficiently and are free of cross connections to a sufficient distance back to permit them to pass on each side of and to receive the tree trunk between them. Separate axles F are secured to these side bars and on their spindles, wheels G are mounted. Suitable legs *e'* are provided for the rear ends of the side bars. Upon this frame is secured the sectional or divided hub *c*. This hub consists of spaced plates lying one above the other, and between these plates the arms C are pivoted by vertical pins. The plates are curved and the hub is

formed in three sections. The central section which is a semicircle is made fast or rigidly secured to the frame with its concave side forwardly. The end sections are quarter circles, and are pivoted to the center section, whereby they may swing in horizontal planes toward each other to complete and close the hub or away from each other to open said hub. To the side bars *e* are secured the outwardly curved guides H which form supports or tracks for the arms C in swinging to and from radial planes, and from these guides extend downwardly suitable braces *h* for the axle ends.

The operation is as follows:—When collapsed the parts lie backwardly over the frame E in the positions heretofore mentioned. The forward separated ends of the side bars *e* are thus fully exposed. The operator takes hold of the handles at the rear end of the frame bars and lifting them pushes the wheeled frame forward. Advancing to a tree, the front ends of side bars *e* pass on each side of the tree trunk. Then the operator drops the frame and proceeds to envelop the trunk with the receiver as heretofore described. To adjust the receiver and hold it level on uneven ground he has but to block up or otherwise tilt the frame.

Thus the gatherer can be readily and easily transported from tree to tree and the receiver adjusted to place with but little labor and few hands.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fruit gatherer and in combination with the collapsible and expansible receiver with its swinging supporting arms and sectional or divided hub, the wheeled frame upon which said hub is carried, said frame having forwardly projecting side bars separated to pass on each side of the tree trunk, substantially as herein described.

2. In a fruit gatherer and in combination with the collapsible and expansible receiver with its swinging supporting arms, the wheeled frame having forwardly projecting side bars separated to pass on each side of the tree trunk, and the sectional or divided hub to which the supporting arms are pivoted, said hub being composed of a central section fast on the wheeled frame and end sections pivoted to said central section, substantially as herein described.

3. In a fruit gatherer and in combination with the collapsible and expansible receiver with its swinging supporting arms and sectional or divided hub, the wheeled frame upon which said hub is carried, said frame having forwardly projecting side bars separated to pass on each side of the tree trunk, and the guides secured to said side bars for supporting the receiver arms in their swinging movements, substantially as herein described.

4. A fruit gatherer consisting of the frame having its side bars projecting forwardly and separated to pass on each side of the tree trunk, said frame having wheels at its forward portion and handles at its back portion, the divided hub composed of a central section fast on the frame and end sections pivoted to said central section, the radial arms pivoted in said hub, the callapsible and expansible receiver secured to said arms and the side guides of the frame on which said arms rest when the receiver is expanded, substantially as herein described.

In witness whereof I have hereunto set my hand.

SAMUEL E. BALL.

Witnesses:
S. H. NOURSE,
J. A. BAYLESS.