

(No Model.)

J. A. FERGUSON.  
FRUIT GATHERER.

No. 452,493.

Patented May 19, 1891.

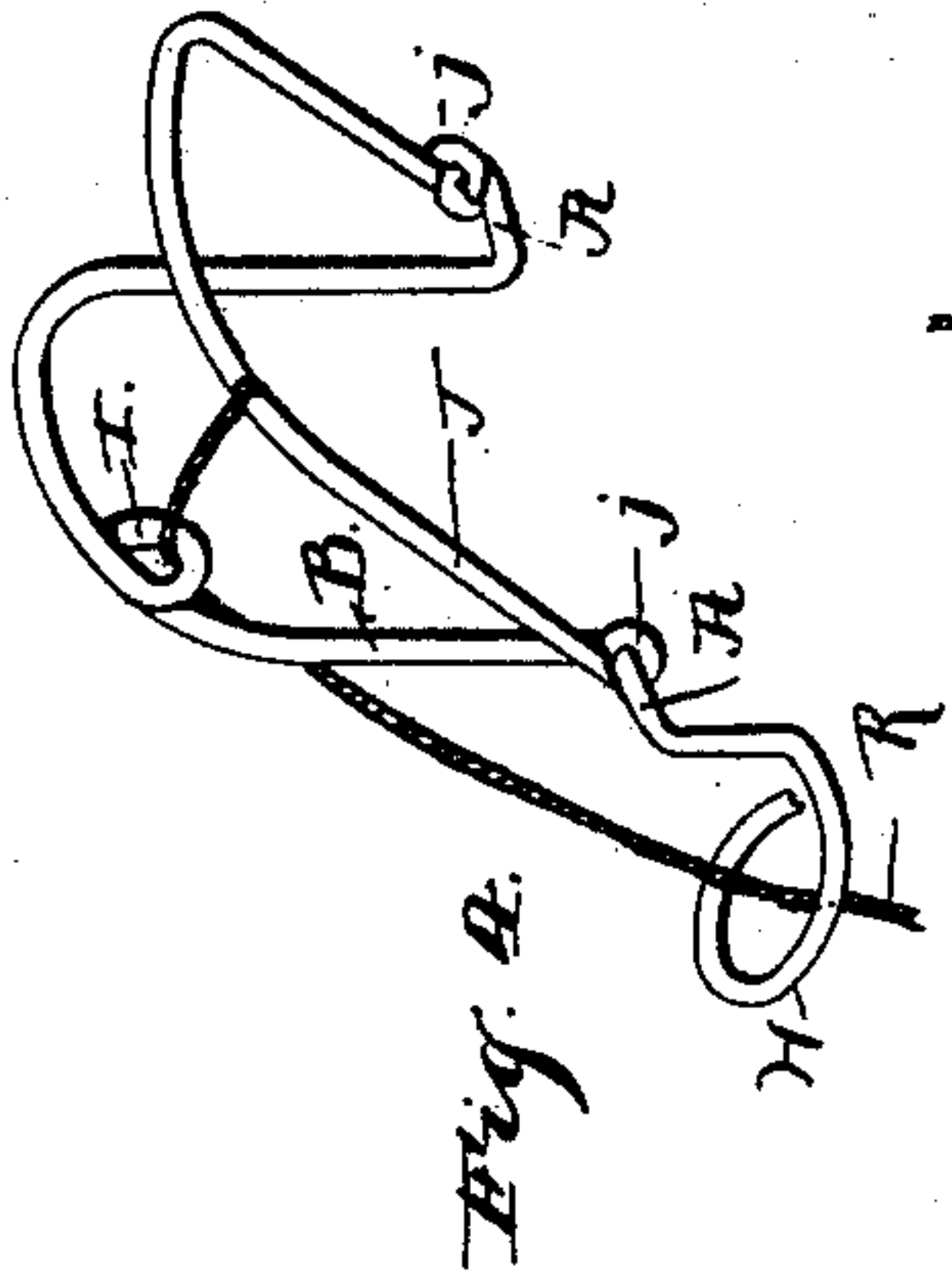


Fig. 4.

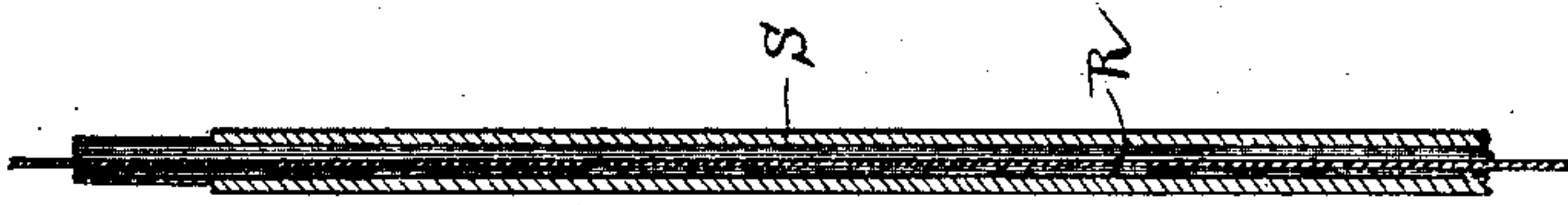


Fig. 5.

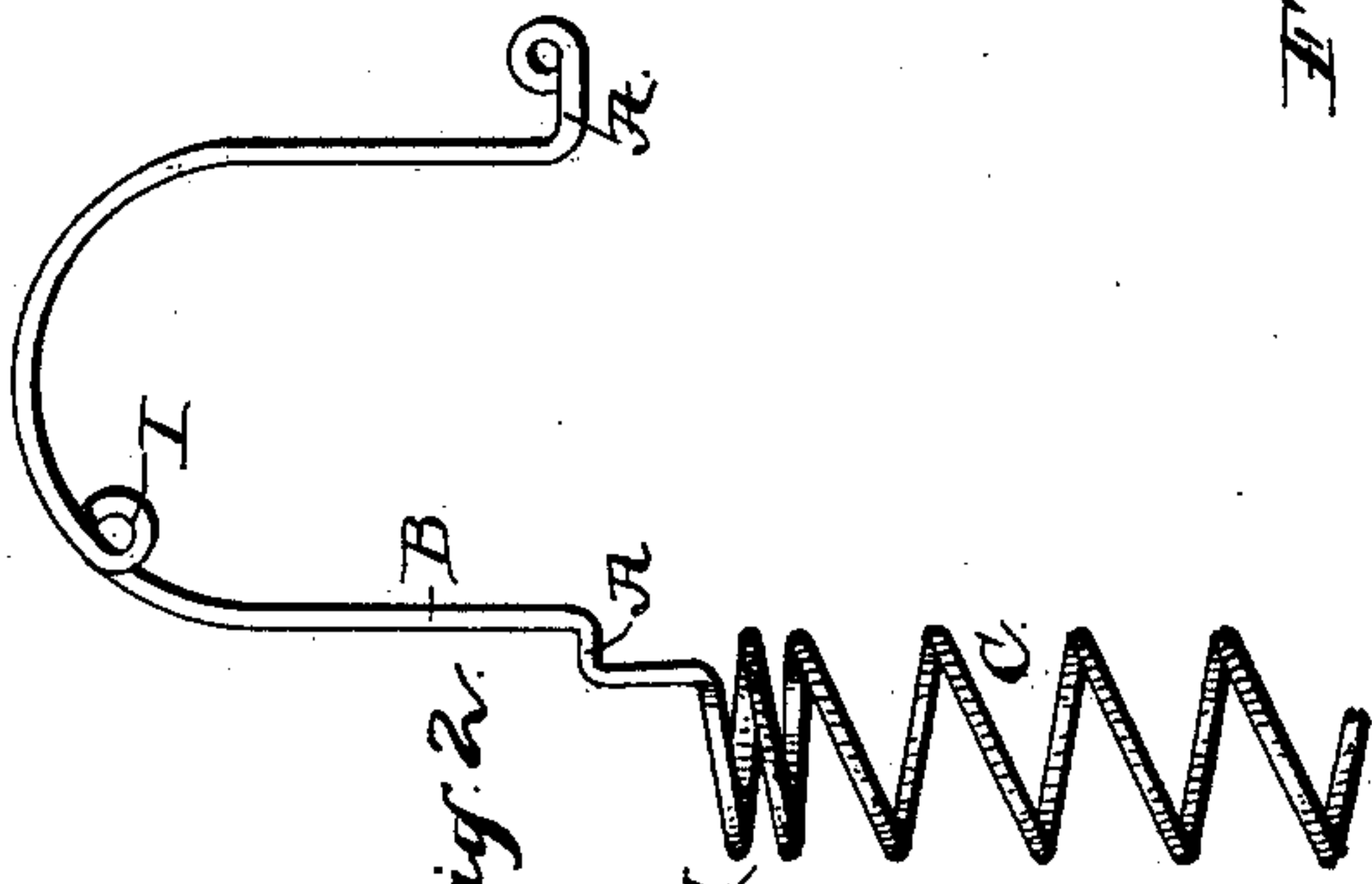
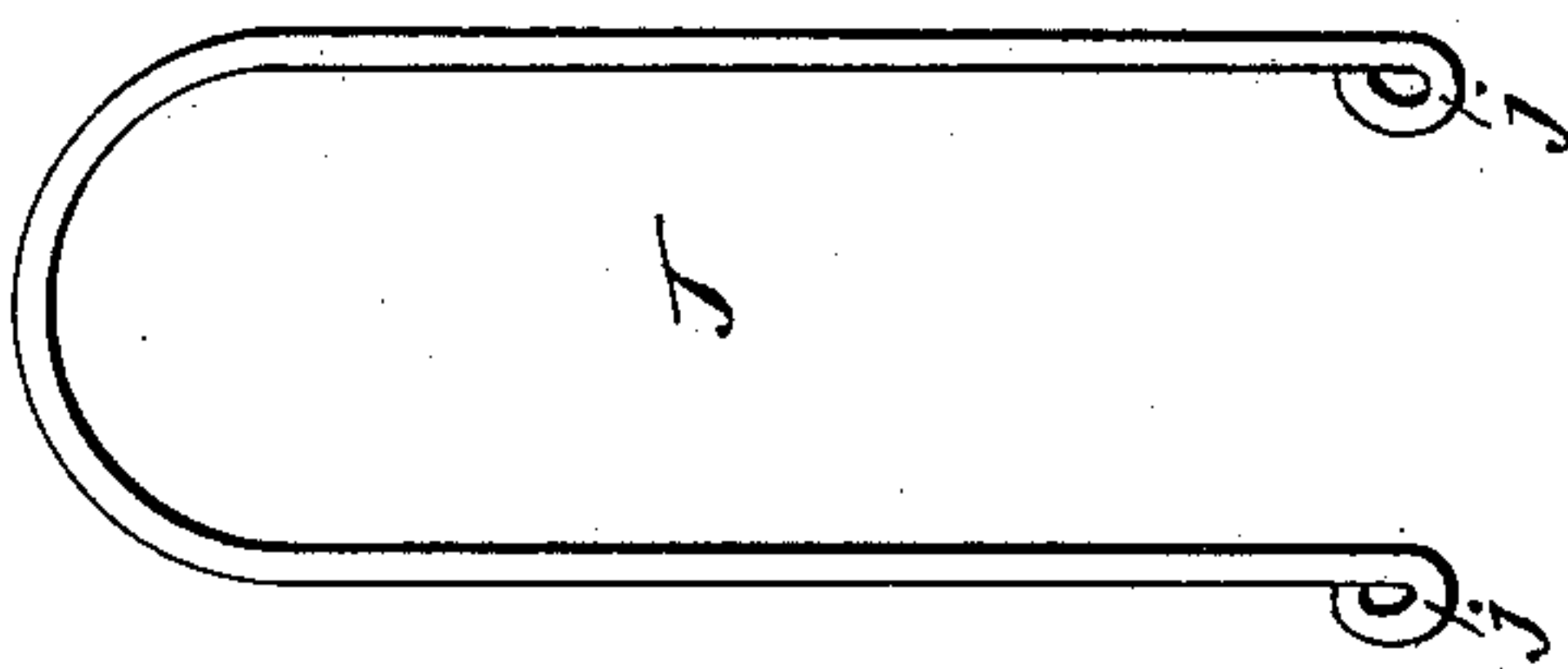


Fig. 2.

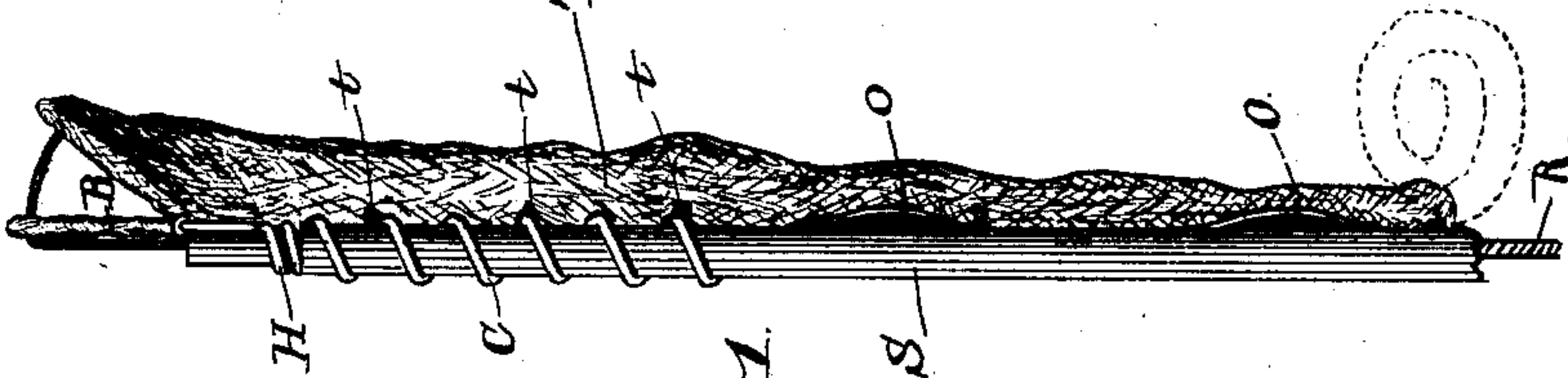


Fig. 1.

Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN A. FERGUSON, OF GATES, TENNESSEE.

## FRUIT-GATHERER.

SPECIFICATION forming part of Letters Patent No. 452,493, dated May 19, 1891.

Application filed July 25, 1890. Serial No. 359,856. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. FERGUSON, a citizen of the United States, residing at Gates, in the county of Lauderdale and State of Tennessee, have invented a new and useful Fruit-Gatherer, of which the following is a specification.

This invention relates to fruit-gatherers adapted to pick the fruit from the tree and to convey it without injury to a point within easy reach of the operator.

The object of the invention is to provide a device which shall be extremely light in weight and simple in construction, and in which there will be little danger of any of the parts catching in the boughs or branches of the tree during the operation of gathering the fruit. This object I accomplish by my improved fruit-gatherer, which consists, essentially, of a hollow staff, a removable coil mounted thereon, and provided with a bow at its upper end, a moving jaw pivoted to this bow, a fabric tube extending from the lower end of said bow and jaw and preferably connected with said coil, and an operating-cord passing through the staff and adapted to close the jaw, as well as of certain adjunctive and specific details of construction assisting in the accomplishment of the above object, all as hereinafter more fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved fruit-gatherer complete. Fig. 2 is a front elevation of the coil and bow. Fig. 3 is a detail view of the movable jaw. Fig. 4 is an enlarged perspective view showing the manner in which this jaw is pivoted to the bow and in which it is controlled by the operating-cord. Fig. 5 is a sectional view of the staff.

Fruit-gatherers have been heretofore constructed wherein a flexible tube was supported by a rigid staff, and jaws at the upper end of the latter opening into the tube were controlled by means of a cord led downwardly to within reach of the operator. This is the general form of device I employ in the present instance, and I will now describe the same in connection with the details of its construction.

The letter S designates the staff, which is preferably of cane, although other light and

strong wood will answer if it have a longitudinal hole.

The letter C designates a coil or spiral of stiff wire surrounding the body of the staff, and at the upper end of the latter the convolutions of the coil stand considerably closer together, forming the helix H, which tightly surrounds the upper extremity of the staff. The wire is continued from this helix in a short horizontal arm A, at the outer end of which it is led into a semicircular bow B, and the tip of this bow has a second short horizontal arm A. The coil and helix are passed over a staff, the helix preferably fitting in a shoulder cut upon the exterior of the staff for a slight distance from its upper extremity, and it will be understood that this staff may be removed and a longer or shorter one substituted at will according as the height of the tree from which the fruit is to be gathered necessitates.

The letter J designates a wire jaw having eyes *j* at its ends, which loosely embrace and turn upon said short horizontal arms A, all as illustrated in Fig. 4.

The letter T designates a tube composed of fabric and whose upper end is sewed or otherwise secured to the bow and to the jaw. The body of this tube passes downwardly alongside the coil C, to which it is preferably secured by stitches *t*, and below the coil the tube is extended to a considerable length. Its lower end is closed, and its body near said lower end, and preferably at one or two other points in its length, is provided with openings O for the removal of the fruit.

An operating cord or small rope R passes through the longitudinal hole in the staff and is led from the upper end thereof through an eye I in the bow and connected at its free end to the jaw J in about the position shown in Fig. 4.

The operator, standing beneath the tree upon which the fruit is growing, raises the fruit-gatherer above described and places over the piece of fruit the mouth of the device, which stands normally open from the weight of the tube. The operating cord or rope is then pulled, whereby the jaw is closed against the bow upon the stem of the piece of fruit. A downward movement is given to the



entire device, whereby said stem is broken and the piece of fruit is picked, and the latter runs down within the tube to the closed lower end thereof. The operator then with-  
 5 draws the piece of fruit from the opening O in the side of the tube and repeats the operation, as may be desired.

When this improved device is to be used upon rather high trees, another and a longer  
 10 staff is substituted for that shown, and another operating-rope long enough to pass through it is of course required. I propose to manufacture this improved fruit-gatherer with two  
 15 lengths of tube, those with short tubes being sold with a short staff only to fruit-gatherers whose trees are all comparatively small and those with longer tubes being sold with two  
 20 lengths of staff to fruit-growers whose orchards comprise trees of various sizes and heights. In the latter case, when the short staff is  
 25 used, the lower end of the long tube must be rolled up, as shown in dotted lines in Fig. 1, and the fruit as it is picked is removed from one of the upper openings O in the side  
 of the tube instead of from that near the lower end, all as will be understood.

This improved device grasps only the stems of the fruit and conveys apples, pears, peaches, apricots, plums, cherries, and the like down  
 30 the tube without any injury whatever to the pieces of fruit at any time or to the tree in the act of picking. The inclosing of the operating-rope within a tubular staff prevents the  
 35 catching of the same upon the branches or leaves of the tree, and the attaching of the tube to the coil and thereby to the staff permits the whole device to be operated as one  
 40 piece and to be passed skillfully between branches and pieces of fruit to grasp a ripe piece that may be hanging upon one of the  
 topmost branches of a very high tree.

What I claim is—

1. In a fruit-gatherer, the combination, with picking devices, substantially as described, a

coil having a reduced helix at its upper end 45 by which said devices are supported, and a flexible tube leading downwardly from said devices and connected to the members of said coil, of a tubular staff having a reduced shoulder removably inserted in said helix and coil 50 and an operating-cord passing through said staff and connected at its upper end to said devices, as set forth.

2. The staff S, having a reduced shoulder at its upper end, in combination with the coil C, 55 embracing the body of the staff, the integral helix H, fitting said shoulder, and the picking devices and operating devices connected thereto, substantially as described.

3. The bow B, having horizontal arms A at 60 its ends and an eye I in its body, and a support for said bow, in combination with the jaw J, having eyes *j* at its ends loosely embracing said horizontal arms, and an operating-cord R, connected to said jaw, passing 65 through said eye, and leading through guides in the support, substantially as described.

4. The staff S, having a reduced shoulder at its upper end, in combination with the coil C, embracing the body of this staff, the integral 70 helix H, fitting said shoulder and continued at its upper end into a short horizontal arm A, the integral bow B, continued from the end of said arm, the integral horizontal arm A at the other side of the bow, the jaw J, hav- 75 ing eyes *j* at its ends loosely embracing said horizontal arms, and an operating-cord R, passing through said coil and helix and adapted to close said jaw, substantially as described. 80

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

JOHN A. FERGUSON.

Witnesses:

W. B. MOORE,  
 J. F. GARVIN.