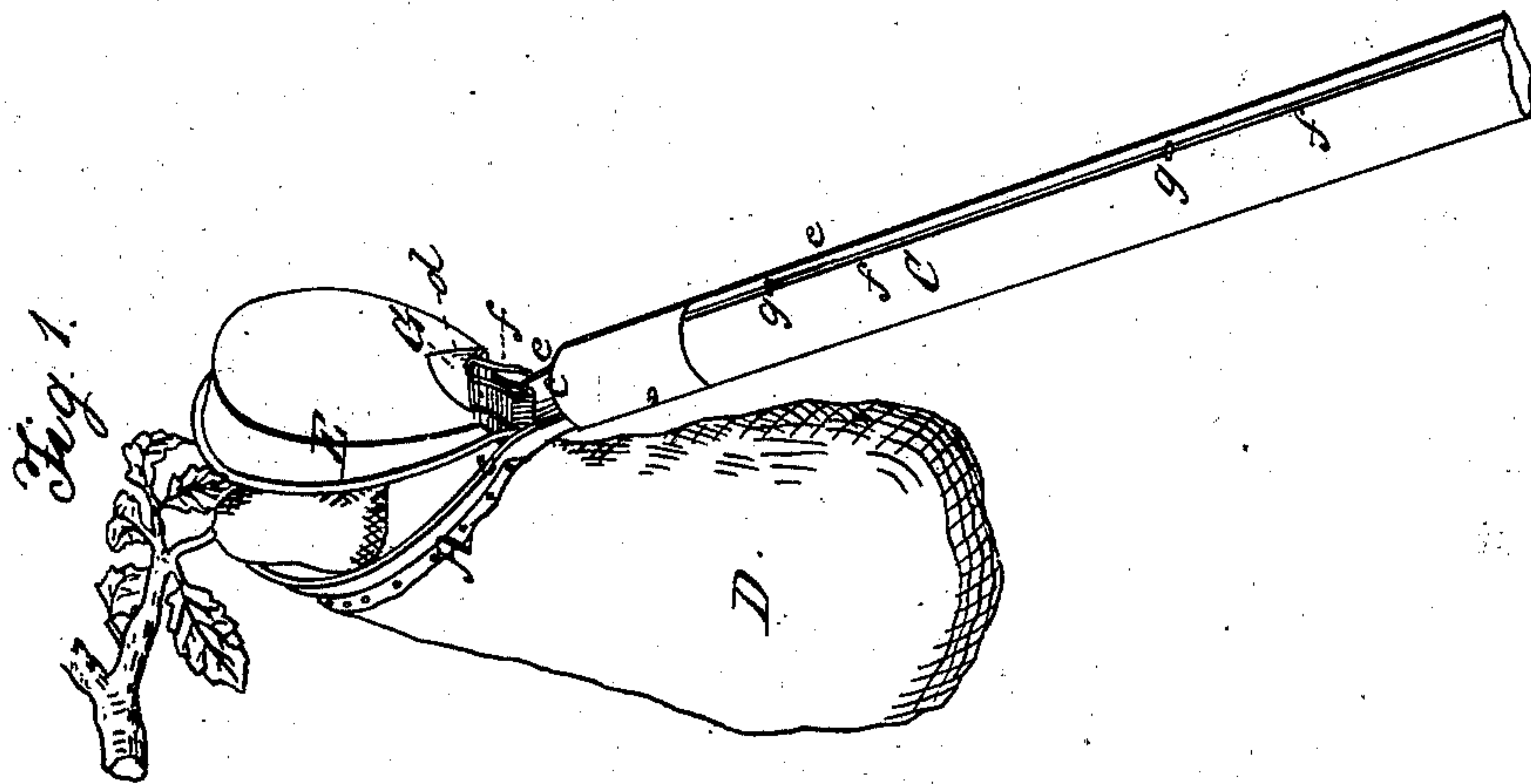
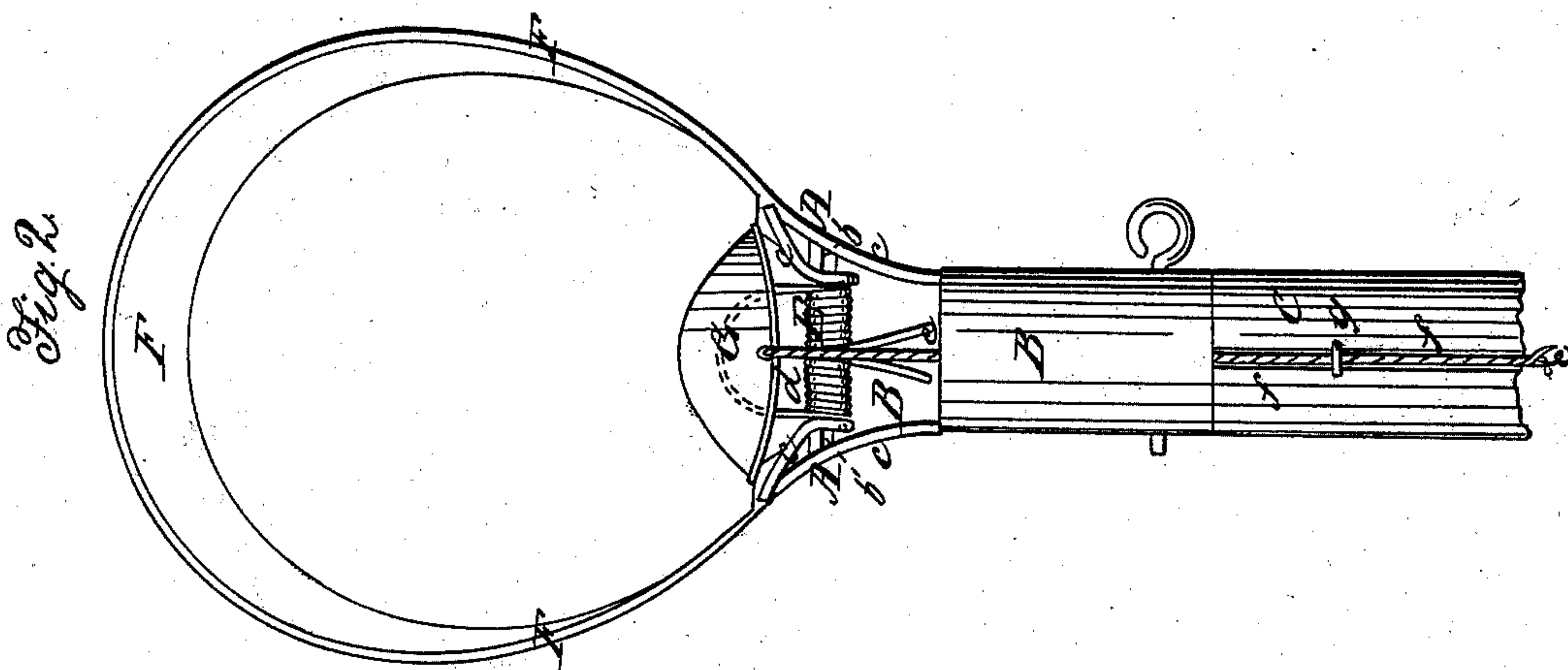
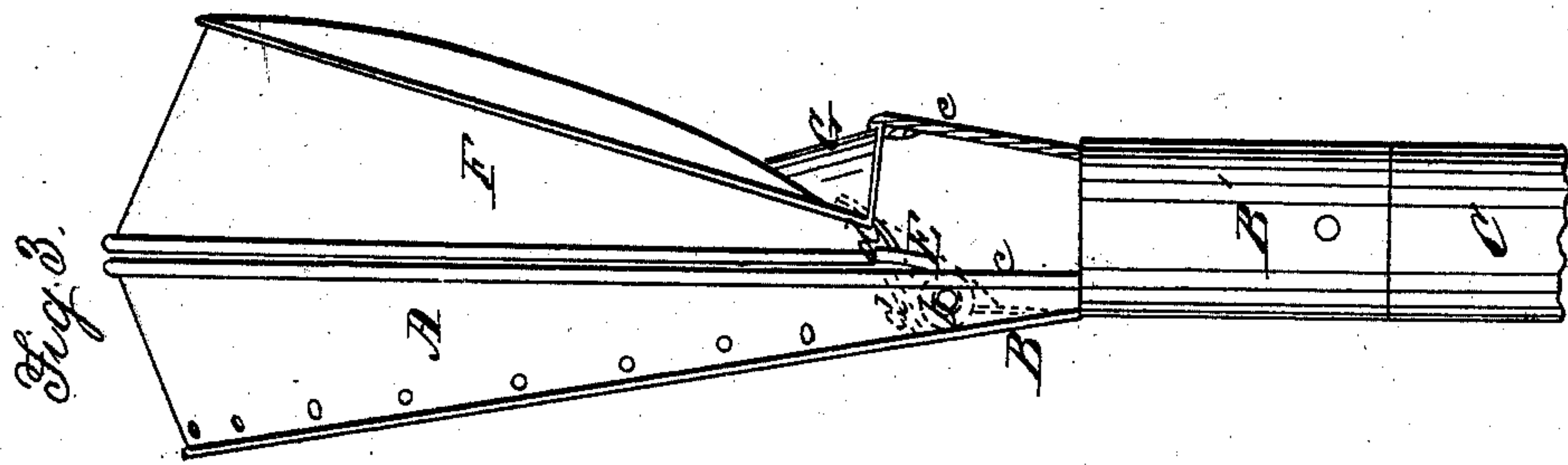


A. T. BARNES.

Fruit-Gatherer.

No. 68,030

Patented Aug 27, 1867



Witnesses:
Walter Hinchman
Edw. Phelps

Inventor:
A. T. Barnes
by his Agents
Mason, Fenwick & Lawrence

United States Patent Office.

A. T. BARNES, OF TIFFIN, OHIO, ASSIGNOR TO HIMSELF AND N. M. BARNES, OF SAME PLACE.

Letters Patent No. 68,030, dated August 27, 1867.

IMPROVEMENT IN FRUIT-PICKER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. T. BARNES, of Tiffin, in the county of Seneca, and State of Ohio, have invented a Fruit-Gathering Device; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view, showing the manner of using the improved fruit-gatherer.

Figure 2 is a view of the gatherer, showing the back of the movable cupped jaw, and the manner of applying the spring for keeping it closed against the fixed or main jaw.

Figure 3 is a view of one side of the instrument, showing the jaws closed.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain new and useful improvements in the construction of devices for gathering fruit, wherein a movable cup-shaped jaw is employed in conjunction with a fixed jaw, having a bag or receptacle applied to it for receiving the fruit as it is plucked from the tree, said jaws being attached to one end of a staff or handle, and so contrived that the movable jaw can be opened and closed by a person grasping the opposite end of such handle.

The nature of my invention consists in effecting the opening or the closing of the cup-shaped jaws of a fruit-gatherer by means of an independent spring, which is so applied as to admit of the use of much larger and stronger wire for hinging the movable jaw to its fixed jaw than could be practically employed for the spring; also to admit of the removal of the spring at pleasure, so that, should it break or become too weak, a new one could be readily substituted in its place, as will hereinafter be described and explained.

The invention further consists in providing for attaching a sack or other suitable receptacle to the fixed jaw of a fruit-gatherer, having one movable cup-shaped jaw for the purpose of having the sack out of the way of the cord used to open the jaws, and, at the same time, of having the sack sustained by said fixed jaw independently of the movable jaw, as will be hereinafter described.

It also consists in providing the movable jaw with a guard which shall serve as a protection for the spring which is applied to this jaw, and also as a means for attaching the cord which is used for opening the latter.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents the fixed or main jaw of the fruit-gatherer, which is made of a strip of sheet metal, tapered from the middle of its length to its ends, properly strengthened by wiring its inner or gripping edge, and bent in the form substantially as shown in the drawings. The ends of the jaw are brought near together and secured firmly to a flaring extension-piece, B, of the ferrule or socket B', for receiving one end of the handle C. The outer edge of this jaw is perforated for the attachment to it of a sack, D, of any suitable capacity, for receiving the fruit as it is plucked from the branches. The sides of jaw A, when they are secured to the extension-piece B of the ferrule, together with this extension-piece, form a recess for receiving the spring E, which operates to keep the jaw F closed against the jaw or hoop A, as shown in fig. 2. This spring E is applied to a transverse pin, b, which has its end bearings in the sides of jaw A, and extends across said recess. To this pin are pivoted the ends of the wire rod c, to which the cup-shaped jaw F is secured by coiling the wire around the pin b, leaving a space between the coiled ends for the application of the spring E. As I do not employ the wire rod c as a spring for closing the jaw which is secured to it, I am enabled to make this rod very strong and durable, much more so than it could be made if it terminated in a spring, as hitherto. The wire rod c is bent so as to conform to the shape of the inner gripping edge of the fixed jaw, and to this rod the cup-shaped jaw F is firmly secured, so as to vibrate about the pivot pin b. This movable jaw is constructed with a curved lip or guard, d, which extends over the spring E, and over the upper curved extension B of the ferrule B', as indicated by dotted lines in fig. 3, thus forming a guard and a means for preventing the fruit from lodging at the bottoms of jaws when plucked from the branches. The spring E is constructed of a piece of spring-wire, coiled around the pivot pin b, and bent so that one portion of it will press against the back of the jaw F, and the other portion of it will press upon the extension B of the ferrule, as shown in figs. 2 and 3. This spring, it will be seen, is independent of the movable jaw F, and can be readily slipped from its pin b by removing the latter. In practice, the pin b may be constructed with a head on one end and a screw-thread on

the other for receiving a nut. Such a pin will admit of the removal of the spring E very readily, when it is desired to substitute another in its stead. The lip G, which is applied to the back of the movable jaw F, is designed for the protection of the spring E from being caught by branches of trees, and also for the attachment of a cord, e, or hook e' to the movable jaw. The cord e is applied in a groove, f, which is made through the entire length of the handle C, and held in place in this groove by means of staples g g, placed at proper intervals apart along its length.

By drawing upon this cord e, the jaw F will be opened, as shown in fig. 1; and by releasing the cord, the jaws will be closed by the reaction of the spring E upon the movable jaw.

Instead of arranging the metal spring E as shown and described, so that it will operate to close the jaw F against the jaw A, this metal spring may be arranged to open the jaw F, in which case the pulling of the cord e should close the jaw. A strip of India rubber might be used instead of a metal spring, and applied so as to either close or open the movable jaw, in all of which instances the spring will be independent of this movable jaw and admit of the attachment of the same in as strong a manner as desirable. The advantage gained by leaving the back or rear part of the fixed jaw A open for receiving the sack D is, that the bag is thus upon the top or upper side of the handle or pole C, as most generally used, and not in the way of the cord. Should this sack be attached to the front or movable jaw, the weight of the fruit in this bag would prevent the spring from closing, while by attaching the bag to the rear part of the fixed jaw, this difficulty is not only obviated, but by passing the lower part of the sack through the fixed jaw, and attaching this sack to the inner side of the movable jaw, it may be made to assist the spring in doing its work, and also form a cushion for conducting the fruit down into the sack without falling upon the hard substance of which the jaws of the gatherer are composed.

I do not claim broadly fruit-gatherers operated by means of spring or springs and a cord, as I am aware that they have been used before my invention.

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

1. The combination of the spring E, fixed and movable jaws, and sack or fruit-receiver D, all arranged and operating substantially in the manner and for the purpose described.
2. The use of a spring, E, which is applied to the fixed and movable jaws substantially in the manner and for the purposes described.
3. The manner herein shown and described of guarding the spring E, when arranged within a recess formed substantially as explained.

A. T. BARNES.

Witnesses:

E. H. OSBORN,
E. G. BOWE.