

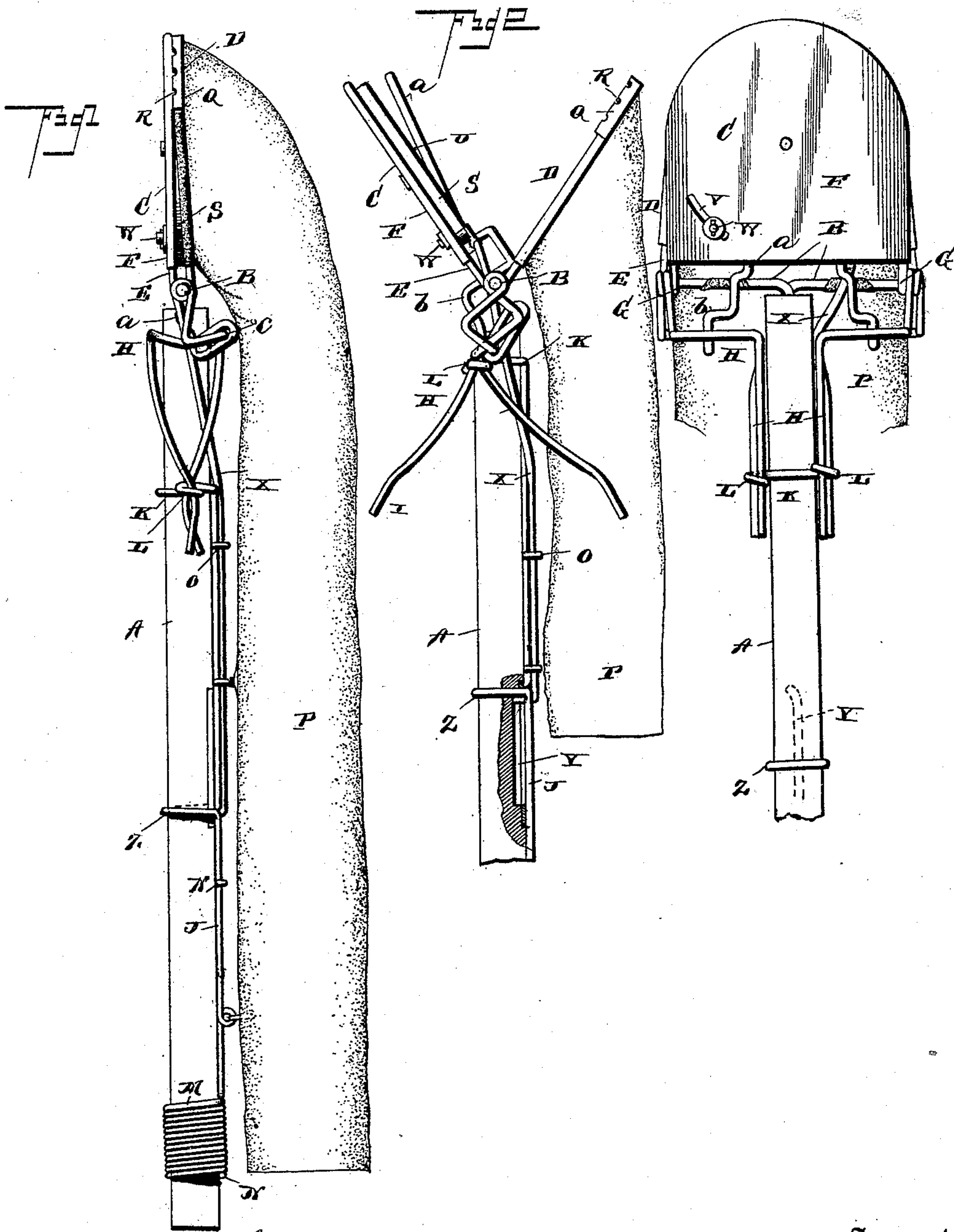
(No Model.)

2 Sheets—Sheet 1.

C. J. BLOOM.
FRUIT GATHERER.

No. 424,455.

Patented Apr. 1, 1890.



Witnesses

John Smirre
R. W. Bishop

Inventor

Charles J. Bloom

By his Attorneys

C. A. Snow & Co.

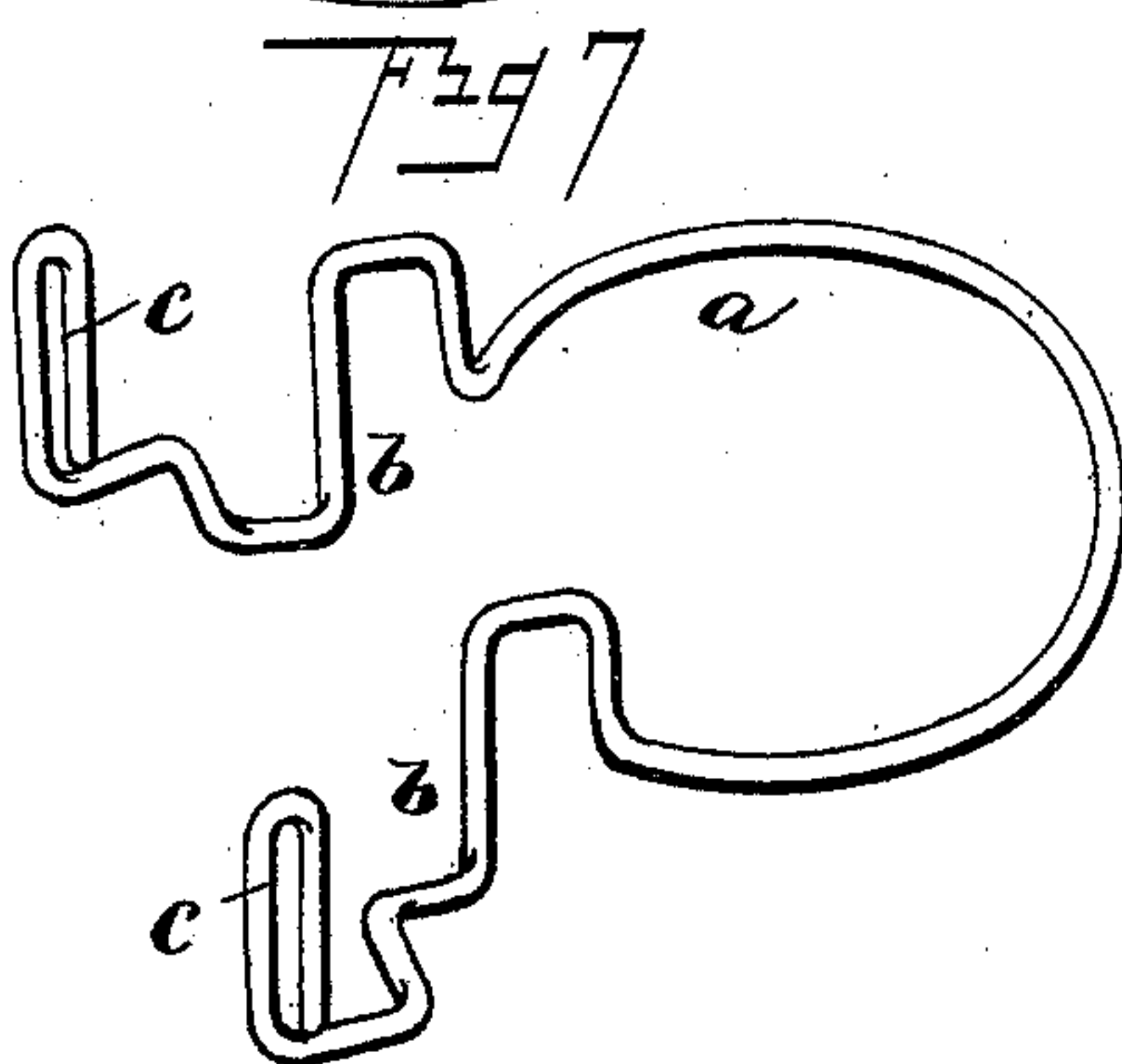
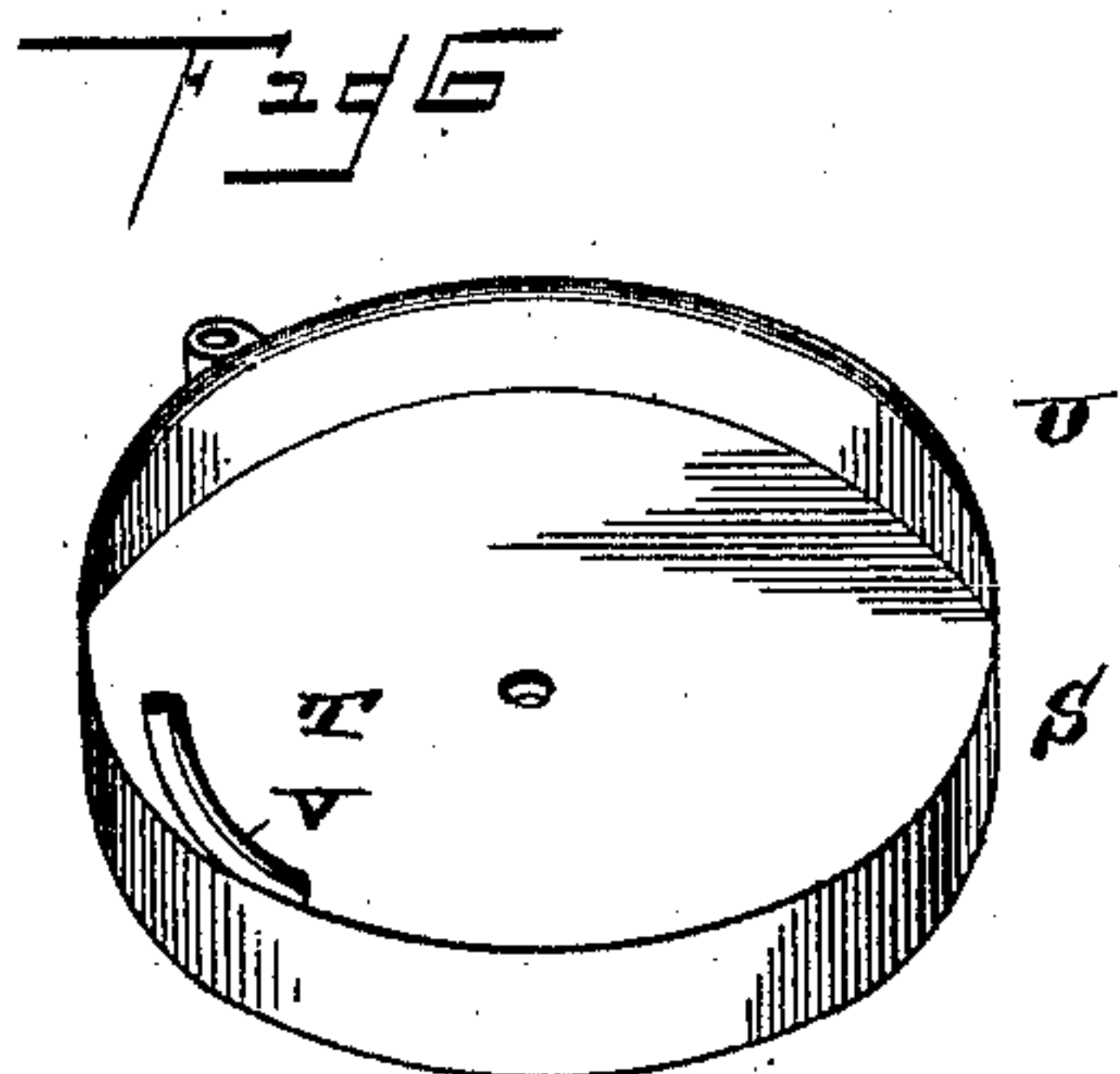
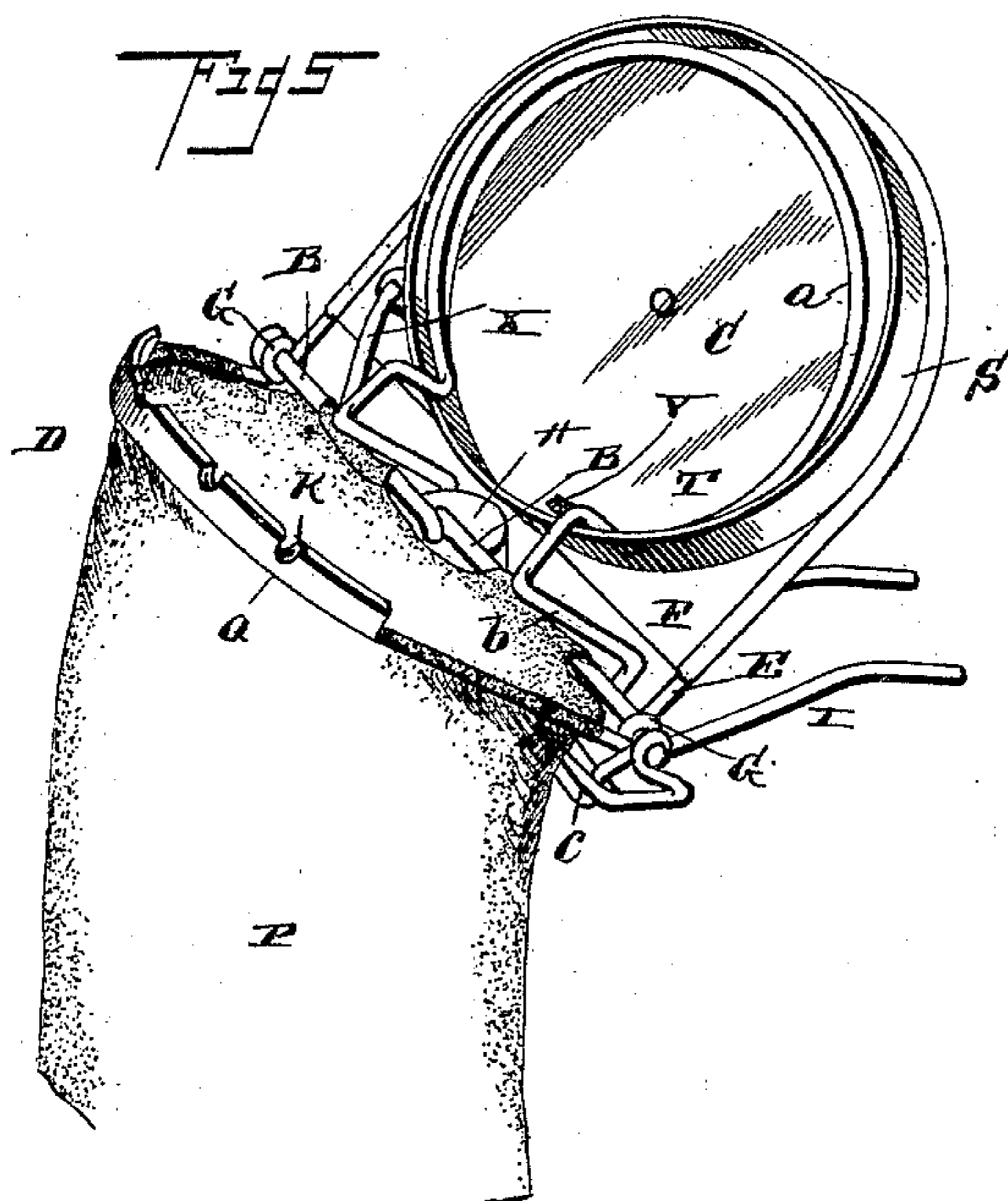
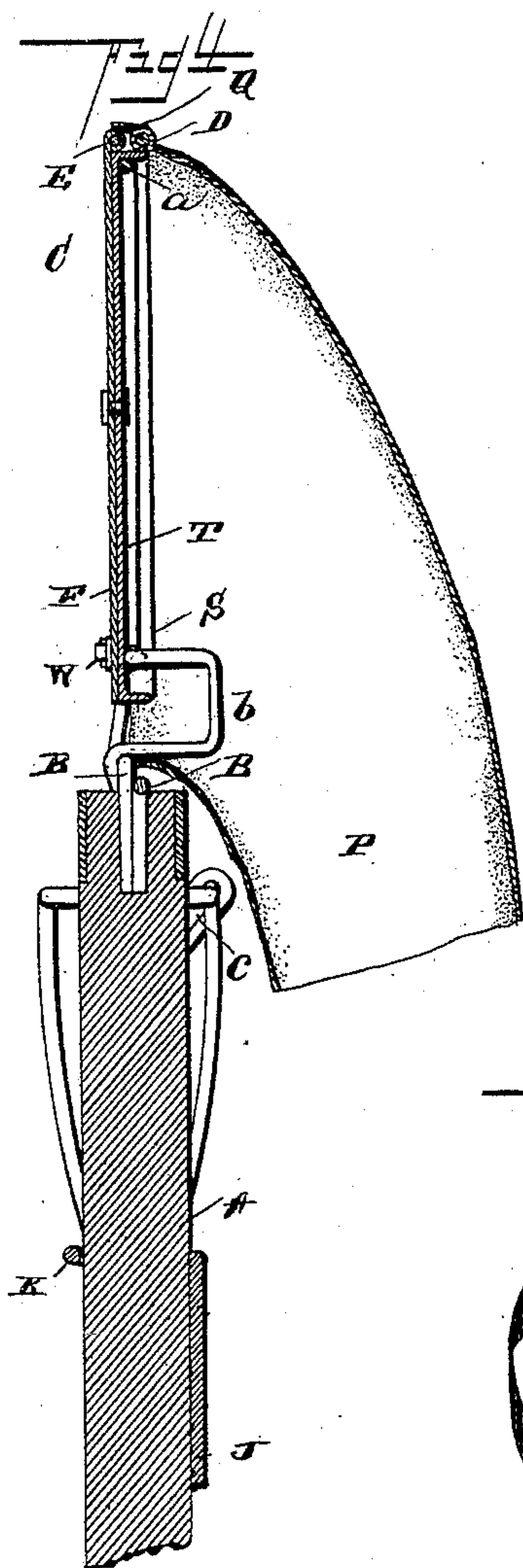
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UNITED STATES PATENT OFFICE.

CHARLES J. BLOOM, OF ELMO, MISSOURI, ASSIGNOR TO S. S. WARREN & CO.,
OF SAME PLACE.

FRUIT-GATHERER.

SPECIFICATION forming part of Letters Patent No. 424,455, dated April 1, 1890.

Application filed October 30, 1889. Serial No. 328,692. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. BLOOM, a citizen of the United States, residing at Elmo, in the county of Nodaway and State of Missouri, have invented a new and useful Fruit-Gatherer, of which the following is a specification.

My invention relates to improvements in fruit-gatherers; and it consists in certain novel features of construction hereinafter described and claimed.

In the accompanying drawings, Figures 1 and 3 are side views of the device, showing the jaws closed. Fig. 2 is a similar view showing the jaws open. Fig. 4 is a vertical section with the jaws closed. Fig. 5 is a detached perspective looking down on the device with the jaws open. Fig. 6 is a detail perspective of the cutter, and Fig. 7 of the guard.

The handle A may be of any desired length, and is of the usual construction. At the upper end of the handle I provide the lateral arms B, on which the jaws CD are fulcrumed. The jaw C is composed of a base or wire bent to provide the U-shaped portion E, to which I secure a plate F and the loops G, which encircle the arms B and form the fulcrums of the jaws. Below these loops the wire is bent inward toward the handle and then bent downward in a compound line, presenting the curved portion H and the straight portion I, as clearly shown. The jaw D consists of a U-shaped wire similarly constructed to the jaw C, and having its curved portion crossing the curved portion of said jaw C, as clearly shown. On the handle I mount the sliding rod J, which is provided at its upper end with the ring K, encircling the handle, and with the eyes L, engaging the crossed portions of the wire frames of the jaws. The jaws are thus caused to move toward and away from each other as the rod is reciprocated, as will be readily understood. The sliding rod is further provided at its lower end with the ring M, passing around the handle and playing between the stops N to limit the motion of the rod. The sliding rod is further provided at various points of its length with the eyes O, and the chute P, which is secured to the jaw D, is secured at various points to the said eyes, so that the chute will be caused by

the movement of the rod to make and unmake bends which retard the progress of the fruit and pass each piece downward step by step from one bend to the next, and so prevent bruising of the same. The jaw D is provided around its rim with the plate Q, having the notches R in its edge, which engage the stem of the fruit and prevent the same slipping from place, and consequently allow the knife to act squarely and positively thereon.

An oscillatory knife S is mounted on the jaw C, and consists of a circular plate T, centrally pivoted on the said jaw, and the cutting-rim U, secured to the edge of the said plate, as clearly shown. The circular plate is provided with a slot V, and a pin W is secured to the jaw and passes through this slot.

To one side of the cutting-rim U, I secure the upper end of a connecting-rod or pitman X, the lower end of which plays in a slot or groove Y in the handle, and is adapted to be actuated by a ring Z, as clearly shown, the said ring being formed on the sliding rod. When the sliding rod is reciprocated, the pitman will be set in motion and an oscillatory motion thus imparted to the cutting-rim, so that the stem of the fruit will be severed. The fruit is prevented from coming into contact with the knife by the ring or guard a, which is arranged concentrically within the cutting-rim and is held in its proper position therein by passing through an eye or opening in the upper end of the pin W, as clearly shown. The ring or guard is composed of wire and has the depending arms b, which are of proper shape to clear the cutting-rim and then pass downward to the lateral arms of the jaws, and their extremities are provided with the longitudinal slots c, which are engaged by the said lateral arms of the jaws. The ring will thus be caused to move with the jaw, and when the jaws are separated its slotted connection therewith will cause it to swing upward above the knife, as clearly shown in Fig. 1, so that the fruit will not come into contact with the knife.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that I have provided a fruit-gatherer which is very simple in its construction, which can be easily operated, and by

which the fruit will be quickly and rapidly gathered without injury. When it is desired to gather the fruit, the jaws are separated, and then the device is raised so that the jaws will
 5 pass on opposite sides of the fruit, after which the sliding rod is drawn downward, causing the eyes at the upper end of the same to act on the crossed portion of the depending arms of the jaws and bring the jaws together. The knife
 10 will thus be brought firmly and squarely against the stem of the fruit, and the ring Z of the rod will be brought into contact with the end of the pitman, consequently drawing the pitman downward, so that the knife will
 15 be rotated and the stem severed, thereby separating the fruit from the tree. The fruit will then pass downward step by step through the bends in the chute to the ground and fall into any suitable receptacle. The operation
 20 is repeated until the desired quantity of fruit has been gathered.

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

25 1. The combination, with the handle and the jaws mounted thereon, of the sliding rod mounted on the handle and adapted to actuate the jaws, and the rotary knife carried by one of the jaws and adapted to be operated
 30 by the said sliding rod, as set forth.

2. The combination, with the handle and the jaws mounted thereon, of the rotary knife carried by one of the jaws, the pitman extending downward from the knife along the
 35 handle, and the sliding rod mounted on the handle and adapted to actuate the jaws and provided with a ring adapted to engage the lower end of the pitman, as set forth.

3. The combination of the handle, the jaws
 40 mounted thereon, the sliding rod mounted on the handle and adapted to actuate the jaws and provided with eyes at various points of its length, and the chute depending from one of the jaws and secured to the said eyes, as
 45 set forth.

4. The combination of the jaws having the depending crossed arms, means for actuating the jaws, and the guard carried by one of said jaws and having depending slotted arms en-

gaging the depending arms of the opposite jaw, as set forth. 50

5. In a fruit-gatherer, the handle, the jaws mounted thereon and having depending crossed arms, the operating-rod mounted on the handle and provided with rings or eyes
 55 engaging the crossed arms of the jaws, and the guard arranged within the knife of the cutting-jaw and having depending slotted arms which are engaged by the depending arms of one of the jaws, whereby the guard will be
 60 caused to move with the jaws, as set forth.

6. In a fruit-gatherer, the handle, the jaws made of wire and mounted thereon and having horizontal arms and vertical crossed arms, the rings or eyes mounted on the handle and
 65 engaging the crossed arms of the jaws, and the wire guard *a*, arranged within the knife of the cutting-jaw, and having open loops *c*, engaging the horizontal arms of one of the jaws, and having depending arms *b*, which
 70 are bowed in such shape as to clear the cutting-knife, as set forth.

7. In a fruit-gatherer, the jaw C, having a rotary knife S mounted thereon, and consisting of a circular plate T, centrally pivoted on
 75 the said jaw, and cutting-rim U, secured to the edge of the plate, the slot V in the plate, the pin W, secured to the jaw and passing through the slot, and the pitman X, by which the knife is rotated, as set forth. 80

8. In a fruit-gatherer, the handle, jaws mounted thereon and having depending crossed arms, one of the jaws having a rotary knife provided with a depending pitman by which the knife is rotated, and an
 85 operating-rod mounted on the handle and provided with rings or eyes engaging the crossed arms of the jaws, and also provided with a ring Z, which engages the pitman of the rotary knife, as set forth. 90

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

CHARLES J. BLOOM.

Witnesses:

L. W. JAMES,
 S. S. WARREN.