

(No Model.)

3 Sheets—Sheet 1.

A. M. SHAW.
CRANBERRY PICKER.

No. 550,200.

Patented Nov. 19, 1895.

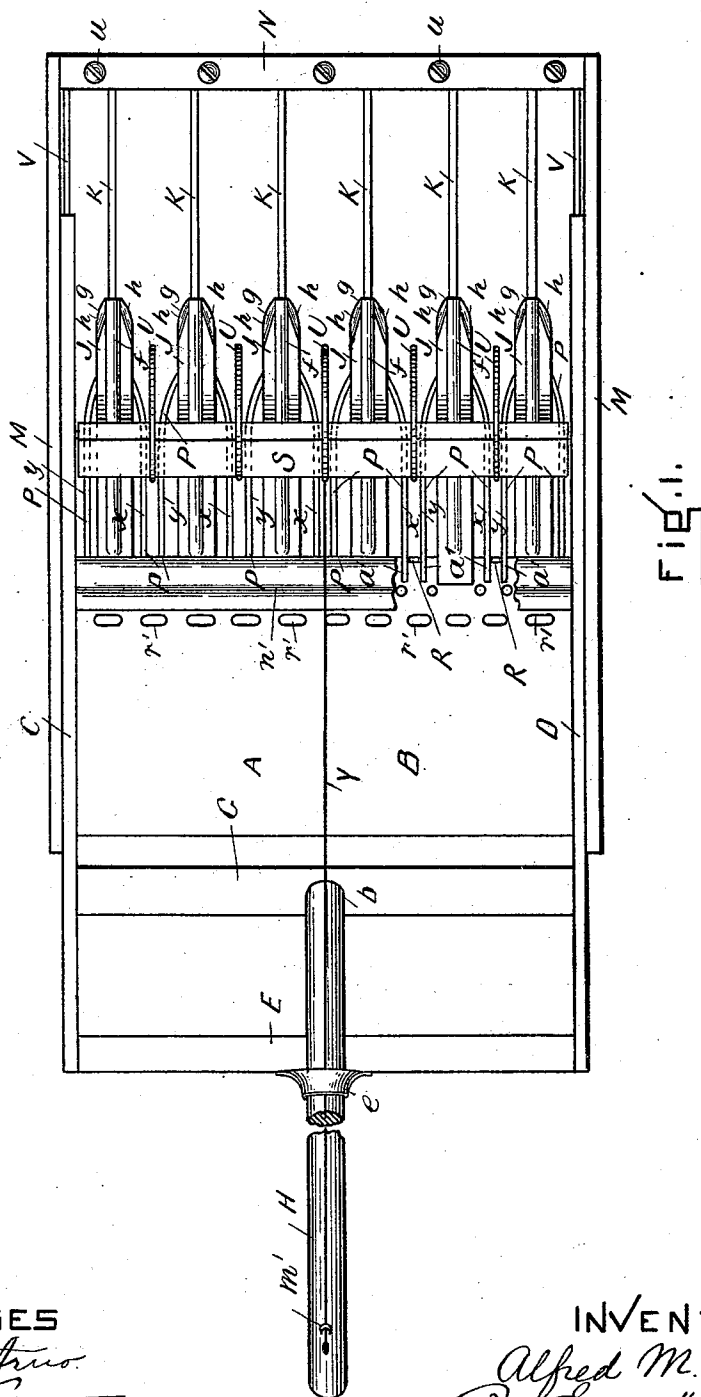


Fig. 1.

WITNESSES

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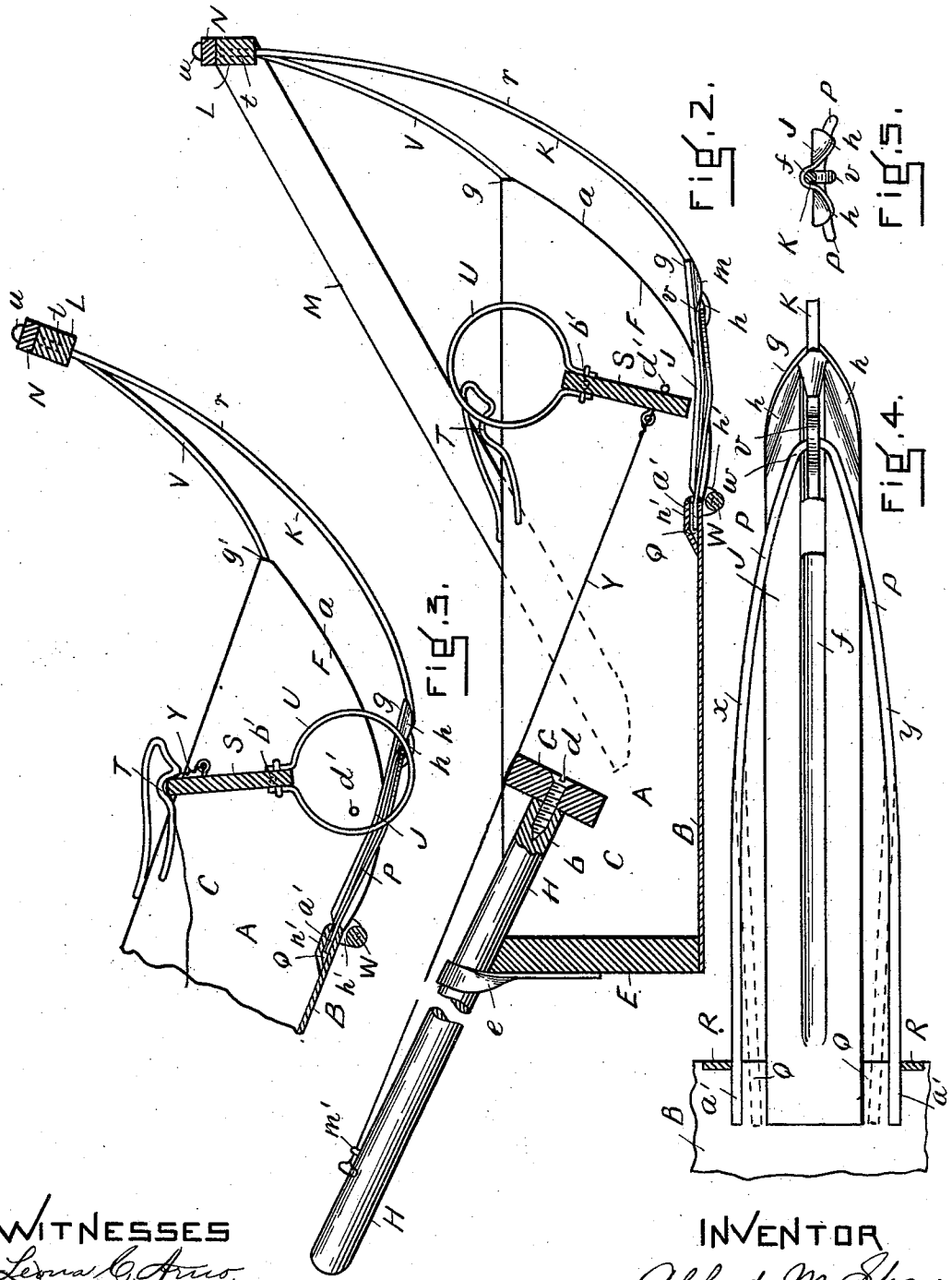
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A. M. SHAW.
CRANBERRY PICKER.

No. 550,200.

Patented Nov. 19, 1895.



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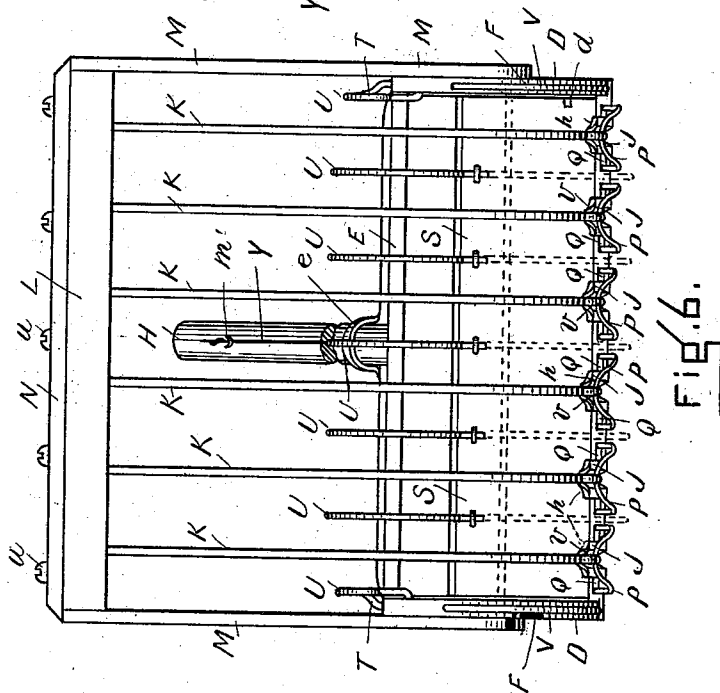
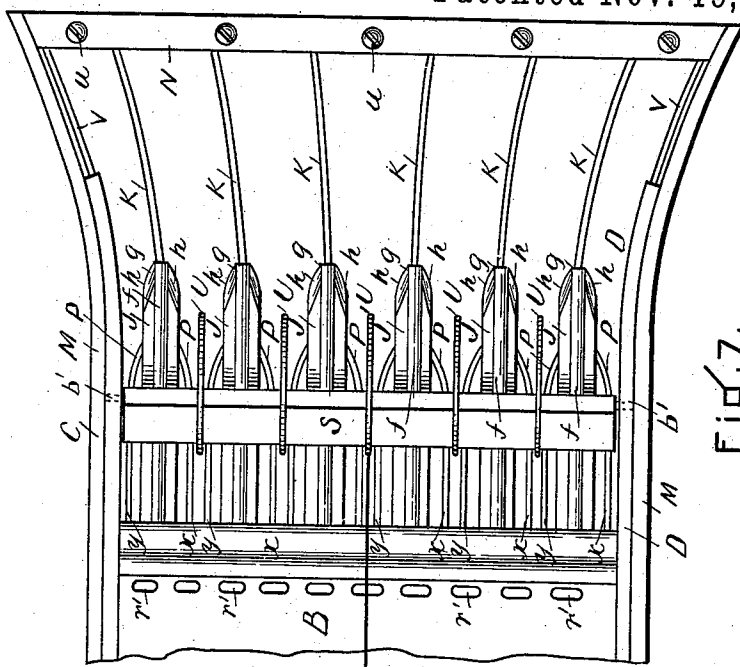
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3 Sheets—Sheet 3.

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Patented Nov. 19, 1895.



WITNESSES

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UNITED STATES PATENT OFFICE.

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CRANBERRY-PICKER.

SPECIFICATION forming part of Letters Patent No. 550,200, dated November 12, 1895.

Application filed December 31, 1894. Serial No. 533,451. (No model.)

To all whom it may concern:

Be it known that I, ALFRED M. SHAW, of Carver, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Cranberry-Pickers, of which the following is a full, clear, and exact description.

This invention consists of an apparatus for picking and gathering of cranberries from the vines, constructed and arranged for operation all substantially as hereinafter fully described, reference being had to the accompanying sheets of drawings, in which is illustrated a cranberry-picker constructed in accordance with this invention.

Figure 1 is a plan view. Fig. 2 is a vertical longitudinal central section. Fig. 3 is a detail central longitudinal section similar to Fig. 2, but showing some of the parts in different positions. Fig. 4 is an under plan view of one of the pickers detached and enlarged. Fig. 5 is an end view of Fig. 4. Fig. 6 is a front view, and Fig. 7 is a detail plan view, to be hereinafter referred to.

In the drawings, A represents a box or receptacle formed of a bottom B, two sides C D, and an end E, its front end and top being open. The two sides C D of the box at the front extend beyond the bottom B, and their under edges F, at the front, extend upward in a curved line, as shown at *a* in Figs. 2 and 3 more particularly. Secured in the box between and to the sides C D is a cross-bar G, to which is secured the end *b* of a bar H by a screw *d*, which extends upward and beyond the end of the box through a loop *e* for a handle, the loop being secured to the end piece E. The handle can be removed by unscrewing the screw *d* and drawing it out through the loop, and is readily secured in place again. The sides and end of the box are of wood, but the bottom B is preferably of sheet metal, and at its front edge are secured by solder a series of pickers or fingers J, preferably at regular intervals laterally, which project horizontally forward and beyond the edge of the bottom, as shown. These pickers are preferably made of sheet metal, and each picker is forced or struck up centrally along its length, as at *f*, to make a rib, as it were, to give strength to the picker, and its front end is pointed, as at *g*, as shown in Figs. 1, 4, and

7, the portion *h*, each side of the point, being bent downward, as shown more particularly in Fig. 5. A wire K by one end *m* lies in the groove *n*, formed on the under side by the forced-up portion *f*, and it is there soldered to the picker, and from thence it extends upward in a curved direction, as at *r*, Fig. 2, its outer end *t* passing upward through a cross-bar L, extending across and above the box and secured by its two ends to two arms M, secured, respectively, to the sides of the box, the wires K at their ends being prevented from passing beyond the upper side of the bar L by a strip N, secured on top of the bar by screws *u*.

The portion *m* of each wire K where secured to its respective finger is bent downward somewhat, as at *v*, to form an eye or loop, and to this loop *v* is secured the folded portion *w* of a wire P, the two arms *x y* of which extend backward, one each side of the picker, the ends *a* of which are freely disposed in longitudinal grooves or spaces Q, respectively, each side of the picker in the bottom and each arm being stopped in its outward movement by shoulders or blocks R, secured in the groove, as shown more particularly in Fig. 4.

S is a transverse flat board pivoted at *b'* between the two sides, in one of its positions resting against a stop or pin *d'* on the inside of one side of the box, (see Fig. 2,) and adapted to swing freely backward and upward on its pivot and, when desired, into the position shown in section in Fig. 3, where it is stopped and held by a spring-catch T, formed by a wire bent and shaped in a loop form, its two ends being secured, respectively, in the upper edge and side of the box, all as shown in Figs. 2 and 3. Secured to the edge of this swinging board S at intervals by their ends are a series of loops or rings U, of wire, which are of a diameter when the board is in the position shown in Fig. 3 to project forward and down into the spaces *e'* respectively between front portions *f'* of the fingers, there being one ring to each space, as shown in Figs. 1 and 7. When the board is in its position shown in Fig. 2, the rings are up above the spaces and free and clear of them.

Secured to the upper end of each side piece at *g'* is a wire V, which extends therefrom forward and upward in a curved direction a lit-

the above the curved wires K of the fingers, its outer end being secured to the end of the supporting-arm M of the cross-bar. In Figs. 1 to 6 the curved guard-wires K, secured to the pickers, extend forward to the cross-bar L in parallel lines, but in Fig. 7 these wires are shown as extending from the fingers in diverging lines respectively from the longitudinal central line of the box. Under the front edge of the bottom is a transverse roller W, adapted to turn by its journals in lugs or ear-pieces *h'* of the sides.

The swinging cross-board is arranged by its gravity to fall and keep in the position shown in Fig. 2, and when desired to place it in the position shown in Fig. 3 it is swung up by hand and there locked and held by the spring-catch T, and to release it from such position press down the spring-catch, when the board will return by its gravity to the position shown in Fig. 2. A string or cord Y is attached by one end to the board extending along the handle and passes through an eye *m'* and is prevented from escape therefrom, by the pulling of which the board can be swung up.

The operation of this cranberry-picker is substantially as follows: The apparatus is held in the hand and pressed down upon the vines when the vines are low, substantially in a horizontal position, as shown in Fig. 2, and when the vines are high it is tipped somewhat, as shown in Fig. 3. It is pushed forward, scooping up, as it were, the cranberries which pass into the receptacle, which, when full, is emptied and the picker used as before. As the apparatus is pressed down and forward, the vines pass up between the picker wires or guards and then along over the pickers, and finally down and between the several pickers, and as they so pass the berries on the vines are detached by the pickers, from which they roll or pass back into the receptacle, the gate or board freely swinging back for such purpose and falling back to its position again at times to prevent the berries from passing forward again and escaping from the box.

The curved wires to the pickers serve as guards to the ends of the pickers, preventing the ends of the pickers from getting below the vines to tear them or injure them, and yet are such a distance apart as to allow the vines to freely pass up between them for the cranberries to get above the pickers. The yielding spring-wires at the sides of the fingers, although allowing the vines to pass freely down between the pickers by moving laterally out of the way, yet spring back sufficiently to prevent the cranberries from passing through, so that the cranberries are sure to pass into the box.

By having the guard-wires diverge, as shown in Fig. 7, more vines will pass up between them; it is easier to keep the pickers at the proper depth in the vines, thus insuring the full picking of the cranberries.

The pickers can be made in any suitable manner and the guard-wires secured thereto

in any suitable way than as herein particularly described and shown.

The roller shields the vines from rubbing hard against the edge of the bottom of the box as they pass out from between the pickers, preventing injury to the vines.

When the vines are thick and high, it is preferable to tip up the apparatus into the position shown in Fig. 3, and in such case the board is turned up and secured in the position shown in Fig. 3 for its loops or rings to be disposed, respectively, in the spaces between the front ends of the pickers. These wires or loops are to insure that whatever berries come over or into the spaces between the front ends of the pickers shall be picked, for they will strike against these loops or rings and will be moved or forced over the pickers and thus picked from the vines, whereas with the machine tipped as stated if these rings or loops were not in these positions the berries might pass down between the pickers and not be picked, as in such case the rear portions of the pickers would not pass through the vines, being raised above them. The front ends of the pickers being turned down at each side the pickers will more surely pass under the cranberries and consequently pick them.

When emptying the box, pull the gate up by the string out of the way, when the cranberries can run out of the front end of the box.

The box and all parts can be made of any suitable material and all parts secured together in any desirable manner. The curved wires can extend from the pickers in straight lines rather than in curved lines, if desired, or in any suitable manner.

The support or bar L for the outer ends of the picker wires or guards can be dispensed with, but in such case it would be preferable to have these wires or guards much stiffer and made of larger wire. It is preferable, however to have them supported at their outer ends.

Although each picker is shown and described as having a yielding wire or guard on each side, one wire or guard could be dispensed with and probably good results accomplished; but it is preferable to use one on each side of the picker.

The grooves Q for the ends *a'* of the side wires or guards P are formed by a strap *n'* secured across and to the bottom, its front portion being raised a short distance above the bottom, as shown in Fig. 2 more particularly, the stops R being secured between the strip and bottom at the required places for abutment by the ends *a'* of the wires P. *r' r'* are holes in the bottom to let the dirt, &c., pass through the bottom.

The pickers or fingers are curved upward somewhat, as shown in Figs. 2 and 3 more particularly, which facilitates their passing under the vines when the apparatus is used.

Having thus described my invention, what I claim is—

1. In a cranberry picker, in combination, a

box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward and secured at their outer ends to a support, and a yielding wire or guard secured to each picker each side thereof.

2. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward in a curved line and secured at their outer ends to a support, and a yielding wire or guard secured to each picker each side thereof.

3. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward, and a yielding wire or guard secured to each picker each side thereof.

4. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a yielding guard each side of the picker formed of wire folded upon itself and secured by its folded portion to the picker at or near its end.

5. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom and a yielding wire or guard secured to each picker each side thereof.

6. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward and secured at their outer ends to a support, and a gate or board pivoted within the box or receptacle provided with rings or loops or projecting strips to extend into the spaces between the fingers or pickers and adapted to be secured in its open position.

7. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward and secured at their outer ends to a support, and a gate or board pivoted within the box or receptacle provided with rings or loops or projecting strips to extend into the space between the fingers or pickers.

8. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward, and a gate or board pivoted within the box or receptacle, provided with rings, or loops, or projecting strips to extend into the space between the fingers or pickers.

9. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward, and a yielding wire or guard secured to one side of each picker.

10. In a cranberry picker, in combination, a box or receptacle having its front end open, a series of pickers or fingers secured to the bottom and projecting forward therefrom, a wire or guard secured to the end of each picker and extending forward and upward and secured at their outer ends to a support and a yielding wire or guard secured to each picker.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALFRED M. SHAW.

Witnesses:

EDWIN W. BROWN,
LEONA C. ARNO.