(No Model.)

2 Sheets—Sheet 1.

# W. C. TRAHERN.

## APPARATUS FOR GATHERING CRANBERRIES.

No. 319,352. Patented June 2, 1885.

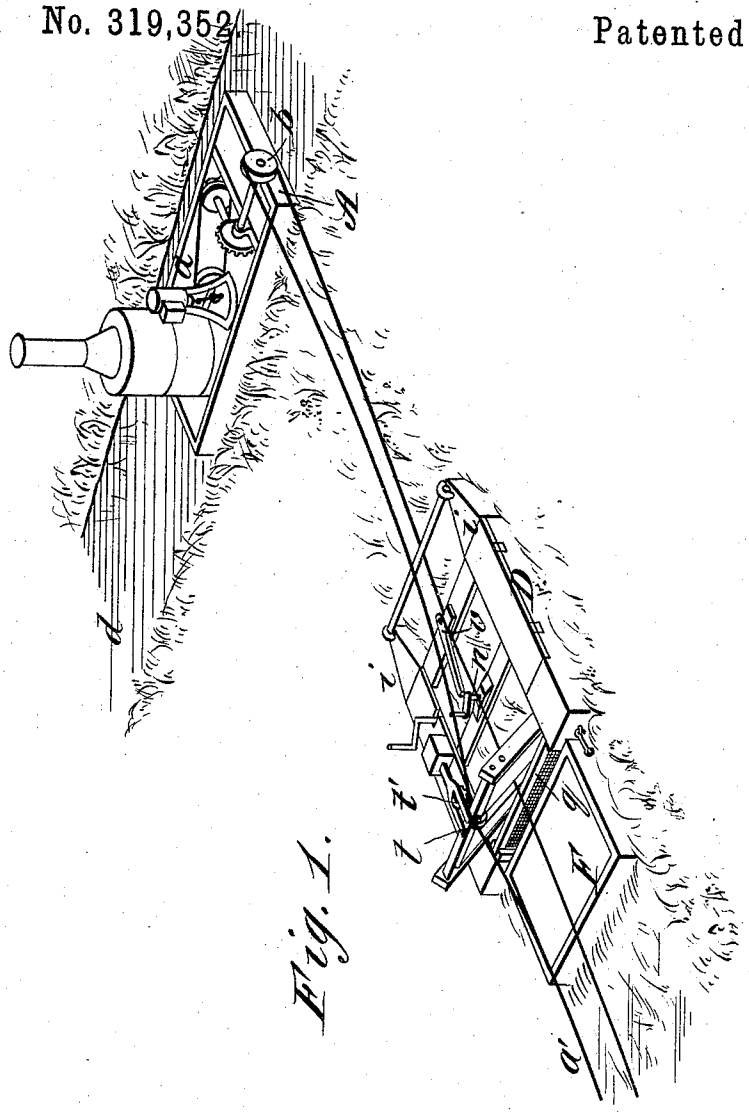
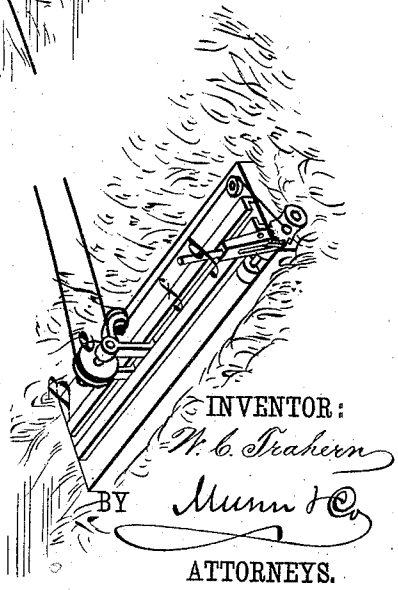


Fig. 1.



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N. PETERS. Photo-Lithographer. Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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## APPARATUS FOR GATHERING CRANBERRIES.

No. 319,352. Patented June 2, 1885.

Fig. 2.

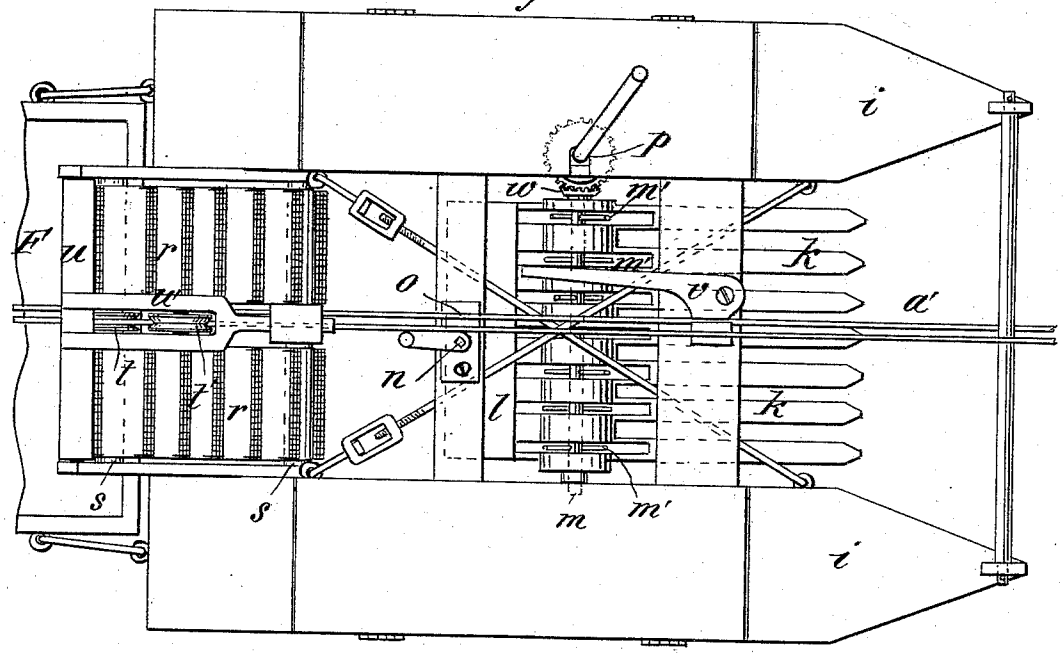
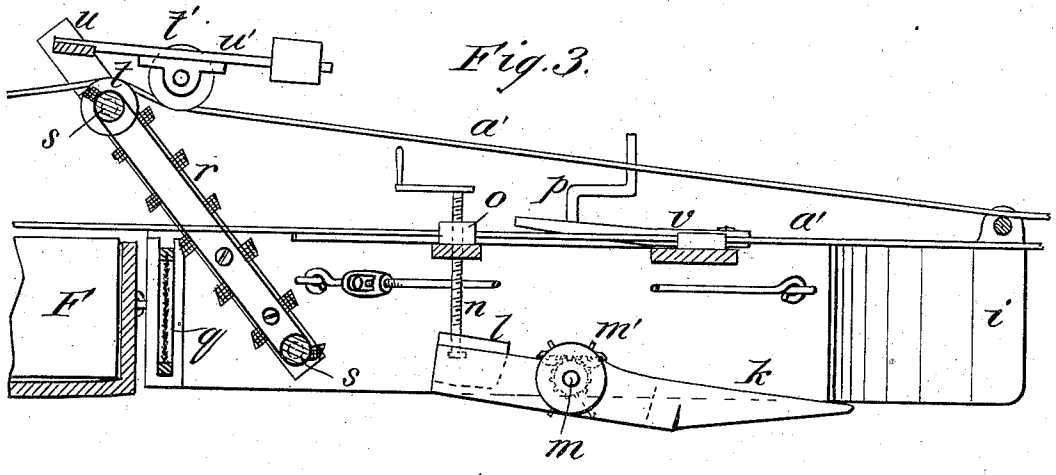



Fig. 3.




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# UNITED STATES PATENT OFFICE.

WILLIAM C. TRAHERN, OF ELM LAKE, WISCONSIN.

## APPARATUS FOR GATHERING CRANBERRIES.

SPECIFICATION forming part of Letters Patent No. 319,352, dated June 2, 1885.

Application filed June 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. TRAHERN, of Elm Lake, in the county of Wood and State of Wisconsin, have invented a new and Improved Apparatus for Gathering Cranberries, of which the following is a full, clear, and exact description.

The object of my invention is to save time and labor in the gathering of cranberries, which has been always done by hand, when the marshes become dry, at a considerable expense.

In my improved apparatus I combine with a float specially constructed to strip and gather the berries an endless cable operated by power from a boat, so as to draw the picker back and forth over the marsh, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view representing a cranberry-marsh with the apparatus at work. Fig. 2 is a plan view of the picking-float, and Fig. 3 is a longitudinal section thereof.

In order to provide for the working of the apparatus, a wide ditch is cut through the center of the marsh from a lake, reservoir, or stream of water, and at each side of the main ditch smaller ditches are made, so as to divide the area into sections of suitable form and size, according to the shape of the marsh. In picking-time water is to be pumped to fill these ditches and flood the marsh deep enough to float the berries.

The scow or boat A, Fig. 1, is used in the main ditch *d*. It carries a steam-engine, *a*, and a pulley or sheave, *b*, on a shaft that is connected to the engine. The smaller scow or boat, B, is to be run in the smaller ditches, or it may be run over the marsh in lines parallel with the main ditch, the smaller ditches not being strictly essential, as there will be water enough to float or partially float the boat. This boat B carries a sheave or pulley, *e*, on a frame that is fitted in slideways *f*, running lengthwise of the boat. At one or both ends is a capstan or windlass, *g*, from which a rope passes to the sheave-frame, so that by winding the rope the frame and sheave can be shifted in position. From the sheave *e* to the sheave on boat A an endless rope or cable, *a'*, passes and gives movement to the picker-float D, next described. The picker D is a catamaran style of boat, consisting of two floats, *i i*, connected rigidly by cross-braces and carrying the strippers and gatherers between them.

*k k* are the strippers, being a series of fingers projecting from a cross-head, *l*, so as to form a rake, with the spaces between the fingers small enough to retain the berries. The rake is sustained by a cross-shaft, *m*, supported at its ends on the floats *i*, and at the rear has a screw, *n*, passing through a nut, *o*, on a cross-brace above, and having on it a crank-handle, whereby the screw can be turned to raise and lower the forward ends of the stripping-fingers *k*. Shaft *m* has on it cutters *m'* in slots formed in the fingers, and a vertical crank-shaft, *p*, is connected by gearing *w* to shaft *m*, so that a person standing on the float can readily cause the rotation of shaft *m*, with its cutters *m'*, to break up and keep the stripper free from brush and rubbish. The space between the two floats *i* is closed at the rear by a screen or rack, *q*, that may be used to catch and retain the berries for removal at the end of each trip; but I prefer to use an elevator for discharging the berries into a boat, F, towed behind and depend on the screen to gather any stray fruit. The elevatar consists of endless aprons *r* on rollers *s s*, that are carried by side frames attached to the floats. The buckets on the aprons are made of wire or perforated metal. Upon the axis of the rollers *s* is a grooved sheave, *t*, and above that is a cross bar or shaft, *u*, with a weighted arm, *u'*, carrying a sheave, *t'*, that bears on the cable *a'*, so as to press the cable against the sheave *t* and cause the operation of the elevator. The return portion of the cable is thus in contact with sheaves *t t'*. The other portion drawing the boat is gripped by a cam-lever, *v*, on a cross-bar at the front. The marsh being flooded sufficiently to float the berries, the strippers *k* and lower end of the elevator will sink below the surface, so that as the boat D is drawn across the marsh the berries are stripped from the bushes and floated, and are then gathered by the elevator, carried up, and discharged into boat F. At the end of each trip the sheave *e* is shifted on boat B a distance about equal to the width of boat D, the latter then disconnected from the cable, turned around, and reconnected to make the return-

trip. When the sheave *e* has reached the end of its adjustment, the boats A and B are moved ahead, and the operation thus continued until the whole surface has been gone over.

The advantages of using this apparatus are that it is not necessary, as in hand-picking, to wait for the marsh to dry, and the crop may thus be gathered before frost has a chance to ruin the berries; the berries are all picked without waste; they are not bruised, and with fewer hands the work can be done more rapidly and cheaply.

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

1. The combination, in an apparatus for gathering cranberries, of a boat, A, provided with an engine and sheave-wheel, the sheave-boat B, the float D, provided with strippers and gatherers, and an endless cable connecting the boats, substantially as described.

2. The boat B, provided with an adjustable sheave-pulley, substantially as described, combined with a floating picker or gatherer, and stationary power for its operation, substantially as described.

3. The cranberry-gatherer consisting of a float carrying an adjustable rake for stripping off the berries, and means, substantially as described, for gathering the floating berries.

4. The combination of strippers *k* with the floats *i*, substantially as shown and described.

5. The combination of strippers *k* and screen *q* with the floats, substantially as and for the purposes specified.

6. The shaft *m* and cutters *m'*, in combination with strippers *k* and floats *i*, substantially as described.

7. The screw *n* and nut *o*, combined with the stripping-fingers *k*, shaft *m*, and floats *i*, substantially as and for the purpose specified.

8. The combination, with floats *i*, carrying strippers, of the elevator for gathering and raising the floating berries, substantially as described.

9. The aprons *r*, provided with perforated buckets, the rollers *s*, and supporting-frame, combined with floats *i*, substantially as shown and described.

10. The combination of the endless cable *a'* and the floats *i*, provided with a gripper and a stripping-rake, substantially as described.

WILLIAM C. TRAHERN.

Witnesses:
JOHN A. GAYNOR,
GEO. R. GARDNER.