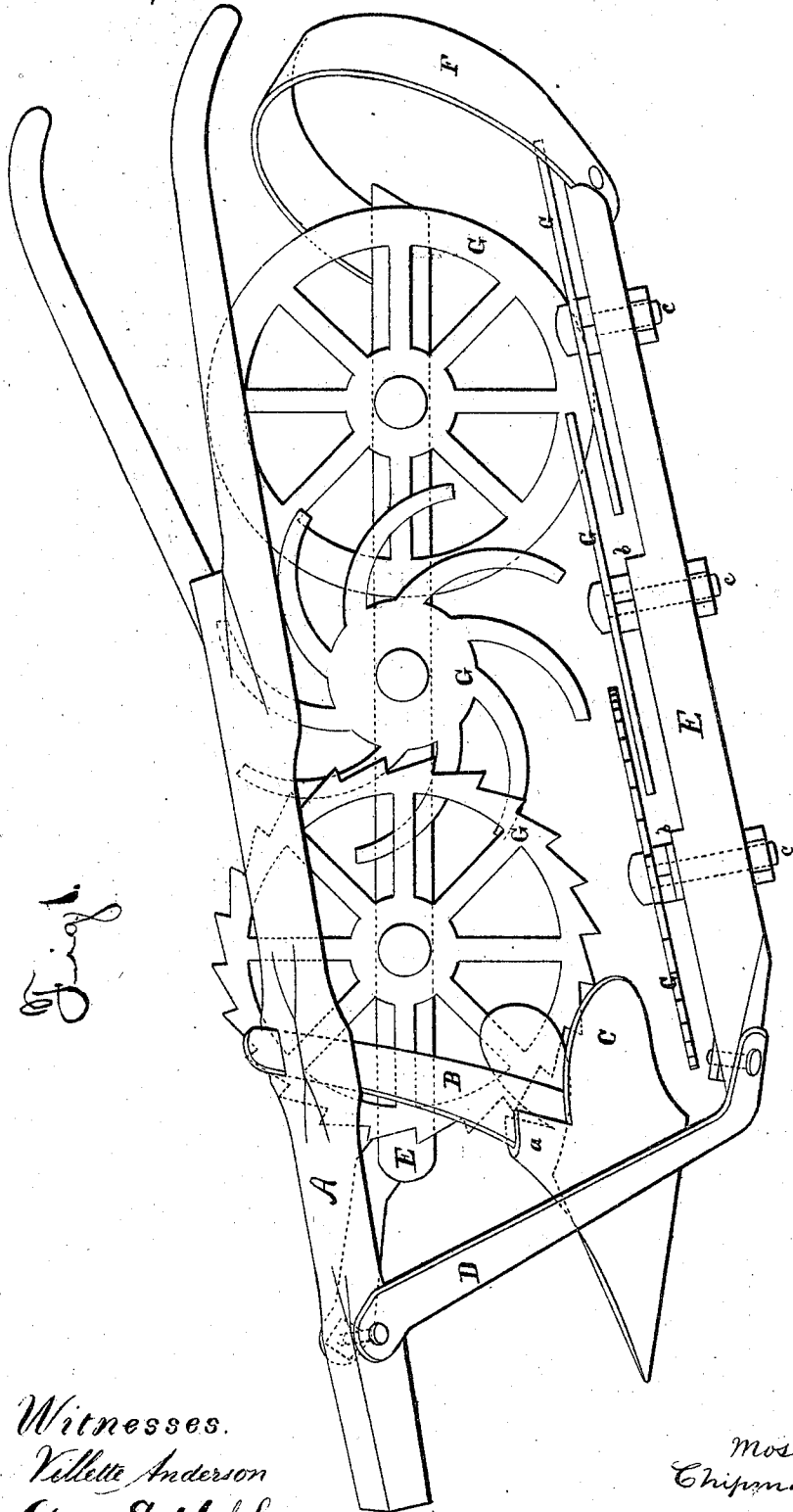


MOSES JOHNSON
No. 124,585.

Improvement in Potato Diggers.
Patented March 12, 1872.

2 Sheets--Sheet 1.



Witnesses.

Villette Anderson

Geo E. Lopham.

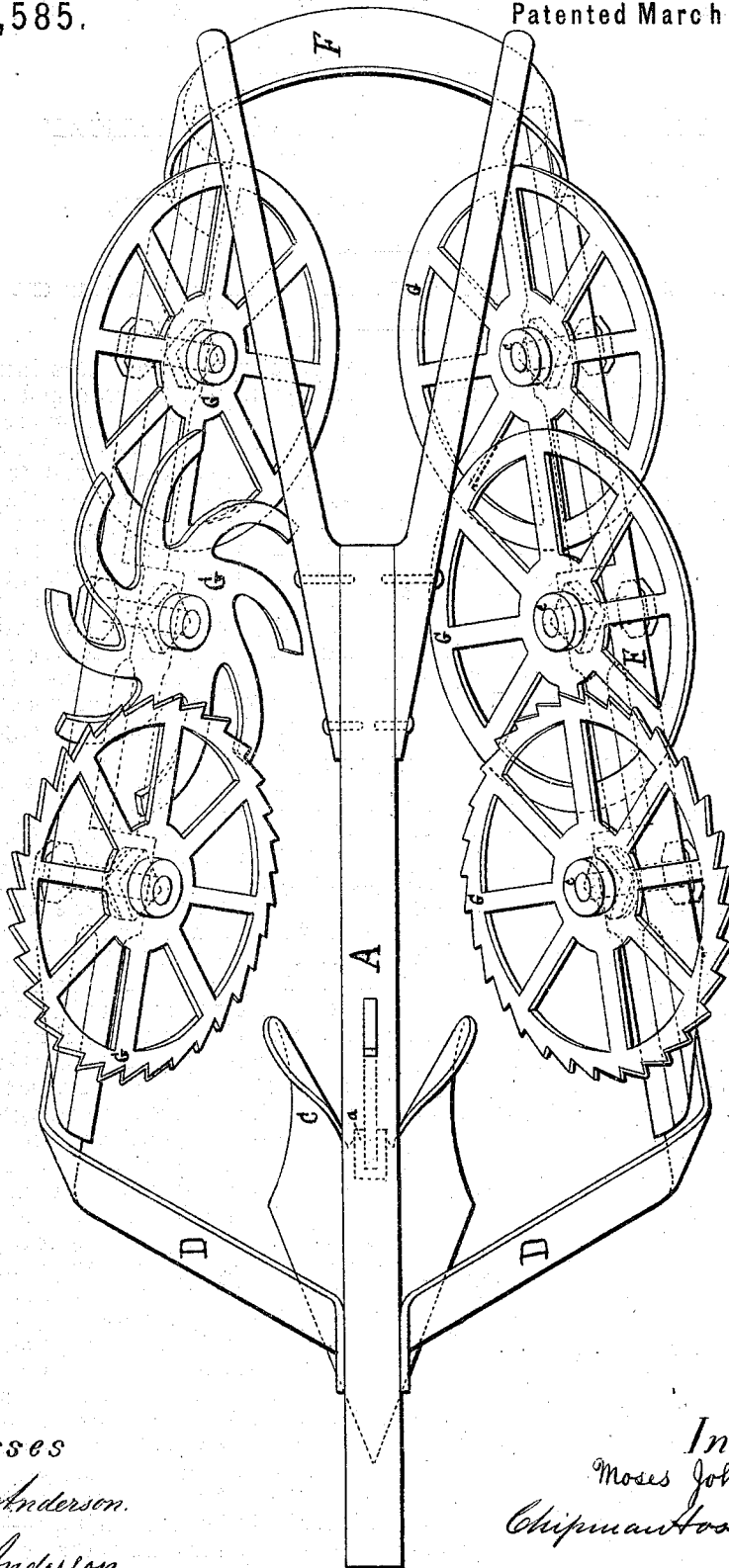
Inventor.

Moses Johnson,
Chapman Hoosmer & Co.,
attys.

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Fig. 2.



Witnesses

Villette Anderson.

G. Anderson

Inventor

Moses Johnson,

Chipman Hosmer & Co
attys

UNITED STATES PATENT OFFICE.

MOSES JOHNSON, OF THREE RIVERS, MICHIGAN.

IMPROVEMENT IN POTATO-DIGGERS.

Specification forming part of Letters Patent No. 124,585, dated March 12, 1872.

To all whom it may concern:

Be it known that I, MOSES JOHNSON, of Three Rivers, in the county of St. Joseph and State of Michigan, have invented a new and valuable Improvement in Potato-Diggers and Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a perspective view of my invention, and Fig. 2 is a top and perspective view thereof.

This invention has relation to potato-diggers; and it consists in the use of the overlapping inclined sifting-wheels, and in the construction and novel arrangement of the parts of the digger, whereby it is adapted for efficient operation.

In the accompanying drawing, the letter A designates the plow-beam, made long enough to suit the number of wheels designed to be employed, and provided with handles in the ordinary manner. B represents the plow-standard, which is secured to the beam and is attached at its lower end to the double mold-board plow. This plow is lettered C. It is provided with two isometrical rolling or curved surfaces, joining each other along a concave ridge in front. At the upper part of this ridge or bend the metal is extended upward for a short distance on each side beyond the mold-board, forming a clip, *a*, or pair of ears, bent inward in such a manner as to lie close to the standard, and riveted thereto. To secure greater strength the forward edge of the standard is made concave, and lies under the median bend of the plow, supporting the same. Pivoted to the plow-beam, in front of the standard, are oblique braces D, by means of which lateral inclined beams E are connected with the plow. These braces are designed to be made of metal, and may be slightly twisted, if necessary, to give a free pivotal movement at each end, so that the plow may be drawn out of the ground or depressed by means of a rearward or forward movement of the plow-

beam, as will appear. The lateral beams E converge toward the rear, and are connected at this end by means of an arched brace, F. Each beam E is laterally inclined at an angle of about forty-five degrees, and its oblique upper and inner face is provided with offsets *b b*, which serve as bearings for the journals of the sifting-wheels, and at the same time permit of an overlapping arrangement of said wheels. G G represent the sifting-wheels. These wheels may have smooth or serrated peripheries, straight or curved spokes. When the curved spoke is employed the wheel may be made without periphery, as illustrated in one of the wheels in the drawing. The wheels are provided with journals *c*, which pass obliquely through suitable bearings in the lateral beams E. The wheels, it is apparent, are inclined downward and inward, their angle of inclination with each other being about ninety degrees, more or less. At their lowest points the forward pair of wheels are distant from each other about the width of the plow. This distance is lessened when the plow is raised from the ground. The succeeding pairs of wheels have their forward or descending portions overlapped by the rear or ascending edges of the preceding pair of wheels, thus giving full effect to the ascending action of the spokes and neutralizing the descending effect and producing a thorough sifting action. The earth and potatoes are thrown by the plows upon the first pair of wheels. The earth is partially sifted by this pair to the outside of the wheels, the ascending action of the rear portion of the wheel serving to throw the potatoes upward, rearward, and outward. The succeeding pairs of wheels serve to perform more thoroughly the sifting or separating operation, the potatoes being finally discharged at the rear end of the machine. Sometimes a single pair of wheels will be sufficient to effect the separation. The number of wheels must be determined by the nature of the soil.

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

1. In a potato-digger, the combination of a plow with the pivoted converging lateral bars

E, and the inclined separating-wheels G journaled therein, substantially as specified.

2. The combination of the center-beam A, plow C, lateral beam E, draw-braces D, rear arch F, and inclined wheels G, substantially as specified.

3. The combination, with the plow-beam A, of the lateral beams E and the oblique draw-braces D, pivoted at both ends, substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

MOSES JOHNSON.

Witnesses:

CLARENCE E. WILBUR,
ED. L. BROWNE.