2 Sheets—Sheet 1.

J. HALL, Jr.

Potato Digger.

No. 102,812. Patented May 10, 1870.

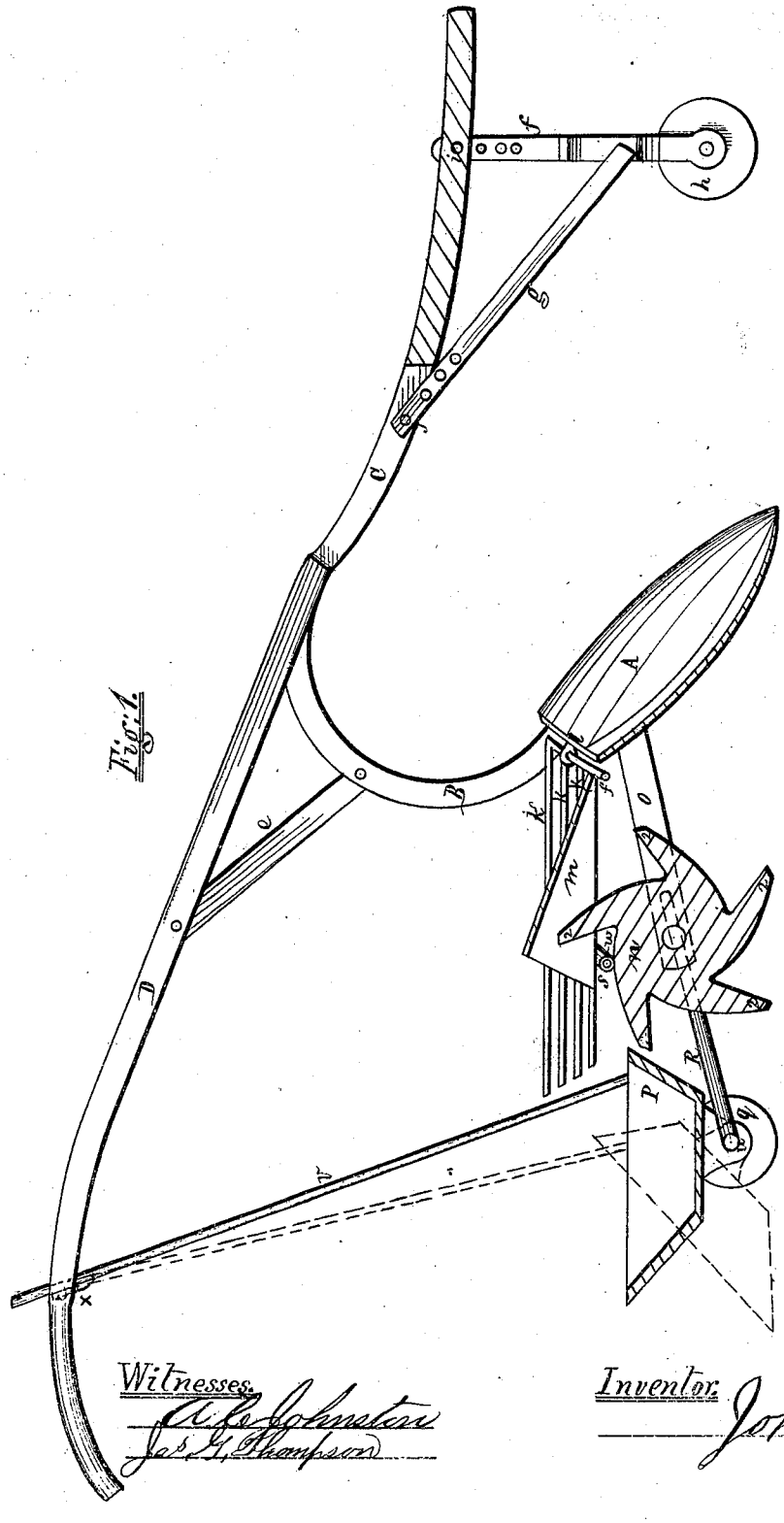

Fig. 1.

Witnesses.
A. E. Johnston
Jas. G. Thompson

Inventor.
John Hall

2 Sheets—Sheet 2.

J. HALL, Jr.

Potato Digger.

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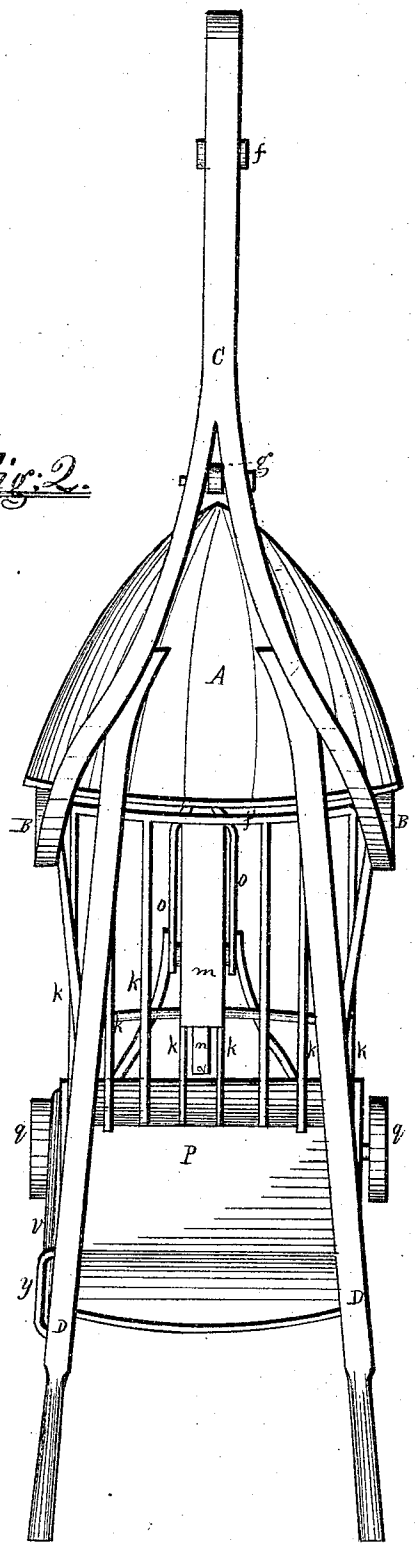
Fig. 2.



United States Patent Office.

JOHN HALL, JR., OF TEMPERANCEVILLE, PENNSYLVANIA.

Letters Patent No. 102,812, *dated May* 10, 1870.

IMPROVEMENT IN POTATO-DIGGER.

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, JOHN HALL, JR., of Temperanceville, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Potato-Digger and Gatherer; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in the combination and arrangement of a shovel-plow, separator, and agitator-wheel, and gathering-cart, constructed, arranged, combined, and operating as hereinafter described.

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

In the accompanying drawings, which form part of my specification—

Figure 1, Sheet A, is a vertical and longitudinal section of my improvement in potato-digger and gatherer.

Figure 2, Sheet B, is a top view or plan of my improvement in potato-digger and gatherer.

In the accompanying drawings—

A represents the digger or mold-board, the face of which is made concave, as shown in figs. 1 and 2, and is secured to the curved standards B, to which the handles D are attached.

To the handles D and standards B are attached braces *e*, for giving stiffness and strength to the handles.

To the upper and front ends of the standards B is welded the beam C, the front end of which is provided with a hanger, *f*, in the lower end of which is pivoted a wheel, *h*.

The hanger *f* is braced, with relation to the beam C, by means of a brace, *g*, and both hanger and brace are held in the desired position to the beams C by means of the bolts J and *i*, and the openings marked 3.

The hanger *f*, with its wheel *h*, is used for the purpose of regulating the depth of digging.

To the back end of the digger or mold-board A is pivoted at *l* a separator, which consists of a series of parallel rods, K, attached to two transverse rods *f'* and *w*.

The rod *w* is provided with a small friction-roller, S, against which the arms 2 of the agitator-wheel *n* act when the digger is in operation.

The agitator-wheel *n* is pivoted in the piece marked O, which is secured to the back of the digger or mold-board A.

To the separator, and over the agitator-wheel *n*, is secured a guard, *m*, which is used for the purpose of preventing the agitating-wheel *n* from becoming clogged with weeds, dirt, or potato-tops.

In the rear of the separator is placed a cart, P, which is provided with an axle, *u*, and wheels *q*, and is pivoted to the axle *u* by means of pedestals *z*.

To the side of the cart P is pivoted an operating-lever, *v*, which is provided with a catch, *x*, which catches in the back end of the guide *y*, and thereby holds the cart P in the proper position for receiving the potatoes as they fall from the separator.

The shafts *x'* of the cart P are attached to the sides of the piece O, in which the agitating-wheel is pivoted.

As the construction and arrangement of the several parts of my improvement, and the relation they bear to each other, will be readily understood from the foregoing description, and by reference to the accompanying drawings, I will, therefore, proceed to describe the operation.

I adjust the hanger *f* and brace *g*, so that they will allow the digger A to enter the ground to the desired depth. The forward movement of the digger will divide the potato-hill, and, the face of the digger being concave, the potatoes will be gathered toward the center of it, and will pass back between the standards B, onto the separator, which, being agitated through the medium of the agitating-wheel *n*, will cause the earth to pass down between the rods K of the separator, and thereby separate the potatoes from the earth, and deposit them in the cart P, which is, when full, tilted, by means of the rod *v*, and the potatoes deposited in heaps on the ground. The cart P is then reset, as shown in fig. 1.

By attaching the digger or mold-board A to the standards B, as herein described and represented, a free passage between the standards is obtained, and the digger is not liable to become clogged with dirt, weeds, or potato-tops.

By means of the concavity in the face of the digger A, the potato-hills will be so divided as that the potatoes will be thrown back on the central portion of the separator, which, being also provided with a concave surface, will deposit the potatoes from the earth into the cart P, from which they may be emptied out, forming heaps of gathered potatoes.

By the use of the guard *m*, the agitating-wheel is protected from weeds, potato-tops, and other matter liable to clog it and make it inoperative.

Having thus described the nature, construction, and operation of my improvement,

What I claim as of my invention is—

The combination and arrangement of the digger A with the separator and cart P, constructed, arranged, and operating substantially as herein described, and for the purpose set forth.

JOHN HALL, JR.

Witnesses:

A. C. JOHNSTON,

JAS. G. THOMPSON.