

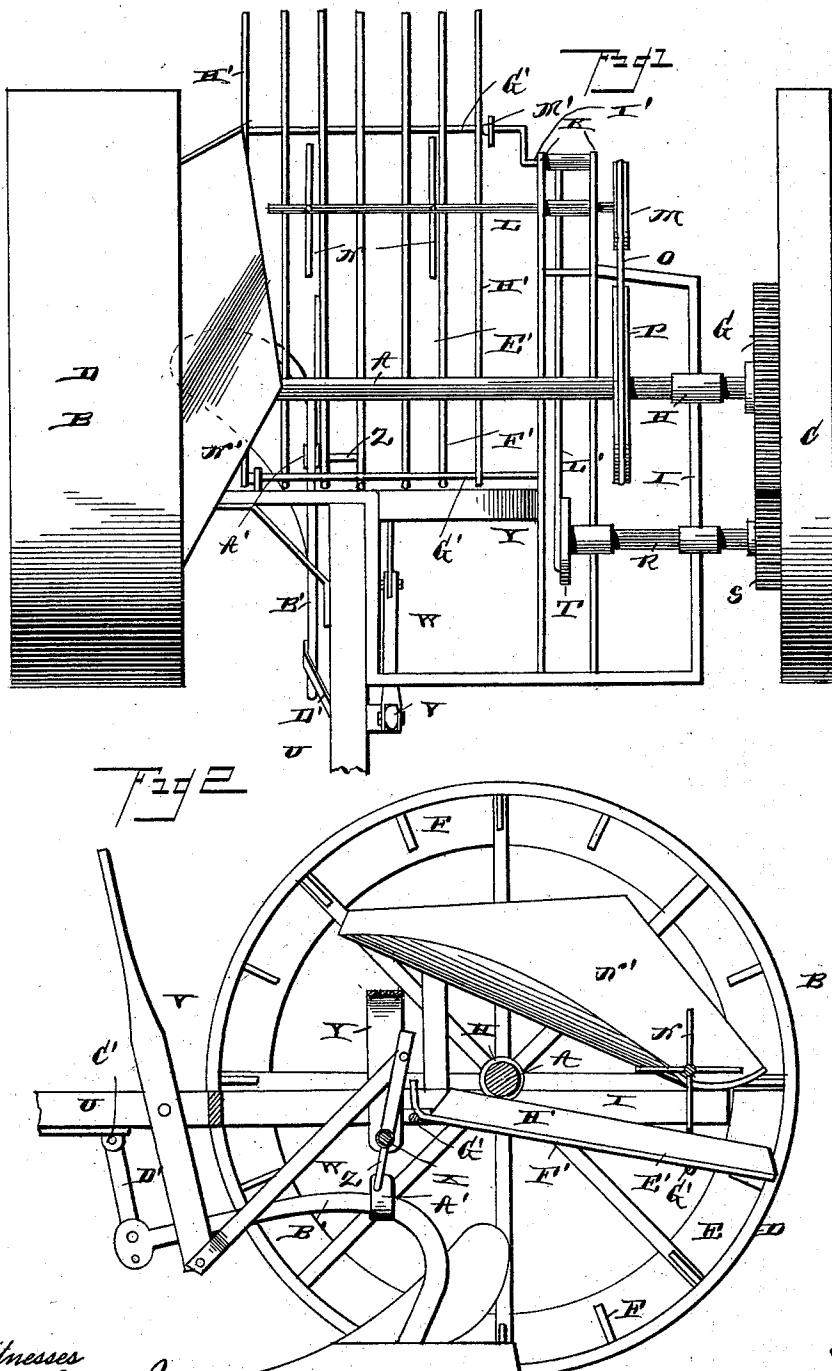
(No Model.)

2 Sheets—Sheet 1.

O. SIMONS.  
POTATO DIGGER.

No. 410,210.

Patented Sept. 3, 1889.



Witnesses

Witnesses  
John Smirle

Wm. Baggers

By his Attorneys

Attorneys  
C. Showles

Ole, Simons.

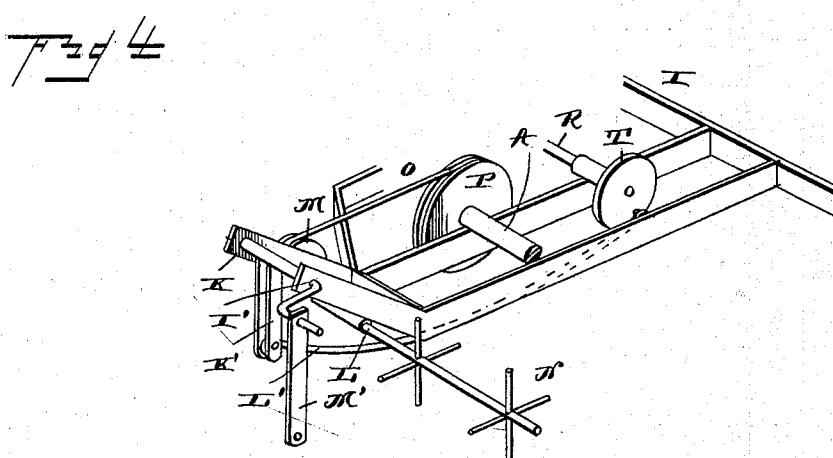
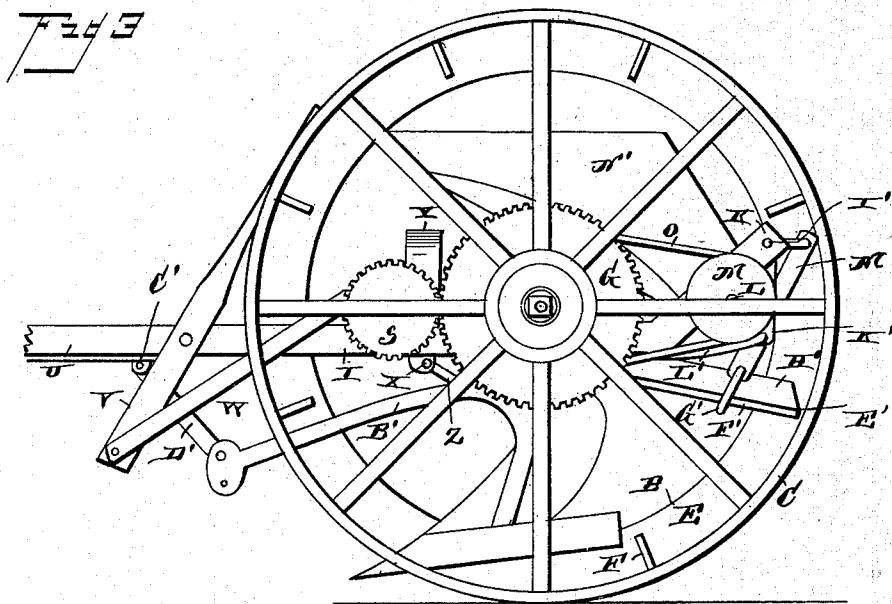
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POTATO DIGGER.

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Witnesses  
John Amire

Inventor  
Ole Simons

Wm. Bagger— By his Attorney  
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# UNITED STATES PATENT OFFICE.

OLE SIMONS, OF ARKDALE, WISCONSIN.

## POTATO-DIGGER.

SPECIFICATION forming part of Letters Patent No. 410,210, dated September 3, 1889.

Application filed March 20, 1889. Serial No. 303,077. (No model.)

To all whom it may concern:

Be it known that I, OLE SIMONS, a citizen of the United States, residing at Arkdale, in the county of Adams and State of Wisconsin, 5 have invented a new and useful Improvement in Potato-Diggers, of which the following is a specification.

My invention relates to an improvement in potato-diggers; and it consists in the peculiar 10 construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the drawings, Figure 1 is a top plan view 15 of a potato-digger embodying my improvements. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a side view. Fig. 4 is a detail view.

The driving-shaft A is provided on opposite ends with wheels B C. The wheel B has 20 a broad inwardly-extending annular flange D or rim, and has an annular flange E on the outer side thereof, and arranged transversely on the inner side of the flange D, and at suitable distances apart, are flights F. Secured 25 to the inner side of the wheel C, and revoluble therewith is a gear-wheel G.

The driving-shaft is journaled in bearings H, secured on the frame I, the latter having 30 a pair of rearwardly-extending parallel bars K near one side, with their rear ends upturned or inclined and provided with bearings for a shaft L. To the outer end of the said shaft is secured a grooved pulley M, and projecting from the inner end of the shaft are a series 35 of radial arms N.

Keyed to the shaft A is a pulley P, which is connected to the pulley M by means of an endless belt O.

Journaled in bearings near one corner of 40 the frame is a shaft R, which has a pinion S at its outer end that engages a gear-wheel G, and is provided at its inner end with a crank-wheel T.

A tongue U is secured in an offset at the 45 front right-hand corner of the frame and projects forward therefrom, and to the said tongue is fulcrumed a lever V, which is connected by means of a link W to a rock-shaft X, which is journaled in bearings at the lower 50 ends of a curved or arched bar Y, which is arranged transversely near the front end of the frame and secured thereto, as shown. A

crank Z is formed at the inner end of the rock-shaft, and to the said crank is pivoted a saddle A', which is attached to the beam of a 55 plow B' at a suitable point near its rear end.

The front end of the plow-beam is connected to a hook or draft-iron C' under the tongue by means of a link or draft-rod D'.

It will be observed by reference to Fig. 1 60 that the plow is arranged near the inner side of the wheel B, and is adapted to throw its furrow upon the flange D of said wheel. The said plow may be raised or lowered, and thereby caused to operate at any desired 65 depth, by means of the lever V.

A shaking-screen E' has its front end pivotally connected to the frame at a point just in rear of the tongue, and said screen comprises a series of longitudinal parallel rods F' 70 and cross-bars G', which connect the same near their front and rear ends. Side boards H' are arranged at the sides of the screen, as shown.

In the extreme rear ends of the bars K is 75 journaled a rock-shaft I', which is provided with an arm K', which is connected to the crank T by means of a pitman L', and the said arm K' is also connected to the shaking-screen by a link M'.

On the right-hand side of the frame is arranged a chute N', which has its rear inner corner depressed, and thereby adapted to discharge its contents onto the shaking-screen. The said chute is arranged under the flange 85 D of the wheel B.

The operation of my invention is as follows: The plow is directed in such manner as to throw the potatoes, together with the earth, onto the flange D of wheel B, and as the latter rotates its flights cause the earth and the potatoes to be elevated and to drop onto the chute, from which they fall upon the screen. The shaft R being geared to and revolved by the wheel C, and the rock-shaft I', which is 95 connected by the link to the shaking-screen, being also connected to the crank-wheel T, vibratory motion is imparted to the said shaking-screen, and the potatoes which fall thereon are agitated and cleared of adhering 100 earth. The revolving arms N, which are rotated by the pulleys and endless belts, engage the vines and trash and prevent them from lodging on the screen. The potatoes, after

being cleared of adhering earth and trash, are dropped by the screen onto the ground, and may afterward be readily picked up.

Having thus described my invention, I  
5 claim—

In a potato-digger, the combination of a transporting-wheel having a broad tread or flange equipped on its inner periphery with flights or elevating-buckets, a plow arranged  
10 to turn the soil over upon the flange of said wheel, a chute extending under the upper portion of said flange, a shaking-screen pivoted to the front part of the frame and extending rearwardly under said chute, a shaft

extending transversely over said screen and 15 having radial arms or agitators, and operating mechanism for the said shaking-screen and agitator-shaft geared to one of the supporting-wheels of the machine, substantially as and for the purpose herein shown and 20 specified.

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

OLE SIMONS.

Witnesses:

A. S. HAMILTON,  
C. M. SIMONS.