(No Model.)

E. A. HOFFMANN.

POTATO DIGGER.

No. 492,016. Patented Feb. 21, 1893.

Fig. 1.

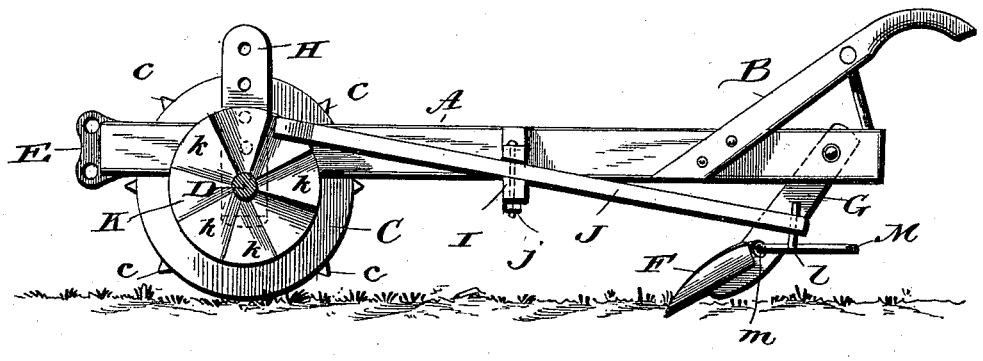


Fig. 2.

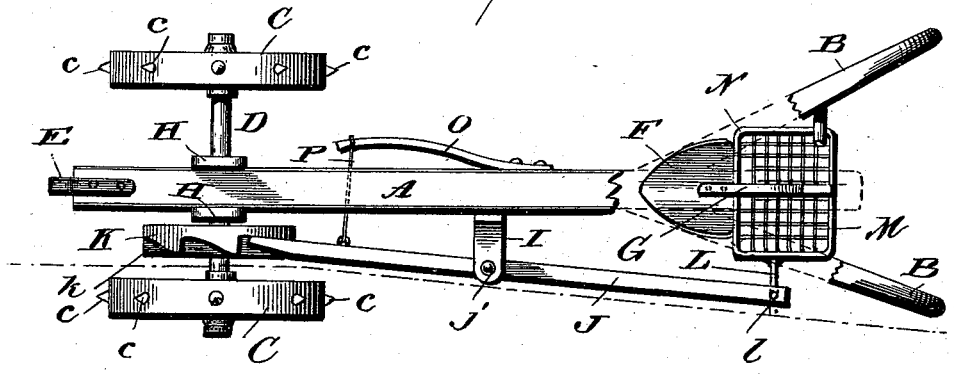
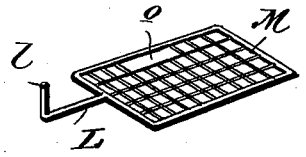


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ERNST AUGUST HOFFMANN, OF DEL NORTE, COLORADO.

POTATO-DIGGER.

SPECIFICATION forming part of Letters Patent No. 492,016, dated February 21, 1893.

Application filed September 8, 1892. Serial No. 445,343. (No model.)

To all whom it may concern:

Be it known that I, ERNST AUGUST HOFFMANN, a citizen of the United States, residing at Del Norte, in the county of Rio Grande and State of Colorado, have invented certain new and useful Improvements in Potato-Diggers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in potato diggers and the novelty resides in the peculiar combinations and the construction, arrangement and adaptation of parts all as more fully hereinafter described, shown in the drawings and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification and in which

Figure 1 is a side elevation of my improved potato digger. Fig. 2 is a top plan with a portion broken away. Fig. 3 is a perspective view of the screen detached.

Like letters of reference indicate like parts throughout the several views in which they appear.

Referring now to the details of the drawings by letter, A designates the main beam and B the handles attached thereto in any suitable manner.

C are the wheels on the axle D and E is the clevis or draft attachment at the forward end of the beam. The wheels are provided with spurs or projections *c* so that they will take a better hold in the ground.

F is the shovel carried by the shank G attached to the beam in any suitable manner. In order to adjust the wheels vertically when necessary they may be carried by the axle held adjustably in uprights H as seen in Fig. 1 the said uprights being adjustable in any suitable manner.

I is a lateral arm secured to the beam and in which is pivoted as on a vertical pivot *j* the longitudinal arm J. One end of this arm is arranged to ride upon the face of the wheel K secured to the axle and its acting face being provided with a plurality of radial steps or inclined faces *k* so that as the wheel revolves the said arm will go snap, snap, over the said inclined faces. The other end of this arm has connected therewith the vertical portion *l* of the arm L which is attached to the screen M which consists of a rectangular frame with a wire or reticulated bottom, the said screen being supported above and to the rear of the shovel as seen in Figs. 1 and 2 and pivotally supported as at *m* from an arm N extending upward from the shovel. This screen has an opening *o* at its front edge as seen in Figs. 2 and 3 for the potatoes to drop through.

The operation will be readily understood; as the machine is moved forward the potatoes are dug by the shovel up which they ride onto the screen which is given a reciprocatory movement each time the forward end of the arm I rides over one of the inclined faces of the wheel K, the forward end of said arm being moved away from the wheel, and in order to return it to its normal position and to hold it against the said wheel I provide a spring arm O attached at one end to the opposite side of the beam and connected with the arm I by suitable means as a chain P as seen in Fig. 2.

What I claim as new is—

1. The combination with the beam and wheels and shovel, of the wheel on the axle and having inclined faces or steps, the screen, the lateral pivot-supporting arm, the longitudinal arm pivoted thereon and having one end connected with the screen and the other end acted upon by said faces, and the spring arm secured at one end to the opposite side of the beam and its other end flexibly connected with the pivoted arm, as and for the purpose specified.

2. The combination with the shovel, of a transversely-reciprocatory screen having an opening *o* at one side and supported by an arm extending from the shovel, and having a horizontal arm with vertical portion for connection with its agitating means as set forth.

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

ERNST AUGUST HOFFMANN.

Witnesses:
JOHN G. HUNTINGTON,
JAMES E. HASBROUCK.