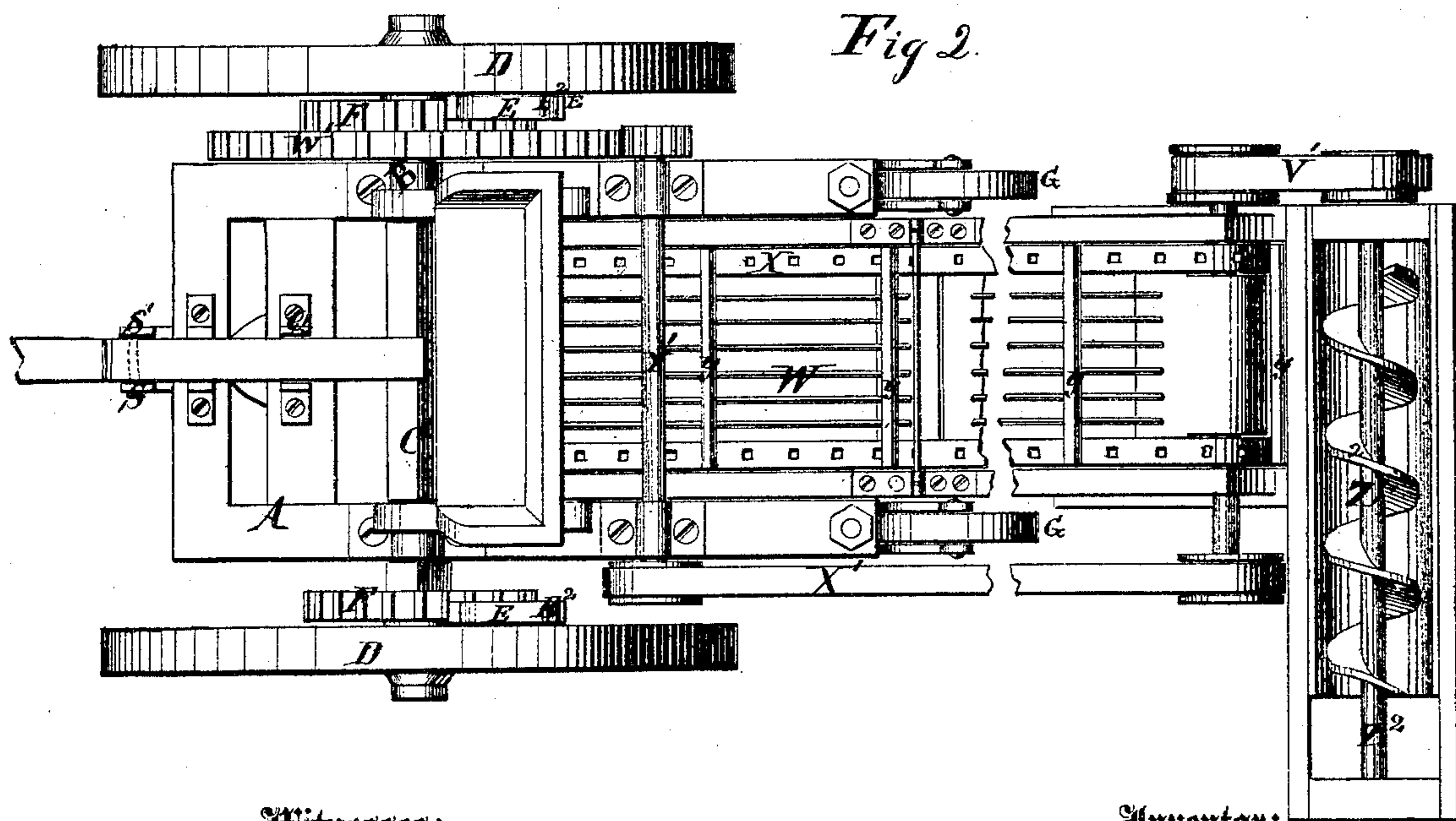
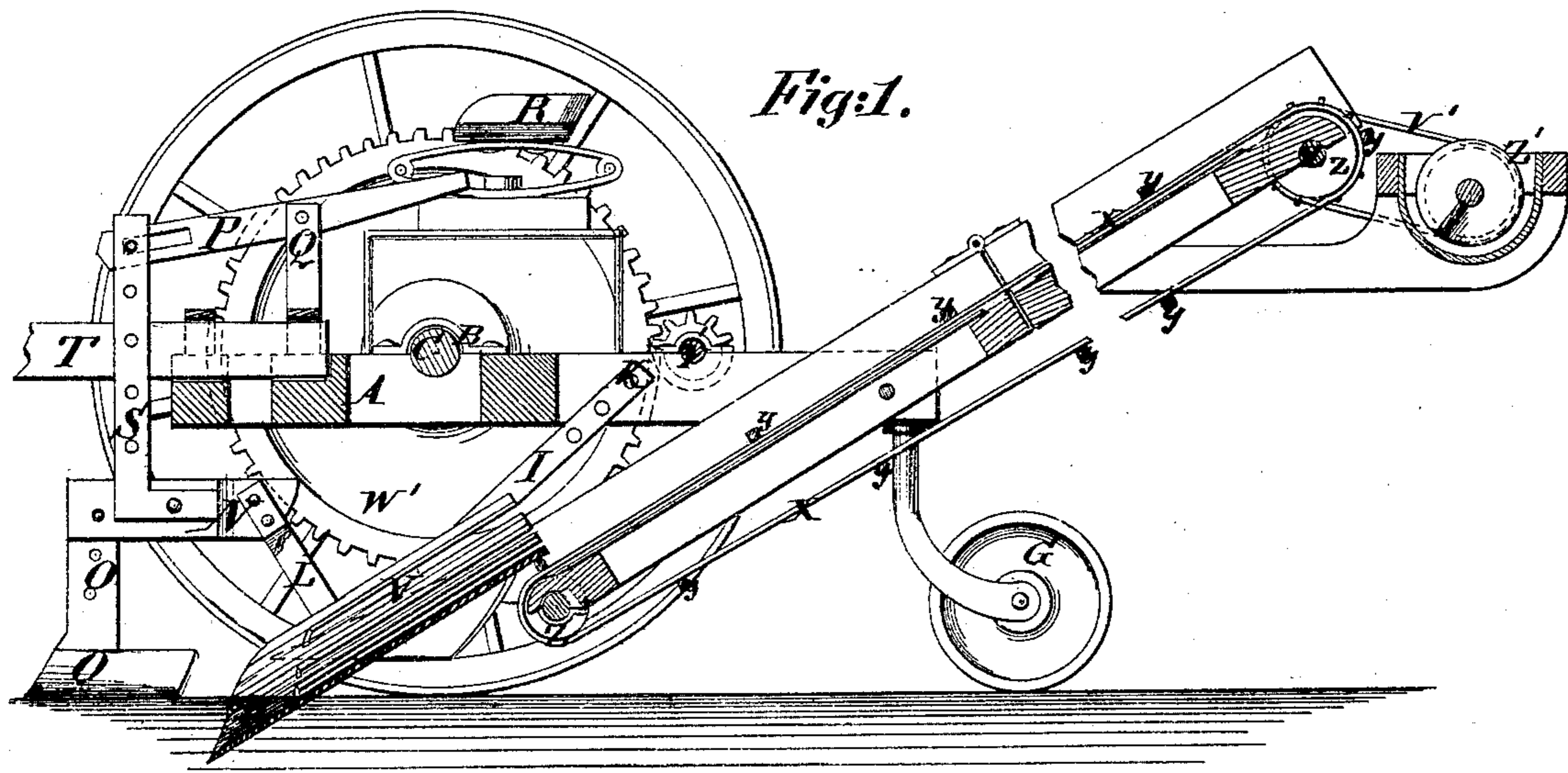


Improvement in Potato-Diggers.

Patented May 9, 1871.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE

CLARK COONEY, OF COLUMBUS, NEBRASKA.

IMPROVEMENT IN POTATO-DIGGERS.

Specification forming part of Letters Patent No. **114,531**, dated May 9, 1871.

To all whom it may concern:

Be it known that I, CLARK COONEY, of Columbus, in the county of Platte and State of Nebraska, have invented a new and useful Improvement in Potato-Diggers; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to an improvement in potato-diggers; and consists in the combination of a spiral conveyer with an inclined apron and endless carrier, which parts are hereinafter described in connection with others necessary to form a complete operative machine.

Figure 1 is a longitudinal sectional elevation of my improved machine, and Fig. 2 is a plan view of the same.

Similar letters of reference indicate corresponding parts.

A represents a rectangular wood frame, suspended by straps B from an axle, C, of a pair of truck-wheels, D, which carry spring-pawls E, for engaging, when required, with the ratchet-wheel F on the axle to turn it. At the rear end the said frame is mounted on casters-wheels G.

H is a large concave scoop, of steel or other sheet metal, suspended by the bars L from the frame N of a vine-scraper, O, which frame is suspended from the foot-lever P, mounted in front of the seat R in stand Q by means of the bars S, passing the tongue T, one on each side. This scoop is formed into bars U a short distance from the point, for sifting the earth through the spaces between them while the potatoes are forced along up the inclined bars.

The vine-scraper O is formed of two pieces of sheet metal, curved in cross-section, and joined together in such a manner as to present a V form, and is suspended from the frame N in a horizontal position, with the apex of the angle in front. This scraper is intended to throw the vines away on both sides, to prevent them from being taken up in the scoop. It is so arranged as to run along the top of the ground, or near the top, while the scoop runs as low as the greatest depth of the potatoes. Each is adjustable, higher or lower, independently of the other, and both may be raised out of action simultaneously.

The adjustment of the scoop is effected by shifting the bars I and L on the pivot-bolts, for which they are provided with several holes; and the adjustment of the scraper is effected by changing the vertical bar by which it is suspended from the beam N on the said beam.

The potatoes, earth, and other matter are delivered from the sifting-bars U upon an inclined way, W, rising upward at the rear of the truck, having an open bed of wire laid at suitable distances apart to allow the earth to sift through.

The frame of this way is composed of light bars attached to the rear end of the truck-frame, so as to be supported thereby, and so that it may be adjusted higher or lower thereon.

An elevator composed of two machine-chains, X, suitable cross-bars Y, and rollers Z, is arranged on this inclined way, to convey the potatoes up to the top, where they are discharged into a horizontal conveyer, Z¹, which carries them in a lateral direction to a discharge-spout, Z², under which a wagon or cart may be drawn along with the machine to receive them, the said conveyer-trough being supported on the upper end of the elevator-frame.

The elevator is driven by a belt, X', working from a pulley on a shaft, Y', having a pulley gearing with the large driving-wheel W' on the axle C, and the conveyer is worked by a short belt, V', working from a pulley on the end of the upper elevator-shaft.

The spring-pawls E may be held out of gear by means of the pins E², so placed in the wheels D that the ends of the springs may be placed above them; and the said springs, being placed below them, and prevented thereby from rising, keep the pawls in gear with the ratchets.

The elevator-frame is jointed at or about the center, for folding the upper part down to facilitate transportation.

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

In a potato-digger, the combination of the spiral conveyer Z¹ Z² with the elevator X Y and inclined way or apron W, substantially as and for the purpose specified.

CLARK COONEY.

Witnesses:

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