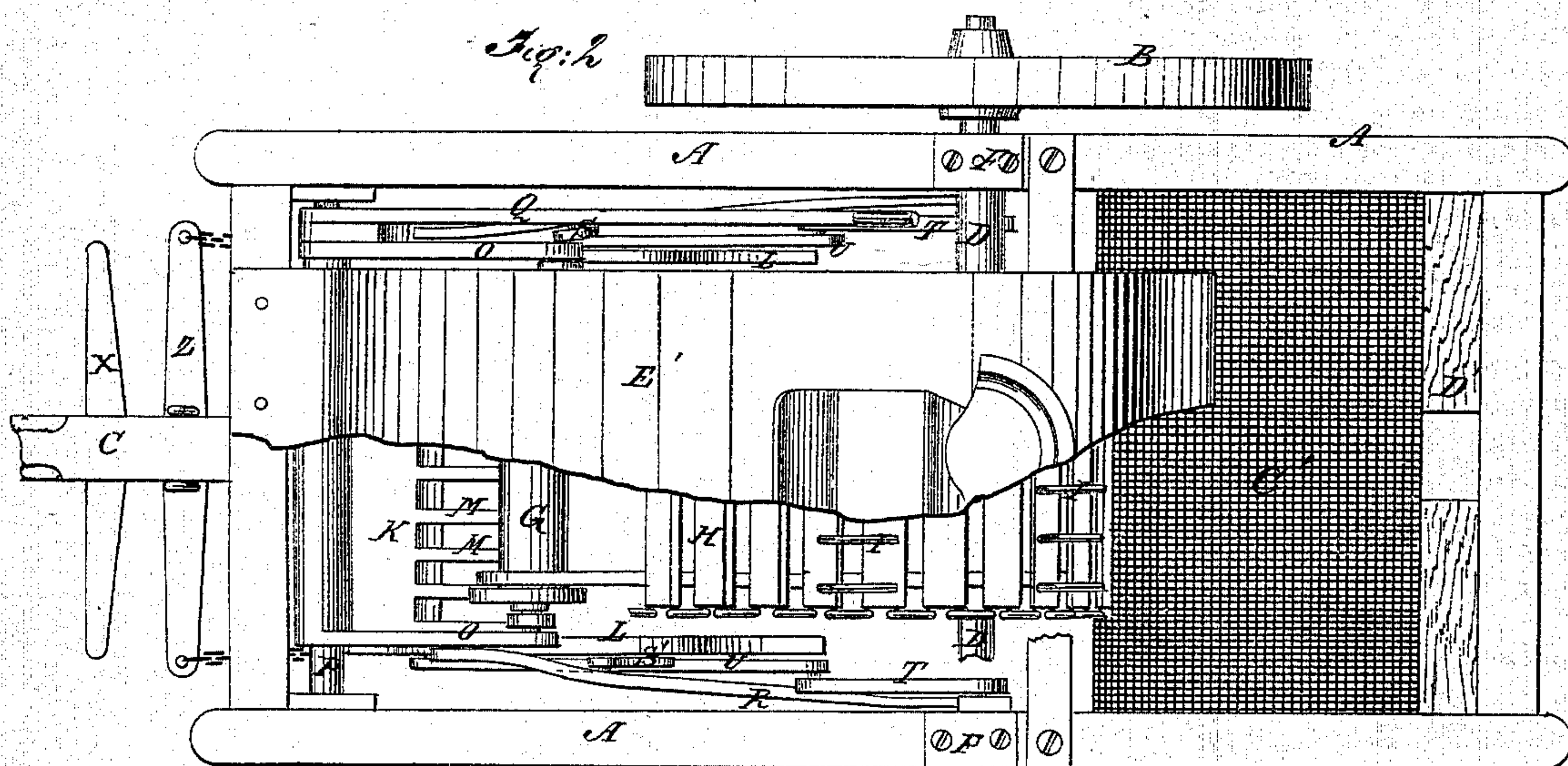
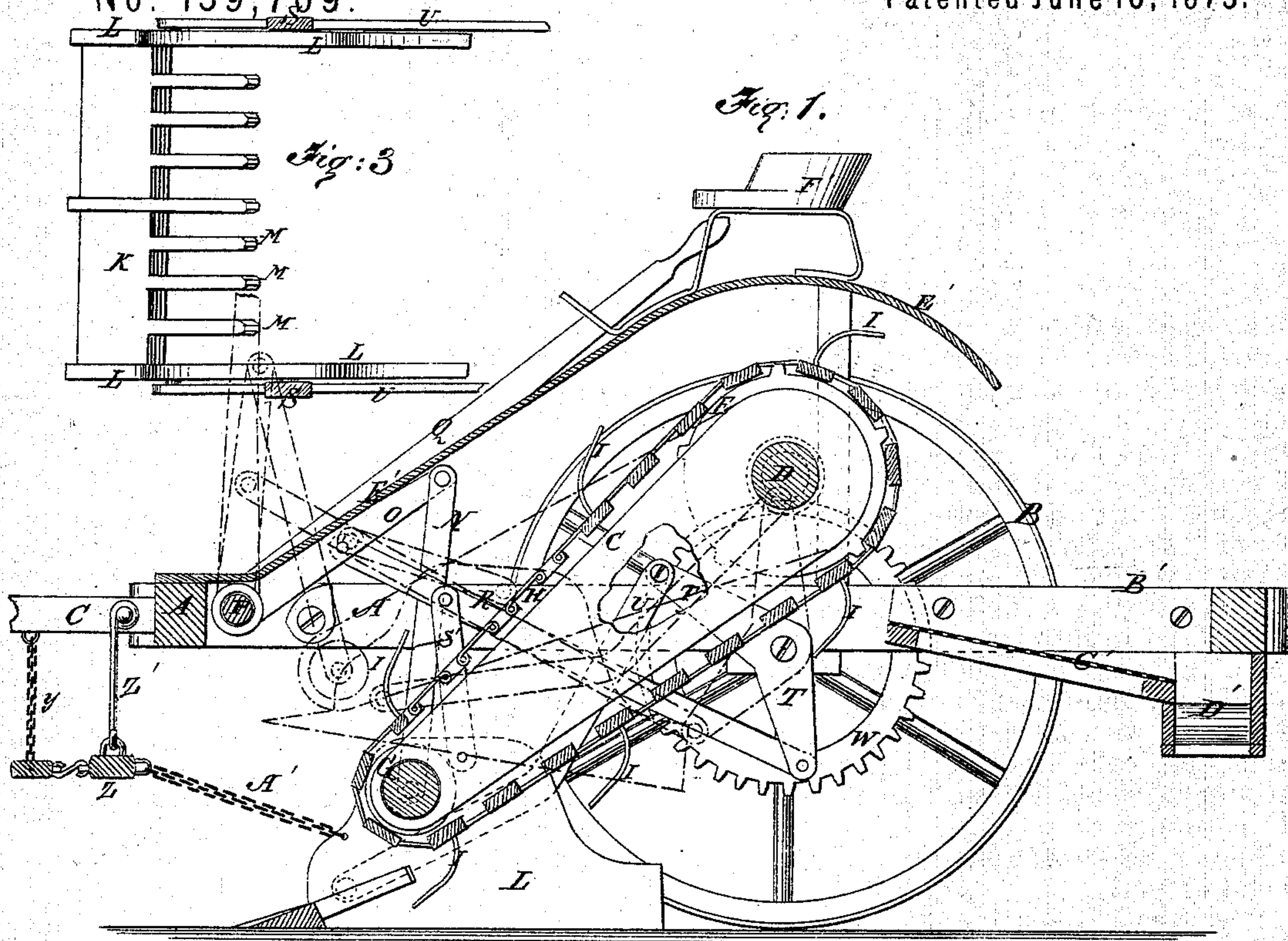


H. M. DOWD & W. W. DOWD, Jr.  
Potato-Diggers.

No. 139,709.

Patented June 10, 1873.



Witnesses:

*Cas. Nida*  
*Belgic*

Inventor:

*H. M. Dowd*  
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PER

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# UNITED STATES PATENT OFFICE.

HENRY M. DOWD, OF SARATOGA SPRINGS, AND WILLIS W. DOWD, JR., OF  
NORTH GRANVILLE, NEW YORK.

## IMPROVEMENT IN POTATO-DIGGERS.

Specification forming part of Letters Patent No. 139,769, dated June 10, 1873; application filed  
April 19, 1873.

*To all whom it may concern:*

Be it known that we, HENRY M. DOWD, of Saratoga Springs, in the county of Saratoga and State of New York, and WILLIS W. DOWD, Jr., of North Granville, in the county of Washington and State of New York, have invented a new and Improved Potato-Digger, of which the following is a specification:

The invention consists in the improvement of potato-diggers, as hereinafter described and pointed out in the claim.

Figure 1 is a longitudinal sectional elevation of my improved machine. Fig. 2 is a plan view with a part of the apron for the protection of the carrier broken away to show the apparatus below; and Fig. 3 is a plan view of the scraper.

Similar letters of reference indicate corresponding parts.

A is a rectangular frame, of any approved size and arrangement, mounted on a pair of truck-wheels, B, and having a tongue, c, attached to the front end, in the usual way, for hitching on a team. C is an endless carrier or elevator-frame, pivoted at its upper end on the axis D of a drum, E, which is mounted on the standard F rising up from the frame above the axle. This frame is arranged on the axis D so as to oscillate freely, to allow the lower end to swing up and down. G is the roller at the lower end of the carrier-frame. H is the endless carrier, and I the teeth or fingers arranged on the carrier in rows across it, at suitable distances apart, for taking the potatoes from the scraper and carrying them up so as to deliver them into the hopper. K represents the scraper or shovel, which consists of a straight wide plate of steel extending horizontally between the side pieces or runners L and transversely to the longitudinal direction of the machine, with the front edge sharpened and slanting downward considerably. The rear edge of the scraper has parallel bars M attached to it, or formed on it by slotting the plate, which are for allowing the earth raised up with the potatoes to fall back, while retaining the potatoes to be taken by the fingers of the carrier, which are caused to rise up between these bars. The side pieces L, to which the scraper or shovel is attached at the ends, are extended rearward and up-

ward so that the carrier works between them to receive all the potatoes forced up on the bars M, and the lower edges constitute runners for gaging the scraper and maintaining it in the required position relatively to the carrier. The lower end of the carrier-frame is suspended, by the connecting rods or bars N, from the ends of the arms O of a rock-shaft, P, at the front end of the machine, to which the hand-lever Q, for raising and lowering the carrier and the scraper, is connected. The scraper is also suspended from the said arms O by the connecting-bars R and S, the former being also connected to the lower ends of the rock-levers T, and the latter being connected to the side pieces L, near the top. The scraper is also connected to the upper ends of the rock-levers T by connecting-bars U, which are connected to the sides of the side pieces near their front ends and lower edges.

By this arrangement of apparatus for raising and lowering the scraper and carrier the scraper is raised vertically, or very nearly so, and maintained horizontally, the same as when down in the working position, by the bars S swinging forward and the bars U swinging backward, while the carrier-frame swings on the axis D, so that they come up together compactly, as represented by the dotted lines in Fig. 1. The carrier-drum is operated by a pinion, V, on its shaft, which gears with a wheel, W, on one of the truck-wheels.

The truck-wheels are made large to support the frame high enough to provide sufficient space under it for the raising of the carrier and scraper and holding them to be transported above the ground, so that the evener X, to which the team is hitched, can be suspended below the frame, and yet be high enough to work properly. I therefore propose to so suspend the evener by chains Y, also a draft-bar, Z, either by chains or rods Z', that they can swing forward and back, and I attach the scraper to the bar Z by chains A', so that the draft is applied directly to the scraper and, through it and the suspending devices, to the truck, and this chain-connection, and the mode of suspending the evener and draft-bar, allow of the raising and lowering of the scraper and carrier, and also allow the scraper the freedom for swinging



required while at work. The chains A' may be detached from the draft-bar Z when the scraper is raised, if preferred, and the draft-bar allowed to swing forward to draw by the rods Z', or the connection of the scraper with the evener may be maintained when the scraper is in the elevated position. A hopper, B', with a screen-wire bottom, C', is arranged behind the carrier to receive the potatoes from it and separate the dirt; also to conduct the potatoes to the discharge-spout D', from which a sack or other receptacle may be suspended for being filled. E' represents the apron or hood for the protection of the carrier and the rider, also for supporting the seat F'. It consists of a wide sheet of metal, or

other light thin cover, fastened to the frame at the front end and stopping up and covering over the carrier at its upper end, where it is supported by the bent metal bar fastened to the frame and extending over the carrier.

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

The scraper combined with an evener and draft-bar suspended from the tongue, as and for the purpose described.

HENRY M. DOWD.

WILLIS W. DOWD, JR.

Witnesses:

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O. W. BENNETT.