

(No Model.)

C. W. KATTELL.

POTATO DIGGER.

No. 299,399.

Patented May 27, 1884.

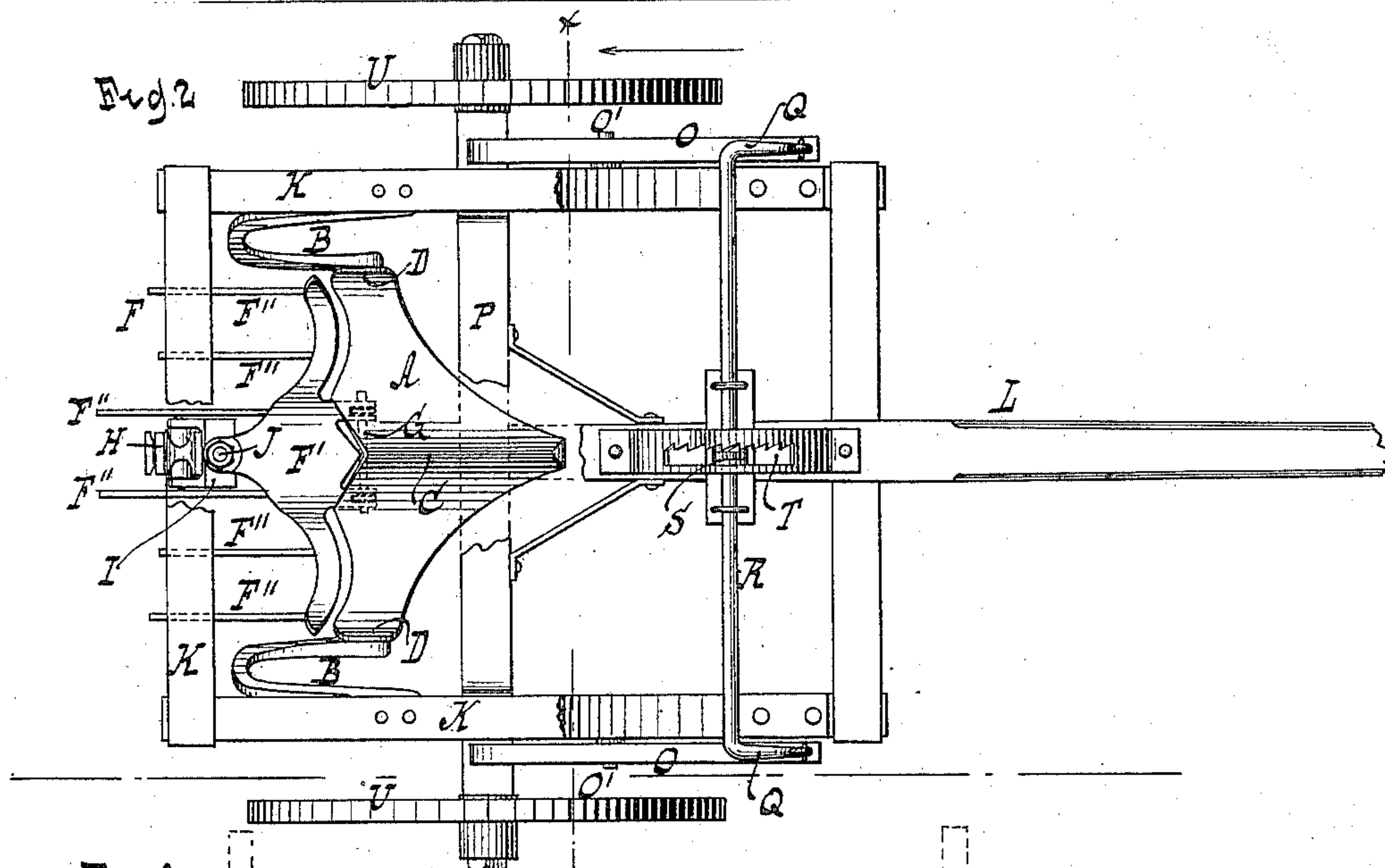
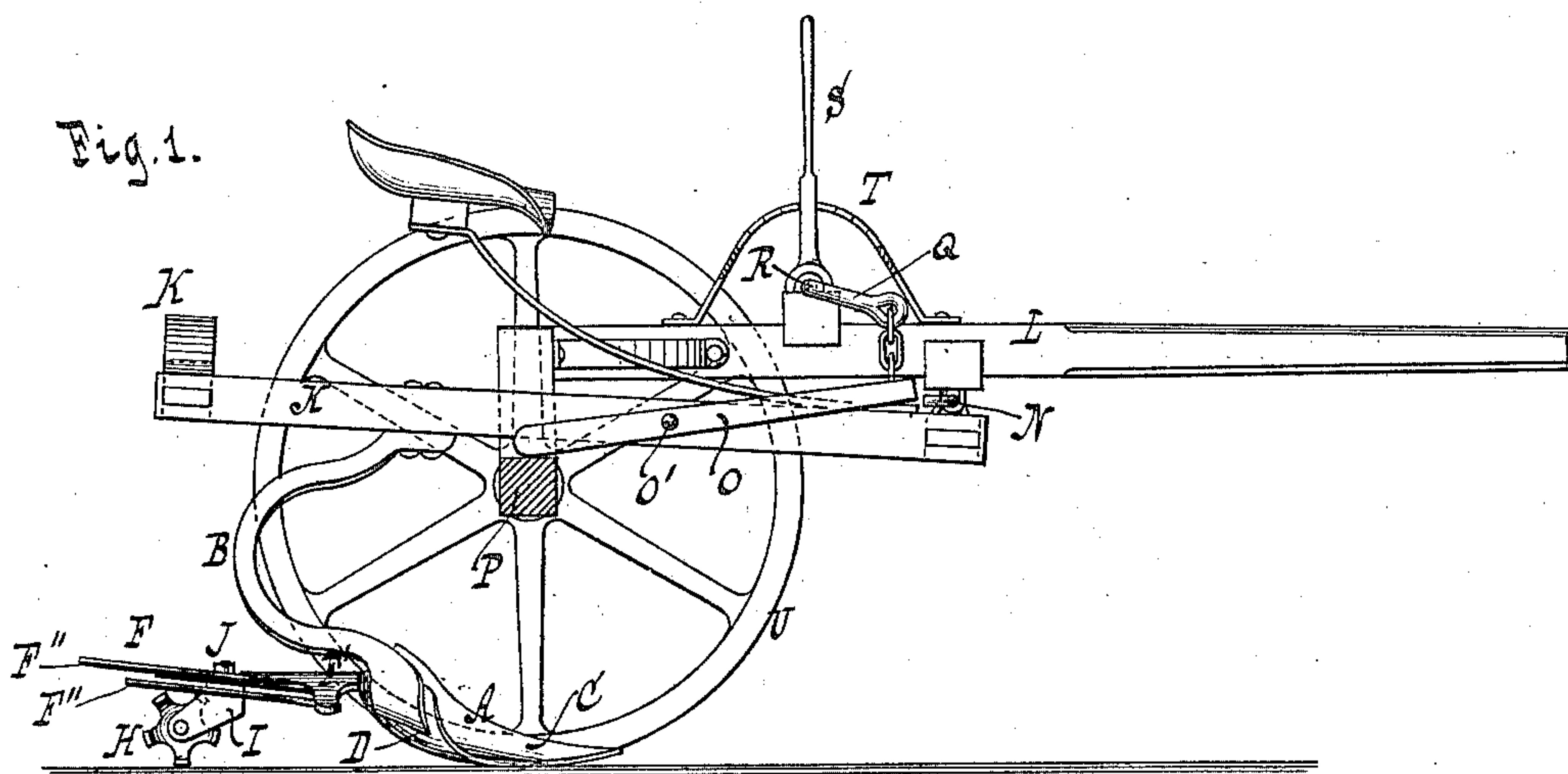
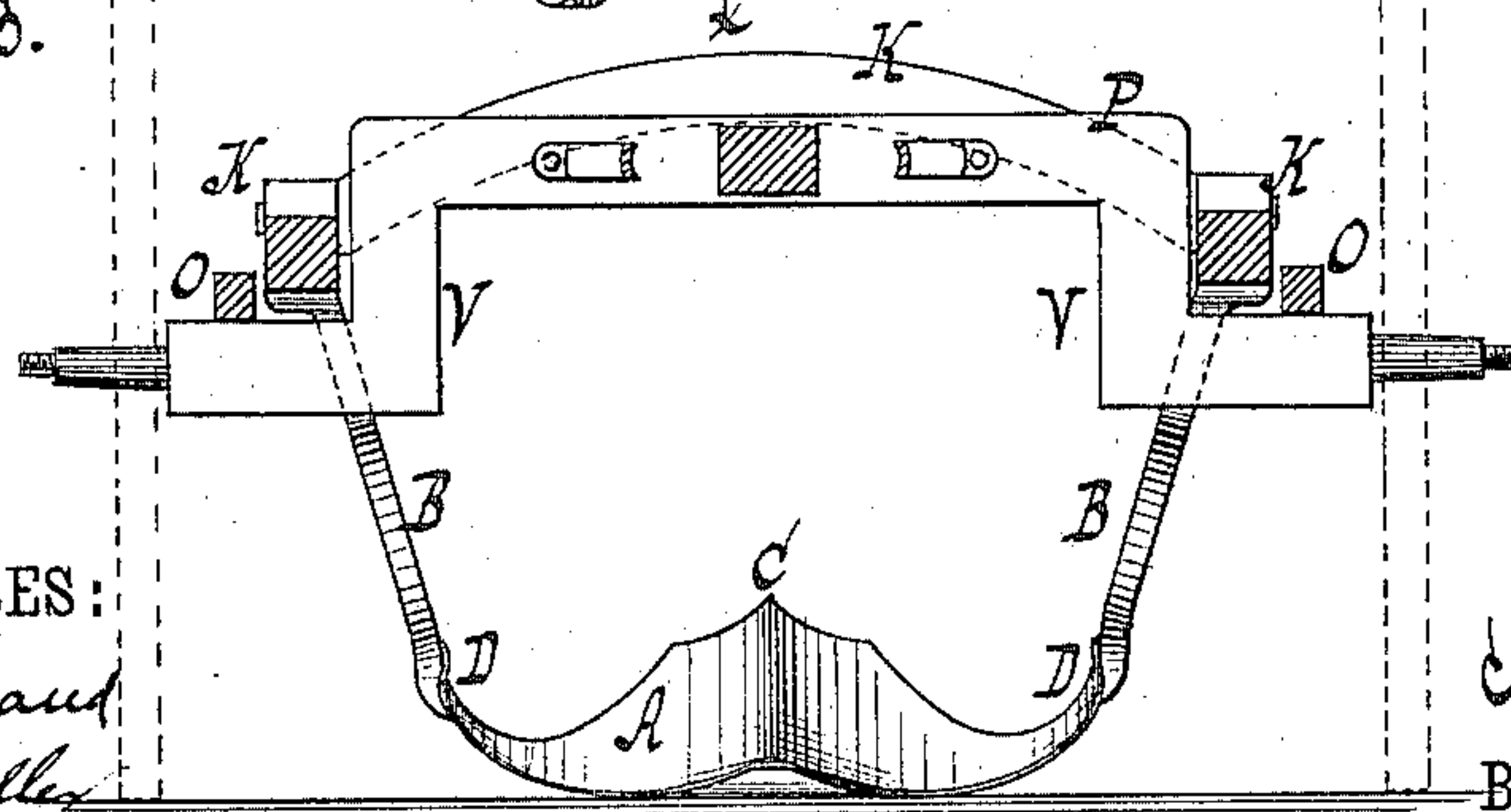


Fig. 3.



WITNESSES:

Otto Hufeland
William Miller

INVENTOR

Charles W. KatteLL

BY

Van Santvoord & Hauff
his ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES W. KATTELL, OF NEW YORK, N. Y.

POTATO-DIGGER.

SPECIFICATION forming part of Letters Patent No. 299,399, dated May 27, 1884.

Application filed January 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. KATTELL, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Potato-Diggers, of which the following is a specification.

My invention relates to the construction and arrangement of the plow, the separating-screen, and the supporting-frame of potato-diggers, the whole being hereinafter fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section of a machine embodying my invention. Fig. 2 is a plan or top view thereof. Fig. 3 is a cross-section on the line *x x*, Fig. 2.

Similar letters indicate similar parts.

The letter A designates the share of the plow, and B B two arms or standards supporting the share. These supporting-arms B B are arranged on the opposite sides of the share, in distinction from the center thereof, and consequently the share is left entirely free in the center, so that the earth, together with the tubers, weeds, &c., lifted by the plow, may pass freely over the share.

The plowshare A is formed with a longitudinal central ridge, C, and with an upward curve, D, on both sides, so that the earth, &c., is thrown toward both sides of the share by the ridge, and then thrown back toward the center by the curvature of the sides, with a tendency to separate the tubers from the earth. The outline of the share A is substantially the usual one, and the ridge C rises in a curved line from the front to the rear edge of the share, as heretofore.

In rear of the plowshare A is located the screen F, for separating the tubers from the earth. This screen is composed of a head, F', and of teeth F'', projecting rearwardly from the head; and in order to insure the passage of the earth from the share onto the screen, the latter is shaped to correspond approximately to the cross-section of the share, it being, moreover, jointed to the share by means of a horizontal pivot, G, in such a manner that in its normal position the screen is on a level with the rear edge of the share. The screen F is supported on the ground by means

of a spur-wheel, H, whence it receives a shaking motion, this wheel being mounted in a stock, I, which is jointed to the screen by a vertical pivot, J, so that the wheel may accommodate itself to the turning of the machine, as at the end of a row. In the example shown, the plow is mounted on a wheeled truck by means of a supporting-frame, K, to which the share-arms B B are connected, which is jointed to the draft-pole L at the forward end by means of a horizontal pivot, N, and to which in turn are jointed two lifting-levers, O, by means of horizontal pivots O', intermediate of the ends of the levers. Said levers O rest on the axle P at one end, and are connected at the opposite end to cranks Q on the ends of a shaft, R, which has its bearings on the draft-pole L, and to which is fixed an arm, S, engaging with a toothed segment, T, in the manner of a pawl, for holding it, together with the crank-shaft and supporting-frame, in the desired position. By adjusting the pawl-arm S in a rearward direction, the crank-shaft R is turned, to lift the forward ends of the levers O, when the latter act on the share-supporting frame K to raise it off from the axle P, and consequently the supporting-frame, together with the plowshare, may be set to any desired horizontal plane by a proper adjustment of the arm. The axle P, which, together with the draft-pole L and wheels U, constitutes the truck, is bent upward at right angles at points just within the sides of the share-supporting frame K, as at V V, for the purpose of increasing the area of clear space beneath the axle, and also to guide the supporting-frame in its up-and-down movement. The plowshare, however, can also be mounted on a plain draft-beam of well-known construction.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a potato-digger, of a wheeled frame, the plowshare A, the supporting-arms B B, the screen composed of the head F', pivoted to the rear of the share and provided with the rearward teeth, F'', and the spur-wheel H, journaled in a stock, I, swiveled directly to the pivoted head of the screen by the vertical pivot J, substantially as and for the purpose described.

2. The combination of the share-supporting

frame, jointed at its forward end to the draft-
pole of a wheeled truck, the lifting-levers
resting on the axle and jointed intermediate
of their ends to the said frame, the crank-shaft
5 having two cranks connected to the lifting-
levers, the pawl-arm fixed to the crank-shaft,
and the toothed segment engaging with the
pawl-arm, substantially as described.

3. The combination of the share-supporting
10 frame jointed to the draft-pole and free to be
raised from off the axle, the truck-axle bent
upward at right angles within the sides of the

frame, to serve as a guide for the latter in its
vertical movement, and the levers resting on
the axle and jointed to said frame, substan- 15
tially as described.

In testimony whereof I have hereunto set
my hand and seal in the presence of two sub-
scribing witnesses.

CHAS. W. KATTELL. [L. S.]

Witnesses:

GEORGE E. WESTERFIELD,

CHAS. WAHLERS.