(No Model.) 3 Sheets—Sheet 1.

A. J. AGEE & A. FRASER.

POTATO PLANTER.

No. 316,217. Patented Apr. 21, 1885.

Fig. 1.

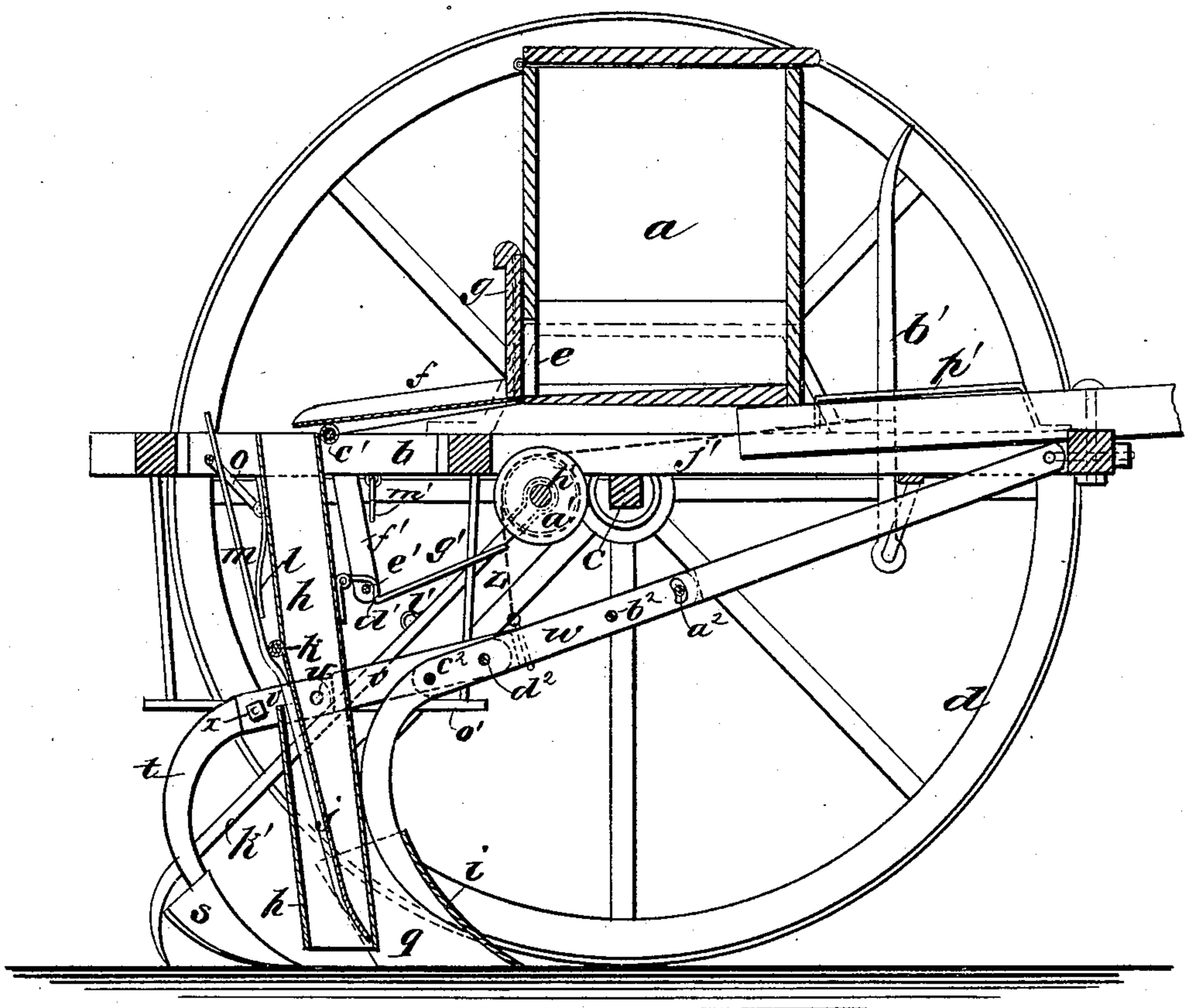

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Fig. 2.

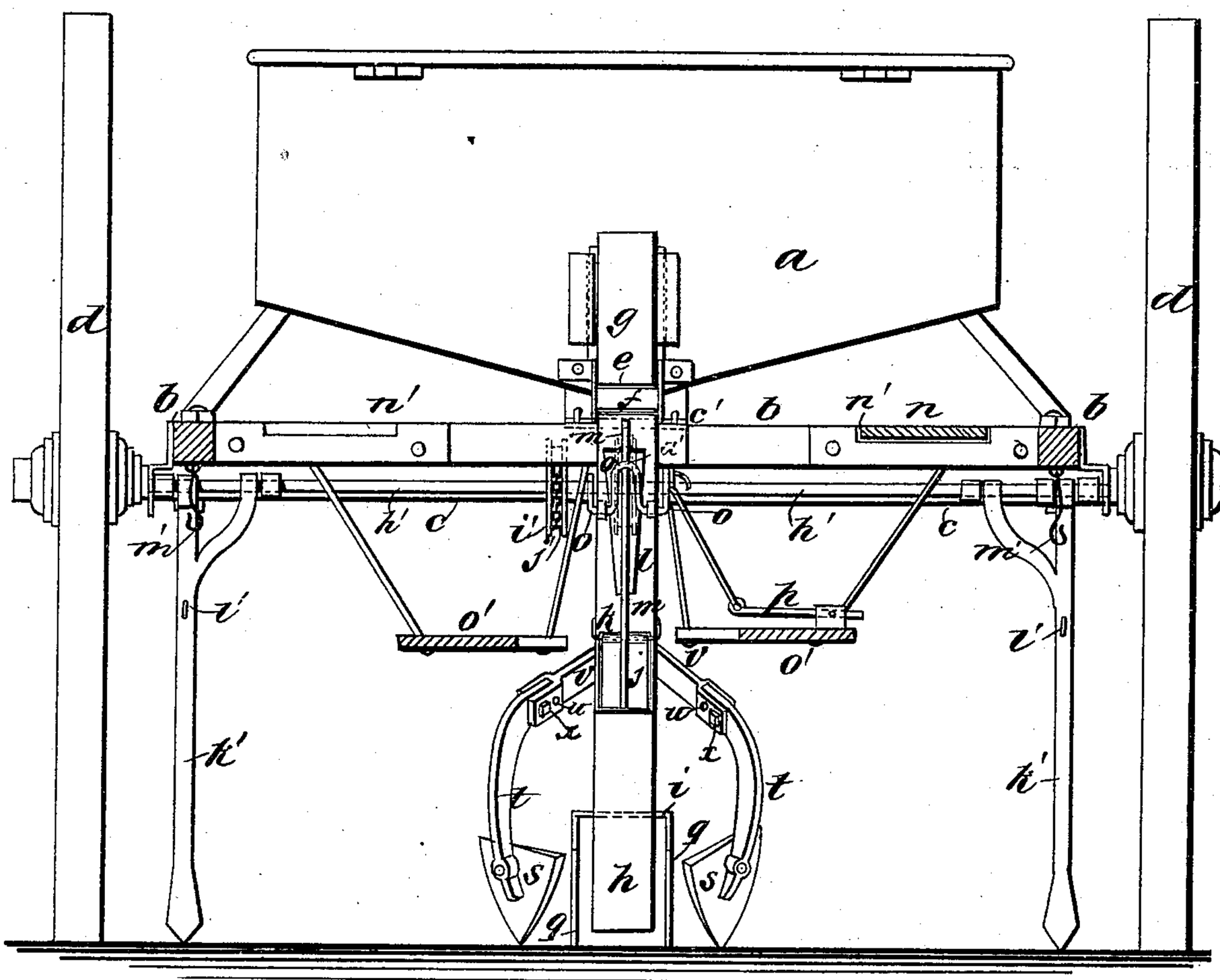

Fig. 3.

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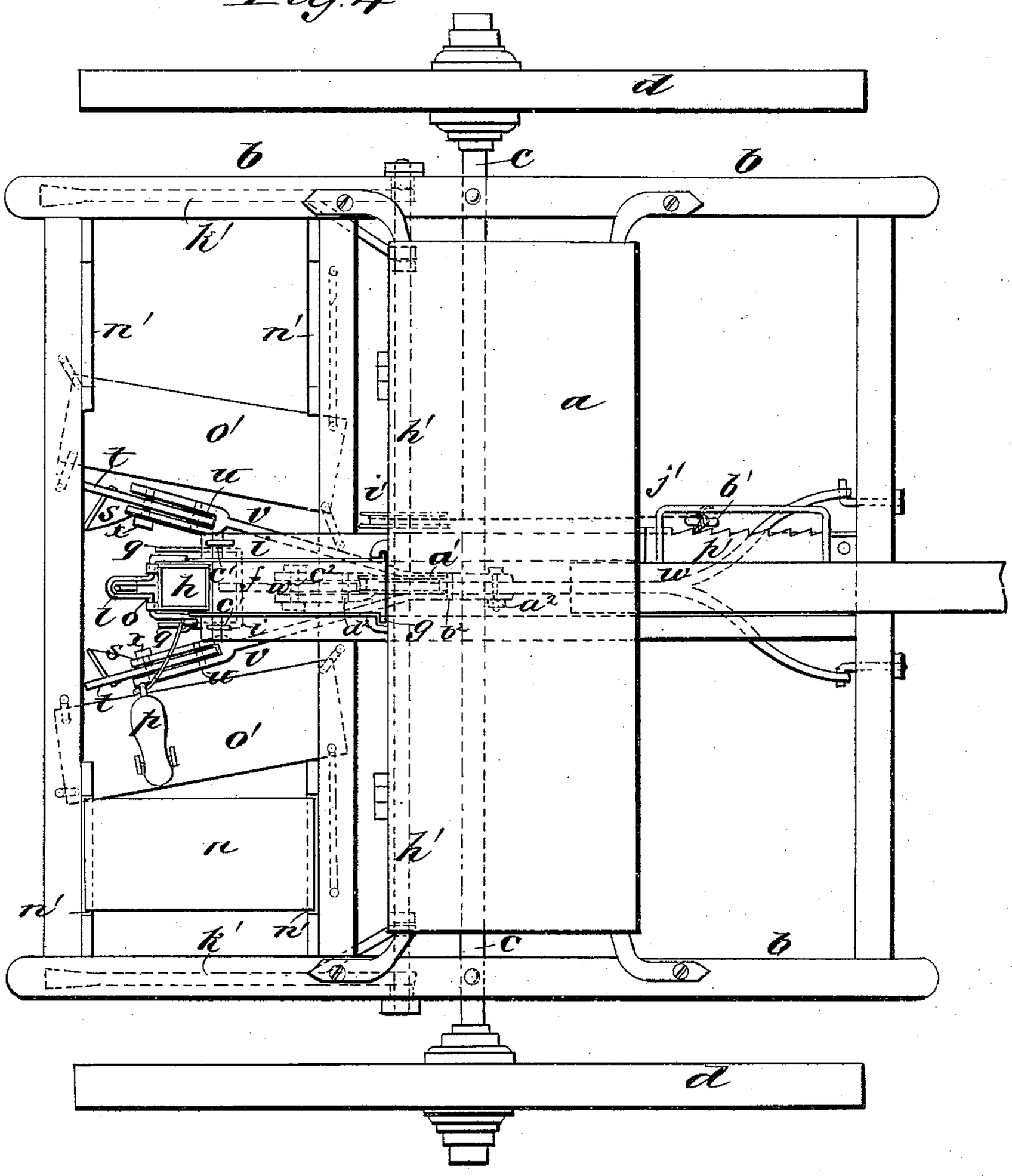
Fig. 4



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UNITED STATES PATENT OFFICE.

ALVA J. AGEE AND ALEX FRASER, OF CHESHIRE, OHIO.

POTATO-PLANTER.

SPECIFICATION forming part of Letters Patent No. 316,217, dated April 21, 1885.

Application filed April 15, 1884. (No model.)

To all whom it may concern:

Be it known that we, ALVA J. AGEE and ALEX FRASER, both of Cheshire, in the county of Gallia and State of Ohio, have invented a new and Improved Potato-Planter, of which the following is a full, clear, and exact description.

Our invention relates to improvements in potato-planters; and it consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a central longitudinal sectional elevation of our improved potato-planting machine. Fig. 2 is a transverse section of the frame, seat, and foot-rests, and rear elevation of the rest of the machine. Fig. 3 is a perspective view of the hoe for opening the furrow in which the potatoes are to be planted, and Fig. 4 is a plan view of the machine.

We mount a seed-box, *a*, for carrying the potatoes to be planted, on a suitable sulky-frame, *b*, over the axle *c*, carried by a pair of wheels, *d*, and provide an opening, *e*, through the rear side for the discharge of the potatoes, with a slightly-descending chute, *f*, with a gate, *g*, to regulate the quantity. At the end of the chute we arrange a vertical, or nearly vertical, dropping-tube, *h*, through which the potatoes are to be discharged singly into the furrow behind the furrow-opening hoe *i* at regular intervals. Inside of the lower portion of this tube *h*, and so as to hold the potatoes just within the lower end of said tube at the level of the surface of the ground, or thereabout, we arrange a gate, *j*, to close at its lower end against the front side of the tube for closing the passage by swinging forward on the pivot *k*, on which the gate is suspended, about halfway up the rear side of the tube, with a spring, *l*, bearing against the lever-arm *m* of the gate, extending out of the tube and up to the level of the frame *b*, or thereabout, to be used to open the gate by hand or foot of an attendant sitting on a seat, *n*.

The crank *o* and foot-treadle *p* are provided for the use of the attendant when he may prefer to use his foot to open the gate *j*; but the lever *m* may be worked independently of the crank and treadle by hand, when desired. The attendant also regulates the discharge of the potatoes from the chute *f* into the tube *h* by one hand, so that only one potato will rest on the gate *j* at a time.

The hoe *i* is constructed with a wide flange, *q*, turned backward from each edge, and the tube *h* is suspended between these flanges sufficiently near to the hoe to insure the reaching of the bottom of the furrow by the potatoes before the flanges *q* allow the earth to fall in, thus making certain of effectually covering the potatoes.

We arrange the covering-hoes *s* a suitable distance back of the dropping-tube, and also to the sides of it, for following and throwing the ridges of the furrow back with it for covering the potatoes. These hoes have their stocks *t* pivoted at *x* to branches *v* of the stock *w* of the furrow-opening plow with a break-pin at *u*, and the branches *v* are secured to the stock *w* by a bolt, a^2, fitted in a slot of stock *w*, and also by a pin, d^2, behind the slot, to allow the covering-hoes to be shifted up or down to regulate the depth of the hoes *s* and the quantity of earth covering the potatoes. The stock *w* is preferably made in two parts jointed on a pivot-bolt, c^2, and having a break-pin, d^2. (See Figs. 1 and 4.)

The beam *w* reaches to the forward cross-beam of the frame *b*, to which it is jointed, and a chain, *z*, connects it to the pulley *a'* on the shaft *h'*, whereon there is another pulley, *i'*, having a chain, *j'*, extending forward therefrom to the lever *b'*, by which the depth of plow *i* may be regulated, and all the plows may be suspended above ground, when required, by setting the lever with a pawl and notched bar, *p'*, or equivalent device, such as are usually employed with a setting-lever.

The dropping-tube *h* is suspended from the frame by the pivot-joint *c'*, to allow it to swing backward for passing over obstructions without damage, and said tube is connected by a catch-hook, *d'*, with a breaking-pin, *e'*, of wood or other suitable material carried by the pin-supporting arms *f'*, extending downward from the frame *b* in front of the tube. The catch-hook *d'* has an arm, *g'*, extending forward to be raised by the attendant off the pin *e'*, to release the tube *h* and allow it to swing clear of

the obstructions at such times without breaking the pin.

On the shaft h' we provide a marker, k', each side of the planting mechanism, for marking the next row in advance, said markers having an eye, l', for suspending the one that runs over the planted rows from a hook, m', on the frame b. We arrange seat-supporting rests n', and also foot-rests o' for the dropper, each side of the dropping mechanism, for enabling the dropper to shift his position from time to time for comfort. The driver will have a seat on the top of the seed-box a.

It will be seen that our machine is of simple contrivance, but at the same time is well calculated to do excellent work and to enable the planting to be done at a rapid rate.

It is to be understood that the dropper is to gage his actions in opening the gate j with any approved check device indicating the times for him to act.

The opening of the gate may be effected automatically; but to avoid complication of appliances and the care required for adjusting the same to the check-rows at each end of the range, we prefer to have the gate worked by an attendant, as one is necessary to attend to the feeding of the potatoes singly into the tube h.

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

1. In a potato-planter, the combination, with the dropping-tube h, of the gate j, pivoted at k, and provided with the handle m, projecting up through the said tube, the spring l, the crank o, and treadle p, substantially as herein shown and described.

2. In a potato-planter, the combination, with the seed-box a, having the opening e, closed by the gate g, of the tube h, provided with the pivoted valve j, and the inclined chute f, leading from the opening of the seed-box to the dropping-tube, substantially as herein shown and described.

3. In a potato-planter, the combination, with the pivoted stocks w, carrying the furrow-opening hoes i, of the branches v, pivoted to the stocks w at a^2, and the stocks t, carrying the covering-hoes s, pivoted to the branches v, substantially as herein shown and described.

4. In a potato-planter, the combination, with the seed-box a, the chute f, and dropping-tube h, provided with the valve j, of the furrow-opening hoes i, secured to the pivoted branched stocks w, and the covering-hoes s, secured to the stocks t, secured to the branches of the stocks w, substantially as herein shown and described.

5. The dropping-tube h, pivoted to the frame at c', and hooked to a pin, e', by a hook, d', having an arm, g', to be unhooked by the attendant when the hoes are elevated, substantially as described.

ALVA J. AGEE.
ALEX FRASER.

Witnesses:
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NEWEL KING.