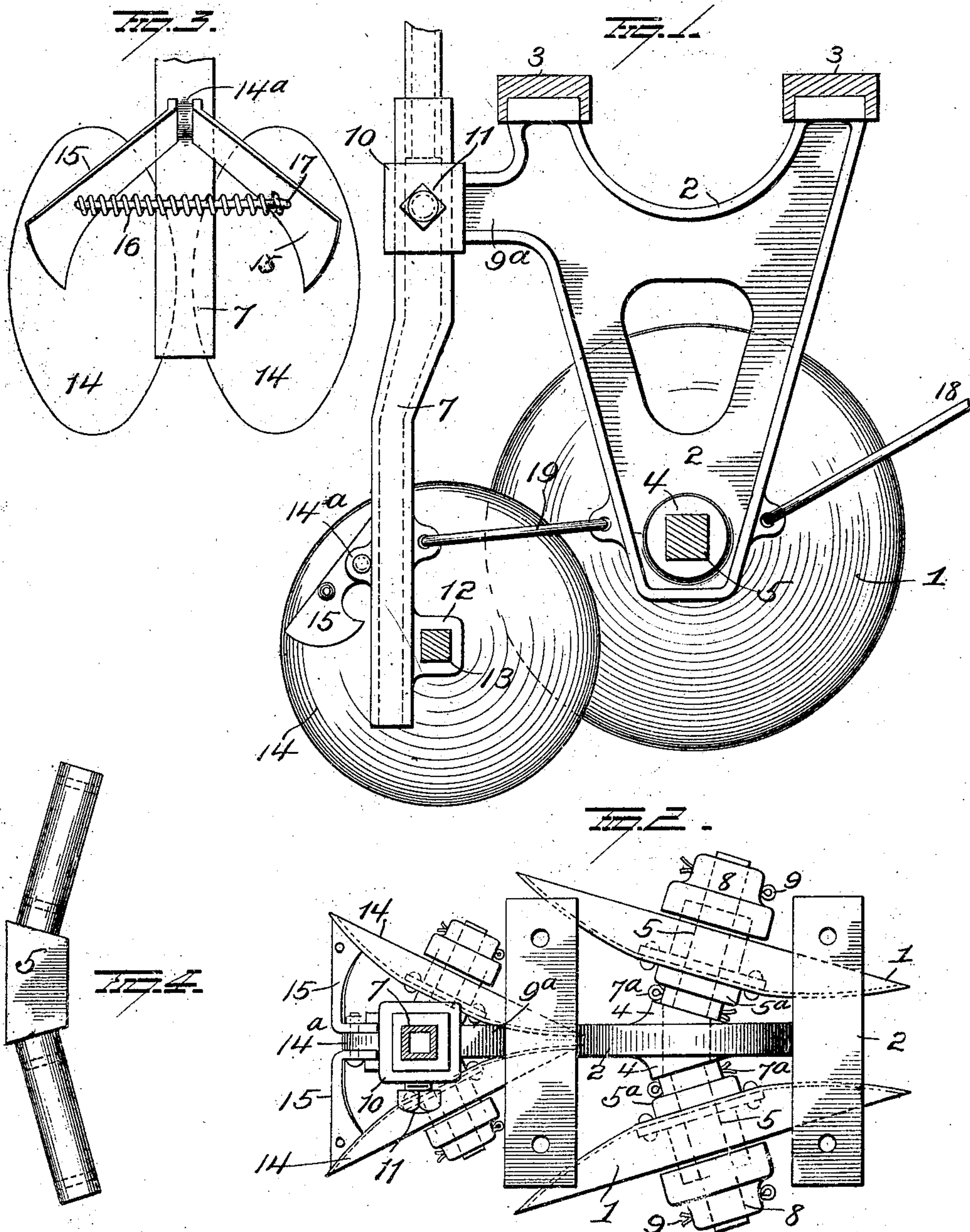


No. 877,344.

PATENTED JAN. 21, 1908.

I. J. KAAR.
CORN AND POTATO PLANTER.
APPLICATION FILED MAY 4, 1907.



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IRA JAMES KAAR, OF HARELOCK, NEBRASKA.

CORN AND POTATO PLANTER.

No. 877,344.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed May 4, 1907. Serial No. 371,898.

To all whom it may concern:

Be it known that I, IRA JAMES KAAR, of Harelock, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Corn and Potato Planters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in corn and potato planters, and is designed more particularly as an improvement on the construction disclosed in my Patent No. 760,872, granted to me May 24, 1904, and it consists in the parts and combinations of parts and in the details of construction as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of my improvement. Fig. 2 is a plan view of same. Fig. 3 is a view in rear elevation of the auxiliary disks and Fig. 4 is a view in elevation of one of the axles.

In my Patent 760,872 the convex furrow opening disks are journaled in bars which are secured to the underside of channel irons extending from side to side of the machine and constituting a part of a frame carried by the tongue of the planter, the rear end of this frame being pivotally connected with a frame or truck mounted on ground or covering wheels. These bars which carry the concavo-convex furrow opening disks, are located to the outside of the disks, the latter resting within the space formed by the divergent arms.

In this invention I support the main concavo-convex furrow opening disks 1 by a malleable casting 2 depending from the channel irons 3 which bear the same relations to the planter as the channel irons of the patented planter above referred to. Each casting 2, one on each side of the planter, is approximately V-shaped in side elevation and is provided adjacent to its lower end with a bearing 4 the side faces of which converge forwardly at acute angles to the side of the casting 2 so as to permit the disks to be placed at their proper working angles and well up to the casting or frame 2. The bearing 4 is provided with an angular opening for the reception of the axle 5 the central portion of which is angular in elevation and also in

cross-section, while its spindles are cylindrical and project forwardly and outwardly from the central portion of the axle and receive and support the disks 1 which latter operate to open the furrow in advance of the seed dropping boot or tube 7. The disks 1 are fixed in position as to lateral spacing by the cup shaped washers 5^a which bear at one end against the shoulders on the axle, and at their outer ends against the disks. The concave side of these washers overlap and cover the adjacent side of bearing or hub of the disk and protect the same from the dirt. These washers hold the axle in a central position in casting 2, and are locked against rotation and longitudinal movement on the axle, by the cotter pins 7^a.

The disks 1 are held in place on the axle by cup shaped washers 8 and pins 9.

Projecting rearwardly from the casting or frame 2 is the arm 9^a, having the socket 10 through which the seed tube 7 passes, the seed tube being preferably angular in cross-section as shown in Fig. 2, so as to prevent it from turning, and is held in place and vertically adjusted by the set screw 11.

Projecting forwardly from the front face of the seed tube is the bearing 12 having an angular opening through same for the passage of the axle 13 carrying the auxiliary disks 14; the axle being substantially of the same construction as the main axle, and the disks flat instead of concavo-convex. The disks are secured to the axle by means similar to those employed for holding the main disks in place, and may be separated or brought closer together by means of cup shaped washers, of varying thicknesses. These auxiliary disks are smaller than the main disks and follow in the furrow of main disks and operate to open up and deepen the furrow immediately in advance of the exit end of the tube 7, so that the loose earth as it falls back into the furrow in rear of the auxiliary disks will cover the seed, the covering or burying of the seed being assisted by concave rimmed ground wheels similar to those shown in my patent above referred to.

Pivotally mounted on a lug 14^a on the rear face of tube 7 are the scrapers 15 which latter are yieldingly held in contact with the plane faces of the disks by the spring 16 mounted on the rod 17, one end of the latter being secured to one scraper, with its opposite end passing through a hole in the other scraper.

By this arrangement the scrapers bear with a yielding pressure sufficient to dislodge and clear the disks of any adhering dirt.

Secured to the front of the frame or casting 2, near the lower end of the latter is the draft rod 18, which latter is attached at its front end to the frame of the machine, and connecting the frame or casting 2 and seed tube 7 near the lower end of the latter is the draft rod 19, the latter being pivotally secured at its ends so as to permit of vertical adjustment of the seed tube.

It is evident that changes in the construction and relative arrangement of the several parts might be made without avoiding my invention and hence I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but,—

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:

1. In a planter the combination with a main frame and a depending frame, the latter provided with a rearwardly projecting arm having a socketed portion at its free end, of a seed tube vertically adjustable through said socketed portion, a brace connecting said seed tube with the lower portion of the depending frame, and disks mounted at the lower portion of said depending frame.

2. In a planter, the combination with a main frame and a frame depending therefrom, of an axle carried by the depending frame, disks on said axle at respective sides of the depending frame, a seed tube connected with the upper portion of the depending frame, a connection between the lower portion of said seed tube and the lower portion of the depending frame, and means carried by

the lower portion of the seed tube for cutting the furrow.

3. In a planter, the combination of a pair of main disks, a pair of auxiliary disks in rear of the main disks, a seed tube discharging in a plane between the auxiliary disks and yielding scrapers carried by the seed tube.

4. In a planter, the combination with a depending frame, of two main disks supported at the lower portion of said depending frame, a seed tube in rear of the main disks, connections between the upper and lower portions of the depending frame and the seed tube, and auxiliary disks mounted on the seed tube and following in the furrow of the main disks.

5. In a planter, the combination of two main disks, a seed tube in rear of the main disks, auxiliary disks mounted on the seed tube and following in the furrow of the main disks, and yielding scrapers also carried by said tube and bearing against the adjacent faces of the auxiliary disks.

6. The combination with a depending frame, an axle having an angular central portion and cylindrical ends mounted in said frame, the spindles of said axle projecting outwardly and forwardly from the central angular portion, main disks on said spindles, a seed tube in rear of the disks and carrying auxiliary disks mounted on an axle similar to the axle of the main disks, and a brace connecting the depending frame and seed tube.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

IRA JAMES KAAR.

Witnesses:

M. L. EASTERDAY,
H. F. BISHOP.