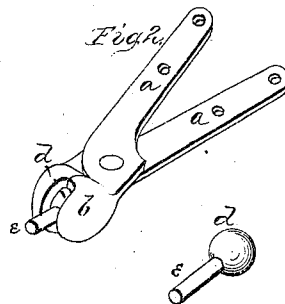
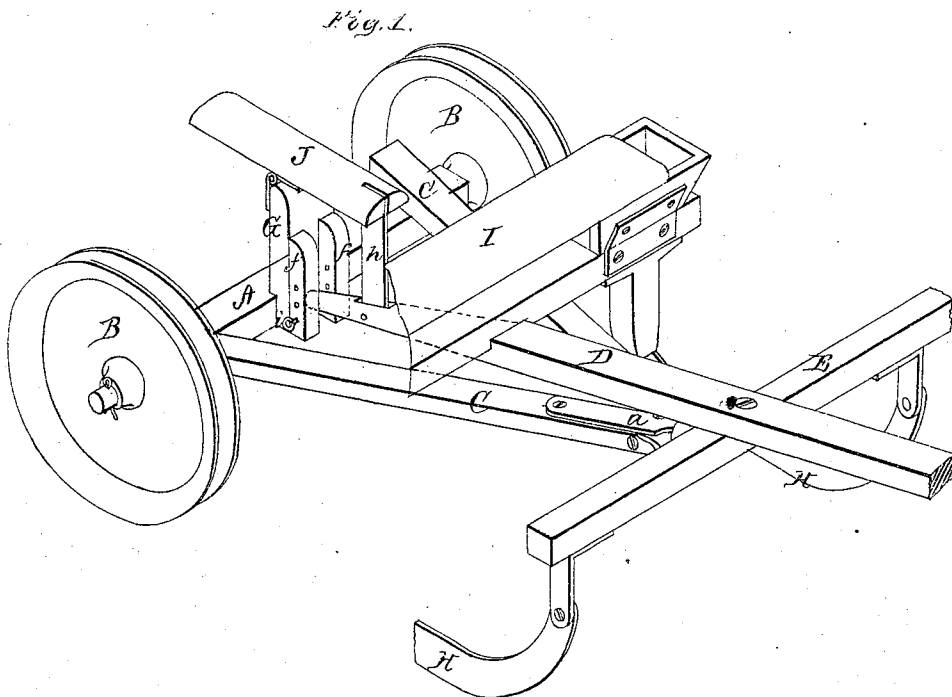


J. D. SMITH.
Corn-Planters.

No. 136,341.

Patented Feb. 25, 1873.



Witnesses
John W. Ellis.
Wm. H. Ellis

Inventor
Joseph D. Smith
Per
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Attys.

UNITED STATES PATENT OFFICE.

JOSEPH D. SMITH, OF MUSKEGON, MICHIGAN.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 136,341, dated February 25, 1873.

To all whom it may concern:

Be it known that I, JOSEPH D. SMITH, of Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Corn-Planters; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of the frame of a corn-planter, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my entire corn-planter, and Fig. 2 shows a ball-and-socket joint used in the same.

A represents the axle-tree, with a wheel, B, on each end. On the axle-tree A are secured two bars, C C, which are placed in an inclined position, so that their front ends will meet, and are connected together by means of plates *a a*. These plates form at their front or outer ends a socket, *b*, in which is placed a ball, *d*, the stem *e* of which is firmly secured in a cross-bar, E, and to this cross-bar the tongue D is attached, thus forming a ball-and-socket or universal joint between the tongue and the frame of the machine. The tongue D extends far enough toward the rear that its extreme end will be between two guides, *f f*, on the front side of a standard, G, which is secured on the axle-tree A. The rear end of the tongue is supported by a pin, *i*, which passes

through the guides *f f*, and which may be raised and lowered at will for the purpose of regulating the depth at which the runners are to work. The runners H H are attached to the ends of the cross-bar E in any of the known and usual ways, and their rear ends attached to conductors fastened on the under side of the dropper or corn box I, said box being located upon and firmly secured to the tongue D. J represents the driver's seat, which is hinged to the upper end of the standard G, and its front end, by an adjustable bar or rod, *h*, connected to the tongue.

The ball-and-socket joint *b d* allows the machine to accommodate itself to the unevenness of the ground, and the rear end of the tongue working between the guides *f f*, keeps it straight in line with the wheels.

By means of the hinged seat J, the runners may easily be raised out of the ground at the will of the driver.

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

In combination with a ball-and-socket or universal joint, for the purposes described, vertical guides attached to the axle, or some attachment of the axle of the wheel-frame, between which the rear end of the tongue will work, and a movable pin passing through said guides to support that end of the tongue, all substantially as herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

JOSEPH D. SMITH.

Witnesses:

JOSIAH DRAKE,
WILLIAM LEE.