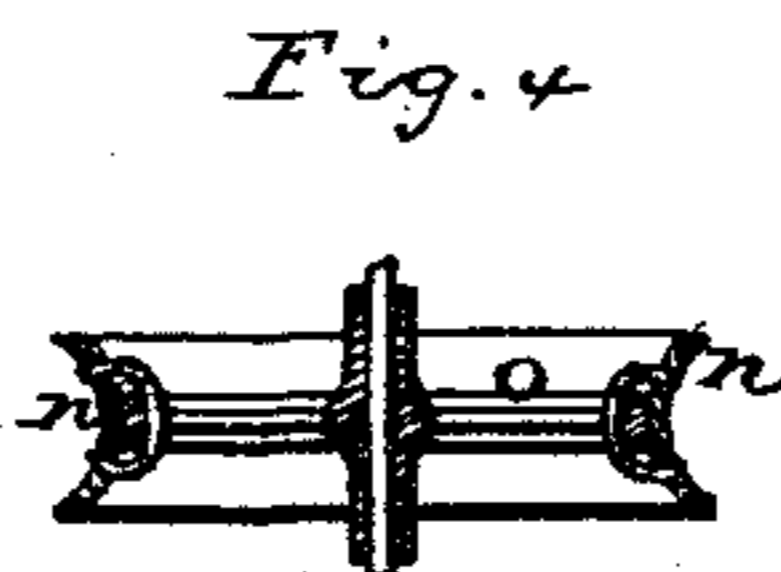
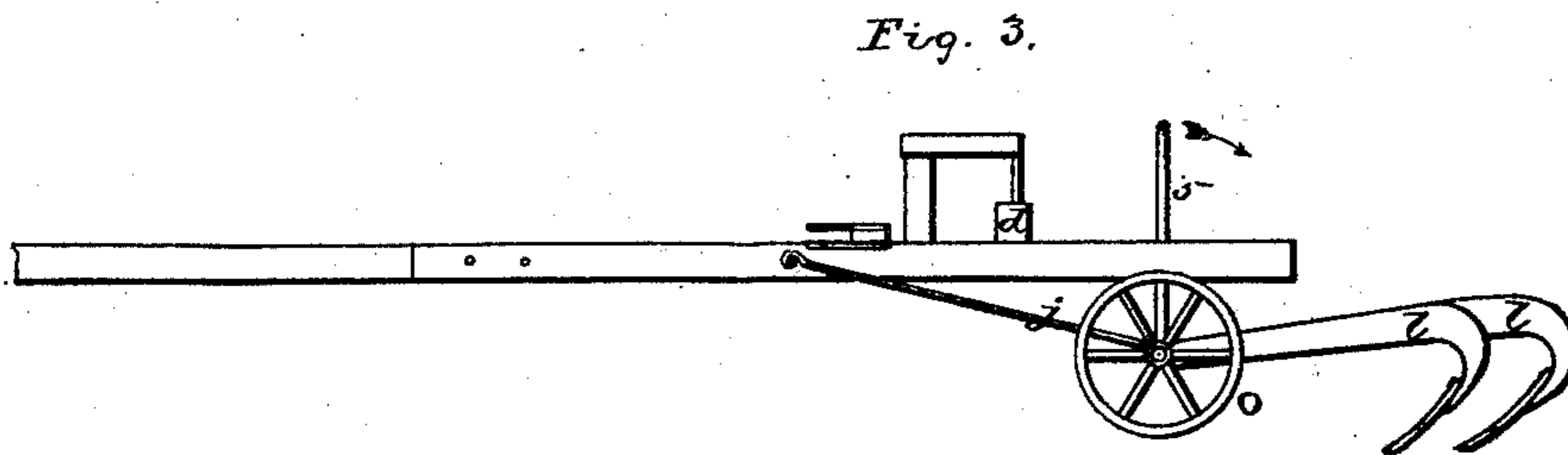
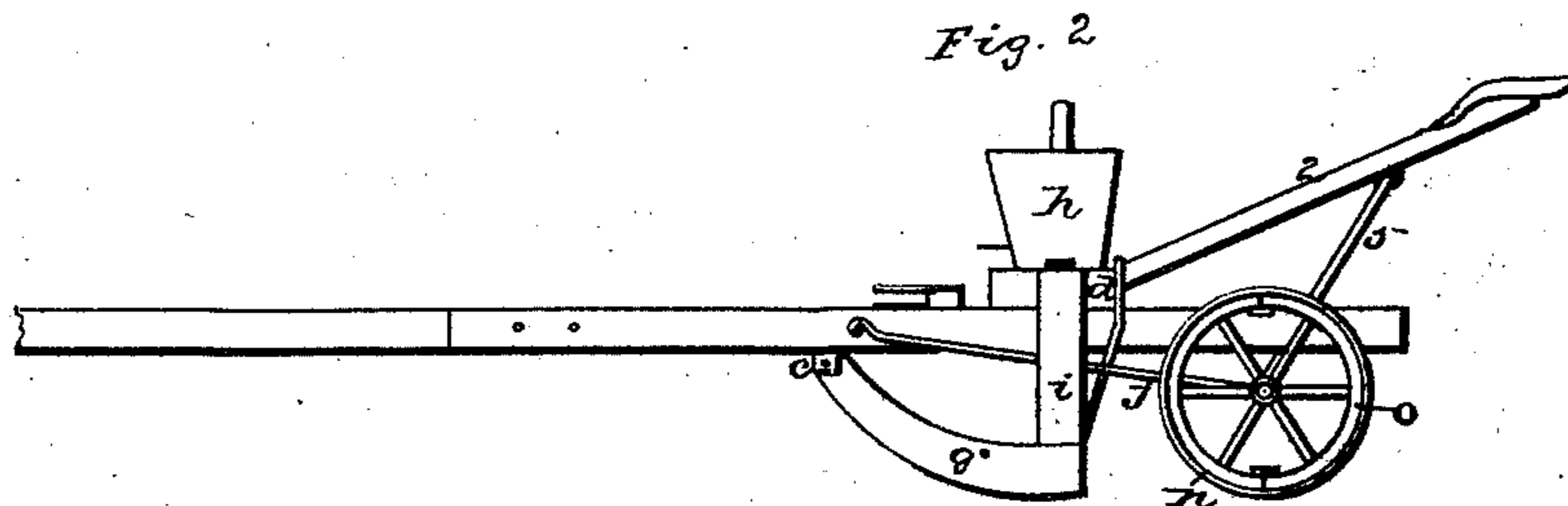
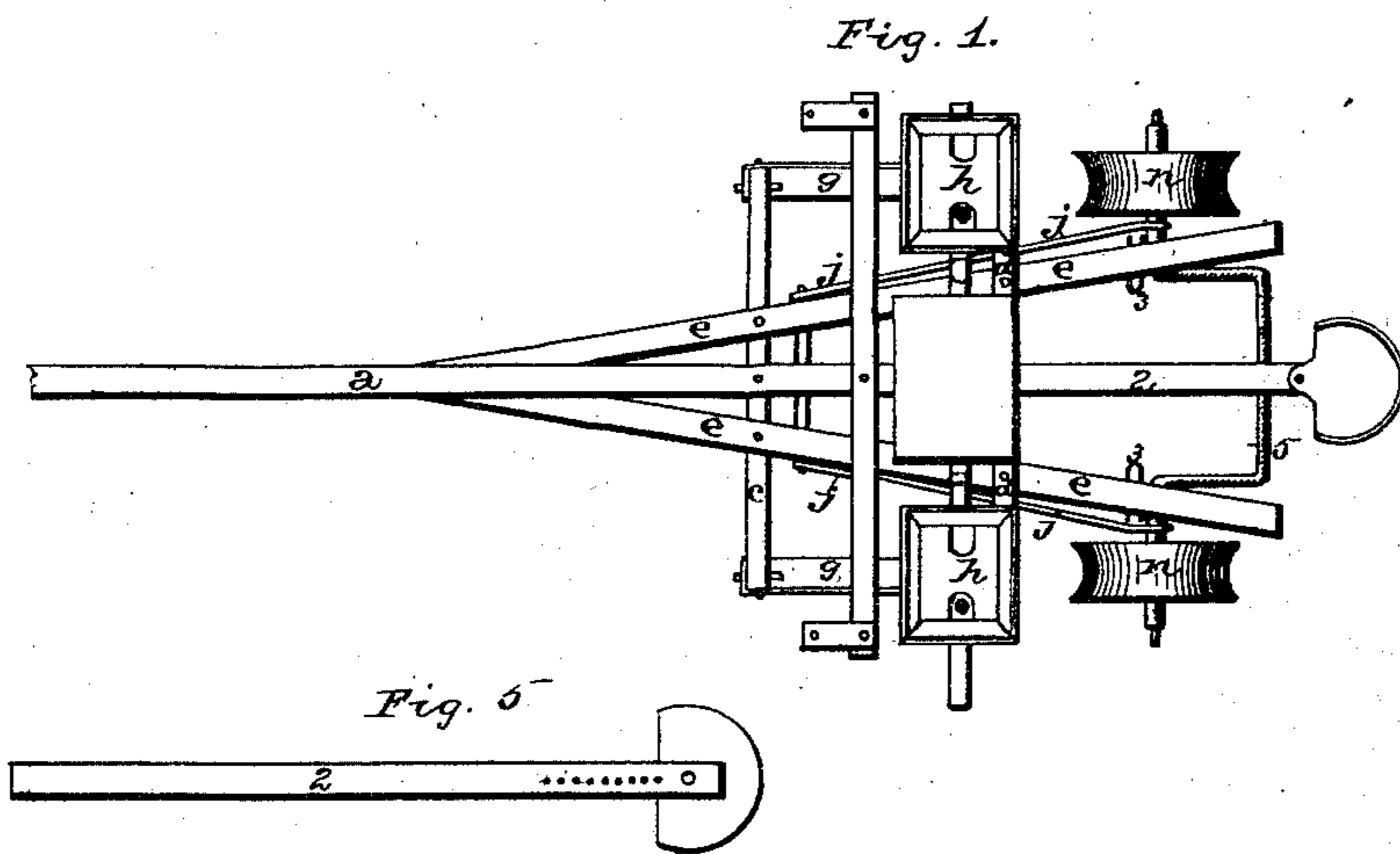


E. M. WALKER.
Combined Corn Planters and Cultivators.
 No. 156,190. Patented Oct. 20, 1874.



WITNESSES.
J. W. Garner,
W. W. J. Murphy

INVENTOR.
Elias M. Walker
per
F. A. Lehmann, Atty.

UNITED STATES PATENT OFFICE.

ELIAS M. WALKER, OF GALLATIN, MISSOURI.

IMPROVEMENT IN COMBINED CORN-PLANTERS AND CULTIVATORS.

Specification forming part of Letters Patent No. **156,190**, dated October 20, 1874; application filed July 3, 1874.

To all whom it may concern:

Be it known that I, ELIAS M. WALKER, of Gallatin, Daviess county, Missouri, have invented certain Improvements in the Construction of Corn-Planters with Cultivating Attachments, or, otherwise stated, Combined Corn-Planters and Cultivators, of which the following is a specification:

My invention relates to an improvement in combined corn-planters and cultivators; and it consists in the arrangement and combination of devices, which will be more fully described hereafter, whereby certain parts can be removed and a corn-planter converted into a walking cultivator.

The accompanying drawings represent my invention.

a represents the tongue, which is secured to the two cross-pieces *c d*. Fastened to each side of this tongue and extending diagonally backward are the two hounds *e*, which should be of sufficient length to extend back a short distance beyond the wheels. Secured to the two cross-bars *c d* are the runners *g*, seed-boxes *h*, and seed-tubes *i*, which parts are arranged and constructed in the usual manner, but instead of being permanently secured in position they are made detachable, so that they can be readily removed, and the frame used for cultivating purposes alone. Fastened to each of the hounds by means of a bolt, which has a slight lateral play just in front of the double-tree, are the rods *j*, which extend backward and are secured to the spindles placed upon the ends of the axle 5. This axle is of the usual bent form used in walking-cultivators, and is made to extend up between the rear ends of the hounds, and is secured to the under side of the bar 2, on which the driver's seat is placed, by a suitable staple or other device, and upon which the rear end of the bar rests. By changing the staple forward or back in the series of holes made in the under side of this bar the seat can be raised or lowered at will. While the driver

is upon this seat by bearing down with his feet upon the ends of the hounds he is enabled to force the runners into the earth, so as to open the furrows, or by bearing down upon the seat alone he can raise up the front end of the machine, so that the runners will not penetrate so far into the earth, or he can lift them entirely above it, if so desired, as the machine is moved to and from the field. When it is desired to use the machine for cultivating purposes alone the runners and seed-boxes are removed, and the axle is then moved forward in between the runners and secured in a vertical position by means of staples 3, and the plows *l* are then placed upon the spindles in the usual manner, so as to give them a free and universal motion.

While using the machine as a cultivator I employ ordinary wheels, *o*, but while using it as a corn-planter I place upon the rims of these wheels the broad concave tires *n*, which I secure to the wheels by means of counter-sunk bolts or other devices, whereby I convert the ordinary wheels into covering-wheels, such as are used in all corn-planters.

Having thus described my invention, I claim—

1. In a combined planter and cultivator frame, the combination of the tongue *a*, hounds *e*, rods *j*, and axle 5, the axle being attached to the frame by means of the rods *j*, and adapted to be secured in an upright position between the hounds or used in an inclined position to support the driver's seat, substantially as set forth.

2. The combination of the tongue *a*, hounds *e*, loose swinging arched axle 5, and seat-bar 2, having a series of holes or catches, whereby the seat can be attached to the axle and supported in any desired position, as specified.

ELIAS M. WALKER.

Witnesses:

M. P. PRYOR,
O. H. MCGEE.