(No Model.)

C. C. CARTER.

WHEAT SOWING MACHINE.

No. 284,376. Patented Sept. 4, 1883.

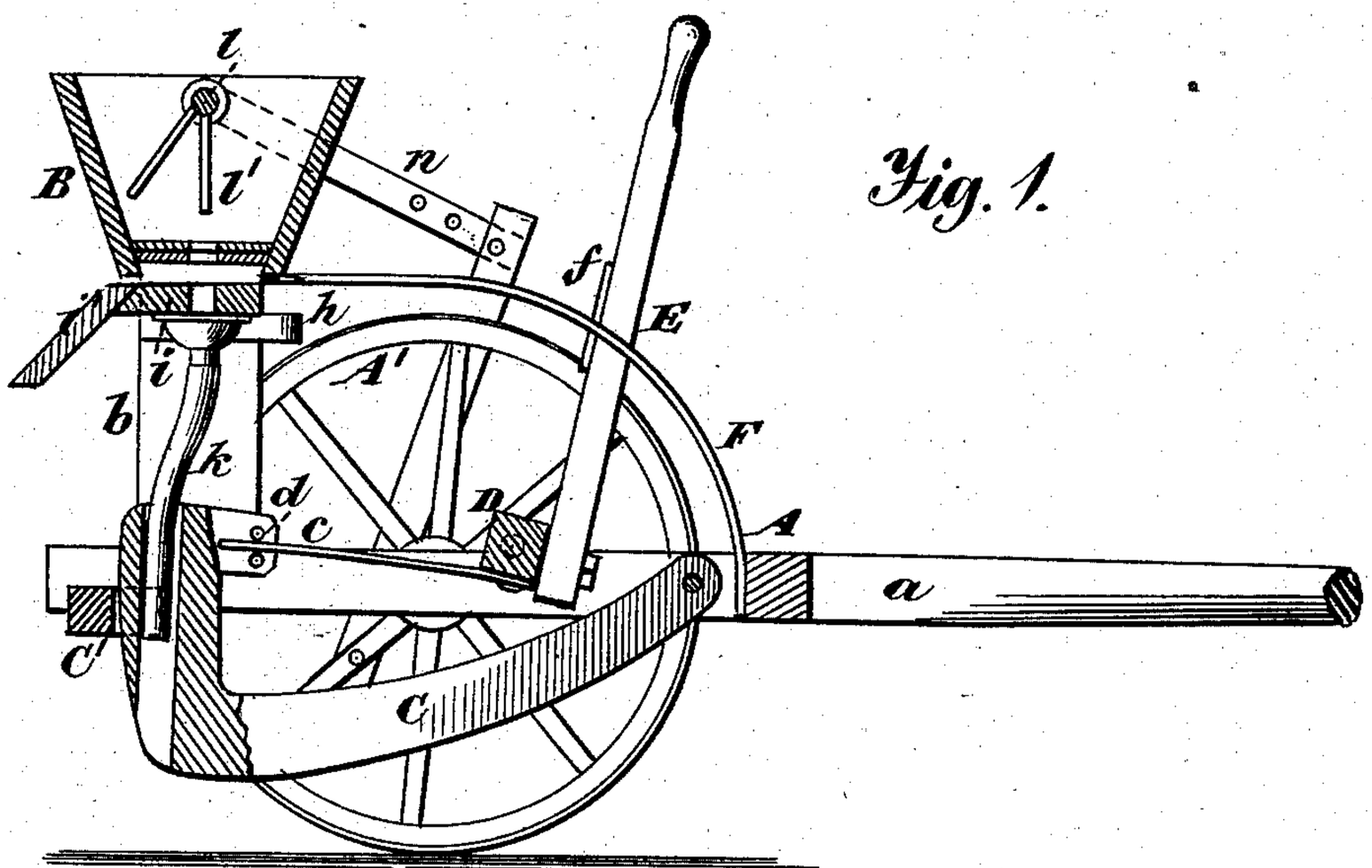

Fig. 1.

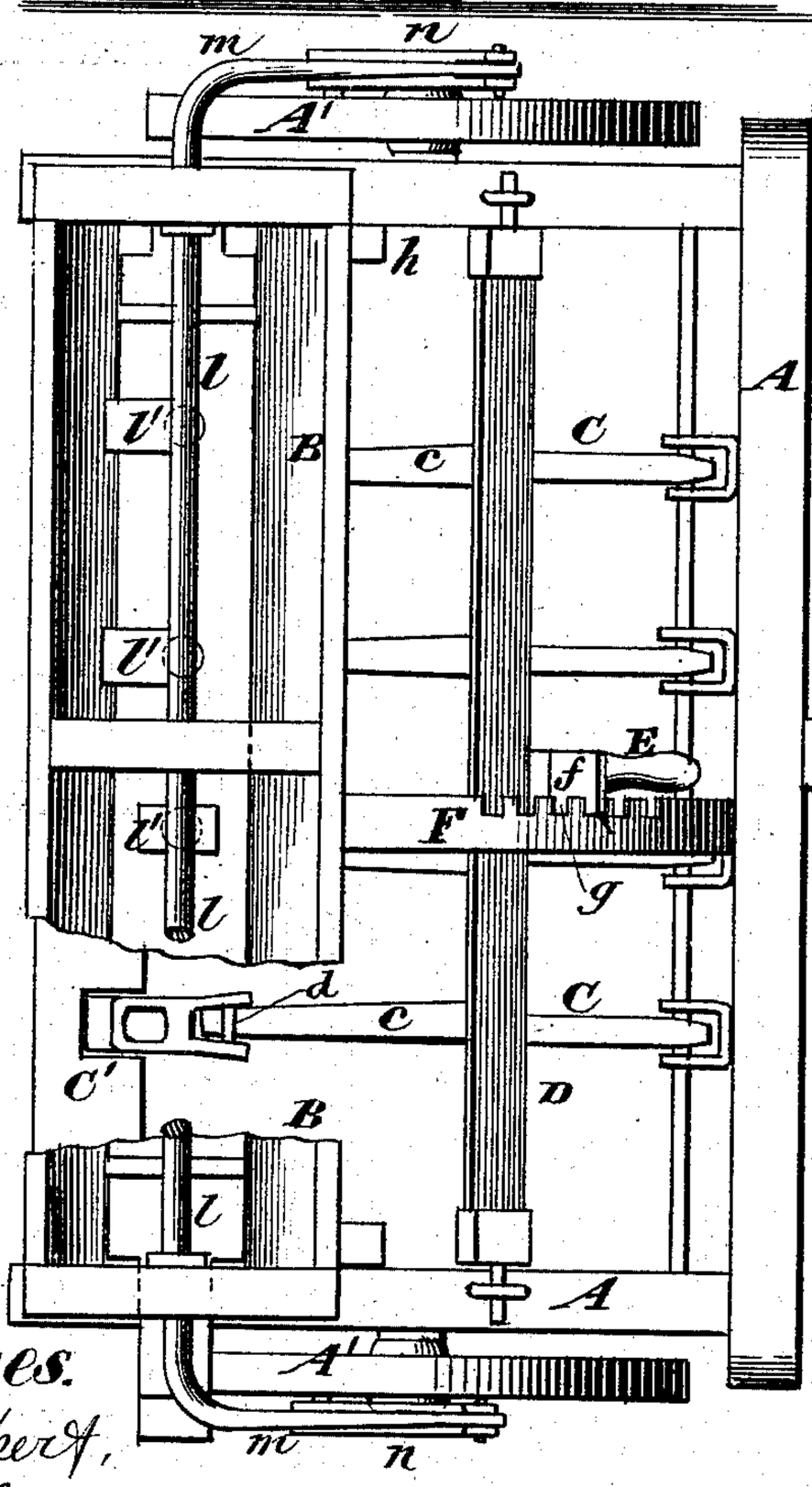

Fig. 2.

Witnesses.
A. Ruppert,
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Inventor:
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UNITED STATES PATENT OFFICE.

CYRUS C. CARTER, OF NEELYVILLE, ILLINOIS.

WHEAT-SOWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 284,376, dated September 4, 1883.

Application filed April 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, CYRUS C. CARTER, of Neelyville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in Wheat-Sowing Machines, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention is designed to allow of the simultaneous lifting or depressing of the runners through which the seed-tubes extend from the seed-box, whereby the seed may be deposited at the required depth in the ground; also, to allow the machine to be converted from a drill to a broadcast sower; and it consists in details of construction and combinations of parts, as hereinafter specified.

In the drawings, Figure 1 is a vertical section of the machine. Fig. 2 is a plan view of the same.

Similar letters of reference indicate similar parts in both views.

A is the frame of the machine, mounted on wheels A′. To the front of the frame the ordinary draft-tongue, *a*, is secured.

B is the seed-box, elevated on standards *b* above the frame of the machine.

C C, &c., are runners pivoted or hung to the frame, as shown, their free ends being adapted to rest upon or below the surface of the ground, or to be lifted above said surface, being guided by the notched heel-piece C′, secured to the frame A.

D is a shaft, also pivoted or mounted upon the frame, as shown, to which shaft a series of plate-springs, *c*, are attached, extending to the upper parts of the runners C, connection being made between the springs and the runners by the springs projecting between transverse pins *d*, which span the opening formed in said upper parts of the runners.

To the front of the shaft D is pivoted a hand-lever, E, provided with a plate, *f*.

F is a segmental notched plate extending from the front of the frame A to the under side of the seed-box. The plate *f* projects from the side of the lever, and can be made to enter any one of the notches *g* of the segmental plate F, it being necessary to move the lever E upon its pivot, so as to draw the plate *f* from one notch before it can be placed in another by again pushing the lever toward the plate. It will thus be seen that the entire series of runners can be lifted by the single action of the lever and adjusted to any required depth below or above the surface of the earth. The back or free ends of the runners are curved concentrically with the pivot on which the runners move. The heel-piece C′ prevents their lateral movement.

To the inner side of the standards *b* are secured horizontal supports *h*, on which a sliding board, *i*, carrying the seed-tubes *k*, rests. The seed-tubes *k* pass downward through openings formed in the runners, which openings are large enough to allow the runners to be moved up or down without interfering with the tubes. The rear part, *i′*, of the sliding board is inclined outward and downward, as shown. The bottom of the seed-box is elevated a short distance above the sliding board *i* and is perforated. The seed-box is provided with a sliding valve perforated to register with the perforated floor of the seed-box, so that by moving the valve either the entire perforated area of the floor of the seed-box may be uncovered or only a part thereof, and the flow of seed to the tubes regulated. When the machine is to be used as a drill, the upper end of each one of the seed-tubes is directly under one of the perforations of the floor of the seed-box; but when it is desired to use the machine for broadcast sowing the sliding board *i* must be pushed inward until the tubes are out of the range of the openings in the floor of the seed-box, whereupon the seed will fall from the seed-box to the top of the board *i*, and thence to the part *i′* of the board broadcast to the earth. The seed within the seed-box is agitated by means of a shaft, *l*, having agitators *l′*, the shaft being operated through the medium of arms *m* and rods *n*, the latter having each a crank-connection with one of the wheels A′.

The operation of the machine will be apparent from the foregoing description, the series of runners C, &c., being lowered the required depth in the ground, conveying the seed into the ground from the seed-box through the seed-tubes. The runners are conveniently elevated, depressed, or secured as a series by means of the lever E and segmental notched plate F and

the lever-plate *f*. The heel-piece C′ is an important feature and maintains the entire series of runners in proper position. The springs *c* will yield, so as to prevent the jarring of the machine, should any of the runners strike an obstruction.

The means employed for converting the machine from a drill to a broadcast sower are simple and effective.

I claim as my invention—

1. The combination, in a wheat-sowing machine, of a series of runners pivoted or hung to the frame, a notched heel-piece in which the free ends of the runners rest, a hand-lever pivoted to a shaft journaled in the frame, and a series of horizontal plate-springs projecting from said shaft and connecting with the free ends of the runners, substantially as set forth.

2. A shaft journaled in the frame, and a hand-lever pivoted thereto and adapted to be moved transversely on its pivot of the frame, and having a catch-plate, combined with a notched segment, substantially as set forth.

3. A runner having its rear end curved concentrically with its pivot and provided with an opening for the seed-tube, combined with a notched heel-piece, and a horizontal plate-spring connecting the free end of the runner with a transverse rotative shaft, substantially as set forth.

4. The combination, with the seed-box, of the sliding board *i*, provided with the inclined plane *i′*, and having flexible seed-tubes connected therewith, substantially as set forth.

In testimony hereof I hereunto set my hand and seal this 3d day of April, 1883.

CYRUS C. CARTER. [L. S.]

Witnesses:

W. H. GALE,

JAS. MCKEAN.