E. E. LEACH.

SEEDING-MACHINE.

No. 185,397. Fig. 1. Patented Dec. 19, 1876.

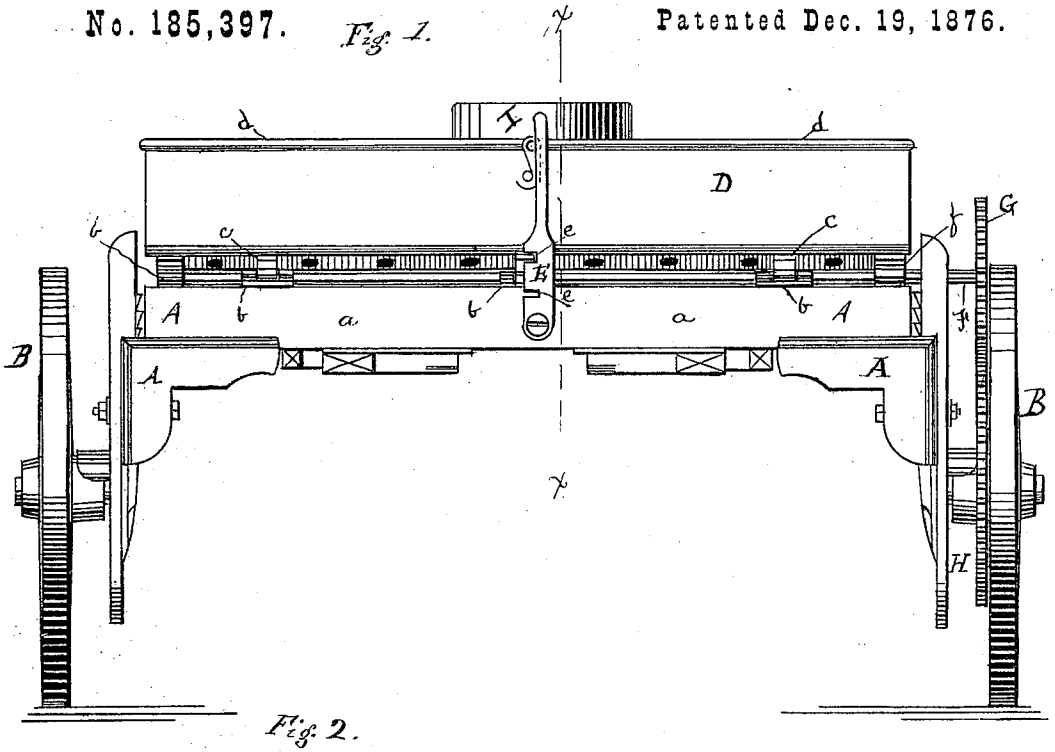


Fig. 2.

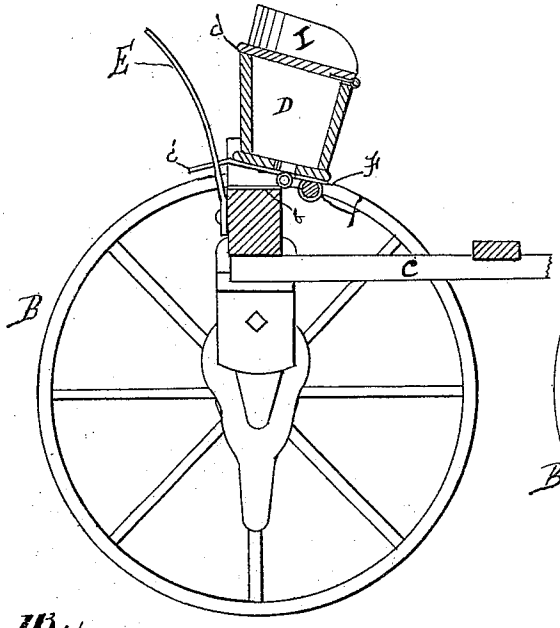
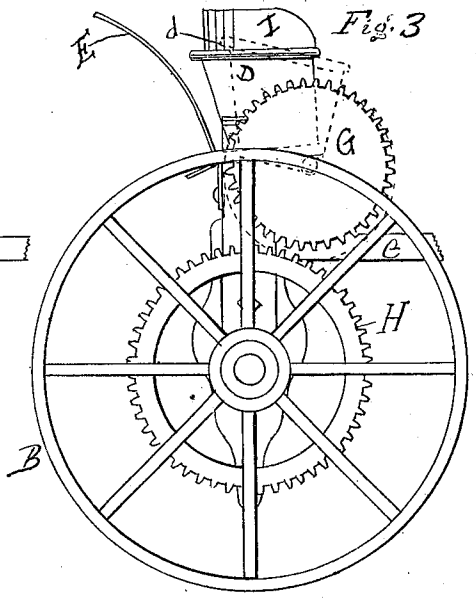


Fig. 3



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UNITED STATES PATENT OFFICE.

EDWIN E. LEACH, OF CEDAR RAPIDS, IOWA.

IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. **185,397**, dated December 19, 1876; application filed April 4, 1876.

To all whom it may concern:

Be it known that I, EDWIN E. LEACH, of Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and useful Improvement in Seeding-Machines, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a rear elevation of the machine; Fig. 2, a cross-section on the line *x x*, Fig. 1; and Fig. 3, an elevation of the gearing end of the machine.

The object of my invention is to provide a seeding attachment which may be applied to a carriage-frame used also for other purposes.

The invention consists in hinging the seed-box to supporting arms or plates, which are fastened to the carrying-frame in such a manner that the seed-box may be adjusted and held at different heights, or entirely detached from the frame at pleasure. It also consists in arranging the driving-shaft upon the seed-box, and placing the driver in such a position upon the box that he can rock it back and forth by simply changing his position thereon, and thus throw the driving-wheels into and out of gear at pleasure.

In the drawings, A represents the main or carrying frame, which is supported on two wheels, B B. A detailed description of the frame is not necessary here. Either thills C or a pole may be attached to the frame A, and the seed-box D is mounted upon the cross-beam *a* of the carrying-frame.

There is nothing peculiar in the construction of the seed-box. It may be of any style in ordinary use, and should be supplied with the usual fixtures for discharging the seed.

Metallic plates or arms *b* are attached to the upper side of the cross-bar *a* by screws or in any other manner which will render them easily detachable. Corresponding plates *c c'* are fastened to the bottom of the seed-box D, and the two sets of plates *b* and *c* are constructed so as to be pivoted together in pairs at their forward ends, so as to form a kind of strap-hinge. By these devices the seed-box is fastened to the carrying-frame, and at the same time being hinged thereto may be adjusted so as to throw the driving-shaft into and out of gear, as hereafter described.

The middle plate *c'* on the seed-box is extended rearward beyond the box, as shown in Fig 2 of the drawings, and to the cross-bar *a* is pivoted a lever, E. This lever is provided with a series of notches, *e*, which receive the projecting end of the middle plate *c'*, and so hold the seed-box in any position to which it may be adjusted. A shaft, F, is supported in bearings *f f*, attached to the seed-box. This shaft carries upon one or both ends a gear-wheel, G, which meshes with a gear-wheel, H, attached to the carrying-wheel B, and thus motion is communicated in the usual manner to the shaft F, and from it, by any ordinary means, to the usual devices for discharging the seed from the seed-box. The bearings of the shaft F on the seed-box are located in front of the hinges, by which the box is attached to the carrying-frame, so that as the seed-box is vibrated on its hinges the shaft will be raised and lowered, and the range of this motion is sufficient to throw the wheel G out of and into gear with the wheel H, for the purpose of stopping and starting the scattering mechanism.

The box is so nearly balanced on its hinges that it may be rocked sufficiently to effect the necessary adjustment of the shaft by the driver sitting on the box, leaning backward or forward, and the shaft is held in the position desired by the plate *c'* engaging with one of the notches in the lever E.

It is evident that these devices may be so arranged that the shaft may be attached to the rear of the seed-box, and accomplish the same result, provided the discharging mechanism can be operated by the shaft in this position.

The seed-box is protected by a cover, *d*, which is hinged thereto, and surmounted by a seat, I, for the driver.

The lever E should be attached to the frame by a screw or otherwise, so that it may be readily removed.

It will be seen from the description above that the entire seeding attachment may be readily fastened to the carrying-frame, and may be removed therefrom at pleasure, leaving the carrying-frame entire for the attachment of other devices.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The seed-box D, secured to the carrying-frame by detachable hinges, in combination with suitable mechanism for holding the box in different positions, so that the box may be adjusted on the frame and held at different heights, or entirely removed therefrom, substantially as described.

2. The combination of the hinged seed-box carrying the drive-shaft, mounted and arranged thereon, as described, and a driver's seat on the box, so that the driver, on his seat, can rock the seed-box, and stop and start the seeding mechanism by simply changing his position, substantially as set forth.

3. The combination of the seed-box D, hinged to the carrying-frame, the projecting plate c', and the notched lever E, substantially as and for the purpose set forth.

EDWIN E. LEACH.

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