No. 727,125. PATENTED MAY 5, 1903.

W. S. GRAHAM.

DEVICE FOR EXHIBITING THE OPERATION OF CORN PLANTERS.

APPLICATION FILED JAN. 9, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

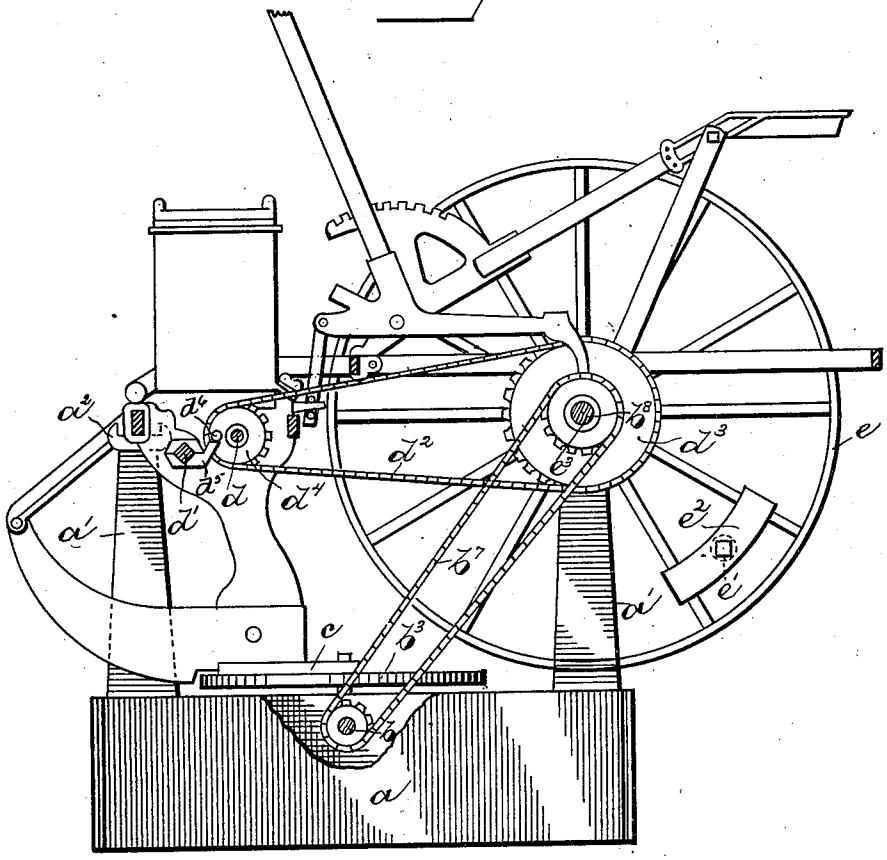
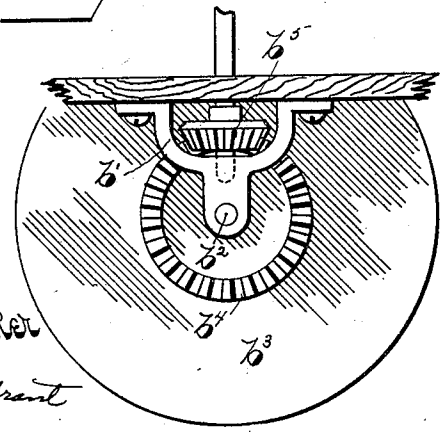


Fig. 3.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig 2

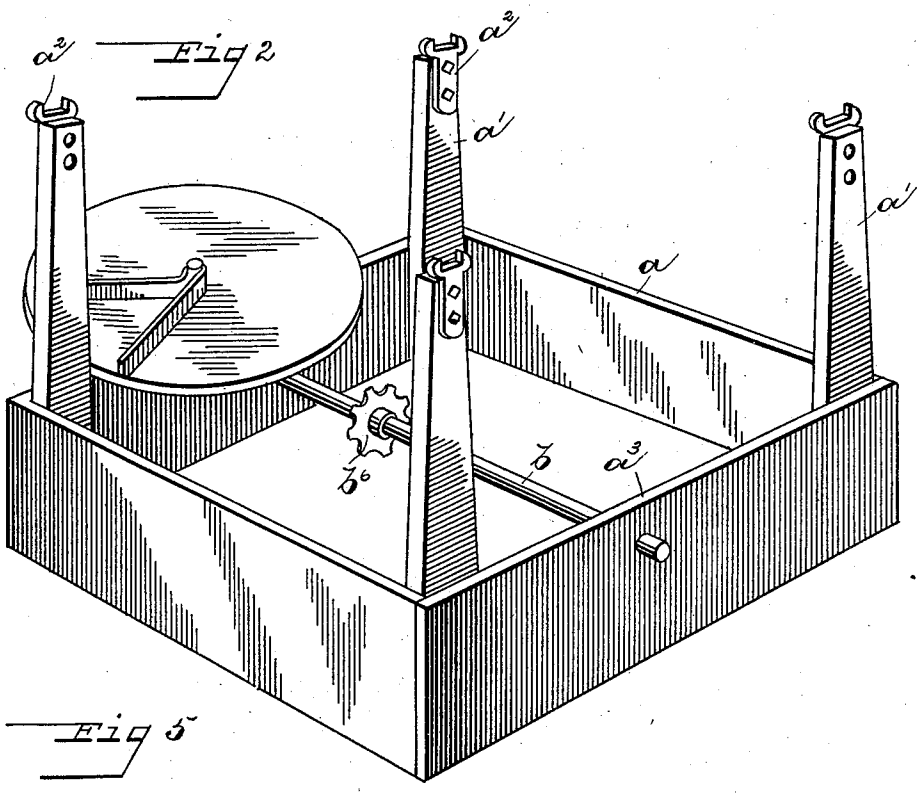


Fig 5

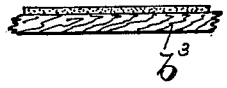
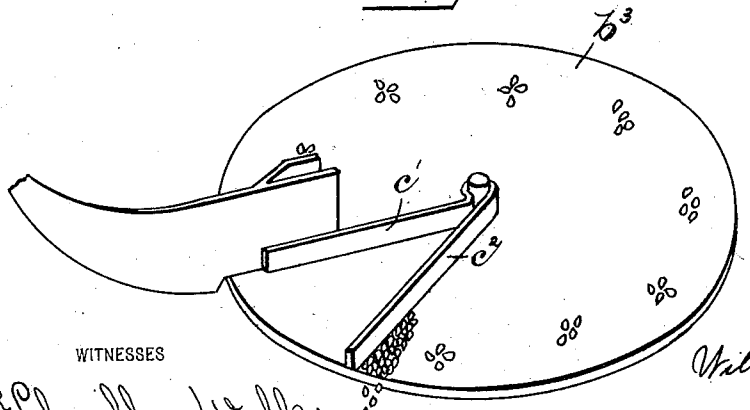


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM S. GRAHAM, OF CANTON, ILLINOIS, ASSIGNOR TO PARLIN & ORENDORFF COMPANY, OF CANTON, ILLINOIS, A CORPORATION OF ILLINOIS.

DEVICE FOR EXHIBITING THE OPERATION OF CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 727,125, dated May 5, 1903.

Application filed January 9, 1903. Serial No. 138,344. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. GRAHAM, a citizen of the United States, residing at Canton, in the county of Fulton and State of Illinois, have invented certain new and useful Improvements in Devices for Exhibiting the Operation of Corn-Planters, of which the following is a specification.

My invention relates to corn-planters, and more particularly to devices for exhibiting their operation.

In exhibitions where the space allowed will not permit the travel of the machine to operate the parts in their usual manner it is desirable to have and the object of my invention is to provide means whereby the operation of the planter can be exhibited while the machine remains stationary.

A further object is to provide a revolving carrier or turn-table upon which the grain is deposited to indicate the regularity of the feed, and I further provide means for removing the grain from the turn-table after the indication has been made.

My invention consists of the constructions and combinations hereinafter described, and set forth in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side view of my device with a corn-planter mounted thereon, some of the parts being omitted and others broken away to more clearly show my invention. Fig. 2 is a perspective view of the supporting-rack with the turn-table carrier and shaft. Fig. 3 is a reverse plan of the turn-table carrier, showing driving-gears. Fig. 4 is a perspective view of the turn-table carrier, showing a planter-runner and scraper, illustrating the operation of depositing and removing the grain from the turn-table; and Fig. 5 is a cross-section of a portion of the turn-table, showing covering of soft material.

Like parts are represented by similar letters of reference in the several views.

In constructing my device I employ a rack a, preferably rectangular in form, with uprights a' secured in each corner thereof, the upper ends of which are preferably provided with metal brackets a^2, having a recess in their upper portion to receive and support the planter, so that its carrying and driving wheels may be turned clear of the ground, as shown in Fig. 1. A shaft b is journaled at one end in the side a^3 of the rack and at its other end extends through the opposite side of the rack and is journaled in a bracket b', secured to the side, as shown by the dotted lines in Fig. 3. To the bracket b' I secure a vertically-extending spindle b^2, upon which I mount a turn-table b^3, on the under side of which I secure a gear b^4, adapted to mesh with a pinion b^5, fixed on the shaft b. The turn-table is preferably circular in form, and I preferably provide its upper surface with a soft material, such as cloth, to prevent the grain from rebounding when deposited thereon. For the purpose of removing the grain after it has indicated the regulation of the sowing I provide a scraper c, preferably formed of a single bar of metal V-shaped in form, journaled on the spindle or hub of the turn-table, one arm, c', resting against the planter-runner, and the other arm, c^2, extending at an inclination to a radial line of the table, said inclination being in the direction of the line of travel of the table, as shown in Fig. 4, so that the grain when it comes in contact with the scraper will be guided off the turn-table into any suitable receptacle. Any suitable means may be employed to drive the shaft b; but I preferably employ a sprocket-wheel b^6, fixed on said shaft and driven by a link belt b^7 from a sprocket-wheel b^8 on the axle-shaft e^3.

In the drawings I have shown a planter with a drill-shaft d to operate the feeding devices and a rock-shaft d' to open and close the valves to regulate the discharge of the grain, said rock-shaft being spring-pressed in one direction in a well-known manner by a spring. (Not shown.) Said rock-shaft is usually operated in the field by a check-rower wire in a well-known manner. As my present invention simply includes the means for driving the feeding and discharge devices while the machine remains stationary, with means for receiving the deposit of the grain to indicate the regularity of the feed, including devices for removing the grain, I deem it unnecessary to show the particular devices

employed to feed and discharge the grain from the planter, as any well-known form of these devices may be used. The drill-shaft d is driven by a link belt d^2 from a sprocket-wheel d^3 on the axle-shaft to a wheel d^4 on the shaft d. An arm d^5 on the shaft d' is adapted to contact with a tappet-pin d^6 on the wheel d^4, so that at every revolution of said wheel the shaft d' will be rocked to discharge the seed in the same way as though operated by a check-rower wire in the usual manner. For convenience in operating I preferably provide the driving-wheel e with an operating-handle e', secured to the spokes of the wheel by a plate e^2.

Having mounted the planter on the rack, as shown in Fig. 1, it will be readily seen that by turning the driving-wheel, which is fixed on the axle-shaft e^3, the drill-shaft will be driven to operate the feeding devices and the rock-shaft will be operated to discharge the grain, and at the same time the turn-table will likewise be operated to receive the deposit of the grain and indicate the regularity of the deposit, the scraper after such indication removing the grain from the turn-table.

Having thus described my invention, I claim—

1. The combination with a seed-dropping mechanism, of a turn-table and means to simultaneously operate said mechanism and turn-table, for the purpose specified.

2. The combination with a seeding-machine having carrying-wheels and seed-dropping mechanism, of a rack adapted to support said mechanism with said wheels clear of the ground, a turn-table adapted to receive the grain dropped by said mechanism, and intermediate devices driven by said wheels to simultaneously operate said mechanism and turn-table, for the purpose specified.

3. The combination with a seeding-machine frame having an axle-shaft and carrying-wheels therefor, also a drill-shaft for the feeding devices and a rock-shaft for the seed-dropping mechanism, of a rack adapted to support said machine with said wheels clear of the ground, means to drive said drill-shaft from said wheels and adapted to intermittently operate said rock-shaft, for the purpose specified.

4. The combination with a seeding-machine frame having an axle-shaft and carrying-wheels therefor, also a rock-shaft for the seed-dropping mechanism having a projection thereon, and a drill-shaft for the feeding devices having a wheel thereon with a tappet-pin adapted to contact with said projection, of a rack adapted to support said machine with said carrying-wheels clear of the ground, and a driving mechanism from said axle to said wheel on the drill-shaft, substantially as specified.

5. The combination with a seeding-machine frame having an axle-shaft and carrying-wheels therefor, also a drill-shaft for the feeding devices and a rock-shaft for the seed-dropping mechanism, of a rack adapted to support said machine with the wheels clear of the ground, a turn-table adapted to receive the grain from said mechanism, and intermediate devices driven by said wheels to simultaneously rotate said turn-table and drill-shaft and intermittently operate said rock-shaft, for the purpose specified.

6. The combination with a seeding-machine frame, an axle-shaft with carrying-wheels thereon, also a rock-shaft for the seed-dropping mechanism having a projection thereon, and a drill-shaft for the feeding mechanism having a wheel thereon with a tappet-pin adapted to contact with said projection, of a rack adapted to support said machine with the carrying-wheels clear of the ground, a turn-table adapted to receive the grain from said mechanism, and intermediate devices from said axle-shaft to simultaneously rotate said turn-table and drill-shaft and intermittently operate said rock-shaft, substantially as and for the purpose specified.

7. The combination with a seed-dropping mechanism and a turn-table adapted to receive the grain from said mechanism, of a scraper adapted to remove the grain from said table, substantially as specified.

8. The combination with a seed-dropping mechanism, of a turn-table adapted to receive the deposit from and indicate the regulation of said mechanism, and a scraper to remove the grain from said turn-table after the indication has been made.

9. The combination with a seed-dropping mechanism and a turn-table adapted to receive the grain from said mechanism, of a scraper extending at an inclination to a radial line on the table, said inclination being in the direction of the line of travel of the table, substantially as specified.

10. The combination with a seed-dropping mechanism, of a turn-table having a covering of soft material adapted to receive the grain from said mechanism, and means to simultaneously operate said mechanism and turn-table, substantially as specified.

In testimony whereof I have hereunto set my hand this 2d day of January, A. D. 1903.

WILLIAM S. GRAHAM.

Witnesses:
FLORENCE L. WOODS,
LULU M. HOLMES.