

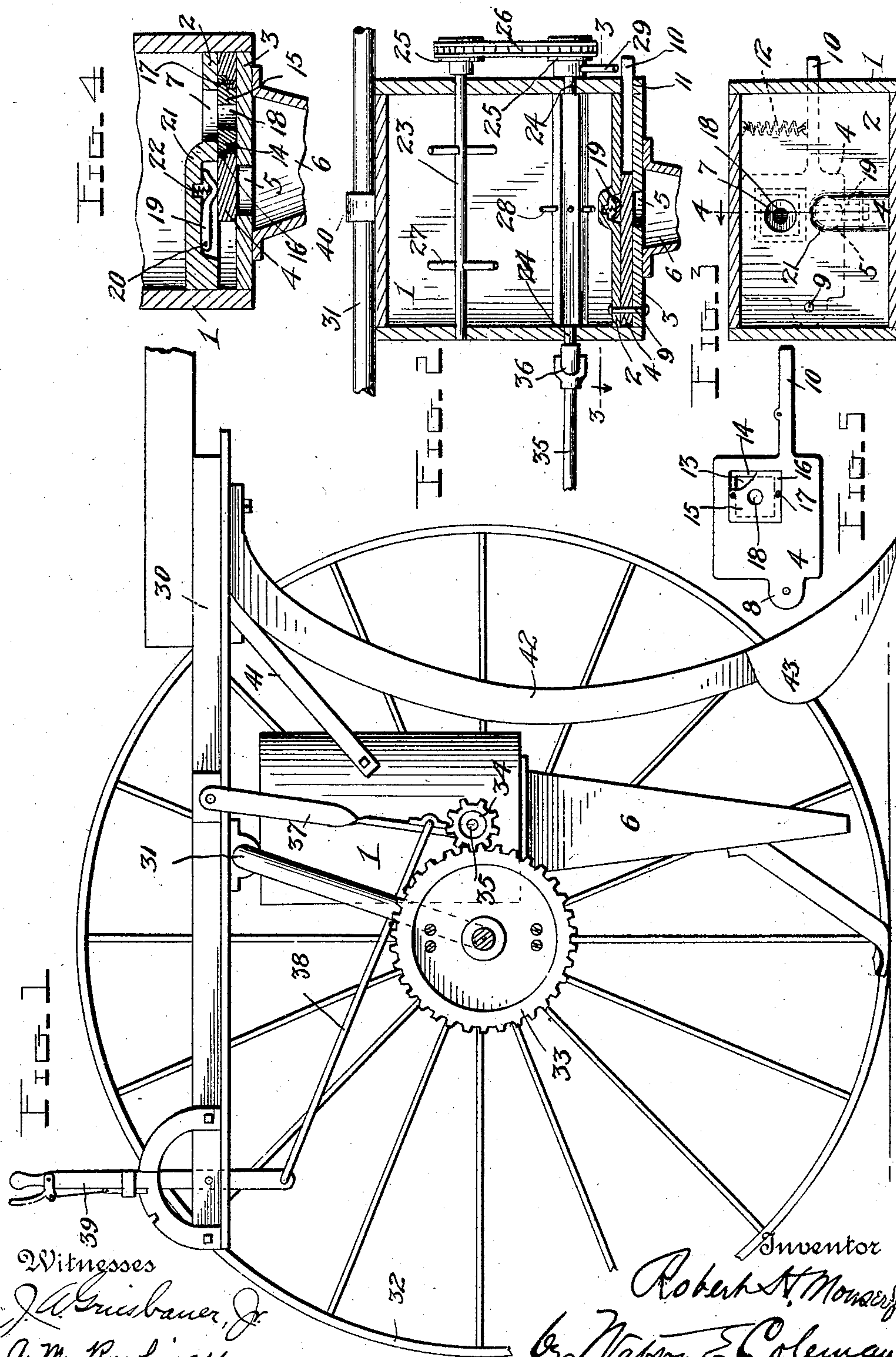
No. 842,228.

PATENTED JAN. 29, 1907.

R. H. MOUSER, JR.

SEEDER.

APPLICATION FILED OCT. 20, 1906.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ROBERT H. MOUSER, JR., OF CROWN, TEXAS.

## SEEDER.

No. 842,228.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed October 20, 1906. Serial No. 339,848.

*To all whom it may concern:*

Be it known that I, ROBERT H. MOUSER, Jr., a citizen of the United States, residing at Crown, in the county of Atascosa and State of Texas, have invented certain new and useful Improvements in Seeders, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in seed-dropping mechanisms for corn-planters and similar machines; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

The object of the invention is to provide a simple and efficient mechanism of this character which may be readily adapted for dropping seeds of different sizes and kinds.

The above and other objects, which will appear as the nature of the invention is better understood, are accomplished by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, with parts removed, of a seed-planter constructed in accordance with my invention. Fig. 2 is a vertical transverse sectional view through the seedbox and dropping mechanism. Fig. 3 is a horizontal sectional view taken on the plane indicated by the line 3 3 in Fig. 2. Fig. 4 is a detail vertical section, on an enlarged scale, taken on the plane indicated by the line 4 4 in Fig. 3; and Fig. 5 is a detail view of the seed-dropping plate.

Referring to the drawings by numeral, 1 denotes a seed-hopper or receptacle having its bottom or floor composed of spaced upper and lower plates 2 3, between which is mounted a seed-dropping plate 4. The bottom plate 3 is formed at a suitable point adjacent to its center with an opening 5, through which the seed is discharged into a tapered shoe or chute 6, depending from the hopper, as shown. A similar opening 7 is formed in the upper plate or false bottom 2 at a point out of vertical alinement with the opening 5. The seed-dropping or feed plate 4 is mounted to swing between the plates 2 3 and to feed the seed from the opening 7 to the opening 5. This feed-plate 4 has a rectangular body portion, from one side of which projects an ear 8, apertured to receive a pivot-pin or the like 9, which pivotally mounts the plate 4 between the plates 2 3. From the opposite side of the plate 4 projects

a handle 10, which extends through and swings in a horizontal slot 11, formed in one of the side walls of the hopper. A coil-spring 12 is provided between plates 2 3 and has one of its ends attached to the handle or projection 10 and its other end to one of the side walls of the hopper, so as to hold one edge of the plate 4 normally against that side. Formed in the plate 4 is an opening 13, which is surrounded by an annular groove which forms a shoulder 14. Mounted in the opening 13 is a removable plate 15, having a surrounding flange 16, which engages the shoulder 14, the former being held upon the latter by screws or similar fastenings 17, as clearly shown in Figs. 4, 5.

In the center of the removable plate 15 is an opening 18, which is of sufficient size to hold the number of seeds it is desired to drop in one hill or at one operation of the feed-plate. By providing a plurality of the plates 15 with openings of different sizes it will be seen that the device may be adapted for dropping different numbers of seeds and different kinds and sizes of the same. The spring 12 holds the feed-plate 4 so that the opening 18 is normally beneath the opening 7 in the top or cover plate 2, and when the handle or arm 10 is operated, as presently explained, the opening 18 is moved into vertical alinement with the opening 5 in the bottom plate 3, so that the seeds in the opening 18 drop into the shoe 6.

In order to insure the dropping of the seeds from the opening 18, I preferably provide an ejector 19 in the form of a small plate pivoted at 20 in the recessed enlargement 21 on the plate 2 and having a curved projection at one end which is forced into the opening 18 by a coil-spring 22, as will be readily understood upon reference to Fig. 4.

In the upper portion of the hopper 1 are journaled upper and lower transverse shafts 23 24, which have upon their adjacent projecting ends sprocket-wheels 25, connected by a sprocket-chain 26. The upper shaft 23 carries a plurality of radially-projecting agitator-fingers 27, and the lower shaft 24 has an enlarged hub, from which projects agitator-fingers 28. Upon the hub of the sprocket-wheel 25 on the lower shaft 24 is a radially-projecting arm or detent 29, which as the shaft 24 is rotated is adapted to engage the arm or handle projection 10 and swing the latter against the tension of the



spring 12, so as to shift the feed-plate and drop the seed in the opening 18 of the plate 15.

While the above-described mechanism 5 may be mounted and operated in any suitable manner, I preferably use it in connection with the planter and driving mechanism shown. The planter comprises an angular metal frame 30, supported upon an arched 10 axle 31, on which latter are journaled supporting-wheels 32. One of the wheels 32 has fixed to it a gear-wheel 33, which meshes with a pinion 34 upon the outer end of a transversely-extending shaft 35, which latter 15 has its inner end connected by a universal coupling 36 to one end of the shaft 24. This shaft 35 is journaled in a swinging hanger 37, depending from the frame 30 and connected by a link or rod 38 to an adjusting-lever 39, 20 adapted to be locked by the usual pawl-and-ratchet mechanism. This construction enables the outer end of the shaft 35 to be shifted so as to throw the pinion 34 into and out of mesh with the gear 33. The hopper 1 25 is suspended from the central portion of the arched axle 31 by a strap 40 and it is also supported by a brace 41. A standard 42 depends from the frame 30 and carries at its lower end a cultivator shovel or plow 43. 30 This shovel 43 is arranged immediately in front of the lower end of the chute or shoe 6, so that the seeds dropped through the latter fall into the furrow made by said shovel.

From the foregoing description, taken in 35 connection with the accompanying drawings, it is thought that the construction and operation of my invention will be understood without a more extended explanation.

Having thus described my invention, what 40 I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A seed-dropping mechanism comprising a hopper having spaced upper and lower bot- 45 tom plates formed with discharge-openings, a spring-controlled apertured feed-plate pivotally mounted between said bottom plates and having a projected arm, an agitator-shaft mounted in said hopper, a detent projecting from said shaft for operating the arm 50 of said feed-plate, and a spring-actuated ejector mounted in said upper plate for eject-

ing the seed from the aperture in said feed-plate.

2. A seed-dropping mechanism comprising a hopper having spaced upper and lower bot- 55 tom plates formed with discharge-openings, a spring-controlled apertured feed-plate pivotally mounted between said bottom plates and having a projected arm, an agitator-shaft mounted in said hopper, a second agi- 60 tator-shaft in said hopper, sprocket-wheels secured upon the projecting ends of said agitator-shafts, a sprocket-chain connecting said sprocket-wheels, a detent-arm project- 65 ing from the first-mentioned agitator-shaft and adapted to operate the arm of said feed-plate, a spring-actuated ejector pivoted in a recessed portion of said upper plate and hav- 70 ing a curved portion to enter the aperture in said feed-plate, and a shoe or chute depend- ing from the bottom of said hopper.

3. The combination of a frame, an arched axle mounted thereon, supporting-wheels 75 upon said axle, a gear fixed to one of said wheels, a seed-hopper mounted upon the arched portion of said axle, spaced upper and lower bottom plates in said hopper having disalined apertures, an apertured feed-plate pivoted between said bottom plates, a spring 80 for actuating said feed-plate, an arm projecting from said feed-plate, an agitator-shaft mounted in said hopper, a detent projecting from said shaft for actuating the arm of said feed-plate, a swinging hanger depend- 85 ing from said frame, a shaft journaled in said hanger, a universal coupling between said agitator-shaft and the last-mentioned shaft, a pinion upon the last-mentioned shaft to coact with said gear, means for operating 90 said swinging hanger for throwing said pinion into and out of mesh with said gear, an arm depending from said frame, a shovel upon said arm and a shoe depending from said hopper and arranged in rear of said arm and shovel. 95

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ROBERT H. MOUSER, JR.

Witnesses:

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T. J. CROSS.