2 Sheets—Sheet 1.

J. H. MORGAN.
Seed-Planter.

No. 213,057. Patented Mar. 11, 1879.

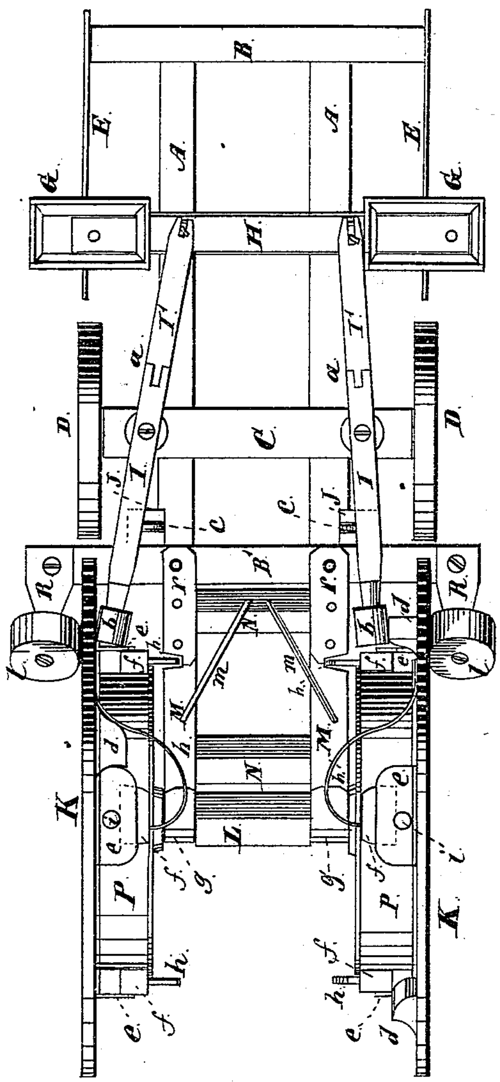

Fig. 1.

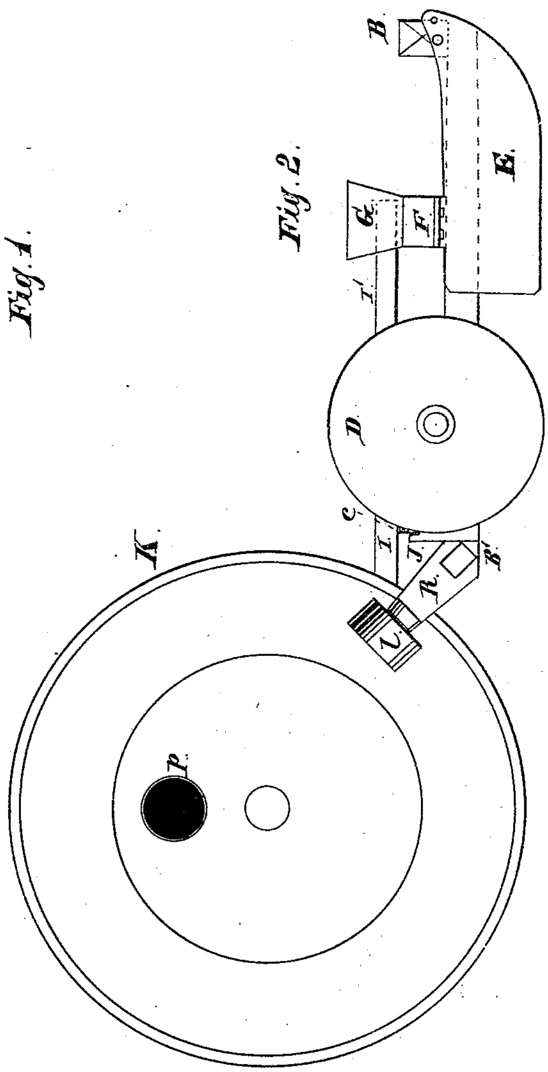

Fig. 2.

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E. A. West
O. W. Bond

Inventor:
John H Morgan

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

J. H. MORGAN.

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Fig. 3.

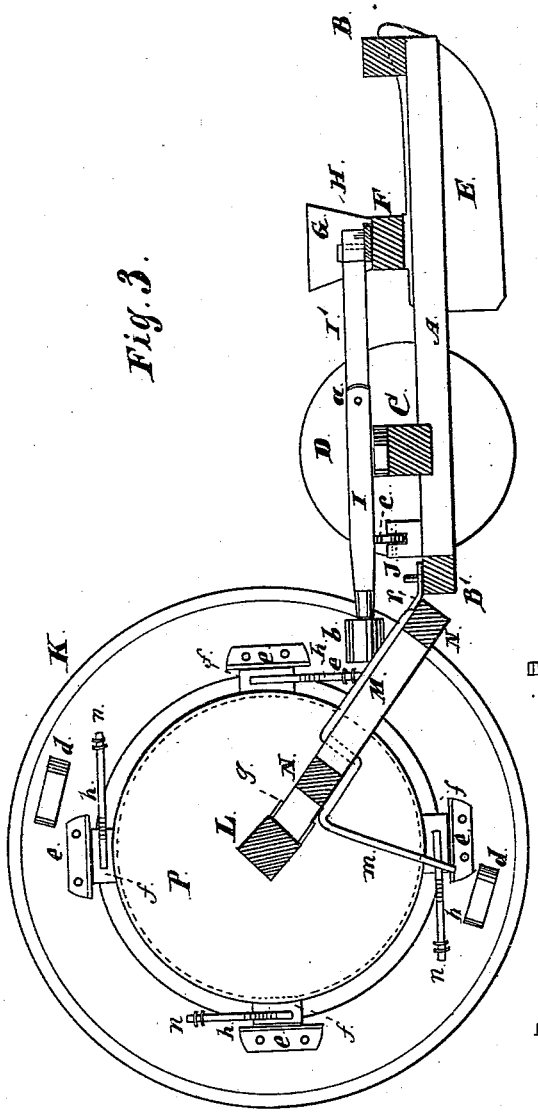
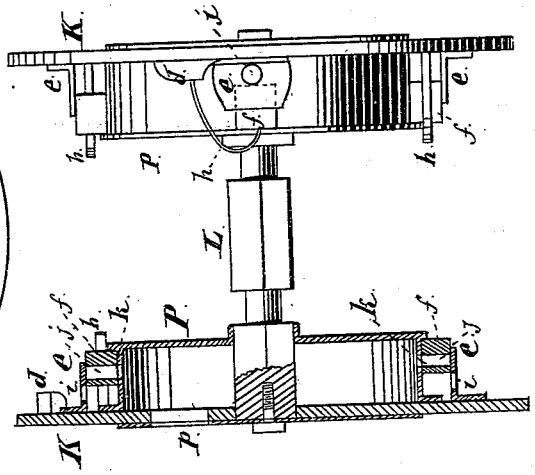


Fig. 4.



Witnesses:

E. A. Nash

C. W. Bond.

Inventor:

John H. Morgan

UNITED STATES PATENT OFFICE.

JOHN H. MORGAN, OF ASHKUM, ILLINOIS.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. **213,057**, dated March 11, 1879; application filed August 17, 1878.

To all whom it may concern:

Be it known that I, JOHN H. MORGAN, of Ashkum, Iroquois county, State of Illinois, have invented a new and useful Improvement in Seeders or Corn-Planters, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan; Fig. 2, a side elevation; Fig. 3, a vertical longitudinal section. Fig. 4 shows the large wheels and some of the devices connected therewith—one side in elevation, the other in section.

My invention relates to a machine designed to plant in check-rows.

It consists in combining with a corn-planter a pair of large wheels provided with devices for operating levers, which operate the seed-slides; in a peculiar construction of the seed-slide levers; in devices for carrying fertilizing material in the large wheels, and depositing the same at regular intervals, and in devices for steadying the large wheels.

My improvements are designed to be used in connection with corn-planters now in common use.

In the drawings, A A represent two longitudinal bars, and B B′ two cross-bars, which form a main frame. C is an axle secured to the main frame, on which the wheels D revolve. E are the runners, pivoted at their front ends to the main frame at the ends of the cross-bar B. F is a bar secured to the rear ends of the runners, upon which bar F the seed-boxes G are mounted. H is the seed-slide. I I′ are two parts of levers which operate the seed-slide. Said parts I I′ are connected to each other by a joint at *a*. I is pivoted upon the top of the axle C, and I′ is loosely connected at its forward end to the seed-slide H. *b* are friction-rollers on the outer ends of I. J are short posts secured to and projecting above the main frame. *c* are friction-rollers in J, on which I rest. K K are two large wheels, four feet ten and two-thirds inches in diameter—intending to have them of such diameter that in making one-fourth of a revolution they will pass over a space equal to the distance between the hills, the size mentioned being adapted to planting corn. L is an axle to which the wheels K are rigidly secured. M and N are the bars of a secondary frame. *g* are straps secured to the outer ends of the bars M. These straps pass around the axle L, which rotates in them. This secondary frame is loosely connected with the main frame, which may be done by means of straps *r*, secured to the secondary frame, and pins upon the main frame. *d* are blocks secured upon the inside of the wheels K, two on each wheel, and at equal distances apart. They are so arranged as to alternately operate the seed-slide levers, moving them to the right or left with each quarter of a revolution of the wheels K. To facilitate this operation the blocks *d* are suitably beveled. P P are receptacles for powdered fertilizing material, secured to the inside of the wheels K. In the rings of P P are a number of holes, *k*, so located that the contents of the receptacles will, as discharged, be deposited at the hills. *e* are fixed plates, one at each hole *k*, located a short distance from the rims of P P. In each plate is a hole, *i*, which does not register with *k*. *f* are blocks, each secured to a spring, *h*. The blocks are between the rims of P and the plates *e*. In each block is a hole, *j*, registering with *k*, adapted to receive such quantity of fertilizing material as is to be deposited at each hill, and registering with *i* when the blocks are forced over against the wheel K.

I do not limit myself to the construction of the receptacles shown, nor to the exact means shown for discharging the contents of P P. Tubes connected with P P might be used, and a double valve bring the material near the ground before discharging it.

As shown, the blocks *f* are forced over against the wheels K when the springs *h*, which, at one end, are secured to the wheel at *n*, come in contact with a rod or bar, *m*, secured to the secondary frame.

As shown, the fertilizing material is introduced into the receptacles P through openings *p*, which can be closed by a slide, or in other suitable manner; but it may be introduced elsewhere.

R are arms secured to the ends of the cross-bar B′ of the main frame, and *l* are friction-rollers on R, arranged to come in contact with the outside of the wheels K to serve as guides, and aiding in keeping such wheels true and steady while in use.

The machine may be provided with a seat for the driver and with suitable mechanism for raising the runners from the ground when turning, as well as the large wheels.

My attachment can be applied to many of the planters now in use, suitable levers and seed-slides being provided.

In use the seed-slide H is operated by the action of the blocks or lugs *d* as they come in contact with the ends of the levers I I′. The part I of these levers has two supports, and their position relatively to the blocks or lugs *d* remains the same at all times, while the runners being pivoted at their forward ends, and their rear ends being free, can follow inequalities in the ground without interfering with the accuracy of the dropping, since the levers are made in two parts, pivoted together at *a*, and the forward end of these levers can move up and down without affecting the other end.

The jointed levers also are further important in connection with appliances for raising the runners out of the ground.

The receptacles for carrying fertilizing material and devices for dropping the same may be omitted. They, however, serve a secondary purpose when used besides the primary object of fertilizing the plants, as the lime or other visible material, when deposited on the ground, can be easily seen, and serves as a mark to aid in starting at each end of the field after turning, and the operator can see at all times whether the dropping of the seed is accurate.

The size of the wheels K may be varied as circumstances require.

The secondary frame M N may be longer than shown, and may be connected to the planter at some suitable point near the center instead of at the rear.

What I claim as new is as follows:

1. The combination, in a seeder or planter, of a main frame mounted on wheels and carrying the runners and seed-boxes, with planting mechanism, a secondary frame flexibly connected to the main frame and provided with operating-wheels K K, fertilizer-distributers connected to and rotating with said wheels, and lugs *d* on the wheels for operating jointed pivoted levers to actuate the planting mechanism on the main frame, substantially as herein set forth.

2. In a seeder or planter, the combination of the jointed levers for operating the seed-slides, the posts J, with friction-rollers *c*, supporting the levers, the rollers *b* on the rear ends of the levers, and the wheels K K, with lugs *d* on their inner sides, substantially as and for the purposes herein set forth.

3. The combination of the wheels K, with lugs *d* on their inner sides, the operating-levers I, with rollers *b*, and the guides R, with rollers *l*, arranged to bear against the outer sides of the wheels directly opposite the rollers *b*, substantially as and for the purposes herein set forth.

JOHN H. MORGAN.

Witnesses:
M. R. MEENTS,
JOHN REID.