

G. DAVIS.

Improvement in Seed-Planters.

No. 128,366.

Patented June 25, 1872.

Fig. 1.

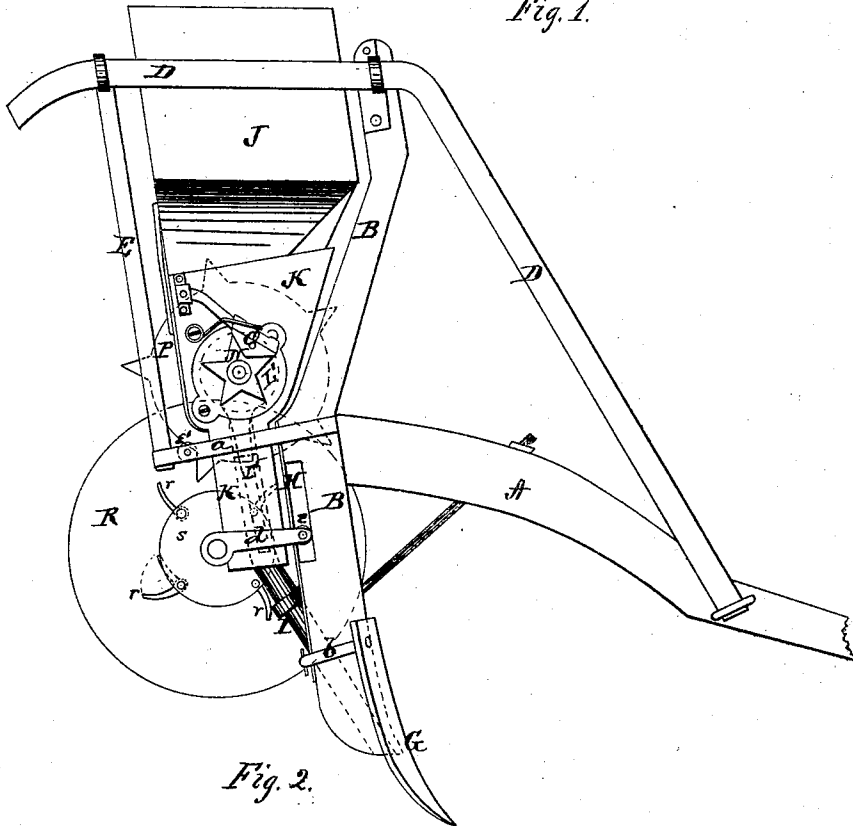
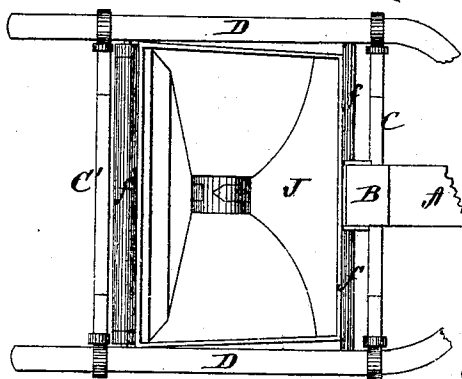


Fig. 2.



Witnesses:

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Fig. 3.

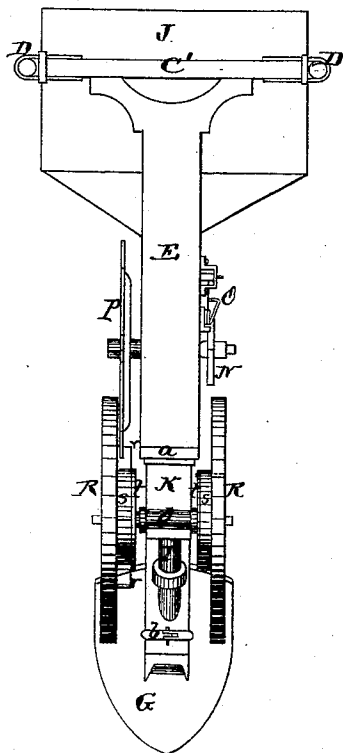


Fig. 5.

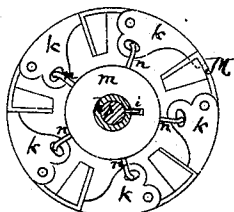


Fig. 6.

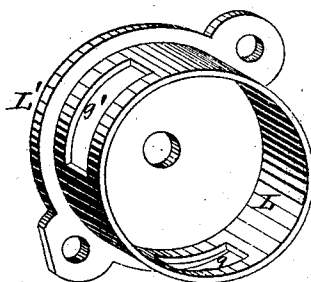


Fig. 4.

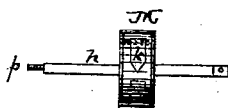
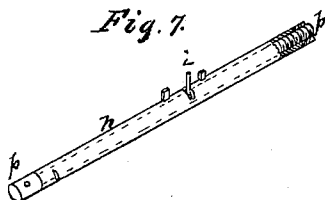


Fig. 7.



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UNITED STATES PATENT OFFICE.

GENERAL DAVIS, OF MUMFORD, ALABAMA.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. 128,366, dated June 25, 1872.

To all whom it may concern:

Be it known that I, GENERAL DAVIS, of Mumford, in the county of Talladega and in the State of Alabama, have invented certain new and useful Improvements in Seed-Sower; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a combined cultivator, seed-dropper, and fertilizer-distributor, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view, and Fig. 3 a rear elevation of my machine. Fig. 2 is a plan view of the hopper with the frame holding the same, and Figs. 4 to 7 are detached views of various parts of the machine.

The frame of my machine consists of the beam A, with foot B attached and suitably braced to it. The foot B extends a suitable distance above the beam, and through its upper end passes a cross-bar, C. D D are the handles of the cultivator, attached to the beam A, and, passing upward, are connected with the ends of the cross-bar C, and still further toward the rear with another cross-bar, C', running parallel with the former. The two cross-bars C C', with the parts of the handles between them, form a square frame for the reception of the hopper, and from the rear cross-bar C' a post or column, E, extends downward, its lower end being secured to or in a stirrup, a, attached to the foot B. G represents the plow attached to the lower end of the foot B by means of a clamp, b, consisting of two angular or L-shaped pieces attached to the plow and fastened together on the rear side of the foot by a pin, as shown in Fig. 3. On the rear side of the foot B is secured a steel plate, H, and in the foot is made a recess covered by said plate, thus forming, as it were, a mortise in which a roller, e, on the inner end of a stirrup, d, is allowed to slide up and down. The lower end of the foot B is hollow, and through the same is passed a tube, I, which extends upward in rear

of the foot as high as the stirrup a. J represents the hopper attached to a hollow head-block, K, and passed down between the cross-bars C C', the lower end of the head-block passing down through the stirrups a and d. On the inner sides of the cross-bars C C' are rollers f f, and at the outer end of the stirrup a a roller, e', to allay any friction of the hopper and head-block when the machine is in motion. In the head-block K is attached a pipe, I', which, when the head-block is placed in position, enters the pipe I, this pipe passing into the head-block on the outside of the pipe I', the two together forming a conductor to deposit the seed in rear of the plow G. The upper end of the pipe I' joins an opening, g, in a hoop or drum, L, placed in a circular mortise in the head-block, and provided with another opening, g', through which the seed falls from the hopper onto a revolving drum, M, within said hoop, the seed being taken by said revolving drum and carried to the opening g, when it drops through the tubes I I' into the ground in rear of the plow G. The hoop L is attached to a plate, L', on one side, and closed by a similar plate on the other side, said plates being fastened on the sides of the head-block by screws. The drum M, inside of the hoop L, is attached to a hollow cylinder, h, which passes through the centers of the plates L' L'. This drum is, on its circumference, provided with five bucket-valves, k k, which open inward, and when closed complete the outer circumference of the drum. Inside of the drum M, and loosely upon the cylinder h, is placed a collar, m, having five arms, n n, which operate in loops on the under or inner sides of the bucket-valves k k. Through the hollow cylinder h passes a shaft, p, having a pin, i, which passes through a slot in the cylinder and into a notch on the inside of the collar m, so that by turning said shaft the collar will be turned to set the valves, and thereby regulate the amount of seed to be dropped in each hill. The shaft p is provided with a head on one end and a nut on the other, so that it may be fastened and held rigid when the valves have been set as desired. Upon one end of the cylinder is secured a five-pronged skip-wheel, N, into which operates a wedge-shaped spring-skip, O, for a purpose that will be hereinafter set forth. On the other end of the cylinder is a five-pointed star-wheel, P, which

is operated by cog-valves *rr* on one of the driving-wheels *R*. The driving-wheels are placed upon an axle passing through the rear end of the stirrup *d*. On the inner side of one of these wheels is formed a smaller wheel, *s*, having on its circumference the four cogs *rr*, which I call cog-valves, as they can be turned down so as not to operate upon the wheel *P*.

It will be observed that there are five buckets in the drum *M*, five points in the skip-wheel *N*, and five points or cogs in the star-wheel *P*, and that they are all attached to the hollow cylinder *h* and revolve together. The star-wheel *P* operates by being moved forward something over one-tenth part of a revolution. The skip *O*, having its spring properly arranged to press upon the arm of the skip, operates upon the skip-wheel *N* and causes the other portion of the fifth part of the revolution, and is further so arranged that one of the buckets *k* will be directly over the opening *g* or mouth of the pipe *I*.

The distance or space between the hills planted or dropped is obtained by means of the cog-valves *rr* on the driving-wheel. One cog being raised gives one motion to the star-wheel *P*, which is completed by the skip *O* and skip-wheel *N*. Two cogs opposite each other being up decreases the distance one-half. All four cogs being raised, decreases to one-fourth, the size of the driving-wheels governing the space or distance.

The wheels *R R* are made of wood with suit-

able iron tires, and have smaller wheels *s* on their inner sides. To the inside of this is attached a metal wheel, *t*, with collar attached, which collar passes through the wooden wheels forming the hubs for the same.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The plate *H*, stirrup *d*, and roller *e*, constructed and arranged on the foot *B*, in combination with the head-block *K*, substantially as herein set forth.

2. The arrangement of the rollers *e'* and *f f*, in combination with the frame *B*, *D*, *E*, and stirrup *a*, so as to allay the friction of the hopper when in motion, substantially as herein set forth.

3. The skip-wheel *N*, attached on the hollow cylinder *h* and operating in combination with the spring-skip *O*, substantially as and for the purposes herein set forth.

4. The combination of the wheel *R* with cog-valves *r*, star-wheel *P*, hollow cylinder *h*, shaft *p*, drum *M*, with valves, and the skip-wheel *N* and spring-skip *O*, all constructed and operating substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 28th day of September, 1871.

GENERAL DAVIS. [L. S.]

Witnesses:

J. H. MORRIS,
R. A. McMILLAN.