J. V. H. SECOR.

Corn Planter.

No. 30,890. Patented Dec. 11, 1860.

Fig. 1

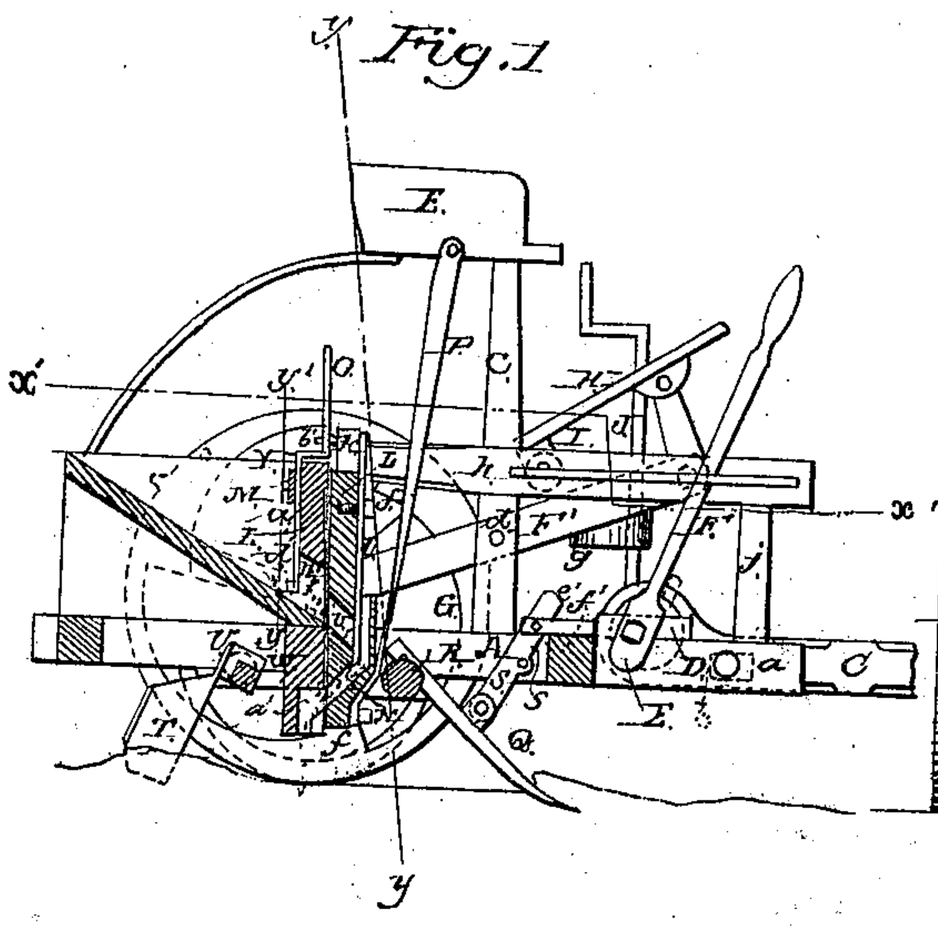


Fig. 2.

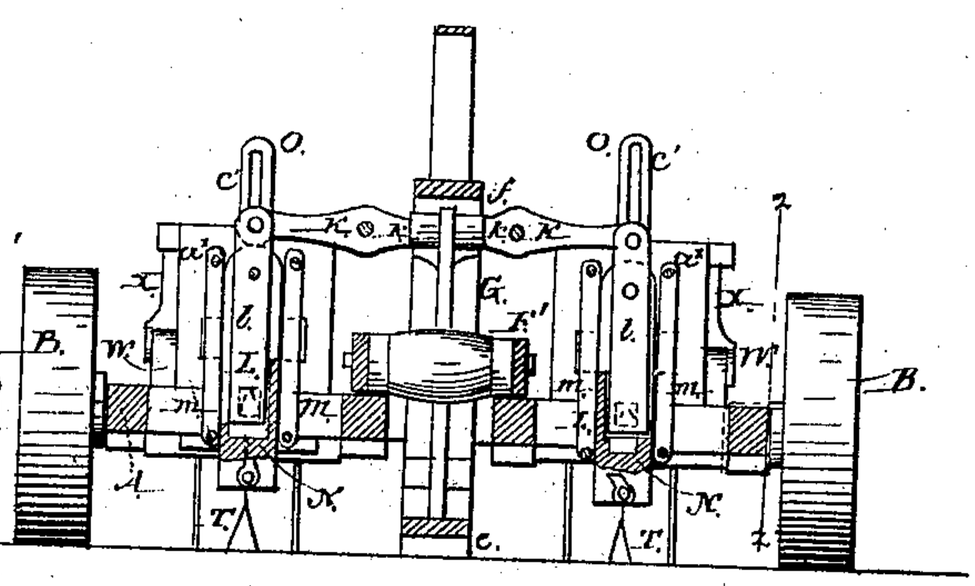


Fig. 3.

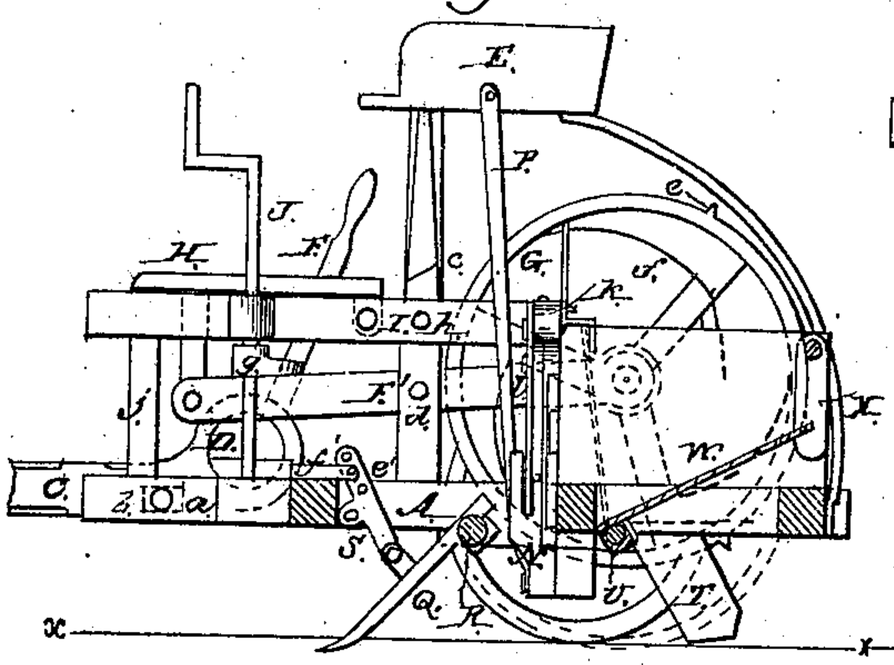


Fig. 4.

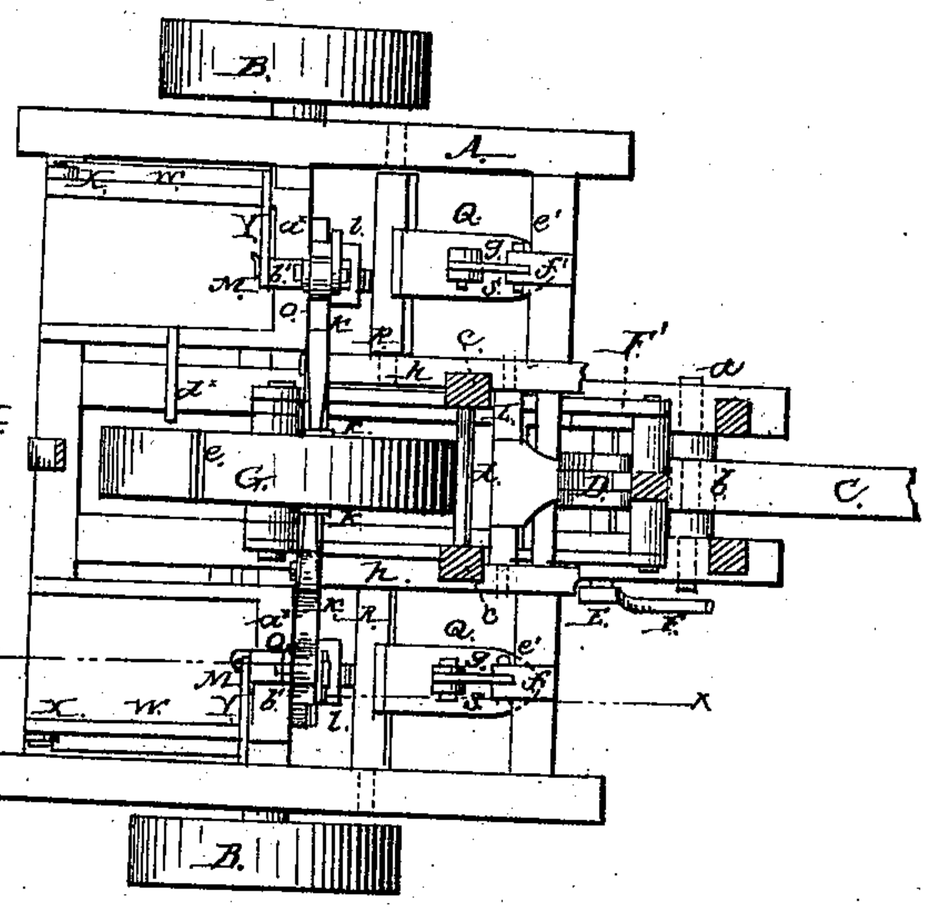


Fig. 6.

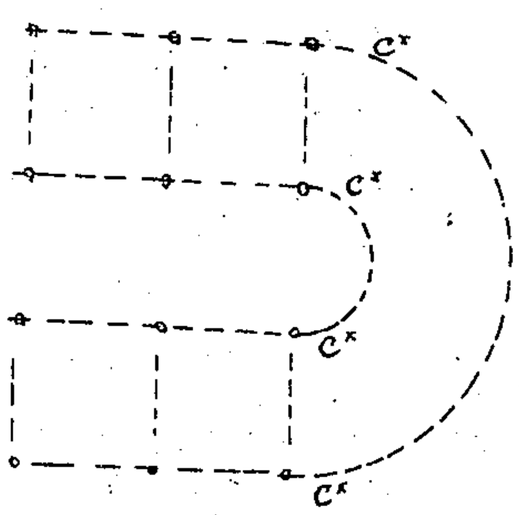
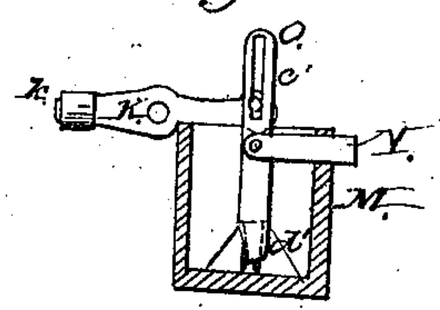


Fig. 5.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN SEEDING-MACHINES.

Specification forming part of Letters Patent No. **30,890**, dated December 11, 1860.

To all whom it may concern:

Be it known that I, J. V. H. SECOR, of the city, county, and State of New York, have invented a new and Improved Seeding-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 4; Fig. 2, a transverse vertical section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a side sectional view of the same, taken in the line *z z*, Fig. 2; Fig. 4, a horizontal section of the same, taken in the line *x' x'*, Fig. 1; Fig. 5, a vertical section of one of the hoppers of the same, taken in the line *y' y'*, Fig. 1; Fig. 6, a diagram showing the operation of the device in turning at the ends of rows.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved seeding-machine of that class which are used for planting seeds in hills or drills and in checkrows when required.

The invention consists in an improved seed-distributing arrangement and parts pertaining to the operating of the same, and to an improved arrangement of the furrow and covering shares, and also to an improved means for elevating and lowering the front part of the machine.

The object of the invention is to obtain a simple and efficient device for the desired purpose, and one that will be under the perfect control of the driver and readily manipulated.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular frame, which is mounted on two wheels, B B, and has its draft-pole C secured to it by a pin or bolt, *a*, which passes transversely through an oblong slot, *b*, in the pole. In the back part of the draft-pole an eccentric, D, is fitted, said eccentric being on a shaft, E, which has a lever, F, at on end of it. By moving this lever F, and thereby turning the eccentric D, the inner end of the draft-pole, and consequently the front part of the machine, may be raised and lowered, it being understood that the front part of the draft-pole is retained at a certain height by the draft-animals.

On the frame A there are secured two uprights, *c c*, to the upper ends of which the driver's seat, E, is secured, and in the frame A, just below the seat E, there is secured a swinging frame, F', said frame working on a rod, *d*, which passes horizontally through the uprights *c c*. In the back part of this frame F' there is fitted a wheel, G, the periphery of which has transverse bars *e* attached to it at equal distances apart, and to the inner side of the periphery projections *f* are secured. The front part of the frame F' is connected to the front part of a platform, H, the back end of the latter being attached to a shaft, I, which is allowed to turn freely in its bearings. The platform H forms the foot-piece for the driver, and, when necessary, the driver may depress the platform, and thereby elevate the wheel G from the ground and render the seed-distributing device inoperative, as hereinafter described. The frame F' is prevented from casually moving, either when the wheel G is down or up, by means of an inclined or wedge-shaped projection, *g*, which is attached to a vertical shaft, J, in the frame A, the projection *g* being turned under one side of the front part of the frame F' when the wheel G is down, and turned over said frame when the wheel is elevated.

To each upright *c* there is attached a horizontal bar, *h*, the front ends of which are connected by a transverse piece resting on vertical supports *j*.

To the back end of each bar *h* there is secured a lever, K, and the inner ends of these levers have friction-rollers *k* on them, which project within the wheel G, as shown clearly in Fig. 2. The outer ends of the levers K K are connected each by a flat bar, *l*, to a slide, L, and these slides are fitted between guides *m m*, attached to the front sides of the hoppers M M, which are placed one at each side of the frame A. (See Fig. 2.) The front side, $a^{\times}$, of each hopper M has an oblique or inclined hole, *u*, made through it, and each slide L has a similar hole, *v*. (See Fig. 1.) The adjoining parts of the sides $a^{\times}$ of the hoppers and the slides L are faced with metal, as shown at *w* in Fig. 1.

To the lower part of each slide L there is attached a box, N, and into the upper parts of these boxes the lower ends of the bars *l* are fitted and work. The lower parts of these boxes N, at the lowest point of their move-

ment, register with passages a' in the lower parts of the sides $a^{\times}$ of the hoppers.

The outer end of each lever K, at its back side, has a screw, b', in it, and these screws pass through vertical slots c' in the bars or levers O, which are attached to the inner surfaces of the front sides, $a^{\times}$, of the hoppers M M. The lower parts of the bars or levers O are bent in spiral form, as shown at d' in Fig. 5.

From the above description it will be seen that as the machine is drawn along, the projections f on the inner periphery of the wheel G will actuate levers K—that is to say, when said wheel is on the ground—and the slides L will be elevated thereby, the slides falling by their own gravity as the projections f pass the inner ends of the levers K. As the slides L rise and reach the highest point of their movement the holes v in them pass above the holes u in the front sides, $a^{\times}$, of the hoppers M, and the bars l, by the upward movement of the outer ends of the levers K, are moved outward at their lower ends and allow the seed to pass from the holes v into the boxes N, the lower orifices of which are closed in consequence of being above the passages a' in the front sides, $a^{\times}$, of the hoppers. When the slides L descend, the bars l close over the holes v, and said holes fill with seed as they register with the holes u, and the boxes N register with the passages a', the seed dropped therein at the previous ascent of the slides passing through the passages a' into the furrows prepared to receive them. The bars or levers O are moved by the action of the levers K over the inner ends of the holes u, and serve as feeders to insure the passing of the seed through them into the holes v.

To each slide L a strap, P, is attached, by which the driver may actuate the slides manually when required.

Q Q are the furrow-shares, which are attached at their upper ends to shafts R R, said shafts being allowed to turn freely in their bearings.

To the front side of each share Q there is attached by a joint or pivot a bar, S, the upper ends of which are secured by pins e', which pass through projections f' on the frame A. By passing the pins e' through different holes in the bars S the shares Q may be inclined more or less to regulate the depth of the furrows as desired; or they may be elevated entirely above the ground when the machine is to be drawn from place to place.

T T are furrow-shares, which are secured to the shafts U U at the back part of the frame, said shafts being allowed to turn freely in their bearings. The shares T T are of V form in their horizontal section, and to each shaft T a spring, W, is attached. The springs W extend back and have their outer ends fitted in movable pendents X, which are secured to the outer sides of the hoppers M, as shown clearly in Fig. 3. By this arrangement it will be seen that the covering-shares are allowed to yield or give in case of meeting with any obstruction when the implement is in use. When the implement is not in use, or is being drawn from place to place, the shares T T are turned up and secured in an elevated position by means of buttons Y, which are turned down behind the upper ends of the springs, as shown in red in Fig. 3.

I would remark that the machine, in turning at the ends of rows, does not distribute the seed, the straps P being drawn up by the driver, and the slides L are operated by the driver at the first distribution, as shown at $c^{\times}$ in Fig. 6, in order that a proper commencement may be made to plow in check-rows. I would also remark that the projections e on the periphery of wheel G serve as markers to designate each dropping, and that a rod, $d^{\times}$, may be attached to frame A in order to serve as a guide for the driver to adjust wheel G at the commencement of the rows.

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

1. Elevating and depressing the front part of the frame A by means of the eccentric D, fitted in the back part of the draft-pole, and arranged essentially as and for the purpose set forth.

2. The arrangement of the adjustable frame F′, provided with the wheel G, and connected with the platform or foot-piece H, as and for the purpose specified.

3. The levers K K, bars l, slides L, boxes N, and sides $a^{\times}$ of the hoppers, arranged and combined to operate as and for the purpose set forth.

4. In connection with the levers K, slides L, and boxes N, the bars or levers O, arranged to operate conjointly with the parts aforesaid, for the purpose specified.

5. The arrangement of the furrow-shares Q with the shafts R and bars S, as and for the purpose set forth.

6. The arrangement of the covering-shares T T with the shafts U U, springs W W, adjustable pendants X, and buttons Y, as and for the purpose set forth.

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