(No Model.)

H. J. HILL.

POISON DISTRIBUTER.

No. 477,119. Patented June 14, 1892.

Fig. 1.

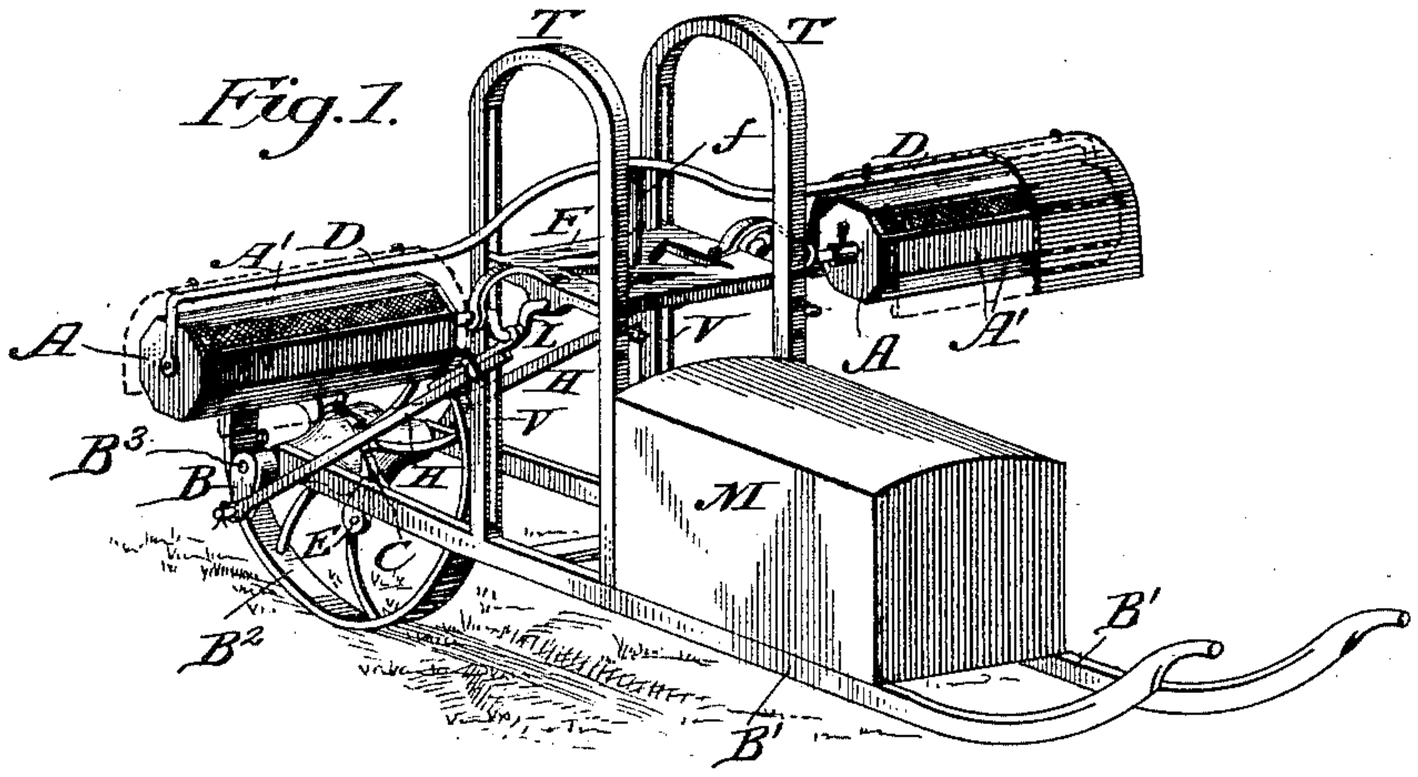


Fig. 2.

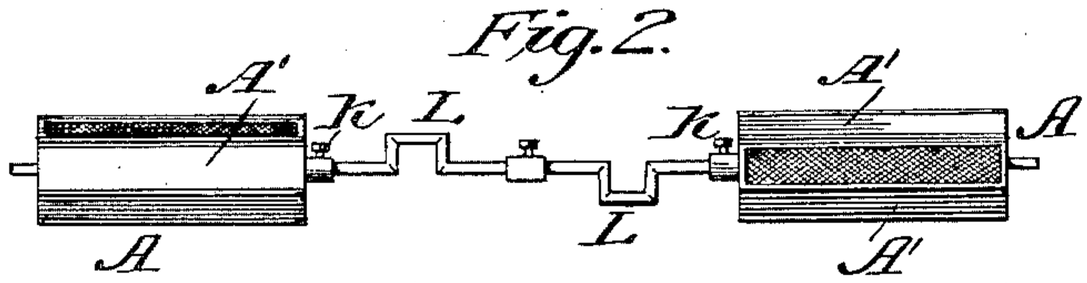


Fig. 3.

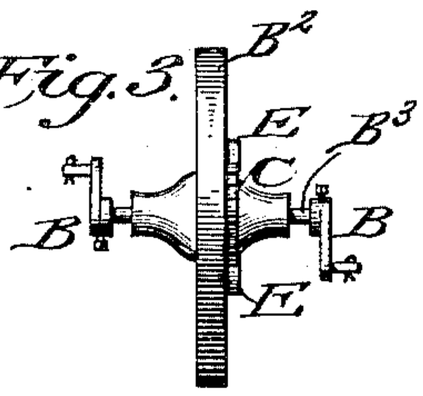


Fig. 4.

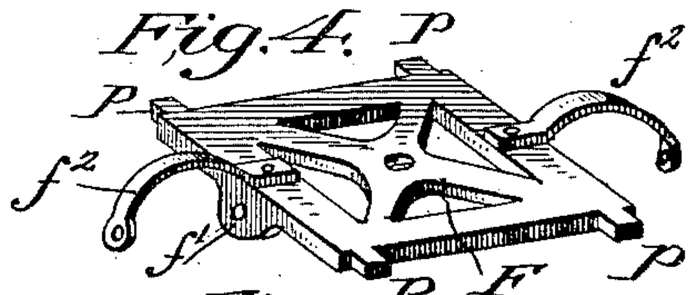


Fig. 6.

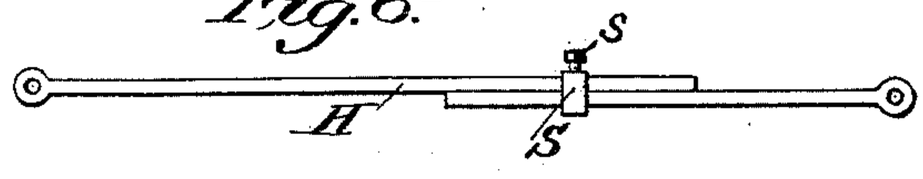


Fig. 5

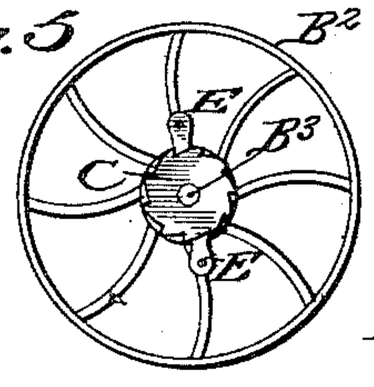


Fig. 7.

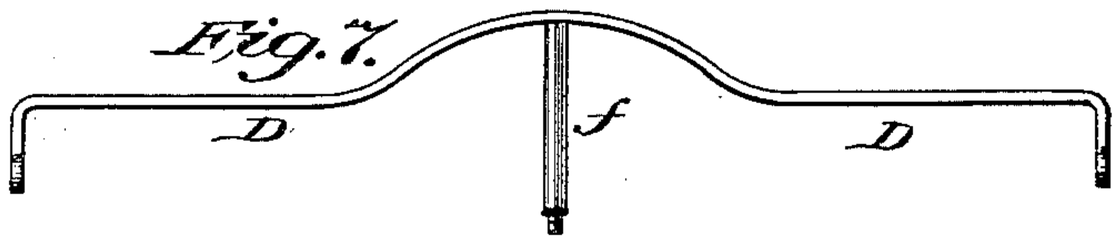


Fig. 8.

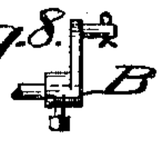
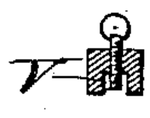


Fig. 9.



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UNITED STATES PATENT OFFICE.

HARRY J. HILL, OF PERRY'S MILLS, NEW YORK.

POISON-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 477,119, dated June 14, 1892.

Application filed May 4, 1891. Serial No. 391,580. (No model.)

To all whom it may concern:

Be it known that I, HARRY J. HILL, residing at Perry's Mills, in the county of Clinton and State of New York, have invented certain new and useful Improvements in Machines for Sprinkling Poison upon Plants, of which the following is a specification.

This invention relates particularly to a device for sprinkling powdered poison upon plants, the poison being carried by foraminous cylinders, which are revolved as they are transported.

The object of my invention is to provide a device of this character that shall be exceedingly light and simple in construction, easily adjusted to suit various-sized plants, and thoroughly efficient in operation.

With these objects in view my invention consists of a vertically-adjustable platform supported above the beams or main frame, a crank-shaft journaled upon said platform and carrying the distributing-cylinders, the pitman-rods for operating the crank-shaft and the operating-wheel, and intermediate devices for operating the said pitman-rods.

My invention consists, further, in certain details of construction and combination of parts, all of which will be fully described and claimed.

In the drawings forming a part of this specification, Figure 1 is a perspective view of my improved sprinkler. Fig. 2 is a detail view of the distributing-cylinder and crank-shaft. Fig. 3 is a front view of the operating-wheel-axle and crank-arms. Fig. 4 is a detail view of the adjustable platform. Fig. 5 is a side view of the operating-wheel. Fig. 6 is a detail view of the adjustable pitman-rod. Fig. 7 is a similar view of the hanger. Fig. 8 shows one of the crank-arms, and Fig. 9 is a sectional view of one of the upright standards.

In constructing my improved device I employ the parallel beams B′ B′, the operating-wheel B^2 being journaled between the forward ends of the same upon the axle B′, while the rear ends of said beams are shaped to form handles, as clearly shown. A box or receptacle M is attached to the beams near their rear ends for the purpose of storing the various parts of the device when not in use, and between the said box and the operating-wheel are arranged four upright standards T, said standards being arranged in pairs, each pair being connected with a separate beam, and preferably united at the top by a curved cross-piece. In the drawings I have shown each pair and cross-piece formed integral, though this is not at all necessary.

The opposing inner faces of each pair of standards are provided with the longitudinal grooves V V, and between the four standards T is arranged a vertically-adjustable platform F, said platform being provided with lugs *p* at its corners, which are adapted to enter the grooves V, whereby the platform can be guided vertically between the said uprights, and the said platform is held in its adjusted position by means of set-screws working through the standard and against the said lug.

The platform F is provided with journal-bearings *f′* upon its lower face at the opposite sides of the same, and in said bearings is mounted the double-cranked shaft L. Pendent bearing-plates f^2 are also secured to the upper face of the plates at the same sides as the bearing *f′*, said plates being curved or arched and project laterally outward and downward, and in their apertured lower ends is journaled the said crank-shaft L, the cranked portion of the shaft being arranged between the bearings *f′* and f^2. The distributing-cylinders A are mounted upon the outer ends of said shaft L, which cylinders are secured thereon by means of the set-screws *k*. These cylinders are formed of foraminous material to allow the powder to sift through the same, and said cylinders are provided with a slatted covering A′, composed of a number of slats, any one or number of which can be withdrawn to regulate the distribution of the poison from the cylinder. The cylinders are also supported by means of a hanger D, said hanger being itself supported centrally from the platform F by means of a post *f*, and the ends of said hanger are bent down and connected with the ends of the crank-shaft L, the said ends turning in the apertured ends of hanger, thereby providing three independent bearings for the crank-shaft. The axle of the operating-wheel has crank-arms B B connected therewith at the opposite ends of the same, and attached to said crank-arms are the pitmen-rods H H, the op-

posite ends of said pitmen-rods being connected with the cranked portions of the crank-shaft, whereby the said shaft, and consequently the cylinders, are revolved as the wheel B′ revolves. The pitmen-rods are formed in section, as shown, the overlapping ends of said sections working through a sleeve S, wherein they are secured at any desired point by means of set-screws *s*. The axle of the operating-wheel is also provided with a ratchet-disk C, and the wheel is provided with one or more pawls E, attached to the spokes, whereby the wheel can be moved backward without operating the crank-shaft and cylinder, but will insure the revolution of the axle when the wheel is moved forward.

In operation the cylinders are filled with the powder by withdrawing one of the slats, and after regulating the slats the powder is distributed by moving the machine forward between the rows of plants, thus sprinkling two rows of plants at the same time. The platform can be easily adjusted to suit any-sized plant, and the pitman can also be adjusted to complete the connection between the operating-wheel and crank-shaft, and said crank-shaft is rendered particularly steady by means of the various bearings and the peculiar arrangement of the same. The hoods protect the cylinders against wind and rain, and when the device is not in use it can be taken apart and the various parts arranged in the box M.

Having thus described my invention, what I claim as new is—

1. The combination, with the beams, of the vertically-adjustable platform supported above the same, the crank-shaft journaled upon said platform, the distributing-cylinders, the adjustable pitmen, the crank-arms, and operating-wheel, all arranged substantially as shown and described.

2. The combination, with the beams, of the upright standards, the vertically-adjustable platform arranged between the same, the crank-shaft journaled thereto, the cylinders, the hanger supported from the platform, the adjustable pitmen, the crank-arms, and operating-wheel, substantially as shown and described.

3. The combination, with the beams, of the operating-wheel, the axle whereof is provided with a ratchet-disk and crank-arms, the pawls attached to the wheel, the pitmen-rods, and the operating crank-shaft carrying the distributing-cylinders, substantially as shown and described.

4. The combination, with the supporting uprights, of the vertically-adjustable platform arranged between the same, the journal-bearings attached to the under side of said platform, the pendent bearing-plates attached also to said platform, the crank-shaft journaled in said bearings, the cylinders, the adjustable sectional pitmen-rods, the crank-arms, and operating-wheel, substantially as shown and described.

5. The combination, with the upright standards, of the vertically-adjustable platform, a post secured to said platform, a hanger supported upon said post, a crank-shaft having its ends journaled in the ends of the hanger, the cylinders mounted upon said shaft, the adjustable pitmen-rods connected to said shaft, and the operating devices, arranged substantially as shown and described.

6. The combination, with the crank-shaft, of the cylinders mounted thereon and formed of foraminous material, and the slatted covering surrounding said cylinders, one or more of the slats of said covering-slats being adapted to be withdrawn, substantially as and for the purpose described.

7. The combination, with the crank-shaft, of the cylinders mounted thereon, the hanger, and hoods attached to said hanger and adapted to protect the cylinders, substantially as described.

HARRY J. HILL.

Witnesses:
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