

(No Model.)

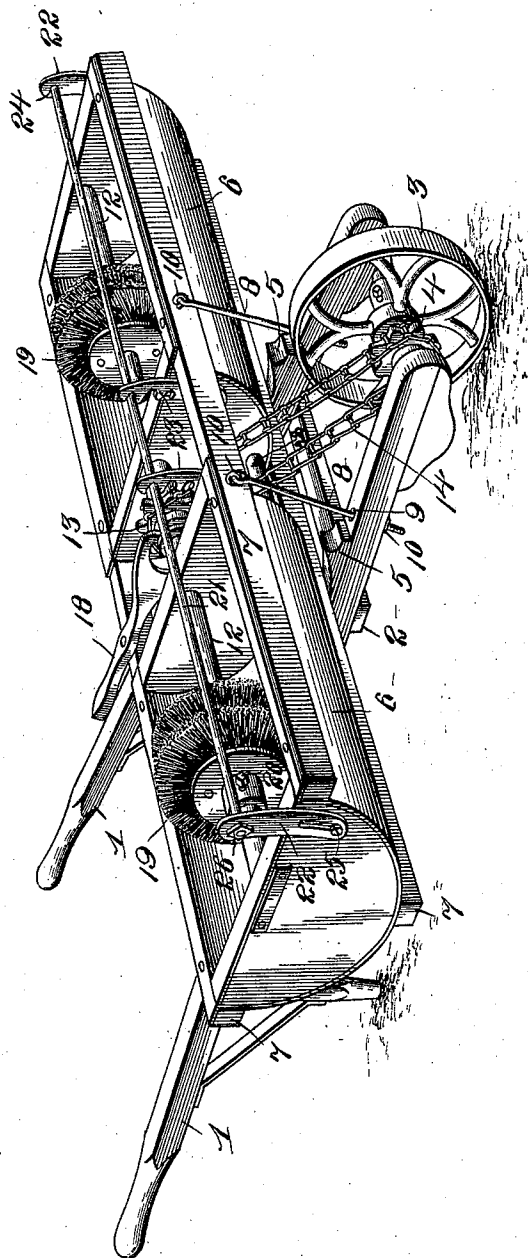
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J. GOHM.
INSECTICIDE DISTRIBUTER.

No. 574,798.

Patented Jan. 5, 1897.

Fig. 1.



Witnesses

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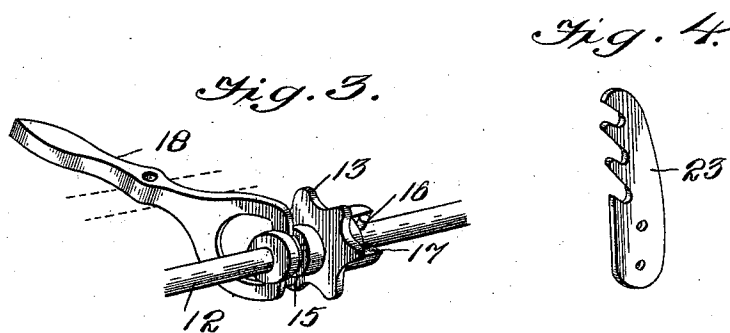
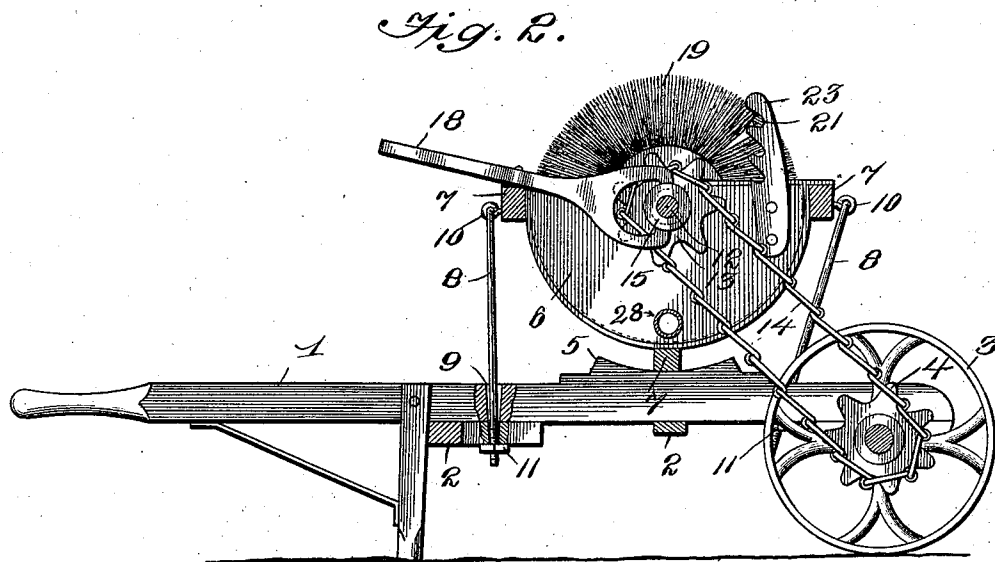
(No Model.)

2 Sheets—Sheet 2.

J. GOHM.
INSECTICIDE DISTRIBUTER.

No. 574,798.

Patented Jan. 5, 1897.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES GOHM, OF NEWPORT, RHODE ISLAND, ASSIGNOR OF TWO-THIRDS
TO MELVILLE BULL AND WILLIAM SHEPLEY, OF SAME PLACE.

INSECTICIDE-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 574,798, dated January 5, 1897.

Application filed January 31, 1896. Serial No. 577,580. (No model.)

To all whom it may concern:

Be it known that I, JAMES GOHM, a citizen of the United States, residing at Newport, in the county of Newport and State of Rhode Island, have invented a new and useful Insecticide-Distributor, of which the following is a specification.

My invention relates to an insecticide sprinkling or distributing device adapted for sprinkling paris-green, Bordeaux mixture, or equivalent insect-poison upon growing plants, such as potato-vines; and the object in view is to provide a simple and efficient construction and arrangement of parts whereby the same means are employed for agitating the mixture or maintaining the insecticide in suspension in the water or other liquid which is employed as a vehicle and discharging the same from the receptacle, to provide means for varying the rapidity of the discharge of the liquid, and to provide means for adjusting the receptacle with relation to the truck to suit the height of the operator.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a distributor constructed in accordance with my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a detail view of the chain-wheel carried by the brush-spindle, together with the clutch and the contiguous portion of the spindle. Fig. 4 is a detail view of one of the intermediate supports for the distributing-rod.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The truck upon which the distributing device embodying my invention is mounted is similar in construction to that of an ordinary wheelbarrow, with side bars 1, connected by cross-bars 2, and mounted between the front ends of the side bars is the ground-wheel 3, to the hub of which is secured a chain-wheel 4. Opposite concaved or rounded seats or rests 5 are arranged upon the side bars 1 to support the transversely-disposed receptacle 6, said receptacle comprising twin alined

troughs arranged, respectively, upon opposite sides of the longitudinal center of the truck and connected by the front, rear, and bottom bars 7, the front and rear edges of the troughs being flared outwardly and secured to the upper sides of the front and rear connecting-bars. The receptacle is secured to the truck by means of tie-rods 8, arranged, respectively, in front and in rear thereof and fitting at their lower extremities in openings 9, formed in the side bars of the truck. The upper extremities of these tie-rods are loosely connected, as by interlocking eyes 10, to the front and rear connecting-bars 7, and the lower ends thereof are threaded and engaged below the plane of the side bars of the truck by nuts 11. By means of these tie-rods and the nuts with which they are provided the receptacle may be adjusted to occupy any desired angular position with relation to the plane of the truck. In other words, said receptacle may be tilted either forwardly or rearwardly to the desired extent to suit the height of the operator and prevent the overflowing of the contents due, for instance, to the agitation thereof by the means hereinafter described.

Mounted in bearings formed in the opposite extremities of the troughs and extending continuously from one end of the receptacle to the other is a brush-spindle 12, upon the center of which, between the contiguous inner extremities of the troughs, is fitted a chain-wheel 13, connected by means of a chain 14 with the chain-wheel which is fixed to the ground-wheel. The chain-wheel 13 is loosely fitted upon the brush-spindle for movement axially thereon and is provided with a clutch member to engage a coacting clutch member on the spindle, whereby said chain-wheel may be locked to the spindle and communicate rotary motion to the same from the ground-wheel. In the construction illustrated said clutch consists of a notched member 23 on the hub of the chain-wheel 13 and lateral pins or studs 16 on the spindle. Arranged in operative relation with a circumferential groove 15, formed also in the hub of the chain-wheel 13, is a hand-lever 18, whereby the clutch members may be thrown out of engagement to allow the spindle to remain at rest

during the movement of the apparatus from place to place.

Fitted for adjustment upon the brush-spindle and arranged, respectively, in said troughs or compartments of the receptacle are the rotary brushes 19, and as the receptacle is approximately semicylindrical and the spindle is mounted contiguous to the upper edges thereof it will be seen that the brushes, which are circular in construction, project for approximately one-half their width above the plane of the top of the receptacle, while their lower sides extend approximately to the bottom thereof. This arrangement of the brushes in the open-topped receptacle, which is adapted to contain the mixture to be distributed, provides for the agitation of the said liquid throughout the operation of the distributor, and as these brushes are also designed to distribute the liquid to the plants as the apparatus is moved parallel with the rows of plants it will be seen that the brushes perform the double function of maintaining the insecticide in suspension in the liquid and discharging the same upon the plants. The liquid is discharged directly from the receptacle in which it is carried. In order to provide for adjusting the brushes to suit the interval between the rows of plants to be sprinkled, the brushes are mounted to slide upon the spindle and are fitted with set-screws 20 to lock them at the desired adjustment.

The means which I have provided for discharging the spray in a given direction consists of a rod 21, arranged parallel with the brush-spindle and in advance thereof, the same being supported at its extremities by terminal brackets 22, secured to the outer ends of the troughs, and supported near its center by intermediate brackets 23, secured to the inner or contiguous ends of the troughs. The terminal brackets are preferably provided with openings 24, through which the threaded extremities of the distributing-rod project, said brackets being vertically slotted and engaged by set-screws 25 on the ends of the receptacle, whereby said rod may be vertically adjusted to cause it to obstruct the bristles of the brush more or less, as required. Said threaded extremities of the rod are fitted with adjusting-nuts 26, whereby the desired tension of the rod may be secured, it being necessary for the proper operation of the mechanism to prevent vibration of the rod. The intermediate brackets are preferably secured rigidly to the receptacle and are provided in their rear edges with series of notches or seats 27, whereby as the extremities of the rod are adjusted by means of the terminal brackets the intermediate portions thereof may be arranged in different notches or seats to suit the terminal adjustment.

From the above description it will be seen that the spraying of the liquid containing the insecticide is produced by the same means employed for agitating the contents of the receptacle, and that the extent of the obstruction

offered to the forward movement of the bristles may be varied by the adjustment of the distributing-rod to engage said bristles at various distances from the axis of movement of the brushes. When a slight resistance is offered to the bristles, a fine spray is thrown a long distance in front of the machine, whereas when greater resistance is offered by the downward adjustment of the rod a heavy or coarse spray is projected a shorter distance. Inasmuch as the distributing-rod extends continuously from one end of the receptacle to the other, it is in operative relation with the brushes in all positions of the latter.

A transverse equalizing-conductor 28 is arranged between the inner extremities of the troughs and connects the interiors thereof to insure uniform level of the contents of the troughs, whereby the balance of the apparatus is maintained.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a distributor, the combination of an open-topped receptacle adapted to contain and forming a reservoir for a liquid having a powdered insecticide, or its equivalent, in suspension, a rotary distributing and agitating brush arranged at its lower side within the receptacle and projecting at its upper side above the plane thereof, whereby the contents of the receptacle are agitated to hold the insecticide in suspension, a rod for obstructing the bristles of the upper side of the brush and means for communicating motion to the brush, substantially as specified.

2. In a distributor, the combination of a semicylindrical adjustable receptacle, a distributing-brush mounted with its lower side within said receptacle, operating connections for the brush, a rod disposed transversely in the path of the extremities of the brush-bristles to impede the forward movement thereof, terminal slotted brackets carried by the receptacle for supporting the rod, and set-screws engaging the slots of the brackets and adapted to secure the latter at the desired adjustment to vary the extent of obstruction offered by the rod to the brush-bristles, substantially as specified.

3. In a distributor, the combination with a truck, of a transversely-elongated receptacle mounted upon the truck, a brush-spindle arranged in and parallel with the receptacle, distributing-brushes adjustably fitted upon the spindle whereby the interval therebetween may be varied, said brushes operating at their lower sides in the receptacle, operating connections for communicating motion to the distributing-brushes, and means for impeding the forward movement of the brush-bristles, substantially as specified.

4. In a distributor, the combination with a

truck, of a receptacle mounted upon the truck, a transverse brush-spindle mounted upon the receptacle, brushes adjustably fitted upon the spindle whereby the interval therebetween may be varied, operating connections for communicating motion to the brushes, and means for impeding the forward movement of the brush-bristles, said means including a transverse rod, adjustable terminal brackets for supporting the extremities of said rod, and intermediate brackets provided with series of notches or seats to receive the rod, substantially as specified.

5. In a distributor, the combination with a truck, of a receptacle mounted thereon, a transverse brush-spindle, means for communicating rotary motion to the brush-spindle, brushes fitted upon the brush-spindle and operating at their lower sides in the receptacle, terminal and intermediate brackets arranged upon a transverseline in advance of the brush-spindle, and a distributing-rod extending through and supported by said brackets and provided with tension devices whereby the tension thereof may be adjusted, substantially as specified.

6. In a distributor, the combination of a truck, an open-topped receptacle mounted upon the truck to rock forwardly and rearwardly and having a transverse axis, means for securing the receptacle at the desired angular adjustment with relation to the plane

of the truck, distributing-brushes mounted upon and arranged at their lower sides within the receptacle and with their upper sides above the top of the same, and means for communicating rotary motion to the brushes, substantially as specified.

7. In a distributor, the combination of a truck provided with opposite concaved seats or rests, a receptacle mounted upon said seats or rests and capable of forward and rearward rocking adjustment, means for securing the receptacle in the desired angular position with relation to the plane of the truck, distributing-brushes, and means for communicating rotary motion thereto, substantially as specified.

8. In a distributor, the combination of a truck, a receptacle mounted transversely upon the truck and capable of forward and rearward angular adjustment, tie-rods loosely connected to the front and rear sides of the receptacle, means for adjusting the tie-rods with relation to the truck, distributing-brushes, and means for communicating rotary motion thereto, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES GOHM.

Witnesses:

HARRY L. DE BLOIS,
WILLIAM SMITH.