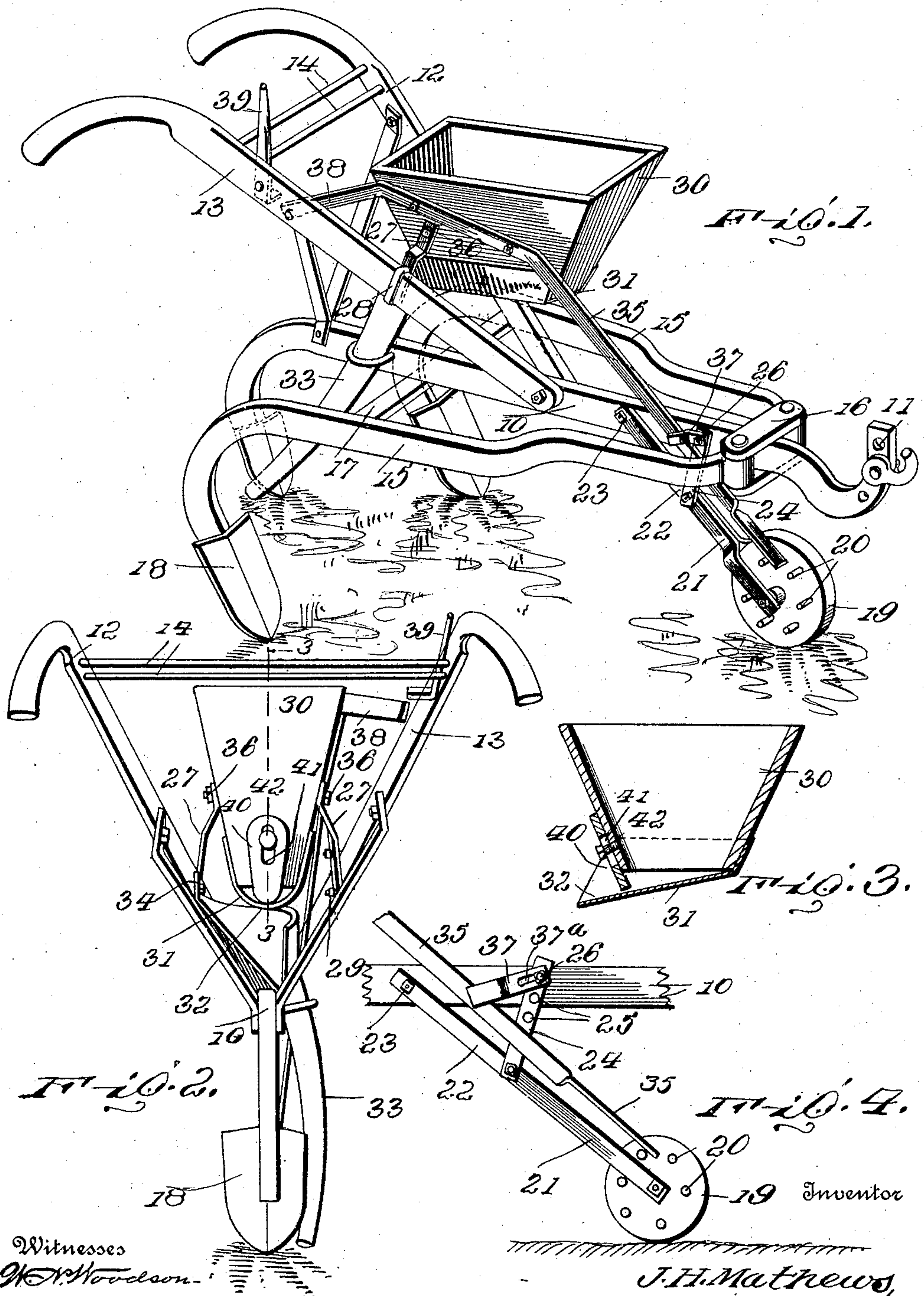


J. H. MATHEWS.  
FERTILIZER DISTRIBUTER.  
APPLICATION FILED SEPT. 21, 1910.

986,840.

Patented Mar. 14, 1911.



Witnesses  
W. H. Woodson  
Juana M. Fallin.

Inventor  
J. H. Mathews,  
By *W. A. Macy*, Attorneys.



# UNITED STATES PATENT OFFICE.

JOHN H. MATHEWS, OF COLLINSVILLE, ALABAMA.

FERTILIZER-DISTRIBUTER.

986,840.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed September 21, 1910. Serial No. 583,079.

*To all whom it may concern:*

Be it known that I, JOHN H. MATHEWS, a citizen of the United States, residing at Collinsville, in the county of Dekalb and State of Alabama, have invented certain new and useful Improvements in Fertilizer-Distributers, of which the following is a specification.

This invention relates to fertilizer distributers and planters, and has for an object to provide an improved structure wherein the container or hopper is pivoted upon a frame and is rocked or vibrated by a tappet wheel.

The invention has for another object to provide the frame with a stop to limit the throw of the tappet arm, and with a second stop for engagement with a retaining arm for holding the hopper from movement and for raising the tappet arm out of the path of the tappet wheel.

The invention contemplates other detail improvements in the construction of the improved distributer which will be more specifically referred to and brought out as the description proceeds.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of the complete distributer; Fig. 2 is a rear elevation of the same, parts thereof being broken away; Fig. 3 is a detail sectional view on the line 3—3 of Fig. 2 of the hopper employed; and, Fig. 4 is a side elevation of the forward end of the distributer.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings the numeral 10 designates the beam of the frame of the improved planter terminating at its forward end in the clevis 11. A pair of diverging handles 12 and 13 extend rearwardly and upwardly from the central portion of the beam 10 and are suitably held in spaced relation by transverse braces 14. Side bars 15 are disposed at the opposite sides of the beam 10 and are held in such position by a

yoke 16 at their forward ends and a transverse brace 17 at their rear ends. The yoke 16 engages against the upper and lower edges of the beam 10 at its forward end, and the brace 17 engages against the lower edge of the beam 10 at its rear end. The rear end of the beam 10 and the side bars 15 terminate in downturned standards for supporting shovels 18. The forward end of the beam 10 is supported in substantially a horizontal position by a wheel 19 provided in one side with a plurality of pins or fingers 20 adjacent to the edge of the wheel 19, the wheel 19 being supported in a forked member 21 disposed upon the lower extremity of an arm 22. The arm 22 is pivoted upon the beam 10 forwardly of the handles 12 and 13 by a bolt 23. A link 24 extends across one side of the beam 10 and the arm 22 to reinforce the arm. The link 24 is provided with a plurality of openings 25 for the reception of an adjusting bolt 26 to retain the link in position when adjusted.

The handles 12 and 13 are provided with a pair of transverse registering brackets or supports 27, each support comprising a strip of metal engaging across the inner face of the adjacent handle and secured thereagainst by a strap 28 disposed across the opposite face of the adjacent handle and secured to the main strip by binding bolts 29. The brackets or supports 27 can thus be adjusted longitudinally upon the handles 13 and 14. Pivoted between the upper ends of the supports or brackets 27 is a container or hopper 30. The hopper 30 is of the usual form, being reduced or tapering at its lower end, and is provided with an elongated trough 31 extending in spaced relation below the lower extremity of the hopper 30. The trough 31 is preferably formed of a sheet of metal having its opposite longitudinal edges upturned and engaging against the sides of the hopper 30 and having its forward end upturned to engage against the front wall of the hopper 30. The rear end of the trough 31 terminates in a lip or extension 32 from which the fertilizer or seed is adapted to fall.

The distributer is provided with a spout 33 which is attached at its upper end to a rigid arm 34 carried against the inner face of the handle 12. The spout 33 is enlarged



or flared at its upper end, which end is arranged immediately beneath the lip 32 to receive the seed or fertilizer therefrom. The hopper 30 is provided at one side with a  
 5 tappet arm 35 extending forwardly and downwardly from the hopper 30 and terminating at its lower extremity in the path of the fingers or pins 20 of wheel 19. The hopper 30 is pivoted upon a transverse bolt  
 10 36 which passes through the hopper at a point adjacent to its rear end. The weight of the hopper 30, therefore, tends to depress the forward end thereof. The tappet arm 35 rests upon the pins 20 and supports the  
 15 forward end of the hopper. A stop 37 is carried upon the beam 10 and is in the form of an offset finger or arm adjustably attached to the beam 10 by the bolt 26. The inner end of the stop 37 is provided with a  
 20 longitudinal slot 37<sup>a</sup> to admit of the adjustment of the same. Extending outwardly from the hopper 30 and terminating at a point adjacent to the inner face of the handle 13 is a retaining arm 38 adapted to  
 25 be engaged by a lock lever 39 pivoted against the inner side of the handle 13.

The spout 33 may be of any form desired and may terminate immediately behind the central shovel 18 or at any other point desired for conducting the seed into the open  
 30 furrow.

When in operation the tappet wheel 19 rotates and brings the pins 20 consecutively into engagement with the lower end of the  
 35 tappet arm 35. This operation effects the striking action of the pins 20 against the arm 35 and produces the rocking or vibrating of the hopper 30. The stop 37 is adjusted to limit the upward movement of  
 40 the tappet arm 35 and thereby jar the hopper 30. The offset portion of the stop 37 engages about the tappet arm 35 and serves as a guide to hold the same from outward movement from the pins 20. When it is  
 45 desired to adjust the mechanism to hold the hopper 30 out of operation, the locking lever 39 is drawn into position to engage against the outer end of the retaining arm 38 to raise the lower end of the tappet arm  
 50 35 from the pins 20.

The hopper 30 is provided at its rear end with a gate 40 depending into the trough 31 to regulate the flow of seed or fertilizer from the trough 31. The gate 40 comprises  
 55 a flat bar having a longitudinal slot 41 in its upper end for the reception of a set screw 42 carried in the rear end of the hopper 30. By the provision of the slot 41 and the set screw 42 the gate 40 is raised or  
 60 lowered to regulate the flow of the material from the hopper 30 into the spout 33.

Having thus described the invention, what is claimed is:

1. A distributor including a frame, a tap-  
 65 pet wheel carried by the frame and having

laterally extending pins at one side, a pair of rearwardly and upwardly diverging handles carried by the frame, registering supports adjustably mounted upon the handles, a hopper pivoted between the upper ends of  
 70 the supports at its rear extremities, a tappet arm forwardly extending from the hopper and terminating in the path of the tappet wheel, and a stop disposed upon the frame and engaging with the tappet arm to con-  
 75 trol the throw of the same.

2. A distributor including a frame, a hopper pivoted within the frame, a tappet arm carried by the hopper, a tappet wheel mounted in the frame and engaging with  
 80 the tappet arm, and an adjustable stop carried by the frame for controlling the throw of the tappet arm under the action of the tappet wheel.

3. A distributor including a frame, a  
 85 hopper pivoted at one end in the frame, a tappet arm extending from the opposite end of the hopper, a tappet wheel carried in the frame and engaging with the tappet arm, an adjustable stop carried by the frame  
 90 and engaging with the tappet arm to control the movement of the same, a retaining arm extending inwardly from the pivoted end of the hopper, and a locking lever carried by the frame for engagement with the re-  
 95 taining arm to hold the hopper from movement.

4. A distributor including a frame, a hopper pivoted within the frame, a trough disposed beneath the hopper and having a  
 100 rearwardly projecting lip, a spout secured rigidly in the frame beneath the lip, a tappet arm carried by the hopper to vibrate the same, a tappet wheel mounted in the frame for engagement with the tappet arm,  
 105 and rocking means adjustably disposed in the frame for controlling the movement of the tappet arm.

5. A distributor including a frame, a hopper pivoted within the frame, a tappet  
 110 arm mounted on the hopper, a tappet wheel journaled in the frame for engagement with the tappet arm, an adjustable stop arranged within the frame for engagement about the tappet arm to control the movement of the  
 115 same and to hold the tappet arm in alignment with the tappet wheel, and a locking lever mounted on the frame adapted to hold the hopper from movement.

6. A distributor including a frame, ad-  
 120 justable supports mounted in the frame, a hopper pivoted at one end between the supports, a tappet arm carried upon the outer end of the hopper, a tappet wheel journaled in the frame for engagement with the tap-  
 125 pet arm to vibrate the hopper, an adjustable stop mounted in the frame for engagement with the tappet arm to control the throw thereof, a trough carried against the bottom of said hopper and having a dispensing lip  
 130



at its rear end, a fixed spout carried by the  
frame in registration with the dispensing  
lip, a retaining arm projecting from the  
inner end of the hopper, and a locking lever  
5 carried by the frame for engagement with  
the retaining arm for holding the hopper  
from movement.

In testimony whereof, I affix my signa-  
ture in presence of two witnesses.

JOHN H. MATHEWS. [L. S.]

Witnesses:

G. W. REEVE,  
H. P. McWHARTER.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
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