

(No Model.)

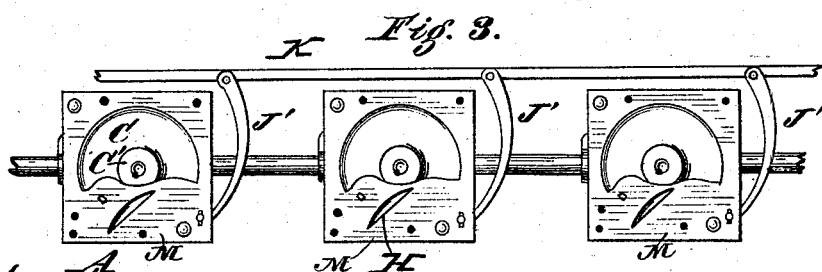
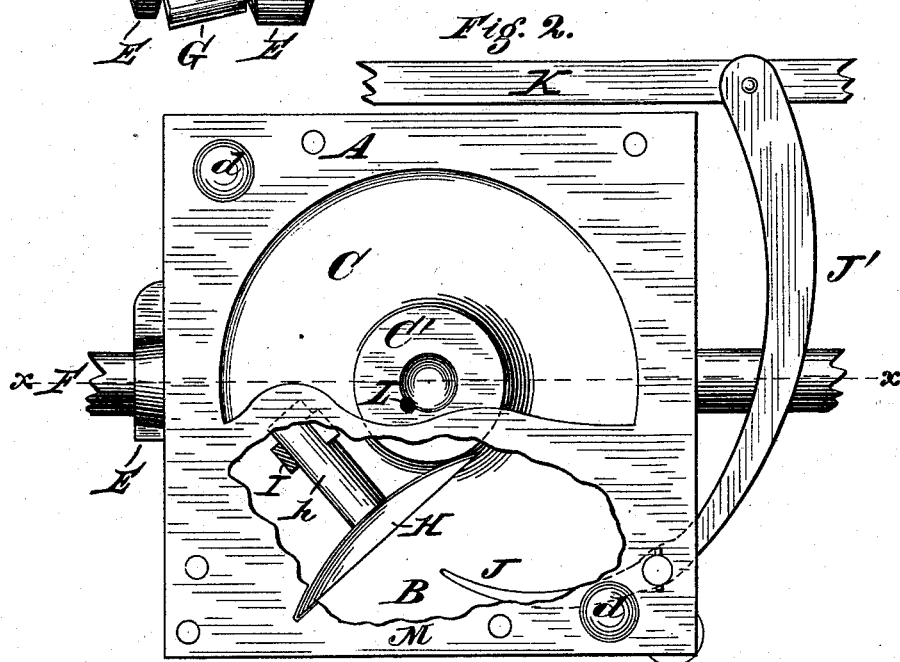
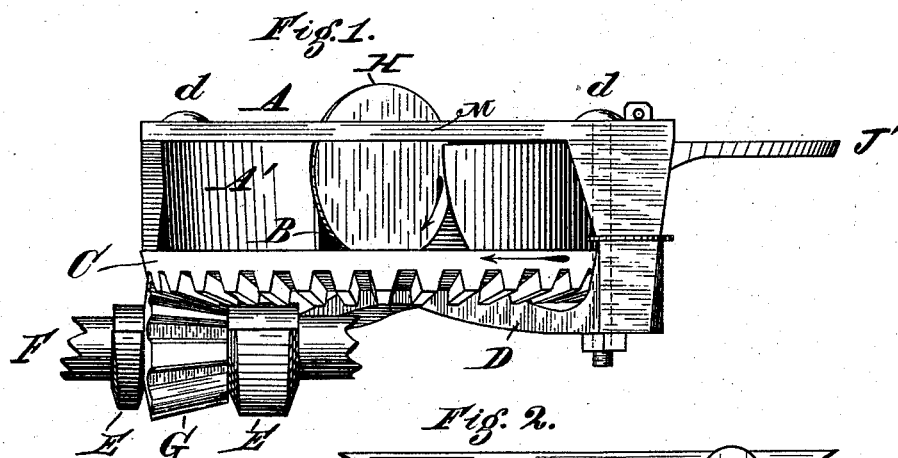
2 Sheets—Sheet 1.

E. D. MEAD.

FERTILIZER DISTRIBUTER.

No. 261,745.

Patented July 25, 1882.



*Attest,*  
*Geo. C. Wiles,*  
*Geo. E. Jones*

*Inventor,*  
*Edwin S. Mead*  
*by Wood & Bond*  
*his attorneys*

(No Model.)

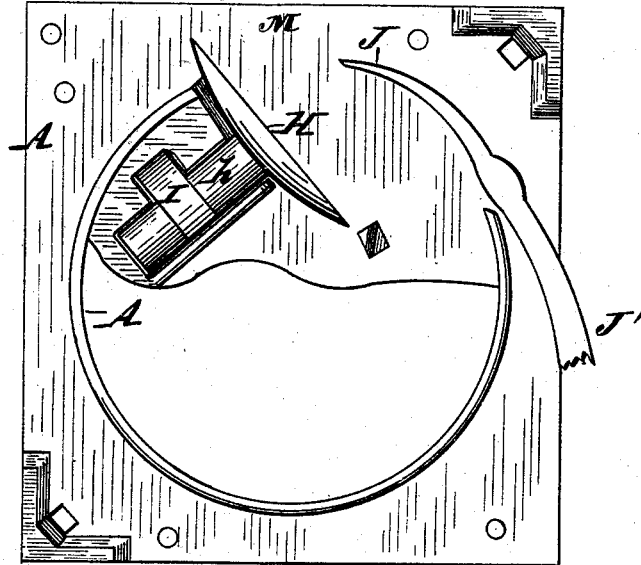
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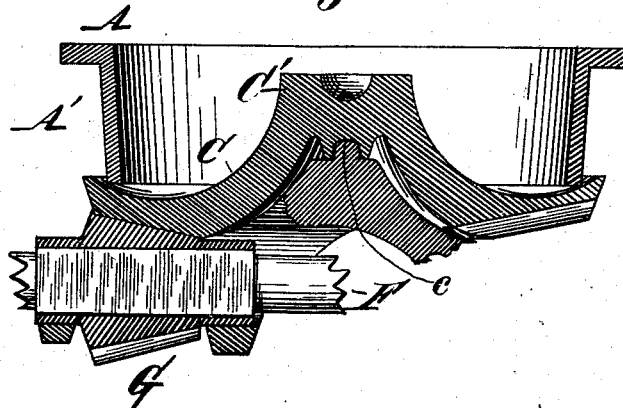
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*Fig. 4.*



*Fig. 5.*



Attest,

Jno. E. Wiles.  
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his Attorneys &c.

# UNITED STATES PATENT OFFICE.

EDWIN D. MEAD, OF SHORTSVILLE, N. Y., ASSIGNOR OF ONE-HALF TO THE FARMERS FRIEND MANUFACTURING COMPANY, OF DAYTON, OHIO.

## FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 261,745, dated July 25, 1882.

Application filed April 21, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN D. MEAD, a citizen of the United States, residing at the town of Shortsville, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Fertilizer-Distributors, of which the following is a specification.

My invention relates to that class of distributors which employ horizontally-rotating feed-wheels arranged in the bottom of the hopper for carrying the fertilizing material to the discharge-orifice; and it consists in the employment of a series of rotating disks the upper or carrying-faces of which are concave in an annular line between their centers and peripheries, in connection with a vertical discharge-wheel having an independent bearing, so that it may revolve diagonally across and in contact with the concave portion of the carrying-disk, which is preferably made with a cone-shaped center.

The second part of my invention consists of a series of vertically-pivoted gates, which move horizontally to regulate the discharge-orifice of each distributor.

The third part of my invention consists of a sectional hopper-bottom having a downwardly-projecting flange, in which is the discharge-orifice, and provided on one side of such orifice with a bearing for the vertical discharge-wheel, and a shield or cover over the discharge-orifice to prevent the discharge of the material to be sown, except as the same be carried by the disk.

These and other features of the invention will be clearly shown in the drawings and specified in the claims.

Figure 1 is an elevation of one of my improved distributors, showing the actuating-shaft in connection therewith broken off. Fig. 2 is a plan view of the same, with a portion of the hopper-bottom or top plate broken away to show the discharge-wheel and regulating-gate. Fig. 3 is a plan view, showing the arrangement of a number of the distributing-cups. Fig. 4 is a bottom plan view of Fig. 2, with the feed-wheel-actuating shaft and bearing-arm removed. Fig. 5 is a cross-section on line *x x*, Fig. 2.

A represents the top plate of the distributor-cup, forming a sectional hopper-bottom.

A' is a depending flange on the bottom of

plate A. A section of flange A' is cut away to form the discharge-orifice B.

C represents the feed-wheel, bearing and rotating on a stud, *c*, formed on the cross-arm D. The cross-arm D is adjustably secured to the frame A by bolts *d d*, and is provided with journal-bearings E for the actuating-shaft F, carrying the bevel-pinion G, which engages the rack-teeth constructed on the under side of carrier-wheel C. The carrier-wheel C is made concave, and preferably with a central truncated cone-shaped boss, C'.

H represents the discharge-disk. It is arranged vertically within the discharge-orifice B, and journals by a short stud-shaft, *h*, in an adjustable bearing, I, suspended from the frame A. This I deem the preferred manner of journaling the discharge-wheel H; but it is obvious other means may be supplied. The discharge-wheel H rests in the concavity of carrier-wheel C, tangentially to its axis, and is rotated by frictional contact therewith. As here shown, the vertical wheel H projects through a slot in the top plate, A, and the latter is extended horizontally over the discharge-orifice B to form a shield or cover, M, to the said orifice for the purpose of preventing the discharge of the fertilizing material, except as carried by the feed wheel or disk C.

J represents vertical cut-off and regulating gates, pivoted on the under side of plate A, so as to move horizontally in the discharge-orifice, and are connected together to operate in unison by a rod, K, pivoted at the outer ends of the arms J.

L represents an inclined perforation or eye in the upper face of boss C', in which a pin or stirrer may be inserted to agitate and stir the material to be sown.

I claim—

1. In a fertilizer-distributor, the combination of a horizontal rotary wheel or disk for carrying the material with a vertically-arranged rotary wheel for discharging the material through the delivery-orifice, substantially as described.
2. In a fertilizer-distributor, the combination of a horizontal rotary feed wheel or disk, having a concave face for carrying the material, with a vertically-arranged rotary wheel adapted to the concavity of the feed wheel or disk,

for discharging the material through the delivery-orifice, substantially as described.

3. In a fertilizer-distributor, the combination of a horizontal rotary feed wheel or disk for carrying the material with a vertical wheel arranged to rotate above the feed-wheel at one side of the delivery-orifice, for discharging the material from the wheel through the said orifice, substantially as described.

4. In a fertilizer-distributor, the combination of a horizontal rotary feed wheel or disk for carrying the material with a vertical wheel rotated by frictional contact with the top surface of the feed wheel or disk, for discharging the material therefrom through the delivery-orifice, substantially as described.

5. In a fertilizer-distributor, the combination of a top plate, A, and a horizontal rotary feed wheel or disk for carrying the material, with a vertical wheel, H, rotating in a bearing supported by said top plate and arranged in the delivery-orifice to discharge the material, substantially as described.

6. In a fertilizer-distributor, the combination of a horizontal rotary feed wheel or disk for carrying the material, a vertically-arranged ro-

tary wheel for discharging the material from the feed wheel or disk through the delivery-orifice, and a pivoted gate arranged to move horizontally toward and from the vertical wheel for regulating the discharge, substantially as described.

7. The top plate of the secondary hopper, provided with a depending flange having a lateral discharge-orifice, and a shield or cover extending over the discharge-orifice, substantially as described.

8. The combination of the top plate of the secondary hopper, provided with a depending flange having a delivery-orifice, and a shield or cover projecting over the delivery-orifice, with a horizontal rotary feed wheel or disk and a vertical discharge-wheel rotating in the delivery-orifice to discharge the material, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence two subscribing witnesses.

EDWIN D. MEAD. [L. S.]

Witnesses:

N. K. COLE,  
JANE A. COLE.