

(No Model.)

W. JOHNSON.
FERTILIZER DISTRIBUTER.

No. 497,182.

Patented May 9, 1893.

Fig. 1.

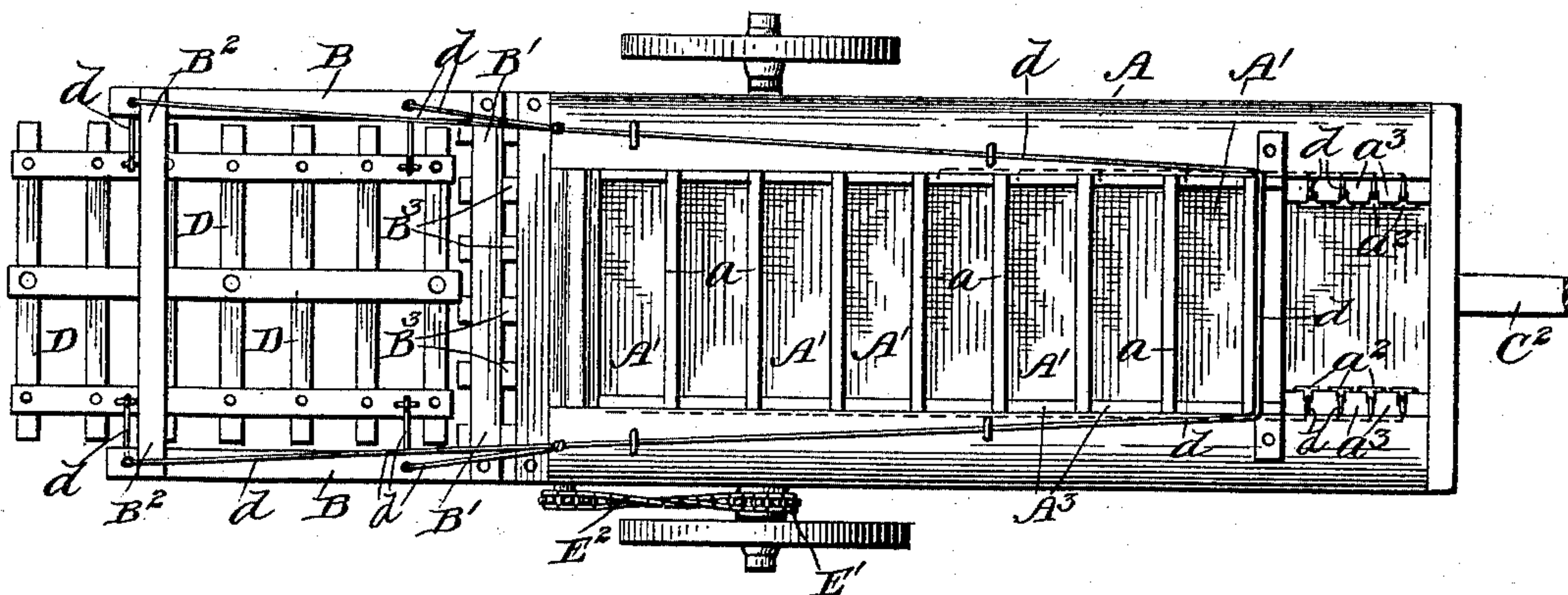


Fig. 2.

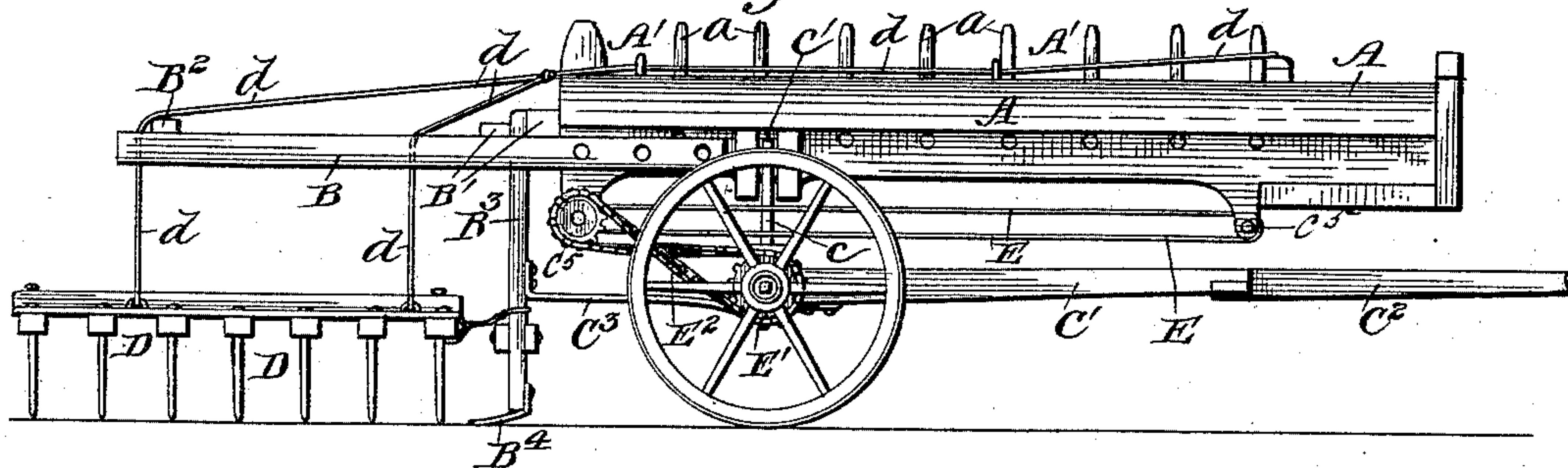
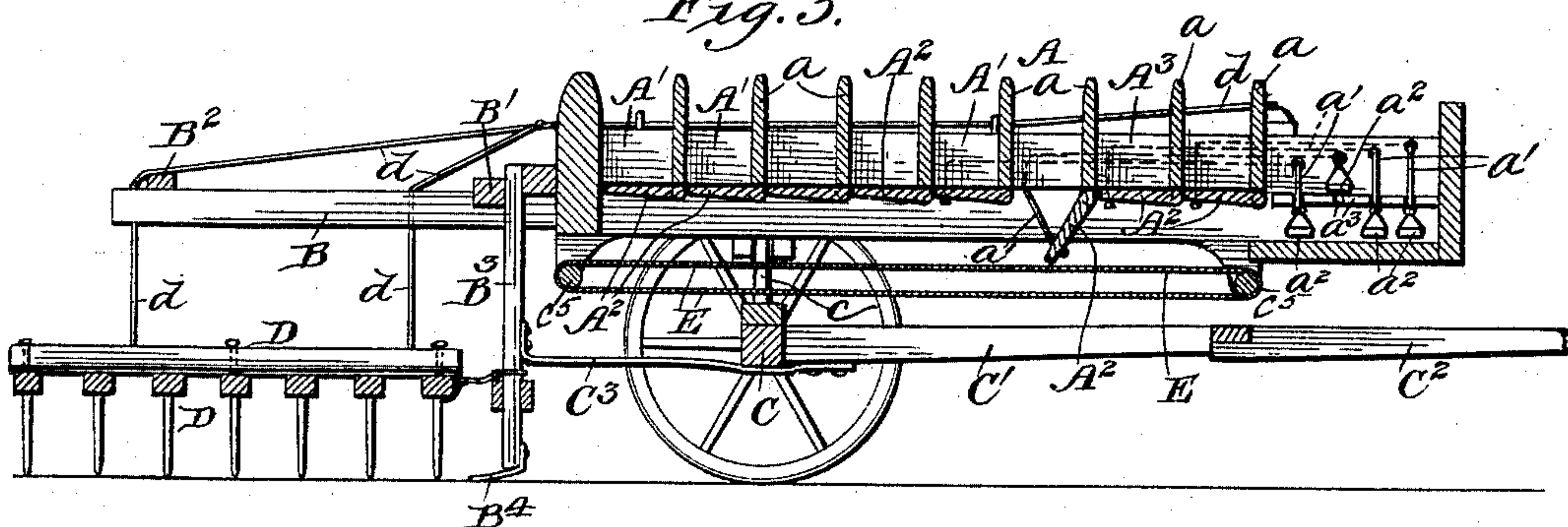


Fig. 3.



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WILLIAM JOHNSON, OF O'BRIEN COUNTY, ASSIGNOR OF ONE-HALF TO THOMAS BEACOM, OF SHELDON, IOWA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 497,182, dated May 9, 1893.

Application filed January 14, 1893. Serial No. 458,342. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM JOHNSON, a citizen of the United States, residing in the county of O'Brien and State of Iowa, have
5 invented new and useful Improvements in Fertilizer-Distributers, of which the following is a specification.

This invention relates generally to fertilizer distributors, and more particularly to a
10 combined distributor, spreader and harrow.

The object of my invention is to provide a device which shall deposit a definite amount of manure, and distribute or spread the same evenly at that point.

15 With this object in view my invention consists broadly of a series of hoppers each having a hinged bottom, an endless distributing apron extending beneath all the hoppers, and a harrow arranged at the rear of the hoppers
20 and distributor.

My invention consists also in certain details of construction and combination of parts, all of which will be fully described hereinafter and pointed out in the claims.

25 In the drawings forming a part of this specification, Figure 1 is a top plan view, Fig. 2 is a side view and Fig. 3 is a vertical longitudinal section.

In carrying out my invention I employ a
30 main frame, A, rectangular in shape, said frame being divided into a series of hoppers or compartments, A', by means of the vertical transverse partitions *a*. Each hopper has a bottom, A², hinged thereto, said bottoms being held up to close the hopper by means of
35 ropes, *a'*, which extend alongside the frame, beneath a shield, A³, until they reach the front of the machine, where they are provided with handles *a*². These ropes are adapted to be
40 secured to notched plates, *a*³, located at the sides of the compartment at the front of the machine and in which the operator sits. Beams, B, B, are attached to the rear end of the main frame and project rearward as
45 shown, said beams being connected by means of the front and rear cross beams—B' and B² respectively. From the cross beam B' depends a set of standards B³ said standards carrying the runners B⁴ at their lower ends.

50 The main frame A is adjustably supported

upon the axle C, said axle having vertical guiding standards, *c*, which work in the guide ways *c'* on the side of the main frame. Hounds C' are attached to the axle and extend forward therefrom, and to said hounds the tongue
55 C² is attached. Stout springs C³ connect the axle with the end standards, B³, thereby allowing the frame to have an easy motion on the axle, and preventing jarring.

A harrow, D, is arranged to the rear of the
60 runners B⁴ said harrow being connected with the standards and suspended from the beams B, B, the suspending ropes *d*, *d*, extending to the front of the machine within easy reach of the operator whereby the harrow can be ele-
65 vated when it is desired.

Beneath the hoppers is arranged an endless distributor belt or apron, E, said apron extending the entire length of the main frame and is mounted upon shafts C⁵ journaled in
70 the sides of said frame. A sprocket wheel E' is mounted upon the axle of the machine and imparts motion to one of the apron shafts through a drive chain E² the chain being so arranged that as the machine moves forward,
75 the apron moves rearward, thereby carrying the manure deposited by any hopper to the rear, and adjacent to the runners and harrows.

In operation all the bottoms are raised and locked, and the hoppers filled. The harrow
80 is then adjusted, and the machine moved forward. The apron is then constantly moving rearward, and when it is desired to drop and spread the manure at any point, one of the ropes is released, the bottom of its hopper
85 drops by its own weight and the contents of the hopper are deposited on the apron which moving rearward drops the manure at the rear end of the machine. The bottom can be raised and locked at any time, and also the harrow.
90

Having thus described my invention, what I claim is—

1. In a fertilizer distributor, the combination with a hopper having a hinged bottom, and an endless apron adapted to revolve, be-
95 neath the said hopper substantially as shown and described.

2. In a fertilizer distributor, the combination with a main frame having a series of hoppers, of independent bottoms hinged to
100

each hopper, and the ropes for locking said bottomssubstantially as shown and described.

3. In a fertilizer distributor, the combination with a main frame having a series of
5 hoppers, of independent bottoms hinged to each hopper, the ropes having handles, and the notched locking plates all arranged substantially as shown and described.

4. In a fertilizer distributor, the combination
10 with a main frame divided into hoppers of independent bottoms to the ropes having handles, the notched locking plates and the shields covering the ropes substantially as shown and described.

15 5. In a fertilizer distributor, the combination with the main frame, of the axle and hounds, the rear beams, the standards and runners and the springs connecting the axle

and end standardssubstantially as shown and described. 20

6. In a fertilizer distributor, the combination with a main frame divided into hoppers of the hinged bottom to each hopper, the rear beams and the harrow and ropes for adjusting the same substantially as shown and de- 25 scribed.

7. In a fertilizer distributor, the combination with a frame divided into compartments, the hinged bottoms and ropes, the axle and drive wheel, the endless apron and drive chain 30 all arranged substantially as shown and described.

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Witnesses:

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