

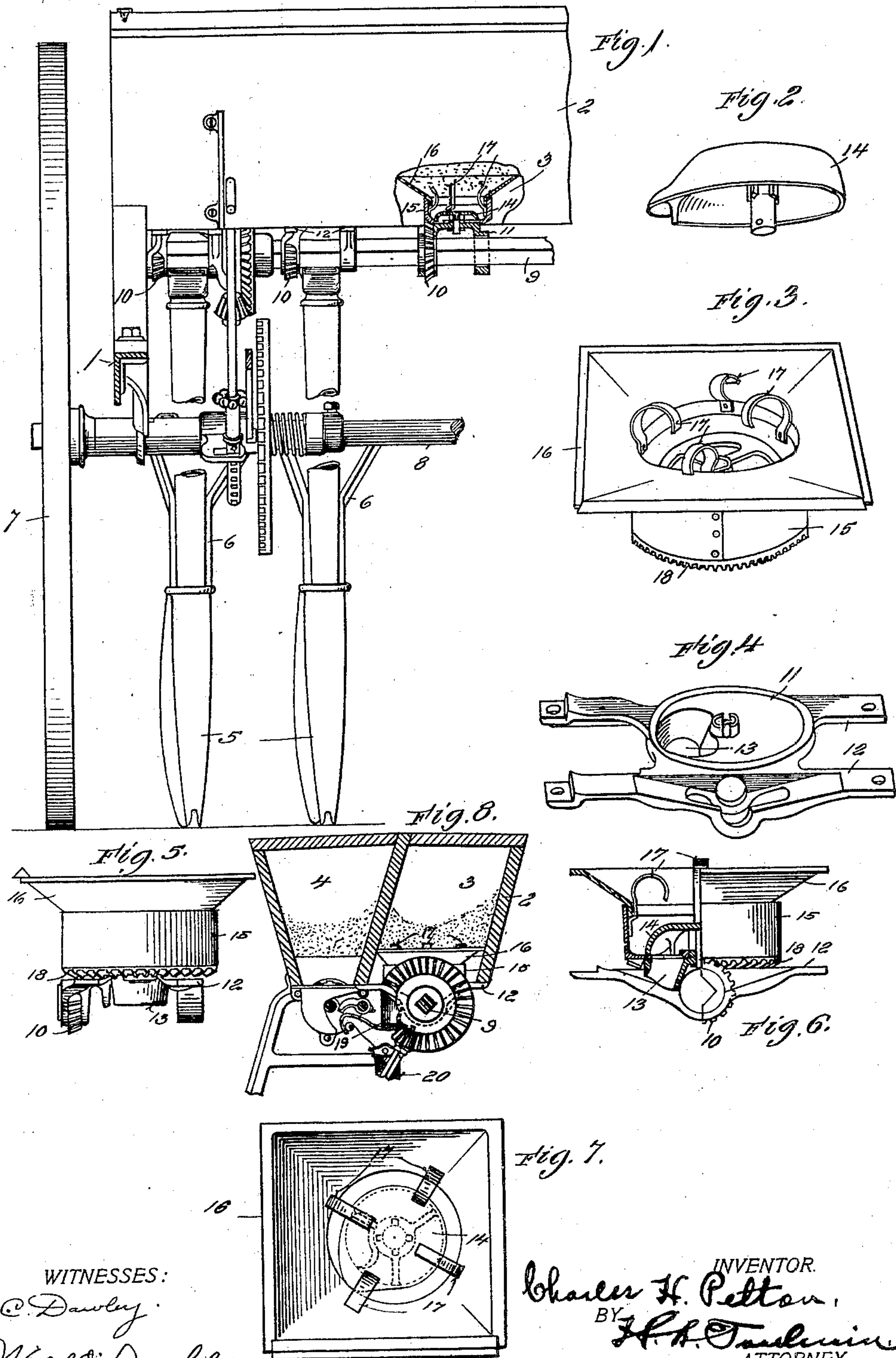
No. 696,476.

Patented Apr. 1, 1902.

C. H. PELTON.
FERTILIZER DISTRIBUTER.

(Application filed Oct. 31, 1901.)

(No Model.)



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FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 696,476, dated April 1, 1902.

Application filed October 31, 1901. Serial No. 80,607. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. PELTON, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Fertilizer-Distributers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to fertilizer-distributers, and has for its object to increase the efficiency of the feeding devices whereby the fertilizer is fed from the box or hopper to the tubes which conduct it to the furrow-opening
15 devices.

To these ends the invention consists in certain novel features which I will now proceed to describe and will then particularly point out in the claims.

20 In the accompanying drawings, Figure 1 is a rear elevation, partly in section, of one end of a grain-drill having my improvements applied thereto. Fig. 2 is a detail perspective view of one of the feeding-shells detached.
25 Fig. 3 is a similar view of one of the rotating feed-cups and the adjacent portion of the hopper-bottom. Fig. 4 is a similar view of one of the cup-supporting brackets. Fig. 5 is a rear elevation of one of the feed-cups and
30 its associated parts. Fig. 6 is a side elevation of the same, partly in vertical section. Fig. 7 is a plan view of the same, and Fig. 8 is a transverse sectional view through the hopper.

In said drawings, 1 indicates the frame of
35 the apparatus, and 2 a box or hopper mounted thereon and having a compartment 3 to receive the fertilizer.

In the present instance I have shown my fertilizer-distributer as applied to a seeding-
40 machine in the nature of a grain-drill, the box 2 having a compartment 4 for the grain, which is carried by suitable feeding devices to the furrow-opening devices 5, which latter are carried by drag-bars 6, pivoted to the
45 frame at their forward ends. The apparatus is supported on wheels 7, mounted on an axle 8, which rotates along with said wheels as the machine advances. These drill features form, however, no part of my present invention.

50 A shaft 9, mounted in suitable bearings underneath the box or hopper 2, extends over the same from end to end underneath the fer-

tilizer-compartment 3 parallel with the axle 8, from which latter it is driven by means of suitable intermediate gearing. The shaft 9
55 is provided at suitable intervals with bevel-gears 10, by means of which the feed-cups are driven. These feed-cups are, in so far as their general construction is shown, old and well known, being of a type set forth in cer-
60 tain Letters Patent granted to Walter Marks *et al.*, No. 213,053, March 11, 1879, No. 236,900, January 25, 1881, and No. 243,716, July 15, 1881, said cups being commonly known as the "Marks" cup. In a general way it con-
65 sists of a fixed base or bottom 11, supported by brackets 12 on the under side of the box 2 and provided with a discharge-mouth 13, a fixed feeding-shell 14, carried by the fixed base, and a rotary feeding-cup 15, surround-
70 ing and supported on the fixed base and extending thence upward to a hopper-shaped bottom plate 16, forming a portion of the bottom of the fertilizer-compartment. The bottom of the fertilizer-compartment is made
75 up of a plurality of these hopper-like bottom plates composed of four plates or surfaces inclined toward the mouth of the feed-cup, and by reason of this construction I am enabled to more certainly conduct the fertil-
80 izer to the cups and more efficiently prevent clogging or bridging. As a further improvement upon cups of this character I propose to attach to the interior of the vertical wall of the feed-cup 15 a plurality of stirring-
85 arms 17, which extend upward through the discharge-opening of the bottom plate 16 and which are preferably arranged as shown, some of the arms being bent inward toward the center of revolution of the feed-cup, while
90 others are bent outward, so as to extend over the top of the bottom plate 16. In the particular construction shown four arms are employed, two of which are bent outward, while the other two are bent inward. By this means
95 the fertilizer is kept thoroughly stirred up, both immediately above the cup and shell and also outward from the margins thereof, so that clogging or bridging is reduced to a minimum.

100 It will be understood, of course, that the feed-cup 15 is provided at its lower edge with gear-teeth 18, which mesh with a corresponding pinion 10 on the shaft 9.

The fertilizer is discharged from the compartment 3 through the spout or opening 13 into the mouth 19 of a seed-tube 20, which extends downward to the corresponding furrow-opening devices. In practice I contemplate employing an equal number of fertilizer-cups and seed-cups, each pair discharging into the same tube and the number of pairs being equal to the number of tubes and of furrow-opening devices.

I do not wish to be understood as limiting myself to the precise details of construction hereinbefore described, and shown in the accompanying drawings, as it is obvious that these details may be modified without departing from the principle of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fertilizer-distributor, the combination, with a box or hopper, of feeding devices comprising a stationary hopper and feeding-shell, a rotary feed-cup, and stirring-arms secured to the wall of the feed-cup and extending upward therefrom into the box or hopper, said arms being bent or deflected so as to stand at an inclination to the wall to which they are attached, substantially as described.

2. In a fertilizer-distributor, the combination, with a box or hopper, of feeding devices comprising a fixed bottom and feeding-shell, a rotary feeding-cup, and stirring-arms secured to the wall of said feed-cup at an angle thereto, some of said arms extending inward over the feeding-shell, and others of said arms extending outward over the margin of the feeding-cup, substantially as described.

3. In a fertilizer-distributor, the combination, with a box or hopper for containing the fertilizer, of feed-cups supported below the bottom of said box or hopper, hopper-shaped or inclined plates forming the bottom of said box or hopper and serving to conduct the fertilizer to said feed-cups, and stirring-arms attached to the wall of said feed-cups at an angle thereto, some of said arms extending inward over the interior of the cup, and others of said arms extending outward over the hopper-shaped or inclined plates, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES H. PELTON.

Witnesses:

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