(No Model.)

E. C. TECKTONIUS.

SEEDER.

No. 417,115. Patented Dec. 10, 1889.

Fig. 1.

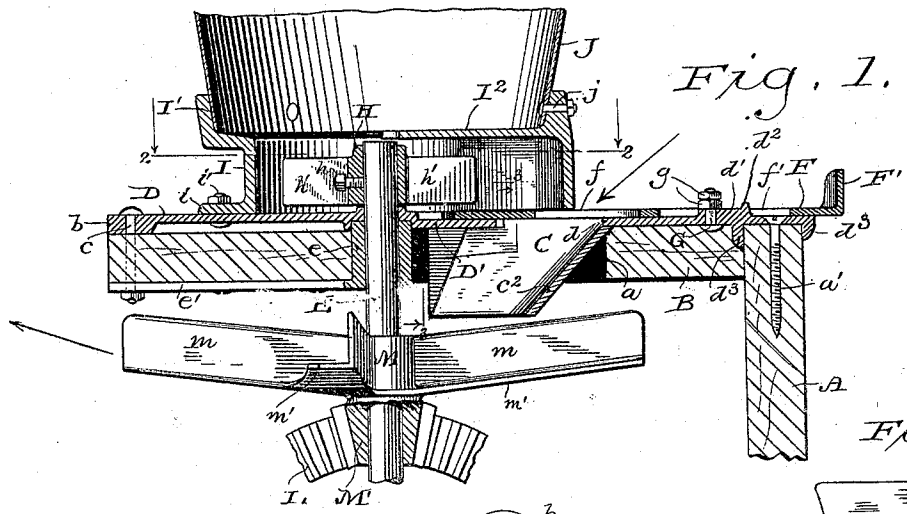


Fig. 6.

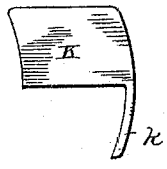


Fig. 2.

Fig. 3.

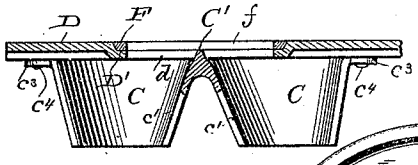


Fig. 4.

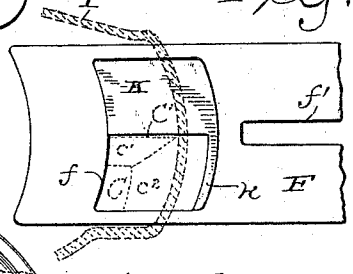
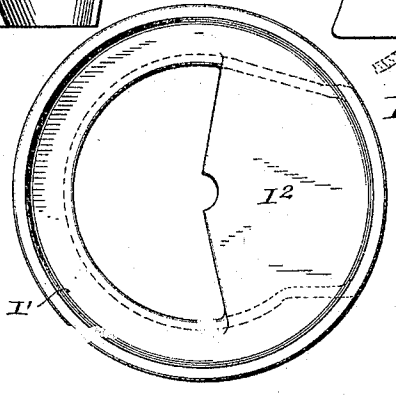


Fig. 5.



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UNITED STATES PATENT OFFICE.

EMIL C. TECKTONIUS, OF RACINE, WISCONSIN.

SEEDER.

SPECIFICATION forming part of Letters Patent No. 417,115, dated December 10, 1889.

Application filed August 9, 1889. Serial No. 320,228. (No model.)

To all whom it may concern:

Be it known that I, EMIL C. TECKTONIUS, of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Broadcast Seed-Sowers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to broadcast seed-sowers; and it consists in certain peculiarities of construction, as will be fully set forth hereinafter and subsequently claimed.

In the drawings, Figure 1 is a vertical section of my improved device on the line 1 1 of Fig. 2. Fig. 2 is a horizontal section on the line 2 2 of Fig. 1. Fig. 3 is a detail section on the line 3 3 of Fig. 1; and Figs. 4, 5, and 6 are details of construction.

A represents the end-board of a wagon, and B the platform of my device secured thereto, which platform is cut out, as shown at *a*, to receive the double spout C C, Fig. 3, depending from and secured to the under side of the plate D. This plate has ears *b b b*, re-enforced and perforated for the reception of bolts *c*, by means of which it is secured to the platform B, on which it rests, and the said plate is formed with a depression D′, extending from one end to about the line of the vertical shaft E, to receive the slide F, there being a feed-opening *d* in said depressed portion of the plate, just above the double spout C C, and a corresponding opening *f* in the said slide. The double spout is centrally united by a sharp ridge C′, rising just to the height of the depressed portion D′ of the plate D, the walls of this ridge tapering or inclining outward from the center, as shown at *c′ c′*, and the rear wall of the double spout being also tapered or inclined from top to bottom, as shown at c^2. The double spout is further provided with perforated ears c^3 c^3, by means of which and bolts c^4 c^4 it is secured to the said plate D. The slide F is further provided, near its rear end, with a slot *f′*, which receives a guide-lug *d′*, terminating at its rear end in a transverse ridge d^2, serving as a pointer to the scales f^2 f^3, formed on the upper surface of the slide F on each side of the said slot *f′*. The slide F is held to the plate D, after being put in place, by means of a bolt G, passing up through the guide-lug *d′*, and nuts *g g*, as shown in Figs. 1 and 2. The slide F has a hand piece or grip F′ at its rear end. The plate D is provided with lugs d^3 d^3 on the under side of its rear end, to embrace the top of the end-board A, to which it is further secured by screw *a′*.

The vertical shaft E is journaled in a hub *e*, passing through an opening in the platform B and secured to said platform, as by a strap *e′* on the under side thereof, and suitable bolts, as shown. To the upper end of this shaft E is secured, as by set-screw *h*, a force-feed wheel H, having any desired number (as six, more or less) of spokes or feeding-fingers *h′ h′*, around which is the band or casing I, (of the shape best shown in Fig. 2,) having perforated ears or flanges *i*, by means of which and bolts *i′* it is secured to the plate D. This casing is preferably formed in one piece with the hopper-seat I′ and plate I^2, the latter covering about half the space within the band or casing I, so that the seed placed within the hopper J (which rests on the said hopper-seat and is suitably secured thereto, as by bolts *j*) has to pass down in front of the shaft E and be forced under said plate I^2 by the fingers *h′* of the force-feed wheel H.

In Figs. 4 and 6 I show a cut-off plate K, having a brace-arm *k*, and designed to be placed within the opening *f* in the slide F when only one side of the double spout C C is to be used, (as when sowing next a fence,) and this plate can be turned so as to cover either half of the double spout C C at pleasure, and its upper surface will be always flush with the top of said slide and with the inner edge of this plate K resting on top of the described central ridge C′ of the said double spout C C, no matter which side of said spout is closed by said cut-off plate.

M is the hub of the fan or distributer, secured to the vertical shaft E, beneath the double spout C C, and cast with a pinion M′, which meshes with the usual bevel-wheel L, in the ordinary manner common to broadcast

seed-sowers of this class, and which I do not deem requires further illustration or explanation.

The blades *m m* of my fan incline upward from the center to their ends, and have bottom plates *m'*, which are of greatest width near the shaft E, to receive the seed as it falls thereon from the spout C C, and thence decrease in width toward their outer ends.

The operation of my device will be understood from the foregoing description of its construction, and the adjustment of the feed-openings *d f* being from the outside and at a point remote from the distributer-shaft is a great advantage, especially as the part of said openings outside of the band or casing I is never wholly closed, and hence there is less liability of said feed-openings and the spout C C becoming choked or clogged up, foreign substances—such as grass, straw, &c.—readily riding up the inclined inner surfaces of said double spout, and as the feed-openings are always within view of the operator, in case they should become clogged, the foreign matter can be readily and instantly extracted from outside. The construction of the slide F, with its scales, renders it easy to quickly adjust said slide to whatever kind or quantity of seed is desired to be sown, and, owing to the construction of the casing I and plate I^2, the seed in the hopper J will all be forced thereunder along the comparatively straight and inwardly-inclined side of the rear end of the casing I, so as to feed equally through both portions of the double spout C C, the progress of the seed being arrested by the abrupt and positively straight side of said rear end of the said casing and detained long enough to feed as thoroughly through the adjacent half of the double spout C as through the half first reached by the seed, the only exception being when the cut-off plate K is used to cover one or the other sides of said double spout. The upward inclination of the fan-blades *m m* gives a wider cast to the seed than if they were horizontal.

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

1. In a seeder, the combination, with a platform and plate provided with a feed-opening, of a distributer-shaft extending vertically through said plate and carrying a force-feed wheel above it, a band or casing surrounding said feed-wheel and having a fixed extended rear end passing transversely across said feed-opening, a spout beneath said feed-opening, and a plate above it, substantially as set forth.

2. In a seeder, the combination of a plate having a depression therein and a feed-opening therethrough, of a spout attached to said plate beneath said feed-opening, a slide fitting in said depression and having a corresponding feed-opening, a distributer-shaft extending vertically through said plate and carrying a force-feed wheel above it, a band or casing surrounding said feed-wheel and having an extended rear end passing transversely across said feed-openings, and a plate covering said extended rear portion, substantially as set forth.

3. In a seeder, the combination of a plate having a feed-opening therein, a distributer-shaft extending vertically through said plate and carrying a force-feed wheel above it, a casing surrounding said feed-wheel and having an extended rear end passing transversely across said feed-opening, and a double spout secured to said plate beneath said feed-opening and having forwardly-inclined rear edges, the two portions of said spout having their adjacent inner walls united at the top and thence inclining and diverging at the bottom, substantially as set forth.

4. In a seeder, the combination, with a plate having a feed-opening therein and a double spout secured thereto beneath said opening, of a distributer-shaft passing vertically through said plate and carrying a force-feed wheel above it, a band or casing surrounding said feed-wheel and thence extending rearward and transversely crossing said feed-opening, with one side of said rear extension comparatively straight, but slightly inclined inward, and the other side abrupt and positively straight, substantially as set forth.

5. In a seeder, the combination, with a plate having a depression and a feed-opening therein, of a spout beneath said feed-opening, a slide fitting in said depression and provided with a corresponding feed-opening, and a longitudinal slot in its rear portion, with a scale or scales adjacent to said slot, a guide-lug rising from said plate and passing through said slot and terminating at its rear end in a transverse ridge or index-pointer, and a screw-bolt passing upward through said guide-lug, and set-nuts on said bolt for securing the parts together after adjustment, substantially as set forth.

6. In a seeder, the combination, with a plate having a feed-opening therethrough and a double spout secured beneath said opening, of a slide moving on said plate and having a corresponding feed-opening and a reversible cut-off plate adapted to fit within the last-named feed-opening, and thereby close either half of said double spout at will, substantially as set forth.

7. In a seeder, the combination of a plate having a feed-opening, a distributer-shaft passing through said plate and carrying a force-feed wheel above it, a spout beneath said feed-opening, a casing surrounding said feed-wheel and having a fixed extended rear end passing transversely across said feed-opening, and a hopper supported within said casing, whereby the feed-opening will be al-

ways partly outside of said casing and hopper, substantially as set forth.

8. In a seeder, the combination, with a hopper and seed-casing, of a plate having a feed-opening extending outside of said hopper and casing, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Racine, in the county of Racine and State of Wisconsin, in the presence of two witnesses.

EMIL C. TECKTONIUS.

Witnesses:

JOHN W. OWEN,

F. B. WASHBURN.