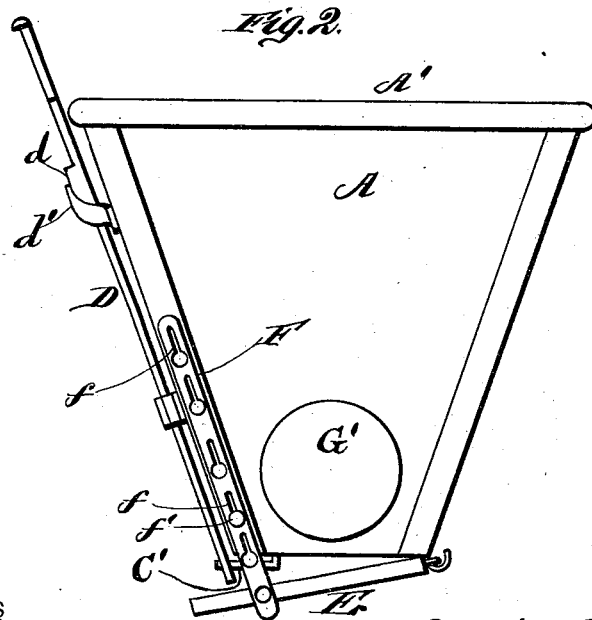
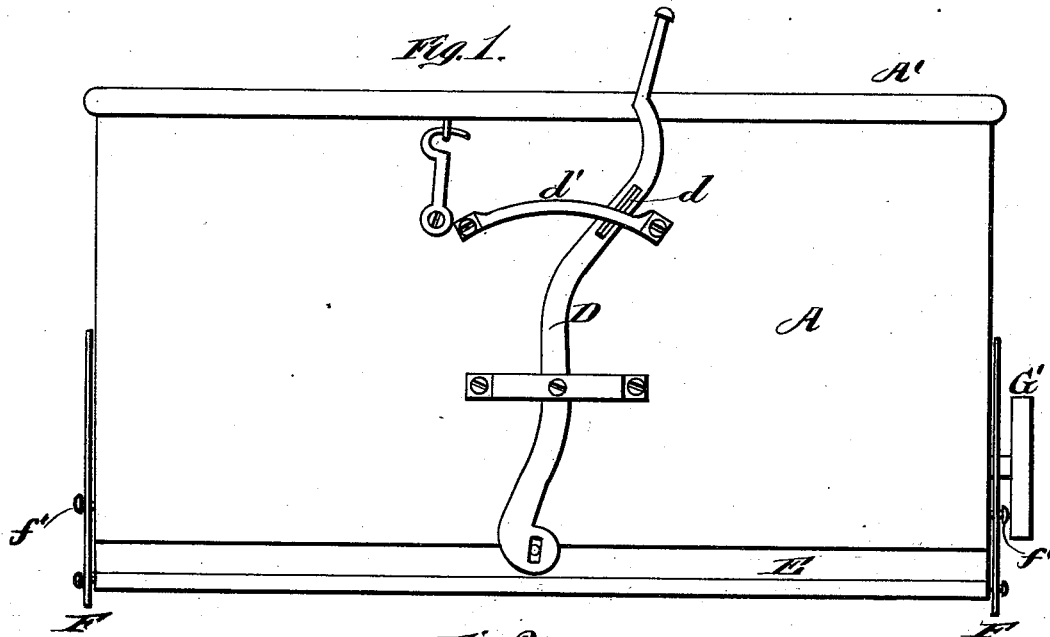


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BROAD CAST SOWER.

No. 190,284.

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Fig. 3.

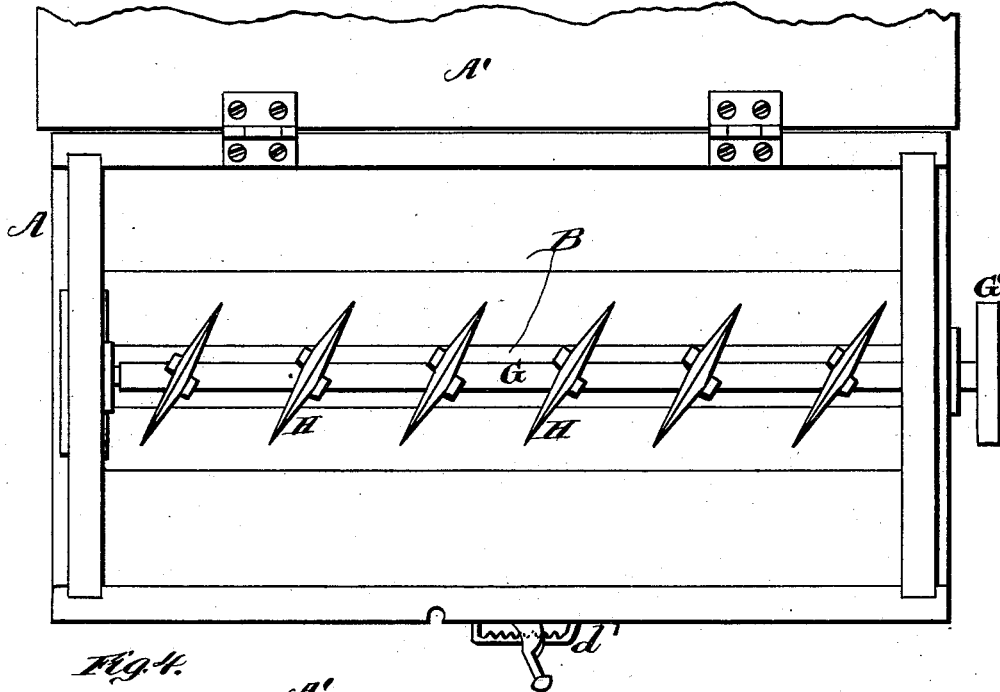


Fig. 4.

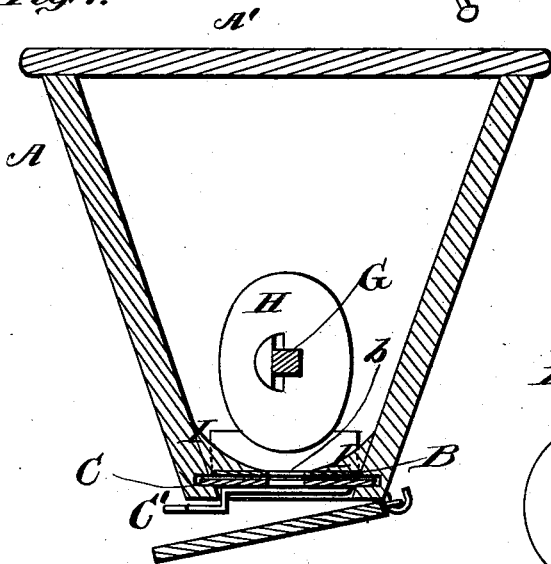


Fig. 5.

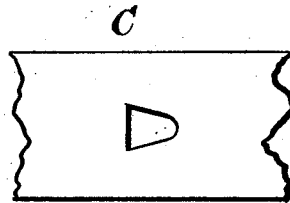
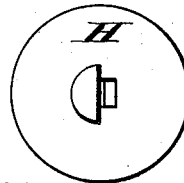


Fig. 6.



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Fig. 7.

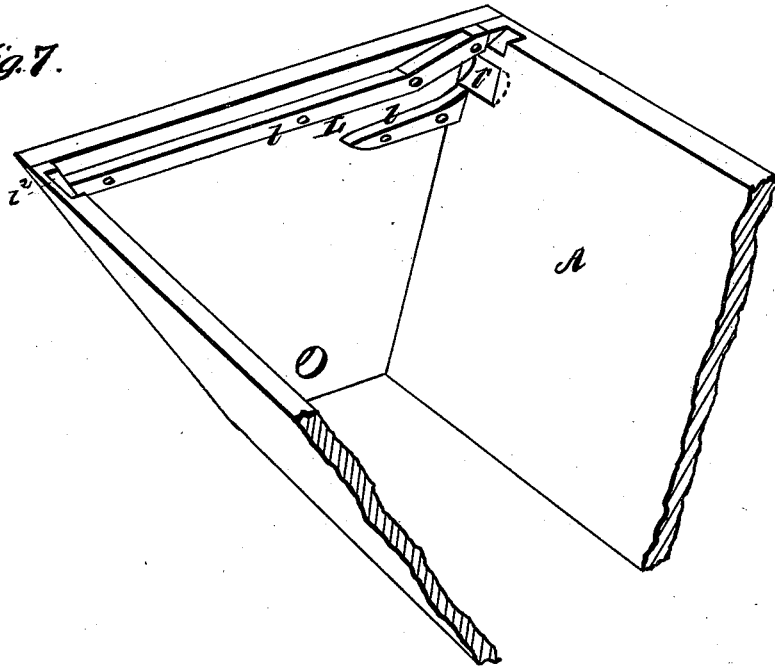
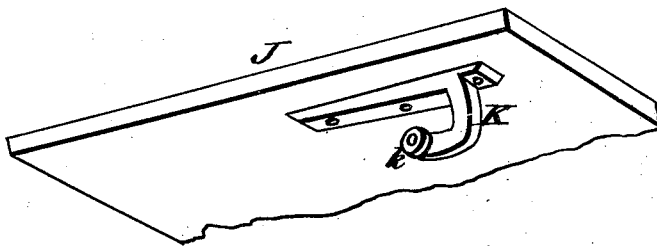


Fig. 8.



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UNITED STATES PATENT OFFICE

LEWIS COLLER, OF FLINT, MICHIGAN.

IMPROVEMENT IN BROADCAST-SOWERS.

Specification forming part of Letters Patent No. **190,284**, dated May 1, 1877; application filed March 17, 1877.

To all whom it may concern:

Be it known that I, LEWIS COLLER, of Flint, in the county of Genesee and State of Michigan, have invented a new and valuable Improvement in Machines for Sowing Broadcast; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my machine, and Fig. 2 is an end view thereof. Fig. 3 is a plan view with top removed. Fig. 4 is a transverse vertical sectional view of the same, and Figs. 5 and 6 are details. Fig. 7 is a perspective view, part sectional, of a modification; and Fig. 8 is a detail view thereof.

This invention relates to devices for sowing seeds or fertilizer; and it consists in the construction and arrangement of the parts hereinafter set forth.

In the accompanying drawings, A designates a seed-box adapted to be carried upon a vehicle, and provided with a hinged cover, A'. The sides of said box taper inward and downward, and its bottom is closed by a metal plate, B, having a number of openings, b. Said openings may be partly or wholly closed, at will, by means of a slide, C, which is worked longitudinally by means of a lever, D, pivoted to one of the sides of said seed-box. Said cut-off slide is provided with a rigid sidewise extension, C', and the lower end of said lever is attached thereto by a slot-and-pin connection. The said lever is provided with a fixed dog or catch, d, which engages with a toothed rack, d', fixed to said seed-box, whereby said slide C can be locked in any position desired.

Under said slide is a scatter-board, E, hinged to the bottom of said box. Said scatter-board may be adjusted toward or from the bottom of said box, so as to vary both its inclination and opening, by means of metal straps F F, which are arranged at each end of the device, and provided with T-shaped or

tapering slots *f f*, that engage with headed studs or pins *f' f'* on said scatter-board and seed-box.

In the ends of said box, near the bottom thereof, is journaled a shaft, G, carrying obliquely-arranged stirring-disks H, corresponding in number to the openings b. Said disks stir up the seed and sweep it into said openings. They are aided in this by blocks I, having curved inclined inner faces, which are set in the bottom of said seed-box, on each side of the line of said openings. Shaft G is provided outside of said box with a pulley, G', whereby it receives motion from one of the transporting-wheels of the vehicle, or from some other suitable motor. When said devices are used for sowing fertilizers the said disks H pulverize the same, and thereby reduce it to better condition for advantageous application to the soil.

When the seeding devices above described are attached to a horse-rake or cultivator, being hung under the thills and cross-bars, a hinged cover like A' could not be opened. In such cases I therefore substitute for such a cover a sliding cover, J. (Shown in detail in Fig. 8.) Said cover J is provided near each end with a bent arm, K, that has a lateral stud, k, which works in a guideway, L, formed by flanges *l l* on the inner side of each end piece or head of said seed-box. The rear end of said guideway is inclined upward, and the lower end of arm K is rounded, so as to turn in a rounded recess, *l'*, formed in the inside of the rear piece of said seed-box at the end of said guideway. The said parts *k l'*, at each end of said box, serve as hinges for said cover to be turned down backward behind the same when the said box is opened. The heads or ends of said box should be made of metal. When said cover is moved forward to close the said seed-box the said guideway draws it tightly down upon the same. Said guideway prevents said cover at all times from separating from said box. The front piece of said box is recessed from the top downward at *l²* to allow the removal of said cover.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of seed-box A, having guideways L, upwardly inclined at the rear, and recess U, with a sliding cover, J, having arm K, rounded at its lower end, and stud k, substantially as and for the purpose set forth.

In testimony that I claim the above I have

hereunto subscribed my name in the presence of two witnesses.

LEWIS COLLER.

Witnesses:

HENRY C. VAN DEUSEN,
A. W. CLARK.