

(No Model.)

J. M. HOWELL, Jr.
FERTILIZER DISTRIBUTER.

No. 393,907.

Patented Dec. 4, 1888.

Fig. 1.

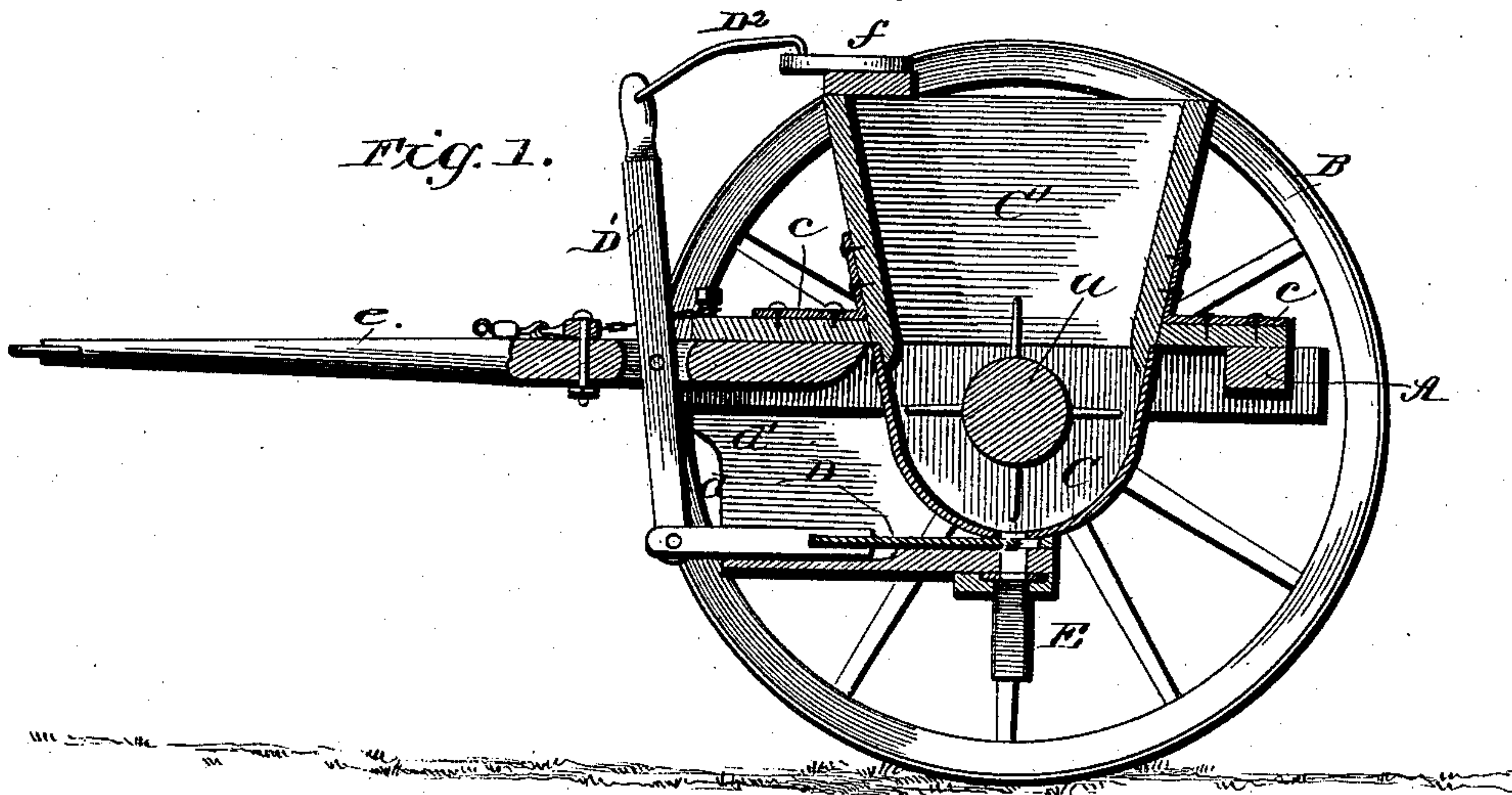


Fig. 2.

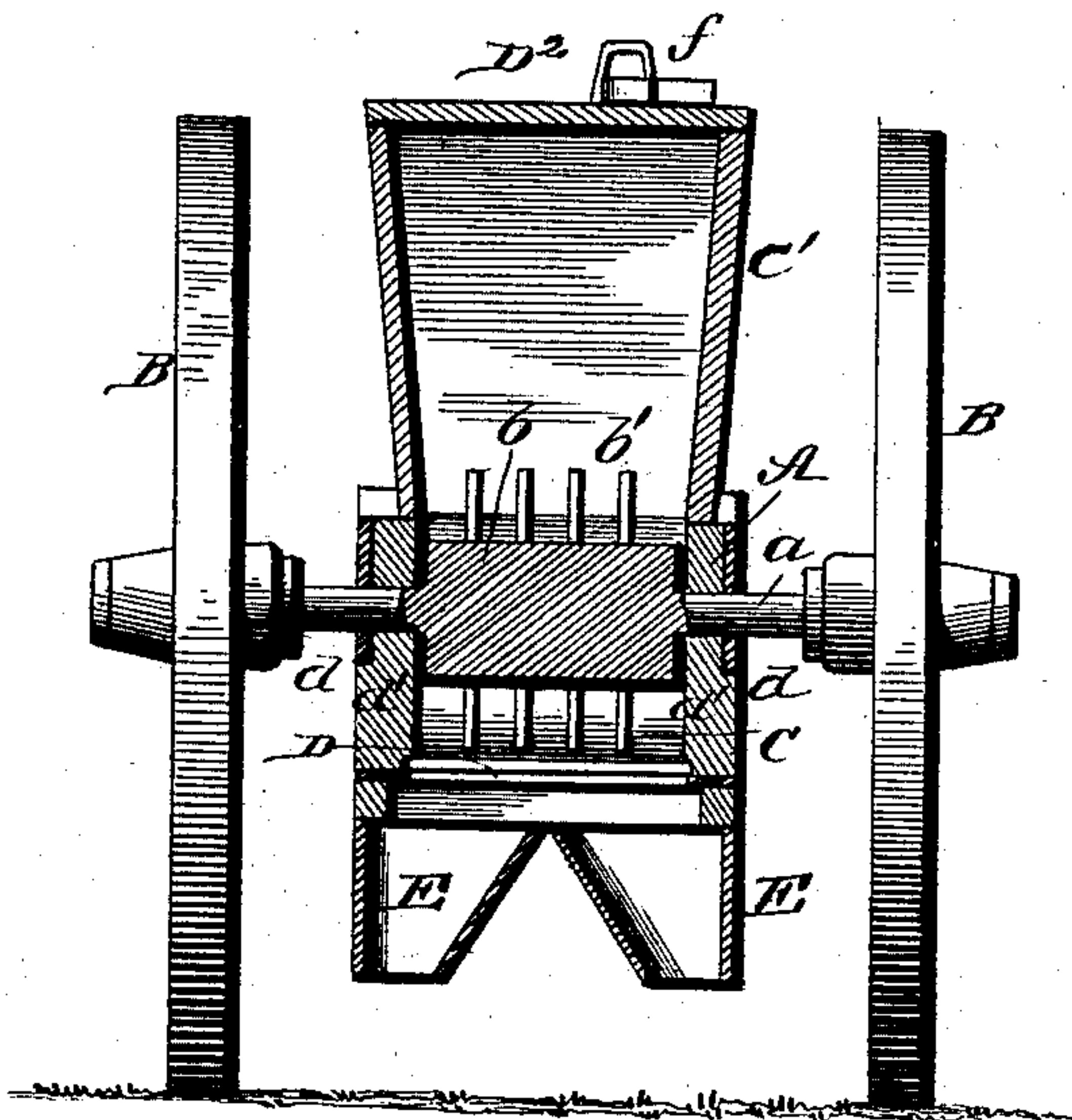


Fig. 3.

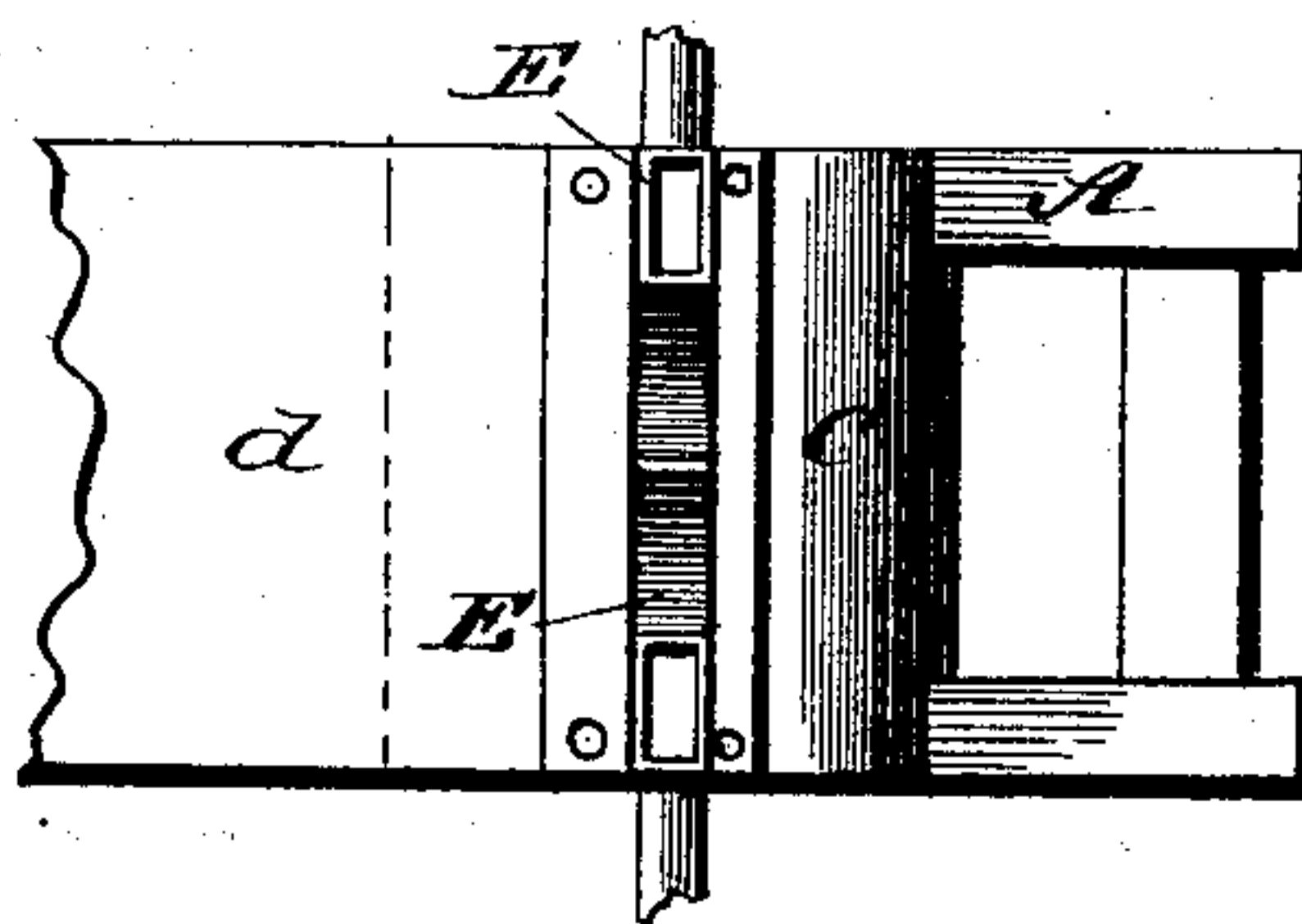
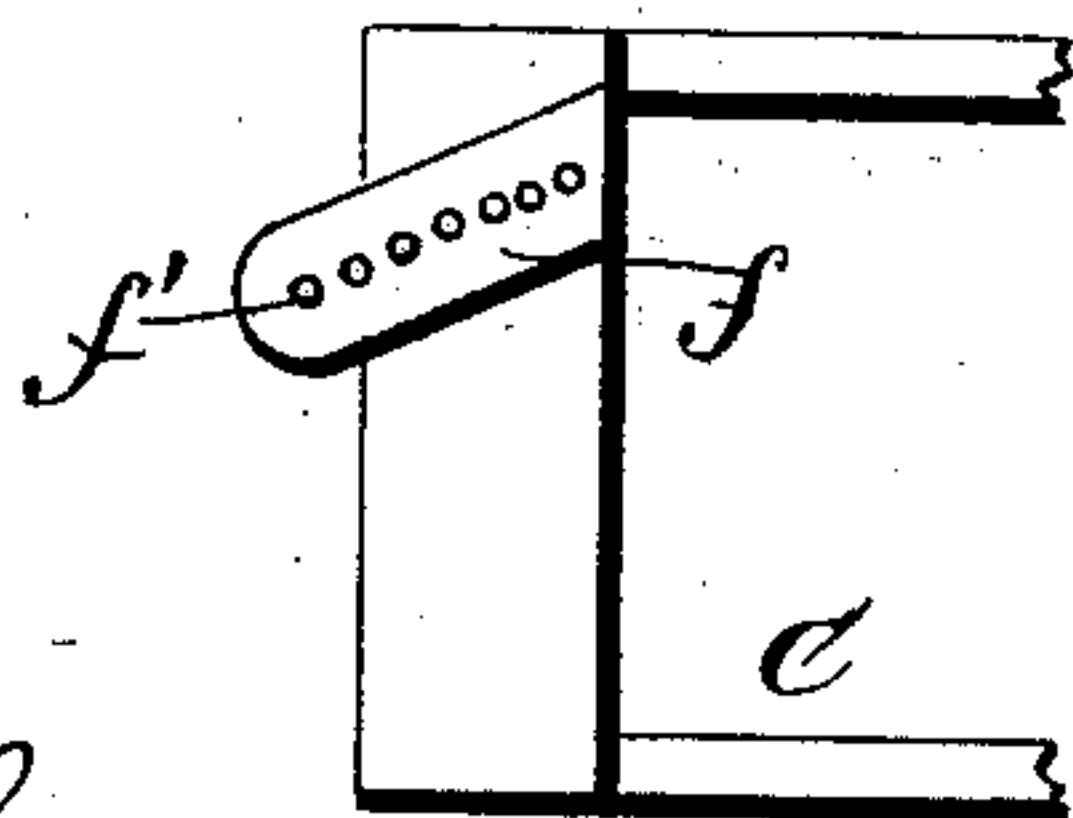


Fig. 4.



WITNESSES:

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FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 393,907, dated December 4, 1888.

Application filed June 26, 1888. Serial No. 278,288. (No model.)

To all whom it may concern:

Be it known that I, JOHN MOSES HOWELL, Jr., of Donaldsonville, Ascension parish, and State of Louisiana, have invented a new and useful Improvement in Fertilizer-Distributers, of which the following is a specification.

This invention has in view to provide certain improvements in fertilizer-distributers having for their object to effect the ready dropping or distribution in the required manner of the fertilizer; and to these ends the nature of the invention consists of a hopper through which passes the transporting-wheel axle carrying a toothed cylinder, and a slide or valve arranged in a chamber or inclosure extended to and below the hopper, which chamber or inclosure has applied to its under side a two-armed conductor, and which valve is operated by a lever having adjustable connection with the hopper, substantially as hereinafter more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a longitudinal section of my improved fertilizer-distributer. Fig. 2 is a transverse section thereof, and Figs. 3 and 4 are detail views of the same, the former being an under side or inverted view.

In the embodiment of my invention I employ a frame, A, which is mounted upon and so as to permit of the turning therein of a shaft or axle, *a*, which bears transporting-wheels B. This shaft or axle is provided with a cylinder, *b*, having series of peripheral teeth *b'*, arranged in rows at intervals apart upon the cylinder for agitating or stirring the fertilizer. The axle or shaft and cylinder, with its teeth, are all preferably cast in one piece. To the under side of the frame A is applied the semi-cylindric chamber C, forming the bottom of the hopper or receptacle C', which chamber or bottom, by reason of its curved surface, effects the ready downward movement by gravity of the fertilizer as it is being discharged, and thus prevents the clogging of the same therein. The hopper, or rather upper portion, C', thereof, is disposed upon the frame A, having its front and rear sides slightly downwardly extended, and thus fitting thereat into the bottom chamber, C, while to the same sides thereof, near the lower ends, are secured plates *c c*, which are fastened to

boards secured to the upper side of the frame A.

D is a slide or valve, consisting of a broad flat piece of metal sliding in a chamber or inclosure, *d*, formed of side pieces, *d' d'*, applied to the under side of the frame A forward of and below the chamber C, the same extending to a point a short distance beyond and in rear of the middle of the latter chamber. The rear of the inclosure or chamber *d* is closed, while its front is open.

The slide or valve D is arranged to have movement intermediately of an opening in the bottom chamber, C, and an outlet-opening in the inclosure or chamber *d*, in order to prevent the dropping of the fertilizer from the hopper or to permit of the distribution of the same. To the under side of the chamber or inclosure *d*, in alignment with its outlet-opening, are applied two conducting-tubes, E E, adapted to divide up and conduct the fertilizer to a furrow upon each side of the row; or by reversing the tubes the fertilizer may all be conducted or delivered into a single or the same furrow, as desired.

The slide or valve D is actuated by a hand-lever, D', pivoted about at its mid-length in a slot in the tongue or pole *e* of the hopper-carrying frame. The lower end of said lever is pivoted to a forwardly-projecting arm or bar of the slide or valve D, while the upper end of said lever is provided with a hooked rod, D². This hooked rod is adapted to engage with any one of a series of adjusting-apertures, *f'*, in an obliquely-disposed plate or bar, *f*, secured to the top of the hopper at the front edge.

It will be seen that by adjusting the hooked rod D² to any one of the series of apertures *f'* of the bar or plate *f* the lever is so actuated as to operate the slide or valve D and effect the disposition of the latter with relation to the fertilizer-dropping openings in the hopper-bottom chamber C and the chamber or inclosure *d* as to vary or regulate the dropping of the fertilizer or entirely prevent the dropping of the same.

Among other advantages that may be mentioned in connection with my invention are the following: The fertilizer is prevented from clogging and is uniformly distributed, whether

the machine is moving fast or slow, while the machine can be regulated to distribute a given number of pounds of fertilizer to the acreage, and any of the commercial fertilizers, as well
5 as cotton-seed meal, guano, &c., and is durable in construction and of great working capacity.

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

The fertilizer-distributor comprising the hopper or receptacle having its bottom portion extending below the carrying-frame, an axle arranged within said bottom portion and
15 provided with teeth or stirrers, a chamber or

inclosure arranged upon the front side of the hopper-bottom and extended below the same, the two-armed conductor applied to the under side of said inclosure or chamber, and the slide or valve arranged in said chamber or in- 20 closure between said hopper-bottom and conductor, and the lever connected to said slide or valve and having at its upper end a hooked rod engaging with a serially-apertured plate or bar secured to the hopper, substantially as 25 specified.

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Witnesses:

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