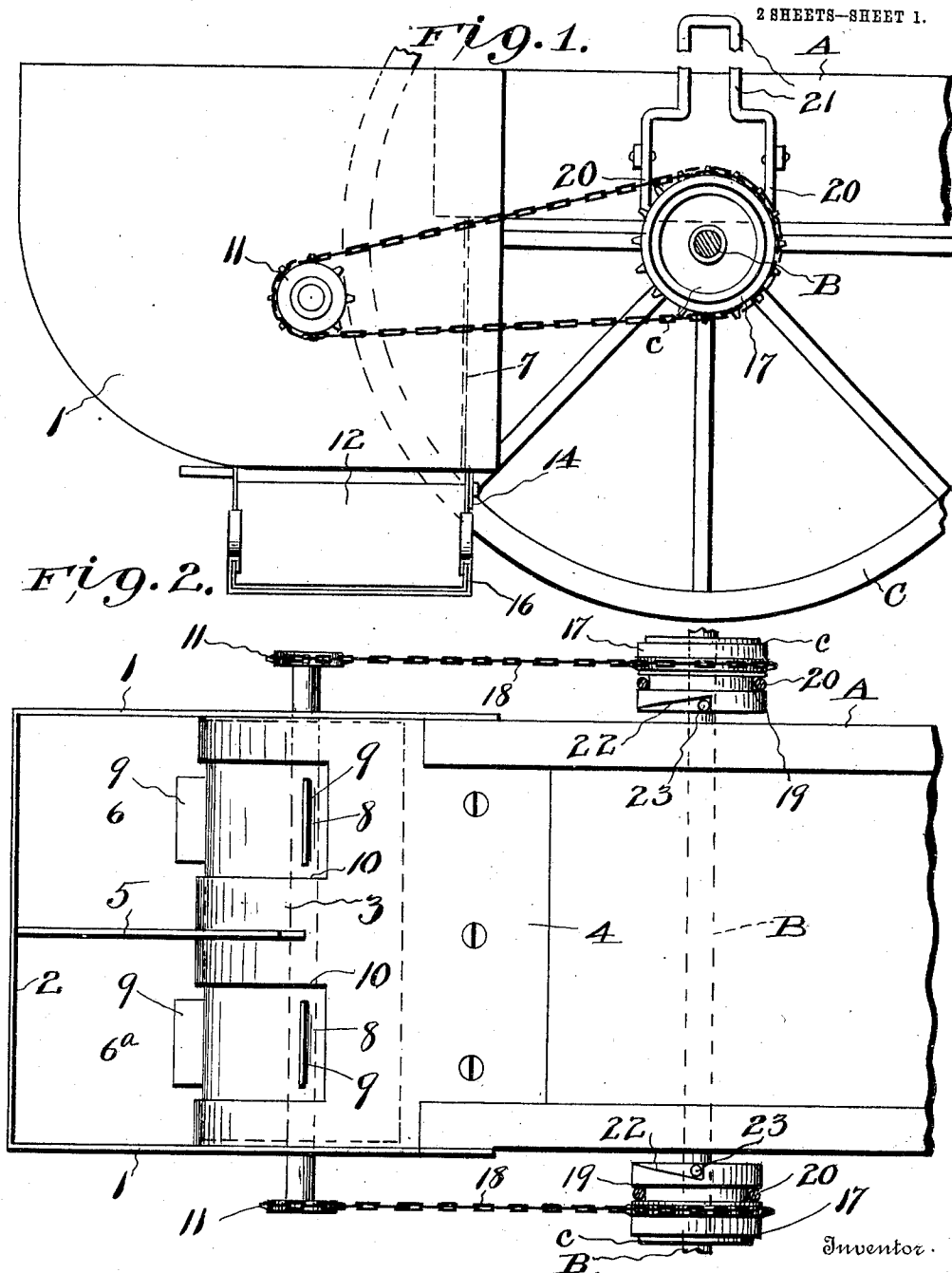


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J. D. ECHOLS.
MANURE SPREADER.
APPLICATION FILED APR. 18, 1910.

Patented July 19, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3.

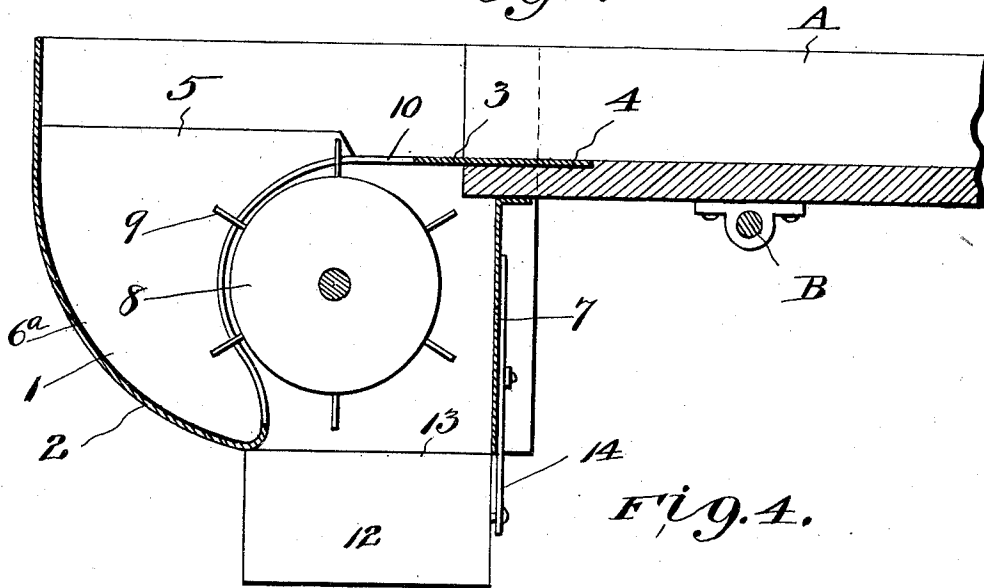
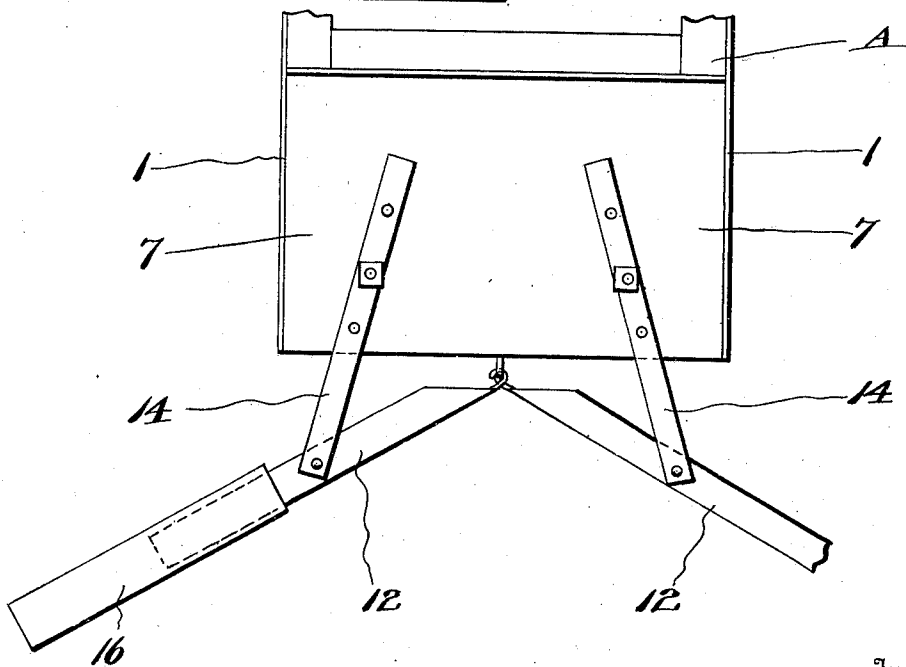


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN D. ECHOLS, OF KAUFMAN, TEXAS.

MANURE-SPREADER.

964,853.

Specification of Letters Patent.

Patented July 19, 1910.

Application filed April 18, 1910. Serial No. 556,134.

To all whom it may concern:

Be it known that I, JOHN D. ECHOLS, a citizen of the United States, and a resident of Kaufman, in the county of Kaufman and State of Texas, have invented certain new and useful Improvements in Manure-Spreaders, of which the following is a specification.

My invention relates to devices for distributing manure; and it has for its object the provision of a device adapted to be secured to the hind end of a farm-wagon and having a distributing mechanism that may be connected to the rear wheels of the wagon to operate it.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a view of the rear fragment of a farm-wagon, showing my improved manure spreader mounted thereon; Fig. 2, a top plan view; Fig. 3, a sectional view through the spreader-drum; Fig. 4, a detail view of the chutes and mounting; and Fig. 5, a detail view of one of the clutched gear-wheels on the wheel-hub.

In the drawings similar reference characters indicate corresponding parts throughout all of the views.

A indicates the rear fragment of an ordinary farm-wagon, to which my manure-spreader hereinafter described will be secured, B being the rear axle on which the wheels C are journaled.

My improved manure-spreader has a casing comprising vertical side-plates 1, secured to the sides of the wagon-body, a curved plate 2 forming its rear end, a curved crosswise partition 3 having its lower end secured to the lower edge of rear plate 2, while its upper end is extended horizontally, as shown at 4, and adapted to be secured to the bottom of wagon-body A, and a partition 5, connecting rear plates 2 and crosswise partition 3 and dividing the space therebetween into two hoppers 6 and 6^a.

7 indicates the front plate of the casing.

8 indicates a drum journaled in side plates 1, having radial vanes or paddles 9 secured thereto and extending through slots 10 in the partition 3 on each side of partition 5,

11 indicating sprocket-wheels secured to the trunnions or shafts of the drum.

12 indicates chutes pivotally secured in the middle of the opening 13 under the drum 8, between the front and rear walls of the casing, and 14 rods pivotally secured to the chutes and provided with a series of holes 15 to receive pins on the front of plate 7 to regulate the pitch of the chutes.

16 indicates sections slidably mounted on the chutes to extend them when desired.

The hubs *c* of wheels C have sleeves 17 loosely mounted thereon with sprocket-gear faces thereon on which are geared chains 18, that are geared to sprocket-wheels 11.

Sleeves 17 are each provided with a circumferential groove 19, in which is mounted the bifurcated end 20 of a lever 21, to slide the sleeve lengthwise of the hub *c*, the sleeve being also provided with one or more notches 22 in which a pin 23 on the hub engages when the sleeve is moved in the direction to clutch the sleeve to the hub.

It will be understood that instead of having the gearing for rotating the drum on both sides of the wagon it may be constructed on one side only, and that the speed of the drum may be regulated as desired by changing the gear-wheels 11 to wheels of more or less sprockets, as shown.

In operation the manure is thrown into the hoppers 6 and 6^a by hand and is fed to the chutes 12 by the vanes or paddles 9 on drum 8. When it is desired to stop the feeding of the manure, as, for instance, in turning at the end of the field, the sleeves 17 are thrown out of clutch with the pins 23 on hubs *c* by means of levers 21.

Having thus described my invention, what I claim is—

1. A manure-spreader comprising vertical side walls, a curved rear end plate, a curved cross-wise partition having slots, a rotatable drum mounted under the partition and having vanes or paddles extending through the slots, substantially as shown and described.

2. A manure-spreader comprising a casing having vertical side plates, a curved end plate at its rear, a curved cross-wise partition connecting the side plates and having

slots therein, a drum rotatably mounted under the curved partition and having vanes or paddles extending through the slots in the partition, chutes arranged under said drum, and gearing to rotate the drum, substantially as shown and described.

In witness whereof, I have hereunto set

my hand in presence of two subscribing witnesses.

JOHN D. ECHOLS.

Witnesses:

GEORGE W. SMITH,
E. A. CARLISLE.