

No. 702,921.

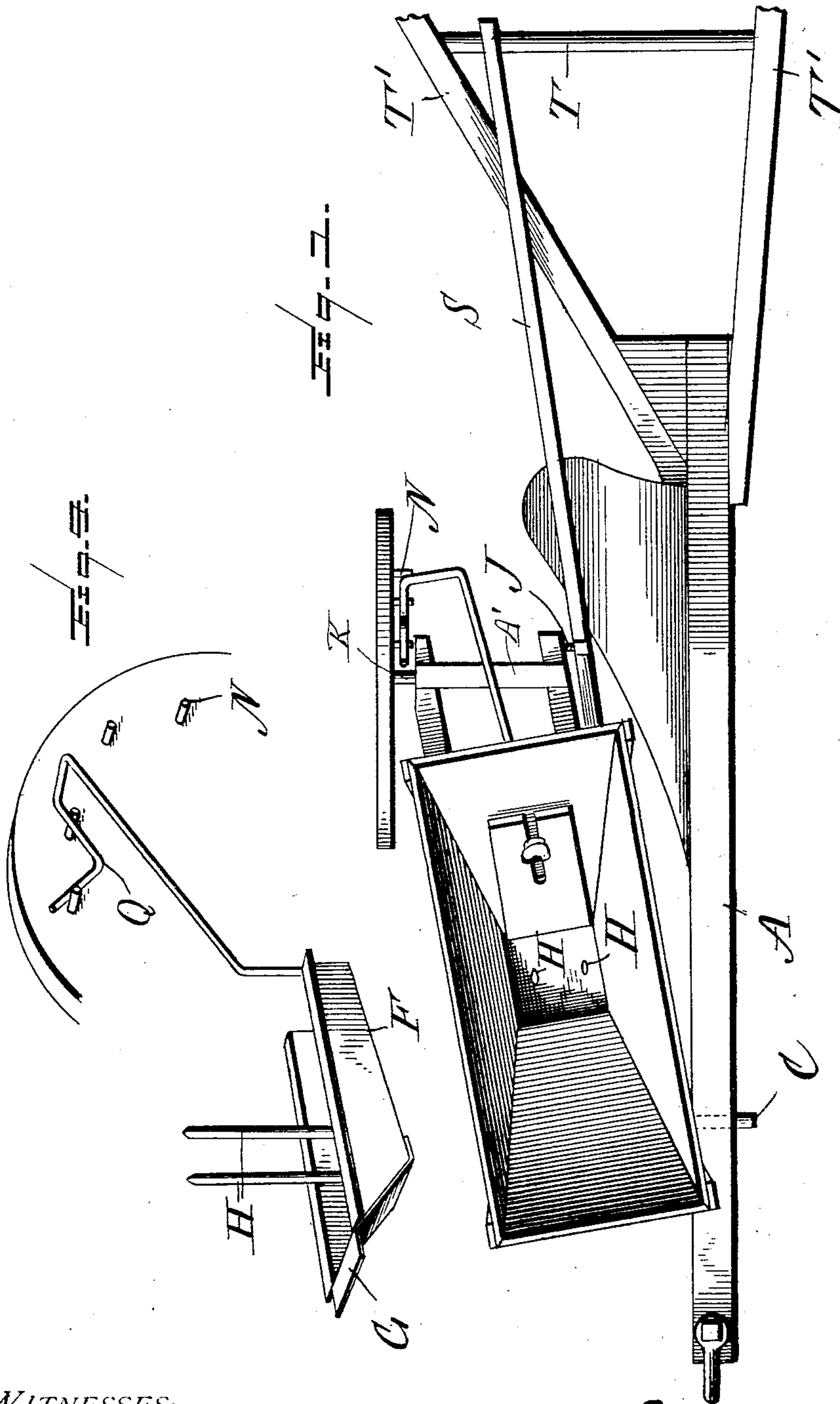
Patented June 24, 1902.

J. S. BYRD.
GUANO DISTRIBUTER.

(Application filed Mar. 6, 1902.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

Wm. F. Doyle.
a. L. Hough

INVENTOR
Jesse S. Byrd,
BY *Franklin A. Hough*
Attorney

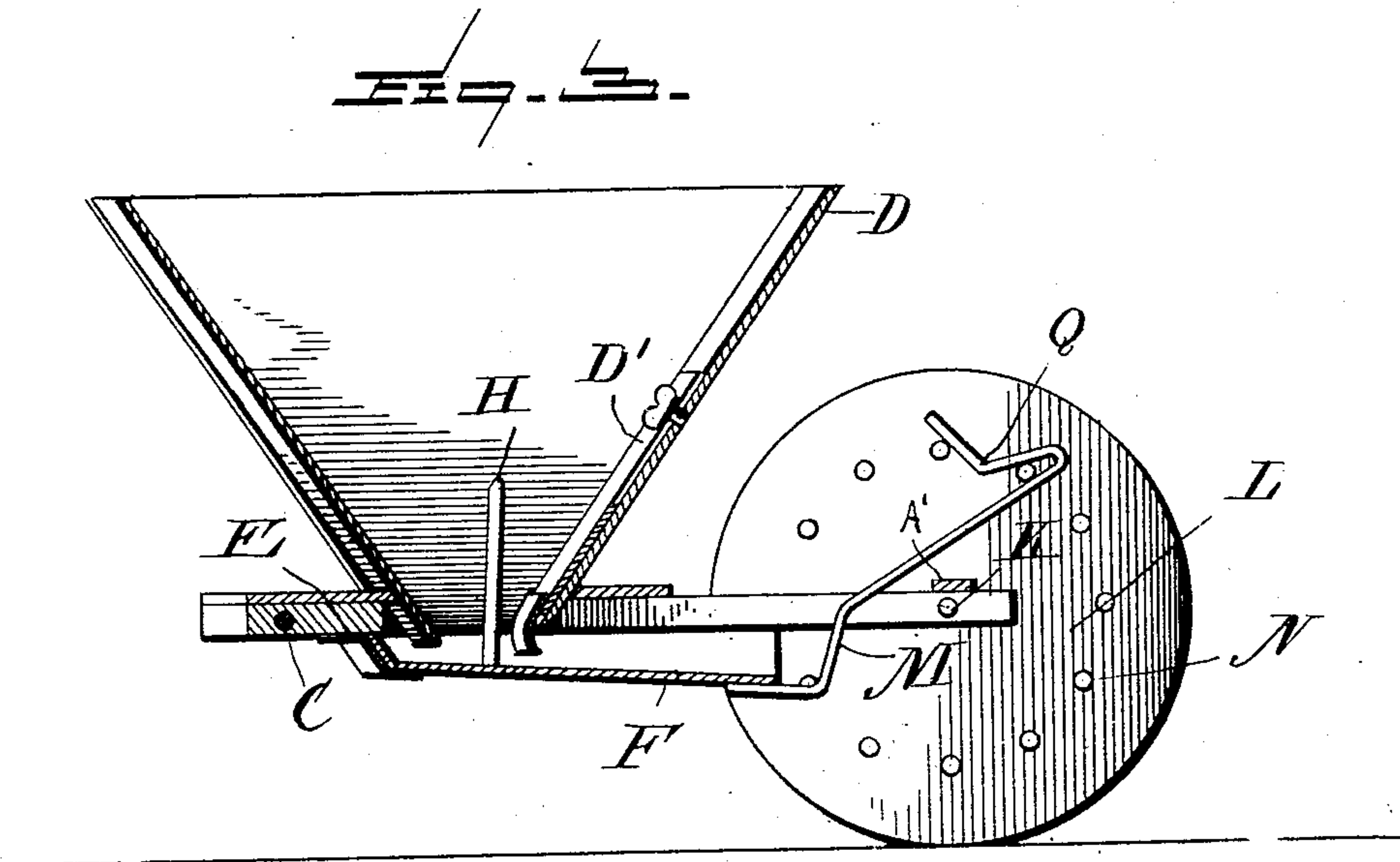
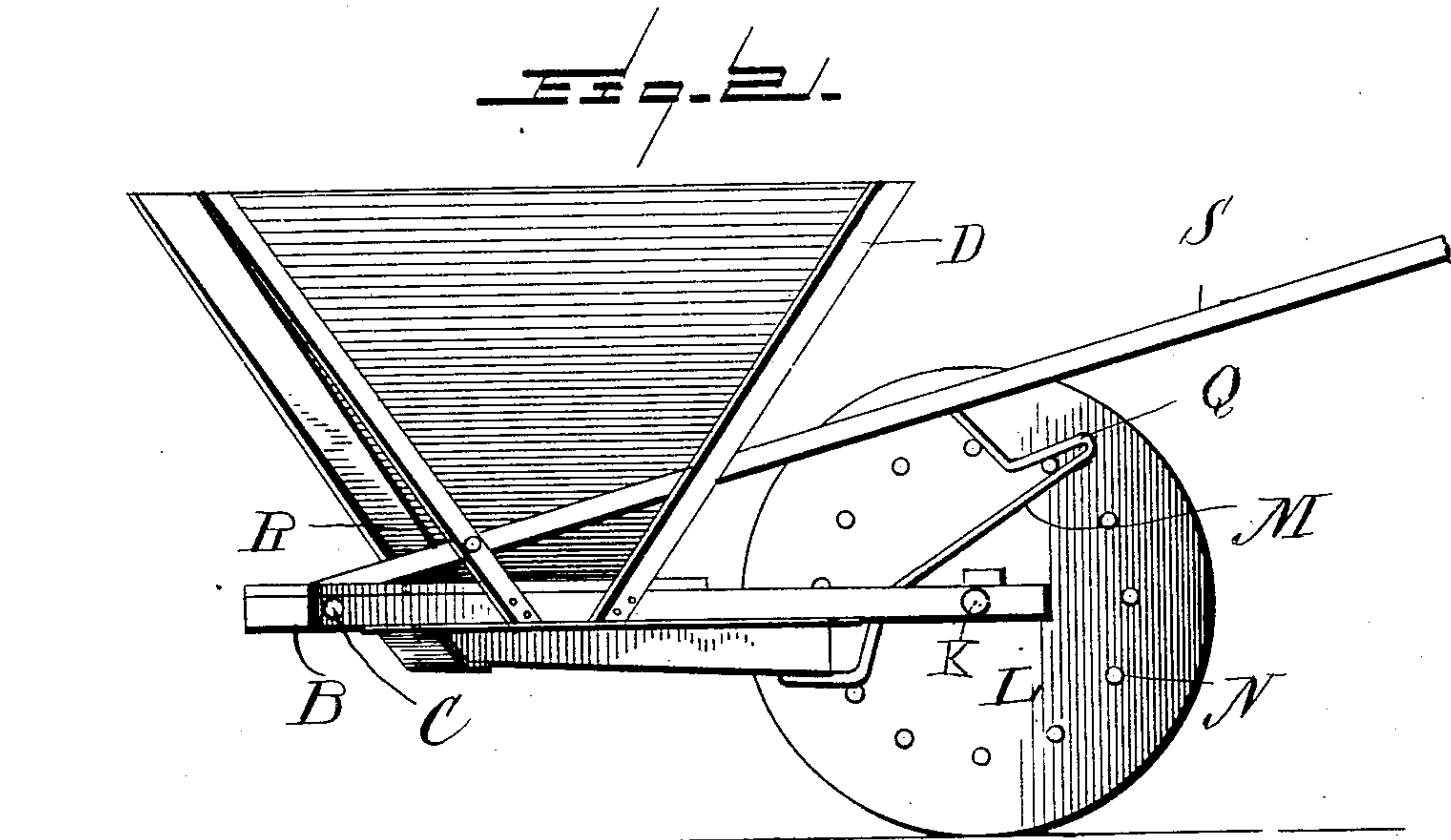
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Jesse S. Byrd
BY *Franklin W. Hough*
Attorney

UNITED STATES PATENT OFFICE.

JESSE S. BYRD, OF DUNN, NORTH CAROLINA.

GUANO-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 702,921, dated June 24, 1902.

Application filed March 6, 1902. Serial No. 96,961. (No model.)

To all whom it may concern:

Be it known that I, JESSE S. BYRD, a citizen of the United States, residing at Dunn, in the county of Harnett and State of North Carolina, have invented certain new and useful Improvements in Guano-Distributers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in guano-distributers of the vibrating type in which a shoe is actuated by means of connections with the driving-wheel; and it consists in the provision of a distributor-box which is mounted upon the frame of a plow and provided with a pivoted shoe having an agitator or stirrer which is adapted to loosen the fertilizer to cause the same to readily fall onto the vibrating shoe, the end of the shoe having a rod or wire which is bent near its free end angular-shaped and adapted to strike against two laterally-projecting pins on the side of the operating-wheel, whereby the shoe is caused to deposit the fertilizer onto the ground.

Another feature of the invention resides in the provision of a pivoted bar connected at one end to the frame of the distributor-box, while its free end is adapted to be held upon the cross piece or brace between the handles of the plow, to which the guano-distributer is adapted to be fastened, whereby the distributor-box may be steadied and lifted when it is necessary to lift the plow for any purpose.

The invention consists, further, in various details of construction and combinations of parts, as will be hereinafter fully described and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a top plan view showing my improved guano-distributer attached to the frame of an ordinary plow. Fig. 2 is an enlarged view, in side elevation, of the distribu-

ter-box and vibrating shoe. Fig. 3 is a sectional view longitudinally through the distributor-box and shoe, showing the parts in side elevation; and Fig. 4 is an enlarged detail view of the shoe and the operating-wheel which agitates the shoe.

Reference now being had to the details of the drawings by letter, A designates the beam of an ordinary plow, to which my invention is adapted to be attached.

The frame of the guano-distributer comprises the platform B, made up, preferably, of two longitudinal pieces, which are connected together by means of cross-braces A', and said frame is fastened pivotally to the beam A by means of the rod or bar C. Mounted on said frame B is a distributor-box D, having a regulating-slide D' on one side thereof, and fastened to the under surface of said platform, as at E, is a vibrating shoe F, which may be made of any flexible material, or, if preferred, the fixed end of the shoe may be pivoted to said frame. In the present instance I have shown the shoe as fastened to a flexible strip G, (shown clearly in Fig. 4 of the drawings,) which is fastened at one end to the frame and at its other end fastened to the shoe F. Mounted on said shoe are stirrers H, which project up through the outlet end of the distributor-box, as shown in Fig. 3 of the drawings, and is provided for the purpose of agitating or stirring up the fertilizer to allow the same to fall by gravity through the outlet passage-way of the distributor-box. There may be one or more of these stirrers, as may be desired.

Journaled on a stub-shaft K, carried at one end of frame B, is an operating-wheel L, which is adapted to rest upon the ground and to rotate as the plow, to which the distributor is attached, moves forward. Projecting laterally from one face of said wheel are the pins N, which are arranged in circular series at equal distances apart. Fastened to the outer end of the shoe is a bar or rod M, which is bent, as illustrated in the drawings, so as to form an obtuse angle at the point Q, this angled portion being of importance in the operation of my guano-distributer for the purpose of causing the vibrations to be regular by means of the two portions of the hook adjacent to said angle coming against two adja-

cent pins simultaneously, thus causing a jar, which will cause the fertilizer to fall from the shoe to the ground.

Pivotally mounted on the shaft R, which is
5 fastened to the distributor-box, is a lever S, the free end of which lever is adapted to rest upon the cross-piece T between the handles T' of the plow. Fastened to the frame B at any location is a rope or chain J, which is
10 provided to hold the lever and frame B securely together, while the free end of said lever rests upon the cross-piece between the handles of the plow. By the provision of this lever, fastened as described, it will be noted
15 that the rear end of the attachment which carries the operating-wheel may be raised with the forward end when the handles of the plow are tilted up for any purpose.

From the foregoing it will be observed that
20 an attachment embodying the features of my invention a guano-distributor is produced which may be applied to any ordinary form of plow by simply journaling one end of the bar C to the frame and holding the lever pivotally connected to the frame of the distributor upon the cross-piece between the handles,
25 and the feeding of the guano is effected positively at regular intervals by the regulating of the slide in the guano-box and by the peculiar shape of the bar fastened to the end

of the vibrating shoe. If desired, the pins upon the side of the wheel may be placed nearer together or farther apart, thereby regulating the vibrating movement of the shoe.

It will be observed that the provision of a
35 machine constructed in accordance with my invention, which may be attached to the beam of an ordinary plow, saves the services of a person otherwise required where the device is separate.
40

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

In combination with the frame of a plow having handles, of a cross-piece T, a platform,
45 a box mounted thereon, a shoe hinged to said box, stirrers on the shoe extending into the box, a wheel with a series of pins projecting laterally from one face thereof, a rod having a V-shaped end riding on said pins, a bar S
50 pivoted to said platform and to the box, with its free end normally resting on the brace T, as set forth.

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

JESSE S. BYRD.

Witnesses:

E. S. SMITH,

T. J. JACKSON.