

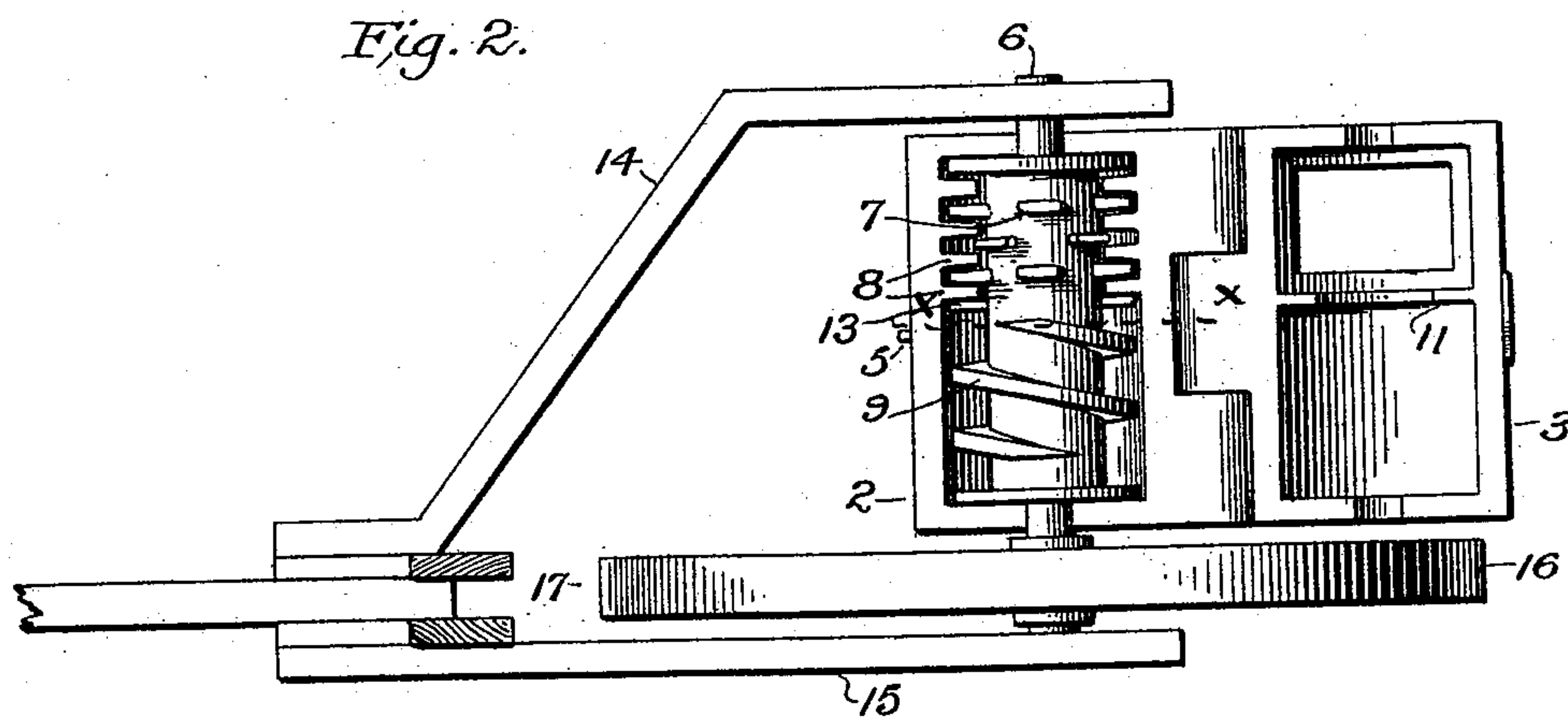
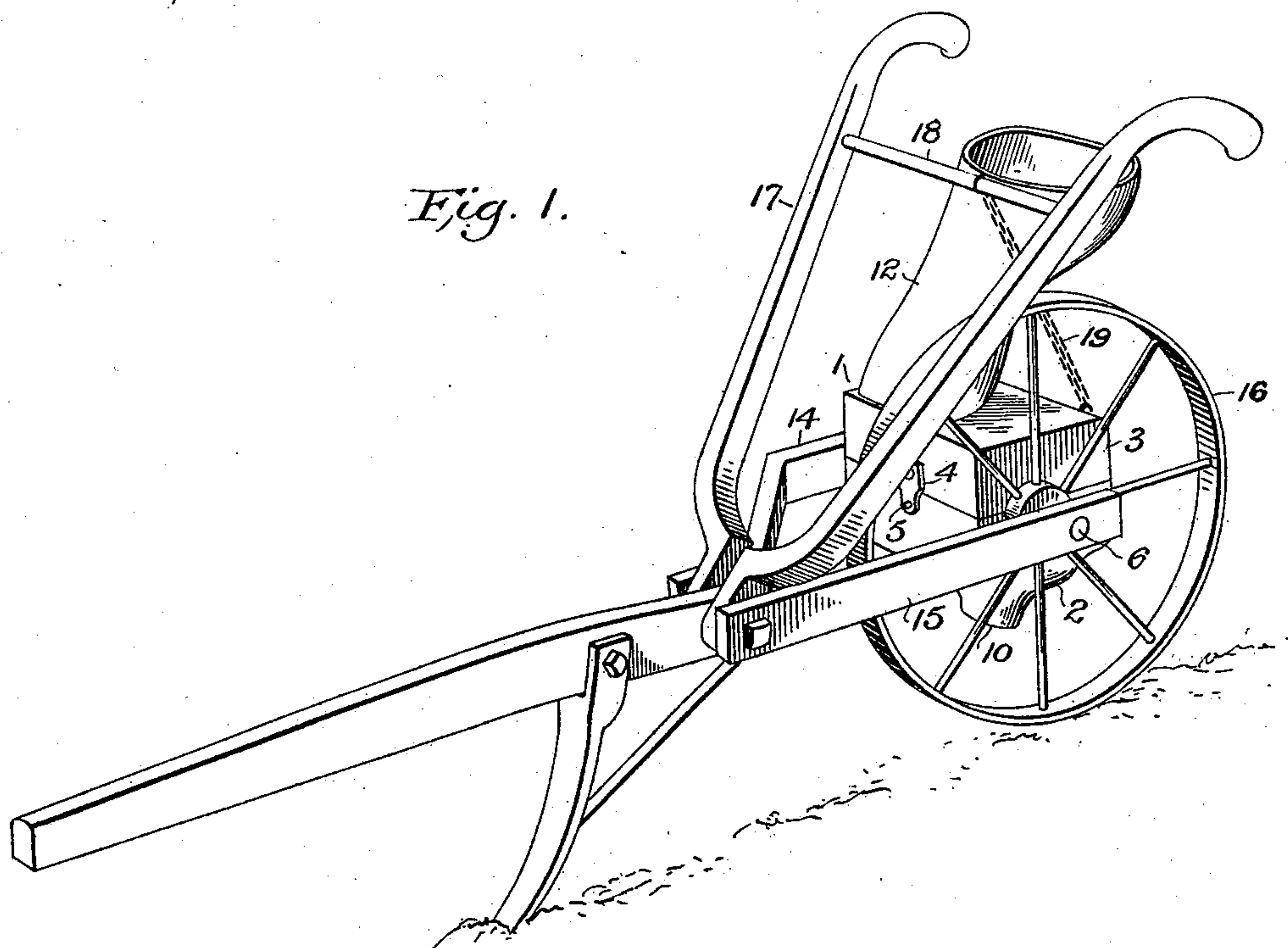
(No Model.)

2 Sheets—Sheet 1.

Z. McVAY.
GUANO DISTRIBUTER.

No. 601,160.

Patented Mar. 22, 1898.



Witnesses
James F. Duhamel
Victor J. Evans

Inventor,
ZADOK M^CVAY,
by V. T. Shockbridge
his Attorney.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

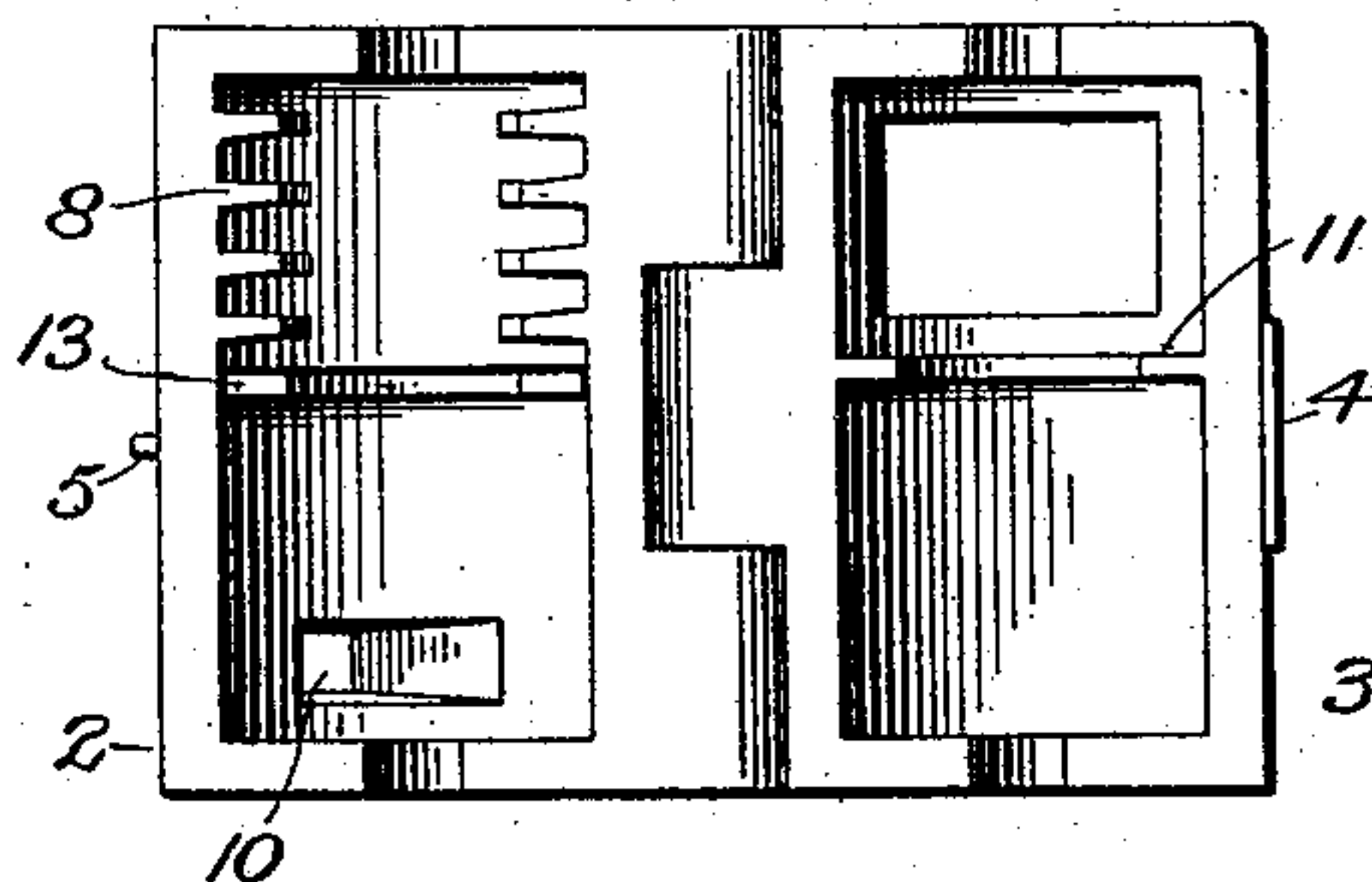


Fig. 4.

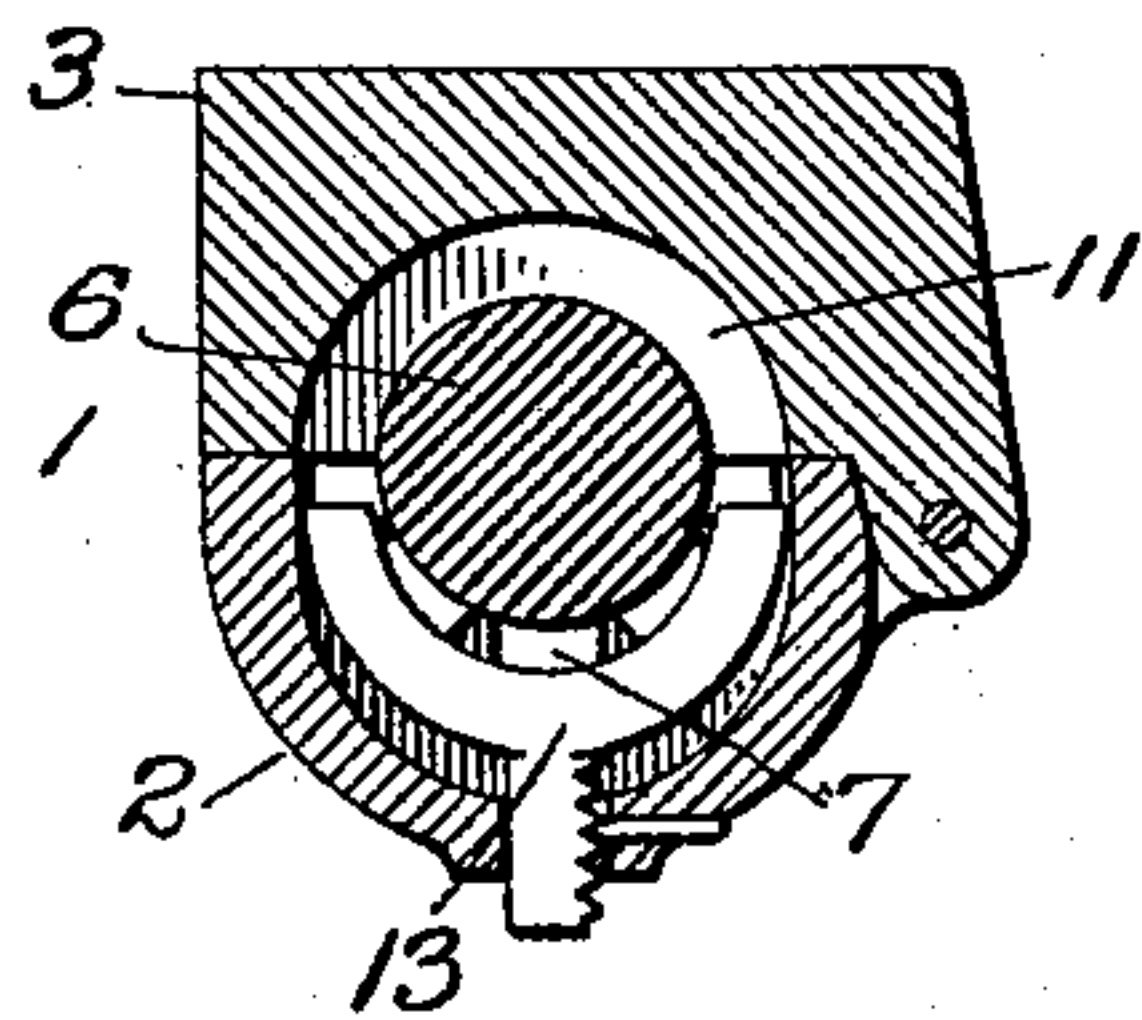
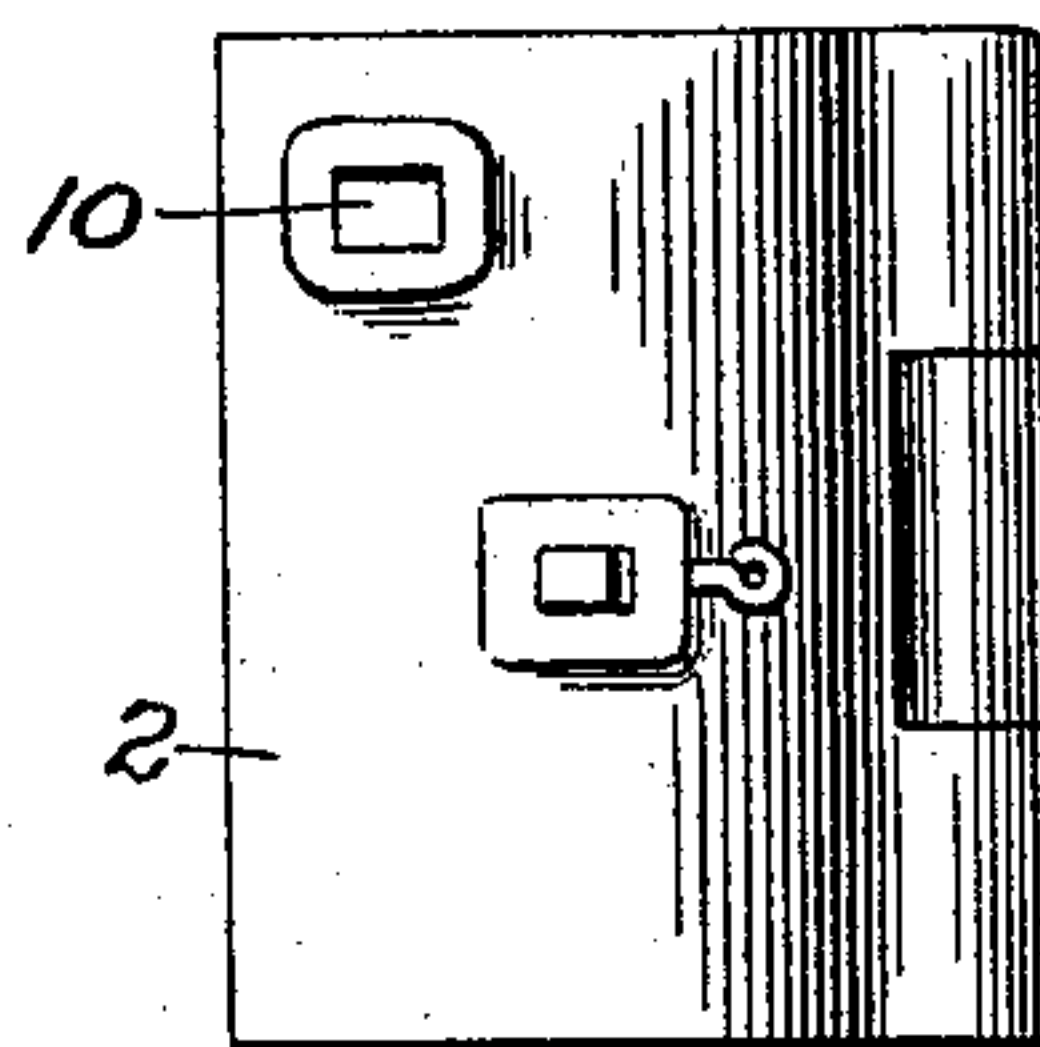


Fig. 5.



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UNITED STATES PATENT OFFICE.

ZADOK McVAY, OF GUMPOND, ALABAMA.

GUANO-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 601,160, dated March 22, 1898.

Application filed November 11, 1897. Serial No. 658,198. (No model.)

To all whom it may concern:

Be it known that I, ZADOK McVAY, a citizen of the United States, residing at Gumpond, in the county of Winston and State of Alabama, have invented certain new and useful Improvements in Guano-Distributers; and I do hereby 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.

My invention relates to novel and useful improvements in fertilizer or guano distributers; and it has for its object, primarily, a construction of a device of this character that can be readily attached to and detached from a plow of ordinary construction and one that will pulverize the fertilizer and uniformly distribute the same during the forward movement.

A further object of the invention is to provide a distributer that will embody a simple inexpensive construction and one that will embody the requisites of strength and durability.

With these and other objects in view, which will become apparent in the course of the following description, all looking toward improving and simplifying devices of this character generally, my invention consists of the novel combination and arrangement of simple parts which will be hereinafter fully described, and the points of novelty will be particularly set forth in the appended claims.

With these objects in view I have devised the distributer illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a plow of ordinary construction with my improved device attached thereto. Fig. 2 is a top plan view of the distributer with the top rocked backwardly to more clearly illustrate the device. Fig. 3 is a top plan view of the main body of the distributer with the cover rocked as in Fig. 2, the agitator and worm-shaft being removed. Fig. 4 is a section taken on the line *xx* of Fig. 2, showing the means for regulating the supply of guano or fertilizer. Fig. 5 is a bottom plan view of the portion forming the cover for the main body portion of the distributer.

Referring to the drawings, the numeral 1 in-

dicates the body portion of my improved distributer, which comprises a lower portion 2 and an upper hinged portion 3, provided on its front side with a catch 4, adapted to engage a lock or projection 5, provided upon the front side of the lower portion 2. Passing transversely through the body 1 and having bearings partly in the upper portion and partly in the lower portion of the main body 1 and at opposite sides thereof is a shaft 6, provided at one end with spurs or teeth 7, which are adapted to work between oppositely-disposed teeth 8, formed, preferably, integrally with the lower body portion 1.

In carrying out the invention I further provide the transverse shaft 6 with a spiral wing 9, which begins just to one side of the teeth 7 and is adapted to force the guano to one side of the lower portion 2, where it passes through a delivery-tube 10 to the ground. Formed in the cut-away portion of the body portion 3 of the box is a depending semicircular flange 11, which when the device is in use fits snugly against the shaft between the worm and the teeth or spurs thereon.

Immediately above the teeth or spurs the cover 3 is provided with a hopper 12, in which the guano or fertilizer is placed, from whence it is delivered upon the teeth 7, where it is pulverized and passes to the spiral wing 9, which forces it from the box. As a means for regulating the supply of guano I provide a slide 13, cut away at its upper edge and adapted to engage the under side of the transverse shaft when it is desired to entirely cut off the supply of guano. The said slide is provided in one edge with a series of sockets or indentations for the reception of a pin which passes through the box and is adapted to enter one or the other of said indentations or sockets to maintain the slide in any desired position with relation to the shaft to increase or diminish the quantity of fertilizer to be delivered.

The transverse shaft has bearings in oppositely-disposed arms 14 and 15, which are adapted to be secured to the rear end of the plow-beam by a bolt or other convenient means. Said shaft is further provided with a single wheel 16, which is adapted to travel in the furrow immediately behind the plow-

point, the arm 14 being bent, and with the box which will be supported in such position that the delivery-tube will be immediately over the furrow in position to deliver the fertilizer therein.

The numeral 17 designates the usual plow-handles, which I preferably separate to a greater extent than usual to make room for the distributor between said handles. Secured to the upper side of the box in any convenient manner and to the cross-bar 18 between the handles is a chain 19, which, in conjunction with the wheel 16, prevents the box from falling too low when the plow is being turned.

Having from time to time through the above description referred to the operation of the various parts, I do not deem it necessary to further describe the operation of the device.

It is obvious that many minor changes and modifications involving mechanical skill may be made within the scope of this invention without departing from the spirit thereof. I do not, therefore, desire to be understood as limiting myself to the precise construction shown.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A device of the character described comprising a suitable box having a hopper at one side thereof communicating with said box, a transverse shaft having bearings in the side of said box and being provided at one end with a plurality of teeth or spurs adapted to pulverize the fertilizer as the same enters the box, and a spiral wing thereon adapted to convey the fertilizer from said teeth to a suitable delivery-tube, a wheel or wheels on said shaft, means for regulating the supply of guano to be delivered to the box and means for attaching the box to a plow or other agricultural implement, substantially as described.

2. A fertilizer-distributor comprising a box having a hinged upper portion and means for locking said portions together, a hopper located at one side of said box and communicating with the interior thereof, a transverse shaft journaled in suitable bearings in a suitable frame adapted to be secured to a plow or other agricultural implement, said shaft being provided with teeth or spurs at one end thereof below the hopper, said teeth being adapted to rotate between teeth provided in the lower portion of the box for the purpose specified, and a spiral wing at the other end of the shaft adapted to convey the fertilizer to a delivery-tube, a wheel or wheels secured to said shaft and adapted to rotate the same during the forward movement of the device, means for regulating the supply of guano or

fertilizer to be delivered, substantially as and for the purpose set forth.

3. In a device of the character described, the combination with a suitable box having a hopper at one side having communication with the interior thereof, a transverse shaft journaled in suitable bearings in a suitable frame adapted to be secured to a plow or other agricultural implement, said shaft being provided at one end with a plurality of spurs or teeth adapted to work between teeth formed in the lower portion of the box, a spiral wing on the other end of said shaft for the purpose specified, a slide in the lower portion of said box adapted to be raised and lowered to increase or diminish the distance between its upper edge and the shaft to regulate the amount of guano to be delivered and to cut off the supply, a depending semicircular flange formed in the upper portion or cover of the box adapted to partially surround the shaft when the box is closed, a wheel or wheels on said shaft whereby the same is rotated during the forward movement of the distributor, substantially as and for the purpose set forth.

4. A device of the character described, comprising a suitable box having a hopper secured to one side having communication with the interior thereof, a transverse shaft having bearings in a suitable frame adapted to be secured to the plow or agricultural implement of like character, said shaft extending transversely through the box and being provided with a plurality of teeth or spurs immediately below the hopper, said teeth being adapted to rotate between suitable teeth in the lower portion of the box and a spiral wing or conveyer on the other end of said shaft whereby the fertilizer is conveyed to a suitable delivery-tube at the side of the box opposite to that of the hopper, annular flanges upon said shaft inside of the box to prevent the escape of the fertilizer therefrom, a slide in the lower portion of the box having its upper edge cut away and adapted to be raised or lowered to decrease or increase the distance between its upper edge and the shaft to regulate the supply of guano or fertilizer, a semicircular depending flange in the upper portion of said box adapted to engage the upper portion of the shaft which, in conjunction with the slide, divides the box into compartments, a wheel or wheels upon said shaft whereby the same is rotated during the forward movement of the machine, substantially as and for the purpose specified.

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

ZADOK McVAY.

Witnesses:

ELIJAH BLANTON,
WILLIAM M. MITCHELL.