

(No Model.)

D. M. PITTS.
FERTILIZER DISTRIBUTER.

No. 459,305.

Patented Sept. 8, 1891.

Fig. 1.

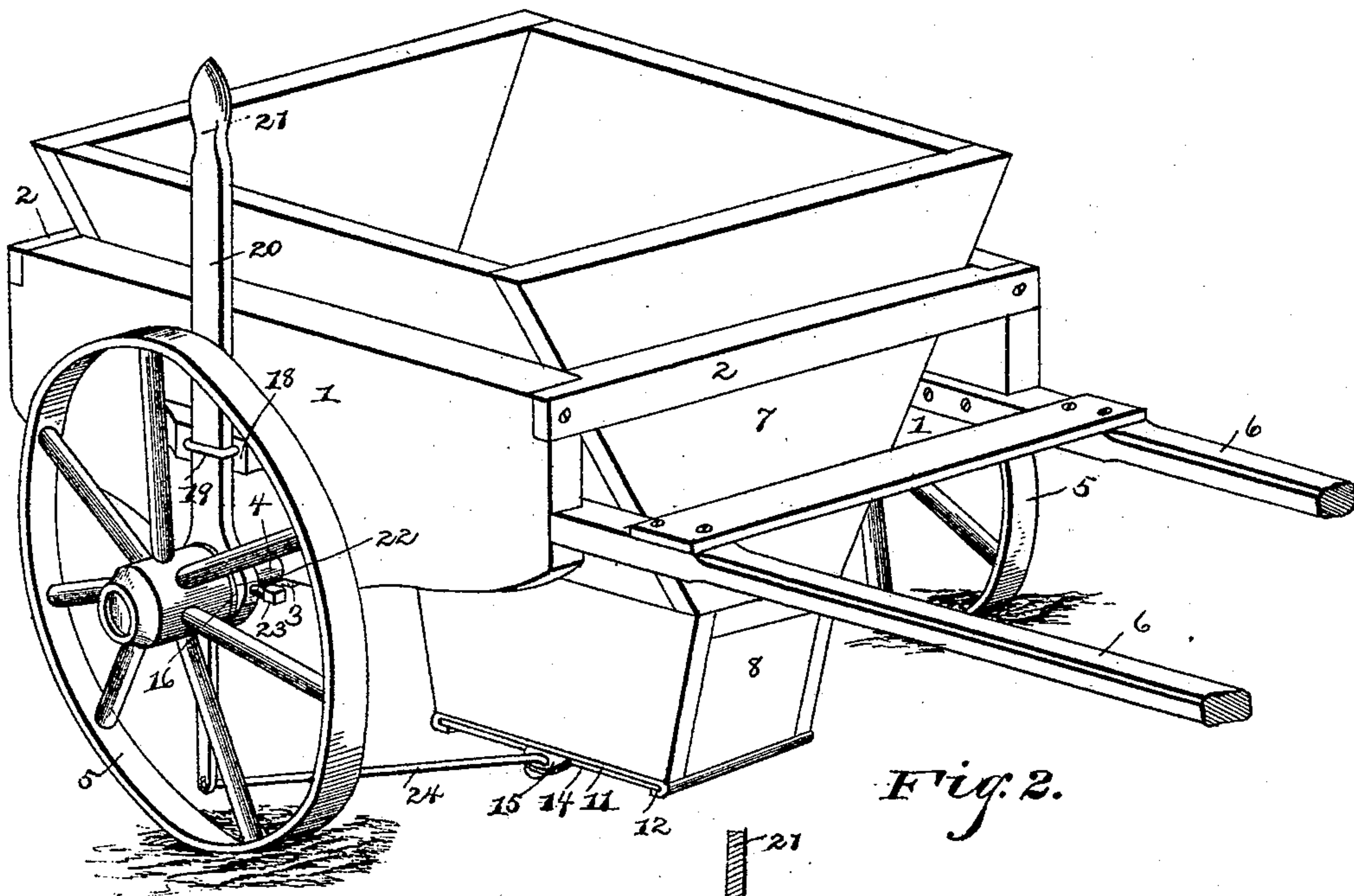


Fig. 2.

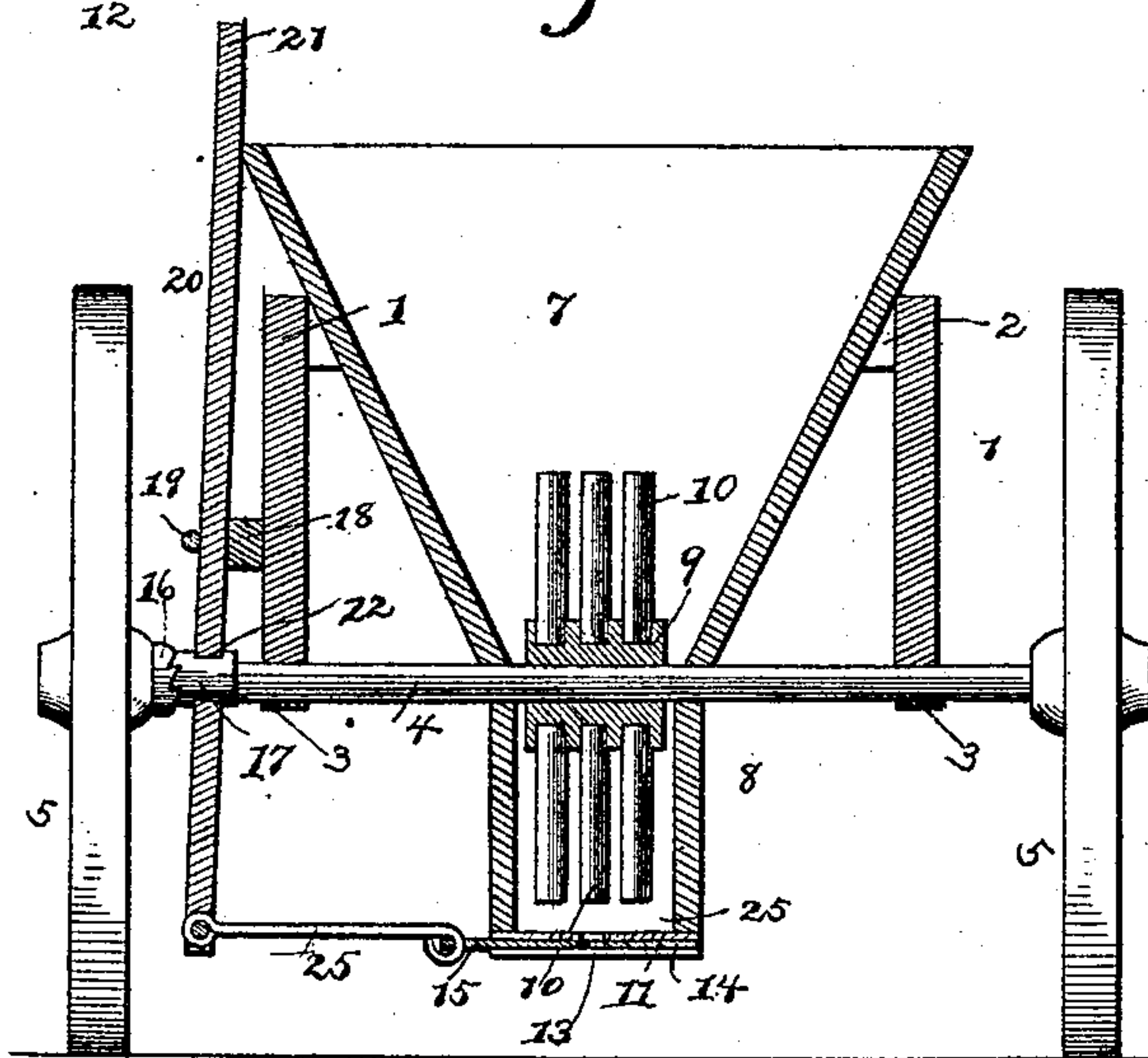
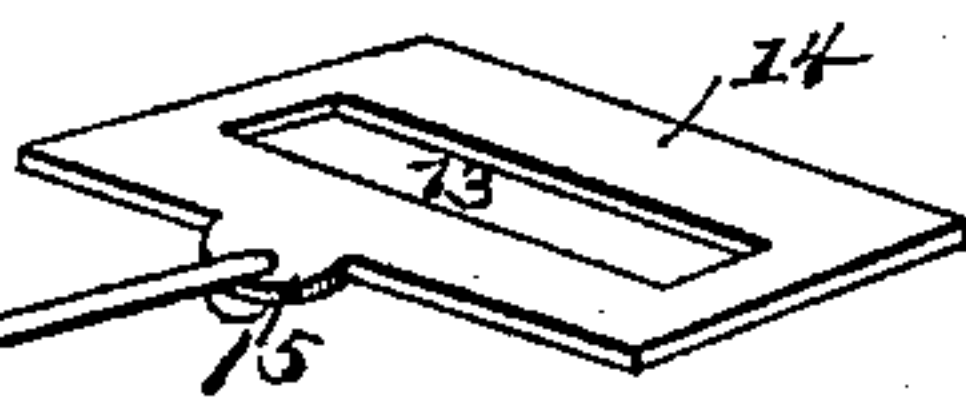
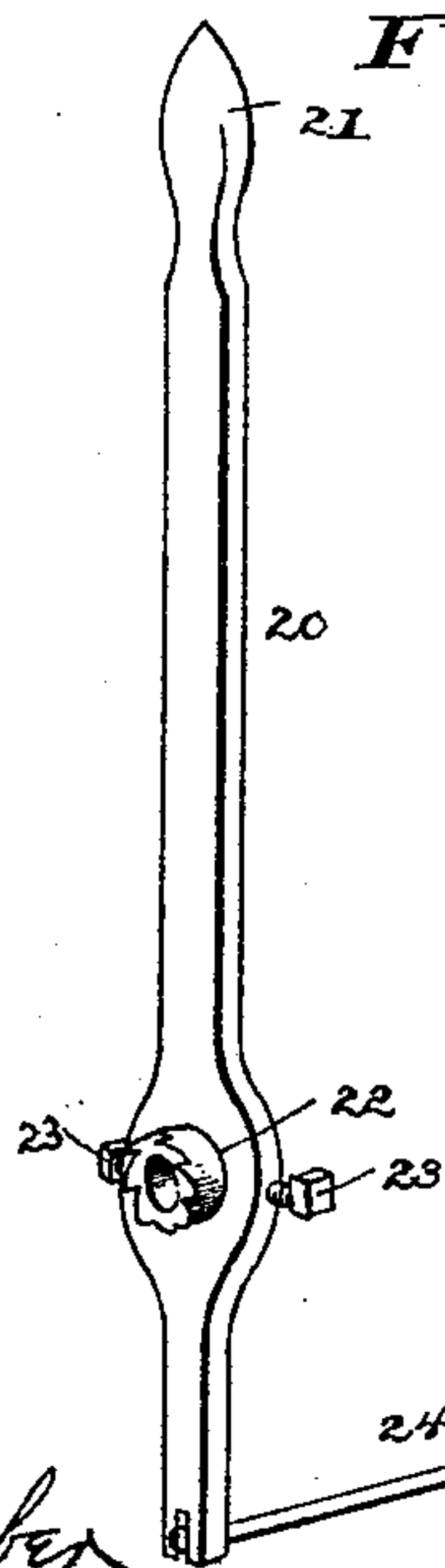


Fig. 3.



Witnesses:

B. S. Ober,
H. L. Wall.

Inventor

David M. Pitts,

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

DAVID M. PITTS, OF OPELIKA, ALABAMA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 459,305, dated September 8, 1891.

Application filed July 9, 1891. Serial No. 398,957. (No model.)

To all whom it may concern:

Be it known that I, DAVID M. PITTS, a citizen of the United States, residing at Opelika, in the county of Lee and State of Alabama, have invented a new and useful Fertilizer-Distributor, of which the following is a specification.

This invention relates to improvements in fertilizer-distributers, and more particularly to the means for throwing the agitating and feed mechanism into operative position and to the adjustment of the latter.

The objects in view are to provide a cheap and simple fertilizer-distributor, the same having a suitable cut-off and agitating mechanism, and to provide for a simultaneous opening or closing of the cut-off with the throwing in or out of operation of said agitating mechanism, the whole to be accomplished by the manipulation of one lever, and, furthermore, to provide for the opening of the feed to a greater or less degree.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figures 1 is a perspective of a fertilizer-distributor constructed in accordance with my invention. Fig. 2 is a transverse section. Fig. 3 is a perspective in detail of the clutch-lever; the clutch, and the rod connecting the lever with the cut-off.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I construct a rectangular frame-work, the same consisting of opposite longitudinal side bars 1 and front and rear connecting cross-bars 2, said side bars being provided upon their under sides with boxes 3, in which is journaled the transverse axle 4, upon the ends of which are loosely mounted ground-wheels 5. To the front ends of the side bars 1 are securely bolted shafts 6. 7 designates an ordinary hopper having opposite inclined side walls which converge to a reduced discharge-chamber 8, and said hopper is mounted in the rectangular frame-work. Through the opposite side walls of the hopper the axle 4 passes, and opposite the discharge-chamber said axle is provided with a hub 9, from which radiates a series of stirring

or agitating arms 10. The bottom of the discharge-chamber is covered by a metal plate 11, the opposite transverse ends of which are bent upon the plate to form parallel ways 12, and between the ways the plate is provided with a longitudinal seed-slot 13. Within the ways there is mounted for sliding a slotted seed-plate 14, adapted to be thrown into and out of operative position by movement within the ways. The plate is provided with a lip 15 for a purpose hereinafter described.

The inner face of one of the hubs of the drive-wheels is provided with a series of inclined teeth 16, and between the toothed hub and the side of the frame-work there is mounted upon the axle a clutch-sleeve 17, the outer edge of which is provided with inclined teeth disposed contrary to those of the hub.

A block 18 is secured to the side bar of the frame-work and has fulcrumed thereon by a staple 19 a laterally-movable hand-lever 20, the upper end of which is shaped to form a handle 21, while below its fulcrum the lever is provided with an opening 22, which loosely receives the clutch-sleeve and is pivotally connected to the latter at diametrically-opposite sides by means of set-screws 23. These screws may be adjusted along the clutch-sleeve for a purpose hereinafter explained. It will be understood that the sleeve is splined upon the axle, so that when thrown into engagement with the hub of the wheel the sleeve and axle will turn as one. The lower end of the hand-lever below the axle is connected to the perforated eye 15 of the seed-slide by means of a connecting-rod 24.

From the foregoing description it will be seen that the machine being set in motion the operator may, by drawing the upper end of the lever inward, slide the sleeve or clutch into engagement with the hub, so that the wheels and axle turn together and consequently rotate the agitator and pulverize thoroughly all lumps of the fertilizer, which, after being thus pulverized, are discharged into the drill from the discharge-spout 25, which, as is usual, depends from the lower end of the discharge-chamber. It will be seen that in the act of operating the lever to throw the clutch into operative position said lever has through the medium of its connecting-rod reciprocated the seed-slide and thus thrown

the opening therein into register with the slot in the seed-plate, or it may be into partial register, in accordance with the adjustment of the lever upon the sleeve. In other words, by providing means for adjusting the lever upon the sleeve the slots of the two plates may be thrown more or less into register, and hence the discharge of the fertilizer or seed, whichever is used, may be regulated. By throwing the lever in the opposite or outward direction the clutch-sleeve is removed from engagement with the toothed hub and the seed-opening closed.

Having described my invention, what I claim is—

1. In a fertilizer-distributor, the combination, with the frame-work, the hopper, and the reciprocating seed-slide, of the axle passing through the hopper and journaled in the frame-work, the wheels mounted on the axle, the hub of one of said wheels being provided with teeth, the reciprocating clutch-sleeve provided with teeth and mounted on the axle, the lever fulcrumed on the frame-work and pivotally connected with the clutch-sleeve, and the connecting-rod connecting the lower end of said lever with the seed-slide, substantially as specified.

2. In a fertilizer-distributor, the combination, with the frame-work, the hopper, and the reciprocating seed-slide, of the axle passing through the hopper and journaled in the

frame-work, the wheels mounted on the axle, the hub of one of said wheels being provided with teeth, the reciprocating clutch-sleeve provided with teeth and mounted on the axle, the lever fulcrumed on the frame-work and provided below its fulcrum with an opening loosely receiving the sleeve, opposite set-screws passed through the lever opposite the opening and pivotally bearing upon the sleeve, and a connecting-rod between the lower end of the lever and seed-slide, substantially as specified.

3. In a fertilizer-distributor, the combination, with the frame-work, the hopper, and the reciprocating seed-slide, of the axle passing through the hopper and journaled in the frame-work, the wheels mounted on the axle, the hub of one of said wheels being provided with teeth, the reciprocating clutch-sleeve provided with teeth and mounted on the axle, the lever fulcrumed on the frame-work and adjustably and pivotally connected with the sleeve, and the connecting-rod between the lower end of the lever and seed-slide, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DAVID M. PITTS.

Witnesses:

EDW. PHILLIPS,
C. T. MCGRAW.