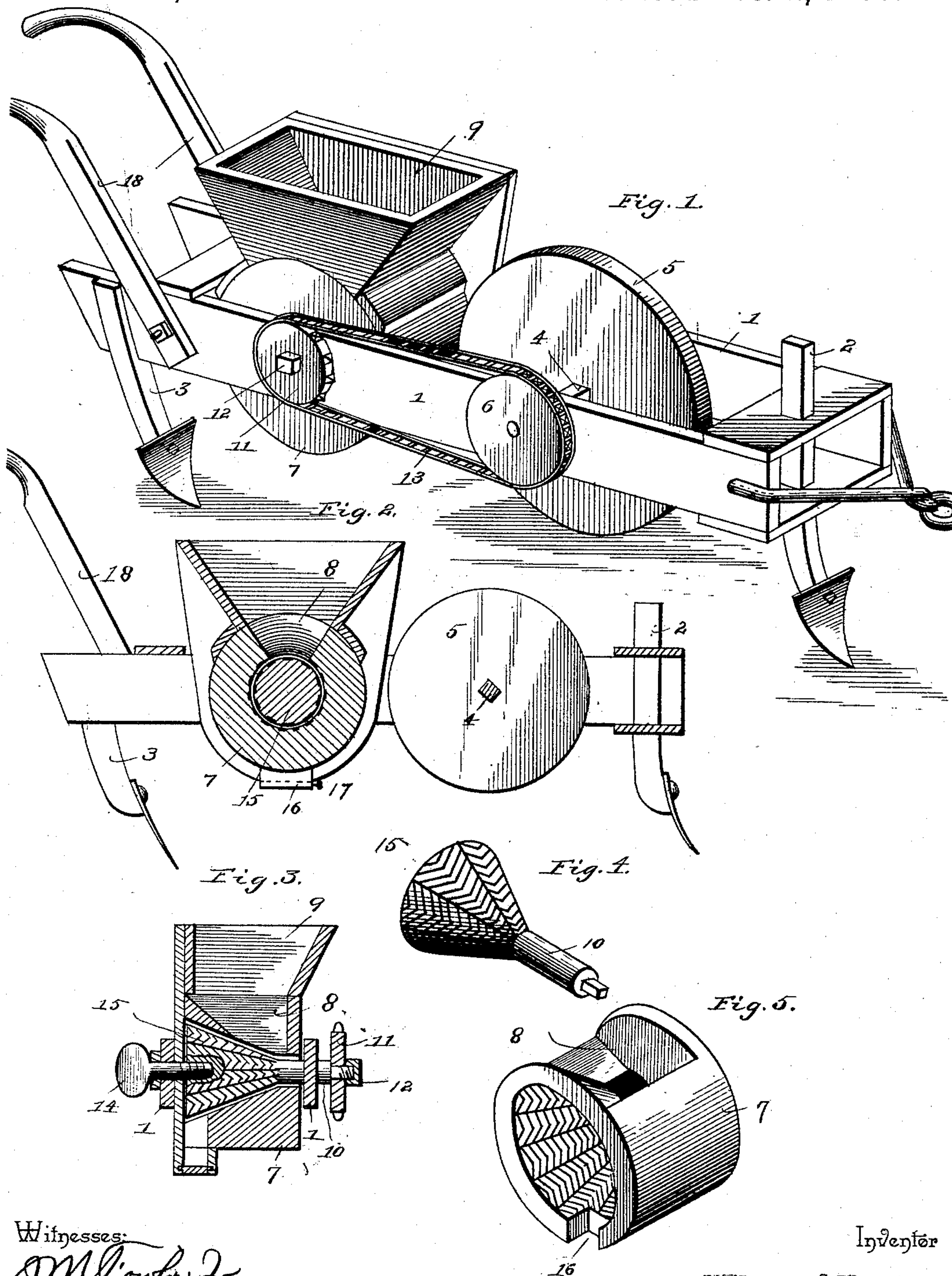


(No Model.)

W. A. DAVIS.
FERTILIZER DISTRIBUTER.

No. 441,791.

Patented Dec. 2, 1890.



Witnesses:

J. M. Fowler Jr.

W. S. Duval

By his Attorneys,

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Inventor

Wilson A. Davis.

UNITED STATES PATENT OFFICE.

WILSON A. DAVIS, OF CAIRO, GEORGIA, ASSIGNOR TO M. O. DAVIS, OF SAME PLACE.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 441,791, dated December 2, 1890.

Application filed July 12, 1890. Serial No. 358,568. (No model.)

To all whom it may concern:

Be it known that I, WILSON A. DAVIS, a citizen of the United States, residing at Cairo, in the county of Thomas and State of Georgia, have invented a new and useful Fertilizer-Distributor, of which the following is a specification.

This invention has relation to fertilizer-distributors; and the objects in view are to provide a machine for the above purpose, the same being adapted to open a furrow, distribute the fertilizer, and cover said furrow.

A further object of the invention is to provide means for thoroughly pulverizing the fertilizer previous to its distribution, and to provide means for regulating the quantity pulverized and distributed.

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 claim.

Referring to the drawings, Figure 1 is a perspective of a fertilizer-distributor constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section. Fig. 3 is a transverse section. Fig. 4 is a perspective of the grinding-cone. Fig. 5 is a similar view in detail of the grinding hopper or cylinder.

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

1 designates the oblong frame of the fertilizer-distributor, and at the front end of the same there is located a depending plow-standard 2, said standard being located at the center of the frame. The rear end of the frame is provided with depending inclined plow-standards 3, the locations of which are at opposite sides of the first-mentioned standard. The first-mentioned standard 2 is designed to open the furrow, while the two latter standards are for the purpose of filling said furrow, and between said standards are located the fertilizer-distributing mechanism and the necessary mechanism for driving the same.

4 designates a drive-shaft, which is journaled in the opposite side bars of the frame 1, near the front end of the same. The shaft or axle 4 carries between the side bars a ground-wheel 5 and at one side of the frame-work a sprocket-wheel 6.

7 designates a cylinder located in rear of

the wheel 5 and between the opposite sides of the frame-work. The cylinder is preferably cast in a single piece, and is provided at its upper side with an opening 8, over which is mounted an ordinary hopper 9. The interior of the cylinder is conical, and the internal surface thereof is toothed or serrated. 10 designates a shaft, which passes through one end of the cylinder and is journaled in a bearing in one of the side bars. The shaft is provided outside of the frame-work with a sprocket wheel or pulley 11, made removable, and connected to the shaft by means of a bolt 12. This pulley is connected to and driven by the sprocket 6 by means of an endless chain 13. The pulley 11 being removable, other pulleys of differing sizes may be substituted, whereby the shaft 10 may be driven at various rates of speed for a purpose hereinafter apparent. The opposite end of the shaft 10 takes bearing upon an adjustable bearing-bolt 14, which is inserted through that side bar of the frame-work 1 opposite to the one in which the shaft 10 is journaled. Upon the shaft 10 is mounted rigidly a cone-shaped grinding-burr 15, which operates in connection with the roughened surface of the cylinder 7 and grinds thoroughly all fertilizers subjected thereto. By regulating the bearing-bolt 14 the cone may be adjusted toward or away from the conical internal surface of the cylinder or hopper, and thus the degree and amount of pulverization may be regulated in accordance with the requirements. The lower side of the cylinder 7 is provided with a delivery-spout 16, in which is mounted an adjustable cut-off 17. The rear end of the frame-work is provided with the usual rearwardly-inclined handles 18, and the front end with the proper draft appliances.

In operation the fertilizer is poured into the hopper and the machine is set in motion. The front plow opens the furrow, and the fertilizer in a thoroughly pulverized state is fed in predetermined quantities into the bottom of the furrow, after which the rear shovels act to cover or close the furrow.

Having thus described my invention, what I claim is—

In a fertilizer-distributor, the combination, with the grinding-cylinder 7, provided at one

side with the grinding-chamber flared toward one of its ends, the frame 1 for supporting the cylinder, and the hopper located above and communicating with an opening 8 formed 5 in the upper side of the cylinder, of the grinding-cone 15, fitting loosely in the grinding-chamber, terminating at one end in an extended integrally-formed shaft 10, and at its opposite end provided with a threaded opening, an adjustable bearing-screw 14, journaled 10 in the frame-work and threaded in said bear-

ing, a gear-wheel mounted upon the extended shaft, and means for imparting motion to the gear, substantially as specified.

In testimony that I claim the foregoing as 15 my own I have hereto affixed my signature in presence of two witnesses.

WILSON A. DAVIS.

Witnesses:

T. D. WINN,

E. M. SMITH.