

(No Model.)

2 Sheets—Sheet 1.

R. B. McLEAN.
FERTILIZER DISTRIBUTER.

No. 470,588.

Patented Mar. 8, 1892.

Fig. 1.

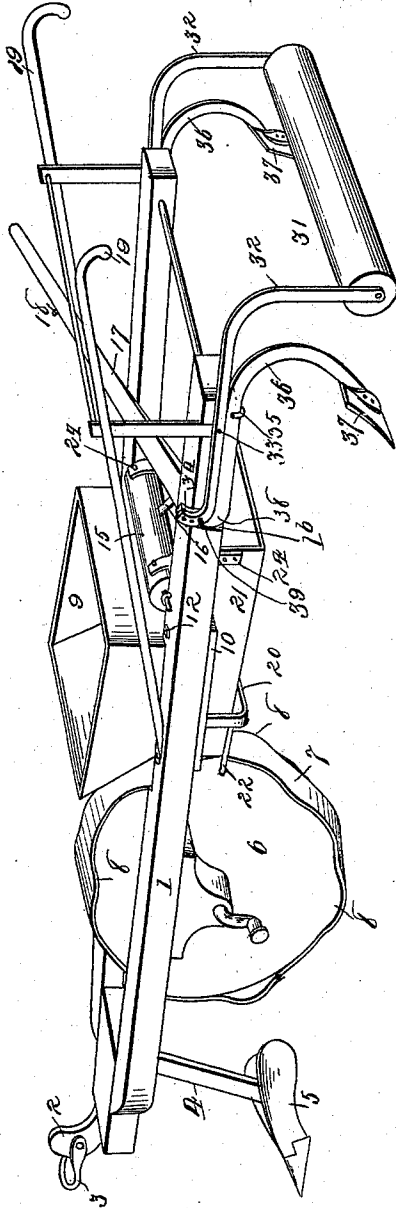
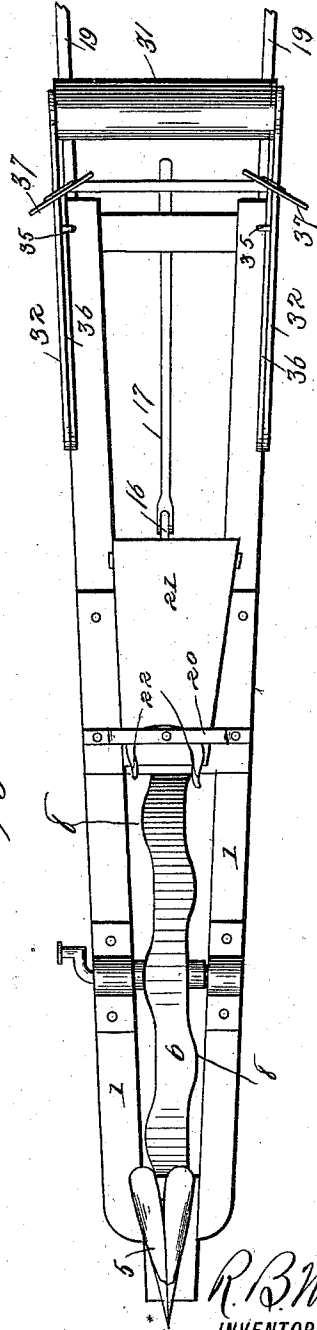


Fig. 2.



WITNESSES:

A. J. Schwartz
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R. B. McLean
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BY
W. F. Fitzgerald
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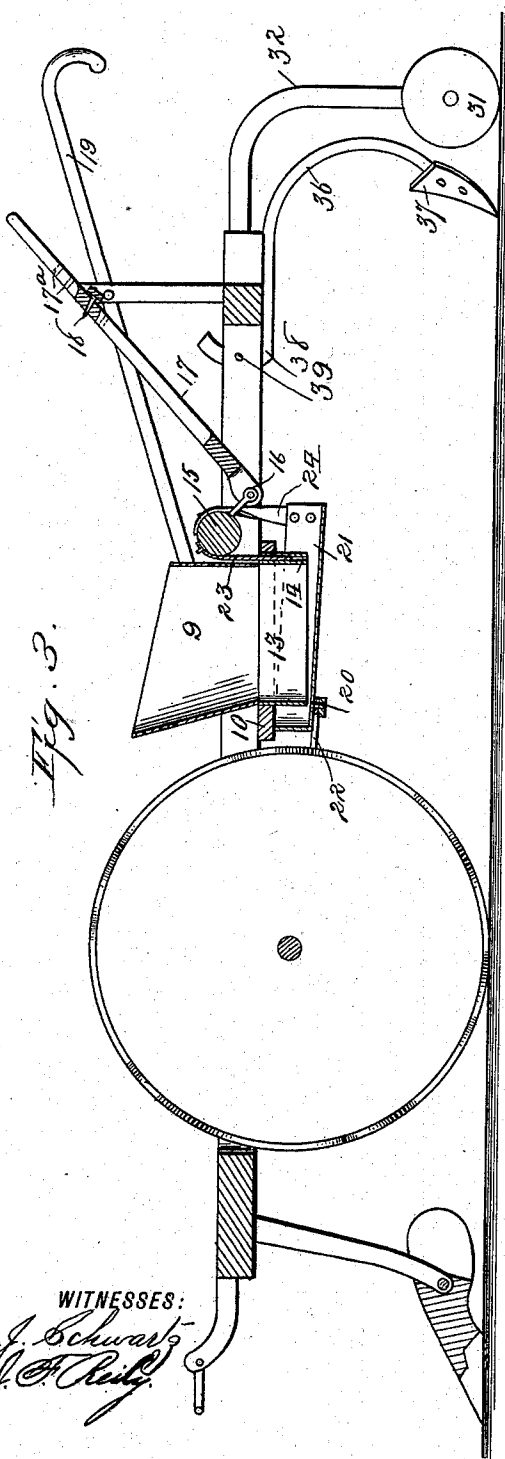
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2 Sheets—Sheet 2.

R. B. McLEAN.
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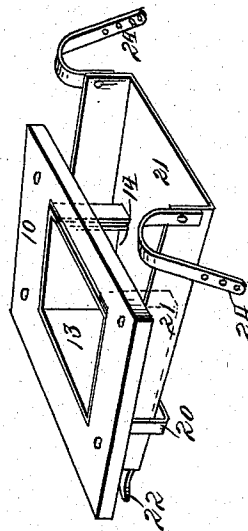
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Fig. 4.



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UNITED STATES PATENT OFFICE.

ROBERT B. MCLEAN, OF MULLINS, SOUTH CAROLINA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 470,588, dated March 8, 1892.

Application filed January 31, 1891. Renewed January 11, 1892. Serial No. 417,609. (No model.)

To all whom it may concern:

Be it known that I, ROBERT B. MCLEAN, a citizen of the United States, residing at Mullins, in the county of Marion and State of South Carolina, have invented certain new and useful Improvements in Fertilizer-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 consists in a new and improved fertilizer-distributer, in which are combined many new and useful features; and my invention will be hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a perspective view of my invention, showing the same arranged as a fertilizer-distributer. Fig. 2 is a bottom plan view of the same. Fig. 3 is a longitudinal vertical sectional view. Fig. 4 is a detail view of the fertilizer attachment.

The same numerals of reference indicate corresponding parts in all the figures.

Referring to the several parts by their designating-numerals, 1 indicates the main frame of the machine, in the forward end of which is bolted a curved apertured iron 2, to which the clevis 3 is secured. Beneath this forward end is secured a metal standard 4, on the lower end of which a blade 5, which opens the furrow, is secured.

In the forward part of the frame 1 is mounted the main wheel 6. The metal tire 7 of this wheel is formed on each side with a series of cams or projections 8, the sides of which extend out to a rounded point, as shown, the projections on one side of the wheel being arranged opposite the spaces between those on the other side thereof. To the rear of this wheel is mounted in the frame 1 the hopper 9, which tapers down to its lower end, which is on a level with the bottom of the frame 1, the rear side of the hopper alone being perfectly straight.

The fertilizer attachment consists of a flat piece or board 10, which is formed with a central opening corresponding to the size of the lower end of the hopper and adapted to be removably secured to the lower side of the frame 1 below the hopper by means of wood-screws,

which pass up through apertures in the frame 1. Within the piece 10 is bolted the upper end of a square extension or chute 13, having an opening 14 in its rear side. Immediately to the rear of the hopper is journaled on the frame 1 a roller 15, having a bolt 16 projecting from it, on which is pivoted the slotted lower end of a lever 17, by raising which the roller can be turned for the purpose hereinafter specified; and the upper end of the lever is formed with a series of apertures 17^a to adapt the said end to be engaged on a pin 18, projecting from the cross-bar connecting the handles 19 of the machine, thereby securing the lever and roller in their adjusted positions.

To the under side of the board 10 is secured a bracket 20, on which is loosely pivoted or journaled the forward end of the distributing-pan 21. This receptacle is formed with the open rear end, its sides diverging toward the said end, and at its forward end is provided with the projecting fingers 22 22, which extend on each side of the rim of the main wheel, as shown.

The opening in the rear side of the chute 13 is controlled by a sliding gate 23, the curved upper end of which is loosely pivoted to the roller 15; and the rear open end of the distributing-pan 21 is connected by straps 24, with the said roller passing up on the rear side of the roller, while the gate 23 is connected to the forward side of the same. It will now be seen that by raising the lever 17 the roller 15 will be turned to lower the gate 23 and raise the open rear end of the distributing-pan 21, while by pushing down the lever the gate is raised and the rear end of the pan lowered, and by this construction the feed or amount of fertilizer distributed can at all times be regulated to the desired quantity. As the machine is drawn forward the projections 8 of the revolving main wheel will alternately strike against the fingers 22 22, and thus rapidly reciprocate or shake the pan 21 on its pivotal point, thus scattering the fertilizer widely from its rear open end, and the amount fed into the pan can be regulated by raising or lowering the lever 17, as above described.

At the rear of the machine-frame is mounted a covering-roller 31, which is journaled between the lower ends of curved metal beams

32, which are pivoted at the point 33 and have their forward ends formed with series of holes 34. On the lower ends of hooked bolts 35, secured through the rear end of the frame 1 are mounted curved plow-beams 36, carrying at their lower ends blades 37. The forward ends 38 of these beams are curved upward and formed with a series of holes, and these curved ends fit and slide in grooves 1^b, cut in the sides of the frame 1. It will now be seen that the roller and plows can be adjusted up or down, as may be desired, and then secured by passing bolts 39 through the apertured forward ends of the curved standards into openings formed in the frame 1. The height to which the roller is raised will regulate the depth to which the plow-blades will enter the ground.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my invention will be readily understood.

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

1. The combination, with the hopper and the drive-wheel having the series of edge projections 8, of the board 10, having the bracket

20, the chute having the opening 14 in its rear side, the roller 15, the lever 17, pivotally connected to said roller, and means for securing this lever in its adjusted position, the distributing-pan 21, pivoted on bracket 20, having the open rear end, the forwardly-projecting fingers 22 at its front end and connected at its rear end to the roller 15 by straps 24, and the cut-off 23, pivotally connected at its upper end to the roller 15, substantially as set forth.

2. The combination, with the main frame, of the curved beams 32, pivoted to the rear end thereof and formed with the apertured forward ends, the roller journaled between the lower ends of said beams, the curved plow-beams 36, pivotally mounted on the hooked bolts 35 and having the curved apertured forward ends fitting in grooves in the main frame, and the retaining-pins 39, substantially as set forth.

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

ROBT. B. McLEAN.

Witnesses:

GEO. R. REAVES,
R. L. DANIEL.