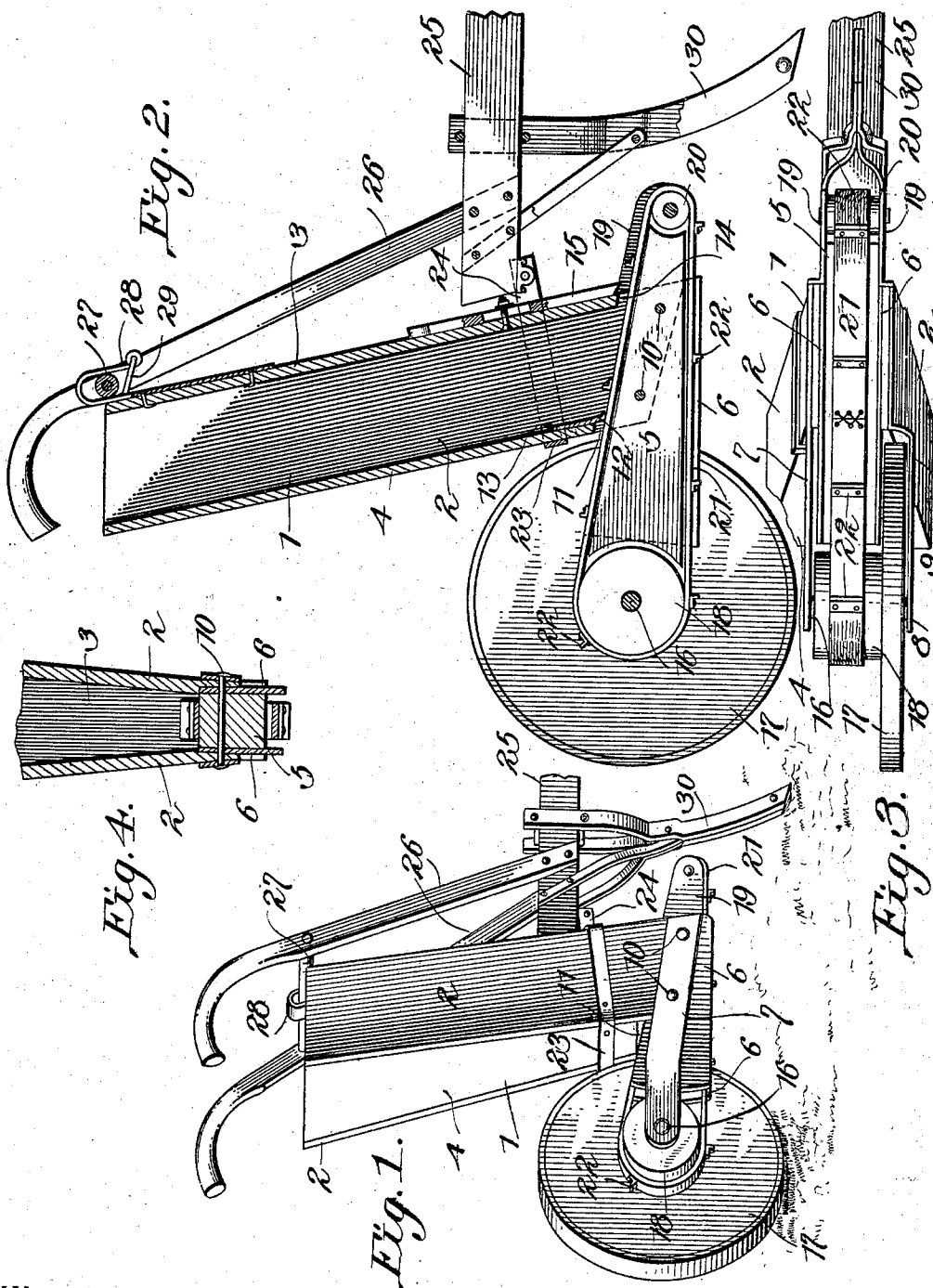


No. 757,020.

PATENTED APR. 12, 1904.

J. M. BUTLER.
FERTILIZER DISTRIBUTER.
APPLICATION FILED AUG. 19, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES M. BUTLER, OF BERNICE, LOUISIANA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 757,020, dated April 12, 1904.

Application filed August 19, 1903. Serial No. 170,080. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. BUTLER, a citizen of the United States, residing at Bernice, in the parish of Union and State of Louisiana, have invented a new and useful Fertilizer-Distributor, of which the following is a specification.

This invention relates to fertilizer-distributers; and it has for its object to provide a device of this class which shall possess superior advantages in point of simplicity, durability, and general efficiency.

With these and other ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings there has been illustrated a simple and preferred form of embodiment of my invention, it being understood, however, that changes may be made as to the size, shape, and general manner of assemblage of the parts within the scope of my invention and without departing from the spirit or sacrificing the utility of the same.

In said drawings, Figure 1 is a perspective view of a fertilizer-distributor constructed in accordance with the principles of my invention. Fig. 2 is a longitudinal vertical sectional view. Fig. 3 is a bottom plan view. Fig. 4 is a sectional detail view taken through the lower ends of the side pieces of the hopper, showing the frame-bar, the wings or guard-plates, and related parts.

Corresponding parts in the several figures are indicated by similar numerals of reference.

1 designates a box or hopper the sides of which, 2 2, are made to converge downwardly, said sides being also extended downwardly below the front and rear pieces 3 and 4 of said hopper, which latter, as clearly shown in the drawings, is tilted or inclined in an upward or rearward direction. Between the lower ends of the side pieces 2 2 is introduced a frame-bar 5, which extends in front and in rear of the hopper, and between the said frame-bar and the sides of the hopper are inserted wings or guard-plates 6 6. To the outer sides of the side pieces 2 2 are attached rearwardly-extending brackets 7 and 8, the

latter of which has a shoulder or offset 9. Transverse bolts 10 10 are used to connect together the side pieces 2, the brackets 7 and 8, the wings or guard-plates 6 6, and the central frame-bar 5, all of which are pierced by the said bolts and are thereby firmly connected.

The front and rear pieces 3 and 4 of the hopper terminate some distance above the frame-bar 5, and the opening 11 between the rear side pieces 4 and the frame-bar is closed by an interiorly-disposed flap 12, of leather or other suitable flexible material, which may be mounted on a transverse pin 13. The opening 14, existing between the front cross-piece 3 and the frame-bar 5, is adapted to be closed by an exteriorly-disposed slide 15, which is for the purpose of regulating the amount of fertilizing material permitted to escape through said opening.

The rear ends of the brackets 7 and 8 form bearings for a shaft or axle 16, carrying a transporting-wheel 17, which is accommodated in the shouldered portion of the bracket 8. The shaft 16, in addition to the supporting-wheel 17, carries a pulley or band-wheel 18, which in the construction shown has been illustrated as being integral with the supporting-wheel. The lower end of the hopper is provided with a pair of forwardly-extending brackets 19, between which is journaled a roller or pulley 20, which is connected by means of a band 21 with the pulley 18, from which it receives motion, the upper lead of said band traveling through the lower end of the hopper and the lower lead traveling below the frame-bar 5. This band when the machine is in operation serves to convey the fertilizing material from the hopper in a forward direction and finally depositing said material upon the ground. The said band may be provided with one or more carriers or flanges 22, which not only serve to agitate the fertilizing material and to assist in conveying it out of the hopper, but which also in a measure serve as clod-crushers.

The hopper 1 is encircled near its lower end by a band 23, the terminals of which form forwardly-extending brackets 24, between which a beam 25 may be inserted for the attachment of the draft. Handles 26, which are suitably

connected with said beam, are extended diver-
gently in an upward direction and are con-
nected by means of a rung 27, for the recep-
tion of which a hook 28 is provided upon the
5 upper front side of the hopper. The hook
member 28 has a pivoted catch 29 for the re-
tention of the rung, and the hook itself is
made of material possessing some degree of
resiliency, thereby enabling the said rung and
10 the handles to be conveniently mounted or dis-
mounted.

30 designates a furrow-opener of ordinary
construction which is suitably connected with
the beam.

15 From the foregoing description, taken in
connection with the drawings hereto annexed,
the operation and advantages of my invention
will be readily understood. When the ma-
chine is caused to travel over the ground, a
20 furrow is formed by means of the furrow-
opening device 30, which obviously may be of
any suitable construction. The wheel 17, trav-
eling in said furrows, serves to impart, through
the pulleys 16 and 20, motion to the endless
25 band 21, by means of which the contents of
the hopper will be evenly distributed in the
furrow, the quantity of fertilizing material
thus delivered being regulated by means of the
slide 15.

30 The operation of the device is extremely
simple, and the machine being light and easily
handled excellent results may be attained with
slight expenditure of power.

The device, while simple in construction,
35 will be found to be possessed of great strength
and durability, enabling it to withstand rough
handling.

Having thus described my invention, I
claim—

40 1. In a device of the class described, a hop-
per comprising front and rear sides, down-
wardly-converging side pieces extending be-
low said front and rear sides, a frame-bar in-
terposed between the lower ends of the side
45 pieces below the lower ends of the front and
rear pieces, guard-plates interposed between
the latter and the frame-bar, and connecting-
bolts extending through the side pieces, the
guard-plates and the frame-bar.

50 2. In a device of the class described, a hop-
per comprising front and rear sides, down-
wardly-converging side pieces extending be-
low said front and rear sides, a frame-bar in-
terposed between the lower ends of the side

pieces below the lower ends of the front and 55
rear pieces, guard-plates interposed between
the latter and the frame-bar, rearwardly-ex-
tending brackets disposed exteriorly against
the lower ends of the side pieces, and bolts
60 extending transversely through and connect-
ing said brackets, side pieces, guard-plates and
frame-bar.

3. In a device of the class described, a hop-
per composed of front and rear pieces and
side pieces converging downwardly and ex- 65
tending below said front and rear pieces, a
frame-bar interposed between said side pieces
below the lower ends of the front and rear
pieces, brackets extending rearwardly from
the hopper, one of said brackets having an off- 70
set, an axle journaled in said brackets, a ground-
engaging wheel and a band-wheel mounted
upon said axle, brackets extending forwardly
from the hopper, a pulley journaled between
said brackets, and an endless band connecting 75
said pulley with the band-wheel upon the axle,
the upper lead of said band traveling above the
frame-bar and through the openings between
the latter and the front and rear sides of the
80 hopper.

4. In a device of the class described, a hop-
per having downwardly - converging sides,
rearwardly and forwardly extending brack-
ets connected with said hopper, band-support- 85
ing means journaled in said brackets, an end-
less band, cups upon the latter, and means for
imparting motion to said endless band.

5. In a device of the class described, a hop-
per having downwardly - converging side
pieces and front and rear pieces terminating 90
above the lower ends of said side pieces, a
frame-bar secured between said side pieces be-
low the lower terminals of the front and rear
pieces, a flexible flap connected interiorly
with the rear side of the hopper, forming a 95
closure, a slide connected exteriorly with the
front side of the hopper and constituting a
gage, an endless carrier mounted on the lower
part of the hopper with its upper lead above
the frame-bar, and operating means. 100

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

JAMES M. BUTLER.

Witnesses.

JOHN T. HEARD,
W. W. BUTLER.