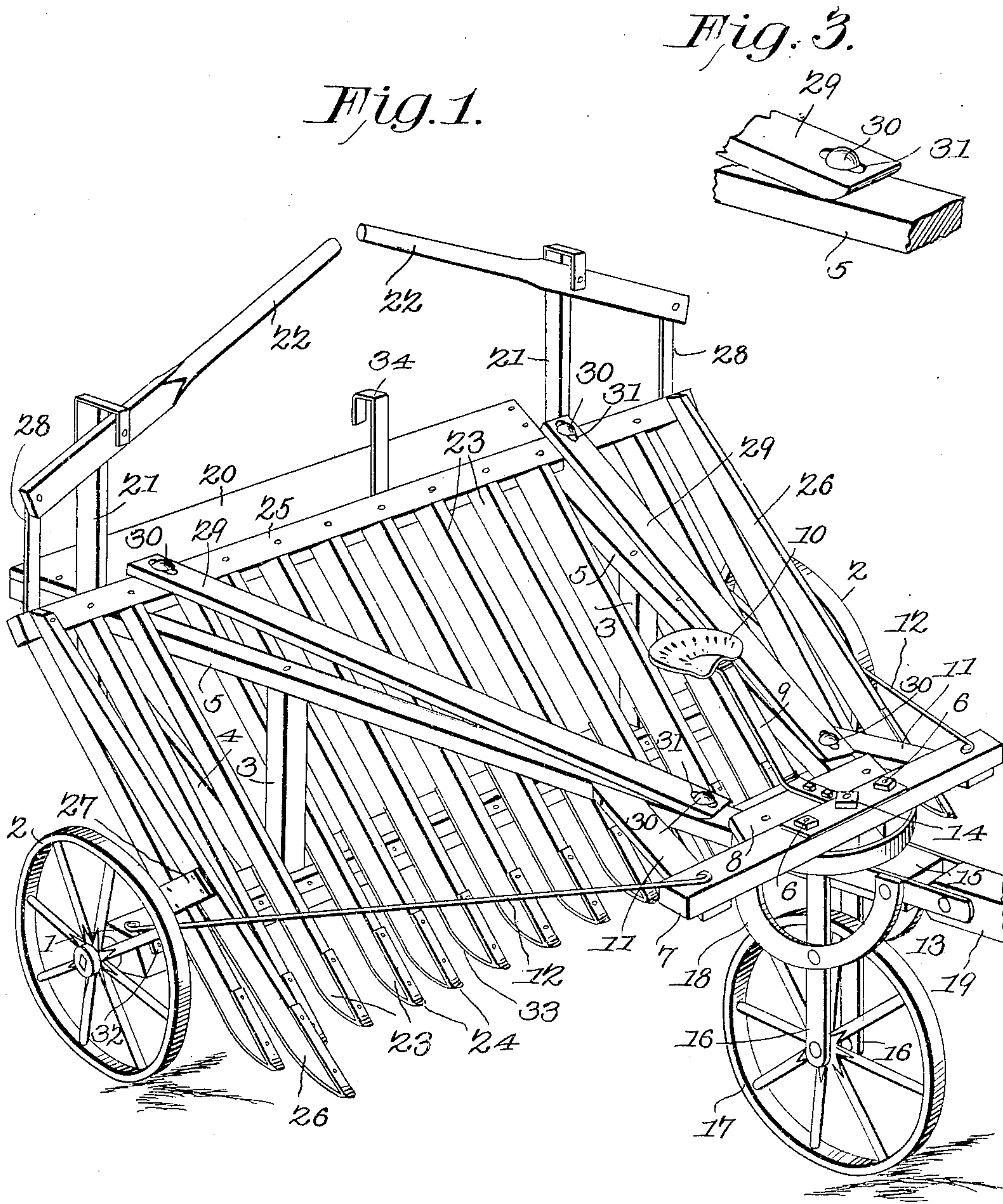


No. 810,459.

PATENTED JAN. 23, 1906.

J. M. BERINGER.
MANURE SPREADER.
APPLICATION FILED APR. 19, 1905.

2 SHEETS—SHEET 1.



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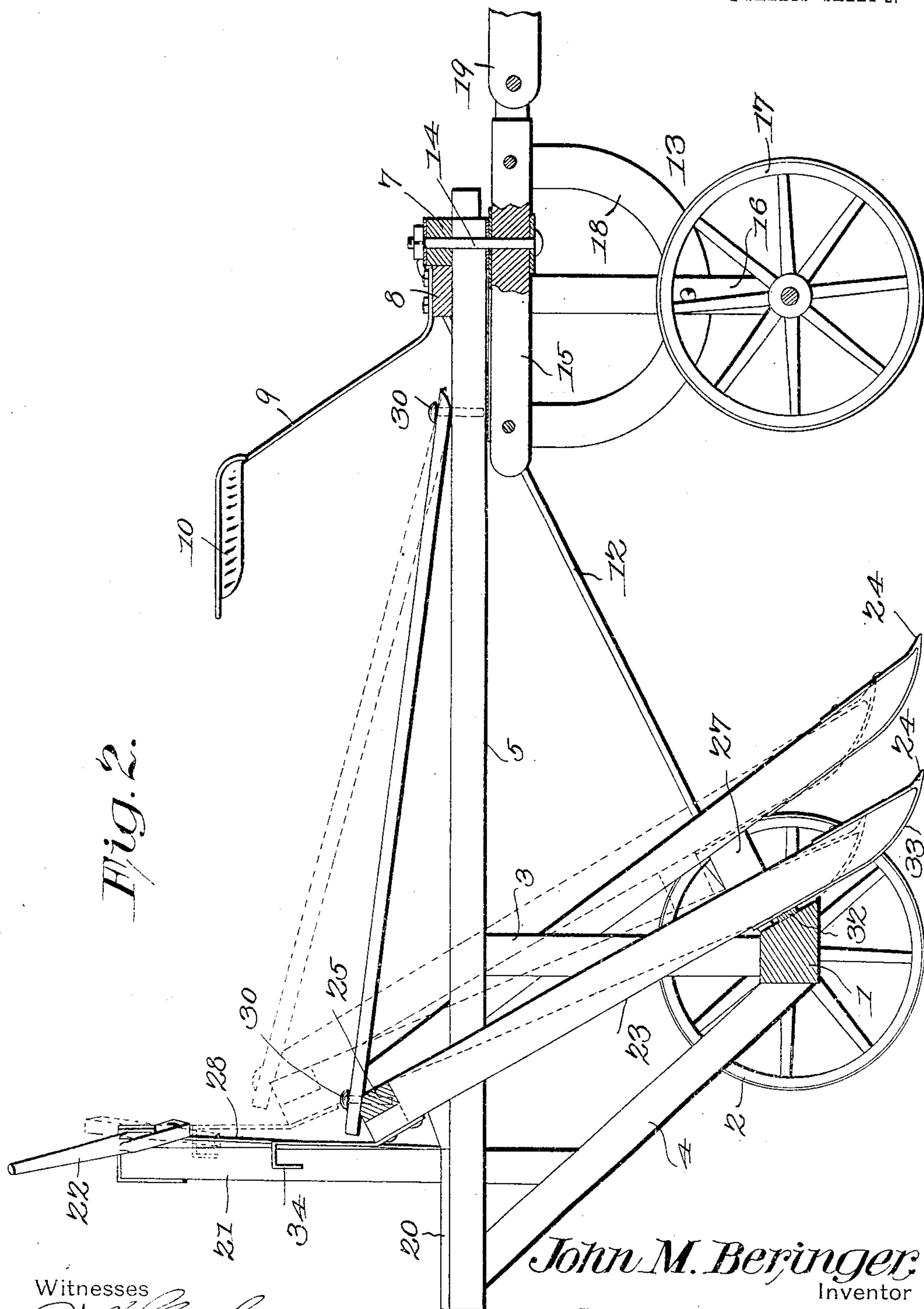
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Witnesses

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UNITED STATES PATENT OFFICE.

JOHN M. BERINGER, OF POMEROY, WASHINGTON.

MANURE-SPREADER.

No. 810,459.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed April 19, 1905. Serial No. 259,438.

To all whom it may concern:

Be it known that I, JOHN M. BERINGER, a citizen of the United States, residing at Pomeroy, in the county of Garfield and State of Washington, have invented a new and useful Manure-Spreader, of which the following is a specification.

This invention relates to manure-spreaders of that class which are employed for spreading and scattering piles of dung or manure which have been dropped in the field, the object being to save the labor of thus scattering the manure manually by the use of forks.

A further object of the invention is to construct a device which may be used not only for spreading or scattering the manure, but for conveying it to some distance from the original place of deposit—such as, for instance, when it is desired to scatter the straw from the bottom of a straw-pile when the same is to be utilized as manure.

Further objects of the invention are to simplify and improve the construction and operation of this class of devices.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists of the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of embodiment of the invention.

In said drawings, Figure 1 is a perspective view of a machine constructed in accordance with the principles of the invention. Fig. 2 is a side elevation, partly in section. Fig. 3 is a perspective detail view showing the end of one of the bars connecting the spreader-head with the frame of the machine.

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

The frame of the machine includes a rear or main axle 1, provided at the ends thereof with rotary transporting-wheels 2. The axle supports a pair of uprights 3 3, and connected with the rear side of the axle directly behind the uprights 3 3 are obliquely-disposed upwardly and rearwardly inclined braces 4 4. Forwardly-converging frame-bars 5 5 are con-

nected securely with the upper ends of the uprights 3 and the braces 4, the front ends of said frame-bars being connected, as by bolts 6, with a front cross-bar 7. A cross-brace 8, supported upon the frame-bars 5 in rear of the front bar 7, serves to support a standard 9, carrying a seat 10. Braces 11 connect the front bar 7 with the side members 5 of the frame. The ends of the cross-bar 7 are also connected with the ends of the axle 1 by means of brace-rods 12.

13 designates a front truck, which is swiveled upon the under side of the front end of the main frame by a king-bolt 14, said front truck being composed of a bar 15, having depending brackets 16, between which a wheel 17 is mounted for rotation, the brackets 16 being reinforced by braces 18. The tongue 19 is connected with the front end of the bar 15, and suitable means are to be provided for the attachment of the draft.

The rear ends of the side members 5 of the frame support a platform 20, at the ends of which are provided uprights 21, near the upper ends of which hand-levers 22 are fulcrumed. The spreader-head is composed of a plurality of tooth-bars 23, rounded at their lower ends and shod with steel or iron points 24, said tooth-bars being connected at their upper ends by a cross-bar 25, the parts being firmly mortised or otherwise secured together, so as to insure a stiff and rigid construction. At each end of the spreader-head is an auxiliary tooth-bar 26, the lower end of which is extended forward of the tooth-bars 23, said auxiliary tooth-bar at each end being connected with one of the end bars 23 by means of a brace 27. These auxiliary tooth-bars are for the purpose of preventing the material operated upon from escaping laterally.

The outer ends of the hand-levers 22 are connected, by means of links 28, with the cross-bar 25 of the spreader-head, which latter may thus by manipulating the inner ends of the levers be raised or lowered, the uprights 3 and the oblique braces 4 being straddled by several of the spreader-teeth, so as to prevent lateral movement of the head. The latter is, furthermore, guided by means of a pair of bars 29, the front ends of which are loosely connected with the side bars 5 of the frame, as by means of headed studs 30, en-

gaging the frame-bars and extending through slots 31 in the bars 29. The rear ends of the bars 29 are likewise connected with the cross-bar 25 of the spreader-head, which latter is thus capable of being freely adjusted upwardly and downwardly, as may be required.

It will be noticed that the lower ends of the spreader-teeth 23 bear upon the front side of the axle 1, which is cut off obliquely, as clearly shown in Fig. 2, and which is provided with a wear strip or plate 32. The metallic shoes 33 of the spreader-teeth are extended upwardly upon the rear sides of said teeth, so as to engage the wear-plate 32.

The cross-bar 25 of the spreader-head is provided with a hook 34, under which the ends of the hand-levers 22 may be placed for the purpose of retaining the spreader-head in an elevated position, as is desirable when the machine is to be transported from one place to another.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood. It will be observed that the spreader-head is capable of moving independently of the frame, its adjustment being effected by means of the hand-levers 22, which are to be manipulated by a man or boy standing upon the platform 20, while the machine is guided by the driver occupying the seat 10. By lowering the head until the forwardly-curved points of the spreader-teeth are in contact with the ground a pile of dung or manure may be dragged to the place where it is desired to deposit the same, when by manipulating the levers 22 the spreader-head may be agitated and manipulated to agitate the load and to cause portions thereof to escape beneath and between the teeth, thus causing the manure to be spread evenly and quickly and without much manual exertion on the part of the operator. The operation may be performed very quickly and at much less expense for labor than when the old-fashioned method of spreading the manure by means of forks is employed.

The construction of the device, as will be seen, is extremely simple and inexpensive, and the operation thereof will be found very effective. When the machine is to be transported from one place to another, the spreader-head may be suspended at an elevation above the ground by engaging the ends of the levers 22 with the hook 34. The front end of the machine carries little or no weight, and hence will be amply supported by the single-wheel truck herein described, which enables the machine to be conveniently guided in any direction and which does not in the least interfere with the operation of the de-

vice either in taking up or in distributing the load.

Having thus described the invention, what is claimed is—

1. In a machine of the class described, a wheel-supported frame including uprights, braces, and side members, a spreader-head having teeth straddling the uprights of the frame, and bars loosely jointed with the side members of the frame and with the spreader-head and connecting the latter with the frame.

2. In a machine of the class described, a wheel-supported frame including an axle, uprights and side members, in combination with a spreader-head having teeth straddling the side members and the uprights and supported against the axle, and means movably connecting the spreader-head with the frame.

3. A wheel-supported axle having uprights and side frame members supported by said uprights, a spreader-head having teeth some of which straddle the side members and the uprights, and connecting-bars loosely connected with the spreader-head and with the side members of the frame.

4. A wheel-supported axle having uprights and side frame members supported by said uprights, a vertically-movable spreader-head having teeth engaging the front side of the axle and provided with a top cross-bar, and connecting-bars loosely connected with said top cross-bar and with the side members of the frame.

5. A wheel-supported axle having uprights and side frame members supported by said uprights, a vertically-movable spreader-head having teeth engaging the front side of the axle, connecting-bars loosely connecting the top of the spreader-head with the side bars of the frame near the front end of the latter, and a supporting-truck for the front end of the frame.

6. A wheel-supported frame, a spreader-head vertically movable in said frame, means for spacing the top of the spreader-head from the front end of the frame, a platform upon the frame, levers supported adjacent to said platform, links connecting the outer ends of said levers with the spreader-head, and a hook connected with the latter for engagement with the inner ends of the levers.

7. A wheel-supported frame, a spreader-head vertically movable in said frame, and means for spacing the top of the spreader-head from, and flexibly and slidably connecting it with the front end of the frame.

8. A wheel-supported frame, a spreader-head vertically movable with relation to said frame, spacing members connecting the top of the spreader-head flexibly and slidably with the frame near the front end of the lat-

ter, and means for independently manipulating the ends of the spreader-head.

9. A wheel-supported frame including an axle, uprights and side members supported
5 upon said uprights, a vertically - movable spreader including teeth straddling the side members and the uprights, a wear - plate upon the front side of the axle, and shoes upon the points of the teeth of the spreader-

head; said shoes having upward extensions to engaging the wear-plate upon the axle.

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

JOHN M. BERINGER.

Witnesses:

EDWIN W. GIBSON,
ELLA M. WOODRUFF.