

No. 674,938.

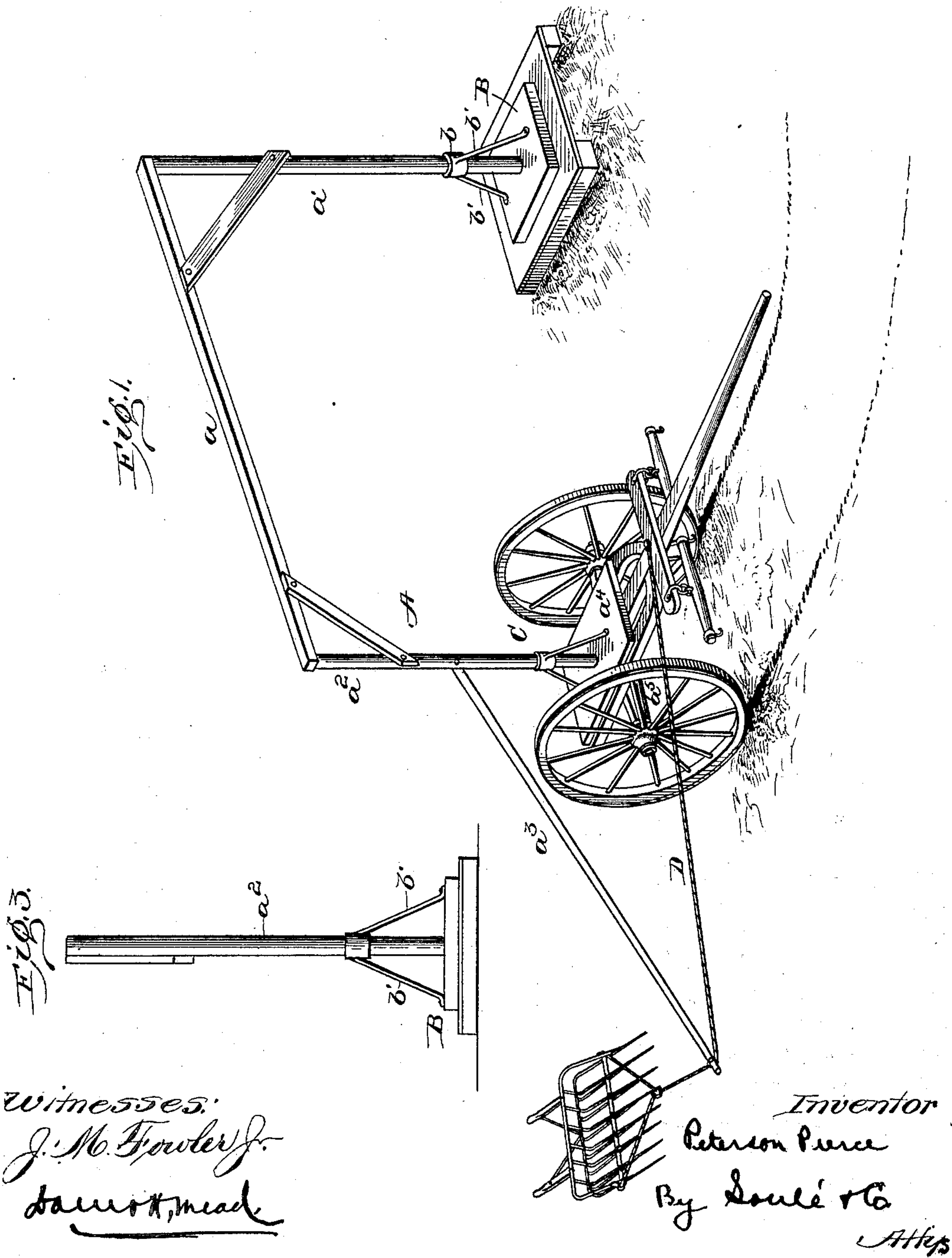
Patented May 28, 1901.

P. PIERCE.
VEHICLE LOADER.

(Application filed Nov. 26, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:
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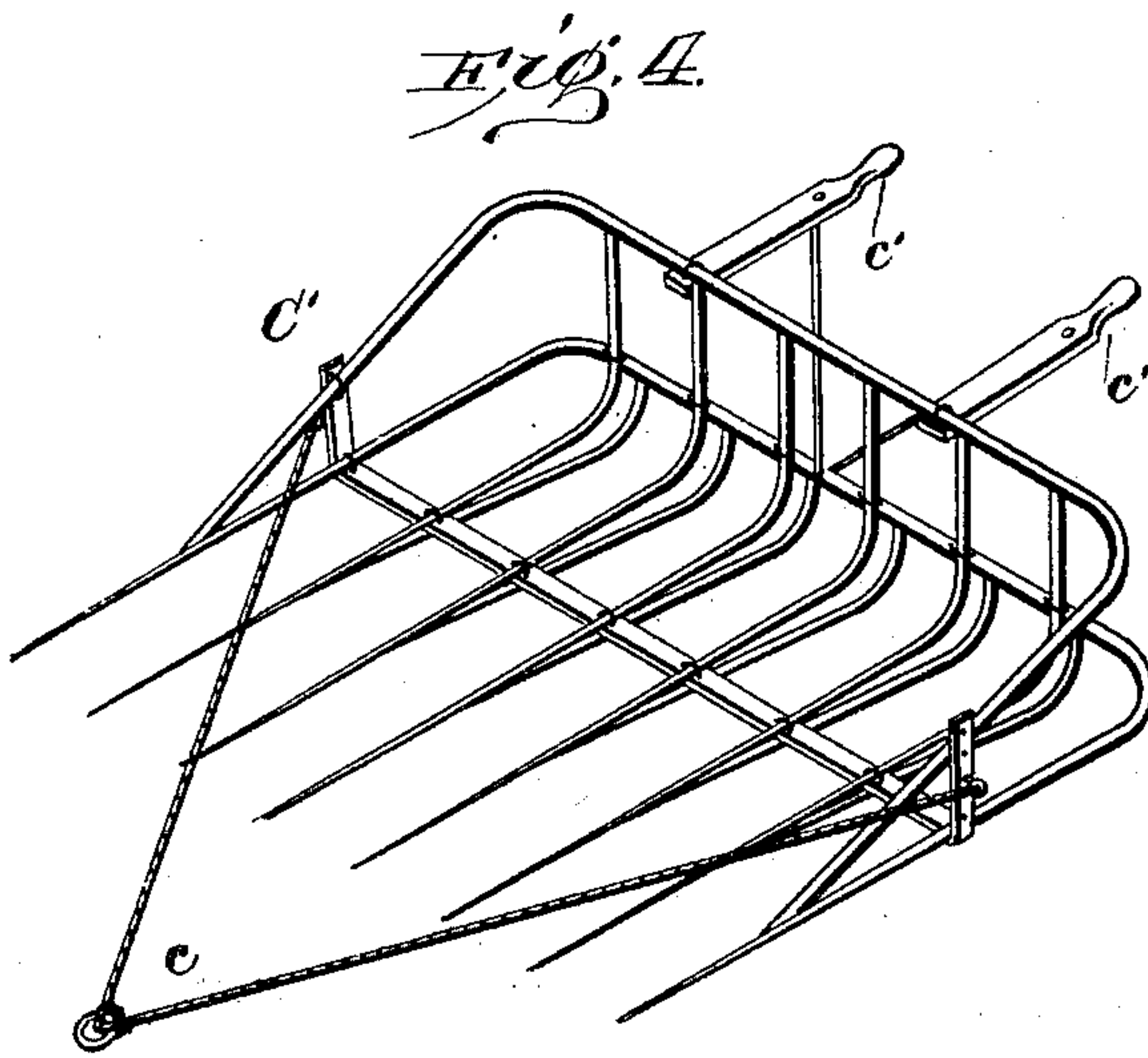
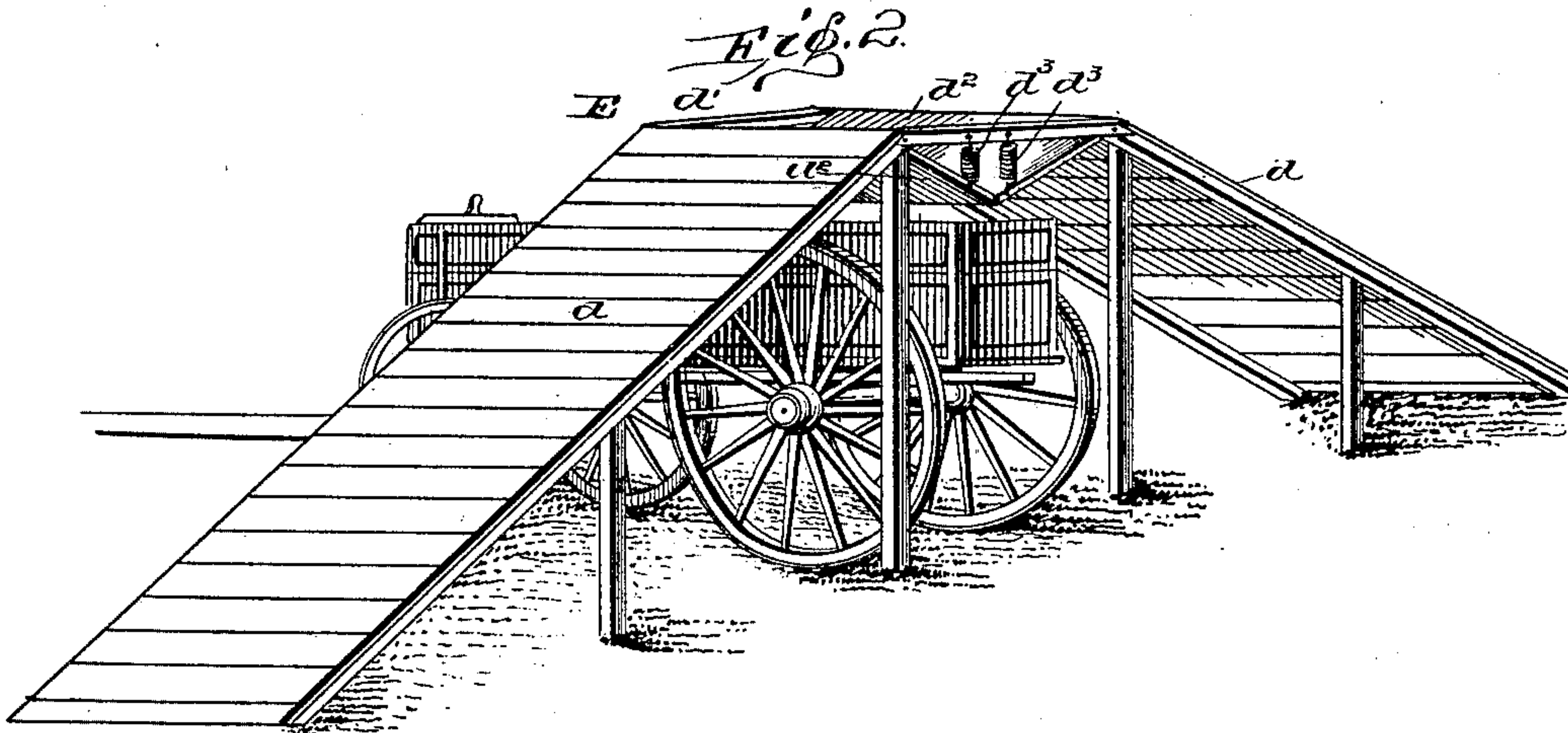
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UNITED STATES PATENT OFFICE.

PETERSON PIERCE, OF HUDSON, SOUTH DAKOTA.

VEHICLE-LOADER.

SPECIFICATION forming part of Letters Patent No. 674,938, dated May 28, 1901.

Application filed November 26, 1900. Serial No. 37,760. (No model.)

To all whom it may concern:

Be it known that I, PETERSON PIERCE, a citizen of the United States, residing at Hudson, in the county of Lincoln and State of South Dakota, have invented certain new and useful Improvements in Vehicle-Loaders; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates generally to loading and unloading devices, and it relates particularly to devices for loading such material as manure upon wagons.

The object of the invention is to provide a simple and inexpensive device whereby with the use of a limited amount of manual labor a wagon, car, or the like may be loaded from a single pile or stack or from scattered piles.

With this object in view the invention consists of a frame pivotally mounted at one end, a fork arranged at the other end, a support for the frame mounted on wheels and arranged in intermediate of the two ends of the frame, and an inclined way arranged in the path of movement of the fork and designed to be located above a wagon, car, or the like to be loaded.

Further, the invention consists of various novel details of construction and combinations of parts, substantially as hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the principal movable parts of the invention. Fig. 2 is a perspective view of the inclined way, up which material to be loaded is carried, showing a wagon in position to receive a load. Fig. 3 is a side view of the end support for the frame, and Fig. 4 is a perspective view of the fork for carrying the material to be loaded.

The moving part of the loader consists principally of a frame A, to which the fork is attached and through which the latter receives motion. The frame is made up of the horizontal rail a , the depending legs a' and a^2 ,

and the arm a^3 . The rail and the legs a' and a^2 are securely jointed at their meeting ends and are braced to give rigidity to the structure. The outer leg a' rests in a socket in a base B, which base is of sufficient size to give a firm support to the leg and at the same time is easily moved to change the position of operation of the loader. The socket is of a size to permit the leg a' to revolve freely therein. To give rigidity to the support, a ring b , through which the leg passes, is secured to the base by uprights b' , serving to maintain the leg in proper place during the use of the loader. The lower end of the leg a^2 has permanently attached to it by suitable braces a board a^4 , and this board is arranged upon the bolster a^5 of a vehicle C. The leg preferably passes down into an opening in the bolster to form a pivot, in order that the leg may move independently of the bolster.

The vehicle of which the bolster forms a part is preferably supported on two wheels, and a tongue carrying a whiffletree is attached to the axle of the vehicle.

The arm a^3 is pivotally attached to the leg a^2 , permitting an up-and-down movement of its outer end; but it is so connected as to hold it in position to project outward from the leg in line with the legs of the frame.

Connected with the outer end of the arm a^3 by a bale c or other flexible connection is a fork C, preferably scoop-shaped, as shown, and by which material to be loaded is taken up, carried to a point above the wagon or the like, and deposited.

As a means of retaining the arm a^3 in proper position during use, the outer end of the arm is connected to the whiffletree of the movable support by a chain or rope D, as shown in Fig. 1 of the drawings.

The fork C has projecting from its rear end handles c' c' for grasping in directing the fork in taking up a load and also in dumping, the flexible bale by which the fork is connected to the arm a^3 permitting free manipulation of the fork.

As a means of elevating the fork carrying material to be loaded to a point above a wagon, car, or the like, I employ the movable bridge E. (Shown particularly in Fig. 2 of the drawings.) This consists of the inclined sides d d , having their lower edges resting on the

ground and inclined upward toward each other. The sides are connected by the horizontal platform d' , having an opening therein through which material to be loaded is
 5 dumped. Arranged in the opening are the two doors d^2 d^3 , hinged to the respective sides of the opening. The doors are normally held in place to close the opening in the platform by springs d^3 d^3 , which springs are of a
 10 strength to be overcome by the weight of a load of material carried by the fork.

In the operation of the loader the base B is set upon the ground about midway between the deposit of material to be loaded and the
 15 wagon or car to which the material is to be moved, horses are attached to the vehicle C, and the frame A is moved by them around in a circle the center of which is the base B. As the fork carried by the arm a^3 approaches
 20 the deposit of material to be moved it is directed to take up a charge of the latter and is then moved over the ground to the bridge E. The fork moves up the inclined side of the bridge and when over the doors its rear
 25 end is raised, dumping its load upon the doors, overcoming the springs by which the doors are held and falling to the wagon beneath. After the charge passes through the opening in the platform the doors are closed
 30 by the springs allowing the fork to pass over them and down the incline opposite to that ascended and proceed to take up another load.

From the foregoing it will be seen that by the use of my device manure and the like may
 35 be quickly removed from a place of deposit without the exercise of manual labor other than to direct and dump the fork, and that,

therefore, great saving in time and expense incident to such work is effected.

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

1. A frame pivotally mounted at one end, a fork arranged at the other end, a support for the frame mounted on wheels and arranged intermediate of the two ends of the
 45 frame, and an inclined way, arranged above a wagon or the like, substantially as described.

2. A frame pivotally mounted at one end, and having an arm capable of up-and-down
 50 movement at the other end and having a fork attached thereto, and a movable support for the frame intermediate of the ends, substantially as described.

3. A frame pivotally mounted at one end, 55 and having an arm at the other end carrying a fork, a wheeled support arranged between the ends of the frame and to which the latter is pivotally connected, and an inclined way arranged in the path of movement of the fork, 60 substantially as described.

4. A frame pivotally mounted at one end, and having an arm at the other end carrying a fork, a movable support arranged between the two ends, an elevated inclined way in the
 65 path of movement of the fork, and spring-doors in the inclined way, substantially as described.

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

PETERSON PIERCE.

Witnesses:

A. R. JAMIESON,
 W. E. JONES.