No. 892,119. PATENTED JUNE 30, 1908.

P. BISSEN.

LOADING APPARATUS.

APPLICATION FILED NOV. 22, 1907.

Fig. 1.

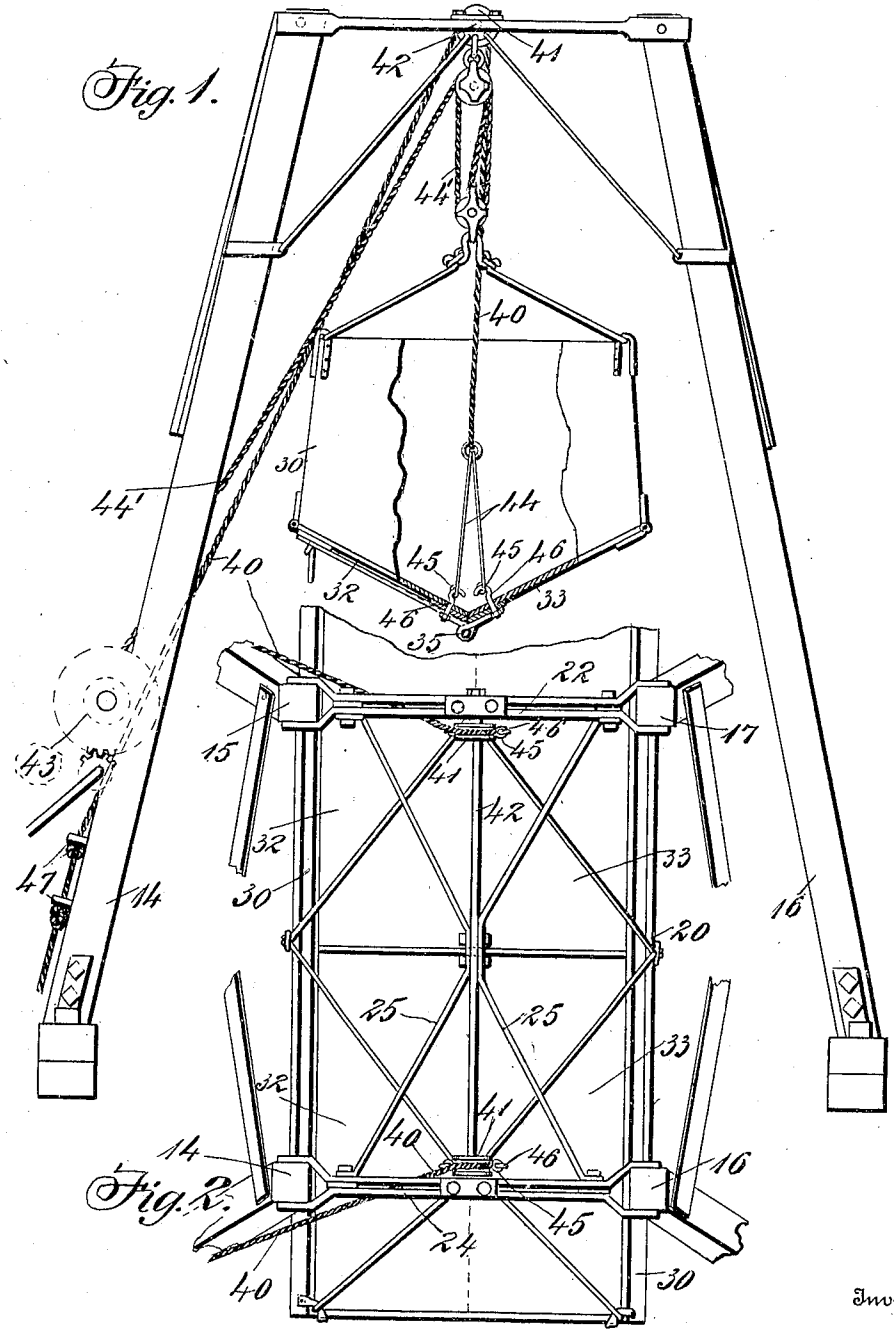


Fig. 2.

Witnesses

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PETER BISSEN, OF STACYVILLE, IOWA.

LOADING APPARATUS.

No. 892,119. Specification of Letters Patent. Patented June 30, 1908.

Original application filed October 18, 1907, Serial No. 398,051. Divided and this application filed November 22, 1907. Serial No. 403,360.

To all whom it may concern:

Be it known that I, PETER BISSEN, a citizen of the United States, residing at Stacyville, in the county of Mitchell and State of Iowa, have invented certain new and useful Improvements in Loading Apparatus, of which the following is a specification.

This application is a division of my pending application, No. 398,051, filed October 18, 1907.

The invention relates to loading apparatus, and the subject of the present application is a bucket or hopper provided with doors at the bottom so that it can be dumped, and including improved means for closing said doors.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is an end elevation of the apparatus, partly in section. Fig. 2 is a top plan view of the derrick.

The derrick is fully described in my said application, and needs no further description here than to say that it has four posts, 14, 15, 16 and 17, connected at the top by a frame 20.

The box 30 which receives the material to be loaded is hoisted by means of a drum 43 on which the hoisting tackles 44′ are wound. The box is divided into two compartments and a tackle is provided for each end of the box. At the bottom of the box are doors 32 and 33 which are hinged to the sides of the box and meet at the middle, and open by swinging downwardly and outwardly. They are held closed by a latch 35, fully described in my pending application. To provide novel devices for closing the doors I use a rope 40 which extends over a pulley 41 supported by a cross-bar 42 which is secured at its ends to the bars 22 and 24 heretofore described and which is bolted at the middle to the braces 25. The rope 40 is connected by a ring to a pair of links 44 which have loops 45 at their lower ends adapted to engage hooks 46 secured to the edges of the doors 32 and 33. The loops 45 can be quickly engaged or disengaged, and the length of the links is sufficient to allow the doors to swing almost to a vertical position.

The apparatus is designed especially for loading manure spreaders, although it can be used for various other purposes. To load the spreader, the box is lowered to the ground and the material is thrown therein. When the box is full it is hoisted and the spreader is driven thereunder. The latches 35 are then released, allowing the doors 32 and 33 to swing open, and the material is dumped. After the material in the box is dumped the rope 40 is loosed at its cleat 47 and the links 44 are connected to the hooks 46. The rope 40 is then drawn taut and fastened at the cleat, and the box is lowered, and as it descends, the links draw the doors together until they are closed, at which instant they are fastened by the catch or latch 35. The rope 40 is then slacked and the loops 45 drop away from the hooks 46, and the links can then be drawn up to suspended position for next operation. This manner of closing the doors saves labor, and is advantageous in handling dirty material, since the operators do not have to lift the doors by hand.

It will be observed that in Fig. 1 of the drawings the doors 32 and 33 are closed, in which position they are fastened by the latch 35, as described in my pending application above mentioned. The box is shown in lifted position. To now dump the box, the rope 40 is slacked off which allows the loops 45 at the ends of the links 44 to automatically disengage from the hooks 46. The doors may then be opened and the box dumped by operating the latch, as described in said application. Then, the rope 40 is again slacked, allowing the links 44 to drop to position where they can be hooked to the hooks 46. Then by lowering the box—the rope 40 being fastened at the cleats 47—the doors will close as the box descends, until the latch 35 can again be engaged. Obviously, instead of lowering the box, the rope 40 could be pulled to close the doors, but inasmuch as the box is lowered in order that it may be refilled, the operation above described will preferably be performed.

I claim:

1. The combination in a derrick, of a supporting frame, a bucket suspended therefrom and having hoisting means and dumping doors, and a rope for closing the doors,

extending over a block on the frame above the bucket and having links at the end for attachment to the doors.

2. The combination in a derrick, of a supporting frame, a bucket suspended therefrom and having hoisting devices and a pair of dumping doors, hooks on the doors, and a block and tackle supported on the frame and having branches adapted to be connected to the hooks and close the doors.

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

PETER BISSEN.

Witnesses:
B. S. VOIGHT,
KATIE WELTER.