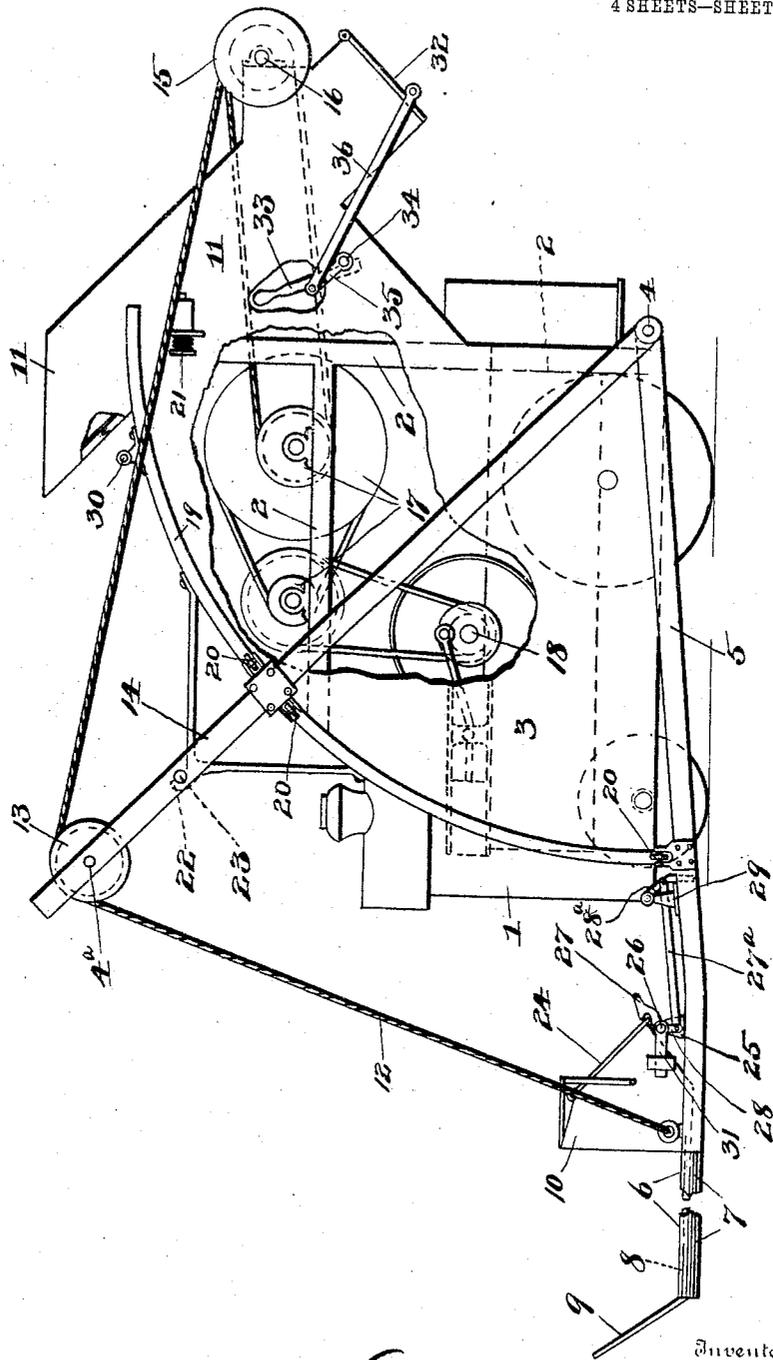


E. A. SCOTT & F. STROBEL.
WAGON LOADING MACHINE.

APPLICATION FILED APR. 9, 1904.

4 SHEETS—SHEET 1.

Fig. 1.



Witnesses

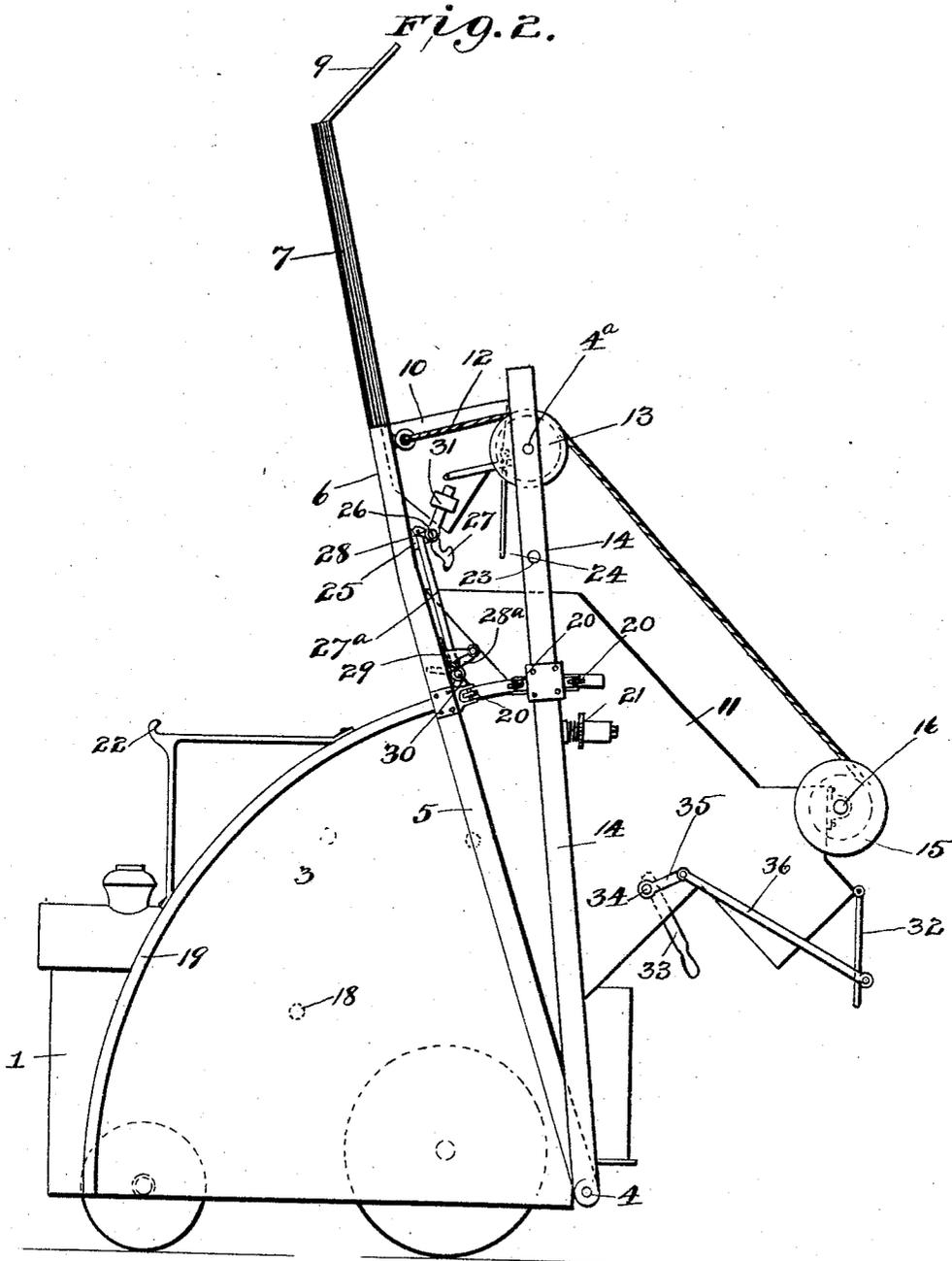
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4 SHEETS—SHEET 2.



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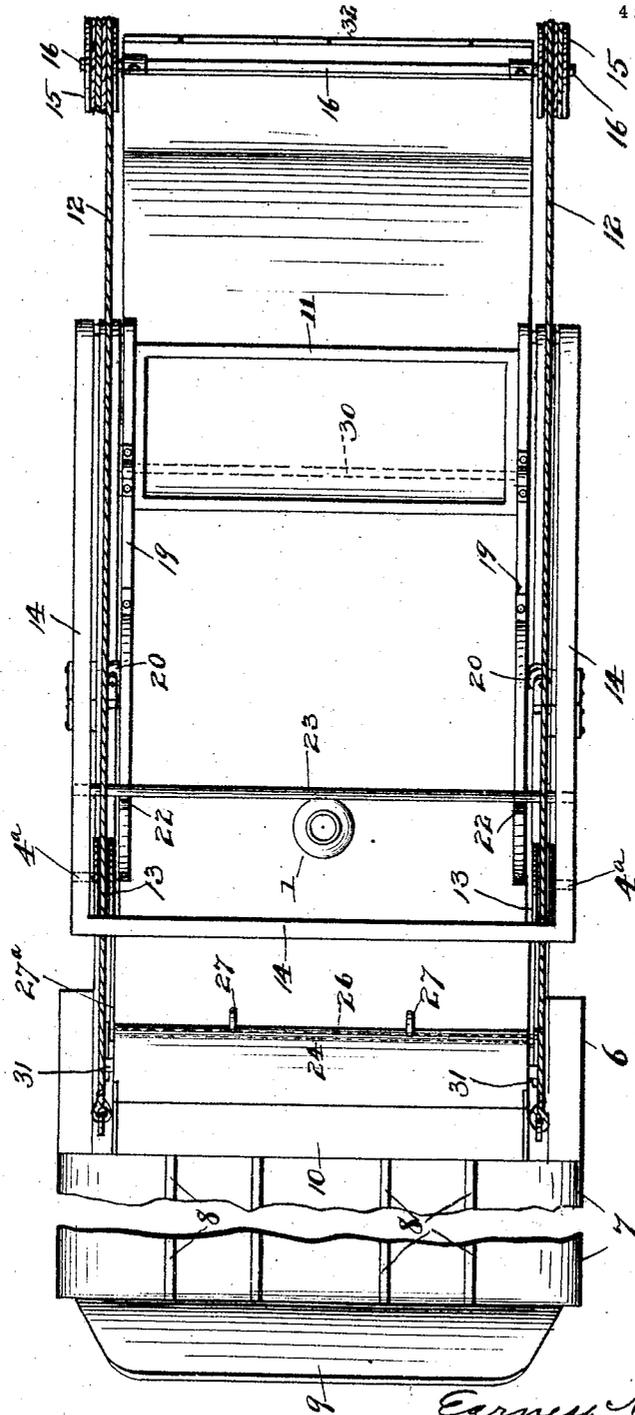
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4 SHEETS—SHEET 3.

FIG. 3.



Witnesses

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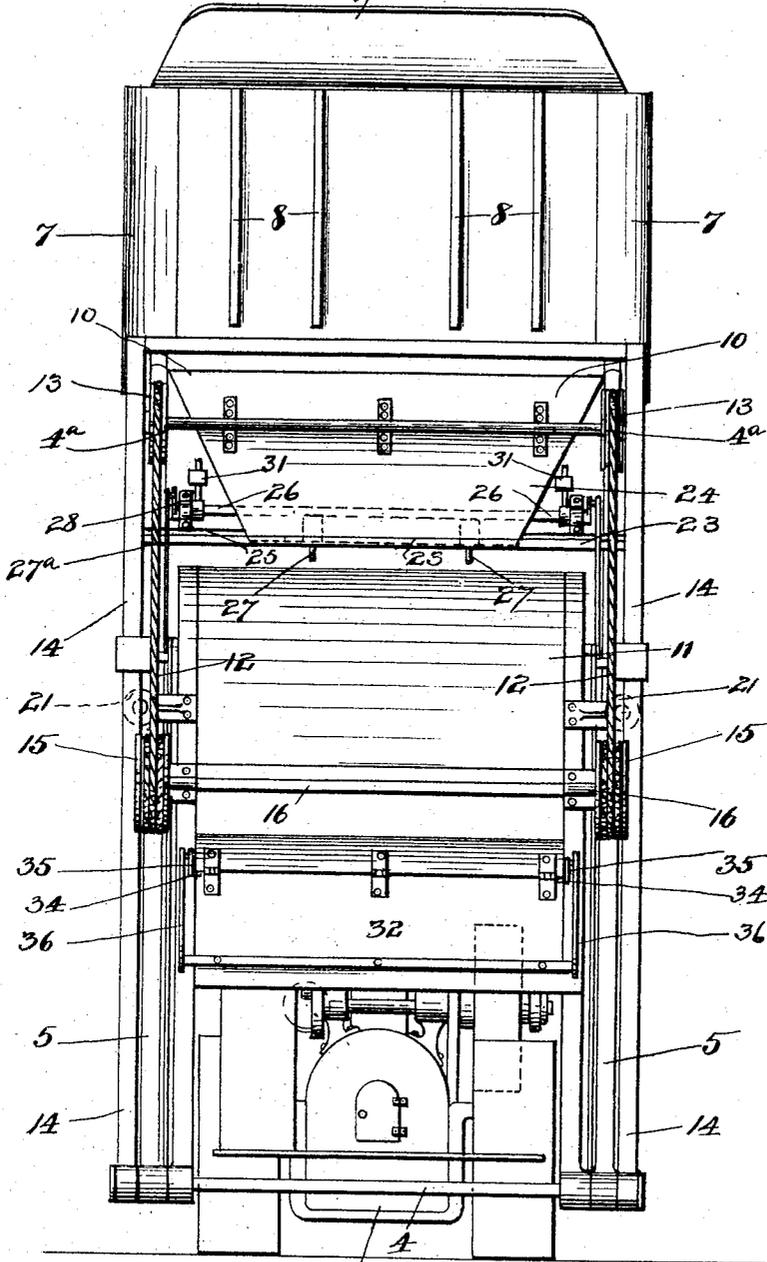
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4 SHEETS—SHEET 4.

Fig. 1.
9



Witnesses

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UNITED STATES PATENT OFFICE.

EARNEST A. SCOTT AND FREDERICK STROBEL, OF MARION, OHIO.

WAGON-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 781,166, dated January 31, 1905.

Application filed April 9, 1904. Serial No. 202,462.

To all whom it may concern:

Be it known that we, EARNEST A. SCOTT and FREDERICK STROBEL, citizens of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Wagon-Loading Machines, of which the following is a specification.

Our invention relates to machines for loading wagons with dirt, stone, &c., and has for its object the provision of a swinging platform upon which the dirt may be dumped while lying flat upon the ground, and then after being swung upward, the dirt being caught in a box, the contents of the box is automatically dumped into a chute, from whence it may be unloaded into carts or wagons.

The construction, operation, and advantages of our invention will more fully appear hereinafter and by reference to the accompanying drawings, in which—

Figure 1 is a side view in elevation of the invention, partly broken away, showing the platform lowered to receive a load; Fig. 2, a similar view showing the machine ready to dump; Fig. 3, a top plan view, and Fig. 4 a front view.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

1 represents a traction-engine of any desired construction, on which is erected a quadrant-shaped frame 2, covered at the sides by a weatherproof fabric 3.

4 represents a shaft secured to the frame 2 near the angle formed by the two straight sides of said frame.

5 represents two arms journaled on shaft 4 and having secured to their outer ends a platform 6, having inclined sides 7 and longitudinal cleats 8. The purpose of platform 6 is to receive the dirt, stones, &c., to be loaded, the inclined ways 7 permitting scoops to be used, while the cleats 8 catch the edge of the scoops and dump them.

9 represents a fender on the outer side of platform 6, which operates to prevent the animals drawing the scoops from swerving to the side, as well as prevent the dirt, &c., rolling off the platform.

10 represents a box secured to arms 5, having an open top at the inner side of platform 6. The purpose of box 10 is to catch the dirt on platform 6 when elevated by the mechanism hereinafter described and dump it into chute 11, from whence it may be unloaded into wagons or carts.

The platform-arms 5 are actuated by means of a cable 12, secured to each arm and passing over sheaves 13, journaled on arms 14, pivoted on shaft 4 and secured to drums 15, keyed to a shaft 16, journaled on chute 11. Shaft 16 is actuated by gearing 17, connected to the drive-shaft 18 on the engine 1, it being understood that fast and loose pulleys and a suitable belt-shifting device is to be provided, so as to permit the return of the platform to the ground after its contents have been dumped into chute 11.

19 represents a segmental track on which rollers 20, secured to arms 5 and 14, run, and 21 represents a spring-buffer secured on each side of frame 2 to receive arms 14 and prevent shock when the platform 6 reaches its most elevated position.

22 represents a hook secured on each side of frame 2 to receive cross-rod 23, connecting arms 14 to limit the downward movement of said arms 14.

24 represents a door hinged to the side of box 10, and 25 brackets suitably mounted at each side of said box, in which is journaled a shaft 26, having secured thereto catches 27, that normally hold door 24 shut.

28 represents a crank-arm keyed to each end of shaft 26, and 27^a a rod pivotally secured to each crank-arm. The free end of said rods 27^a are pivotally secured to angular levers 28^a, pivoted on brackets 29, secured to arms 5.

When the platform is raised, as hereinbefore described, and reaches its highest position, so that box 10 is over the upper end of chute 11, the dirt, &c., in said box is dumped into the chute by means of the angular levers 28^a coming in contact with trip-rod 30, secured on frame 2, the weight of the dirt, &c., in said box 10 throwing the door 24 open and permitting it to pass into said chute.

31 represents weighted arms secured to the shaft 26 to return the catches 27 to their lock-

ing position when the platform is lowered to the ground.

32 represents a door hinged to the lower end of chute 11, operated by means of a crank 33, secured to shaft 34, on which are secured arms 35, which are connected with said door 32 by means of rods 36, pivotally mounted on said door and arms. The crank 33 is so positioned as to be within easy reach of the engineer or other operator of the device.

We have shown and described our invention as being mounted upon and operated by a traction-engine, which construction is very desirable in that it permits the ready transportation of the machine to any point desired; but we do not wish to be confined to this combination, as it will be apparent that our improved machine may be mounted on wheeled trucks or set directly on the ground and be operated by any engine or suitable power without departing from the spirit and purpose of our invention. It will likewise be apparent that the construction of the several parts may be altered without departing from the spirit and purpose of our invention, and we do not wish to confine ourselves strictly to the exact construction shown in the accompanying drawings and described herein.

Having thus described our invention, what we claim is—

1. In a wagon-loading machine, arms pivotally mounted, a platform mounted on said arms, a box secured to said arms, a chute secured to the machine, and means to swing said platform and box and dump the contents thereof into the chute, substantially as shown and described.

2. In a wagon-loading machine, arms pivotally mounted, a platform secured to said arms having inclined sides and cleats parallel with said sides, a chute secured to the machine, and means to swing said platform and dump its contents into said chute, substantially as shown and described.

3. In a wagon-loading machine, arms pivotally mounted, a platform mounted on said arms, a box secured to said arms and adapted to receive the contents of said platform when it is swung upward, a door hinged on said box, catches to hold said door in a locked position, a chute secured to the machine, means to swing said arms, and means to automatically operate said catches to open the door, substantially as shown and described.

4. In a wagon-loading machine, arms pivotally mounted, a platform mounted on said arms having inclined sides and cleats parallel therewith, a box secured to said arms and adapted to receive the contents of said platform when it is swung upward, a chute secured to the machine, and means to swing said platform and dump its contents into said chute, substantially as shown and described.

5. In a wagon-loading machine, arms pivotally mounted, a platform mounted on said arms

having inclined sides and cleats, a box secured to said arms and adapted to receive the contents of said platform when it is swung upward, a door hinged on said box, catches to hold said door in a locked position, a chute secured to the machine, means to swing said arms, and means to automatically operate said catches to open the door, substantially as shown and described.

6. In a wagon-loading machine, in combination with a traction-engine, a frame mounted thereon, a platform pivotally mounted on said frame, a chute secured to the frame, and gearing connecting said traction-engine and the platform to actuate it, substantially as shown and described.

7. In a wagon-loading machine, in combination with a traction-engine, a frame mounted thereon, arms pivotally mounted on said frame, a platform and a box secured to said arms, a chute secured to the frame, and gearing connecting said traction-engine and the arms to actuate them, substantially as shown and described.

8. In a wagon-loading machine, in combination with a traction-engine, a frame mounted thereon, arms pivotally mounted on said frame, a platform and a box secured to said arms, a door hinged to said box, catches to hold said door in a locked position, a chute secured to the machine, gearing connecting said traction-engine and the arms, and a trip to actuate said catches to open the door in the box when it is over the top of the chute, substantially as shown and described.

9. In a wagon-loading machine, in combination with a traction-engine, a frame mounted thereon, arms pivotally mounted on said frame, a platform secured to said arms having inclined sides and cleats parallel with said sides, a box secured to said arms at the inner side of said platform, a door hinged on said box, catches to hold the door in a locked position, a chute secured to the frame, gearing connecting the traction-engine with said arms, and a trip to actuate said catches and release the door in the box when it is over the top of the chute, substantially as shown and described.

10. In a wagon-loading machine, a wheeled frame, arms pivotally mounted thereon, sheaves journaled on said arms, a platform pivotally mounted, drums suitably journaled, cables secured to said drums, passed around said sheaves and secured to the platform, and means to actuate said drums to elevate the platform, substantially as shown and described.

11. In a wagon-loading machine, a wheeled frame, a shaft secured to said frame, two pairs of arms pivoted on said shaft, sheaves journaled on one pair of arms, a platform secured to the other pair of arms, drums suitably journaled, cables secured to said drums, passed around said sheaves and secured to the plat-

form-arms, and means to actuate said drums to elevate the platform, substantially as shown and described.

12. In a wagon-loading machine, a wheeled frame, a shaft secured to said frame, two pairs of arms pivoted on said shaft, sheaves journaled on one pair of arms, a platform secured to the other pair of arms, a box secured to said arms at the inner side of said platform, a door hinged on said box, catches to hold said door in a closed position, drums suitably journaled, cables secured to said drums, passed around said sheaves and secured to said platform-arms, a chute secured to said frame, means to actuate said drums to swing the box over the entrance to the chute, and a trip to actuate the catches aforesaid and release the door when it is over the top of the chute, substantially as shown and described.

13. In a dirt-loading machine, in combination with a traction-engine, a frame mounted thereon, a shaft secured to said frame, two

pairs of arms pivoted on said shaft, sheaves journaled on one pair of arms, a platform mounted on the other pair of arms having inclined sides and cleats parallel with said sides, a box also mounted on the same pair of arms with the platform, a door hinged on said box, catches to hold said door in a closed position, drums suitably journaled on the frame, cables secured to said drums, passed around said sheaves and secured to the platform-arms, a chute mounted on the frame, gearing connecting the traction-engine and the drum, and a trip to actuate said catches to release the door in the box, substantially as shown and described.

In testimony whereof we hereto affix our signatures in the presence of two witnesses.

EARNEST A. SCOTT.

FREDERICK STROBEL.

Witnesses:

J. B. VIRDERS,
J. M. MERRITT.