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L. J. McMILLIN.

AUTOMATIC CONTROLLER FOR WAGON DUMPS.

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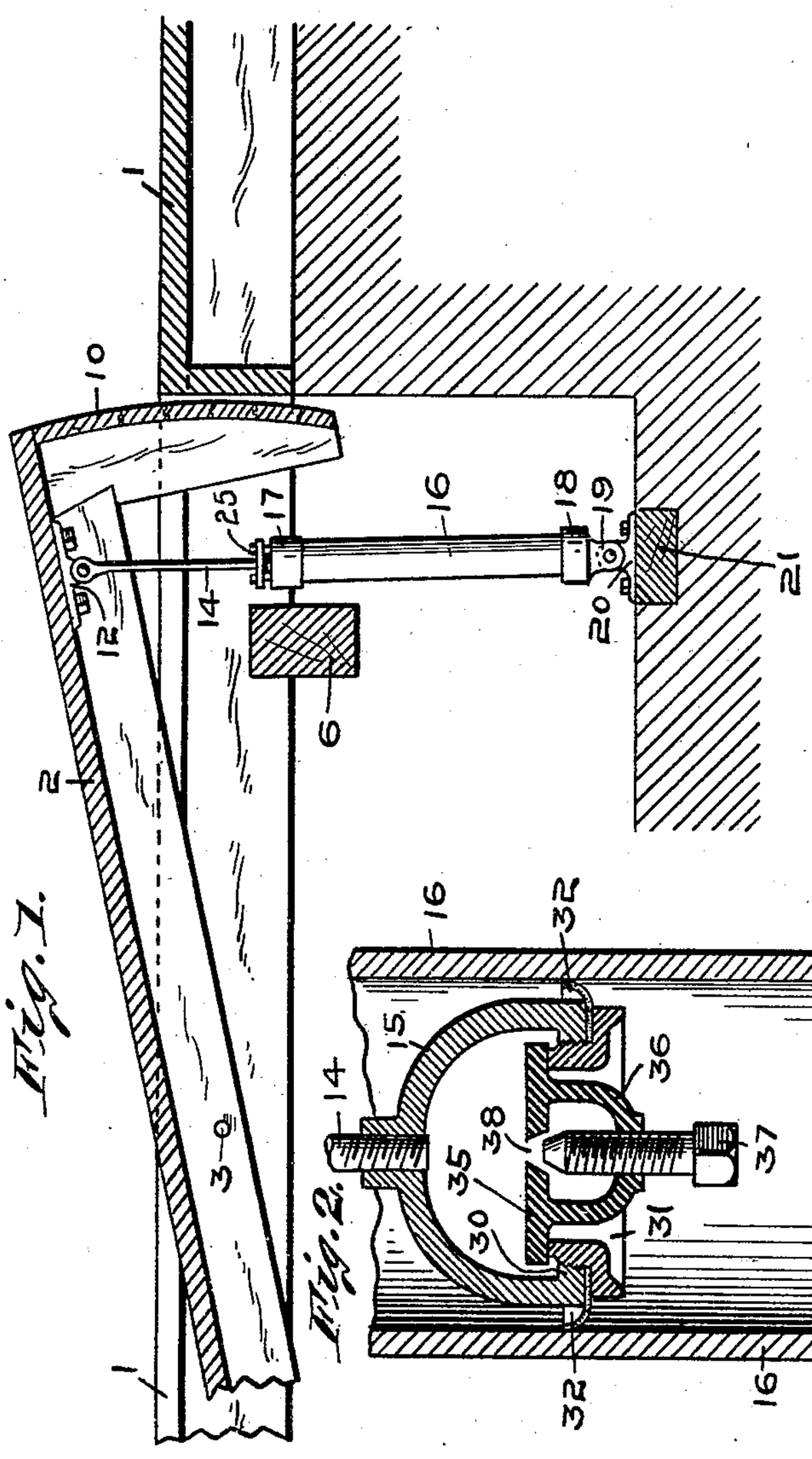

Fig. 1.

Fig. 2.

WITNESSES:

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AUTOMATIC CONTROLLER FOR WAGON-DUMPS.

No. 886,536. Specification of Letters Patent. Patented May 5, 1908.

Application filed April 25, 1907. Serial No. 370,301.

To all whom it may concern:

Be it known that I, LOUIS J. McMILLIN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Automatic Controllers for Wagon-Dumps, of which the following is a specification.

This invention relates to an automatic controller for wagon dumps which are employed around places where it is desired to unload wagons with despatch; and the object of the invention is to provide the pivotally mounted platform upon which the wagon stands with a device which will automatically control the movement of said platform when it is desired to dump the contents from the wagon bed.

I accomplish the objects of my invention by the mechanism illustrated in the accompanying drawings in which

Figure 1 is a fragmentary detail view in vertical section of a wagon dumping device, showing my invention in operating position. Fig. 2 is a fragmentary detail central sectional view, on an enlarged scale, of the piston-head valve employed in the controlling device.

In the drawings, 1 constitutes the main floor which surrounds the swinging platform 2 which is pivotally mounted at 3. When the platform 2 occupies normal position its surface stands flush with the top of the floor 1 so that the approach to said platform is free from obstruction. The opening in the floor 1, which is occupied by the platform 2, is provided at one end with a transversely extending beam 6 which forms a rest to support the joist of the platform 2 and limits the downward movement of the latter. The end of the platform which rises above the floor 1 during the operation of dumping the contents from the wagon bed is provided with a guard 10 which will prevent the possibility of any article of a foreign nature to be accidentally admitted so as to interfere with the operation of the platform; the guard also may prevent accident to persons or employees that are required to be present for the operation of the platform.

One end of the platform 2 is provided with a bearing 12 to which the piston rod 14 is pivotally secured. The piston rod 14, as shown in Fig. 2, is provided with a yoke 15 which forms the upper skeleton portion of a piston-head which operates within the hollow casing or cylinder 16, which head will be hereinafter described. The cylinder at each end is provided with exteriorly located threads to receive the caps 17 and 18, and the cap 18 is provided with a lug 19 by which it is pivotally attached to the bearing plate 20 secured to the beam 21 which is properly anchored in the ground. The cap 17 is provided with the old and well known stuffing box 25, so that as the piston rod 14 is moved in and out of the cylinder 16 the oil or other liquid employed within said cylinder is prevented from escaping.

The piston-rod 14 is provided with the usual piston-head operating within the cylinder 16 and comprises a skeleton yoke 15 to which the piston rod 14 is attached and by which means the head is operated. The lower end of the yoke is provided with an inwardly extending annular shoulder 30, and the inner face of said shoulder is provided with screw threads to receive the inverted cup 31 of the head. In order to make a tight fit and thus prevent the oil or other liquid from passing around the outer periphery of the piston-head a rubber gasket 32 is inserted between the lower edge of the yoke 15 and the cup 31 before the parts are assembled. A movable valve 35 which controls the passage of the liquid consists of a circular disk which normally rests on the upper edge of the cup 31, and is provided with an integrally formed yoke 36 to provide a seat for a needle valve 37. This valve has a conical top and registers with a conically shaped aperture 38 located in the disk 35. When the platform 2 is operated to dump the contents from the wagon the piston-head moves upwardly within the cylinder 16, and as the liquid above the valve must pass through the aperture 38 to reach the bottom of the cylinder it will be seen that the movement of the platform 2 is controlled. The movement of the platform may be varied by increasing or decreasing the flow through the aperture 38, and this is accomplished by turning the needle valve 37 so as to cause it to be moved toward or from the aperture 38. On the return movement of the piston-head and platform, when the load is lighter, the valve 35 will be raised from its seat and permit the liquid or air to pass from the upper portion of the cylinder 16 and thus permit the piston-head to settle to the bottom of the cylinder. When my device is first installed it is customary to insert the piston-head so it will

stand near the bottom of the cylinder 16 while the cap 18 is still removed, and then by inverting the said cylinder the same is then entirely filled with oil or other liquid desired and the cap 18 is then screwed into position. After the piston-head has been placed into operating position and the platform 2 is elevated the withdrawal of the piston rod 14 will leave sufficient room within the cylinder so as to insure the proper operation of the valve 35.

Having thus fully described my said invention, what I desire to secure by Letters Patent, is—

An automatic controller for wagon dumps comprising a stationary platform, a pivotally mounted platform arranged within said stationary platform, a guard secured to that end of the pivotally mounted platform which is susceptible of being elevated, a cylinder pivotally mounted beneath the movable platform, a piston rod pivotally engaging the movable platform and extending within the cylinder, a piston-head secured to the piston rod and working within the cylinder, a valve within the piston-head adapted to impede the flow of liquid, and a needle-valve adapted to regulate the flow of liquid through the antecedently mentioned valve.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this, 15th day of April, A. D. one thousand nine hundred and seven.

LOUIS J. McMILLIN. [L. S.]

Witnesses:
F. W. Woerner,
L. B. Woerner.