C. W. LEVALLEY.

LOADING DEVICE FOR MIXING MACHINES.

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1,067,182. **Patented July 8, 1913.**

Fig. 2.

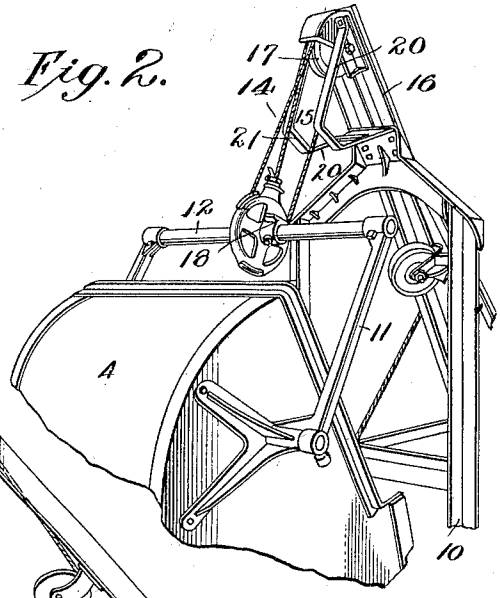
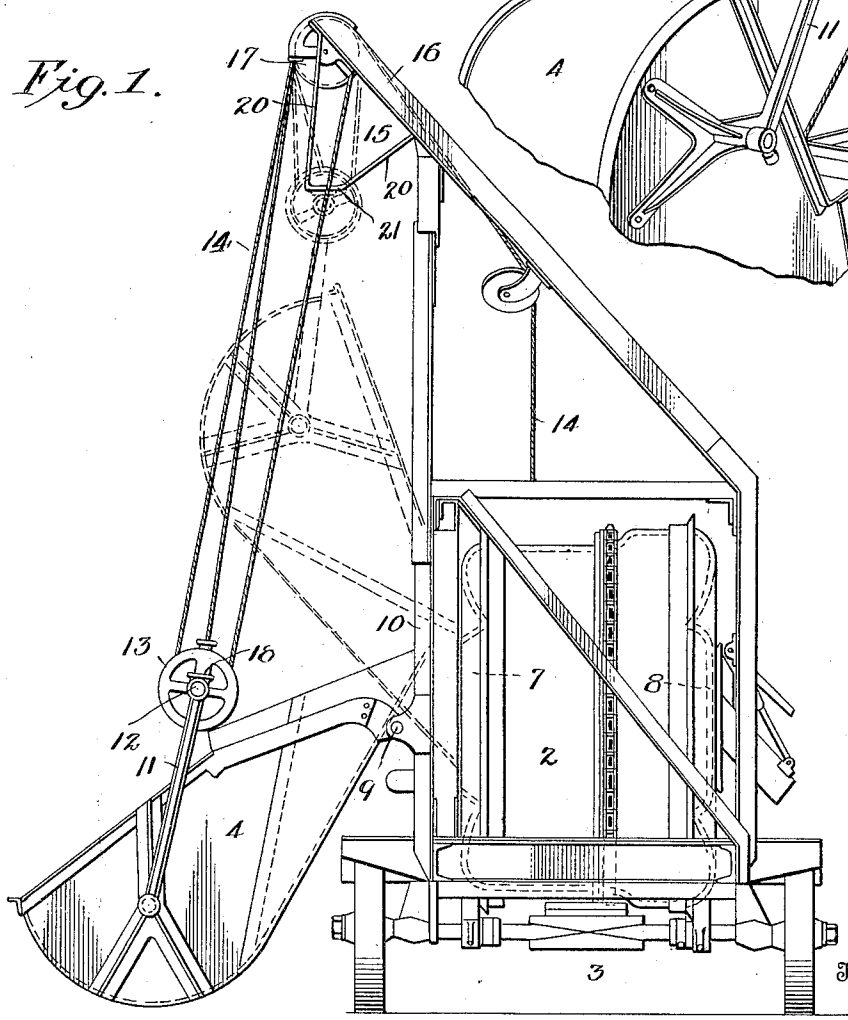


Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

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LOADING DEVICE FOR MIXING-MACHINES.

1,067,182. Specification of Letters Patent. Patented July 8, 1913.

Original application filed March 29, 1910, Serial No. 552,128. Divided and this application filed November 12, 1912. Serial No. 730,958.

To all whom it may concern:

Be it known that I, CHRISTOPHER W. LEVALLEY, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Loading Devices for Mixing-Machines, of which the following is a specification.

This case is a division of my application filed March 29, 1910, Serial No. 552,128, and the invention herein presented relates to means for loading mixing machines, it being particularly adapted for use in connection with large concrete mixers in which are employed revolving drums.

In the accompanying drawings—Figure 1 is a side elevation of a concrete mixing machine in connection with which my present invention is shown. Fig. 2 is a detail view in perspective illustrating the invention.

In the accompanying drawings 2 designates the revolving drum or receptacle of a concrete mixing machine which is represented as being supported on a portable truck 3. The drum is formed with an axial feed opening indicated at 7, and is also preferably provided with an axial discharge opening 8, although the latter feature forms no part of the present invention.

4 designates a tilting loader into which the ingredients that are to enter into a batch of material to be mixed are placed and by which they are delivered through the feed opening into the mixing drum. This loader is pivotally supported upon a shaft 9 mounted in suitable brackets carried by the front upright pieces 10 of a framework supported by the truck and surrounding the drum. The loader is of such shape and the shaft 9 so located that when the loader is in its lowermost position, as indicated in full lines, Fig. 1, it rests upon the ground, and when elevated, as indicated in dotted lines in Fig. 1, it occupies such position that its contents will be discharged into the mixing drum through the opening 7. The loader is provided with a pivoted bail 11, the cross-bar 12 of which carries a sheave or pulley 13 around which passes the cable 14 by means of which the movements of the loader are controlled. In order to arrest the loader in proper position for discharging its contents into the drum, and to take from it strains incident to overwinding of the cable 14, and to prevent damage to the machinery through careless manipulation of the loader-tilting devices, I provide a pair of stops 15, 15. These are supported by frame pieces 16 which extend above and in front of the feed end of the drum, being carried outward beyond the upright frame pieces 10, to which they are connected. The stops 15 are preferably arranged upon either side of the head sheaves or pulleys 17 and are so disposed that contact blocks or contact pieces 18 mounted upon the cross-bar 12 of the bail of the loader engage therewith when the loader comes into discharging position. Each stop is preferably formed with widely separated legs 20, 20, that are bolted to a frame piece 16, and with a flat, and approximately horizontal, contact portion 21 between the outer ends of the said legs, with which a contact piece 18 engages. This construction produces a strong and well braced stop and insures that the shocks incident to arresting the loader when the machine is running rapidly shall be distributed and so transmitted to the framework that breakage and injurious straining are not likely to take place.

By causing the bail of the loader, which is an element of the train of devices through which its movements are controlled, to engage with the stops 15, instead of having the loader itself engage therewith, such strains as would be incident to any overwinding of the cable are entirely taken off the loader, which would not be the case should the loader engage directly with the stop, and this feature of construction and arrangement I have found to be of advantage in operating large and expensive machines of the type illustrated.

What I claim is:—

1. The combination with a receptacle, of a tilting loader therefor, means for supporting the loader, during the tilting operation thereof, in position close to the receptacle so as to discharge its contents thereinto, a framework extending above and in front of the receptacle, a sheave supported in the said extended portion of the framework, a bail attached to the said loader, a cable for controlling the movements of the loader connected with the bail and passing over the said sheave, and a stop also carried by the said extended portion of the framework

arranged to be engaged by the bail to arrest the movement of the loader when it has been tilted to discharging position.

2. The combination with a receptacle, of a loader pivotally supported adjacent thereto and arranged when lifted to discharge its contents into the receptacle, a framework extending in front of and above the feed end of the receptacle, a sheave supported in the said extended portion of the framework, a bail attached to the loader, a cable for controlling the movements of the loader connected with the bail and passing over the said sheave, and a stop also carried by the said extended portion of the framework arranged to arrest the bail when the loader has been lifted to discharging position.

3. The combination with a receptacle, of a loader pivotally supported adjacent thereto and arranged when lifted to discharge its contents into the receptacle, a framework extending in front of and above the feed end of the receptacle, a sheave supported in the said extended portion of the framework, a bail attached to the loader, a cable for controlling the movements of the loader connected with the bail and passing over the said sheave, and a pair of stops supported by the said extended portion of the frame-work and disposed one on either side of the sheave and having approximately horizontal portions adapted to be engaged by the said bail as it moves upward and the loader comes to discharging position.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."