

939,341.

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Fig. 2.

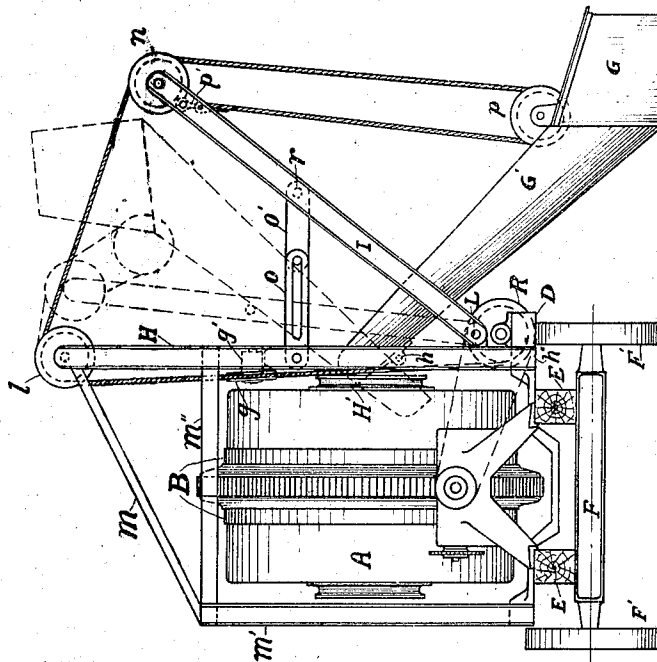


Fig. 1.

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ALBERT E. SMITH, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE T. L. SMITH COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

POWER CHARGING DEVICE FOR CONCRETE-MIXERS.

939,341.

Specification of Letters Patent.

Patented Nov. 9, 1909.

Application filed November 18, 1908. Serial No. 463,205.

To all whom it may concern:

Be it known that I, ALBERT E. SMITH, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Power Charging Device for Concrete-Mixers, of which the following is a description, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a power charging device for concrete mixers of that class termed batch mixers, in which a definite batch of the ingredients to be mixed is put in the mixing machine where it is mixed and discharged therefrom before another batch is introduced; and the objects of my invention are to provide a durable device, comparatively simple in construction, with very little overhang over the side of the truck, and lastly one in which the hoisting rope has a fair lead and does not pull at disadvantageous angles to the supports and the load. I attain these objects by the mechanism illustrated in the accompanying drawing, in which,—

Figure 1 is an end view of a mixing machine with the power loading device attached, the loading bucket being shown in full lines in its lower position, and in dotted lines in its elevated position. Fig. 2 is a view of the machine as seen by looking at Fig. 1 from the right hand side thereof.

Similar letters refer to similar parts throughout the different views of the drawing.

A concrete mixer is shown in the drawing merely to show the relation and operation of the charging device. As any concrete mixer may be used, it will be sufficient description to say that A is a cylindrical drum of a non-tilting mixer.

B B are roller tracks engaged by the rollers C C, by which the drum is supported. The frame D affords journal bearings for the rollers, and is also utilized for attaching the charging device.

E E are the track timbers, F one of the axles and F' one of the truck wheels on which the entire machine is transportable.

The charging bucket G is provided with a long spout G' which is pivoted to the frame H in front of the feed opening of the drum H' by means of the shaft h attached to the frame H and the box or bearing h' attached

to the spout G'. The frame H is secured to the frame D by bolts at the point h''. The lower parts of the frame H are vertical but the upper parts may be bent toward each other, and at their junction they support an inclined shaft K carrying the inclined sheave l. The frame H is tied to the left side of the mixer by means of the rods m connected to the upper corners of two frames consisting of uprights m' and struts m''.

The boom I is pivoted to the frame H by means of the castings L and pivot pins passing therethrough. The two upper portions of the boom members are bent toward each other and at the upper end support the sheave n which runs loose on its shaft. The boom I is attached to the frame H by the links o—o' which have a pin and slot engagement with each other. These links limit the outward swing of the boom I and as the boom swings in toward the frame H the links fold downward. The sheave p is connected to the bucket G as shown, and the guide sheave q is attached to the frame H by the bracket q'.

Any kind of hoisting apparatus may be used, R being the drum. The hoisting rope is attached to the boom I by means of the piece p' and is then rove under the sheave p over the sheaves n' and q' to the drum R.

While the bucket G is being elevated, the boom will at first remain in its extended or outward position, on account of the rope being attached thereto at p'. When the spout G' strikes the bar r the boom commences to swing toward the frame H and finally the bucket and boom are brought to the position shown in dotted lines in Fig. 1.

While the drawing shows the sheave l on the right hand side of the mixer, I consider it within the scope of my invention to place this sheave and the extensions of the frame above the cross bar m'' on the other side of the machine. Also the shaft of the hoisting device may be placed crosswise of the machine parallel to the axles of the truck.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A power charging device for concrete mixers, comprising a framework extending upward from the mixer frame, a loading bucket having a long spout pivoted to said framework with its nose in position to enter the mixer drum, while the bucket is resting

on the ground, a swinging boom hinged to said framework, means limiting the outward swing of said boom, a hoisting device on the mixer, sheaves on the bucket and on the upper ends of the boom and frame, a hoisting rope connected to the boom near its upper end, leading under the sheave on the bucket, over the two upper sheaves and thence to the hoisting device.

10 2. A power charging device for concrete mixers, comprising a frame on the mixer, a boom hinged on the frame, a bucket with a long spout hinged to the frame, a hoisting device and a hoisting rope attached to the upper end of the boom and passing under a sheave on the bucket, over sheaves on the upper part of the boom and the frame, and to the hoisting device.

15 3. A power charging device for concrete

mixers, comprising a loading bucket, a hinged or swinging boom, a hoisting device, a frame work on the mixer, and a rope attached to the upper end of the boom, leading around sheaves on the bucket, the upper part of the boom and of the frame to the hoisting device.

4. In a power charging device for concrete mixers, a boom hinged at its lower end, means limiting the outward swing of the boom, a loading bucket provided with a sheave, means guiding the discharge end of the bucket and a hoisting rope attached to the boom and leading around the sheave on the bucket and over a sheave on the boom.

ALBERT E. SMITH.

Witnesses:

E. W. BRACKENBURY,
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