Jan. 23, 1923. 1,443,152.

H. R. SLIVINSKI.

LADLE CRANE.

ORIGINAL FILED SEPT. 20, 1918. 2 SHEETS—SHEET 1.

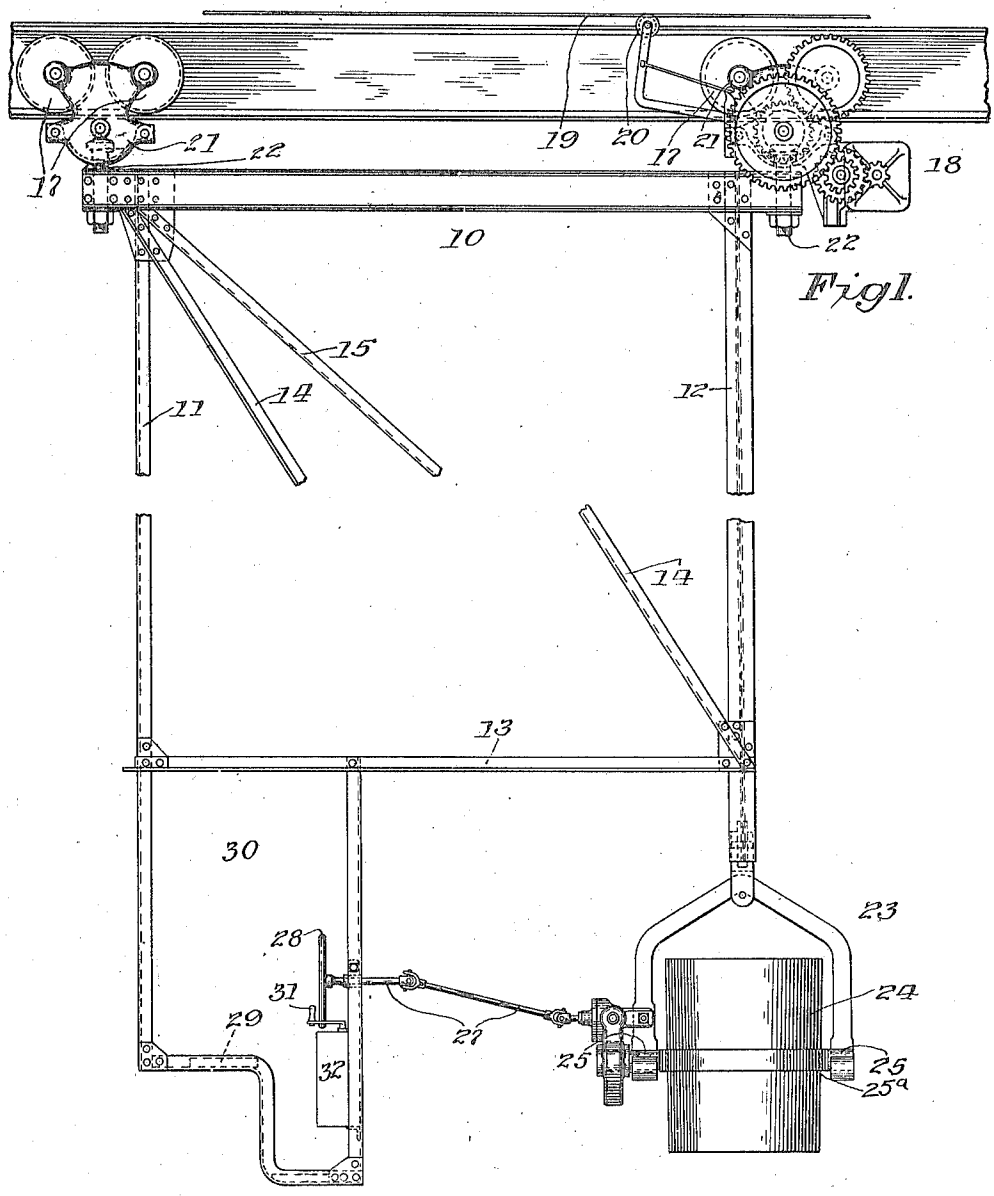


Fig 1.

Inventor.
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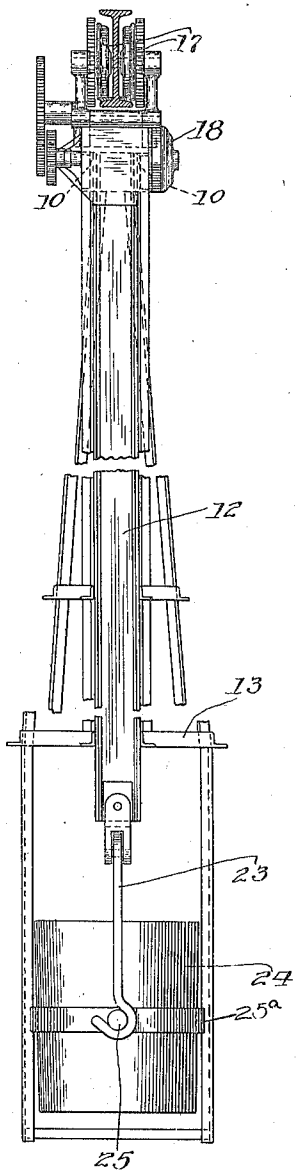
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LADLE CRANE.

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Fig. 2.



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Patented Jan. 23, 1923. 1,443,152

UNITED STATES PATENT OFFICE.

HUGO RUDOLPH SLIVINSKI, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

LADLE CRANE.

Application filed September 20, 1918, Serial No. 254,993. Renewed March 24, 1920. Serial No. 368,318.

To all whom it may concern:

Be it known that I, HUGO R. SLIVINSKI, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ladle Cranes, of which the following is a full, clear, and exact specification.

This invention relates to ladle cranes.

An object of the invention is to provide an arrangement of ladle and crane whereby an operator riding on the crane can easily manipulate both the ladle and the crane from the operator's cab.

Another object is to provide a ladle crane of this kind which can be readily reached from the ground.

Another object is to provide a ladle crane having these advantages and which at the same time is simple and inexpensive to manufacture.

Referring now to the drawings;—

Figure 1 is a side elevation of the ladle crane showing part of the framework broken away; and

Fig. 2 is a corresponding end elevation.

The frame of the ladle crane consists, as shown, of a beam 10, depending side members 11 and 12, the bottom member 13 and the cross braces 14 and 15.

The ladle crane is preferably shown of the mono-rail type suspended from a single I-beam, the lower flange of the I-beam forming rails upon which the wheels 17 of the crane roll. One of these wheels is propelled through a train of gears by the motor 18; this motor is controlled from the operator's cab as will hereinafter be explained. The motor 18 receives current from a conveniently placed trolley wire 19 through the trolley 20. The wheels 17 are carried by means of a bracket 21 which is swivelly mounted on the pin 22 to the crane frame; this construction permits the wheels to swivel about this pin so that the crane is able to follow a curved track although the main frame beam is made long to allow a safe distance between the operator's cage and the ladle.

To the bottom of the depending member 12 is pivotally secured the bail 23 of the ladle 24. The ladle is mounted in the bail by means of trunnions 25 formed on the ring 25ª, within which the ladle is detachably supported by engagement of its tapering sides with the ring, one of the trunnions carrying a worm wheel which is operated by means of a worm through the flexible shaft 27 and by means of the hand wheel 28 which is located convenient to the seat 29 of the operator's cab 30. Within easy reach of the operator is also placed the operating handle 31 of the controller 32. Both the operator's cab and the ladle are placed near the ground so that it is a very easy matter for the operator to step in and out of the cab.

This ladle is designed particularly for use in a foundry for carrying molten iron from the cupola to the smaller hand ladles which are used for pouring the molds.

It will be seen from this description that I have produced a ladle crane which is very efficient in service and which at the same time is very simple and inexpensive to build.

While I have shown and described but a single form of my invention it is to be understood that it is capable of many modifications. Changes therefore in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims.

I claim—

1. In a travelling ladle-crane, the combination of a horizontal beam, trolley carriages swiveled to the beam, means on the beam for propelling one of the carriages, fixed members depending from each end of the beam, a ladle pivotally suspended from the end of one member, an operator's cage at the end of the other member, means connected to the ladle for tilting it, and means within the cage for controlling the carriage propelling means and for actuating the tilting means.

2. In a travelling ladle-crane, the combination of a horizontal beam, trolley carriages swiveled to the beam, fixed members depending from each end of the beam, a ladle pivotally suspended from the end of one member, an operator's cage at the end of

the other member, means connected to the ladle for tilting it and actuating means therefor comprising a hand-wheel within the cage and a jointed shaft connecting the hand-wheel and tilting means.

3. A ladle crane comprising a ladle provided with trunnions, means for tiltably supporting the ladle on said trunnions, an operator's cage fixed on the support and means within the cage and connected to one of said trunnions for tilting the ladle.

In testimony whereof I affix my signature.

HUGO RUDOLPH SLIVINSKI.