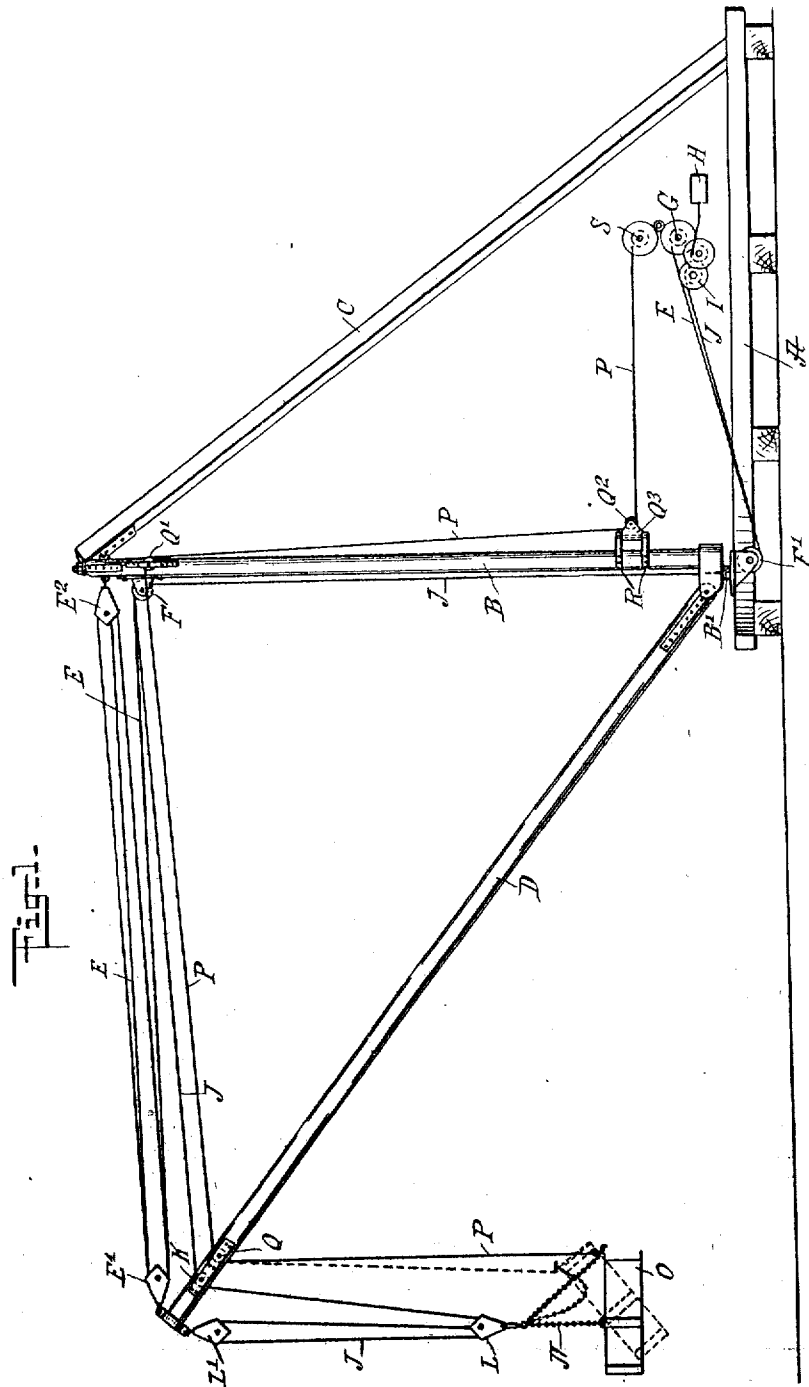


DERRICK DUMPING DEVICE.

Patented Mar. 15, 1910.

2 SHEETS—SHEET 1.



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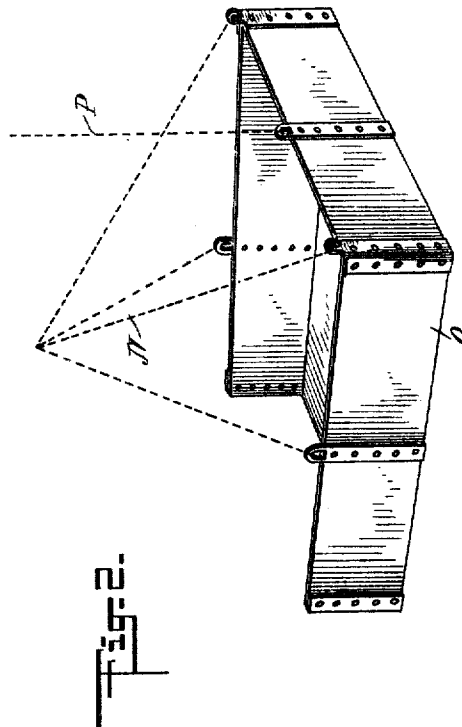
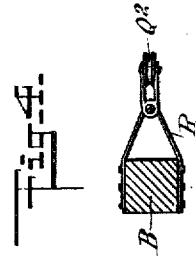
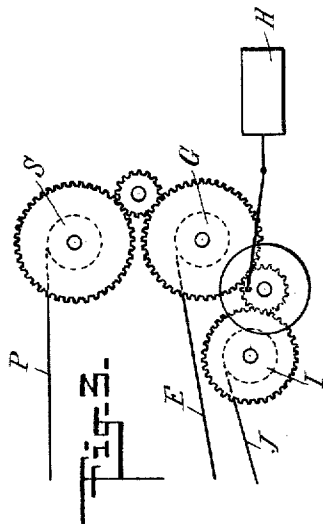
DERRICK DUMPING DEVICE.

APPLICATION FILED NOV. 5, 1909.

952,350.

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2 SHEETS—SHEET 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DERRICK DUMPING DEVICE.

952,350.

Specification of Letters Patent.

Patented Mar. 15, 1910.

Application filed November 5, 1909. Serial No. 526,393.

To all whom it may concern:

Be it known that we, CURTIS H. PETERS, HARRY HART, and SAMUEL C. STINECIPHER, all citizens of the United States, and residents of Brown Station, in the county of Ulster and State of New York, have invented a new and Improved Derrick Dumping Device, of which the following is a full, clear, and exact description.

The invention relates to cranes and derricks, and its object is to provide a new and improved derrick dumping device, arranged to permit of tilting the skip or bucket at any time and in whatever position the boom may be in at the time.

For the purpose mentioned, use is made of a dump drum and a dump line adapted to be wound up or unwound on the said dump drum, the dump line passing from the drum through a sheave block, swiveled on the lower end of the mast, to then pass over hoisting means on the upper end of the mast and the outer end of the boom, to connect with the skip or bucket to tilt the latter whenever it is desired to do so.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a derrick provided with the dumping device; Fig. 2 is an enlarged perspective view of the skip; Fig. 3 is an enlarged side elevation of the motor gearing for driving the boom line drum, the hoisting drum and the dump line drum; and Fig. 4 is an enlarged sectional plan view of the lower end of the boom and the swivel sheave block for the dump line.

On a suitable platform A is mounted to turn the mast B, journaled at its upper end in a suitable brace C, extending from the platform A. The boom D is hung on the lower end of the mast B, and the boom line E for supporting the outer end of the boom passes over the usual sheaves E', E², of which the sheave E' is held on the outer end of the boom D, and the sheave E² is held on the upper end of the mast B. The boom line E passes from the sheave E' over a double pulley F near the upper end of the mast B, and then down alongside the mast through the pivot B' thereof, and around a pulley

F' to the boom line drum G, gearing with and adapted to be driven by the motor H mounted on the platform A. The motor H is also geared with the hoisting drum I, on which winds and unwinds the hoisting line J passing over the pulleys F' and F, then outward over a pulley K journaled on the boom D, the line J then passing around sheaves L and L', of which the latter is hung on the outer end of the boom D. The sheave L supports the usual chain N carrying the skip or bucket O, of the usual construction, and connected at its back with the lower end of the dump line P passing over a pulley Q held on the boom D, to then pass over a pulley Q' held on the upper end of the mast B, the line then passing under a sheave Q² held in a block Q³, swiveled on brackets R attached to the lower portion of the mast B. The dump line P passes from the sheave Q² to the dump drum S, connected by gearing with the motor H, so as to wind up or unwind the dump line P on the drum S whenever it is desired to do so.

It is understood that the usual means are provided for enabling the operator in charge of the derrick to throw any one of the drums G, I and S in or out of gear when using the derrick.

It is further understood that the boom line E and the drum G are employed to swing the boom D into the desired inclined position and to hold it therein, while the hoisting line J and the drum I are used for raising and lowering the skip O and the load contained therein, and the dump line P and the drum S are used to tilt the skip O whenever it is desired to dump the contents of the skip at the desired place. As the skip is raised or lowered, the drum S lets out or takes up the slack in the dump line P, and when the skip O is in position to dump, the hoist line J is held stationary and the dump line P is hauled in, thus swinging the skip into dumping position.

If desired, the dump line P may be held stationary while the hoist line J is paid out, thus lowering the front of the skip and dumping the contents thereof.

By having the sheave block Q³ swiveled on the mast B, it is evident that the latter can be readily turned, to bring the boom D into the desired position, and at the same

time the sheave Q^2 and its block Q^3 are always in alinement with the drum S , thus insuring a proper winding up and unwinding of the dump line for the purpose previously mentioned.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. A derrick dumping device comprising
 10 a dump drum, a dump line winding up and unwinding on the said dump drum, a sheave swiveled on the lower end of the mast of the derrick for the passage of the said dump
 15 line from the said dump drum, guide pulleys for the dump line on the upper end of the derrick mast and the outer end of the derrick boom, the end of the said dump line being connected with the back of the derrick skip.

20 2. A derrick, comprising a mast, a boom, a skip, a boom line connected with the said boom, a hoisting line supporting the said skip, a dump line connected with the said
 25 skip, a motor, a boom line drum driven from the said motor, a hoisting drum for the said hoisting line and adapted to be driven by the said motor, and a dump drum

for the said dump line and adapted to be driven by the said motor.

3. A derrick, comprising a mast, a boom, 30
 a skip, a boom line connected with the said boom, a hoisting line supporting the said skip, a dump line connected with the said skip, a motor, a boom line drum driven 35
 from the said motor, a hoisting drum for the said hoisting line and adapted to be driven by the said motor, a dump drum for the said dump line and adapted to be driven 40
 by the said motor, a sheave for the passage of the dump line and swiveled on the lower end of the said mast, and guiding means for the said dump line on the upper end of the said mast and the outer end of the said boom.

In testimony whereof we have signed our 45
 names to this specification in the presence of two subscribing witnesses.

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Witnesses:

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