

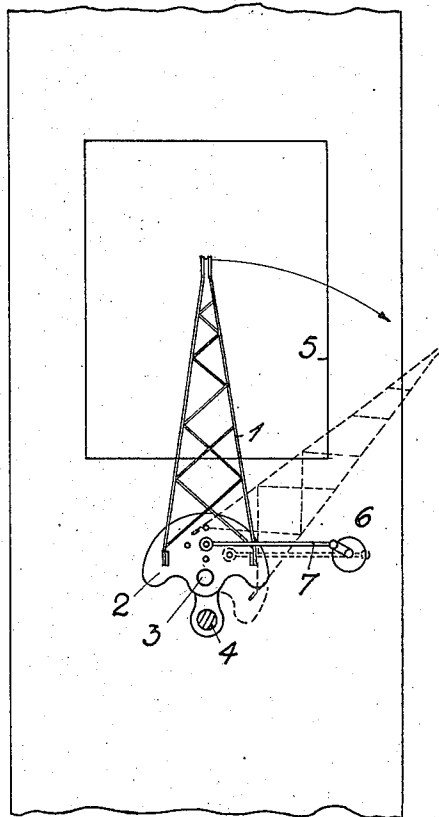
O. KAHRs.

DRIVING ARRANGEMENT FOR PIVOTED SHIPS' DERRICKS.

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1,311,234.

Patented July 29, 1919.



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UNITED STATES PATENT OFFICE.

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DRIVING ARRANGEMENT FOR PIVOTED SHIPS' DERRICKS.

1,311,234.

Specification of Letters Patent.

Patented July 29, 1919.

Application filed June 25, 1918. Serial No. 241,884.

To all whom it may concern:

Be it known that I, OTTO KAHRS, a subject of the King of Norway, residing at Christiania, in the Kingdom of Norway, have invented certain new and useful Improvements in Driving Arrangements for Pivoted Ships' Derricks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The present invention relates to pivoted ships' derricks and has for its object a driving arrangement for the same.

The invention is particularly adapted for the kind of pivoted derricks described in the inventor's patent application No. 241,883 (Case I), but may also easily be adapted for other types of swing derricks.

The invention is diagrammatically illustrated on the accompanying drawing which shows a plan of the arrangement.

The derrick beam 1 is mounted on a disk 2 pivoted on a trunnion 3; said trunnion, as illustrated on the drawing, is fastened on the mast 4. The necessary swinging of disk 2 for moving the derrick beam from its normal position over the cargo hold, as shown in full lines, to its extreme position over the side of the ship, as shown in dotted lines, is caused by means of a crank or crank disk 6, which is connected to disk 2 by means of a rod 7, and the full stroke of which corresponds to the extreme swinging movement of the derrick beam.

The crank or crank disk is moved by means of a suitable driving mechanism of any well known or approved form.

By means of this driving arrangement is obtained a simple and accurate movement of the derrick beam between its two extreme positions, and on the other hand it is obtained that the movement of the derrick

beam caused by a uniform rotation of disk 6 will at first increase slowly and then decrease slowly toward its extreme position, so that the driving mechanism and all parts connected therewith are subjected to a uniform strain and are not exposed to shocks or sudden stresses.

The rod 7 may be adapted to be fastened at different distances from the trunnion 3 in order to vary the swinging angle of the derrick, and it may also be adapted to be fastened at different angles from the center line of the derrick in order to vary the extreme positions of the derrick beam over the cargo hold and ship's side without varying the swinging angle.

I claim—

1. The combination with a ship's mast of a derrick, the derrick beam being pivoted to a trunnion which is pivoted to the mast, and a driving arrangement for the derrick, comprising a rotatable crank disk rigidly connected by means of a crank rod with part of the derrick, and means for connecting said crank rod with the derrick at different distances from its pivot, so as to vary the extreme positions of the derrick or to vary the swinging axle thereof, the arrangement being such that a complete revolution of the crank disk produces two oscillations of the derrick.

2. The combination with a ship's mast of a derrick, the derrick beam being pivoted to a trunnion which is pivoted to the mast, and a driving arrangement for the derrick comprising a rotatable crank disk rigidly connected by means of a crank rod with part of the derrick, said trunnion being formed with holes arranged at different places therein, for connecting said crank rod thereto.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

OTTO KAHRS.

Witnesses:

C. NORMAN,
M. W. KAHRS.

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