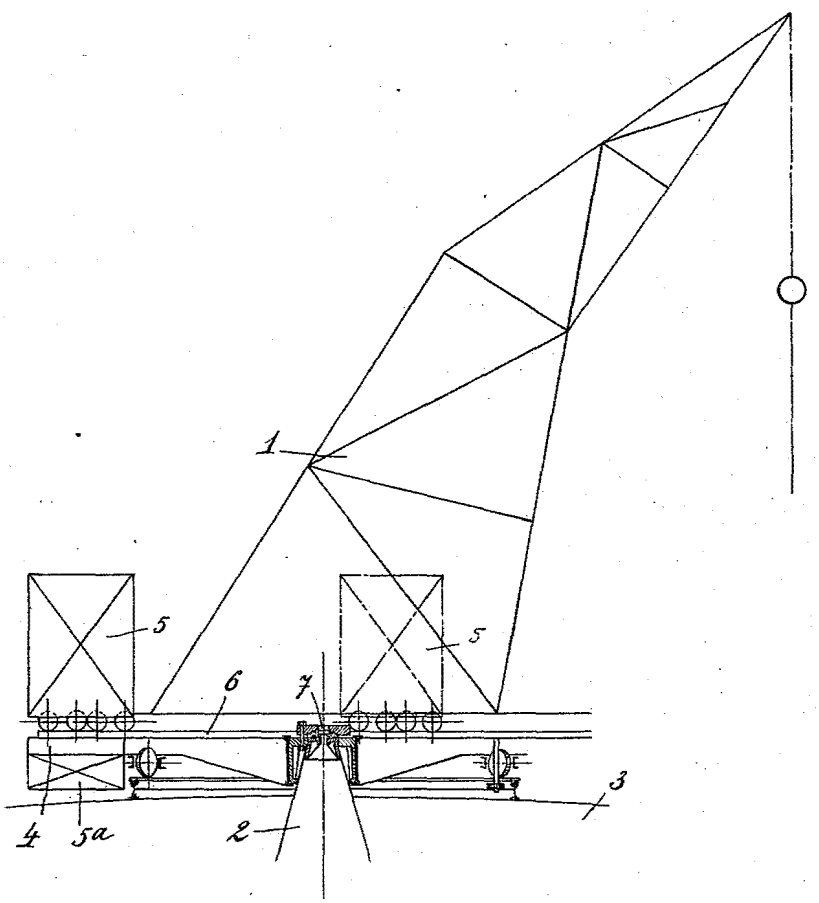
F. SMULDERS.

SLUING CRANE.

APPLICATION FILED DEC. 10, 1912.

1,139,915. Patented May 18, 1915.



Witnesses:

Inventor
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UNITED STATES PATENT OFFICE.

FRANS SMULDERS, OF ROTTERDAM, NETHERLANDS.

SLUING CRANE.

1,139,915. Specification of Letters Patent. Patented May 18, 1915.

Application filed December 10, 1912. Serial No. 735,904.

To all whom it may concern:

Be it known that I, FRANS SMULDERS, subject of the Queen of the Netherlands, residing at Eendrachtsweg 9, Rotterdam, Netherlands, have invented certain new and useful Improvements in Sluing Cranes, of which the following is a specification.

In sluing cranes, it is customary to balance the load and also a portion of the weight of the crane, by means of counterweights. This balancing is of great importance, particularly in the case of floating cranes, in order that the vessel which supports the crane may be maintained in its horizontal position, a condition which is frequently necessary. A course frequently followed is to balance a part of the weight of the sluing crane by a fixed weight while the weight of the load is balanced by a movable counterweight. However, the stability of a floating crane vessel or of the crane itself, does not depend upon the horizontal position of the vessel but solely on the height of the center of gravity of the whole above the level of the water.

Now counterweights, the weight of which is often very considerable, and especially movable counterweights, have a tendency to raise the center of gravity of the whole. Even if fixed counterweights can be disposed at a small distance above the level of the water, it is not so always with movable counterweights as considerations of construction often necessitate their being placed at great heights.

The present invention has for its object to remedy this drawback as far as possible by diminishing the movable counterweight.

It is illustrated diagrammatically in the accompanying drawing in which—

1 represents a sluing crane, mounted on a pivot 2 supported on a vessel 3.

4 denotes a fixed counterweight for balancing a part of the crane's weight and 5 is a movable counterweight displaceable along the guideway 6 to balance the load.

According to the invention, a part 5^a of the counterweight for balancing the load is added to the fixed counterweight 4 and the guideway 6 is prolonged beyond the axis of the pivot 7 so that the movable counterweight 5 can assume the position indicated in broken lines on the drawing to balance the fixed part 5^a when the crane is not supporting a load. It will be seen that this arrangement tends to lower perceptibly the center of gravity of the whole, the fixed part 5^a of the load balancing counterweight being disposed very near to the level of the water.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

In a floating sluing crane, the combination of a crane support, a crane extending upwardly from said support, a substantially central pivot about which said support and crane are revoluble, a fixed counterweight depending from the lower face of said crane support near one edge thereof, said fixed counterweight being of such a weight as to balance the entire weight of the crane and a part of the weight of the load to be handled by the latter, a movable counterweight on the upper face of said crane support, said movable counterweight being of such a weight as to balance the remainder of the load, both of said counterweights being below the lowermost portion of said crane, and means on the upper face of said crane support upon which said movable counterweight may be moved beyond said pivot.

In testimony whereof I affix my signature in presence of two witnesses.

FRANS SMULDERS.

Witnesses:
C. J. READ,
J. H. WELEKER.