(No Model.)

J. H. JOHNSON.

HOISTING AND LOWERING APPARATUS.

No. 261,722. Patented July 25, 1882.

Fig. 1.

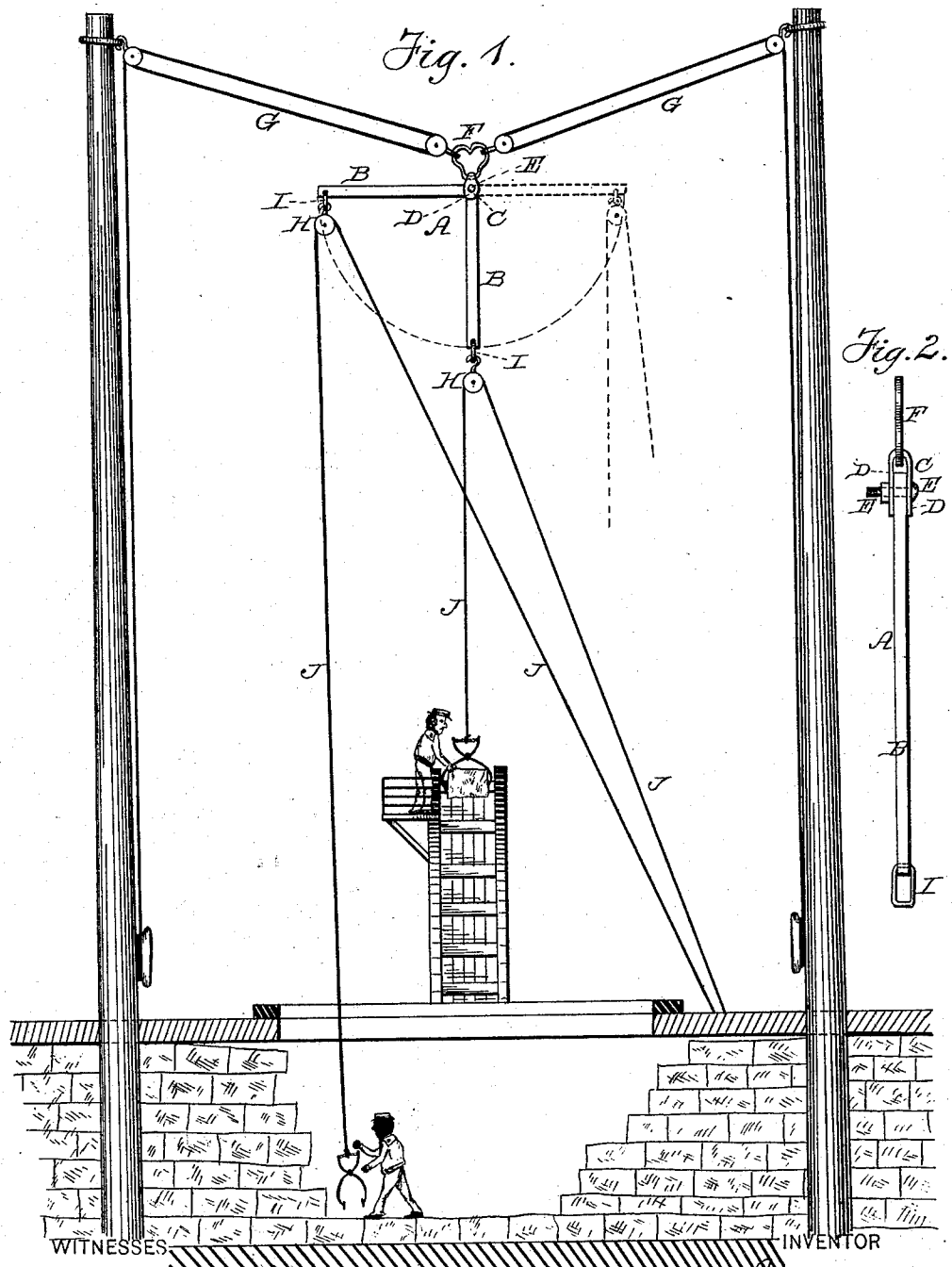


Fig. 2.

WITNESSES

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UNITED STATES PATENT OFFICE.

J. HARRISON JOHNSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

HOISTING AND LOWERING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 261,722, dated July 25, 1882.

Application filed May 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, J. HARRISON JOHNSON, a citizen of the United States of America, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Hoisting and Lowering Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to balance-beams or tackle-separators such as are used in hoisting or lowering ships' cargoes or any merchandise or weights.

Heretofore balance-beams for double hoisting-tackle have consisted of a straight bar or rod having the guys and hoisting-tackle arranged at each end; but this form of beam occasions many disadvantages, principal among which are the continual entangling or fouling of the hoisting-lines and the inconvenience of reaching over for the loads, which are alternately elevated to each end of the beam. To obviate these disadvantages is the object of my invention; and to this end it consists in certain improvements in the construction and operation of the same.

In the drawings, Figure 1 is a vertical sectional view of a vessel equipped with my improved hoisting-tackle, and Fig. 2 is an end view of the latter.

Referring by letter to the drawings, A designates the beam, which is of right-angular form, with two arms, B B.

C is a bail, the two straps of which, D D, embrace the beam at the vertex of the angle, at which point the bail is provided with a transverse pin or bolt, E, which passes through both the bail and the beam and forms the pivot on which the latter turns. At its top the bail rests in the apex or lower point of a heart-shaped ring, F.

In practice the beam is suspended over the hatch of the vessel by divergent guys G G, extending from the masts and hooked or otherwise secured at their lower ends to the auricles of the ring F.

At the ends of the arms B B the pulley-blocks H H are secured by beams hooked over rings I, swinging in the end of the arms B B, or in any other suitable manner, and over the pulleys pass the chains or ropes J J for hoisting or lowering the cargo. These ropes operate alternately, so that when one is ascending the other descends, this movement being preferably effected by winding their operating ends in different directions around a rotary drum (not shown) driven by steam or other power.

The operation and advantages of my invention will be readily understood. When in use the arm of the beam carrying the weight assumes a pendent position, the beam turning on its pivot, thus throwing the other arm, with its tackle, out to a horizontal position, obviating any liability of the tackle becoming entangled. In this manner the load is always landed, when hoisting or lowering, on the same vertical plane, and the device is simple, inexpensive, and of superior convenience and efficiency.

I claim and desire to secure by Letters Patent—

1. The herein-described balance-beam, of right-angular form, adapted to turn at the vertex of the angle, so that the arm of the beam carrying the weight will assume a pendent position, while the other arm is thrown out horizontally, as set forth, and for the purpose specified.

2. The herein-described right-angular balance-beam, pivoted at the vertex of the angle, and provided with hoisting and lowering tackle at each end, its arms being adapted to alternately assume a pendent position, whereby the load is landed in the same vertical plane, as set forth.

3. The combination, with the right-angular beam, pivoted at the vertex of the angle, and the heart-shaped ring, of the supporting-guys, secured at their lower ends to the auricles of the heart-shaped ring, as set forth.

4. The combination, with the right-angular balance-beam, pivoted at the vertex of the angle in a bail, of the heart-shaped ring, in the apex or lower point of which rests the said bail, as set forth.

5. The combination, with the right-angular beam, pivoted at the vertex of the angle and provided with rings swinging on the ends of its arms, of the hoisting and lowering tackle, the blocks of which are hooked or otherwise secured to the said swinging rings, as set forth.

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

J. HARRISON JOHNSON.

Witnesses:
J. R. LITTELL,
O. T. THOMPSON.