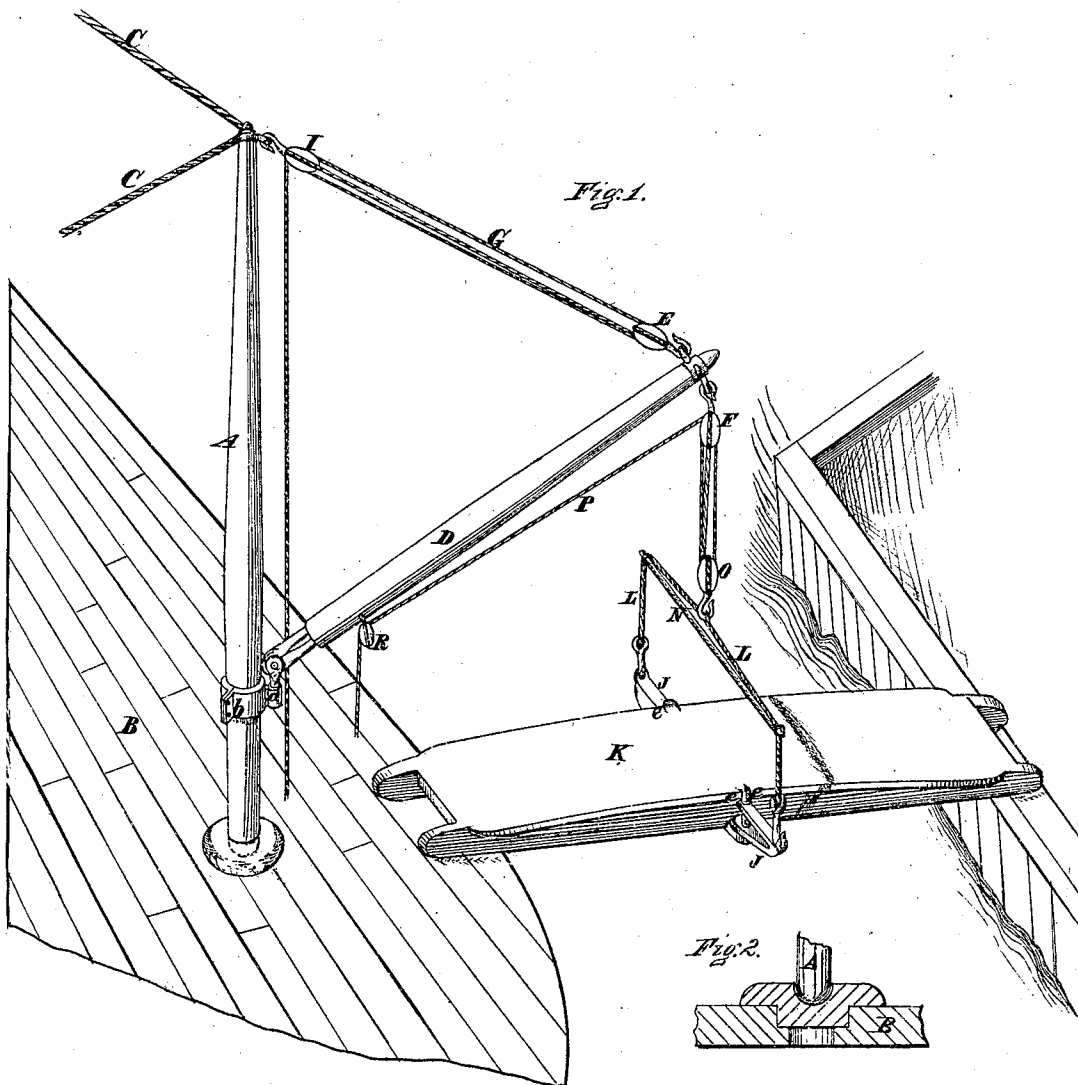


J. S. CLARKE.

Improvement in Derricks.

No. 132,442.

Patented Oct. 22, 1872.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN S. CLARKE, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN DERRICKS.

Specification forming part of Letters Patent No. **132,442**, dated October 22, 1872.

To all whom it may concern:

Be it known that I, JOHN S. CLARKE, of New Orleans, in the parish of Orleans and State of Louisiana, have invented an Improved Derrick or Hoisting-Crane, of which the following is a specification:

This invention is mainly designed to reduce the labor and obviate the delay incident to putting out and taking in the "gang-planks" or "stages" used on steamboats and other vessels to effect the transportation of passengers or freight between the vessel and the shore; besides this, however, it is applicable to various other purposes. It consists in the arrangement of an upright mast stepped into the deck and stayed with adjustable guys so that it may be oscillated from a vertical position, of a gaff swiveled to a socket on the mast, and halyards, whereby the derrick may be very expeditiously operated and swung round to any position.

In the accompanying drawing, Figure 1 represents the derrick and a portion of the deck of a steamboat and a portion of a wharf; and Fig. 2 represents a sectional view of the foot of the mast, its step, and a portion of the deck.

A is the upright mast, which is stepped into a socket in the deck B of the steamboat, so as to be free to oscillate from a vertical position, and its upper end is stayed by guys C C, which are secured adjustably to the upper works of the boat. On the lower portion of this mast is a band or hoop, *b*, which may be secured adjustably in place, and has provided on one side a socket, *a*. This socket receives a swivel-pin, pivoted to the inner end of the staff D, on the outer end of which there is a hoop or band, provided on its upper and lower sides with eyes, to which tackle-blocks E and F are secured by hooks provided on them. A halyard, G, is secured to a tackle-block, I, on top of the mast A, and passes through the tackle block E on the gaff; then through the tackle-block I; thence back through the block E, and again through the block I, and its free end hangs down by the side of the mast. The "gang-plank" or "stage" K may be of ordinary construction, and on each side, about the middle of its length, it has a stationary pin,

e, to which is pivoted a swing-piece, J. To the ends of these swing-pieces the ends of a cord, L, constituting a sling, are secured, the body of said cord at some distance above the "gang-plank" being held out by a stretcher or yoke, N, of a length corresponding to the distance between the outer ends of the swing-pieces. To the middle portion of this cord a tackle-block, O, is hooked. A tackle, P, secured at one end to the block F on the end of the gaff D, passes through the tackle-block O on the cord L; then through the block F back through the block O; then through the block F again, and through another, R, on the inner portion of the gaff; and its free end drops down on the deck of the steamboat.

When not in use the gaff may be hauled up close to the mast. As the boat approaches a landing it is lowered by means of its halyard G, and the "gang-plank" is raised, by hauling on its tackle, clear of the deck. The gaff is swung round to bring the "gang-plank" to the side of the boat, and it is lowered when the boat is sufficiently near the wharf or other landing place for the "gang-plank" to reach it. If desirable, for convenience in transporting bulky freight, the ends of the cord by which the stage is suspended may be detached from the swing pieces, and the gaff may be swung out of the way. During the time the "gang-plank" was suspended free of any support the swing pieces permit of its swinging without swaying or otherwise affecting the gaff. As soon as the passengers and freight are all transported the "gang-plank" is hauled clear of the wharf, and the boat may then be started and the "gang-plank" may afterward be swung in and the gaff hauled up to its former position against the mast.

"Gang-planks," which on some of the western river-boats are very cumbersome and weighty, require many men to handle them. By my invention I enable them to be handled by a few, and this in a very expeditious manner, thus lessening the cost of running the boats and saving much time.

The hoisting of the "plank" may be facilitated by hauling on the halyard G as well as on the tackle P, and when it is a very heavy one may be further facilitated by hauling on

the adjustable guys C C, staying the mast to raise the latter nearer to an upright position, and so assist in raising the gaff and "gang-plank."

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the oscillating mast A,

guys C C, gaff D, and halyard G, in combination, substantially as and for the purpose set forth.

JOHN S. CLARKE.

Witnesses:

SAMUEL BROCK,

JAS. B. CURRY.