

(No Model.)

C. OLSEN.
GANGWAY LADDER.

No. 290,348.

Patented Dec. 18, 1883.

FIG. 1.

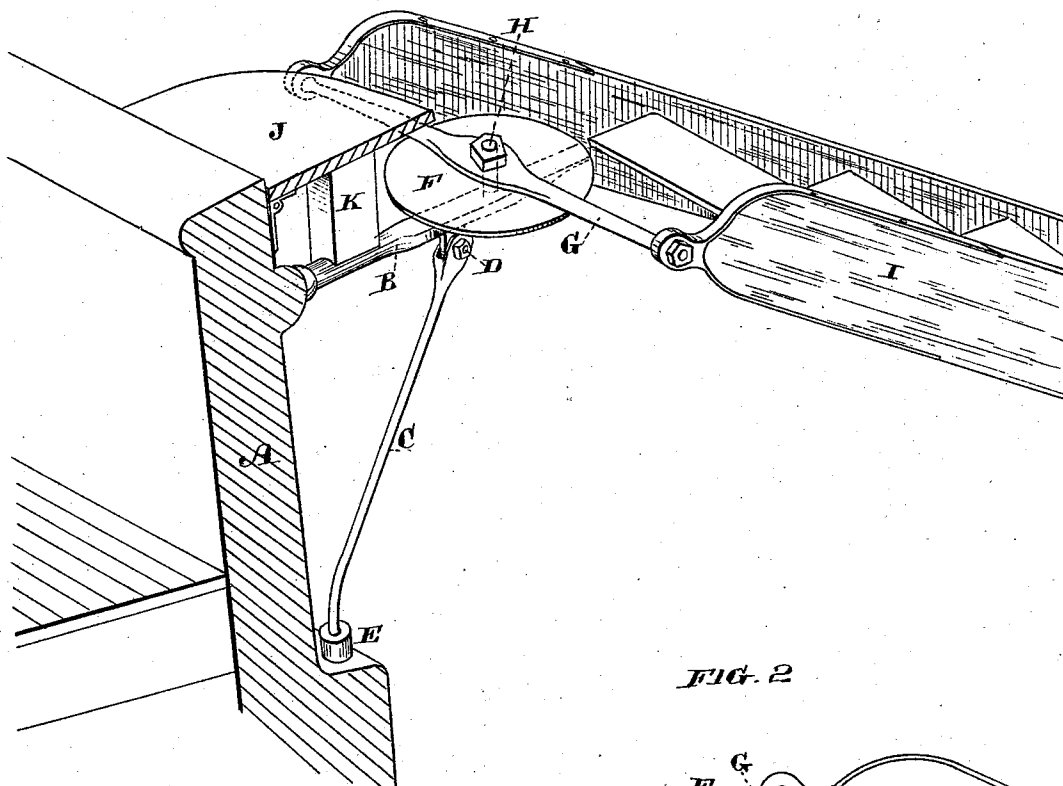
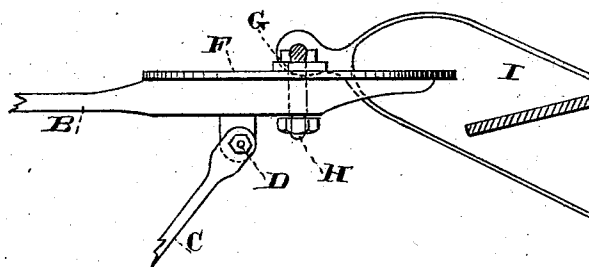


FIG. 2



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UNITED STATES PATENT OFFICE.

CHRISTIAN OLSEN, OF ST. JOHN, NEW BRUNSWICK.

GANGWAY-LADDER.

SPECIFICATION forming part of Letters Patent No. 290,348, dated December 18, 1883.

Application filed October 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN OLSEN, of St. John, New Brunswick, have invented an Improvement in Gangway-Ladders; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a gangway-ladder to connect the side of a vessel with a wharf or dock, and a means for making this connection so that fore and aft or other movements of the vessel will not cramp or injure the ladder.

It consists of a swivel-plate supported by an arm, which projects from the side of the vessel, and is firmly braced therefrom, an arm with a bolt by which its center is connected with the centre of the plate, the top of the ladder being journaled to the ends of the arm, and a hinged platform by which an easy step is made between the side of the vessel and the ladder, together with a supporting-block upon which the platform rests, all of which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of the device with part of the side of a vessel and the gangway-ladder. Fig. 2 is a side view.

A is the side of a vessel, and B is a strong bar or arm which projects outward at nearly or quite right angles, its outer end being supported by a brace, C, hinged to it at D, and having its lower end supported in a socket at E upon the side of the vessel. Upon the outer end of the arm B is a circular plate, F, having a hole through its center, and a corresponding hole through the arm B.

G is an arm having an extension at right angles from its center; or, a bolt, H, may pass through it, the plate F, and arm B, and be secured by a nut below, so that it and the arm G may turn about the bolt as a pivot, while the arm is held rigidly enough to act as a support for the upper end of the gangway stairs or ladder I, which is journaled upon the ends of the arm G, so as to move up and down about it. By this construction the ladder moves vertically about the transverse arm G, to accommodate itself to the movements of the vessel as it rises and falls with the tide, or from

other causes. Any movements of the vessel fore and aft are allowed without strain upon the ladder, by reason of the vertical pin or bolt H, through the center of the arm G, and around which it and the ladder may turn, being supported upon the plate.

In order to connect the upper end of the ladder with the vessel, and cover the space which is necessarily left to allow the movements of the ladder, a platform, J, is hinged to the side of the vessel, and may be let down so as to extend out over the plate F. A block, K, is fixed to its lower surface, so as to rest upon the arm B, when the platform is turned down, and it is thus supported independent of the ladder, but near enough so that one can step to or from it easily, whatever may be the angle at which the ladder stands with relation to the vessel. The lower end of the ladder has the usual wheels or rollers where it runs upon the wharf. This mechanism is easily applied to any old ladder without material change.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An arm or bar projecting from and supported by the vessel's side, and having the horizontal plate at its outer end, in combination with a horizontal bar, having a vertical pivot-bolt through its center and that of the plate, and having its ends forming journals, upon which the upper ends of the ladder turn, and about which it may have a vertical motion, substantially as herein described.

2. A gangway-ladder having its upper ends supported upon a swivel bar or plate, so as to have independent vertical and horizontal movements with relation to the vessel, in combination with a platform hinged to the side of the vessel, and supported upon the arm independent from the ladder, substantially as herein described.

In witness whereof I have hereunto set my hand.

CHRISTIAN OLSEN.

Witnesses:

S. H. NOURSE,
H. C. LEE.