

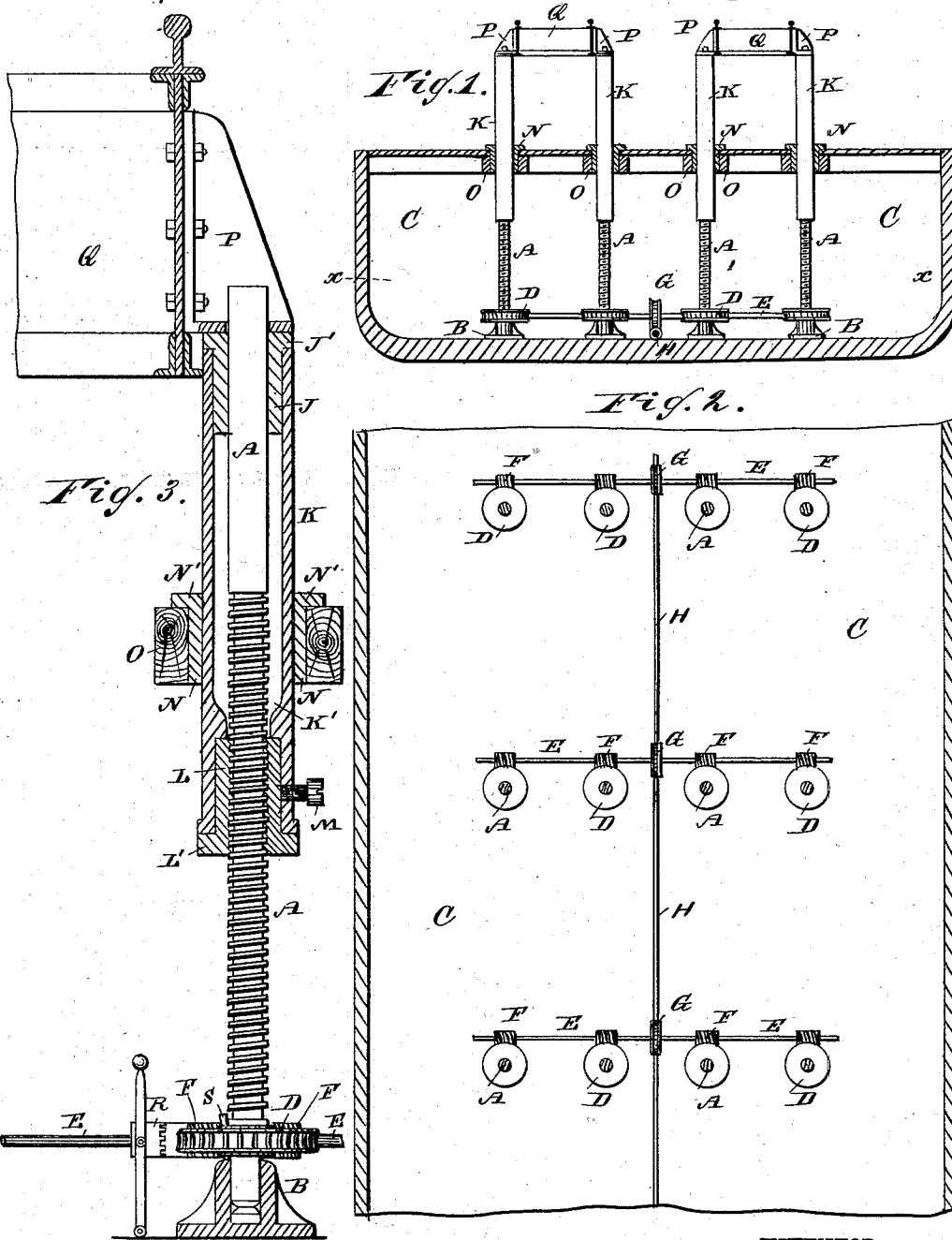
(No Model.)

J. J. DE RYCKE.

ADJUSTABLE ELEVATOR PLATFORM FOR VESSELS FOR CARRYING
RAILWAY CARS.

No. 283,218.

Patented Aug. 14, 1883.



WITNESSES:

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J. JOSEPH DE RYCKE, OF NEW YORK, N. Y.

ADJUSTABLE ELEVATOR-PLATFORM FOR VESSELS FOR CARRYING RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 283,218, dated August 14, 1883.

Application filed January 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, J. JOSEPH DE RYCKE, of the city, county, and State of New York, have invented a new and Improved Adjustable Elevator-Platform for Vessels for Carrying Railway-Cars, of which the following is a full, clear, and exact description.

The object of my invention is to provide certain new and useful improvements in elevator-platforms for vessels carrying railway-cars, which elevator-platforms are used for raising or lowering the cars to the level of the dock, according to the height of the tide.

The invention consists in the combination, with a vertical screw-spindle, of a tube surrounding the upper part of the same, and resting on a nut through which the spindle passes, which tube can be locked on the nut by means of a binding-screw, and which tube supports the girder carrying the track-platform, whereby, when the screw is turned, the nut, the tube, and the girder can be lowered; and if the tube and nut are disengaged the tube-nut will remain stationary, thus permitting of adjusting the girder or platform in a level position.

The invention also consists in the combination, with a series of screw-spindles, of worm-wheels locked on the same by removable keys, and of worms engaging with the worm-wheels, and mounted on shafts provided with clutching devices for locking the worms on the same, whereby some clutches can be disengaged if the corresponding spindles are not to be turned when the platforms are to be adjusted in position vertically.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a cross-sectional elevation of a vessel provided with my improved elevator-platforms for raising and lowering cars, parts being broken out. Fig. 2 is a sectional plan view of the same on the line *xx*, Fig. 1. Fig. 3 is a vertical sectional view of one of the screw-spindles and sockets.

A series of vertical screw-spindles, A, rest in step-bearings B, of some suitable construction, secured on the bottom of the vessel C, and on the lower end of each spindle a worm-wheel,

D, is mounted, which engages with a worm, F, mounted on a transverse shaft, E, provided with a worm-wheel, G, engaging with a worm mounted on a longitudinal shaft, H, which can be rotated by means of some suitable motor. The several transverse shafts E and the screw-spindles A can thus be operated simultaneously by the shaft H.

The upper part of each spindle A is made smooth and passes through a guide-sleeve, J, provided at its upper end with an annular flange, J', or lugs resting on the upper end of a tube, K, the lower end of which rests on an annular flange, L', or lugs at the lower end of a screw sleeve or nut, L, surrounding the screw-spindle A. The tube K is provided with an internal flange, K', or lugs resting on the upper end of the screw sleeve or nut L. By means of a binding-screw, M, passed through the tube K, the same can be locked or fixed on the screw sleeve or nut L. The tube K passes through a guide-sleeve, N, provided at its upper end with flanges N' or lugs resting on the deck-beams O.

Brackets P, attached to the transverse track-supporting girders Q, rest on and are secured to the upper ends of the guide-sleeves J. If the tube K is locked to the screw sleeve or nut L and the spindle A is rotated, the tube K will be raised or lowered, and the rail-supporting girder will be raised or lowered with it. Sometimes the bottoms of the vessels settle unevenly, and it may be necessary to adjust the tubes K to make the girders Q level. The screw M is then loosened, so that the nut L can be turned in the lower end of the tube, and the tube K is raised or lowered, as may be required, by turning the nut L more or less.

The worms may all be provided with clutch-couplings R, and the worm-wheels with removable keys S, so that certain worm-wheels and worms can be disengaged from their shafts and spindles, and then the corresponding screw-spindles will not be turned with the rest, and the platforms can thus be adjusted.

The above-described elevator-platform can be erected on a dock as well as on a vessel.

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

1. The combination, with the screw-spindle A, of the nut L, the tube K, resting on the same, and the transverse girder Q, supported by the tube K, substantially as herein shown and described, and for the purpose set forth.
2. The combination, with the screw-spindle A, of the nut L, the tube K, resting on the same, the binding-screw M, and the girder Q, supported by the tube K, substantially as herein shown and described, and for the purpose set forth.
3. The combination, with the screw-spindle A, of the nut L, the tube K, the guide-sleeve J in the upper part of the tube K, and the girder Q, supported by the tube K, substantially as herein shown and described, and for the purpose set forth.
4. The combination, with the screw-spindle A, of the nut L, the tube K, the guide-sleeve J, the girder Q, and the sleeve N, resting on deck-beams, substantially as herein shown and described, and for the purpose set forth.
5. The combination, with the screw-spindle A, of the nut L, the guide-sleeve J, the tube K, provided with an internal flange, K', or lugs, and the girder Q, substantially as herein shown and described, and for the purpose set forth.
6. The combination, with a vessel, of a series of vertical screw-spindles, worm-wheels mounted on the same and provided with removable keys, and of worms mounted on transverse horizontal shafts, and engaging with the worm-wheels, and provided with clutching devices for locking them on the shafts, substantially as herein shown and described, and for the purposes set forth.

J. JOSEPH DE RYCKE.

Witnesses:

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C. SEDGWICK.