L. D. NEWELL.

Improvement in Oscillating Berths.

No. 131,223. Patented Sep. 10, 1872.

Fig. 1.

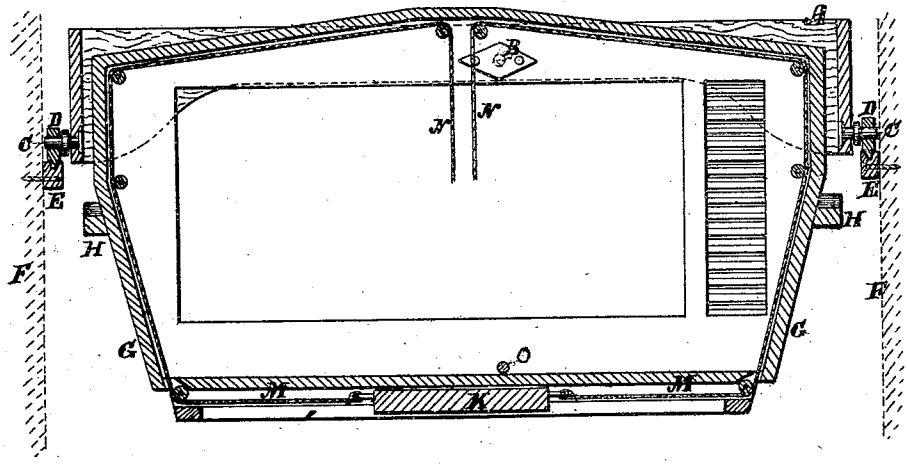


Fig. 2.

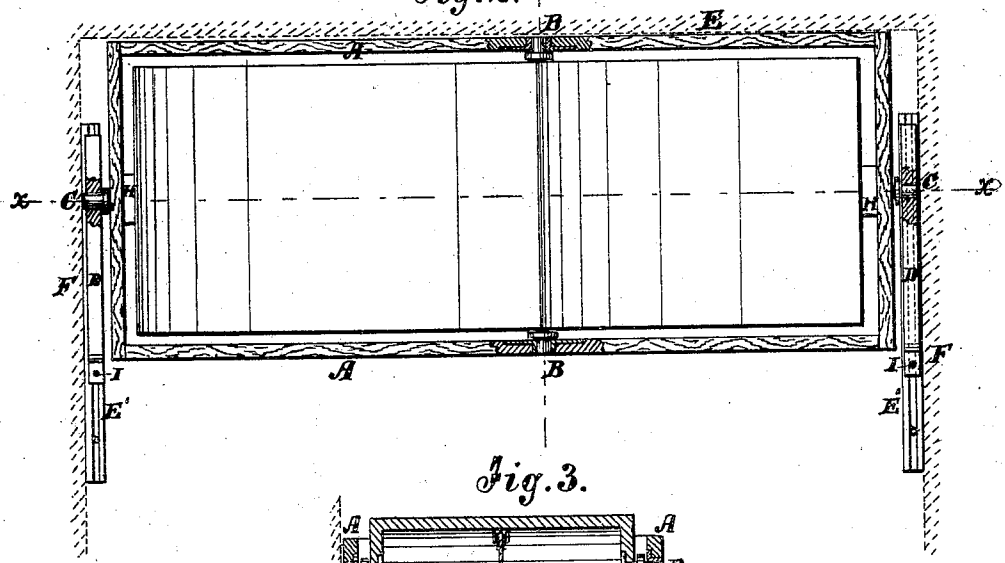


Fig. 3.

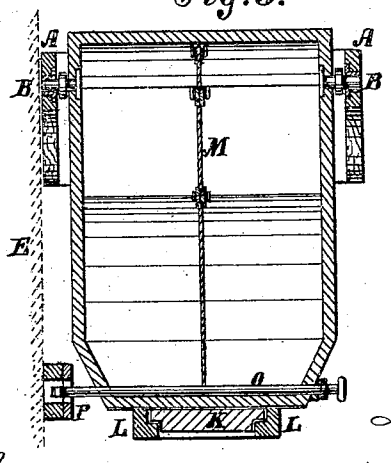
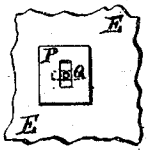


Fig. 4.



Witnesses:

A. Bennenendorf.

N. A. Graham

Inventor:

Lorenzo D. Newell.

Per Munn & Co.

Attorneys.

UNITED STATES PATENT OFFICE.

LORENZO D. NEWELL, OF NEW YORK, N. Y.

IMPROVEMENT IN OSCILLATING BERTHS.

Specification forming part of Letters Patent No. **131,223**, dated September 10, 1872.

Specification describing a new and useful Improvement in Ships' Berths, invented by LORENZO D. NEWELL, of New York city, in the county and State of New York.

This invention relates to ships' berths that are pivoted so as to maintain a horizontal position when the ship either rolls or pitches; and it consists in having the pivots at the ends of the berth mounted on slides, whereby the berth may be adjusted against the side of the state-room and fastened thereto when not occupied, and not required to oscillate; to then have all the free space in the room in front of the berth for other purposes, and whereby said berth may be drawn away from the side of the state-room, where it will have space to swing in without striking when it is to be occupied. The invention also consists in an adjustable balance weight and apparatus for shifting it, whereby a person in the berth can readily maintain the center of gravity by shifting the weight as he moves in the berth. The invention also consists of a convenient mode of fastening the berth against the side of the state-room by a rod running through the lower part of it, and fastening in the side of the state-room.

Figure 1 is a longitudinal sectional elevation of a berth and its supporting-gear, arranged according to my improvements, the section being taken on the line *x x* of Fig. 2. Fig. 2 is a plan view. Fig. 3 is a transverse section; and Fig. 4 is a detail, showing the mode of engaging the fastening-bolt with the side wall of the state-room.

Similar letters of reference indicate corresponding parts.

The principal objection to oscillating berths is that they have, as heretofore arranged, to be suspended so far from the side wall of the state-room, in order to swing clear, as to seriously lessen the space afforded by the small state-rooms for other purposes; but such berths largely add to the comfort of passengers when they can be used, and it is important to devise ways of removing all objections to them. I therefore propose, while pivoting my berths in the transverse axis, or near it, to a frame, A, as shown at B, and pivoting the said frame at the ends C, as such berths have been arranged before, to mount the pivots C on slides D arranged to move the berth toward or from the side wall F of the state-room, said slides moving on supports E, preferably attached to the walls F of the state-room; but they may be supported in any other approved way. Thus, I am enabled to have my berths occupy no more room, when not required for use, by sliding them back against the wall E, than the ordinary permanent berths do, and by sliding them forward previous to retiring, when it is not so essential to have all the room in front, I have berths not subject to the motions of the vessel. Sufficient space is had at the ends of the berths for swinging in that direction by the shortening of them to provide room for the supporting-gear, and by sloping off their ends a little, as shown at G. To prevent too much motion at the end in case the occupant shifts his weight too far from the transverse axis, I apply cushioned stops H to the ends of the berths to come against the under side of the frame A. The stops are, however, placed low enough to not interfere with the regular action of the berths in maintaining the horizontal position. The berths will be fastened in either position by any suitable means—say, by pins I passing through the sliding bearings D into the supports E. K represents the counterbalance-weight, which is suspended in guides L under the bottom of the berth, so as to move readily in the endwise direction of the berth, to regulate it as the occupant may shift about. At each end a cord, M, is attached, which cords pass over guides in opposite directions to the inside of the berth, where they hang, as shown at N, so that the occupant of the berth may have command of the weight while in it, and adjust said weight to balance whether lying or sitting. For fastening the berth to the side wall of the state-room when it is shoved back against the wall, I have a long rod or bolt, O, passing through the berth, and engaging behind a slotted plate, P, by T-head Q, which passes through said slot. This long rod affords a convenient means of reaching the wall of the state-room from the front of the berth to fasten it.

It will be seen that the berth has sufficient depth below the pivots to maintain its center of gravity below the said pivots when it is partly filled with the bed, and the occupant is either lying or sitting on the latter.

It will be seen that the peculiar construc-

tion of these berths is such that two adjacent, one over the other, require no more space than ordinary ships' berths.

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

1. In combination with an oscillating berth for vessels, I claim sliding bearings, substantially as described, to adapt it to be moved laterally or away from the wall of the stateroom, as specified.

2. The combination of a sliding or adjustable balance-weight and a cord or cords, N, and with an oscillating berth, said cords being arranged to be operated by the occupant of the berth, as set forth.

3. In combination with an oscillating berth, *a*, the fastening bolt or rod O and catch or lock-plate P, as specified.

LORENZO D. NEWELL.

Witnesses:
ANSON P. THAYER,
T. B. MOSHER.