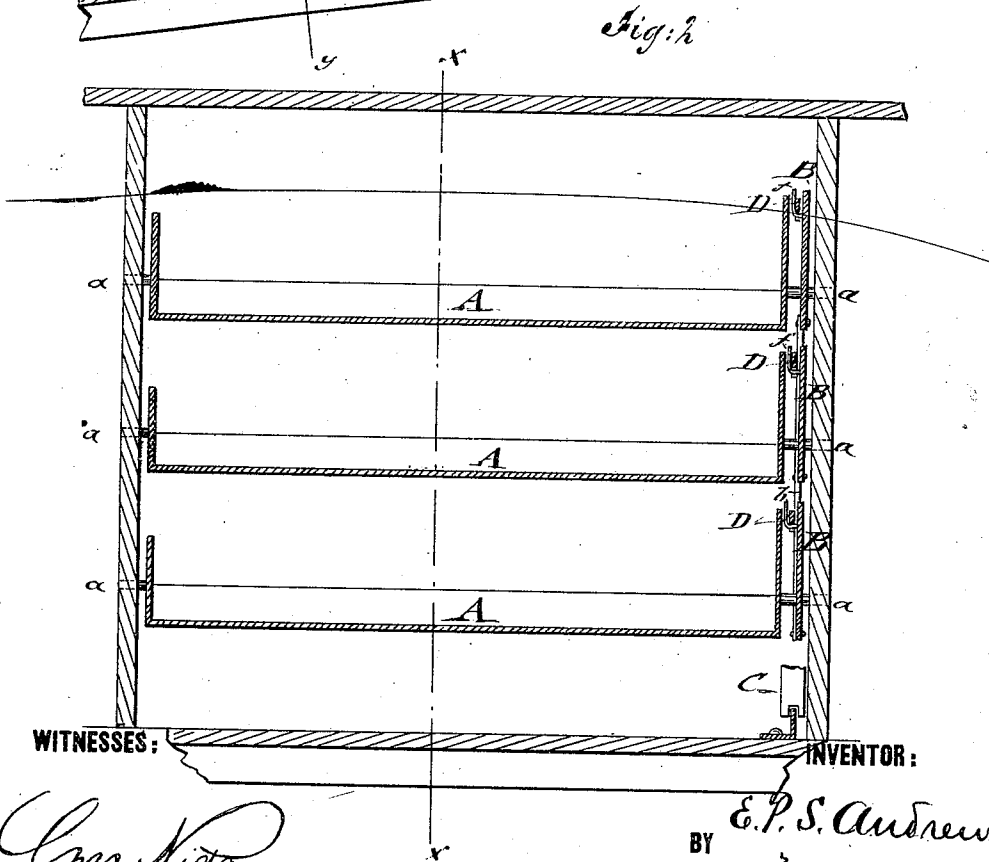
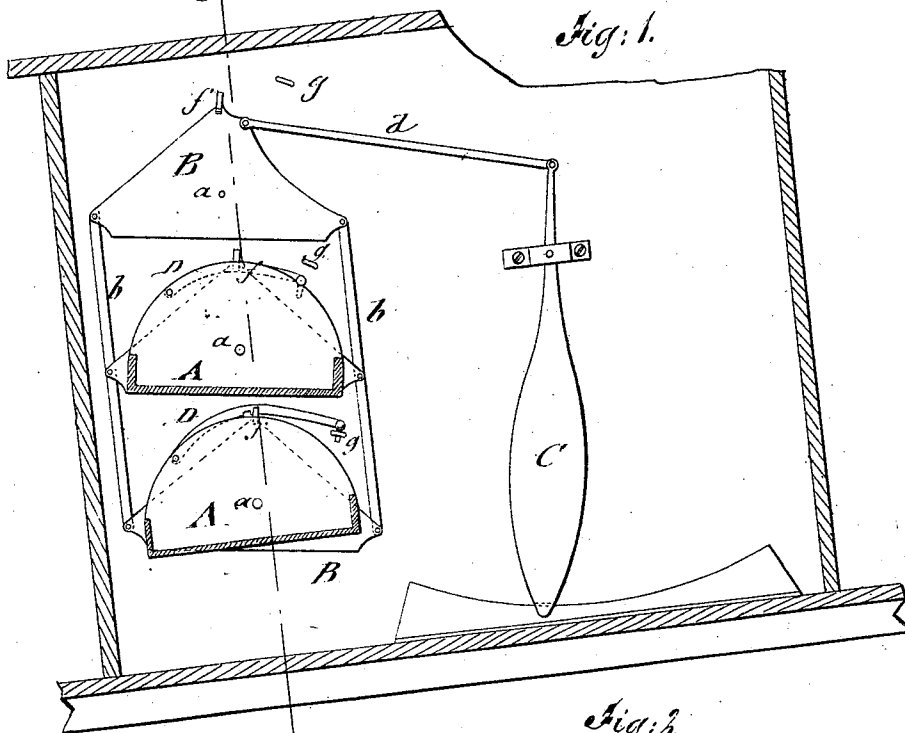


E. P. S. ANDREWS.
SWINGING SHIP'S BERTH.

No. 170,324.

Patented Nov. 23, 1875.



WITNESSES:

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INVENTOR:

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mmmm
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UNITED STATES PATENT OFFICE.

EDWARD P. S. ANDREWS, OF LISBON, MAINE.

IMPROVEMENT IN SWINGING SHIPS' BERTHS.

Specification forming part of Letters Patent No. **170,324**, dated November 23, 1875; application filed May 22, 1875.

To all whom it may concern:

Beit known that I, EDWARD P. S. ANDREWS, of Lisbon, in the county of Androscoggin and State of Maine, have invented a new and Improved Ship's Berth, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical transverse section of my improved berth for vessels on the line *x x*, Fig. 1; and Fig. 2 is a longitudinal section of the same on the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish an improved berth for vessels, that is hung and weighted to swing with the motion of the vessels, and to retain, by the gravitation of the weight, continually a level position during the motion of the vessels, forming thereby a convenient protective device against sea-sickness.

The invention consists of one or more berths pivoted to the cabin walls, and connected by separate and jointly-swinging governing end plates, of which one is applied to a swinging weight of corresponding size, to produce the level position of the berths. A pivoted hook-lever of each berth may be attached to the corresponding end piece, to swing therewith and with the weight, or to a staple of the wall, to assume a fixed position at the wall.

In the drawing, A represents the berths, which are hung by central pivot-pins *a*, at the head and foot pieces, to the walls of the cabin. A separate governing piece or plate, B, is arranged at the head or foot piece of each berth, intermediately between the same and the wall, and hung to the same pivots *a*. The pieces B are connected at opposite sides by parallel pivot-rods *b*, to produce their joint motion following the movement of a governing-weight, C, connected to one of the plates by lever-rod *d*. The weight C is fulcrumed, and inclosed either in a casing or in the partition-walls. It

swings with the motion of the vessel, assuming a perpendicular position, and bringing thereby the berths continually to a level, so that a person will not feel the influence of the rolling motion of the vessel, and be, therefore, protected against the attacks of sea-sickness.

Each berth A is provided at its end piece, toward the swinging plate B, with a pivoted hook-lever, D, that is recessed to lock to a hook, *f*, of the swinging end plate, and cause thereby the following of the berth to the oscillation of the weight.

The end of hook-lever D may, after being released from the end plate, be hooked to a staple, eye, or other fixed device, *g*, of the cabin partition-wall, being thereby rigidly attached thereto, and compelled to follow the motions of the vessel. The other berths continue to adjust themselves by gravitation, each passenger being left free to use the berth in connection with the weight, as a protection against sea-sickness or not, as described.

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

1. As an improvement in ships' berths, the combination of one or more pivoted berths, with jointed end plates, swinging on the same pivots by the action of a fulcrumed governing-weight, to retain level position during motion of the vessel, substantially as and for the purpose set forth.

2. The combination of the end piece of a berth, having pivoted and recessed hook-lever, with a fastening device of the end plate and of the cabin-wall, for admitting the swinging of any berth either with weight or ship, substantially in the manner and for the purpose described.

E. P. S. ANDREWS.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.