Sheet1, 3 Sheets.

N. W. Wheeler.

Ship's Berth.

No. 47,481. Patented Apr. 25, 1865.

Fig. 1.

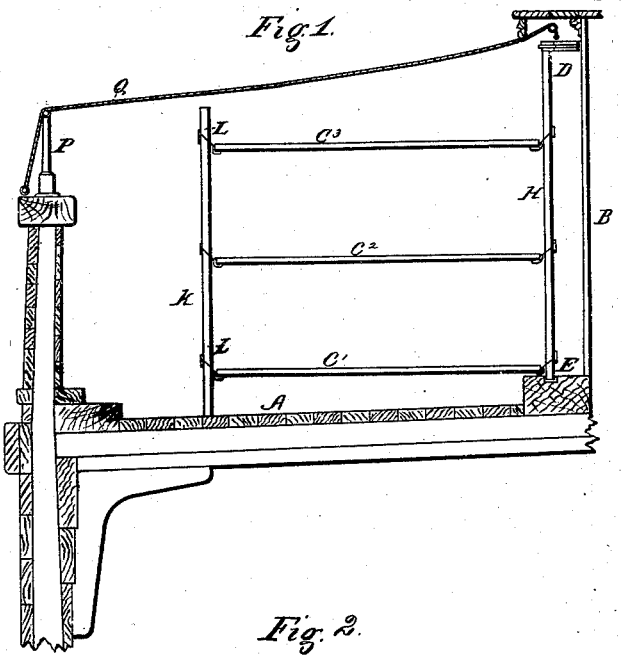
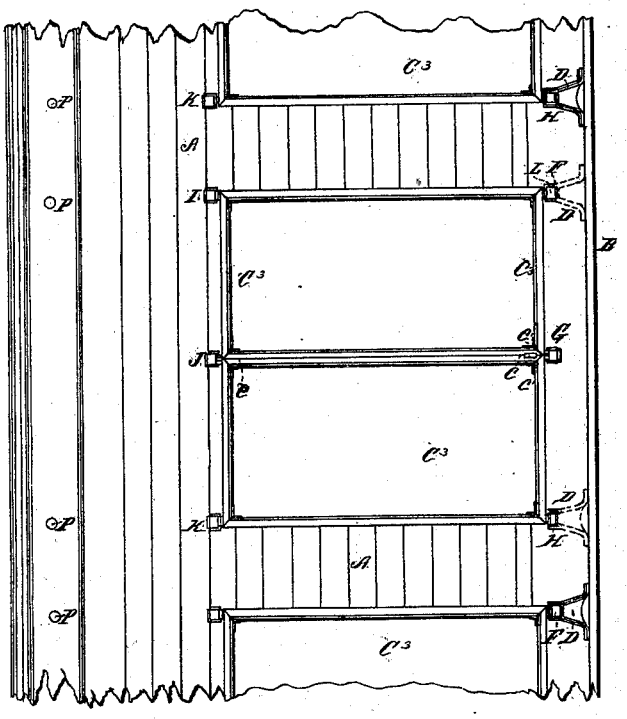


Fig. 2.



Witnesses:
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D. W. Stetson

Inventor:
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Sheets, 3 Sheets.

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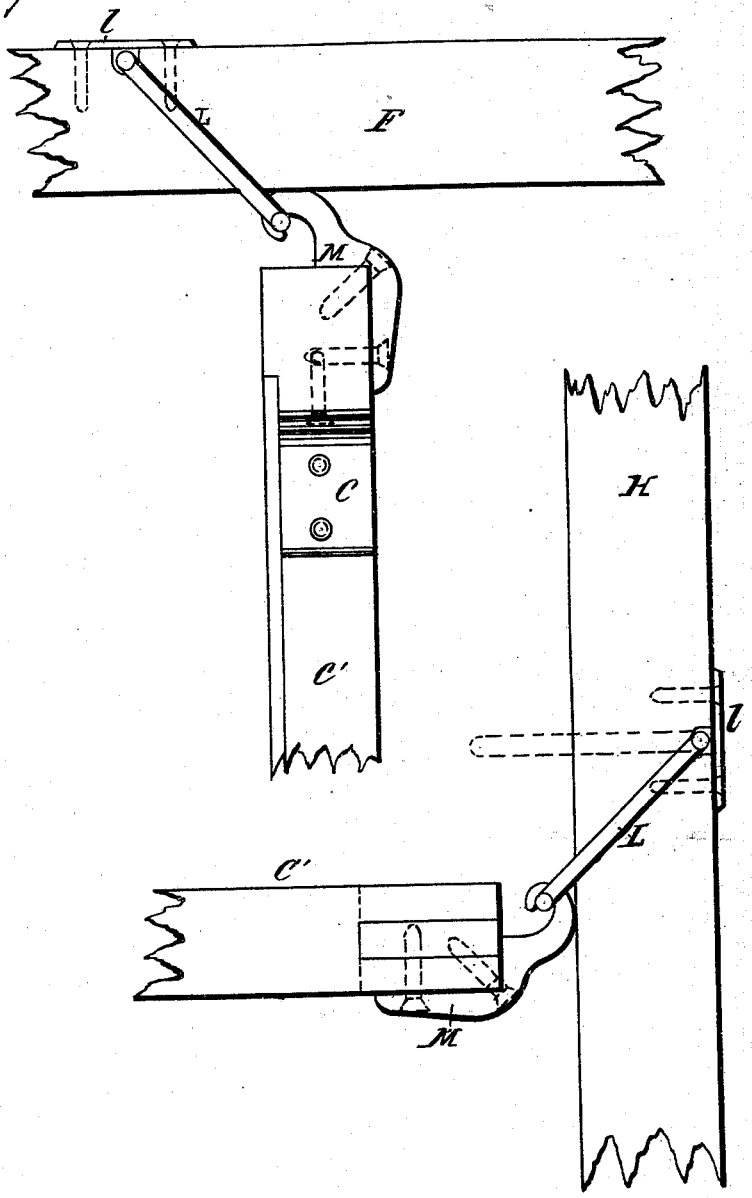

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Sheet 3, 3 Sheets.

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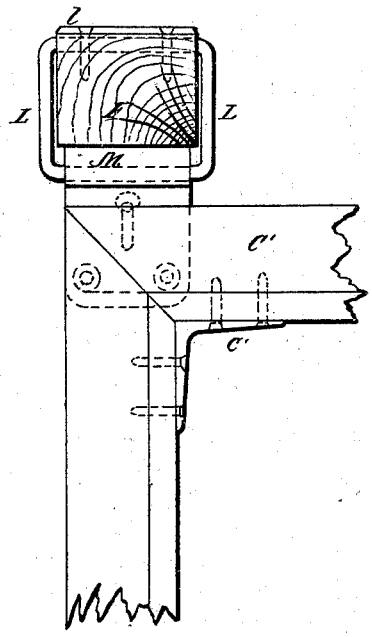
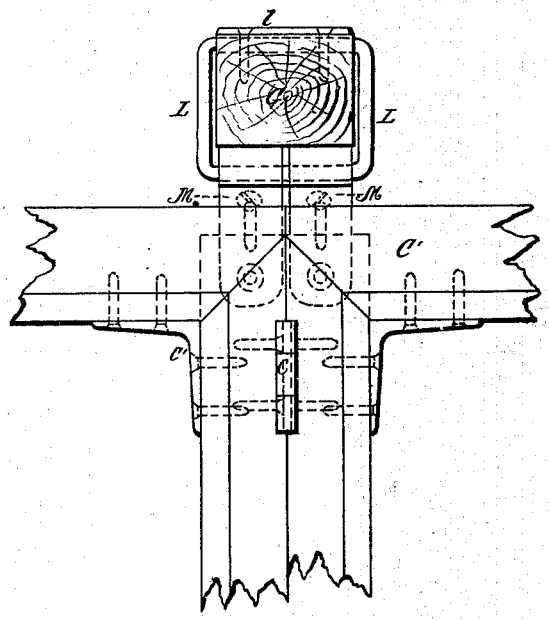
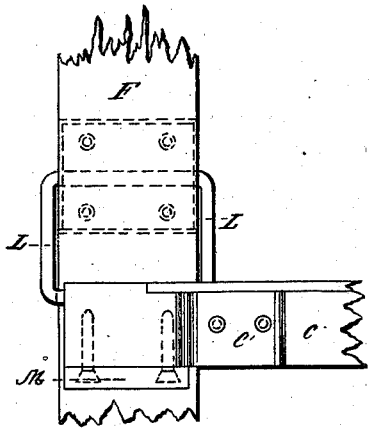
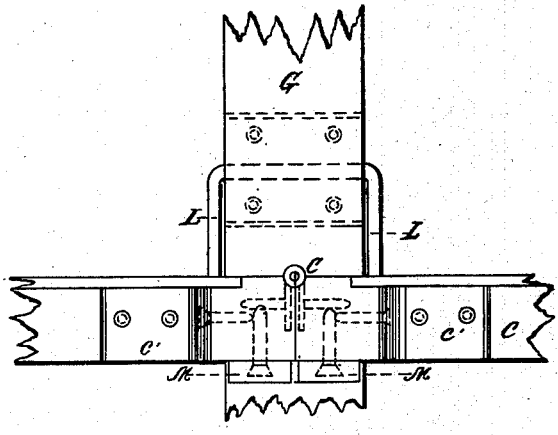
Ship's Berth.

No. 47,481. Patented Apr. 25, 1865.









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UNITED STATES PATENT OFFICE.

NORMAN W. WHEELER, OF BROOKLYN, NEW YORK.

IMPROVED MOVABLE BERTH.

Specification forming part of Letters Patent No. **47,481**, dated April 25, 1865.

To all whom it may concern:

Be it known that I, NORMAN W. WHEELER, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Vessels; and I do hereby declare that the following is a full and exact description thereof.

The accompanying drawings form a part of this specification.

Figure 1 is an elevation of a stand of berths, and Fig. 2 a plan of the same on a small scale. The remaining figures represent details of the more important parts on a larger scale.

Like letters refer to the same parts in the several drawings.

This invention relates to a mode of arranging berths along the side of a deck-house upon the upper deck of a vessel or in analogous situations.

It consists, first, in adapting them to be rigidly set up in stands in the manner herein after described, so as to rest their weight upon the deck and be held against horizontal forces by the deck-house or equivalent support at one side only without requiring a level deck or rigid or accurate fitting; and, second, in a mode of connecting the parts which takes up all slack therein.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation by the aid of the drawings and the letters of reference marked thereon.

A is the deck of a vessel; B, the side of the deck-house; and C' C^2 C^3, the several berths, each being a rectangular frame of wood with sacking stretched across.

D D are sockets secured to the side of the deck-house or other convenient place to support the upper ends of certain portable stanchions, and E E are sockets adapted to hold in place the lower ends of the same stanchions in such manner that they may be separately put in place and securely held and readily taken down. I have made the berths in each set three in height and two in width, and this number may be employed in all situations, and a greater number in most instances, because my invention allows them to be crowded more closely than usual without serious inconvenience.

F, G, and H are the inner row of stanchions or posts, and I, J, and K are the outer row of stanchions to support the berths. Links L are adapted to support the corners of the berth-frames, and are permanently attached to the stanchions by the aid of plates *l*, which hold the links in place and allow them to be turned up and down as required.

M M are metal hook-plates secured to the corners of the berth-frames. These hooks M are adapted to be supported by the links L in the manner shown in the drawings.

P P are slight awning-stanchions, and Q is a canvas awning or cover stretched over the berths.

The berth-frames C may be provided with the usual slats or canvas to support the beds; but I prefer a bed-bottom of wire-cloth or perforated sheet metal. I make the frames hinged together in pairs by the hinges *c c*, so that when taken down they may be folded together and the more snugly stored, and I stiffen each with a metal knee, *c'*, at each corner. The links L are arranged in such manner, as shown in the drawings, that they will vibrate or swing freely when required; but the action of gravity when loaded tends by their oblique position to hold the berths and the stanchions very snugly together. The hook-plates M at the inner or hinged corners of the double set of berths are so narrow that two hooks will go into one link.

To set up a stand of berths, the stanchions F and H are placed in position with the upper ends in the sockets D and the lower ends in the sockets E, the other stanchions and the lower set of links, L, being temporarily held up in the proper position by attendants. The lower berth-frames, C', are now unfolded and raised to such position that the links L will drop over the hooks M and sustain them. This supports the first or lower berths. The second berths C^2 are next placed in position in like manner, and after these the third, fourth, &c., if more than three are used.

It is obvious that the attachment of the berths to one or all the several stanchions may be made by means of the well-known pintle-and-socket arrangement, keeping the parts otherwise, as I have represented, and the construction would be to some extent serviceable, but I deem the link-and-hook support very far preferable.

It will be seen by inspection of the drawings that the berths are held by the stanchions

F and H at two corners, and that the diagonal stiffness of the berth-frames C′ C², &c., supports the other stanchions against horizontal motion. It will also be seen that the diagonal position of the supporting-links causes them to take up all slack or lost motion and render the structure more stiff and unyielding in proportion to the weight of and upon the berths, while at the same time it does not require accurate fitting and adjustment of the several parts, but will allow the same parts to be fitted to variously curved and sheared parts of the same or different vessels.

Another property due to my construction and arrangement is that if one of the upper berths is lifted from its proper place by a person lifting an empty berth above him while getting in or out or lying in a lower berth, the link will rise with the berth, and when the berth is let fall the link will fall of its own weight and re-engage the hook at the proper point. This allows my berths to be used conveniently with less vertical height than is usually necessary between each of the several berth-frames, C′ C², &c.

My invention is important on account of its easy fitting in every place, its non-liability to be thrown permanently out of connection by accidental forces from the man below its ready connection and disconnection without tools, and the impossibility of losing any part. I esteem especially important its property of yielding and yet of preventing lost motion in the connections, as described, so as to be set up easily and adapt itself perfectly to the conditions required in all parts of the vessel. I make these berths comfortable for short periods, even in bad weather, by covering the whole frame work with canvas, either after the manner of awnings, or in the case of soldiers, by spreading their shelter-tents over the tops of the stanchions while other shelter-tents are used to curtain the sides. When the latter mode is adopted, I make the middle pair of stanchions longer than the others, and connect them longitudinally by ridge-poles to give the proper pitch to the canvas roof; but in general I cover the space to be occupied by the berths with continuous roofs or coverings of canvas properly attached to convenient parts of the vessel.

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

1. In the described combination with a vessel, the employment of the sockets D D and E E, stanchions F and H, the two or more berths C′ C², and the free supporting stanchions I and K, arranged substantially as and for the purposes herein set forth.

2. In connection with the above, the combination of the hooks, links, and stanchions constructed and arranged to operate together substantially in the manner and for the purposes described.

NORMAN W. WHEELER.

Witnesses:
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