

(No Model.)

C. A. MILLIGAN.

SHIP'S BERTH.

No. 322,466.

Patented July 21, 1885.

Fig. 1

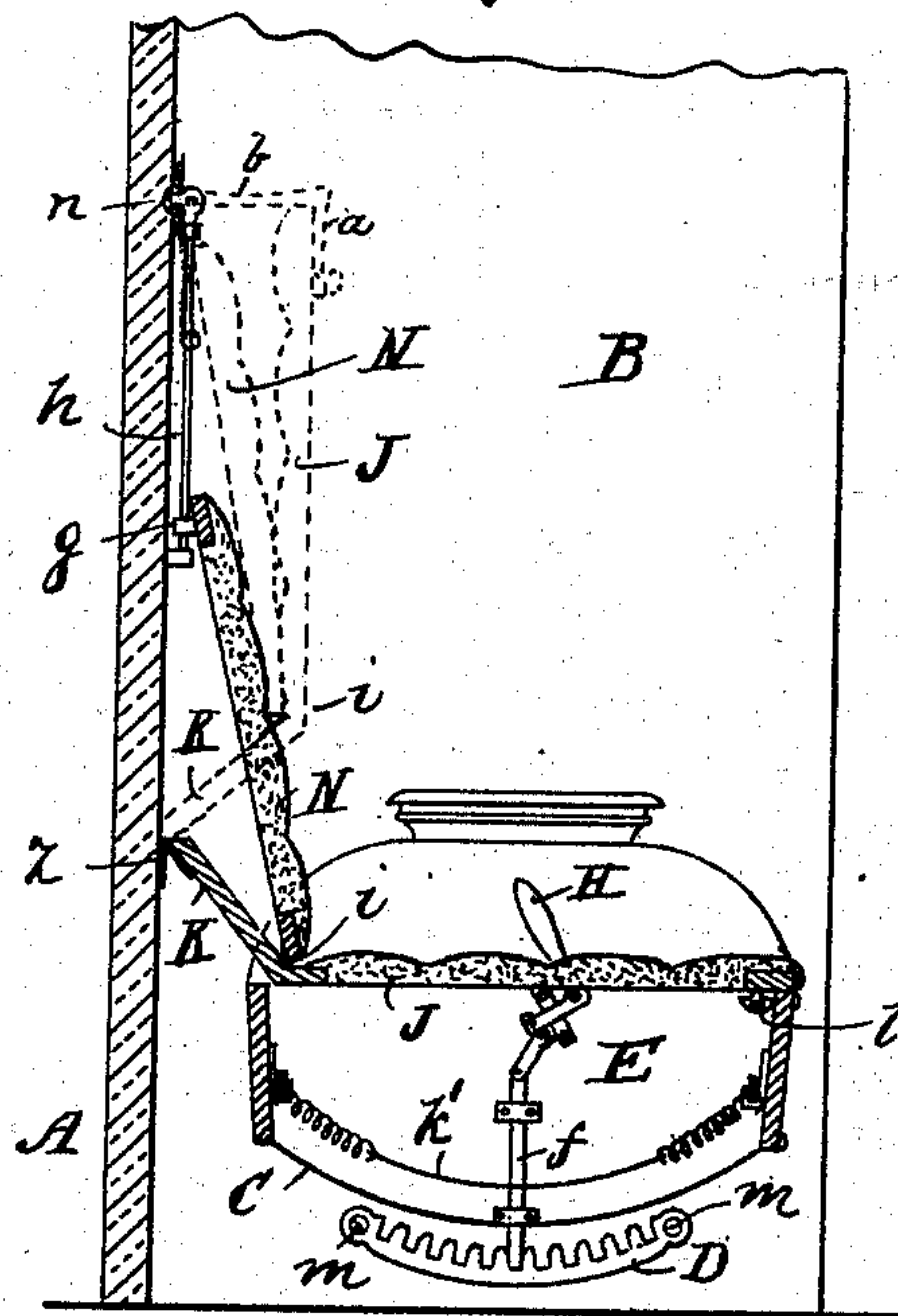


Fig. 3.

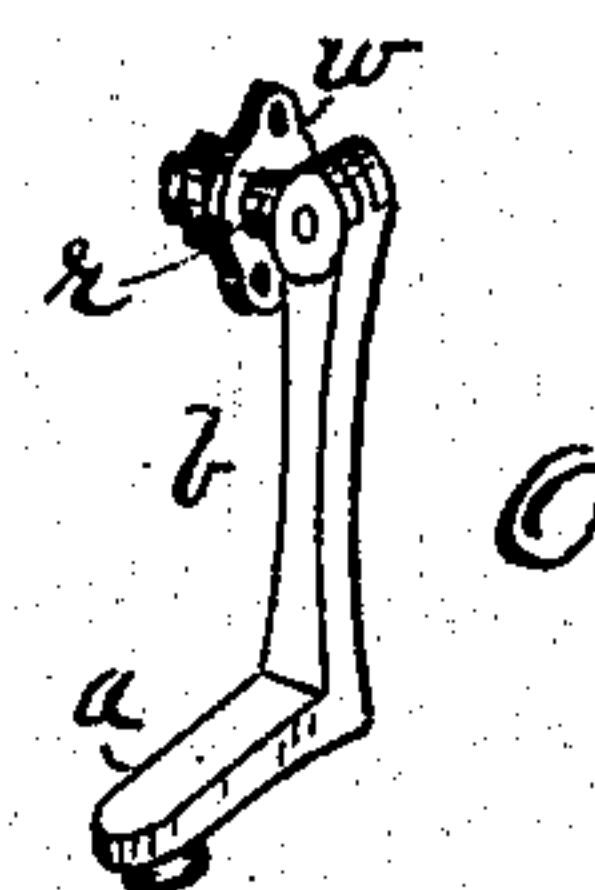


Fig. 4.

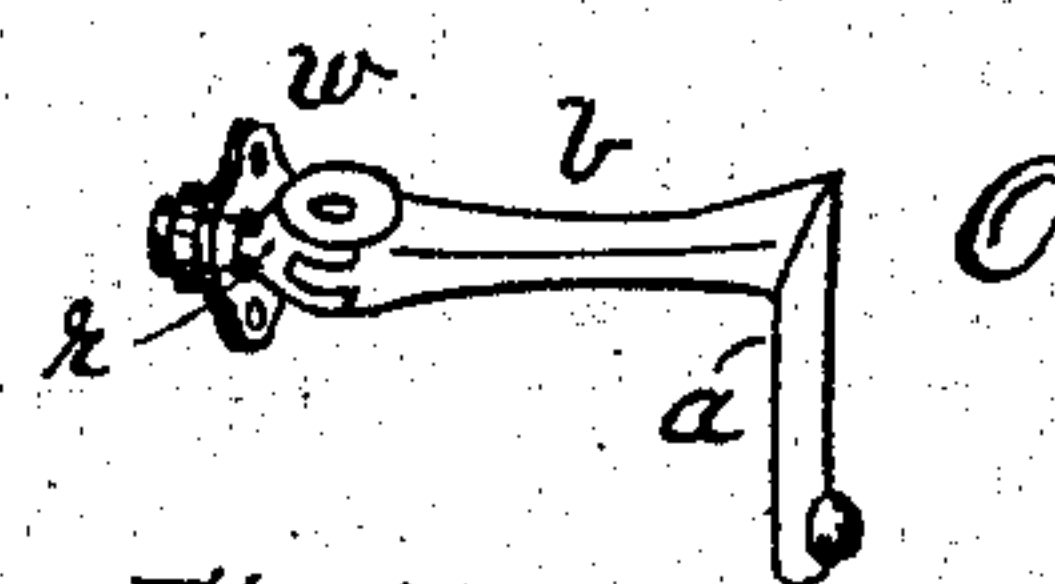
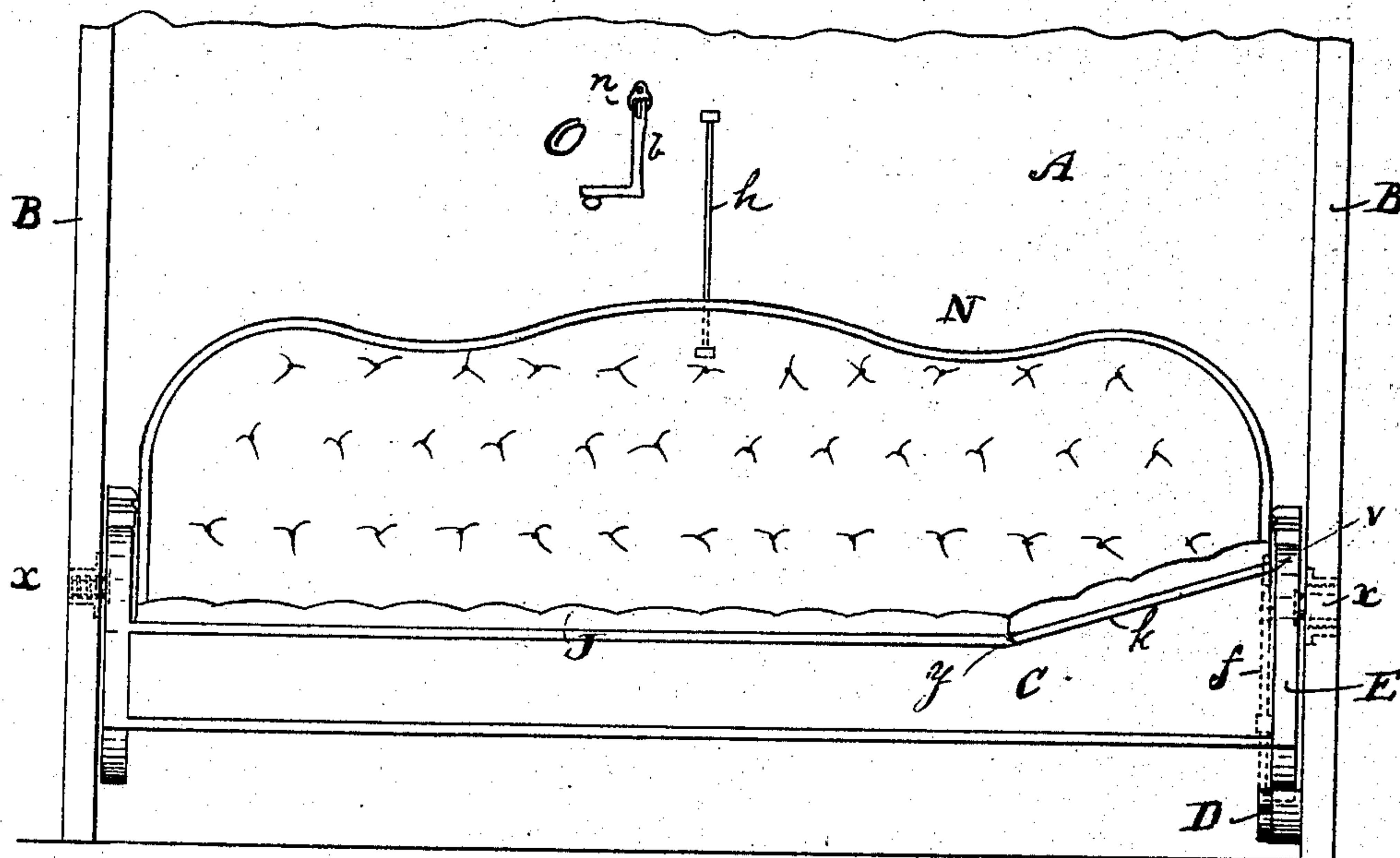


Fig. 2.



Witnesses.

L. Blanka.

L J White

Inventor.

Charles A. Milligan,

Per

C. C. Shaw,  
Attorney.



# UNITED STATES PATENT OFFICE.

CHARLES A. MILLIGAN, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE  
EXCELSIOR SELF LEVELING BERTH AND AUTOMATIC LADDER COMPANY,  
OF PORTLAND, MAINE.

## SHIP'S BERTH.

SPECIFICATION forming part of Letters Patent No. 322,466, dated July 21, 1885.

Application filed May 4, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. MILLIGAN, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Ships' Berths, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical transverse section showing a state-room provided with my improved berth; Fig. 2, a longitudinal section of the same; Fig. 3, a perspective view of the hasp detached and in the position it assumes when not in use; and Fig. 4 a side elevation of the hasp, represented as detached and in the position in which it is placed when in use. Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of ships' berths which swing or are self-leveling; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, the object being to provide a berth which may be readily converted into a sofa or lounge, and vice versa.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the rear side wall of the state-room, and B B the end walls, the front wall and door not being shown.

The berth proper, C, is centrally pivoted at  $x x$  to the walls B B, to swing laterally in the usual manner. A serrated rack, D, is arranged horizontally beneath the head of the berth C, and firmly secured to one of the walls B by screws  $m$ . A bar,  $f$ , is fitted to slide vertically on the head-board or end E of the berth, said bar being adapted to engage the rack D, and provided with a pivoted lever, H, for raising and lowering the same, thereby enabling the berth to be locked or secured in any desired position.

An upholstered top or cover, J, provided with an inclined upwardly-turned projection or flange, K, extending along its rear side, is hinged at  $z$  to the wall A, said cover forming the seat of the sofa or lounge when it is lowered or depressed, as best seen in Fig. 1. The cover J is provided with a head-piece,  $k$ , which is hinged to the body of the cover at  $y$ , its outer or free end resting on a vertically-adjustable shoulder or ledge,  $v$ , on the end E of the berth C when the cover is in position for use, thereby enabling said head-piece to be elevated, as desired. The flange K extends the entire length of the cover, but is not directly connected with the head-piece  $k$ , thus permitting the head-piece to be raised and lowered independently of said flange.

The back of the sofa or lounge consists of an upholstered board or frame-work, N, extending longitudinally of the berth, the lower edge of said back being hinged to the top J at or near the angle  $i$ , or at the point where the flange K joins the body J. The upper portion of the back is provided with an eye or loop,  $g$ , on its rear side, said loop being fitted to slide on a vertical guide-rod,  $h$ , attached to the wall A.

A hasp, O, is secured at  $n$  to the wall A by means of a plate,  $w$ , and bolt  $r$ , the bolt passing loosely through said plate and being headed on the inner side of the same. The body  $b$  of the hasp has its inner end jointed to the bolt  $r$ , and is provided at its outer end with an arm,  $a$ , standing at a right angle to said body and adapted to pass over the edge of the back N and secure it when elevated, as shown by the dotted lines in Fig. 1. When the arm  $a$  of the hasp is arranged vertically and engaged with the cover N, as shown in Fig. 1, its body  $b$  cannot be raised vertically without first swinging or moving said arm into a horizontal position, as shown in Fig. 3, this being permitted by the bolt  $r$  turning in the plate  $w$ , and hence the hasp is not liable to become disengaged from the cover accidentally and allow the same to fall.

In the use of my improvement when it is desired to convert the berth into a sofa or



lounge it is locked to prevent it from swinging by forcing down the bar *f* into engagement with the rack D, after which the seat J is unhasped and lowered into a horizontal position where it is permitted to rest on the top of the berth C. As the seat is lowered, the back N slides down the rod *h* and assumes a nearly vertical position, with its lower edge resting on the seat at the angle *i*.

The mattress and other bedding rest upon a series of spring-supports, *k'*, in the body of the berth C, but are not shown in the drawings, as they would obscure the other parts.

The inclined flange K serves to cause the lower side of the back N to assume a correct position when the cover is lowered, and also throws the lower-portion of the body of the cover away from the wall A to form a receptacle for said back when the cover is raised into a vertical position.

It will be obvious that the cover J, when it is raised, passes through the arc of a circle of which the hinge *z* is the center, and as said hinge is disposed above the plane of the body of the cover when the cover is depressed, the flange K and back N will be elevated to such an extent above the berth C, by raising the cover, as to be out of the way of said berth, and not interfere with its oscillating movements, the flange K subserving to accomplish this important result. I do not, however, confine myself to the use of said flange or the means shown for locking the berth. Neither do I confine myself to the use of the hasp O, as any other suitable device adapted to perform the same functions may be employed in its stead; nor to using the hinged cover J and sliding back N with a ship's berth only, as they may be used to form a sofa or lounge without the berth by employing legs or any other suitable support for the front of the cover when it is lowered.

Having thus explained my invention, what I claim is—

1. In a self-leveling ship's berth, a berth proper suspended in the state-room and adapted to swing laterally, a device for locking said berth to prevent it from swinging, a cover to the berth adapted to form the seat when the berth is converted into a sofa or lounge, and a board or frame-work hinged to said cover and sliding vertically against the rear wall of the state-room as the cover is raised and lowered, and to form the back of the sofa or lounge, substantially as described.

2. The sliding back N and hinged cover J, in combination with the wall A, a swinging ship's berth, and means for locking said berth to prevent it from swinging, substantially as set forth.

3. The cover J, hinged to the wall A, and provided with the inclined flange K, in combination with the swinging berth C and means for locking said berth, substantially as described.

4. The wall A, provided with the rod *h*, in combination with the sliding back N, hinged cover J, swinging berth C, and a hasp or means for securing said cover in an elevated position, substantially as set forth.

5. The swinging berth C, provided with the bar *f* and lever H, the wall B, provided with the rack D, the wall A, provided with the rod *h*, the hinged cover J, sliding back N, hinged to said cover, and a hasp or means for securing said cover in an elevated position, combined and arranged to operate substantially as set forth.

6. The hasp O, consisting of the body *b*, provided with the arm *a*, and hinged to the revolvable bolt *r*, in combination with the wall A, hinged cover J, sliding back N, and swinging berth C, substantially as described.

CHARLES A. MILLIGAN.

Witnesses:

C. A. SHAW,  
L. J. WHITE.