(No Model.)

J. S. FARLOW.

BUNKER COVER FASTENER.

No. 458,525. Patented Aug. 25, 1891.

Fig: 1.

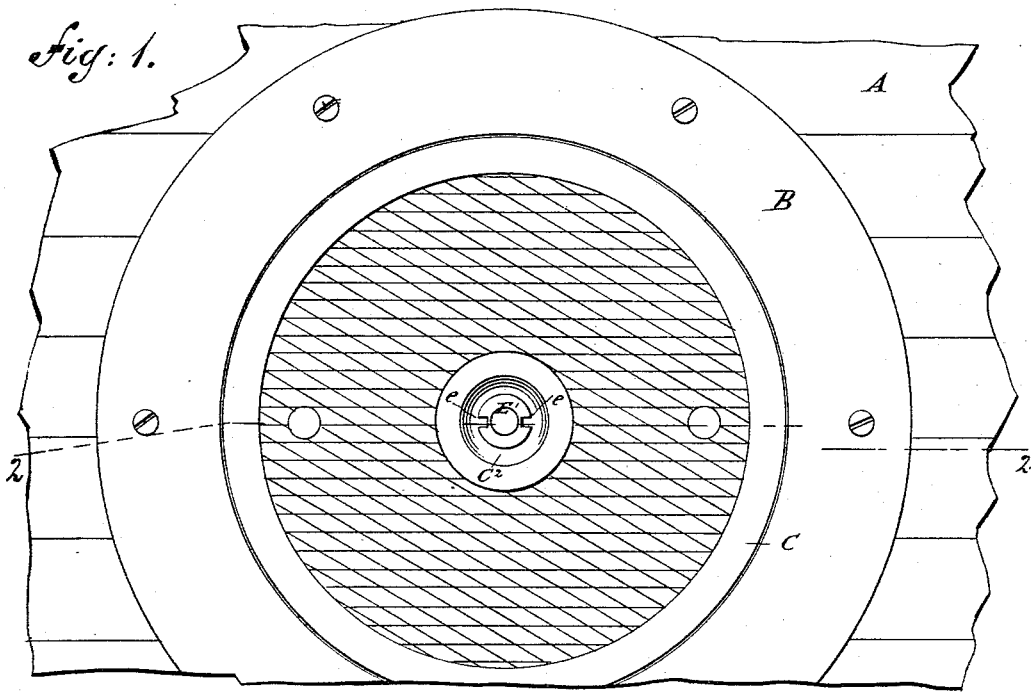


Fig: 2.

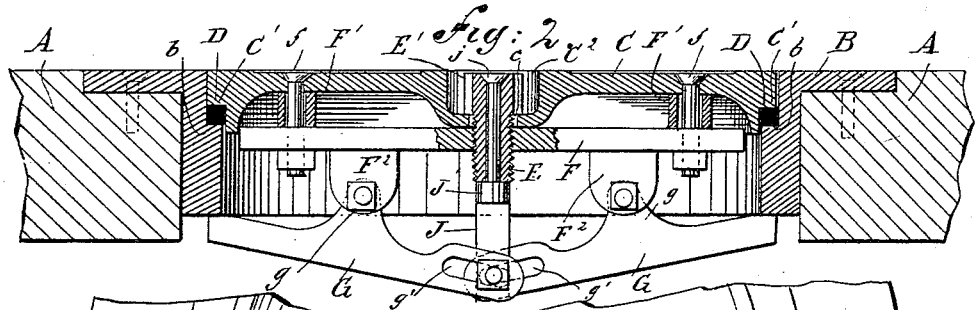
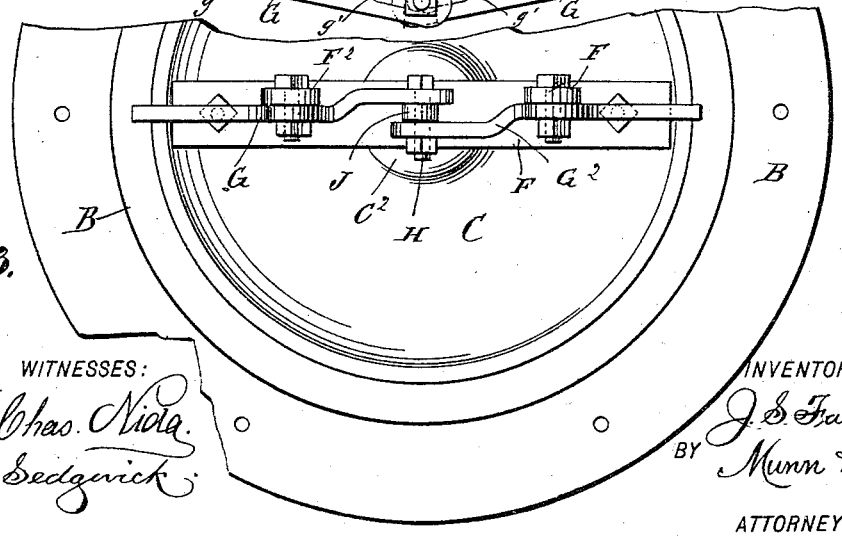


Fig: 3.



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JOHN S. FARLOW, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THOMAS A. SMYTH, GEORGE A. SMYTH, CHARLES STEWART, AND SADIE LIMERING, ALL OF SAME PLACE.

BUNKER-COVER FASTENER.

SPECIFICATION forming part of Letters Patent No. 458,525, dated August 25, 1891.

Application filed February 27, 1891. Serial No. 383,658. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. FARLOW, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Bunker-Cover Fastener, of which the following is a full, clear, and exact description.

My invention relates to improvements in fasteners for bunker-covers and scupper-hatches, such as are used on sea-going vessels, although the fastener may be advantageously applied to covers for other openings. It is difficult to secure a bunker-cover in place so that it will be water-tight, as the concussion of air caused by the fall of the vessel in the sea and the shifting of coal in the bunker presses with great force on the cover and tends to lift it from the opening in the bunker.

The object of my invention is to produce a simple fastening by means of which the bunker-cover may be securely held in place and which may also be applied to other covers.

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

Figure 1 is a broken plan view showing the cover secured in position on a deck. Fig. 2 is a cross-section of the same on the line 2 2 of Fig. 1, and Fig. 3 is a broken inverted plan of the fastener as attached to a bunker cover and ring.

A represents the deck of a vessel, and B the bunker-ring, which is let into the deck in the ordinary way, and which has a shoulder *b* on the inside to support the cover C, which has a similar shoulder C′ to rest upon the shoulder of the ring, the shoulders being adjusted so that the top of the cover will be flush with the deck. A rubber gasket D is inserted between the cover and ring to prevent leakage. In the center of the cover is a chamber C^2, which is adapted to receive the head E′ of the nut E, and the inner wall of the chamber is perforated, as shown at *c*, so that the nut may be extended down through it, and the thickness of the nut-head is such that when screwed down closely it will be flush with the top surface of the cover. The nut-head has recesses *e* on opposite sides, so that a spanner may be inserted therein and the nut easily turned. A cross-bar F extends centrally across the under side of the cover C, and is held thereto by bolts *f*, suitable washers F′ being inserted between the bar and cover, so as to hold them a requisite distance apart, and on the under side of the cross-bar near opposite ends are depending ears F^2, to which the levers G are pivoted. The cross-bar has also a central perforation which is screw-threaded and in which the nut E turns.

In the drawings I have shown the cross-bar and cover made in separate pieces, as the cross-bar and attachments may be applied to old covers; but when new covers are made and provided with my fasteners the cross-bar and cover will be made in a single piece.

The levers G have ears *g* on their upper sides, which extend from the central part of the levers, the ears being pivoted at their upper ends to the ears F^2 of the cross-bar F. The levers G are long enough so that their outer ends project beyond the inner edge of the ring B when the cover is in position on the ring, and the inner ends of the levers are slotted, as shown at *g′*, and are connected to a post J by a bolt H, the levers being bent in opposite directions near their inner ends, so that they may be conveniently secured to opposite sides of the post. By having the inner ends of the levers slotted as described they are enabled to move on the bolt H when the post J is moved vertically, and the levers are thus easily adjusted. The post J extends upward and has a shoulder J′, which abuts with the lower end of the nut E, the upper end of the post being reduced and formed into a shank *j*, which extends upward through the center of the nut E and is held loosely therein, so that when the nut is turned and raised or lowered the post will not be turned, but will move vertically with the nut.

The operation of the device is as follows: We will suppose that the nut E is raised and that the inner ends of the levers G are in an elevated position. The cover is placed in the ring B with the parts in the position described and the nut E is then turned down, and this movement pushes the post J and the

inner ends of the levers G downward, thus raising the outer ends of the levers and causing them to impinge on the lower edge of the ring B. As the nut is tightened, these outer ends of the levers will be forced firmly against the ring, and it will be seen that the cover will be thereby held securely in place. To remove the cover, the above movements are reversed, and it will be noticed that the levers G are pivoted at a point somewhat higher than the lower edge of the ring B, so that when the outer ends of the levers are forced downward they will swing inward from the ring, thus permitting of the removal of the cover.

I have shown the invention as applied to a bunker-cover; but it is obvious that the fastening may be used for securing any cover or hatch in place.

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

1. The combination, with a cover-plate, of levers pivoted on the under side of the same, said levers having their inner ends loosely connected and having their outer ends extending beyond the cover-plate edge, and means for moving the inner ends of the levers, substantially as described.

2. The combination, with a cover, of a post held to move perpendicularly to the cover-plate and levers pivoted on opposite sides of the post, said levers having their outer ends extending beyond the cover-plate edge and their inner ends loosely secured to the post, substantially as described.

3. The combination, with a cover-plate, of a post held to move perpendicularly thereto, a screw-mechanism for moving the post, and levers pivoted on opposite sides of the post, said levers having their outer ends arranged to extend beyond the edge of the cover-plate and having their inner ends loosely secured to the post, substantially as described.

4. The combination, with a cover-plate, of a nut mounted centrally therein, a post held loosely in the nut, and levers pivoted on opposite sides of the post, said levers having their outer ends extending beyond the edge of the cover and their inner ends secured to the post, substantially as described.

5. The combination, with a cover-plate of the character described, of a nut centrally mounted therein, a post pivoted in the nut, and levers pivoted on each side of the nut, said levers having their outer ends extending beyond the cover-plate edge and their inner ends slotted and secured to opposite sides of the post, substantially as described.

6. The combination, with a cover-plate having a central slotted chamber therein and a cross-bar secured to the cover-plate beneath the chamber, of a nut mounted in the chamber and cross-bar, a post pivotally secured to the nut, and levers pivoted on opposite sides of the post and having their inner ends secured thereto, substantially as described.

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Witnesses:
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