No. 833,058. PATENTED OCT. 9, 1906.

J. KIDD.

HATCH COVER FOR SHIPS.

APPLICATION FILED DEC. 13, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

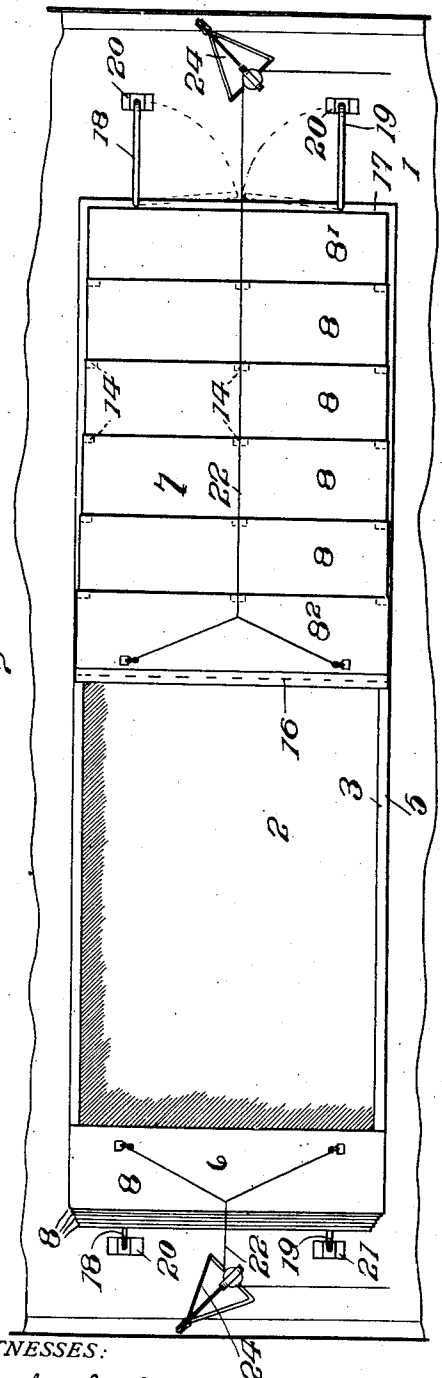
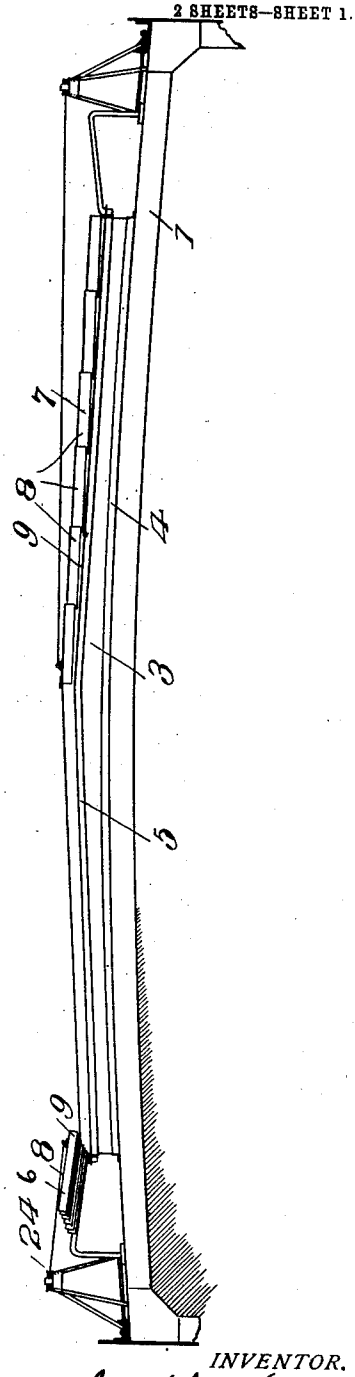


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

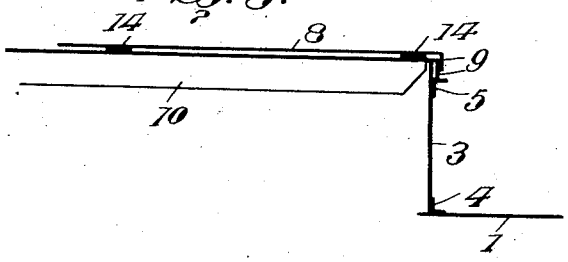


Fig. 4.

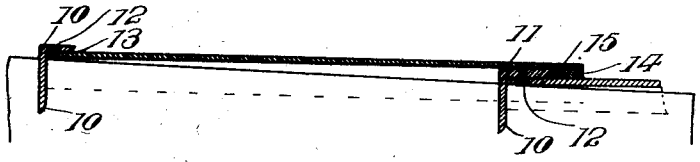
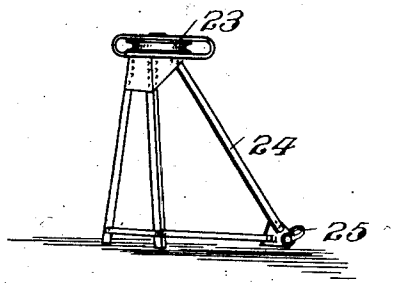


Fig. 5.



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HATCH-COVER FOR SHIPS.

No. 833,058. Specification of Letters Patent. Patented Oct. 9, 1906.

Application filed December 13, 1905. Serial No. 291,582.

To all whom it may concern:

Be it known that I, JOSEPH KIDD, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Hatch-Covers for Ships, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in hatch-covers for ships, and pertains more particularly to those of telescoping form.

The object of my invention is to provide a sectional hatch-cover of the telescopic form, which is of a simple construction and one that will acquire and maintain its normal condition with as little friction as possible during its operation. I also provide a hatch which is practically water-tight or as nearly so as possible when in place.

Another object of my invention is to provide a means for handling hatches of this character.

Referring now to the drawings, Figure 1 is a top plan view of a portion of the deck of a vessel, showing one half of the hatch-covering closed and the other half open. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is an enlarged transverse sectional view taken through the coaming, showing the details of construction. Fig. 4 is a detail sectional view of the connections between the several sections. Fig. 5 is a side elevation of the tripod for handling the telescoping sections.

Referring now to the drawings, 1 represents the deck of a vessel, which is provided with the usual hatch-opening 2, which is surrounded by the vertically upwardly extending coaming 3, which is made of steel, and is securely fastened to the deck by the angle-bar 4, which extends entirely around the coaming and by means of which the same is rigidly secured in the vertical position. The upper edge of the hatch is provided with a second angle-bar 5, which entirely surrounds the coaming and is an equal distance below the upper edge thereof all the way around. The said angle-bar serves a function to be hereinafter more fully described.

The upper edge of the coaming 3 is made smooth, so as to allow the free movement of the sections of the covering thereon, which I will now proceed to describe. The said coaming, as shown, slopes slightly toward the ends from the center, and the covering is formed of two parts 6 and 7, the part 6 covering one half of the hatch-opening and the part 7 covering the other half. Each part is made up of a number of sections telescoping each other.

I will now proceed to describe one part of the covering, it being understood that both parts are made precisely alike, and the same reference-numerals apply to similar parts on both parts of the hatch-covering. Each part of the hatch-covering is made up of a series of sections 8, which start with the extreme outer section 8′, and each section is made slightly larger than the succeeding section and the inner section 8^2 being the largest of all. The ends of each section are provided with the downwardly-extending flanges 9, which extend over the upper edge of the coaming. The lower face of section 8′ rests partly upon the upper edge of the coaming, and the downwardly-extending flange 9 rests upon the angle-bar. The succeeding sections 8′ to 8^2, inclusive, telescope each other, and the flanges 9 thereof extend downwardly over the flange 9 of the succeeding section. When the sections are in their extended position, it will be seen that the angle-bar 5 is of such a width that it extends outward beyond the flanges 9 of the sections, and thus prevents water, &c., from passing upwardly through the space between the overlapping flanges.

The inner end of each section is provided with the angular face-plate 10, which has the double function of first strengthening the edge of the section, and, secondly, serving as a stop to engage the section below it and causing the telescoping of the sections, as will be hereinafter described. The said face-plate, as shown, has its upper end 11 extended over the upper face of the section and is secured thereto by rivets 12. The outer end of said laterally-turned portion 11 is beveled at 13 for the purpose hereinafter described. The opposite end of the section is provided with binding-clips 14, which, as shown, are three in number; but any desired number may be used. The said clips, as shown are secured to the lower face of the sections, and rest

upon the upper face of the section, which it telescopes. The inner ends or edges of said clips 14 are beveled at 15 and are adapted to engage the beveled edge 13 of the face-plate 10 of the section which it telescopes, and thus when the sections are in their extended position they are securely locked together. The bevel of the face-plates and the clips tend to firmly hold the sections in a downward position upon each other and make a tight joint between the sections.

The section 8^2 of one part of the hatch-covering is provided with an inwardly-extending flange 16, which extends over the section 8^2 of the other half of the section and forms a water-tight joint between the two halves of the covering. The section 8′ at the outer side is provided with a downwardly-extending flange 17, which forms a stop for the section, and thus prevents all of the sections from being moved inward too far. Said flange engages the coaming at the end of the hatch on the outside thereof.

In order to provide means for allowing each and all of the sections to pass out beyond the hatch-opening, and thus open the entire hatch, I provide two inclined supports or chairs 18 and 19, which are pivotally mounted in the angle-bars 5 at the end of the hatch. The said supports or chairs 18 and 19 are inclined for the purpose of preventing the section of the hatch from sliding off of the same. The outer ends of said chairs are adapted to enter steps 20 and 21, carried by the deck, and to be held therein when in use. When not in use, they are swung around, as shown in dotted lines, Fig. 1, on the right; but when in use are adapted to support all of the sections in their telescoped position, as shown in the left of Fig. 1.

The inner sections 8^2 of each half of the covering are secured thereto by the cables 22, which pass over the several sections and around a pulley 23 in the tripod 24, and said cables are adapted to be operated in any desired manner. The tripod, as shown, is of a length greater than that of the coaming at the ends or of such a height that a straight horizontal pull on the cable is exerted from the pulley to the attachment of the cable with the section 8^2. The said tripod is provided with a swiveled eye 25, by means of which it is secured to the deck, and thus the tripod is allowed to swing in either direction to assume a straight pull.

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

1. In a sectional telescopic hatch-cover, the combination of adjustable and downwardly inwardly inclined chairs or supports, and a portable sheave-carrying tripod as and for the purpose described.

2. A sectional telescopic hatch-covering having beveled cleat-interlocking means, of an inwardly downwardly inclined chair for supporting the hatch.

3. The combination with a hatch-coaming, of telescoping sections covering the same and overlapping the coaming, and an angle-bar surrounding the coaming and extending outwardly below the overlapping portion of the sections for preventing the water from passing upward under the flanges of the sections.

4. The combination with a hatch-coaming, of telescoping sections supported by the coaming, wedging members carried by the upper and lower faces respectively of said sections and adapted to interlock with each other when in their extended position, and means for operating said sections.

5. The combination with a hatch-coaming, of telescoping sections supported thereby and having flanges carried by the ends and extending down over the coaming, downwardly-extending clips carried by the outer lower faces of the sections and downwardly-extending strips carried by the inner ends of said sections whereby the sections are interlocked in the outward position and adapted to cause the telescoping of the sections.

6. The combination with a hatch-coaming, of telescoping sections supported thereby, pivoted chairs carried by the coaming and adapted to be swung outwardly and supported in steps carried by the deck, a tripod pivotally supported by the deck adjacent the chairs, and a cable secured to the inner sections of the covering and passing around a pulley in the tripod.

7. The combination with a hatch-coaming, of telescoping sections supported by the coaming, strips extending respectively across the upper and lower faces of said sections and having wedge-shaped faces and adapted to interlock with each other when in their extended position, and means for operating said sections.

8. The combination with a hatch-coaming, of sections of graduated widths and having downwardly-turned flanges carried by the sides and overlapping each succeeding section, strips extending respectively across the upper and lower faces of said sections adjacent the ends, and having wedging transverse faces adapted to interlock with each other when the sections are in their extended position.

9. The combination with a hatch-coaming, of sections of graduated widths and having downwardly-turned flanges carried by the sides and overlapping each succeeding section, strips extending across the upper and lower faces of said sections adjacent the ends, and having wedging transverse faces adapted to interlock with each other when the sections

are in their extended position, pivoted chairs carried by the coaming and adapted to be swung outwardly and supported in steps carried by the deck, a tripod pivotally supported by the deck adjacent the chairs, and a cable secured to the inner sections of the covering and passing around the tripod.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH KIDD.

Witnesses:
FRED P. HOUGHTON,
EDWARD MORTON.