Aug. 23, 1927. 1,640,188

J. F. GRUNBOCK

WEATHER GUARD FOR HATCHWAYS

Filed Oct. 11, 1926

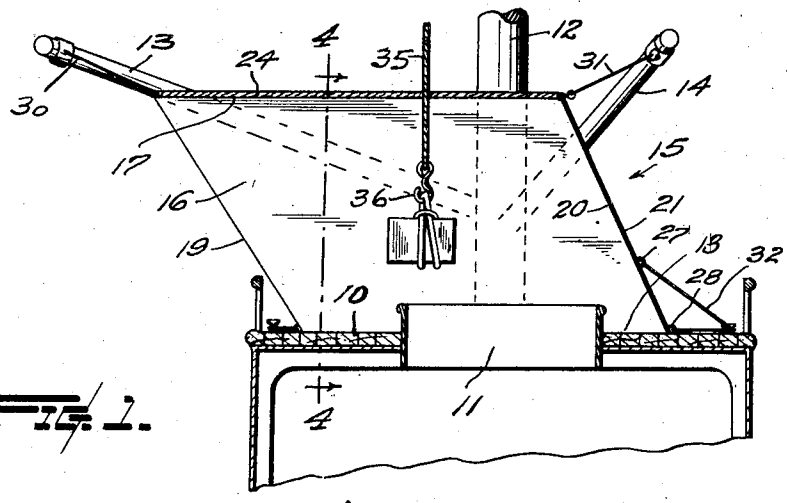


FIG. 1.

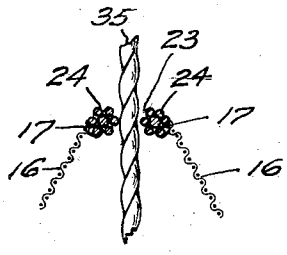


FIG. 3.

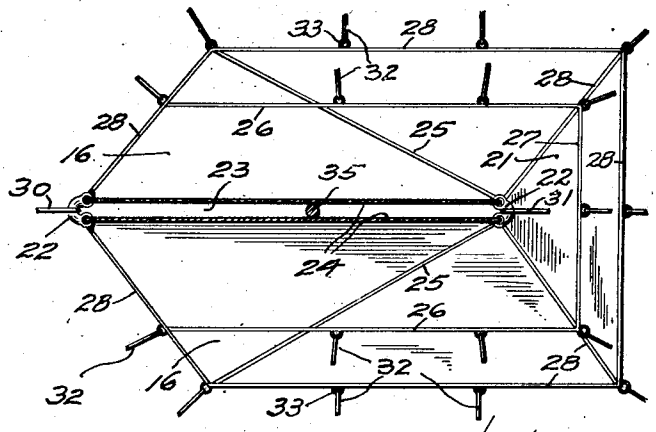


FIG. 2.

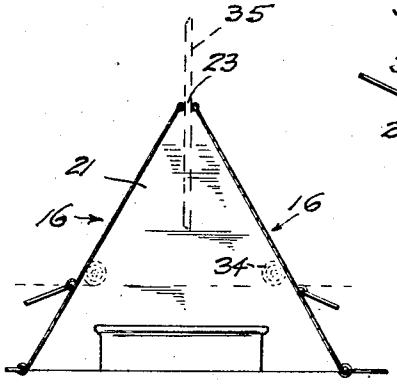


FIG. 4.

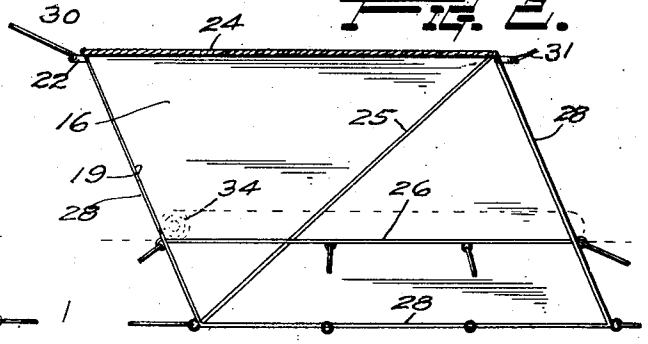


FIG. 5.

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UNITED STATES PATENT OFFICE.

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WEATHER GUARD FOR HATCHWAYS.

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This invention relates to devices for excluding rain, snow and the like from open hatchways of vessels in the loading and discharging of cargo.

Devices of this character as now constructed are found to be objectionable as they are unyielding to the pendulum-like movement of a hoisting line when loaded which movement is caused by the movement of the vessel due to swell or other causes and it is one of the primary objects of the present invention to so construct a weather-guard that the slot at the top of the device, through which the hoisting line passes will yield or give to accommodate itself to the pendulum-like movement of the hoisting line and thereby prevent tearing the weather-guard from its moorings or otherwise damaging the guard.

A still further object of the invention is to so construct a guard that it may be folded into the smallest possible compass for storing when not in use.

A still further object of the invention is to so construct a weather-guard having the above advantages which will be inexpensive of manufacture, easy of adjustment and highly efficient in operation.

Other objects of the invention will appear as the description proceeds.

The invention consists in the novel construction, adaptation and combination of parts hereinafter described and claimed.

In the accompanying drawing,—

Figure 1 is a view in transverse vertical section of a portion of a marine vessel with a hatchway weather-guard embodying the present invention applied thereto. Fig. 2 is a plan view of the weather guard; Fig. 3 is a side elevation of Fig. 2; Fig. 4 is a transverse section taken substantially on line 4—4 of Fig. 1; and Fig. 5 is a detail transverse vertical section of the upper portion of the weather guard.

In said drawing, the reference numeral 10 represents the deck of a vessel provided with a hatchway 11; and 12 is a mast provided with booms such as 13 and 14 all of which may be of any known or suitable construction and arrangement.

According to the present invention, I provide a tent-like structure 15 of canvas or other suitable material and is preferably formed in transverse section, see Fig. 4, with side walls 16 inclined as in the capital letter A. As shown said side walls have each a rhomboidal configuration—that is to say, with approximately parallel horizontal top and bottom edges 17 and 18; and approximately parallel front and back edges 19 and 20 disposed in inclined relation with respect to said top and bottom edges.

Connecting the side walls at their rear edges 20 is a back wall 21. The back wall 21 is sewed or otherwise secured to the side walls to provide a leak-proof joint at the respective corners. The upper edges 17 of the two side walls are connected together at the ends of the tent as by means of rigid coupling pieces 22, of substantially the shape of a capital letter U; to the arms of which the respective side walls are connected, retaining the latter in such relation as will provide an opening 23, or a ridge-slot as it will be hereinafter termed, between the side walls. At opposite sides of such ridge-slot, the material of the side walls are protected by means of chafing strips 24 whose ends are secured to the coupling pieces and are connected throughout their lengths to the wall edges 17. Said chafing strips are advantageously formed of steel cable to which the walls, 6 may be connected by seizings or otherwise engaging the cable strands at the outer sides of the cables with respect to the ridge slot. The structure as described is desirably reinforced by sewing thereto cords or the like as may be desired. As shown, reinforcing cords are provided as at 25 and 26 for the side walls 16, 27 for the back wall 21, and 28 at the corners and edges. For use, the device is set up above a hatchway 11 as represented in Fig. 1 so as to have the ridge-slot extend transversely of the vessel, and the open front end of the guard protrude, preferably, beyond the side of the vessel toward which loading and unloading of articles is to be effected. For supporting the device in such position the booms 13 and 14 may be utilized after they are suitably regulated to accommodate the ropes 30 and 31 which are connected to the coupling pieces 22 at the front and rear ends of the ridge-slot 23.

The device, furthermore, is held by means of securing ropes such as 32 extending from eye attachments as 33 provided upon the guard walls to suitable rope-attaching means provided upon the vessel. Where it is desirable to diminish the effective height of

the weather guard the walls thereof may be rolled upwardly as denoted by dotted lines 34 in Figs. 4 and 5.

For operation, a hoisting line as 35 which depends from a pulley block upon a boom (not shown) is passed through the ridge slot 23 to carry at its lower end a hook 36 or other known load-attaching means. Being thus arranged, the hoisting line may be actuated by known or suitable power actuated means to lower and raise a load into and from the hatchway of a vessel and also to and from a dock or barge along side of the vessel. In thus raising and lowering cargo, the hoisting line is free to pass vertically through the ridge-slot and which latter permits movement of the hoisting line in carrying loads over the side of the vessel to and from the hatchway. By having the upper portion of the guard protrude beyond the plane of the vessel's side, material is protected from being damaged by rain, etc., throughout its lateral movement above the deck and also, to an extent, when being raised or lowered outside of the vessel.

The construction and manner of using a weather-guard embodying my invention will, it is thought, be understood from the foregoing description.

What I claim, is—

1. A weather-guard comprising a tent-like structure having a rectangular base, the upper edges of the side walls of the tent-like structure being spaced apart for the operation there between of a hoisting line and flexible guard strips adjacent inner upper edges of the side walls.

2. A flexible weather-guard comprising a tent-like structure having a rectangular base and means for introducing a hoisting line through the apex of the structure the apex being reinforced by flexible members.

3. A weather-guard comprising a tent-like structure having a rectangular base, the upper edges of the side walls of the structure being yieldably spaced apart and extending beyond the base of one of the end walls of the structure.

Signed at Seattle Washington, this 4th day of October, 1926.

JOHN F. GRUNBOCK.