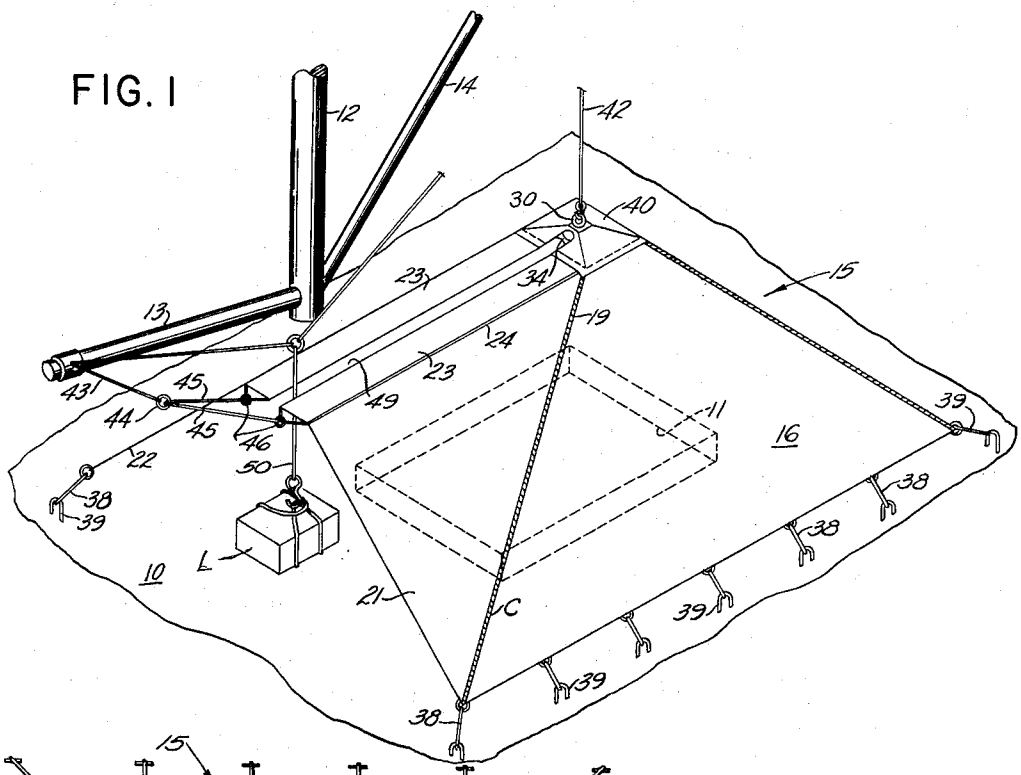
Aug. 26, 1958 F. J. MARINO 2,849,010

CARGO HATCH TENT

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FIG. 1



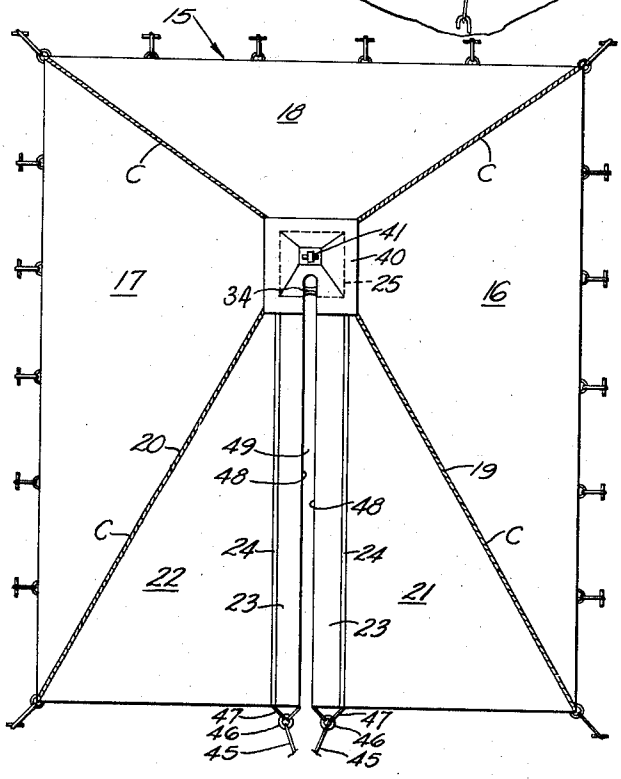




FIG. 2

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CARGO HATCH TENT

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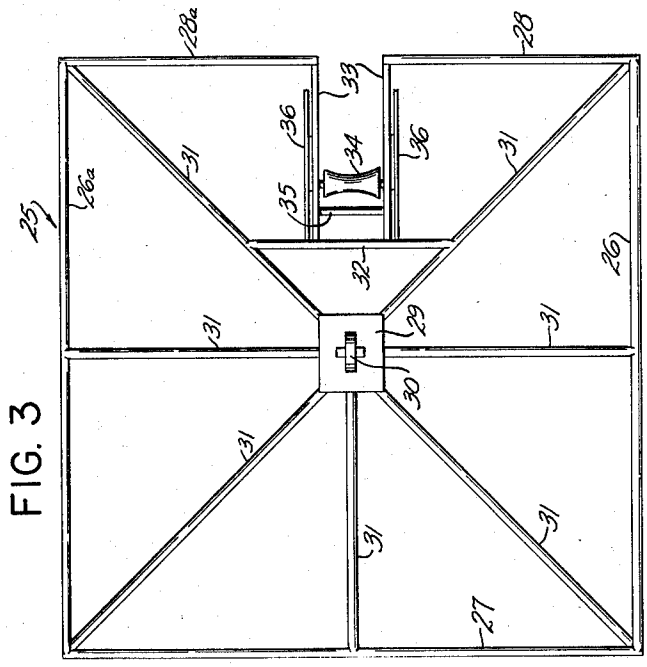



FIG. 3

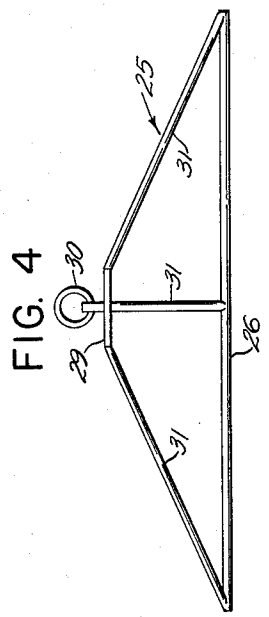



FIG. 4

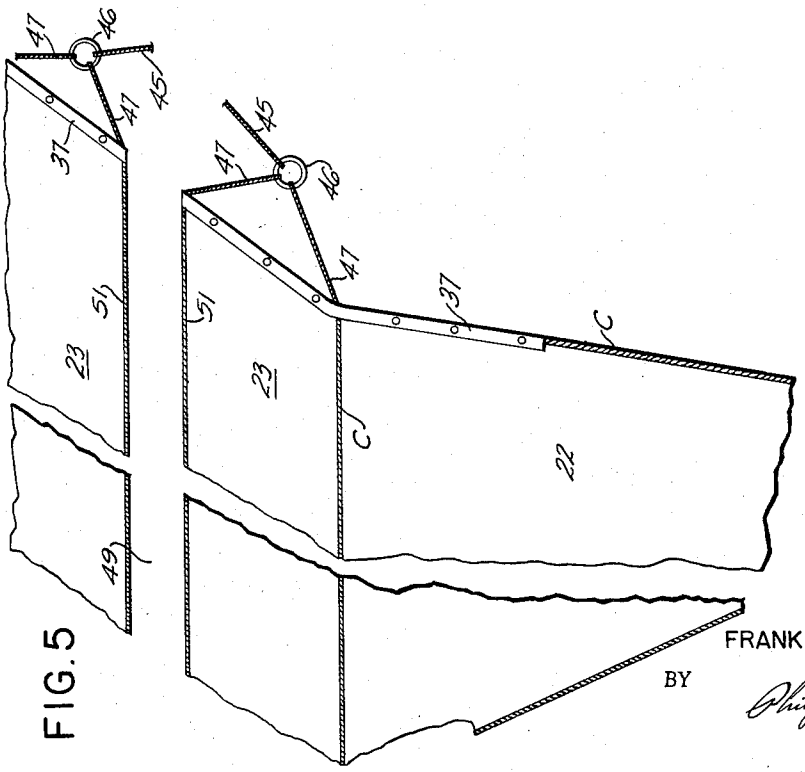



FIG. 5

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2,849,010

# CARGO HATCH TENT

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Application December 24, 1956, Serial No. 630,392

4 Claims. (Cl. 135—1)

This invention relates to tents for excluding rain and snow from open cargo hatches of vessels during the loading and unloading of cargo therefrom.

An object of this invention is to provide an improved cargo hatch tent of a construction which permits the lifting and movement of sling loads to a maximum height within the tent without danger of damaging the tent walls due to engagement of the sling load with such tent walls.

Another object of this invention is to provide an improved tent of the character described, which facilitates loading and unloading operations by reducing interference with the movement of sling loads to a minimum.

A further object of this invention is to provide a cargo hatch tent including a flat crown frame member and fabric tent structure detachably attached to the frame member.

Yet a further object of this invention is to provide an improved cargo hatch tent having diverging side walls interconnected by a flat crown whereby to provide a substantial transverse dimension at the top of the tent to better accommodate sling loads moving into or out of the tent.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

In the drawings, Fig. 1 is a perspective view of a cargo hatch tent embodying the invention;

Fig. 2 is a top plan view thereof;

Fig. 3 is a top plan view of a crown frame forming part of the tent;

Fig. 4 is a side elevational view thereof; and

Fig. 5 is a partial perspective view of the door panel portion of the tent.

Referring in detail to the drawings, and particularly to Fig. 1, **10** designates a deck of a vessel provided with the usual cargo hatch **11** for passing cargo into or out of the hold of the vessel. A mast **12** provided with the usual booms **13**, **14**, is adapted to position over hatch **11**, a tent embodying the invention and generally indicated at **15**. Such tent is positioned over hatch **11** in the event of rain or snow during loading or unloading operations, serving to protect the hold against adverse weather conditions.

The tent **15** is made of heavy canvas or other suitable fabric and comprises a pair of trapezoid shaped side panels or walls **16**, **17** interconnected at their rear edges by a trapezoid shaped back panel **18**. Extending from the forward edges **19**, **20** of side panels **16**, **17** respectively, are triangular shaped door panels **21**, **22**. Each of the door panels **21**, **22** includes a rectangular shaped flap **23** extending from the top edges **24** of said panels.

The tent **15** includes a crown frame generally indicated at **25**. Such frame **25** is made of rigid metal bar stock in rectangular form, including side members **26**, **26***a* interconnected by a back member **27**, by welding or the like. A pair of front members **28**, **28***a* extend from side members **26**, **26***a* respectively, in aligned relation and with their ends in opposed, spaced relation. A flat suspending plate **29** with a suspending ring **30** mounted thereon, is located interiorly of members **26**, **26***a*; **27**; **28**, **28***a* and is connected thereto by struts **31**. A cross member **32** extending between front struts **31**, serves to interconnect the ends of a pair of parallel bars **33** which extend forwardly to the ends of front members **28**, **28***a* respectively and secured thereto, by welding or the like to provide a throat.

A concave type roller **34** is rotatably mounted between bars **33** on suitable bushing means, together with a lift bar **35**, also extending between said bars **33**. The frame **25** further includes attachment bars **36** fixed to bars **33** inwardly thereof and in slightly spaced relation thereto.

The tent **15** is detachably mounted on frame **25** by suitably lashing the top edges of panels **16**, **17** and **18** to frame members **26**, **26***a* and **27**. The rear end edges of door flaps **23** are similarly lashed to frame members **28**, **28***a* of frame **25**. The door flaps **23** are maintained in a horizontal position, when tent **15** is properly positioned over hatch **11**, by angle reinforcing members **37** suitably secured to forward edge portions of flaps **23** and door panels **21**, **22**. The edges of the panels **16**, **17**, **18**, **21**, **22** and flaps **23** may be corded as at C for reinforcement, in a manner known in the art. Anchor cords **38** extending from the bottom edges of panels **16**, **17** and **18**, at spaced intervals, provides means for attaching the tent **15** to cleats or the like **39** on deck **10**.

A cover **40** of canvas or the like, is detachably attached over frame **25**, said cover being of generally rectangular shape and overlapping at its peripheral edges, the top edges of tent panels **16**, **17**, **18** and flaps **23**. Cover **40** is suitably lashed in place on said frame **25**, with a slotted portion of said cover being attached at edge portions thereof, to attachment bars **36**. An opening **41** on a central portion of cover **40** passes ring **30** therethrough.

When tent **15** is to be positioned over hatch **11**, said tent is hoisted into position by boom tackle, not shown, which engages lift bar **35** on frame **25**. A rope **42** depending from boom **14** engages ring **30** to suspend the tent in proper position. A rope **43** extending from boom **13** is provided with a ring **44** through which slidably passes a cord **45** having rings **46** secured to the ends thereof. A cord **47** passes freely through each of rings **46**, the ends of cords **47** being secured to the opposite ends of forward edge of door flaps **23**, said flap edges being reinforced by the horizontally disposed arms of angle members **37**. With rope **43** in a taut condition, tent **15** is in proper position, door flaps **23** being horizontally disposed throughout the length thereof.

It will be apparent from a consideration of Fig. 1, that the opposed edges **48** of flaps **23** are in spaced relation to provide a longitudinally extending slot **49** which communicates at the rear thereof with the space between frame bars **33**. Thus, the suspending rope **50** of a sling load L may pass therethrough as said load is hoisted from or lowered into hatch **11**. It is understood that rope **50** is manipulated in a known manner, by means not shown to effect the desired vertical and horizontal movements of load L, cords **45** being of a length sufficient to allow adequate forward movement of load L.

Inasmuch as tent **15** has a substantially flat crown structure, the side walls **16**, **17**, as well as end wall **18**, are well spaced from each other at the top of the tent, thus allowing loads L to move in proximity to the top of the tent without danger of engaging and tearing said tent walls. With a greater utility of the upper portions of the tent, manipulation of the ropes controlling the various movements of sling load L in its passage to and from hatch **11**, is substantially simplified.

The tent structure may be easily and quickly detached from crown frame member **25** to permit repair or replacement of the canvas structure or portions thereof. Also, while the tent structure is being repaired, a replacement tent may be associated with frame **25**.

The opposed edges of door flaps **23** are reinforced by cords **51** to prevent undue chafing arising from the movements of rope **50** in slot **49**. The rearward movement of rope **50** is limited by roller **34**.

As various changes might be made in the embodiment of the invention herein set forth without departing from the spirit thereof, it is understood that all matter shown herein shall be deemed illustrative and not by way of limitation except as set forth in the appended claims.

Having thus disclosed my invention, I claim as new and desire to protect by Letters Patent:

1. A tent for suspension over a cargo hatch in a vessel deck, comprising a top frame of rectangular form in plan and including a pair of parallel opposite side bars, a rear bar normal to said side bars, and a pair of front bars parallel with said rear bar and having the adjacent ends thereof in spaced relation, and a pair of parallel bars extending inwardly from said adjacent ends of said front bars toward the center of the frame, a pair of trapezoidal shaped flexible side panels having their upper edges secured to said side bars, a trapezoidal shaped flexible rear panel having its upper edge secured to said rear bar, a pair of triangular shaped flexible front panels each having at its upper edge an elongated flap substantially in the plane of said bars and having one end thereof secured to one of said front bars, said flaps having their adjacent edges in spaced relation providing a slot extending between the bars of said inwardly extending pair thereof, for passage of a load supporting rope from the exterior of the tent to a position over said hatch, means securing the adjacent edges of said panels together, and means for securing the bottom edges of the opposite side and rear panels to the vessel deck.



2. A tent according to claim 1, wherein said frame is of generally truncated pyramidal form in side elevation and which frame further comprises a plurality of bar struts having the corresponding ends thereof secured to said side, rear and front bars, said struts extending upwardly and inwardly from said bars and having their upper ends connected by a rectangular plate provided with a suspension rope-engaging ring.

3. A tent according to claim 2, wherein said frame further comprises a cross bar disposed normal to the inner ends of said pair of bars and secured thereto, a roller disposed between the bars of said pair thereof for limiting the inward movement of a cargo transporting rope through said slot, and a tent lift bar between said cross bar and said roller.

4. A top frame for use in a tent for suspension over a cargo hatch in a vessel deck, said frame being of rectangular form in plan and including a pair of opposite side bars, a rear bar normal to said side bars, and a pair of front bars parallel with said rear bar and having the adjacent ends thereof in spaced relation, a pair of parallel bars extending inwardly from said adjacent ends of said front bars toward the center of the frame, a plurality of bar struts having the corresponding ends thereof secured to said side, rear and front bars, said struts extending inwardly toward the center of the frame, plate means connecting the inner ends of said struts, and rope engaging suspension means on said plate means.

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