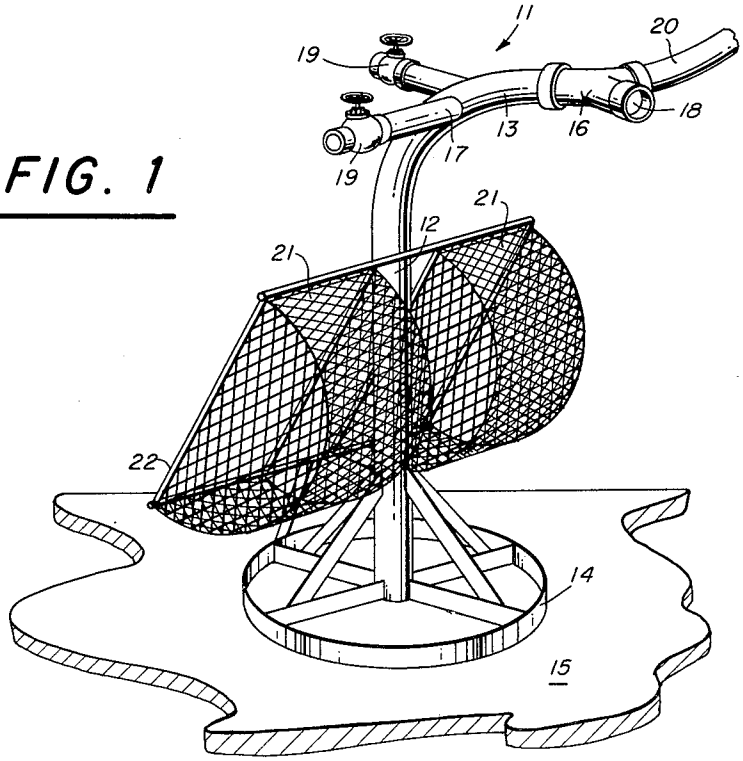
March 2, 1965 H. C. LOVELL ET AL 3,171,430

MODIFIED PORTABLE WET STANDPIPE FOR FIRE PROTECTION ABOARD SHIP

Filed May 27, 1963

FIG. 1



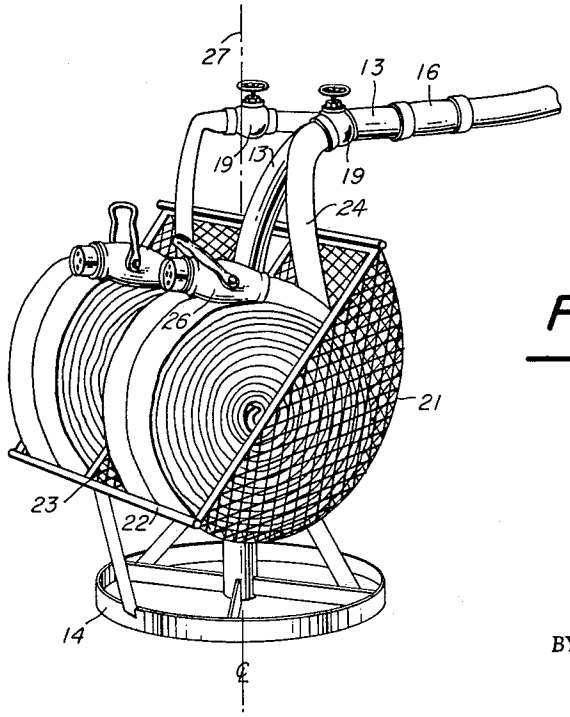


FIG. 2

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MODIFIED PORTABLE WET STANDPIPE FOR FIRE PROTECTION ABOARD SHIP

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The invention described herein may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

This invention relates to fire fighting equipment for use aboard ships in dock during repairs or construction work. More specifically it relates to a portable wet standpipe system or apparatus adapted to be located at any strategic position on a ship.

At dockside or in drydock a feeder hose or pump pressure water supply source for fire fighting aboard ship is usually provided by means of one or more hose lines to and through the area to be protected. Sometimes all the lines are normally alive with pressure while other systems provide water pressure from the supply source which is valve controlled at a central point and divided for distribution through additional local lines not maintained under presusre. Even in the latter case the tendency is to have the local lines strewn about the deck in strategic locations for emergency fire protection. Unfortunately such hoses are exposed to wear and tear by the construction crew operations so that most likely the lines are either already rendered useless by injury or so tangled in the structural paraphernalia as to be practically unavailable for the emergency use. As a result several serious fires on carriers have resulted since hose distribution systems and water pressure were not readily available or accessible at strategic points on board during an emergency.

The general object of this invention is to overcome the troubles set forth in the preceding paragraph and provide improved fire fighting equipment for ships under construction or being repaired at dockside.

Another object is to provide a wet standpipe system and portable fire hydrant for shipboard use combining a central valve control and distribution system including means for storing rolled, connected dry hose and provide gated connections for extra lines brought in for emergency duty.

Another object is to provide means for storing distributing hose lines comprising a single length or plurality of hose lengths connected in series to said standpipe under valved live pressure control at all times but adapted to be fully unrolled for emergency use by merely pulling on the hose shut-off nozzle or outboard end without requiring the hose coupling to the standpipe or inboard end to be disconnected.

Another object is to provide a portable wet standpipe combining valves and hose baskets all mounted on a circular base stand for local portability to strategic points on a ship's deck.

Another object is to provide a vertical standpipe design incorporating balanced forces so that water pressure, velocity friction, and gravity will tend to off-set each other or balance and maintain the stand in a normally upright position.

Another object is to provide a hose basket design, supported by the standpipe and adapted for holding and discharging a plurality of double rolled hose lengths connected in series, with greater stability and facility.

Another object is to provide a live wet standpipe system wherein the weight of the horizontal live inlet hose connected to the stand is balanced by the weight of the baskets and stored dry distributing hose, mounted on the opposite side of the stand.

In general this invention provides a method for handling hose for fire emergencies aboard ship.

Additional objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and disclosed in the accompanying drawings, wherein there is shown a preferred embodiment of this inventive concept.

In the drawings:

FIG. 1 is a perspective schematic showing the wet standpipe system stand; and

FIG. 2 is a perspective view partially in section showing double rolled hose carried by the basket.

In detail the shipboard standpipe and portable fire hydrant 11 comprises a rigid vertical pipe section 12 which curves at the top into a horizontal section 13. The vertical section 12 is mounted on and supported by a circular base 14 which is adapted to rest on the deck 15 of a ship at dock-side or in drydock. The circular base facilitates moving the standpipe 11 so that it may be rolled to any hazardous spot or selected temporary operating position on deck.

The horizontal section 13 of the shipboard standpipe system and portable fire hydrant 11 is provided with a live pressure hose inlet 16 preferably of the siamese type equipped with clapper valves 18. Said clapper valves 18 function as check valves so that independent connections to water pressure sources may be made without effecting the other siamese connections of 16. In other words, the hose 20 would normally be connected to a water pressure supply source at the dock for supplying water to the stand 11 and a second source of water pressure supply such as a mobile pumper, may be connected into the other side of the siamese 16 without interfering with the operation of the original normal supply through hose 20.

In addition to the inlet siamese 16 in the horizontal section 13, equipped with clapper valves 18, a Y type outlet 17 is provided opposite in direction to the inlets 16 so that the inlet and outlet operating forces will be balanced thereby tending to steady the stand 11 in its normally vertically position. Each outlet 17 is provided with an independent gate valve 19 to control operating water pressure on fire fighting hoses 23, respectively.

Baskets 21 have been mounted on the standpipe 11 for holding said fire fighting hose 23 in a standby state, FIG. 2, for emergency use in case of fire. Said baskets 21 have been designed not only to normally hold the hose in a steady position but especially to facilitate rapid removal of the hose for emergency use.

Two baskets are provided, one on each side of the vertical portion 12 of the standpipe 11, so as to equalize or balance the weight of the hose and baskets on the stand 11. Each basket 21 is semi-circular in design with its open face 22 disposed away from the inlets 16.

The fire fighting hose 23 comprises one or more lengths coupled together and rolled double respectively from their longitudinal centers. In other words, each hose length 23 is doubled back on itself so that the respective ends are placed together and then the center section is rolled up so that the ends 24 and 26 are in the two outer layers respectively of the roll when completed.

The semi-circular open face baskets 21 are designed to hold one or more lengths or rolls of fire fighting hose 23 side by side interconnected in series. The basket open face 22 slopes upward toward the standpipes vertical section 12 so that the force of gravity of the hose represented by line 27 will tend to fall well within both the

basket **21** and the periphery of the circular base **14**, thereby tending to retain said standpipe in its normally vertical position when loaded but yet permit the hose to be rolled from the basket and extended its entire length by merely continuing to pull on the nozzle.

The open face and slope of the baskets are designed to facilitate removing the hose or rolling it out of the basket during a fire emergency so that by merely pulling the free nozzle end **26** of the hose it will be readily rolled from the basket and the entire length unrolled leaving the standpipe end of the hose still connected in the basket to said standpipe. Said semi-circular baskets **21** have their open faces directed opposite from said horizontal live hose inlets **16** so that the force exerted in removing hose manually from said baskets will be offset by the tensional force from the horizontal live hose inlet. The one end of the roll is connected to the outlet **17** and the other end is attached to a nozzle **26** but free to be moved manually to any operating position by merely pulling on the nozzle **26**. This will roll the hose out at one half the rate of the linear movement of the nozzle **26** but will permit the standpipe end to remain attached to the outlet **17** ready for immediate water pressure as soon as outlet gate valve **19** is opened. If one or more lengths of hose **23** are connected in series, the inside end of the first length is connected to the outboard or nozzle end of the adjoining length, the inside end of the last length being connected directly to the outlet valve **17** of the standpipe **11**.

What is claimed is:

1. A portable wet standpipe system for holding dry hose ready for fire protection use aboard ship comprising:

a rigid vertical standpipe curved at the top and provided with a horizontal live hose inlet at its upper end,

said vertical support section mounted on a horizontally disposed circular base so that said stand may be rolled to any selected temporary operating position,

a pair of semi-circular hose baskets mounted respectively on each side of said vertical support section in balanced relationship,

valved outlet connections on said standpipe for each basket outlet hose,

said valved outlet connections being of the Y type and taken off the horizontal inlet portion of the curved standpipe in the opposite direction from said inlet so that the standpipe system inlet and outlet operating forces shall be balanced tending to steady the stand in its normally vertical position,

said semi-circular baskets having their open faces directed opposite from said horizontal live hose inlet so that the force exerted in removing hose manually from said baskets will be offset by the tensional force from the horizontal live hose inlet,

said baskets being equipped with at least one roll of hose and adapted to hold said hose roll so that its center of gravity will fall within the basket and the periphery of said circular base, thereby tending to retain said standpipe in its normally vertical position, and

the open face of said semi-circular basket being designed and sloped so that by merely pulling the free nozzle end of the hose it will be readily rolled from the basket and the entire length unrolled leaving the standpipe end of the hose still connected in the basket to said standpipe.

2. A shipboard standpipe system and portable fire hydrant comprising:

a rigid vertical standpipe curved to provide a horizontal line hose inlet and valved outlets in the opposite direction at its upper end so that the standpipe inlet and outlet operating forces will be balanced tending to steady the stand in its normally vertical position; and

means mounted on said standpipe for removably supporting double rolled hose operably connected to said standpipe so that said hose may be unrolled and distributed for use by merely pulling out the nozzle end of the hose while retaining its connection to said standpipe.

3. A shipboard standpipe system and portable fire hydrant as specified in claim 2 in which the rigid vertical standpipe is mounted on a horizontally disposed circular base so that said stand may be rolled to any selected temporary operating position.

4. A shipboard standpipe system and portable fire hydrant as specified in claim 2 wherein said means for supporting the double rolled hose comprises a pair of semi-circular hose baskets mounted respectively on each side of said vertical support section in balanced relationship.

5. A shipboard standpipe system and portable fire hydrant as specified in claim 4 wherein a valved outlet connection is provided on said standpipe for each basket hose independently.

6. A shipboard standpipe system and portable fire hydrant as specified in claim 5 in which said valved outlet connections are of the Y type and taken off the horizontal inlet portion of the curved standpipe in the opposite direction from said inlet so that the standpipe system inlet and outlet operating forces shall be balanced tending to steady the stand in its normally vertical position.

7. A shipboard standpipe system and portable fire hydrant as specified in claim 4 in which said semi-circular hose baskets have their open faces directed opposite from said horizontal line hose inlet so that the manual force exerted in removing hose from said baskets will be offset by the tensional force from the horizontal line hose inlet.

8. A shipboard standpipe system and portable fire hydrant as specified in claim 4 in which said baskets are equipped with at least one roll of hose and adapted to hold said hose roll so that its center of gravity will fall within the basket and the periphery of said circular base, thereby tending to retain said standpipe in its normally vertical position.

9. A shipboard standpipe system and portable fire hydrant as specified in claim 4 in which said semi-circular baskets are designed to hold one or more lengths of hose rolled double respectively from their longitudinal centers and interconnected in series so that by merely pulling the free nozzle end of the hose it will be readily rolled from the basket and the entire length unrolled leaving the standpipe end of the hose still connected in the basket to said standpipe.

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