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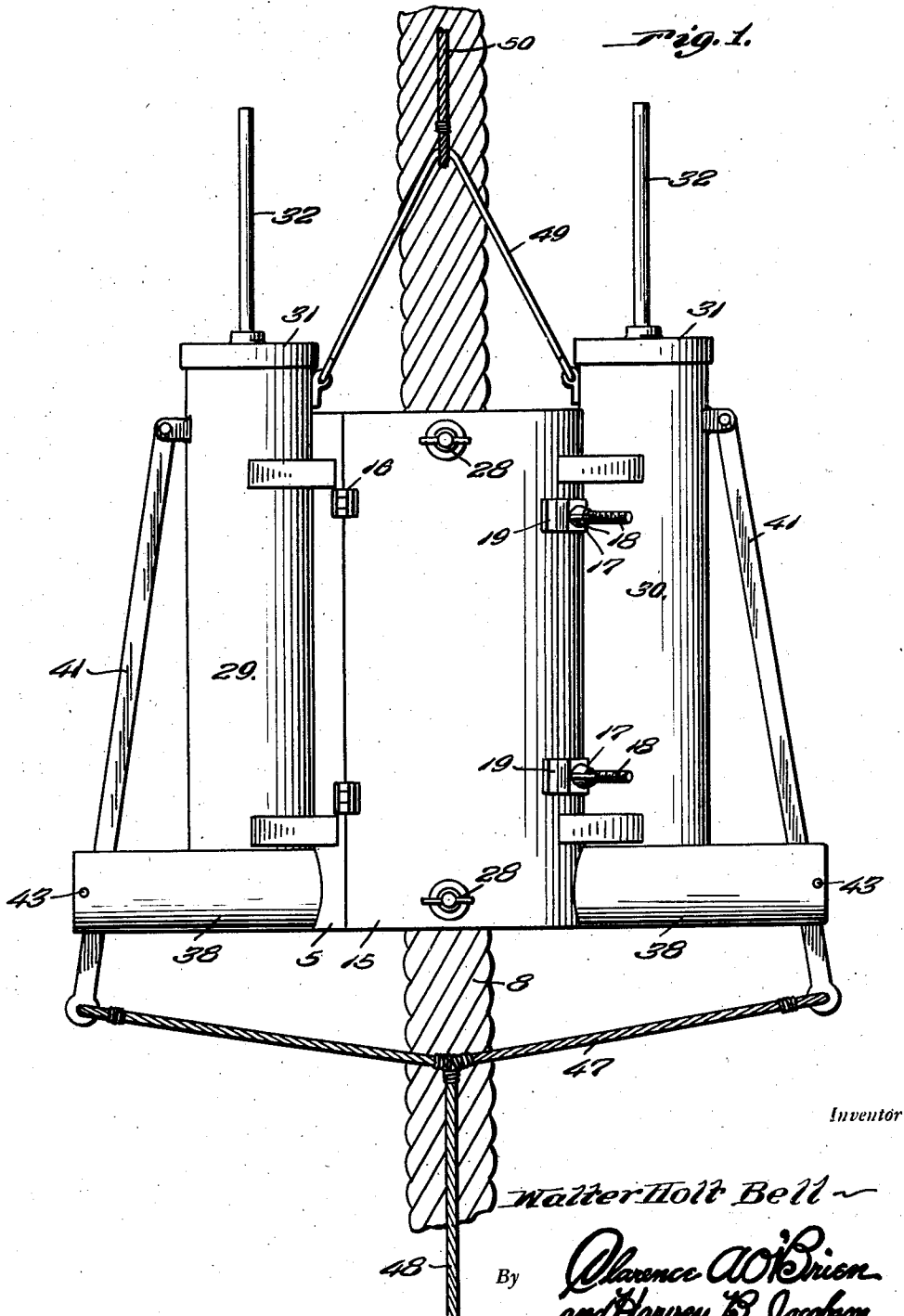
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2,429,915

CABLE PAINTING OR LIQUID COATING MACHINE

Filed Jan. 5, 1946

3 Sheets-Sheet 1



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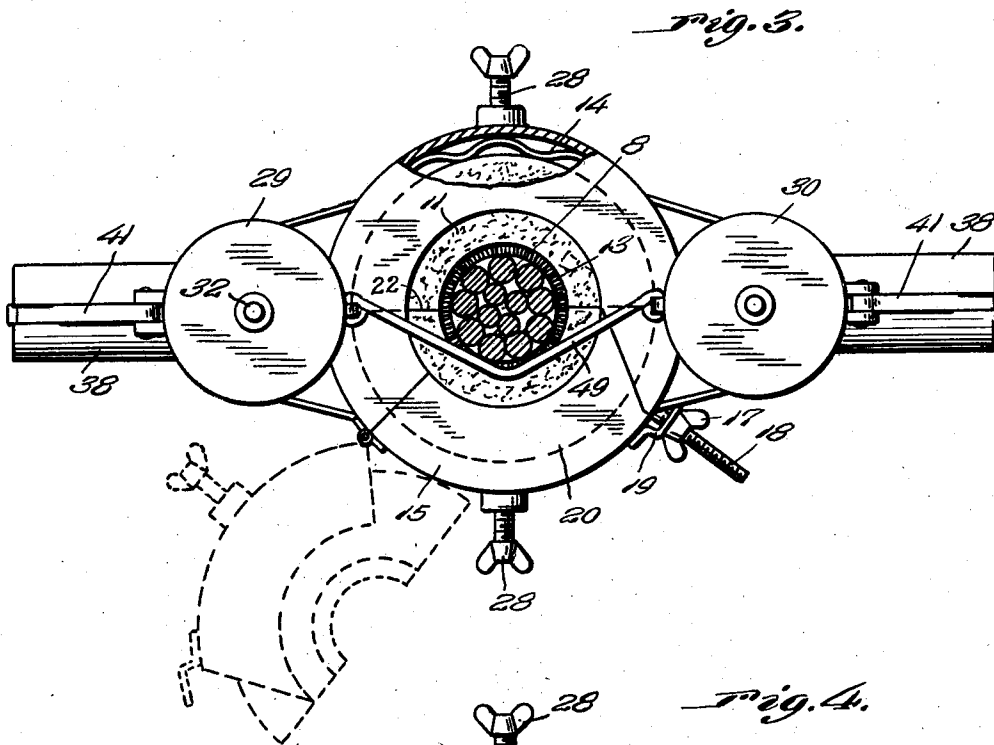
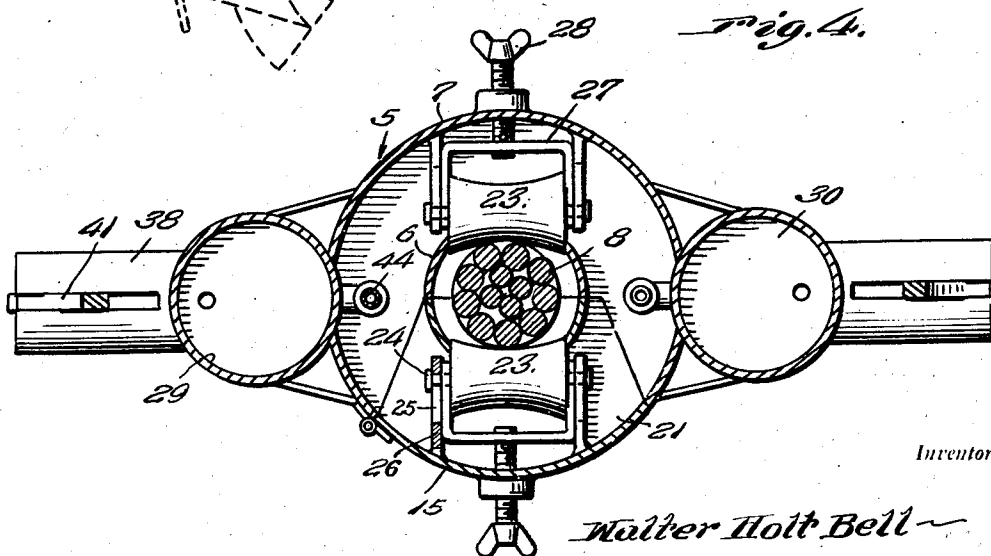
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CABLE PAINTING OR LIQUID COATING MACHINE

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3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

2,429,915

CABLE PAINTING OR LIQUID COATING
MACHINE

Walter Holt Bell, Lynn, Mass.

Application January 5, 1946, Serial No. 639,337

4 Claims. (Cl. 91—39)

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The present invention relates to new and useful improvements in machines for cleaning, painting or otherwise treating a cable or stay with a liquid coating and has for its primary object to provide a device of this character by means of which overhead stays, lines or cables leading aloft on shipboard or elsewhere may be cleaned, painted or otherwise treated with a liquid coating from the ground or deck of a ship whereby to eliminate the danger and the difficulties of elevating a workman in a bos'n's chair or similar lifting device.

A further object of invention is to provide a device of this character which may be hoisted on the cable or stay to be treated and embodying a fountain brush surrounding the cable together with means for supplying the brush with paint or other liquid under pressure to paint or coat the cable as the device is moved upwardly or downwardly thereon.

A still further object of invention is to provide a pump mechanism for supplying the paint or other liquid under pressure to the brush and arranged for manual operation by a workman at the bottom of the cable.

A still further object of invention is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive in manufacture, easy to mount in position on the cable or stay to be painted or otherwise treated and which otherwise is well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view.

Figure 2 is a vertical sectional view.

Figure 3 is a top plan view with parts broken away and shown in section, and

Figure 4 is a transverse sectional view taken substantially on a line 4—4 of Figure 2.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates a sleeve including inner and outer walls 6 and 7, the inner wall being adapted to surround a cable or stay 8 in slightly spaced relation therefrom. The walls 6 and 7 are connected at their upper and lower ends by top and bottom annular chambers 9 and 10

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which are open at their inner edges adjacent the cable 8.

Gaskets are positioned in the upper and lower annular chambers, each gasket being composed of upper and lower soft rubber rings 11 and 12 between which is positioned an intermediate ring of felt or other material 13, the inner edge of the ring 13 in the upper gasket projecting inwardly beyond the inner edge of the rings 11 and 12 to lightly contact the surface of the cable 8.

Positioned in the annular chambers behind the gaskets are annular leaf springs 14 to yieldably urge the ring 13 of the upper gasket into wiping contact with the cable and to similarly urge the rings 11, 12, 13 in the lower gasket.

At one side of the sleeve 5 is a door 15 hinged along one vertical edge as shown at 16 for swinging into and out of open position as shown by the dotted lines in Figure 3 of the drawings to enable mounting of the sleeve on the cable 8. The door 15 is secured in its closed position by a wing nut 17 threaded on a screw 18 projecting from the sleeve and adapted for clamping against the lug 19 projecting from the free edge of the door.

The door 15 includes segments 20 and 21 on the upper and lower annular chambers 9 and 10 for opening and closing movement together with the door to enable the positioning of the cable therein and the upper and lower gaskets are split transversely as indicated at 22 to likewise enable the gasket to be placed in position while the inner wall 6 is longitudinally split for the same purpose.

At the inside of the door 15 and at diametrically opposite sides of the sleeve 5 are concave rollers 23 including trunnions 24 at the end thereof slidably mounted in slots 25 on inwardly projecting supporting arms or brackets 26. Also freely mounted on the trunnions are yokes 27 to which the inner ends of adjusting screws 28 are rotatably connected and projecting outwardly through the sleeve for threaded adjustment therein whereby to adjust the rollers 23 relative to each other for engaging diametrically opposite sides of cables of various diameters.

A pair of tanks 29 and 30 are connected to or formed at diametrically opposite sides of the sleeve 5 adapted to contain paint or other liquid to be applied to the cable 8, the top of each tank being provided with a filler cap 31 threaded thereon and in which is slidably mounted the stem 32 of a follower 33 engaged by a coil spring 34 for urging the follower downwardly in the tanks.

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The bottom of each tank is provided with a discharge port 35 registering with a port 36 in a hollow piston 37 working in a cylinder 38 projecting laterally from the lower end of the sleeve 5.

A coil spring 39 is positioned in the cylinder 38 with its outer end projecting into the piston 37 to urge the piston outwardly. A roller 40 is journaled in the outer end of the piston bearing against a lever 41 which extends upwardly and is pivoted at its upper end to the adjacent tank as shown at 42. A stop pin 43 is carried at the outer end of the cylinder 38 and is positioned transversely of the lever 41 to limit outward movement thereof.

A pipe 44 is connected at its lower end to the inner end of the cylinder 38 and is provided with a check valve 45 therein, the pipe extending upwardly in the sleeve 5 between the inner and outer walls thereof and has its upper end projecting through the inner wall 6 for communication with a transversely split annular brush 46 secured to the inside of the sleeve at the discharge end of the pipes 44.

Links 47, which in the present disclosure embody rope sections, connect the lower end of the levers 41 of the respective pumps to each other and connected to the rope 47 and extending downward therefrom is a rope 48 for operation by a workman at the bottom of the cable 8.

A bale 49 is attached to the upper portion of the tanks 29 and 30 and to which a hoisting cable 50 is attached.

In the operation of the device the door 15 is opened so as to permit the sleeve 5 to be mounted on the cable, stay or other slender object to be painted or coated with the liquid, the door then being closed and the rollers 23 adjusted by the screws 28 in accordance with the size of the cable.

As the device is hoisted by the rope 50 along the cable 8 the rope 48 is pulled downwardly to actuate the piston 37 and pump the liquid from the tanks 29 and 30 upwardly through the pipes 40 for supplying the liquid to the brush 46 whereby to apply the liquid to the surface of the cable. The pistons 37 are moved to their original position as shown in Figure 2 of the drawings in their return stroke by releasing the rope 48 and the pumps may be actuated as frequently as desired to properly supply the paint or other liquid to the brush.

The ring 13 of the upper gasket and the rings 11, 12, 13 of the lower gasket clean the surface of the cable as the painting thereof progresses and also prevent excess paint from dripping below the device.

It will be apparent from the foregoing that the device may be used for either painting the cable 8 or apply any desired liquid to the cable for treating or preserving the same.

In view of the foregoing description taken in

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conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

What I claim is:

1. A machine for coating vertical cables with liquid and comprising a member removably mounted on and enclosing the cable, means connected to the member for hoisting the same on the cable, a brush carried by the member in contact with the cable, pressure means carried by the member for feeding liquid to the brush, and means for manually operating the pressure means from the ground while the member is elevated on the cable.

2. A machine for coating vertical cables with liquid and comprising a member removably mounted on and enclosing the cable, means connected to the member for hoisting the same on the cable, a brush carried by the member in contact with the cable, a tank carried by the member, a pump connected to the tank for supplying liquid to the brush, and manually operating means for the pump and extending downwardly therefrom.

3. A machine for cleaning and coating vertical cables with liquid and comprising a sleeve, a door at one side of the sleeve extending the length thereof and adapted for mounting the sleeve on a cable, wipers carried by the sleeve in contact with the cable, rollers adjustably carried by the sleeve for traveling along the cable, an annular brush carried by the sleeve surrounding the cable, a tank carried by the sleeve, and a pump connected to the tank for supplying liquid under pressure to the brush.

4. A machine for cleaning and coating vertical cables with liquid and comprising a sleeve, a door at one side of the sleeve extending the length thereof and adapted for mounting the sleeve on a cable, wipers carried by the sleeve in contact with the cable, rollers adjustably carried by the sleeve for traveling along the cable, an annular brush carried by the sleeve surrounding the cable, a tank carried by the sleeve, a pump connected to the tank for supplying liquid under pressure to the brush, an operating lever for the pump, and a flexible operating member for the lever.

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The following references are of record in the file of this patent:

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