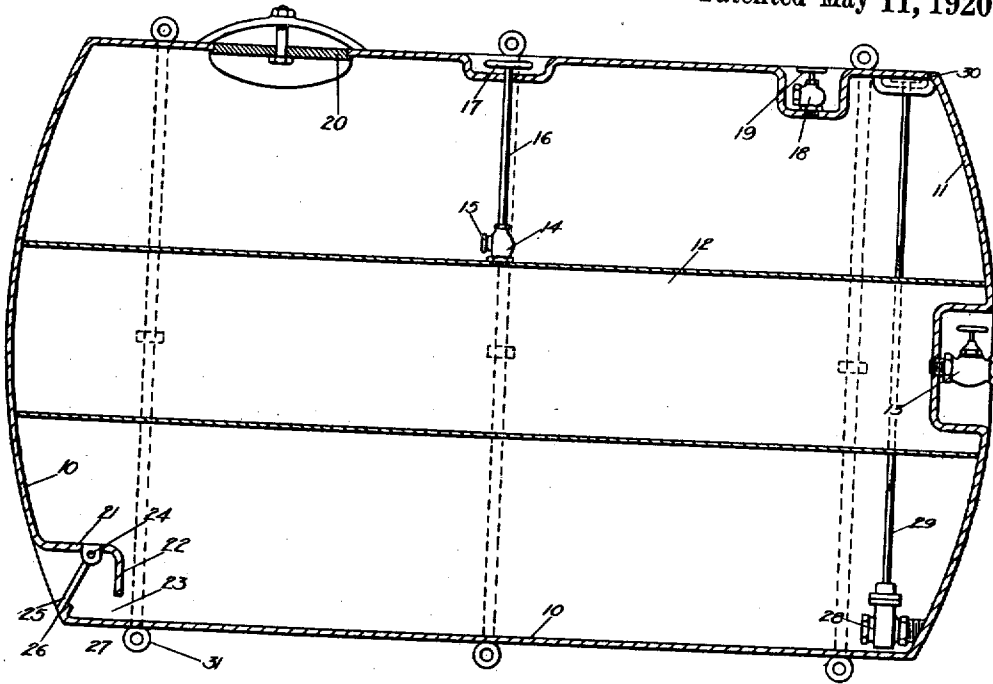


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SALVAGING APPARATUS.
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WITNESSES

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SALVAGING APPARATUS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES SANGER, a citizen of the United States, and a resident of Bay St. Louis, in the county of Hancock and State of Mississippi, have invented a new and Improved Salvaging Apparatus, of which the following is a full, clear, and exact description.

The present invention relates to means for salvaging sunken vessels and the like, and pertains more particularly to tanks especially constructed for this purpose.

The primary object of the invention is to provide a tank capable of being submerged by filling the same with water which is subsequently discharged from the tank to render it buoyant.

A further object of the invention is to so construct a tank that it contains suitable means for discharging the water therefrom.

A still further object of the invention is to provide means for controlling the discharge of water from the tank.

Reference is to be had to the accompanying drawing in which the figure is a longitudinal sectional view of a tank constructed in accordance with the present invention.

Referring more particularly to the drawing, the device comprises a tank 10, which is constructed of metal such as steel or iron, the heads 11 of said tank being bulged outwardly for the purpose of adding strength thereto.

Mounted within the tank 10 and extending longitudinally thereof, is an air chamber 12, which is adapted to contain compressed air, said compressed air being supplied through the medium of a valve 13 mounted in one of the heads 11 of the tank 10. This air chamber 12 is provided with an exhaust valve 14, the open end 15 of which communicates directly with the interior of the tank 10. Extending from the valve 14 to the exterior of the tank 10, is a valve stem 16, the outer end of which is provided with a hand wheel or other suitable operating device 17.

Mounted in the side wall of the tank 10, is a relief valve 18, which is operated by means of the hand wheel 19. The tank 10 is further provided with a manhole 20, by means of which entrance to the tank for the purpose of cleaning is permitted.

One of the heads 11 of the tank 10 is provided near its lower edge, with an inwardly-projecting partition 21, which terminates

in a downwardly-directed apron 22. The lower end of the apron 22 terminates at a point short of the bottom of the tank 10, thus providing a passageway 23, the purpose of which will be hereinafter set forth. Pivotaly mounted, as at 24, to the inwardly-projecting partition 21, is a check valve 25, the free edge 26 of which is adapted to engage against the seat 27 to prevent the entrance of water to the interior of the tank 10 through the passageway 23.

The reference character 28 designates a suitable intake valve and projecting from said valve 28 is a valve stem 29, the outer end of which is provided with an operating wheel 30.

It is to be noted that the valve 13, operating wheel 17, relief valve 18, and operating wheel 30, are all positioned within recesses formed in the walls of the tank. By this construction, it will be seen that these parts are protected from chains, cables, or the like.

The operation of the invention is as follows: Air is stored under pressure in the chamber 12, said air being forced into said chamber by any suitable pumping means through the valve 13. The tank 10 is now filled through the medium of the valve 28, with a sufficient quantity of water to render the tank sinkable. The tank having been sunk adjacent the wreckage to be salvaged, it is secured thereto by means of chains or cables which pass through the shackles or rings 31 secured to the outer wall of said tank. After the tank has been properly positioned and secured in place, the end of the valve 14 is opened to permit of the compressed air within the chamber 12 passing to the interior of the tank 10. As this air is admitted to the tank 10, it displaces the water contained therein, through the passage 23 and the check valve 25. This displacement of the water contained in the tank 10 renders the tank buoyant and the force exerted by the buoyancy of the tank in rising, serves to raise the wreckage to which it is attached.

It is to be understood that the tanks 10 may be made of any desired size and that a sufficient number of said tanks may be used to successfully complete the operation.

Having thus described the invention, what is claimed is—

1. A device of the character described comprising a tank having an inlet and an

outlet, valves for controlling said inlet and outlet, a compressed air tank mounted within the first-mentioned tank concentrically thereof, a valve passing through one of the end walls of the first-mentioned tank and leading from the compressed air tank to its exterior and a mechanically operated valve for establishing communication between the interior of the compressed air tank and the interior of the first-mentioned tank.

2. A device of the character described comprising a tank, a mechanically-operated inlet valve for said tank, a pressure-actuated outlet valve for said tank, a compressed air chamber within said tank and extending throughout the length thereof, the ends walls of the tank forming the end walls of the compressed air chamber, a valve leading through one of the end walls of the tank to the interior of the compressed air chamber, a valve for establishing communication between the interior of the compressed air chamber and the interior of the tank, and means for operating said valves.

3. A device of the character described comprising a tank, an inlet valve for said tank, a pressure actuated outlet valve for

said tank, a compressed air chamber within said tank and extending throughout the length thereof, a valve leading through one of the end walls of said tank to the interior of the compressed air chamber, a mechanically operated valve for establishing communication between the interior of the compressed air chamber and the interior of the tank, and means exterior of said tank and said air chamber for operating said valves.

4. A device of the character described comprising a tank, an inlet valve for said tank, an automatically operated outlet valve for said tank, a compressed air chamber within said tank having its ends closed by the end walls of said tank, a valve leading through one of the end walls of the tank to the interior of the compressed air chamber, a valve for establishing communication between the interior of the compressed air chamber and the interior of the tank, and means for operating said valves, said valve-operating means extending into recesses formed about the outer portion of said tank in the walls thereof.

CHARLES SANGER.