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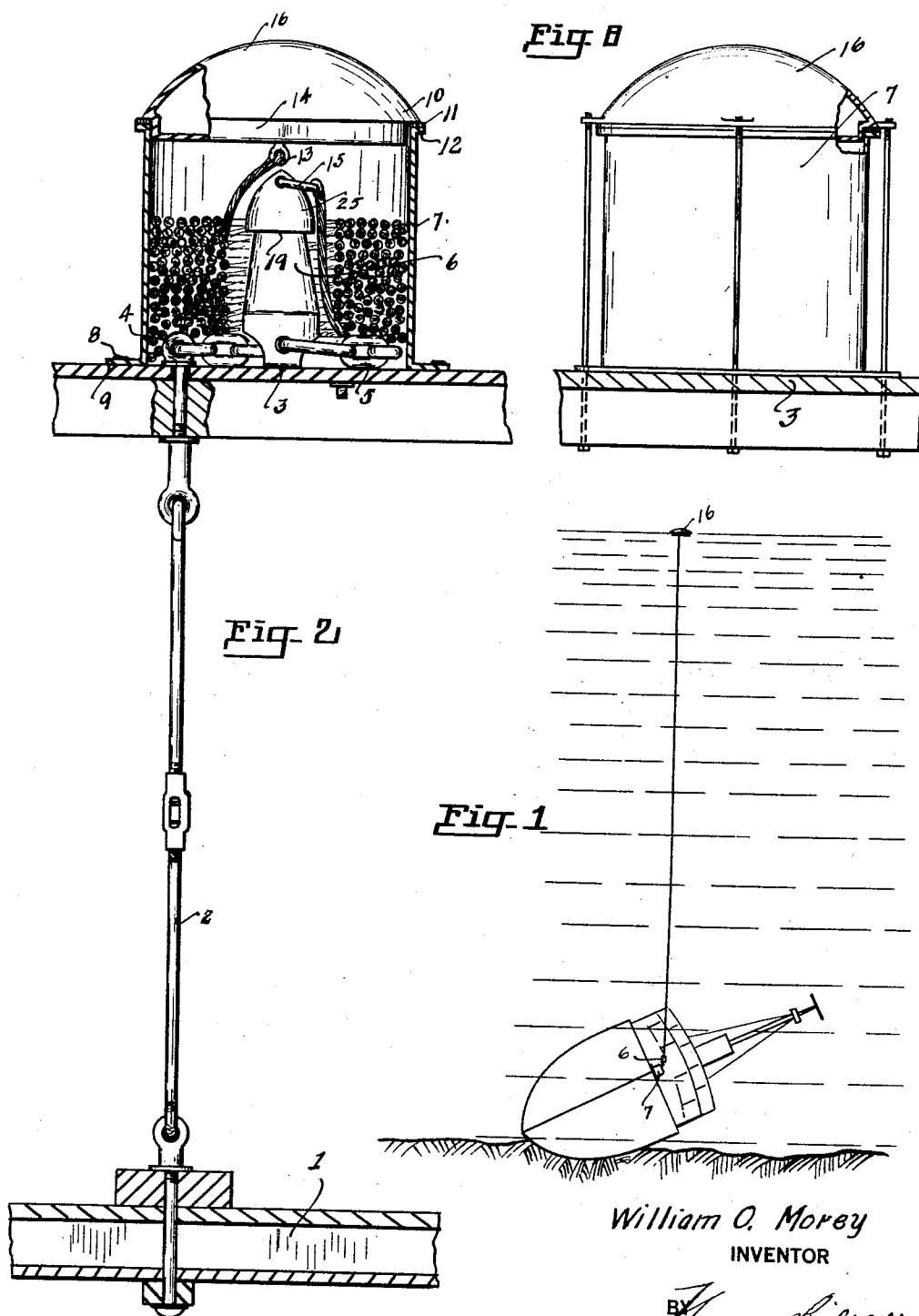
W. O. MOREY

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AUTOMATIC LOCATOR AND RECOVERY FOR SUNKEN VESSELS

Filed March 18, 1929

2 Sheets-Sheet 1



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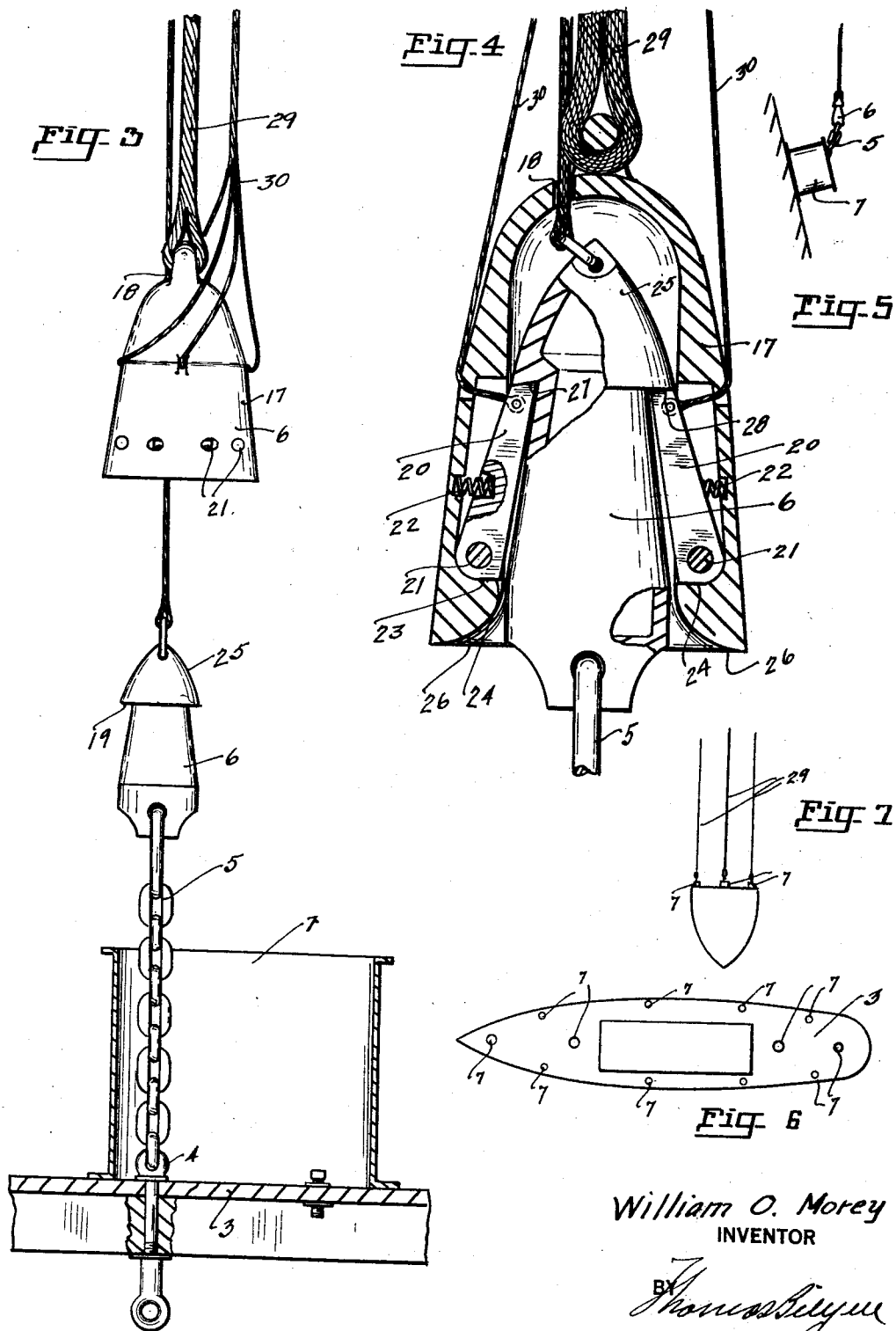
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AUTOMATIC LOCATOR AND RECOVERY FOR SUNKEN VESSELS

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The primary purpose and object of my invention is to provide automatic means for indicating the position of sunken objects and particularly that of sunken hulks, derelict vessels, hulks, and sunken submarines, the device to be carried by any and all floating equipment of all kinds. The device provides means for the automatic releasing of a float that will automatically rise to the surface to indicate the position of the sunken object, the float remaining attached to the hulk by a tag line or cable. Lifting chains or cables may be secured to the lower end of the tag line. The tag line connecting the float to the lifting chains or cables facilitates the passing down the line means to be attached to a locking head for automatically connecting the lifting chains or cable with the lifting head for raising the sunken object to the surface.

The heavy chains and lifting cables to be attached to the keelson, or under-pinning of the sunken object so that a rugged lift may be imparted thereto without fear of distorting or destroying the object to be raised.

The invention in its preferred embodiment consists of a body element attachable to the deck of the hull of the vessel and into the upper surface of which the tag line attached to the float may be coiled and in the lower portion of which the lifting cables or chains may be stored and to which an attaching head may be placed. The attaching head being disposed at the lower end of the tag line; the locking head being attached to the free end of the lifting chains or cables. The lifting chains or cables being attached upon their lower end to the frame work of the vessel to be raised.

The primary object of my invention is to indicate by a float the position of the sunken object.

A further object of my invention is to provide means whereby a connection may be established from the surface to the sunken object.

A further object of my invention is to provide means for the lifting of the sunken object after the connection has been established.

A further object of my invention is to in-

dicate by flares through chemical action caused by the submersion, the location of the float in order that the same may be observed at relatively long distances.

With these and incidental objects in view the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claim, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:

Fig. 1 is an end view of a sunken vessel illustrating the float connection disposed between the sunken vessel and the surface of the water.

Fig. 2 is a sectional, side view of the body portion of my device and illustrating the same in position upon the deck of a vessel.

Fig. 3 is a front view of the device, illustrating the tag line as being secured to the attaching head and further illustrating the lifting cable and head being lowered about the tag line for attachment to the lifting head.

Fig. 4 is a sectional, side view, illustrating the lifting and attaching head secured together for lifting purposes.

Fig. 5 is a fragmentary, sectional, side view, illustrating the body attached to the hulk in which the attaching body element is inclined at an angle.

Fig. 6 is a top, plan view of a sunken vessel, illustrating a number of lifting devices shown distributed over the deck of the vessel.

Fig. 7 is an end view of the mechanism shown in Fig. 6, illustrating the ship submerged and showing the tag lines upwardly extending from the hull.

Fig. 8 is a side view of the device, illustrating the same in a normal closed position.

Like reference characters refer to like parts throughout the several views.

1 is a keelson or other longitudinal beam member of the vessel to which a lifting rod 2 is attached on its lower end and extending upwardly therefrom to the deck 3 of the vessel terminating in an attaching eye 4. A relatively short piece of heavy chain 5 is se-

cured to the eye rod 4 upon its one end and a locking head 6 is secured to the oppositely disposed end of the chain section.

I place a housing 7 upon the deck 3 of the ship and secure the same thereto by any suitable fastening means, as by rivets 8, the rivets being placed within a flange 9 disposed at the lower edge of the body 7. A float closure 10 is placed upon the upper part of the body element and acts as a closure for the body element and maintains the body element in a relatively liquid tight condition. A compressible gasket 11 being placed between the float closure 10 and the flange 12. I terminate the upper edge of the body element with a compressible gasket and place the same between the flange of the body element and the float. An eye 13 is disposed central of the under side of the float closure 10 and a tag line 14, made of a material having a light specific gravity as cotton line, is secured to the eye 13 of the float upon its one end, and to a bail 15 upon its oppositely disposed end. The bail 15 being secured to the locking head 6.

It may be found desirable on heavier vessels to use a tag line of a high grade metal properly coated to prevent rusting in salt water, as by galvanizing. In the event that the vessel is submerged, the float 10 rises to the surface of the water and in doing so carries the tag line therewith. The submerging of the float closure hydrates a combustible material 16 disposed within the closure and a chemical action is set up which causes the same to ignite thus maintaining an illuminated float for a period of time after the same rises to the surface. This chemical action may be brought about, as by placing metallic potassium to produce a violet color or metallic lithium to produce a red effect. Either of these elements when hydrated in the presence of air will ignite and burn to produce a flame that may be seen for substantial distances. When the salvage ship discovers the float at the surface the salvage ship carries a bell shaped lifting head 17 having a hole 18 disposed in its upper surface, through which the tag line 14 may be reeved. The lifting head 17 may then be permitted to descend about the tag line and in doing so the same is brought into registerable alignment and in locking engagement with the locking head 6. The locking head 6 has an outwardly extending flange 19 disposed peripherally of the locking head and the lifting head 17 has one or more locking latches 20 disposed on its inner surface the same being pivotally positioned about the journal pin 21 with a compressible element 22 normally maintaining the locking latch inwardly extending with the shoulder 23 of the locking latch in normal engagement with the shoulder 24 of the lift head. The upper surface of the locking head is conically shaped, as illustrated at 26 in Fig. 4. The conical head of

the locking head and the bell shaped entrance surface of the lifting head 26, facilitates the engaging of the lifting head with the locking head and as the engagement is completed the locking latch is inwardly depressed until the upper end 27 of the locking latch engages the under surface 28 of the locking head. A lifting cable 29 is secured to the upper end of the lifting head and once the lifting connection has been made with one or more of the devices great lifts may be exerted upon the same without fear of distorting or in any way destroying the hull of the vessel. The device may be disconnected at the end of the working day and may be disconnected from the locking head by exerting a pull upon the trip line 30 that is secured upon its one end to the locking latch thereby disconnecting the lifting head from the locking head. The float may again be attached to the tag line and the salvaging operations resumed at a later date.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described as it is susceptible of embodiment in various forms, all coming within the scope of the claim which follows.

What I claim is:

A ship raising device comprising, in combination, a conical shaped locking head, said locking head having a flange outwardly extending from the cone-shaped head, a bail secured to the top of the locking head, said bail having a buoy line secured thereto, and a conical shaped hollow lifting head, a lifting line secured to the top thereof, an opening disposed through the top of the lifting head, a plurality of openings disposed through the side of the lifting head, a plurality of hinged locking latches disposed within the lifting head and adapted to intimately engage the flanged conical shaped locking head, said locking latches being in alignment with the openings through the side wall, and trip lines disposed through the said side openings and secured to the locking latches adapted for placing the locking latches out of engagement with the locking head.

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