ANCHORING DEVICE FOR BUOYANT LIFE SAVING EQUIPMENT

Inventor: William York Higgs, Gibsons, Canada

Assignee: Intercontinental Marine Limited, Canada

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This invention is concerned with life saving equipment. The instant sinking characteristics of many vessels has led to loss of life. In accordance with the invention a buoy is provided with mooring means for securing buoyant life saving equipment to the buoy. The buoy is mounted on a vessel and is secured to it by a securing line which is wound on a cable drum permitting the line to pay out and the buoy to surface when the vessel sinks. The vessel provides an anchor for the buoy and hence the life saving equipment to prevent its dispersal.

6 Claims, 16 Drawing Figures
ANCHORING DEVICE FOR BUOYANT LIFE SAVING EQUIPMENT

This is a continuation of co-pending application Ser. No. 280,418, filed Aug. 14, 1972, now abandoned, which is a continuation-in-part of co-pending patent application Ser. No. 47,312, filed June 18, 1970, now U.S. Pat. No. 3,703,736 issued Nov. 28, 1972.

This invention relates to an anchoring device for buoyant life saving equipment.

The general use of small steel hulled vessels such as tugs and trawlers has created a serious hazard because of the instant sinking characteristics of these vessels. Since January 1958, there have been 34 deaths caused by the sinking of the tugs on the British Columbia coast alone. Twenty-nine of these deaths are believed to have been due largely to the instant sinking characteristics of the tugs. Suddenly, and perhaps at night, the crew find themselves in the water. Typically, there has been no time to send a distress call. The buoyant life saving equipment becomes scattered, overturned or broken up, as is shown by the fact that there are numerous examples of boats, life rafts and other buoyant equipment being recovered either damaged or intact, but empty. Under the above conditions, the chances of the crew for survival decrease greatly. In the case of passenger vessels the foregoing condition is greatly magnified. If the wind is off-shore, conditions are rough and the coast is steep and unenterable, as is the case in many areas on the west coast of Vancouver Island and elsewhere, the survivors face almost certain destruction in rafts which cannot be kept off shore under such conditions.

If the wind is off-shore, survivors drift out to the ocean. Survivors drifting to sea on a raft or on any buoyant equipment make a very hard mark to pick up in the ocean even with excellent rescue services. Only too often death from exposure, fatigue, lack of nourishment and cold occurs before the survivors are located. The personal experience of the inventor in conducting searches on behalf of underwriters and owners indicates that the scattering of survivors is one of the greatest causes of loss of life at sea.

Another personal experience of the inventor illustrates what must often happen though usually the outcome is less happy. While master plying the West Coast of Vancouver Island in 1929 we were towing a barge and were approximately 3 miles off shore. A 20 knot westerly wind was blowing with moderate sea and heavy swell running. We became aware that a heavily loaded fishpacker was sinking about 3 miles to windward. We therefore dropped our tow and proceeded towards the packer. Halfway to her we met her hatch cover and hatch boards and other deck equipment. The packer disappeared from view when we were about a mile from her and then we met her skiff and buoyancy raft sailing down wind with no one aboard. A few minutes later we picked the whole crew out of the ocean. No distress call had been sent.

The invention of my application Ser. No. 47,312 is based on the idea of using the wreck as an anchoring device for the buoyant life saving equipment. A buoy is connected to the vessel by a securing line. This securing line is wound on a cable drum mounted in a substantially sealed body such as the vessel or the buoy and arranged to permit the buoy to surface while maintaining an anchoring connection between the buoy and the vessel. Mooring means such as a continuous rail is provided on the buoy so that the buoyant life saving equipment can be secured to it. This preferably a light and electronic beeper are automatically actuated upon the release of the buoy from the vessel. A radar reflector can also be included. It is particularly advantageous to provide buoyant ropes which trail out from the buoy to facilitate survivors establishing contact with it.

When there is an instant sinking the light on the buoy will provide a rallying point. This is important because of the confusion at such times. If a survivor has been able to reach a raft or boat he can moor it to the buoy. Survivors who have not reached a raft or boat can hold on to the mooring rail of the buoy until one of the others can bring a raft or boat to the buoy. The floating ropes will trail out and assist survivors in reaching the buoy. All buoyant equipment may secure to mooring lines or to the mooring rail.

The survivors on buoyant equipment moored to the buoy which is in turn anchored to the wreck will be in a permanent and collected position where they can readily be located by rescuers. They will not be driven out to sea or on to inhospitable shores at the whim of the wind and the seas. Fatigue and exposure to the elements will be minimized.

The radar reflector, light and electronic beeper will assist speedy rescue. Furthermore, the very assembly of the buoyant equipment will make it easier for rescuers to locate the survivors.

The anchoring buoy will have a sea anchor effect in heavy weather, which is highly beneficial, minimizing the chance of swamping or upset.

Another not inconsiderable advantage is the opportunity for encouragement and leadership where the survivors have been collected to a single rallying point. Furthermore, a continuous distress call can be emitted from such rallying point.

In the drawings, which illustrate preferred embodiments of this invention:

FIG. 1 is an elevation view showing a sunken ship and illustrating the use of this invention for anchoring life saving equipment to such sunken ship;
FIG. 2 is a top view of a tug upon which a life saving buoy in accordance with this invention is mounted;
FIG. 3 is an elevation view of a buoy illustrating means for securing the buoy in position;
FIG. 4 shows the electrical circuit used;
FIG. 5 is a detail elevation view illustrating the cable duct and reel;
FIG. 6 is a detail side elevation view of the reel shown in FIG. 5;
FIG. 7 is a detail end elevation view of the brake band shown in FIG. 6;
FIG. 8 is a detail elevation view illustrating the mounting of a buoy in accordance with this invention;
FIG. 9 is a plan view corresponding to FIG. 8;
FIG. 10 is an elevation perspective view illustrating a further embodiment of this invention;
FIG. 11 is a perspective drawing in the form of a side elevation of a second embodiment of the invention;
FIG. 12 is a perspective drawing of the underneath of the embodiment shown in FIG. 11;
FIG. 13 is a perspective drawing in the form of a side elevation of a third embodiment of the invention;
FIG. 14 is a perspective drawing of the underneath of the embodiment shown in FIG. 13;
FIG. 15 is a sectional side elevation through a cable reel end plate shown in FIGS. 11 and 13; and is taken on the line XV-XV of FIG. 16; and FIG. 16 is an end view of the end plate, as viewed from the left of FIG. 15.

Referring now to the drawings, FIG. 1 illustrates a sunken ship 10 which, through line 11, acts as an anchor for buoy 12. Lifeboats 13, inflatable rafts 14 and raft 15 are secured by lines 16 to buoy 12. FIG. 1 illustrates the buoyant equipment secured to other items of buoyant equipment in a series and finally lifeboat 13 linked by line 16 to buoy 12. It will, however, be appreciated that buoyant equipment 13, 14 and 15 can be connected directly to buoy 12.

FIG. 1 illustrates a typical small steel tug boat of the type the rapid sinking of which has been responsible for the loss of many lives. The tug generally indicated at 20 has buoy 12 supported on rack 13 which is mounted on the wheel house. A conduit pipe 21 to house steel cable 14 leads from belled ferrule 25 on top deck 26 to block 22. Ferrule 25 is positioned directly below the centre of buoy 12. Cable 14 is secured to reel shaft 24, and spooled on reel drum 23. It goes over block 22 and up conduit 21, to pass through ferrule 25. Buoy 12 can be secured to rack 13 in the manner described below. The slack in cable 14 can be taken up on reel 23: Cable 14 is appropriately tensioned and the spring loaded brake on reel 23 is adjusted so as to be ready for operation. This brake is adjusted so that the buoy will freely pull the cable slack in a controlled manner. It will drift with the survivors until they have a chance to attach the mooring lines.

FIG. 3 shows the buoy 12 in greater detail. The buoy has a main body portion 30 which is preferably mainly filled with cellular buoyant material. Body 30 may be square when considered in a plan view or of any desired shape. A continuous mooring rail 31 encircles body 30 and is secured to it by supports 32. This mooring rail is of substantial nature and of sufficient strength to moor the life boats and life rafts even under stormy conditions. On top of body 30 there is an upwardly extending duct 33 supported by stays 34. A reflector 35 and automatic light 36 and radio antenna 37 are located at the top of duct 33. Duct 33 provides a conduit for wires leading to light 36 and to radio antenna 37. A water tight hatch 38 is bolted in position by bolts 39 and leads to a space 40 for electrical equipment. Such equipment may be arranged in the simple circuit illustrated in FIG. 4 in which battery 41 is controlled by switch 42 and energizes light 36 and electrical signal device 43. Signalling device 43 emits an emergency beep signal. As illustrated in FIG. 3 switch 42 can be a manual switch mounted on hatch 38 and connected by a breakaway pull cord 44 to the supporting rack 45 for the buoy. Accordingly, when the buoy is released from its supporting rack, switch 42 will automatically be closed so as to switch on the signal light and the electronic signalling device. In case of mechanical failure or if there is time to commence sending a signal before the ship sinks then switch 42 can be worked manually.

Rack 45 is mounted on angle steel lugs 46 which are bolted by bolts 47 to the top deck. Rack 45 has slanting sides 48 so that the buoy will not jam if the sinking ship lists.

There is a central recess 50 in the main body 30. Recess 50 is bridged by securing bar 51 to which line 11 is connected.

Belled ferrule 25 projects slightly into the securing recess 50 so that water coming down the deck or dripping off the underside of the buoy will not go down the conduit pipe. The belled end also avoids the cable chafing when the line is out.

Mooring ropes 52 are joined to mooring rail 31 and are held coiled by ripcord 53 which is joined at 54 to rack 48. Mooring ropes 52 have small coloured floats 55. When the buoy becomes detached from the rack, mooring ropes 52 stream out to assist the survivors in reaching the buoy. Mooring ropes 52 are buoyant ropes but these are not easy for a swimmer to see and therefore floats 55 assist in making the position of the rope visible. Attachment of boats and buoys is also facilitated.

In the case of some vessels and depending also on the design of the buoy and its location on the vessel, it may not be necessary to lash the buoy in place. It will remain in position when on the rack and float free if the vessel sinks. It will, however, sometimes be desirable to avoid any possibility of the buoy becoming accidentally detached. Accordingly, a length of webbing 56 can be passed over the main body 30 of the buoy and secured to a hydrostatic release valve 58. Hydrostatic release valve 58 is shackled at 57 to the side 48 of the rack.

This hydrostatic release may be of the Cory type or of any other standard design. When a predetermined depth such as 10 or 15 feet is reached the hydrostatic pressure of the water will cause the release to open so that the buoy will float free. If the hydrostatic release 58 does not include provision for manual release then it is desirable to include also a manual release such as a seashore slip which could conveniently be located on the side of body 30 opposite to the hydrostatic release.

FIG. 5 illustrates in more detail duct 21 through which line 11 passes. At the top end of duct 21 there may be a belled ferrule 25. A locking nut 61 acts on packing washer 62. Duct 21 extends down through top deck 26 and through lower deck 64. Straps 65 secure it to bulkhead wall or pillar 66. Pulley 22 is in closed cheek block 67 and guides cable 11 to reel drum 23. As shown in detail in FIG. 6 reel drum 23 is a simple reel consisting of wire drum 70 and pulley 71 and 72. A brake band 73 as illustrated in FIG. 7 provides for the controlled paying out of the line wound on drum 70. Brake band 73 is secured at one end to reel frame 74 and at its other end a flange 75 is formed. Stud 76 passes through flange 75 and supports upper and lower springs 77 and 78. Lock nut 79 is threaded to the end of stud 76.

FIG. 10 illustrates an additional embodiment which provides for an oil bag containing an appropriate oil such as a mixture of linseed oil and turpentine. Oil bag 80 is joined by securing strap 81 to the main body of the buoy. A vented plug or cap 82 is at the upper end of the oil bag. The neck of which is permanently secured by strap or wire 83 to the underside of mooring rail support 32. At the extreme bottom of the oil bag is incorporated a composite boss 84 through which projects internally a stainless steel wire needle-valve 85 of fine gauge. The wire needle-valve is permanently secured to the side 48 of the rack. When the ship sinks the needle pulls out of the boss in the oil bag allowing the oil to
slowly leak out of the top or the bottom of the oil bag in accordance with the depth which the oil bag submerges in the water. In this way there will be no chance of malfunction. The specification of the oil used will be such as to be harmless to human beings. The small amount of oil released over a considerable time will eliminate sharp or steep seas leaving a smooth rolling swell thereby greatly aiding the guidance or buoyant life saving equipment to the buoy.

Much of the loss of life at sea occurs near the coastline and on the continental shelves of all countries where the depth rarely exceeds three thousand feet. A moderately sized buoy can lift this wire with good freeboard. The length of the wire mooring cable and the size of the buoy will be calculated to conform to the class of ship on which it is to be used having regard to soundings in the geographical area for which the ship is designed and in which she customarily trades. Three thousand feet will be entirely adequate for a very high proportion of conditions.

An incidental advantage of the invention is that after the prime purpose as an anchoring device for buoyancy life saving equipment has been fulfilled, the buoy will act as a marker buoy by which the exact position of the wreck may be ascertained thus facilitating salvage of the ship. The cable would become a shot-line or guide line for the use of divers, diving bells or mini-submarines during salvage operations. It is considered by the inventor that reduce their in the case of coastal ships, marine underwriters will reduce their premiums on vessels equipped with this device. The saving so accrued during the normal life of a ship would be considerable and would pay for the device, installation and maintenance many times over.

The above embodiment of the invention was disclosed in my earlier application Ser. No. 47,312 filed on June 18, 1970, and FIGS. 11 through 16 relate to modifications of the then preferred embodiment which have been found in practice to provide an improved performance.

Refering first to FIGS. 11 and 12, these illustrate a form of buoy intended for use on relatively small vessels, i.e., vessels with a length of under 75 feet. The buoy includes a part-spherical body 101 formed of rugged, moulded fiberglass having a mid-height thickness of three-sixteenths inch and a thickness at the top and the bottom of three-eighths inch. The body includes a thin outer layer of "International Orange 'Gelcoat'" which renders the buoy clearly visible against the background of the sea. Body 101 is filled with a closed-pore foamed synthetic material 102 which provides buoyancy even if the body 101 is punctured or otherwise damaged.

Mounted on the top of the body is a clear Lucite dome 103 covering a strobe light 105 of the high intensity Xenon type as used on aircraft for collision avoidance. Associated with the strobe light is a solid state driving circuit located in canister 107 which causes the light 105 to produce 10 flashes per minute with a peak intensity of 1 million foot candles. By the use of a Fresnel lens, the range of this light is between 15 and 25 miles under average conditions. On an upper part of body 101 is formed a recess 108 in which are disposed various control switches 109 and the base mounting of an omnidirectional antenna 111. These parts are all sealed against the ingress of water and moisture.

Inside the body, and indicated merely by dotted outlines, is battery 113 of the alkaline manganese type, having a voltage of 13.5 and designed to have a shelf life of 21/2 years. This battery is capable of operating the strobe light 105 and a radio transmitter 115 for a period which depends on the expired shelf life of the battery, but in normal use will be between 140 hours and 192 hours. The radio transmitter 115 is connected to the antenna 111 and when activated provides a guard and homing signal on the frequency of 121.5 MHz. The output power of the transmitter is 300 mw., and its range is between 80 and 100 miles. It will be appreciated that this operating frequency is selected since it is monitored by the Canadian D.N.D. and M.O.T. stations, and by the U.S. Coast Guard and U.S.A.F.

Disposed in an upper part of the body 101 is a radar reflector 117 of conventional design. Spaced round the periphery of the body 101 are four vertically extending cast aluminum lifeline handles 119, securely fixed to support plates inside the body, and arm loops 121 of polypropylene rope extend between these handles 119. At least one lifeline 123, 40 feet in length and formed of five-sixteenths polypropylene rope, with a strength of 2,000 pounds, extends from one of the handles 119. A water-activated completely self-contained electric lamp 125 is connected to the outer end of lifeline 123 by a tether 127 and a spliced eye. The silver chloride-magnesium battery of that lamp has an indefinite shelf life and an operating life of 14 hours, and produces a steady white light visible for about 3 miles.

The body 101 is generally spherical in shape, but has fitted to its bottom a moulded fiberglass circular skirt 129 which has an open bottom. This can be seen clearly in FIG. 12, which also shows how the skirt 129 serves as a housing for a wire rope reel 131 having two spaced end plates 133 and 135 connected by a shaft 137 (see FIG. 15) which extends into journal bearings 139 carried by the lower part of the body 101. The end plates 133 and 135 are formed on their outer face with three ribs 141 (see FIGS. 15 and 16), which in addition to providing stiffening of the plates, serve during rotation of the reel as brakes, since they are immersed in water once the ship sinks, and as the reel is rotated rapidly by the payout of wire rope 143 wound on the reel, these ribs churn the water and provide appreciable braking. The wire rope 143 is 1000 feet long and is provided at its free end with a shackle 145. It has a diameter of thirty-three seconds inch, and is of galvanized steel stranded 7 x 7. Its certified breaking strength is 1,200 pounds.

Mounted on the outside of the body is a one gallon canister 147 containing Fluorescine dye, this being arranged when the buoy is released from the ship to release the dye in a controlled manner over a suitable period of time. In addition, a similar container can be provided filled with a shark repellent oil, but this is required only when the ship is to be used in certain seas.

The buoy body 101 has a diameter of 24 inches and the buoy has a total weight of 98 pounds. It is mounted on an upper part of the ship structure, where it will not become entangled on release with the ship rigging, in a buoy seating base 151. Base 151 includes a circular steel plate 153 having a thickness of one-fourth inch and secured to the deck of the ship either by welding or by a number of bolts. The buoy sits on this plate and is held against lateral displacement by a horizontal seating rail 155 which closely encircles the buoy immedi-
ately below the handles 119, this rail being formed by one-half inch steel pipe suitably galvanised and treated against corrosion, and mounted on the plate 153 through four columns 157 also formed of one-half inch steel pipe and welded at their ends to the rail 155 and the plate 153.

In use of the buoy shown in FIGS. 11 and 12, the seating base 151 is secured to the deck of the ship, as mentioned in an area free from rigging and other obstructions, and the buoy is lowered into the position shown in FIG. 11. While a small gap still exists, the shackle 145 is coupled to an eyebolt carried by the base plate 153, a quick release pin being used to make this connection. The buoy is now ready for use. The switches 109 are used for periodic maintenance checks on the buoy, and to trigger the radio transmitter should the ship become disabled and need help.

Should the ship sink, then the buoy will automatically disengage from the seating base 151, the wire rope 143 paying out from the reel 131. Because of the way in which the buoy is supported, well below its centre height, by the rail 155, the buoy can lift away from the seating base even if the ship enters the water at a considerable angle to the upright.

As the ship sinks, the free end of the wire rope 143, i.e., the part provided with the shackle 145, will sink with the ship, to which it is attached, and the reel 131 will spin in its bearings 139. Since the ribs 141 churn the water, they provide a brake on the paying out of the cable, and ensure that the buoy rises to the surface in a controlled manner. The inner end of the wire rope 143 is of course attached to the reel, and once the buoy has reached the surface, and the ship has settled on the sea bottom, the wire rope will continue to pay out as the buoy drifts in accordance with the prevailing currents and wind, until the wire rope is fully paid out. The buoy will then remain anchored.

The initial submersion of the buoy causes activation of the various electrical circuits in the buoy and in the lamp 125. Thus, when the buoy surfaces, the strobe light 105 has commenced flashing, the radio transmitter is operative, and a beacon and distress signal is being emitted from the antenna 111. The lifeline 123, being buoyant, floats away from the buoy, and at the free end of the lifeline the electric lamp 125 commences to emit a steady white light.

Members of the ships crew can swim to the lifeline or the buoy for support, making use of the arm loops 121 or the handles 119. Ships boats can come alongside the lifeline 123 and make fast. It will be seen that in this way all the survivors are kept in a compact group close to the beacon, and even those boats which initially become separated from the others can “home” on the flashing beacon.

One important difference between the buoy shown in FIGS. 11 and 12, and that shown in the earlier figures is that the wire rope reel is carried by the buoy, rather than being mounted on the ship. This has a considerable practical advantage, in that even if the wire rope 143 becomes entangled in the rigging of the ship, the wire rope can still pay out from the reel, so that the buoy can continue to rise. This is an important feature, since in the construction of the earlier figures, should the ship roll on its side when it reaches the sea bed, the cable extending from the cable reel in the ship can become caught by some obstruction, and this will anchor the buoy since the distance between the buoy and the ship then is limited. If this distance is less than the depth of the sunken ship, then the buoy will not reach the surface, and neither its strobe light or its radio transmitter will be effective. However, with the modified construction now proposed, as long as the buoy is not initially trapped on the ship, it will be free to rise with the other debris. Even if the ship should capsize, which will trap the cable in the embodiment of the earlier FIG. 5, with the improved construction shown the buoy will tend to fly away from the capsizing ship, and even if the wire rope becomes completely twisted about the ship, the buoy can still rise in a perfectly normal fashion to the limit of its wire rope.

The length of 3,000 feet is ample for operation of the ship in coastal waters and over the Continental Shelf. If a ship is going on a voyage over deeper waters, then part of the normal ship’s procedure would be to uncouple the shackle 145 at the time of entering water over 500 fathoms, so that in the case of shipwreck the buoy would not be tethered to the ship, but would rise to the surface and be effective both as a visual and radio beacon, and act as an assembly point for survivors.

The buoy 201 shown in FIGS. 13 and 14 is generally similar to that shown in FIGS. 11, 12, 15 and 16, and similar numerals are used in all these figures to denote similar or corresponding parts. The buoy of FIGS. 13 and 14 are designed for use in larger ships, i.e., ships of 75 feet length and over. Since larger ships will normally carry a larger crew and will have more lifeboats, it is desirable that the mooring line of the buoy, i.e., the wire rope 143, shall be somewhat heavier, and this leads to a larger rope reel 131 and the need for a larger buoy to support the added weight. Thus the buoy of FIGS. 13 and 14 has a diameter of 35 inches, and its complete weight is 310 pounds. The wire rope has a diameter of sixtieths inch, and is galvanised steel. Its certified breaking strength is 4,500 pounds. The mooring line in this buoy has a length of 50 feet, a diameter of sixtieths inch and a breaking strength of 4,000 pounds.

The handles 119 of the earlier embodiment are replaced with an aluminum mooring rail 203 which encircles an upper part of the buoy body, and the arm loops 121 and the mooring line 123 are attached to this rail. The seating base 151 is generally similar, but the rope reel 131 is enclosed in an open-bottom rectangular housing 205 made out of aluminum sheet with a thickness of three-sixteenths inch and attached to the buoy body 101 with stainless steel bolts. The shackle 145 in this embodiment is positioned outside the housing so that it is readily accessible if it is necessary to disconnect it from the base plate. A notch 209 in the bottom edge of housing 205 accommodates the wire rope 143 without nipping.

The method of use of this embodiment of the invention is similar to that previously described, and its major difference is in the amount of buoyancy provided and the heavier wire rope 143 and mooring line 123.

It will be seen that the two embodiments of the invention described above both make use of the feature of having the wire rope reel 131 carried by the buoy rather than by this ship, mentioned in the above application of which the present is a continuation in part. The advantage given by this arrangement is considerable, and has been described above in connection with the description of the operation of the improved buoy.
During the drifting of the buoy, the ribs 141 will continue to control the paying out of the cable. As the prevailing currents and wind will also act on the buoyant life saving equipment, they will normally be close to the buoy and thus assist the persons occupying the buoyant equipment in reaching the buoy and making fast to it. The ribs 141 provide a particularly advantageous brake as the possibility of malfunction of a mechanical brake is avoided.

In one example the ribs 141 have a width of three-sixteenths inches, a depth of seven-sixteenths inch, and each has a length of just over 4 inches.

What I claim is:

1. An anchoring device for life boats or life rafts comprising:
   a. a buoy;
   b. a cable reel rotatably mounted on said buoy, the reel having end plates;
   c. a cable of adequate strength to act as an anchor cable wound on said cable reel;
   d. an attachment securing a first end of the cable to the reel;
   e. a second attachment on the second end of the cable and adapted for attachment of this end of the cable to a ship which carries the buoy;
   f. beacon means on the buoy adapted to be activated automatically upon release of the buoy from the ship;
   g. supporting means on the buoy by which the buoy can normally be carried by said ship but permitting easy automatic release of the buoy should said ship sink;
   h. braking means acting on the reel to cause paying out of the cable in a controlled manner as the ship sinks, said braking means comprising vanes carried by the cable reel and rotating at least partly within said skirt and engaging the water when the buoy is floating therein and thereby providing a retarding effect on the rotating cable reel; and
   i. mooring means by which the life rafts or life boats can be moored to the buoy; whereby upon sinking of the shop the buoy is automatically released and remains on the surface of the water with said cable maintaining connection between the buoy and the ship, said buoy serving as both a beacon and a mooring point for said life rafts or life boats.

2. An anchoring device for life rafts or life boats comprising:
   a. a buoy;
   b. a cable reel rotatably mounted on said buoy;
   c. a cable of adequate strength to act as an anchor cable wound on said cable reel;
   d. an attachment securing a first end of the cable to the reel;
   e. a second attachment on the second end of the cable and adapted for attachment of this end of the cable to a ship which carries the buoy;
   f. beacon means on the buoy adapted to be activated automatically upon release of the buoy from the ship;
   g. a skirt at least partly surrounding said reel and forming supporting means on the buoy by which the buoy can normally be carried by the ship but permitting easy automatic release of the buoy should said ship sink; h. braking means acting on the reel to cause paying out of the cable in a controlled manner as the ship sinks, said braking means comprising vanes carried by the cable reel and rotating at least partly within said skirt and engaging the water when the buoy is floating therein and thereby providing a retarding effect on the rotating cable reel; and
   i. mooring means by which the life rafts or life boats can be moored to the buoy; whereby upon sinking of the ship the buoy is automatically released and remains on the surface of the water with said cable maintaining connection between the buoy and the ship, said buoy serving as both a beacon and a mooring point for said life rafts or life boats.

3. A life saving buoy according to claim 2 wherein said vanes are carried coaxially with the axis of rotation of said cable reel and rotate with said reel.

4. A life saving buoy adapted to be carried by a vessel in a manner permitting release and flotation of the buoy should the vessel sink, and including flotation means of sufficient buoyancy to cause the buoy and parts carried by the buoy to float freely from the sinking vessel, further comprising:
   a. a cable reel rotatably mounted on said buoy and having two end plates;
   b. a cable initially carried by the reel between said end plates;
   c. anchoring means at a free outer end of said cable adapted for attachment to a securing point on the vessel;

5. A lifesaving buoy adapted to be carried by a vessel in a manner permitting release and flotation of the buoy should the vessel sink, and including flotation means of sufficient buoyancy to cause the buoy and parts carried by the buoy to float freely from the sinking vessel, further comprising:
   a. a cable reel rotatably carried by the buoy; b. a cable initially carried by said reel between said end plates;
   c. anchoring means at a free outer end of said cable adapted for attachment to a securing point on the vessel;
   d. a skirt at least partly surrounding said reel and forming supporting means on the buoy by which the buoy can normally be carried by said vessel but permitting easy automatic release of the buoy should the vessel sink, whereby upon sinking of the vessel the buoy is released from the vessel and remains on the surface of the water while the vessel sinks and while said cable is paid out by the reel, said cable maintaining connection between the buoy and the vessel, said buoy being suitable for providing securement for buoyant lifesaving equipment released from the vessel, and vanes carried by said cable reel and engaging the water when the buoy is in the water, to provide a retarding effect on the rotating cable reel, said vanes being constituted by ribs on the outer faces of said end plates, said ribs also constituting stiffening means for said plates.

6. A life saving buoy according to claim 5 wherein said vanes are carried coaxially with the axis of rotation of said cable reel and rotate with said reel.