REGARDING SPAR BUOYS.

BY C. H. CLAUDY.

The public hears a good deal about lighthouses and bell buoys, and of the mournful tone of the whistling buoy. But little has been written about spar buoys. They seem to be so common as to pass without notice. Yet the spar buoy is a most important factor. Without it navigation would be paralyzed; and were it not for the ships which look after them, the men whose lives are spent in making, placing, and repairing them, and the satisfactory service these sticks of wood render, the commerce of the world, as far as river and harbor navigation is concerned, would suffer materially.

A spar buoy is a stick of wood, anywhere from ten to sixty feet in length, anchored to the bed of a river or harbor, and its projecting end is painted in a way to tell the observer about certain formations of the bottom. Navigation laws of this country demand that red buoys, with even numbers, be on the right, and black buoys, with odd numbers, be on the left side of channels as approached from the sea. Buoys on wrecks or other obstructions, having a channel on either side, are painted with horizontal red and black stripes; mid-channel buoys, with perpendicular black and white stripes; and balls, cages, etc., on the top of buoys, indicate a turning point, the color and number indicating the course.

One might be led to suppose that once such a stick of wood was placed in position, it would remain there to the end of its days, but buoys have to be cared for in much the same manner as boats. Anywhere from six months to two years after being set, a lighthouse tender is sent out to pick them up and put new ones in their places. Then the old buoy is scraped, dried, painted and repaired, until finally it goes back to work again.

Not infrequently a buoy must be replaced because it has been broken. It is not an every-day occurrence, but occasionally it happens that a boat will run over a buoy at night and the propeller cut it off below the water line. Then, of course, there is trouble. Some boat comes up the channel, expecting to get its course from the buoy. It cannot be found. A report is immediately made and a tender ordered to the spot. What remains of the old buoy is found and removed, a new one being immediately put in its place.

But the greatest menace to the spar buoy is ice. It is possible for a well-moored buoy, if heavy enough, to cause an ice jam in a narrow channel, but usually the ice simply passes over the buoy as its head is forced down by the floe. Sometimes the ice is too quick for the spar and it is caught up and dragged from its moorings, accompanied by its anchor, provided the shackle holds.

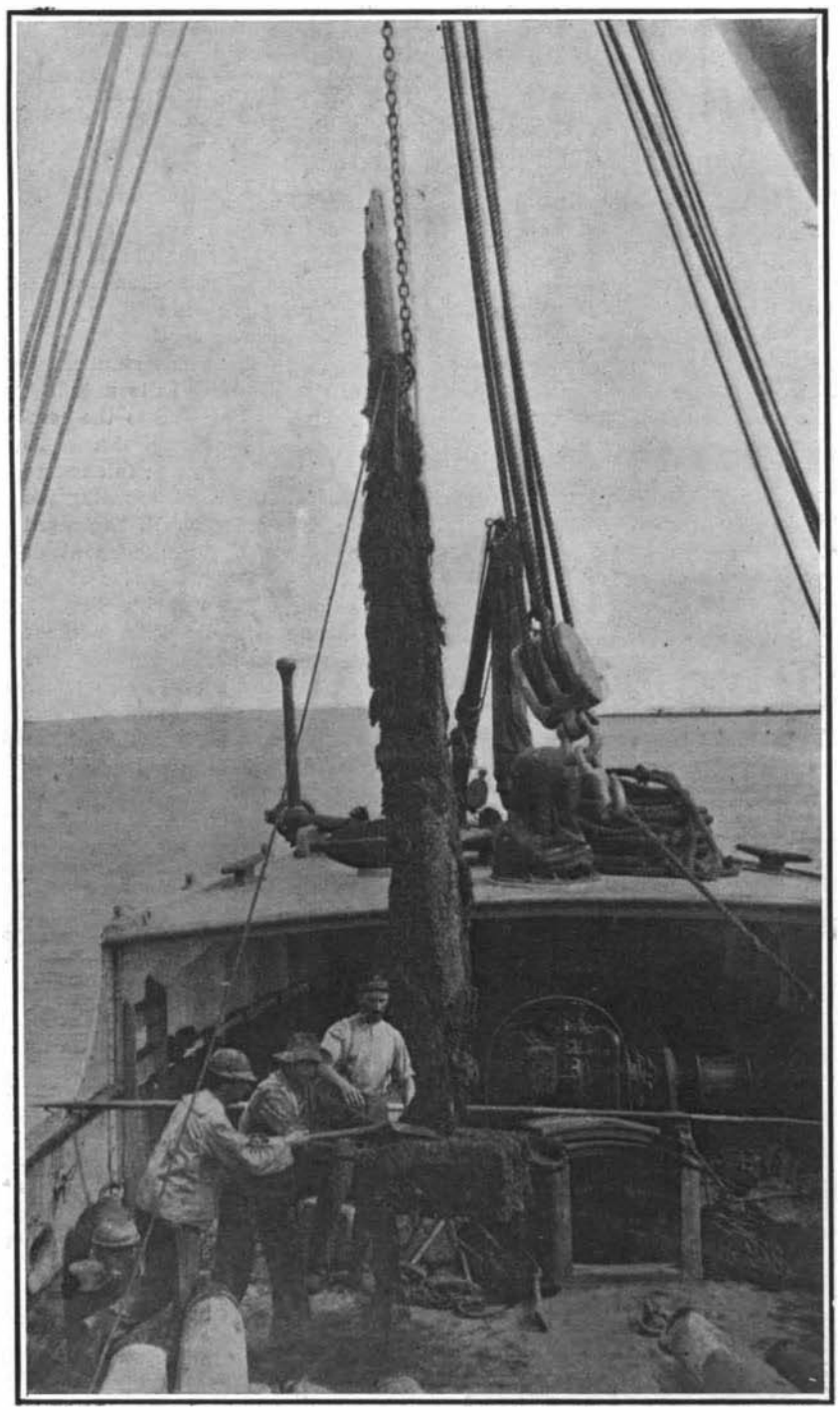
There is at present moored off the coast of Ireland a buoy which traveled to that point in six weeks, from its home in New York harbor. The government presented the buoy to the Irish Board, which, when they had added their distinguishing marks to it, anchored it where it had come ashore, in honor of its long and curious journey.

Wave and wind action is not the only factor which tends to move a buoy from its position. Ships, by being moored to them, though contrary to the laws of navigation, do their share of damage. To see the enormous iron anchors or the still larger blocks of rough stone with ring bolts through them, one would never imagine they could be moved by any outside agent, yet they not only drag their anchors, but often break off their shackles.

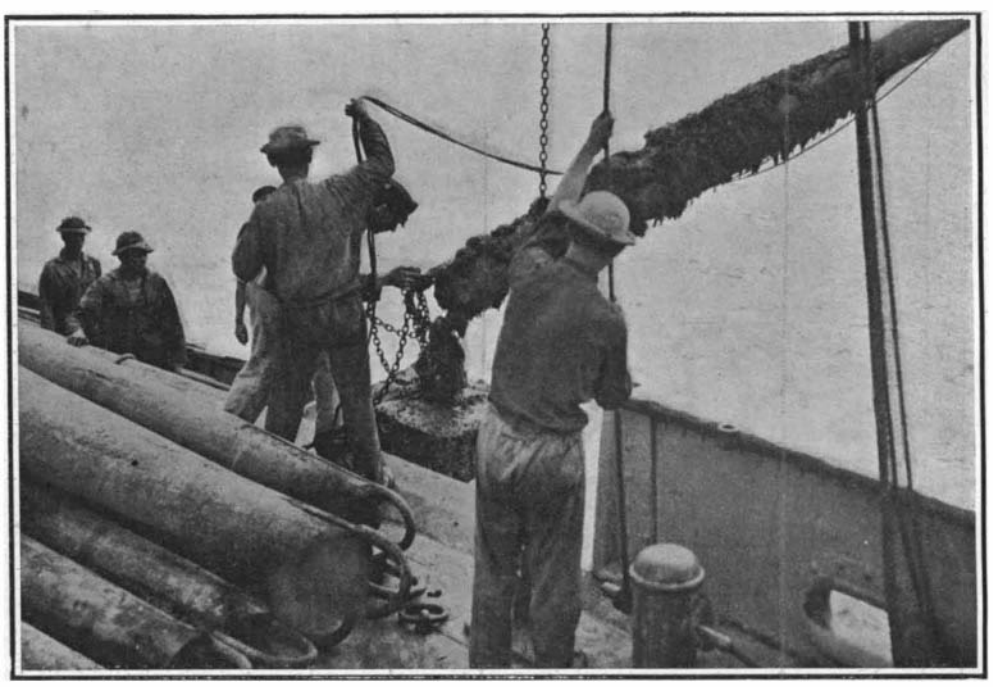
When the tender goes to replace a buoy, she runs up as close as possible. It is then caught by hand and a loop of chain thrown over its head. This, when drawn tight, bites into the wood and holds it firmly for the hoisting engine to raise. When six feet or more are out of water, another chain is slipped on, below the first, and as the other side of the hoisting engine hauls this in, the first chain is removed and adjusted below the second. So, little by little, the spar comes from the water, muddy, barnacled, and covered with seaweed. Then, before it is lowered to the broad deck of the tender, men with shovels scrape off the weeds and barnacles, often a foot or more thick, while others with brooms sweep off the debris and wash it clean with a hose. Two men with hammers loosen the iron-bound end of the spar from its anchor, while a third knocks out the connecting bolt. A fresh buoy, which is held in rope slings over the side of the tender, is always dropped beside the old one, before the latter is removed, unless, of course, the old one has dragged, in which case sextant sights are taken to locate the true position of the spar.

It is not often that a buoy is worked in bad weather, but in case a sea is running, the captain has to use extreme care. Should he tighten up on a firmly fastened buoy and a sea lift his boat, either the tackle will break or the buoy come up too fast. In either case, there is great danger of some of the men being injured.

This buoy service, so little known to the public, has its own code of laws, both State and national. It has a fleet of steamers for its maintenance and a corps of private contractors to attend to buoys in places impractical to work from a tender. It has depots for the making, storing, and painting of both wooden and iron buoys, and an annual directory for the use of navigators, showing the position and distinguishing marks of the thousands of buoys which dot the navigable waters of the United States.



Cleaning a Broken Spar Buoy.



Hoisting a Spar Buoy Aboard the Tender.

Removing the Spar from Its Anchor.

REGARDING SPAR BUOYS.

According to arrangements made, the War and Navy departments will co-operate in maintaining wireless communication between Nome and St. Michael and Seattle and San Francisco. Next year the signal corps of the army, which already has wireless stations in the Alaskan cities, will establish one at Fort Gibbon, which will be in touch with a station to be erected by the navy at Valdez. The navy has several stations in Alaska. Steel towers 175 feet high are to be erected at Fairbanks and Circle, Alaska, to carry wireless telegraph instruments. These towers will be 140 miles apart, and regular communication is to be maintained between them.

An irrigating canal has just been completed in Hawaii. It will carry 45,000,000 gallons of water daily through sixteen miles of tunnel and open ditch. Its purpose is primarily to carry water for irrigation from the Waimea River to the Kekaha plantation, but on its way it will be used at two places for the development of electricity.