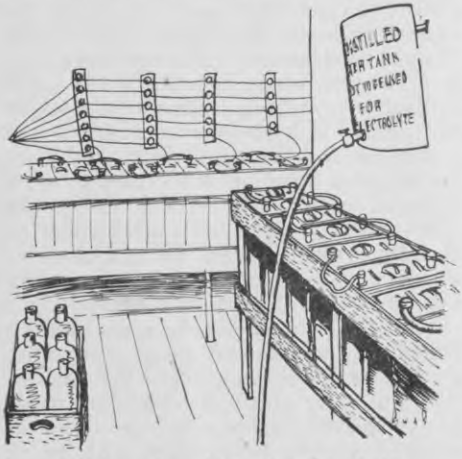
aeroplanes to determine their position in bad weather.

From the radio-beacon room we moved across to the motors and generators used for the beacon. Here there are six small machines on the floor like grey pups. Arranged in duplicate groups of three, one motor to one high-tension generator and one low-tension, these run in alternate months and supply the beacon with current. Behind the beacon-room is the battery-room, with ninety-six cells, arranged in relays on three sides of the room—enough to run a car for a life-time, but they will only keep the station going for a day if not recharged. The next room was the "brain" of the distant light-house.

Mr. Wylie pointed to a panel as wide and as high as the wall of a room, saying that was what did the work and was what we should write about. He pointed out three separate divisions, one for the engines, one for the batteries, and one for the lighthouse. The panel for the lighthouse was more complicated than the others, and it is here the long-short-short effect of the light is manufactured. The main feature was a small motor coupled to a rotating contact like the balance wheel of a watch, but a hundred times bigger. As we watched, Mr. Wylie flicked a switch and the motor whirred and the rotating contact clicked round, the cylindrical contact slipping over the cams with a sound like the sucking of a



The batteries which store the power.

The tower—forty feet of reinforced concrete.

pump. It is these cams, which are varied in length to accord with the length of the flash, that give the lighthouse its characteristic signal.

To the left of the contact is the automatic mechanism for starting the engine when the battery supply falls below 110 volts. As the battery banks in turn become exhausted, a charge brush moves across a buzz-bar, and when the banks have all been used up the charge-brush strikes a limit switch and immediately starts the engine. There are two of these 9 horse-power Diesel water-cooled engines, each used on alternate days, and they are so coupled that if one should fail, the other starts before it has completely stopped, while an alarm bell rings in the keeper's house.

It was about half past seven when we entered the engine-room, and Mr. Wylie had hardly started the lantern mechanism before a sullen thumping was heard behind us and we turned to find the fly-wheel of one of the engines revolving. Mr. Wylie then went to work with a copper oil-can, burnished like a coffee-pot, while we inspected the racks of tools and the quiet, efficient 4½ kilowatt generators.