

lava streams, which in the case of the coal have been only hot enough to char all the vegetable matter, while in the other case they have burnt it to an ash.

Eleven miles from the entrance of Royal Sound is a well-protected anchorage called Island Harbour, formed by a group of four islands,—Hog Island, Grass Island, Cats Island, and North Island, the passages into which are all safe and deep, except that between Hog and Grass Islands; this passage, besides being shoal, is blocked with kelp, which also marks the edge of the danger line round the other islands.

Island Harbour is the headquarters of the whaling vessels at Kerguelen. Here they rendezvous yearly to receive supplies and get rid of their oil; here they have erected two huts (on Hog Island) for convenience in boiling down the oil; and from here they start for Heard Island. From the entrance of the sound to Island Harbour the depths vary from 15 to 30 fathoms over a muddy bottom. Above that harbour the soundings are irregular.

Midway between the entrance to Royal Sound and Island Harbour, and on the south side of the sound, is an anchorage called Mutton Cove, sometimes used by the sealing schooners; from their description of its position it would appear to be on the west side of Murray Island.

One and a half miles outside Buchanan Island, at the entrance to the sound, is Pearcey Rock, upon which the sea breaks when there is any swell. With this exception, no danger was seen in Royal Sound, but it is highly probable that rocks exist in it; for it is unlikely that, over such a large area, where so many islands exist, there will not be also some submarine pinnacles; fortunately, these dangers will, to a certain extent, be indicated by kelp, for it is very rare to see a rock in a sheltered place at Kerguelen which has not a mass of this weed attached to it. The golden rule, therefore, in navigating these waters is to avoid that weed; and this more especially applies to screw steamers, for it is sometimes so thick and strong that there is danger of its disabling the propeller.

On the 21st January, at 6 A.M., the ship left Royal Sound and proceeded towards Cape George, in order to fix the south extremity of the island. Passing between Buchanan Island and Pearcey Rock, a line of soundings of from 20 to 35 fathoms was obtained; as the vessel proceeded to the southward the wind freshened and the weather became thick and squally. On nearing Cape George the land opened out to the southward, proving that this capè was not the southern extremity of Kerguelen, as was supposed by Captain Cook; but the weather was so unfavourable, and the swell from under the lee of Cape George so considerable, that the ship was unable to proceed farther at this time; and consequently bore up for Greenland Harbour, and after obtaining a haul of the dredge in 30 fathoms at its entrance, anchored at noon in 11 fathoms. The weather was very squally, the willywaughs coming down from the hills with much force and raising a quantity of spoundrift.