

and Balfour Rocks are two flat-topped islets, about 20 feet high, apparently free from danger, at the entrance to Royal Sound, the depths between which are 14 to 25 fathoms with a rocky bottom; two miles outside the outer rock (Balfour) a depth of 52 fathoms was obtained (see Sheet 21).

The southern side of the entrance to Royal Sound is formed by a large peninsula (50 square miles in extent) of rugged mountainous land, culminating in Mount Wyville Thomson, 3160 feet above the level of the sea. On the spurs descending from Mount Wyville Thomson are several conspicuous conical peaks, Thumb Peak, Sugar Loaf, Cat's Ears, and Mount Wild, varying from 1200 to 2500 feet in height; and off its northern coast are several peaked islands, Buchanan, Murray, and Suhm, from 200 to 500 feet above the sea level. This peninsula is joined to the mainland by a low, narrow isthmus, separating Royal Sound from Greenland Harbour. At 5.30 P.M. the surveying parties returned to the ship, which then proceeded up Royal Sound for Island Harbour, carrying a line of soundings, and carefully avoiding all kelp. At 7.30 P.M. a schooner, the "Charles Coldgate," was observed at anchor in the harbour; and at 8 P.M. the ship anchored there in 11 fathoms. From the captain of the "Charles Coldgate" no information could be obtained; he was a sulky kind of fellow, and seemed much disappointed that the Expedition knew so much about Kerguelen. He supposed the Challenger to be a few thousand miles out of her reckoning, and to have mistaken Royal Sound for one of the harbours of New Zealand.

On the 18th, shortly after midnight, the barometer began to fall, and the weather became thick and rainy. At noon a sudden gale sprang up from the northward, and the wind blew with considerable force (9) for two hours, after which it moderated rapidly, and there was a fine sunset.

The 19th was a fine day, so that astronomical observations were obtained from the summit of Hog Island, and various stations taken up at suitable points, in the sound, in prosecution of the survey. From the elevated stations on the summit of Hog Island, Suhm Island, and the western extremity of the spur from Mount Wyville Thomson, magnificent views were obtained of the mass of islands in what Cook fittingly designated a "Royal Sound." A base was measured by sound between Mouse and Hog Islands, and a survey of Island Harbour commenced on a large scale, whilst the stations on elevated points enabled the positions of the numerous islands westward of Island Harbour to be fixed, if not with absolute accuracy, still near enough for all present requirements.

The morning of the 20th was very fine, without a cloud in the sky or over the land, and the clearness of the atmosphere was very remarkable, every peak and spur from the mountain range sharply defined, and hills 15 or 20 miles off appearing only half that distance away, not a breath of air stirring, and the sea as smooth as glass. The calm continued until 9 A.M., after which a breeze sprang up from the northward, and the sky