Phœnix, Harper's, and others, laid down, but not named, all of which are believed to have no existence whatever.

On the 17th January they made Hull's Island, which has already been described, and was surveyed by the Vincennes. The party of Tahitians employed in taking turtles had left it. Captain Hudson, believing this to be Sydney Island, ran off forty-five miles to the westward, for Hull's Island, but, of course, saw nothing of it, as it lies that distance to the eastward, in the same latitude.

The position of an island supposed to exist in latitude 5° 23′ S., and longitude 173° 25′ W., was passed, but no signs of land were seen. They then ran over the supposed place of Fletcher's Island, in latitude 7° 02′ S., longitude 173° 22′ W., without seeing any shoal, island, or reef.

The effects of the rainy season were now felt in these latitudes, in sudden gusts of wind, with torrents of rain, that continued for a few hours of the night, and cleared up partially towards sunrise, after which the weather continued cloudy throughout the day, with squalls visible in various parts of the horizon. Our experience corroborated the generally conceived idea that this kind of weather usually occurs near small islands; but that these isolated spots, of such comparatively small size, can exert so great an influence in arresting and condensing the vapour, is not to me a satisfactory explanation. I am rather inclined to believe that it results more from the fact of the high temperature of the ocean in the neighbourhood, it being here nearly 90°, or several degrees greater than that of any other part of the ocean; consequently, the evaporation would go on much more rapidly, which, becoming condensed in the higher portion of the atmosphere, is again thrown down in copious streams at night. This is particularly the case when the trade-winds are interrupted, that would otherwise carry off the vapour. As far as respects the interrupting or arresting the flow of currents, these islands may exert some influence; but the main cause I should be inclined to impute to the high temperature acquired by the water in consequence of there being no currents.

The next day they proceeded to the Duke of York's Island, which they made on the 25th, in latitude 8° 36′ S., longitude 172° 23′ 52″ W. This is a lagoon island, of coral formation: its length east and west is three miles, and its width two and a half miles, north and south. There is no passage into the lagoon; the sea breaks on the reef with violence; but at high water a boat may pass over without difficulty, if proper care is taken. The islets that have been formed on the reef are eight or ten feet above the water, and are covered with cocoa-nut and pandanus trees.