

places which may be taken advantage of by vessels, either inward or outward bound when meeting with adverse winds; those on the southern side are Neeah and Callam bays, Port Angelos, and New Dungeness bay, before reaching the harbours of Admiralty inlet; on the northern side are Port San Juan, Sooke inlet, and Becher bay before rounding the Race islands, after which excellent anchorage may be always obtained with westerly winds.

On the northern or Vancouver island shore of the strait the hills rise gradually and are densely wooded, but near the coast attain to no great elevation; on the southern side the almost perpetually snow-clad mountains known as the Olympian range, rise more abruptly and vary in elevation from 4,000 to more than 7,000 feet; but though exceedingly grand in their rugged outline, present no very marked summits as seen from the strait nor any great variety in their features.*

TIDES.—It is high water, full and change, at Cape Flattery at noon and at midnight; the ebb stream there commences to run strong at 2h. a.m. and p.m. and continues for about 6 hours.

In the outer part of Juan de Fuca strait there is no very great strength of tide; it varies from one to 4 knots, seldom so much as the latter unless near Cape Flattery; but when approaching the more contracted part in the neighbourhood of the Race islands, which receives the first rush of the pent up waters of the strait of Georgia, strengthened and diverted by the labyrinth of islands which choke up its southern entrance, it is not surprising that eddies, races, and irregularities occur which almost baffle any attempt at framing laws which may not rather embarrass than assist the seaman; the result, however, of observations continued throughout an entire year at Esquimalt, and partially on other parts of the coast during three seasons, appears to warrant the following conclusions, viz. :—

The flood tide sets to the northward along the outer coast of the continent and Vancouver island. It enters the strait of Fuca at Cape Flattery, running with considerable velocity, sometimes 3 or 4 knots over Duncan and Duntze rocks; it then turns sharply into the strait, passing through the various channels among the Haro archipelago into the strait of Georgia, and within about 5 miles of Cape Mudge, where it is met by a flood from the northward, which, sweeping the western coast of Vancouver island, enters Goletas channel and Queen Charlotte sound at its northern extreme, in lat. 51° , thence southerly down the narrow waters of Johnstone strait and Discovery passage, meeting the tide which enters by Fuca strait, and reaches about midway between the

* See Chart of Juan de Fuca Strait, with Admiralty Inlet and Puget Sound, No. 1,911; scale $m = 0.35$ inches.