

*Continuation of C 8 Excursion.*

The *Princess Maquinna* left Prince Rupert for Jumeau at 11 p.m. August 31. Mr. N. F. OGILVIE of the Boundary Survey joined the excursion at Prince Rupert and acted as extra guide on the Alaskan trip. The daylight run on September 1, from Ketchikan northwards up the coast through intricate passages and narrow channels, was particularly enjoyable. The day was unusually clear and the gorgeous panorama of rocky heights, snow and ice-fields, which opens out in the Coast range after passing Wrangel narrows, was seen to full advantage.

The steamer stopped at Douglass, Alaska, at 9 a.m., September 2, a visit to the Treadwell mine near that point being included in the programme. The excursionists were met at the wharf by President BRADLEY and general manager KINZIE, of the Alaska-Treadwell Gold Mining Company, and taken to the mine on tram-cars. They were afforded all facilities for examining the underground workings and huge stopes in the wide, crushed and silicified diorite dyke which forms the ore-body of this celebrated mine, and were shown the various processes used in the treatment of the ore.

A delay of some hours at Jumeau, to replenish the supply of oil fuel, interfered somewhat with the programme, as the *Maquinna* left that port too late to traverse Icy Strait filled with bergs from Glacier bay before dark and was obliged to lie over. The passage was safely made early on the following morning and the run continued up the exposed portion of the coast extending from Cross sound to Yakutat bay. The day was comparatively clear and magnificent views were obtained of the great glaciers and giant peaks of the Fairweather range.

The night of the 3rd was spent in DeMonti bay near the mouth of Yakutat bay and on the 4th the steamer proceeded up Yakutat bay and its continuation, Disenchantment bay, to the mouth of Russel fiord. These waters are still practically uncharted, and near the head of Disenchantment bay, immediately opposite the great tidal ice cliffs of Hubbard glacier, the steamer grounded on a reef, at a point where the few soundings shown on the chart indicated 140 feet of water. Fortunately she was proceeding slowly at the time and the rising tide soon floated her off. As, apparently, the ship had not been seriously injured, the captain continued the run up Russel fiord and anchored for the night at Seal cove opposite the snout of Hidden glacier. On the 5th Hidden glacier was examined in the forenoon and Nunatak glacier, at the head of Nunatak fiord, in the afternoon. The recent history of both glaciers was explained by Mr. LAWRENCE MARTIN, whose familiarity with the region made him a most efficient guide. Numerous small but definite and unmistakable fault scarps in the schistose rocks bordering Nunatak glacier were attributed by Mr. MARTIN to shattering by severe earthquakes in 1890. Changes in elevation in the whole region bordering Yakutat bay and Russel fiord and probably extending over the whole St. Elias range, occurred at the same time. These changes, mostly of uplift but some of depression, are clearly indicated by raised beaches and sunken areas along the coast.