No. 1 1891

No. II.

George M. Dawson

Private Diary

1891.

September 8. 1891. at Petropaulovski, Kamtschatka.

Ashore after breakfast & spent some time at store, looking out various things & finding some interesting skulls etc., as well as numerous reindeer antlers of which a number purchased. Back on board about 11 & seems prearranged visit of the Forward, who called just on the man of war & was saluted. Had some conversation with him, but did not elicit much of interest. Lunch & a return call on the Captain of 'Alert,' Russian gun boat, then in order. Amusing to take some photos. & look at rocks along harbour before old time consumed in ceremonies & so sent my card with apologies, Sir George & Mr Fronde calling. More saluting. Got a number of photos. of town, monuments etc. The town is well supplied with wine, having one

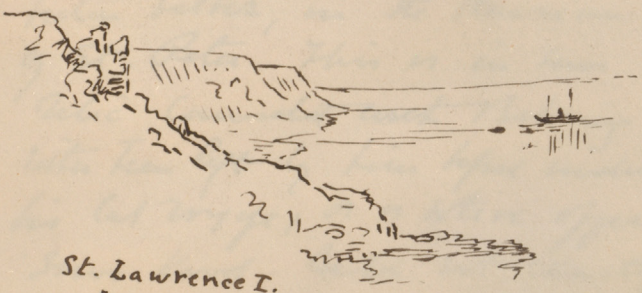
From the Window of Knock House May 28. 92 Sydney P. Hall

Сей святый образъ обновленъ
украшенъ тщаніемъ и подаваніемъ
Фрола Лейменкина Григорія Овдюна
и всѣхъ сущихъ на островѣ
пустова острова на оси

СВ. АП. ПЕТРЪ

Inscription in Russian on silver of picture called Behring's in Old Church. Petropavlovsk
Sep. 8. 1891 (Part of inscript. wanting)

to memory of Behring, one to
the defence of Sitka against the English
& French, a cross of wood to the
memory of Tolstoi & a memorial
chapel & crosses to the English, French



St. Lawrence I.
Aug 15. 91.

away & with it part of the inscription.
What remained of it was carefully
copied out by the Governor for me, but
Mr Sindquist was unable to
translate it — saying that the Russian
was too classical for him.
Visited the memorial chapel, in which

Се
ук
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ПЕТРЪ

Silver of picture
Petropavlovsk
t of inscript. writing)

to memory of Behring, one to the defence of 57 against the English & French, a cross of wood to the memory of Tefarouine & a memorial chapel & crosses to the English, French & Russians who fell in the engagement of 1854. There is also in the old church a picture, largely covered with beaten silver, in the Russian style, of St. Peter. This is in some way a relic connected with Behring, having either been left by him before undertaking his last voyage, or a votive offering of some kind. Could not exactly get the true history of it. Evidently an antique. Part of the edge of the lower part of the silver is worn or broken away & with it part of the inscription. What remained of it was carefully copied out by the Governor for me, but his sindquist was unable to translate it — saying that the Russian was too classical for him.
Visited the memorial chapel, in which

a commemorative service of same kind is held every year. Picked up some additional objects of interest in the town & then took on board, with a boat full of auctions etc etc. Capt Burr & two of his officers to dinner & talk kept up till nearly midnight. After some trouble & difficulty Capt. Burr has arranged with the Governor to allow him to take sufficient coal (about 300 tons) to carry him on his way back to Japan. The coal here at present comes from mines worked by Russian convicts in Saghalien Island. The mine is situated at Dui. It is that used for Russian fleet at Vladivostock etc.

Sept. 9. Had intended leaving pretty early, but postponed time to noon, in order to give Capt Burr opportunity to complete his mail. Found this morning, however, that the engineers would not be ready for service till 5 P.M. Spent part of day writing etc. & had a stroll along the beach on east side of bay, looking at rocks etc.

Had farewell interviews with Capt Nunn, Mr Lindquist etc. Got up anchor & left about 8 P.M. & before long began to feel the roll of the Pacific again as we passed the open sea beyond Avacha Bay. Another magnificent day & quite oppressively warm esterie for a time. Sky almost cloudless in the morning, but in P.M. a few clouds collected about the high mountains. A beautiful yellow glow at sunset with fine volcanos on the mountains & land. This was a church holiday in Petropaulovski, stores closed & people assembly strolling about. Had about a fair on deck for a time with natives bringing skins etc etc to offer for sale. Purchased a very odd looking robe made of red fox ~~skin~~ ~~fox~~ tails sewed together, paying $20 for it.

The postal communication with Petro. is by way of Vladivostok, with the exception of occasional & unofficial mails from San Francisco, sent in by the

Alaska Commercial Co. Two mails come from Vladivostok in course of Summer. In Autumn, after the snow comes, a winter packet sets out northward with Cossacks & dogs. This travels by means of relays & huts provided for night shelter, somewhere out the Centre of Siberia, where it is met by a corresponding outfit from the other direction. Mails are exchanged & both outfits return to starting points. The journey consumes the entire winter.

It is said that grain of no kind will ripen at Petrospaulovski but I should have supposed that barley & rye would grow. Potatoes are at present well grown, with tops stiff & vigorous looking, in flower. There is certainly a very heavy snowfall in winter — the people say quite too much for horses to travel through — & the presence of snow-patches on the higher mountains bears this out. Even on some of the lower hills there are still considerable patches of snow, & in the vicinity of Cape Tolstoi

Remains of heavy winter drifts were seen quite down to the sea level under high banks. The climate is evidently better on the whole than that of the Aleutian Islands – probably not nearly so wet. At the same time it must be more severe in winter, so that the whole winter's fall of snow remains intact until spring. The actual harbour of Petropavlovski freezes completely over & the ice is deeply covered with snow. Capt. Blair states that early in May there is plenty of snow all about the stores.

One of the most striking things about this part of the world is the character of vegetation on the hills. At all lower levels & where sufficient shelter grows birch trees of medium height & picturesque appearance – something like the fruit trees in an old orchard. Between & about these grassy glades & wide stretches of scrubby bushes, very difficult to travel through. There are also a few scrubby firs of some kind, with large-seeded cones, which

observed some of the children eating nettles from. Anywhere on the American coast the hills would be covered with coniferous growth of some kind, or if the climatic conditions sub-arctic would at least show coniferous scrub. Cannot explain here the appearance instead of hard wood trees. Somewhere in the interior birches of good growth must occur, for numerous straight & well shaped dug-out canoes of considerable size are in use about Petro. These probably come from the valleys of the larger rivers. It is also said that in the interior good west timber — coniferous of some kind — occurs. The inhabitants of Petropavlovski & vicinity are Russian immigrants with possibly some half-breeds or 'Creoles' not natives of Kamtschatka. These, it appears, are now only to be found farther in the interior.

Geology. Kamtschatka is preeminently a volcanic region & the most striking feature of the portion seen is the symmetrical conical volcanic mountains, of great height. Some of these are still active & from time to time in eruption, though generally showing only a little escaping steam & more often not even this token of their occasional activity: others are not known to have been active within historical times.

Besides these conical mountains, there is however, much irregular mountainous & hilly land, which from its form alone does not indicate whether composed of volcanic or of other rocks. Very probably this also may be largely volcanic, but if so it has been denuded & sculptured out into systems of hills & valleys like those of some of the Aleutian Islands, already described. This denudation may be supposed to have occupied some part of the Tertiary period.

Judging alone from the forms of the

land, there is clearly the most sujeus of a still more recent plane of marine denudation. This was observed particularly about Cape Ishipunski, where it forms the head of the promontory & fringes the bases of the higher hills sometimes for a width of a mile or two. At Cape Ishipunski, estimating from heights given on chart, this plane reaches 700 or 800 feet above the present sea-level & its lower parts may be about 600 feet above the same level. Traces of the same or a similar plane, though at a somewhat less height, are seen in the vicinity of Avacha Bay. At Cape Ishipunski this narrow peneplain has itself since been cut through by narrow V-shaped valleys leading to the sea. Most of this valley cutting seems to have occurred while the land stood say 50 to 100 feet ~~above~~ below its present level, as the valleys are not cut down to the present sea level but terminate at scarps or low cliffs, while between the valleys stand high sea-cliffs

approximating to the full height of the peneplain; thus —

(see U.S. Chart No 54. Bay of Avatcha. view No. 3. which is a very fairly accurate representation of Cape Lopatinski)
That the plateau forming Cape Lopatinski is not of original formation, but subsequently uplifted, is shown by the fact that it is seen in cliffs, particularly near the end of the Cape, to be composed of well stratified rocks lying at various angles & sometimes at fairly high angles. What these rocks are I do not know, but very probably similar to those of Petropavlovski, noted below.
Diagrammatically the Kamtschatka land may be represented as on next page, with reference only to the important or of its several features. Besides those above noted, there is also a flat or delta plain near the present sea level, as for instance in the bay west of Cape

Diagrammatic sketch illustrating the Arracha Plain.

1. Old denuded hilly surface.
2. Peneplain
3. Active or recent volcanic cones
4. Delta flats at mean present sea level
(should be drawn lower a mere flat)

On the East side of the harbour of Petropavlovski, behind the town, a faintly impressed level line seems to indicate a terrace or incipient terrace at a height of about 250 feet above the present sea level, but apart from this no evidence of terracing observed. No evidence of erratics or of boulder clay noted & no striated rocks, though it must be added that no good locality for observing striation on unweathered surfaces of hard rock were met with in very limited examination made about harbour of Petropavlovski.

At Bebchebinska Bay near Cape Ishiponski (S. side of bay) specimens of a peculiar grey trachytic? rock collected by Malcom, but no knowledge obtained of composition of strat. rocks of the Cape.

About Petropavlovski Harbour, the rocks are well stratified, often in regular layers of a few inches in thickness. They consist of grey & greenish felsite-like materials generally quite fine grained & possibly approximating to argillites

in places, associated & frequently interbedded with grey, blackish, greenish & nearly white beds like cherty quartzites or barn stone & with greenish diabase or chloritic & other schistose rocks. All these are rather highly altered & considerably disturbed, sometimes for limited areas contorted. often broken by small faults. Much jointed & shattered, weathering to rubbly slopes. The rocks are evidently in part at least of volcanic origin & have been probably detrital volcanic materials laid down in water. At the same time they must pertain to a much older period of volcanic activity than that to which the actual volcanic cones belong. Serve to indicate continuance of such activity from a remote period which may date back from the Palaeozoic as well as Mz. Closely resemble altered volcanic materials & barn stones of such formations as Cache Creek in B.C., but nothing distinctive. Might as well as not be referred to Triassic volcanism

to Cretaceous or some possibly to Tertiary. but unlike in general facies to the rocks noted at Alton Island off the harbour entrance.

Attitudes of these rocks varied & somewhat irregular, though in vicinity of harbour prepondent southerly dips at fairly high angles & seriously several thousand feet in thickness exposed. At Cove cliffs near W. side entrance to harbour D. S 10° E ∠ 30°. Similar dips all along this side of harbour. About a mile beyond spit, on E. side of Hr, in low cliffs, similar rocks D S 40° W ∠ 60°, but in following stone into harbour rocks varied & irregular dips. Further out, beyond the deep bay on E side of Harbour stratification appears nearly horizontal in some of cliffs.

Sept. 10. Steaming eastward all day. Remarkably fine & nearly calm, with very light swell. Wrote most of notes up to date. Saw a good many seals sleeping on the water this afternoon.

Sept. 11. Steaming eastward, headed for St Paul Island. Moderate sea in Am. bearing heavy & short in Pac. Steamer rolling very heavily & dinner conducted with the greatest difficulty. At noon. Lat. 58°50 Long. 169° 3' E

Sept. 12. Some strong wind from N.W. during night & continued heavy sea through night & all day, though bearing larger & more regular in Pac. Wind falling & turning S wind in evening. Steamer very lively & uncomfortable. At noon Lat. 54° 32' Long 175° 22' E.

Sept. 13. On towards St Paul Island. Pretty heavy sea all day. No incidents. At noon Lat. 54° 54' Long. 178° 37' W. Had a short preliminary discussion with Sir George today about division of work in writing final Report

Sept. 14. Wind light & sea moderate, but Danube rolling in very uncomfortable fashion in anticipation of landing. Engines

Stopped for about half an hour during day to make some slight repairs. Lat at Noon 56° 20' Long. 172° 42' W. Hoped to make land of St Paul's before dark, but failed to do so. Showery & cold weather but fine looking & no fog. Nearly clear, & moonlight night enabling us to make the land off St Paul & get into bay opposite village & anchor. Came to anchor at 11.50. Some small ice 'sand' coming in from the westward, together with a little wind, but not enough to make the anchorage uncomfortable.

Sep. 15. Breakfast at 7 a.m., & during progress steamer moving round to anchorage off Black Bluff, where with less wind there appears to be a better chance for landing. Ashore & had talks with Redpath, Baldwin, Col. Barnes, Fowler & others. Then out along Reef Rocking & carefully inspected it, taking a number of Kodak shots. Back to village, meeting Dr Allen, a new arrivals. Arranged with Redpath

Ende.

to telephone our arrangements to natives at N.E. point, & steamed off for that place, where landed early on beach on South or lee side about 2:40. Crossed the narrow neck to the North shore & examined workings all round the point, stopping some time on Hutchinson Hill & taking half a dozen photos. there. Back on board about 6 P.M. Arranged to remain here at anchor all night & start about 6 A.M. for our Eastward cruise & then to Unalaska. Day moderately fine throughout, though occasionally showery & overcast most of time. Fine bold sea falling in on North shore of island & amusing to watch the seals, both old & pups playing & diving about among the breakers with the utmost unconcern. Great abundance of bones of whales & walrus scattered over the beach plots at a height of a few feet above the highest high water line. As it is quite impossible that these have been carried here at any time they would appear to indicate pretty certainly a rather recent uprising of land by an amount of perhaps

five or ten feet, probably nearer the former than the latter amount. The stripping away of sand for a considerable distance within the stone line on the north east point — previously alluded to — may reasonably be attributed to the sea action at this time. Hutchinson Hill is composed of basalt (?) flows, slightly inclined & usually highly vesicular. Much of the actual surface composed of angular blocks which sometimes lie undisturbed in juxtaposition, sometimes tumbled about irregularly. This mode of block degradation explains the great proportion of angular rocks covering the slopes of this hill & characterizing all the stony fields away from actual surf action. The same thing seen on the Reef & shoulders. On the Reef, the stratified volcanic materials of Black Bluff appear to underlie and at least by the thicker basalt flows, which appears in an inclined position a little further to the south, near ~~Hutchinson~~ Hill & there seems to be evidence of a second reddish, stratified sedimentary bed, which is very probably again the

Same work that of the Wilcox Hill. Many basalt blocks in the Reef show the original lava flow structure very perfectly.

The extreme regularity & almost uniform flatness of the land stretching from the base of Polovina Hill to the end of Polovina Point — particularly as seen in profile from North East Point — appears to represent an old water level of some kind & is not easily explicable as an original feature of volcanic action. Would appear in fact probably to represent a shallow sea bottom at time of eruption or a plane of marine denudation formed perhaps during period of volcanic activity, perhaps after & partly strewn with direct volcanic debris or with debris resulting from marine wash of outstanding hills. In either case would show an approx. sea-level at time when higher hills already islands. A condition of considerable duration. Height of flat a very lightly inclined plane say 50 to 100 feet above present sea-level.

Sept. 16. Anchor up at 6 A.m. & steamed off to the Eastward, making about 110 miles before dark at 7 P.m, & looking at fur seals in this direction. At 7 P.m changed course & made toward Unalaska. Passed close to & spoke the whaling bark 'Lydia' this P.m. A regular old-fashioned whaler, plunging about in a lumpy sea. Very frisky seeling on the sly or perhaps serving as a depôt for schooners! Got a couple of Kodak shots at her. Day fine or with only occasional showers, but bitter cold. Glimpses of sunlight.

Sept. 17. Very clear this morning & the high mountains of Unalaska in sight from daylight. Passed & exchanged signals with the U.S. man-of-war Mohican about 1 P.m. Got into Illiuliuk Hr, Unalaska between 4 & 5 P.m & anchored. Found the Nyanda & Bear (U.S. Revenue cutter from the Arctic) in outer harbour. Rush in inner harbour. A coaling vessel discharging coal & the little

Wharf & the steamers Costa Rica & Alki here as before. Barometer falling all day & south-easterly wind with rain beginning as we reached the harbour. Soon freshened up to something like a gale, with heavy squalls of wind & rain. Capt. Turner of Nyanza came on board & afterwards to dinner at 7 P.M. He brought from San Francisco papers to dates as late as Aug. 15. Which we spent some time in looking over after he left. Arranged about coaling, watering etc. tomorrow, preparatory to continuing cruise to Sitka etc.

Sept. 18. Dante went alongside Collier Costa Rica early this morning & employed all day there taking coal with aid of a detachment of men from the Nyanza. Call from Capt. Coulson of Rush & Mr Stanley Brown. Also from Capt. Turner. Went to pre-hold with Malcom & arranged storage of Seal skeletons & Rhytina bones. After lunch call from Mr Jarvis from the Revenue Cutter Bear. Interviewed a posse of natives under Peter's jurisdiction, about

killing of seals round the Eastern part of Aleutian Islands. Went ashore in steam cutter from Nyanpah. Saw Mr Neumann, Col. Murray & others. Called on Capt. Carlson but found him from home. Then called on Capt. Healy of Bear & had some conversation with him, his wife & Dr Sheldon Jackson. He has a small herd of reindeer on board, most of which he proposes to place on some one of islands here, the ultimate object being the improvement of condition of natives. Evening writing letters, changing photo. plates etc. Find that coaling proceeds slowly & before we will have finished this & watering tomorrow we probably be crossed. This will delay our start till Sunday morning apparently.

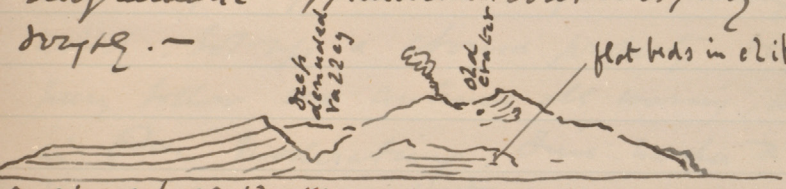
Sept. 19. Writing letters this morning & attending to other little matters. Calls from various people. Lt Rem. Called on Capt. Carlson of the Resch & afterwards spent some time ashore with Mr Neumann. Mr Neumann & a Mr McNamus,

a Newspaper Correspondent who came up here on Schooner Otto - subsequently seized - who is now asking for a passage south which we cannot offer him. Blowing a fole of wind all day & apparently going round from S.E. to southward & westward. Broken clouds & occasional sunshine.

Sept. 20. Very heavy wind all night, but slackening off toward morning. Set away about 7 a.m., steamed out of harbour & shaped a course for the Unimak Pass. Nymph left shortly after us, going by Unalga Pass & steering straight for Sitka. Found a rather lumpy westerly sea & some wind from same direction outside. On getting through the pass met a heavy South-writing sea, & hard to go in trough of sea did seem rather heavy rolling, though ship now in pretty good trim. A beautiful clear moonlight & starlight night. Had a pretty good view of Akutan & other islands as we

the Unimak Pass generally, though the high lands to Westward continuously covered by clouds.

Geol. Akutan Island, viewed from the South, seems to represent denuded remnants of a single great volcanic centre. Middle & eastern part of island appears to have been focus of eruption. Western part shows sloping outwards strat. beds like those of flanks of old ruined cone. Actual slight activity, indicated by steam, near but perhaps in little east of old focus. General diagrammatic appearance about thus, my dear by.—



Inclined beds, flanks of old cone.

Few of the volcanoes of the Aleutians show anything like the fresh, unaltered regularly-conical forms of those of the Kamtschatka Peninsula.

Sept. 21. Steaming north-eastward - all day, steering for Alitack Bay, Kodiak, where I hope to call. Overcast & misty South-eastward backing to eastward wind & falling barometer, but no gale as yet. Nymph in sight for several hours this morning. Air-pump gang working sequence was stopped to make repairs for about half an hour this morning

Sept. 22n. Wakened about 2 a.m. by general pitching away of things & found ship in a very heavy sea with strong South-westerly wind. Got up & observed property. Very heavy hollow sea continued all morning, but in P.m. moderating. Fine weather & bright sun. Owing to the heavy sea, found it would be impossible to anchor in Alitak Bay, which is quite open to the sea. Decided to make an call at St Paul village, at the other end of the island. Land in sight, but very distant, the Captain keeping a long way off shore.

Sept. 23. Going slow during night, & in morning passed anchor off C. Barnabas. On clay coast of Kodiak Island, round Point Greville & into harbour of St Paul. Landed in boat, meeting port Customs Collector Mr Brotherton, then agent of Alaska Commercial Co Mr Washburn. The latter has been here for 13 years & was therefore able to give some information about fur-seals etc. Finding that little more could be done here, returned to 'Dennis' & got up anchor & steamed off for the eastward about 5 P.M. Weather has been gradually growing more misty during, sky becoming obscured, barometer falling etc. A North-easterly wind & gloomy appearance when we left.

Sept. As seen from the sea, the interior of the South western part of Kodiak Island is occupied by a high, rough stony range of mountains, of which some of the peaks are probably 5000 feet in height. This runs with the length of the island & resembles some parts of the B.C. Coast Range, being apparently composed of granitic or metamorphic rocks

& without any appearance of volcanic origin. From Cape Barnabas to Wyatt Bay the land forming the coast & extending back to the mountains above mentioned, is characterized by bold & rather steep sided flat topped hills & truncated ridges of a few hundred to probably 1000 or more feet in height. These end in cliffy scarps towards the sea but so far as seen do not form bold sea-cliffs. Weather fully & irregular & from the appearance of being composed of rather indurated stratified rocks such as shales or slates.

Beyond Wyatt Bay, & the N. eastward, the outlines of the hills are much more irregular & varied, rough in detail & they generally thus indicate some change in the composition of a considerable area in that direction.

Port Erroll & vicinity, with the islands & shores of Chimiak Bay, so far as seen, seem to consist of stratified rocks of somewhat altered appearance, dark grey or black & generally for the most part argillites bedded or slaty.

Rocks were closely examined in the harbour of

St Paul consist of black & dark grey argillites, sometimes affected by slaty cleavage, with dark grey sandstones or grauwackes. These strike about N.E. – S.W. with the run of the inlet or channel which forms the harbour & dip at high angles to vertical. From N.E. analogies would be inclined to regard these rocks as Triassic or older Carboniferous, but could find no fossils at the point where we landed.

A low rock, projecting a few feet above the water in the channel of the harbour, appeared, as we passed in the boat, to be distinctly striated by glacial ice, which had worked from S.W. & N.E. along the valley occupied by the channel.

The south western point of the island of Kodiak is treeless & covered with grass & willow & rocky on the hillsides. Series of shrubby growth begin about Cape Barnabas, & appear in the valleys & seams of the north eastern point of the island is dotted over with single trees & groves, which collect together in some places into considerable woods,

in Sewa of which (judging from the size of poles obtained from them) the trees attain a very respectable growth with a diameter of two feet or more. The trees are apparently nearly all Spruce & Slender Abies Menziesii or Sitka Spruce only.

Sept. 24. Heavy sea & fresh westerly winds all day, frequent showers. Very unpleasant on deck & motion of vessel too violent to admit any continuous occupation in reading or writing. A large fish-hawk or osprey of some kind, evidently lost, remained about ship for some time this morning, tried to perch on mast heads etc. altogether an unpleasant day & very tedious. Changed course direct to Sitka & noon, finding that it would be useless to attempt other calls or work further northward in this continued rough weather.

Sept. 25. Heavy sea & strong wind all morning. Wind less, but heavy sea

Continued in towing. Very tedious as work of any kind seeming possible. Sky bright with floating clouds & barometer rising.

Sept. 26. Engines stopped about 2 A.M. but on deck & found that air pumps had again given out. Fortunately at turn tide wind & sea rather moderate. After that fully an hour got under way again. On getting up in morning, off entrance to Sitka Sound. Picked our way gradually in through the range of islets which lies off harbour. Showers & sun alternately & higher peaks of mountains partly thickly covered with new snow. Found Yaquitte & Costa Rica in harbour & anchored beside them. Corwin & U.S.S. Pinta, also in harbour. Visit from Capt Turner, also from Capt. Maynard, of Pinta. Landed & called on Governor of Alaska Knapp (?) Introduced to several ladies in his office, also to Judge Dugbee & others. Had a long talk with several

Gentlemen there on selling, seals etc in this district. Afterwards with her visited the museum of the Ethnological Society here, & my Caritolli support. Walked as far as the mis & returned to town. Looked up an Indian who had been recommended to us & asked him to obtain one or two of the older people to give us such facts as they could on former conditions of sealing etc. Capt. Turner on board for dinner. Call in evg. from Capt. McSutyeen of the Costa Rica.

Sept. 27. Walked this morning on board Danville with four Indians, three of them hunters, about fur-seal hunting etc, getting some useful facts about this district. Called on Capt Magnard on board his vessel the Pinta, where also met Mr Simmons. Got some information about Indian villages to southward, determining us to call at Stokian. Dr Rau, Landed, called at Mr Simmons's home & saw part of his

Hinkit ethnological collection, photos. etc. Met Capt Wagnard here again & also Mrs Emmons. Back on board & off at 4.30 P.M., following Nyuphe out of harbour. Nyuphe now bound for Sequin & Alt direct. Got into a very heavy roll immediately we reached the open & had a disturbing time rolling about all night while steaming southward slowly. Unable to go fast, which would have decreased motion, as this would bring us to entrance to Summer Str. before daylight.

Sept. 28. Got under way again at full speed at early daylight this morning & ran for entrance of Summer Strait. Soon got in to less troubled waters & before noon reached Shakan, in north part of Prince of Wales Archipelago. Had been recommended to call here by Lieut Emmons, instead of going to Klawock, he telling us that Klawock difficult of entrance & not charted while few of Indians would

lately he found here. At Stikeen a saw-mill & Indian village. Landed & found an Englishman named Sarel, with his wife & child & a Dr von Hassbecher. These people had lately purchased the mill & are going to see what they can do with it. Sarel is a very good-looking fellow & the French Dr is a man of varied experience. Informed us that he is an Alsatian & had been a surgeon in the French army, in Algeria. Afterwards in the Sandwich Islands & accompanied Queen Emma on her trip to Europe, when he afterwards for a time represented the Hawaiian government. Has, with Sarel, lately been endeavoring to make a success of hydraulic mining on the Stikeen River, at Buck's Bar. This appears to have fallen through in some way. Singular to find him & his partner now stranded in this lonely place, with only Indians for companions. Appeared to be delighted to see us, & got together some Indians, including a couple of Klaowah people from whom we got some

interesting evidence on the pre-seal question.
Asked the party on board for lunch. Got
off again about 3 Pm, & finding that
we would be benighted before long, anchored
at 5 Pm in Protection Port, with end of
Prince of Wales Island. Took a row up to
head of harbour before dark & then back
on board. Blessed somebody not taught
in these just wolves after our experience of
last night.

Geol. At Shokan hard argillite-like rocks
with much grey granitic material lying
about. Had no time to examine carefully.
At Port Protection, see similar rocks, black or
blackish & in some places resident argillites,
hearing west. & striking about NW-SE parallel
to zone of indentation in coast which forms
this harbour. There are considerable areas
of a rather worm grey limestone, which shows
on the west side of the harbour. There
strict rocks cut by numerous basaltic or
nearly black dykes of trap of some kind.
Too dark to see much of geology.

Sept. 29. Got off about daylight & steaming all day through Channels toward Port Simpson. Capt Myers being quite familiar with these waters, able to keep on after dark. Reached Port Simpson & anchored there about 9 Pm. Very fine clear day, & calm water enabling me to get through some work, notwithstanding the difficulty of so doing because of having to write in deck cabin at head of stairs where constant passing too & fro.

Sept. 30. Landed immediately after breakfast & saw Mr Clifford, in charge for H.B.C., Mr Lockerby of Company & a couple of Indians, getting some interesting additional evidence, particularly as to presence of fur-seals on coast in the winter about here. Off at noon for Metla-Katla, anchoring there about 3 Pm. Landed & saw Bishop Ridley, Mr Todd (Indian agent) & others. Mr Todd handed over the refuels made by himself

& agents at Alert Bay & Nanaimo (W. Coast Agency) on fur seals in their respective districts. These reports made in response to my circular of inquiry transmitted by Mr Vowell. Spent a short time talking to people & spread afternoon tea by Mrs Ridley. Off about 5 P.M., for Port Essington, on Skeena R. estuary, where some information is to be sought & where also the Captain informs us he must get water & clean out his boilers. Captain made an attempt to go in by N. channel, but eventually came to anchor about 7.30, apparently finding it too dark to go further in this narrow pass. Delay rather provoking, particularly as Sir George is getting very impatient & there are still several places at which we should call. A beautiful fine day & fine sunset.

Ascertained distinctly today that seals abound in Hecate Straits & Dixon Entrance, & also begin to see that pretty conclusive evidence that a considerable portion of the

fur-seal tribe actually winter along the B.C. coast. This appears to be particularly indicated by numbers of similar observations referred to, & if correct a possible will dispose the supposed mystery of winter haunts of seals.

Oct. 1. Got off this morning when tide suited down to Port Essington. Found that we should have to remain here all day to get water &c. in consequence of various difficulties. Saw Mr Cunningham & his son George Cunningham, a Kit-Ketla Indian & others from whom got some evidence of interest. Present a showery most of day. Mr Mabood here working some surveys appeared as serene amusement in a partially inebriated condition during the evening.
This is the place from which I started about two, in 1879 for the Peace Rivers etc — a long trip ended only at Winnipeg in December.

Interpretation name for tobacco.

Derivation of name Skeena.

The Tsimsians used to obtain the native plant used as a narcotic in place of tobacco in early days, from the Haidas. Haida name of this plant Win-daw & this adopted as the Tsimsian name. 'Um-shi-wa' is Tsimsian for a foreigner, as a white man, & therefore win-daw-shi-wa = "white man's tobacco", the present name of tobacco. So far from R. Cunningham. Interesting to note further that Cumshiwa on L.R. Ss appears to be the same as the Tsimsian word for "foreigner" & that Cumshiwa was an Ind., perhaps the chief, place where the native tobacco was produced.

Cunningham says that he has made this out as follows, & from his statement I believe him to be correct in his explanation. When he first came, more than 20 years ago the name now written Skeena was commonly known as Ak-shēn', this being the correct Indian word, from which the

Indian commerce.

Indians themselves have since been led away to a great relat of the whites.
Ak in Tsimsian = "water"
shēn " " = "unlucky"
Finds that the latter, or "Unlucky Islands" is the name of Smith & De Horsey Is at mouth of Estuary. On these islands the Indians will not eat even the berries which grow on the shellfish from the Stores.
Ak-shēn may therefore be translated as "river of (or at) the Unlucky Islands". This seems to afford good presumptive evidence that the Tsimpseans did not come down the Skeena to the coast, as has been asserted, but that they explored the river & occupied it from the mouth upward, naming it after the previously known islands at its mouth.
Find that Cunningham has been — as he himself states — the principal intermediary between the Indians of the upper Skeena & those of the

Coast, in trade. This river & the Nass have always been important trade routes, but in old times the Nass probably rather than the Skeena, as the main (local) 'grease trail' runs on int the interior from the upper Nass. This way, however, depend only on the great abundance of the Oolachen on the Nass & may thus apply to the oolachen grease commerce chiefly.

Mr Cunningham's store at present large quantities of berry cake prepared by the interior Indians & brought down to sell (at very good prices) to the Indians of the Coast. This berry cake is really made up in packages of 10 or 15 lbs weight, wrapped & lashed in birch bark. It is of two kinds, the ordinary Service-berry cake & cake made of Shepherdia berries, — the Sap-ollalie. The coast indians again, Mr Cunningham says, gather large quantities of 'dulse' on the stones, dry it & press it into

cakes, which are highly (& very justly) valued by the interior Indians. Cunningham buys lots of this & sells it to Indians coming down to trade from the inland. He says that they chop it up fine & boil it with grease, before using it for food, but probably use it in other ways as well.

Oct. 2. Got away about 2 a.m., when the tide served & dropped down the river. Anchored once for a short time, prob. on account of darkness. When I came on deck about 8 a.m. was just outside Edge Pass. Crossed Hecate Strait. South-easterly wind, thick & dirty, but not very strong. Saw only the breakers tumbling about point of Rose Spit. Got into Masset about 3:30 p.m. Went ashore at once & met Mr Alexander, in charge for H.B. Co., Mr Keen, the missionary here & others. As neither of these gentlemen had been long at Masset, enquired for Mr A. McKenzie

& finding that he lived about 3 miles away, sent a note to him, asking if he could come to see us. Had an interview of an hour or so with Chief Edenshaw & a number of Haida hunters, a son of Edenshaw's proving a very efficient interpreter. Talked for a time with Mr & Mrs Keen & then returned on board 'Dauntless' where found Mr McKenzie. He & Mr Alexander dined on board. Afterwards had a long & interesting talk with Mr McKenzie, first about fur-seal question & later on general subjects, Indians etc.

Found Masset considerably changed since I saw it 13 years ago. Still many totem poles standing & some of them in good preservation, but most of the old native houses have either disappeared or have been abandoned. Commonplace frame houses of rather small size taking their places. Even Mrs Keen admits that the old style of house probably healthier

& better than the new. Says, however, that without the old slave labour can scarcely build new great houses of the old style. The new houses are made by the Indians themselves, some of whom are excellent carpenters, & are much cheaper than the old, not requiring great potlatches & feasts to secure the necessary coöperation in construction &c. Edensaw is the same now by we when here in 78, but now quite an old man & rather feeble though able to get about & quite clear in mind & talkative, speaking kindly with energy & vigor when interested. Seems to remember meeting me here before. Presented him with a little tobacco as a souvenir.

Oct. 3. Off about daylight, steaming back into Eden Pass & then on down steamboat route, anchoring after dark in Granville Cove, near North End. South Sailing wind all day, giving us a little tossing in the short-chop sea of Hecate Strait. Blowing a gale this evening. Sky very thick & dark.

Soon lying at anchor here we jolt-
about a little evening in the choppy sea
blown up in the Channel.

October 4. Off before daylight, & soon
after passed steamer going South, supposed to
be 'City of Topeka'. Later we passed the
'Chieftain', going South, just as a couple
of deer sighted close by in the water. G.
Cunningham on the 'Chieftain' & myself
cleaning steering when occasion with the
deer, for we gave a bump, but without
serious consequences to either steamer. Day
cloudy, with flashing wreaths of mist about
all the hills. Just before sighting Milbank
Sound, when nearly dark, ran into a very
dense fog & after a good deal of jolting
round got into a cove on South side of
Moss Pass & anchored.

Oct. 5. Anchor up early, & got to Bella
Bella shortly after 8 a.m. Landed, meeting
Mr Hopkins, Wesleyan Missionary,
who kindly looked up a number of
Indians who were hunters & assisted us

to interview them. Find the Indians here have a store which they arrange themselves & which does work of the local trade opportunity, though Wm Clayton has also a store here. Efficiencies we had finished our talk with the Indians. When out in the open between Fitz Hugh Sound & N. end of Vancouver, were passed by the Alaska steamer Mexico, & nearly at the same time met the Princess Louise, going North. Got a boat down & communicated with Louise. Received cause for Bella Bella Passage, intending to call at Nawitti Village for information. Surprised to find the S.S. Islander anchored in Shadwell Passage. Anchored near her at 8 P.M. Capt Spring came on board. Found that the Islander had been detained here all day by fog. Wonderful fine & beautiful night, but rather gloomy as continuing overcast.

Oct. 6 Went ashore early in boat, to Nawitti Village. Found that many of people away fishing halibut & the remainder rather sleepy & indifferent. Some women

squatted on the beach cutting up halibut. After a time found a couple of men & got out some others, including Chief 'Cheap'. Had a conversation with these people, not being satisfactory because of the very limited acquaintance they had with chinook. Returned on board & had breakfast about 9 a.m. Steamed off to westward, at first in floating fog banks, but afterwards clear & a remarkably fine night. Cruising down along West-coast at a considerable distance from land. At 8 P.m. slowed down in order not to reach Clayoquot before daylight. Packing prey on in anticipation now of an early termination of the voyage.

Oct. 7. Got into Clayoquot 1d this morning, but found some difficulty in deciding where Indian village was. Eventually talked to some Indians fishing in canoes. On information altered west off in boat, but missed the village.

Returned to steamer, & found much
Cavers out, most of them finally pulling
large sebinas, which the Indians were
getting for food. Had a talk with many
there fellas about seals & without
making further search for village, pulled
out & steamed for Blackley Sound.
Reached the head about 5 P.m. &
left the steamer to go to village on
Deer Islands. Found the village lately
abandoned, & had to follow steamer in
to anchorage without seeing a single
Indian, which put a damper on it.
Another magnificent day today.

Oct. 8. Up very early this morning, shortly
after midnight & arrived at Neah
Bay, at bay after 7 a.m. Landed &
found the signal officer Mr Adye & Mrs,
who assisted us to look up some
Indians, with whom we had a
rather protracted conversation, getting a
good deal of interest respecting seals.

off again promptly, about 9 a.m. & after a fair run, reached Esquimalt shortly after 3 p.m. Tied up to wharf here. Found a fete in progress — the 'sports' by the warship men. Got mail, which was waiting for us here & after a very searching examination, landed & met the Admiral & others at the fete. Sir George decided to stay & dine with the admiral, while self & others drove on to Victoria & got quarters in Driard House there. Sent telegrams home, to Hon C.H. Tupper & to Dr Selwyn.

Oct. 9. Met partners of the sealers assn. this morning in Mr Milnes office — Customs House. Very courteous with them & talk with Mr Milne. p.m. very cool on various matters. Call at H.B. Co's place & have a conversation with Mr Hall, at present in charge, in Mr Smith's absence. Hall promises to get memo. of seal skins purchased by H.B. Co. Coming with Sir George & Trude

to Esquimalt, where dined with Admiral Hotham in the Warspite, now in dock there. Met Sir H. Begbie, Mrs & Miss Vernon, Mr & Mrs Baillie-Grohman, Mrs Jones & several officers of the Ship.

Oct. 10. Met a lot of West Coast Indians at Mr Vowell's (Indian) office & had a talk with them on fishing matters & habits of seal. Not wholly satisfactory as the Indians were not specially intelligent & the interpreter was talking in Chinook. In PM again met a committee of the Sealers Assn. at Hall & Sorpell's office & had a long conference with them. Drove out with Sir George & Lande & called on the Lt. Governor, who was, however, from home.

Oct. 11. Spent morning writing & partly afternoon. At 3.30 took train to Point Ellice & called at O'Reilly's, finding Mrs & Miss O'Reilly at home. Stayed some time there & then back to

Hotel. In talking to Mr Hammond, of Toronto, there, heard that Mr Peter Redpath was in town & staying at Hotel Dallas. Took tram & went out to see him, spending half an hour or so there. A fine warm day, with occasional light showers. Sir George & Mr Drummond left today this afy. for Seattle, intending to get back tomorrow morning.

Oct. 12. Monday. Very busy all day in one way or another. In morning, interview with Mr Milne, at Customs house. Met various people looking to see us, in the streets. Call on Prior. In waywards about photos. etc. Afternoon spent some time looking for Capt. Spring, unsuccessfully. Called at Crane's & Dupont's. Interview with Mr Finlayson & a call from Crow Baker, who has just returned from England. While at dinner Borcoski came in, & then Mr Hawley, the retired Customs collector. Very

full of Sealing question & enthusiastic in information. Next Judge Swan, who had come over from Pt Townsend to see us & Capt Spreny, who had heard of our search for him. Had a long conversation with these gentlemen & took a number of notes. Sir George, who had been with the Admiral at Esquimalt, at last returned in time to see these two gentlemen. Called in & begged for some time by a newspaper man. Finally got baggage cleared & went down to boat, where followed by Bossenty who stayed with us late after midnight hanging around in two or three uncomfortable groups with the same iteration.

Oct 18 Landed at Vancouver about 9 A.M., after a good passage. To Hotel Vancouver. At 2 PM met the Sealers of Vancouver, or their representatives, & had some conversation with them. Went on board S.S. Empress of India which had just come in & had a look

over her. Spent some time with the Captain to. Coming down with Mayor Opperteniss, who had got up a little dinner party at Hotel in our honor.

Oct. 14. Left on train for Sent at 2.20 P.M., Mrs H. about kindly giving us his private car, in which we are to go till we meet another car at Dickamons. Have in part of passenger cars on this train, two car loads of silk, said to be worth about $500 000. This is being put through with passenger train to save time. Mr & Mrs Cambie on train.

Oct. 15. Got breakfast on dining car & immediately afterwards transferred from Mr Abbotts car to Mr Spencers, which has just come back from Vernon after depositing Lord Aberdeen there. On westward Eastward through

the mountains. Mr Cochrane from Nelson, met Sir George at Golden. Arranged to run our car put off tonight at Canmore, when Sir George wishes to stay over for a day to look at a mine in which he has some interest. Generally cloudy & sometimes drizzling today, but moonlight & good views going through Kicking Horse Pass.

Oct. 16. Went up about a mile from station & across Bow River to Canmore mine, with Mrs Cochrane & rest of party. Examined the mine & its surroundings. Back on board car for lunch, letter late, with Mrs Cochrane, Mr Dickinson, manager of mine & Dr Hayden. After some waiting, during which polished off a little 'evidence' & had call from Dr Scott, Sir George managed to arrange for an engine to take car down to Nelson there to wait for eastbound train. Met Lady Adela Cochrane & a miss — staying with her. Whole party on board car

for dinner. Hope to be picked up & train about 1.30 a.m.

Oct. 17. attached to Eastbound train as arranged & travelling Eastward all day. Weather fine but cool. Drifts of snow in hollows all along high country to north of Cypress Hills, showing that a snow storm of some severity must have occurred here not very long ago. Mr Peter Redpath & nephew on the train. also Mr McDougal of H.B.Co., who got on at Calgary & has just come down from Northern B.C. & the Peace River Country. Met Sir Frances De Winton at Medicine Hat, he being on his way west to Calgary I think.

Oct. 18. Arrived at Winnipeg about 5 P.M. stopping there about an hour. Mr Redpath got off to spend

a day at Winnipeg. Dennis of Dominion Land Survey left on train with us going East. Fine day & rather striking red sunset. Great crops of grain this season stacked everywhere along the line west of Winnipeg

Oct. 19. On eastward all day. Fine weather. About midnight disturbed by sudden stoppage, with some jolting & found that eight cars, including ours, were off the track. Nothing seriously injured. Engine went off to nearest station for assistance & after a few hours all got on line again scarcely disturbing passengers. Fortunately we went off in a good place.

Oct 20. Eastward on C.P.R. Somewhat late. At Sudbury just 3h 40m. This should ensure our arrival in Ottawa at reasonable hour tomorrow morning, instead of

the usual 4 o'c. arrival. Seem however, to be running very fast now in endeavour to make up as much time as possible.

Oct. 21. Arrived in Ottawa several hours late, about 8 a.m. Drove up to Victoria Chambers, finding rooms then all ready. Sir Frank & Lunde to Russell. After breakfast & breakfast, walk Sir Frank & Lunde to call on Governor General. Then on then Mr Abbott & Sir Tupper, but did not see the latter second. In afternoon Sir Frank & Mr Lunde returned to Govt. House & I dined then in evening with them.