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THE DISCOVERY OF GLACIER BAY

From here, on October 24, we set sail for Guide Charley's ice mountains. The handle of our heaviest axe was cracked, and as Charley declared that there was no firewood to be had in the big ice mountain bay, we would have to load the canoe with a store for cooking at an island out in the Strait a few miles from the village. We were therefore anxious to buy or trade for a good sound axe in exchange for our broken one. Good axes are rare in rocky Alaska. Soon or late an unlucky stroke on a stone concealed in moss spoils the edge. Finally one in almost perfect condition was offered by a young Hoona for our broken-handled one and a half-dollar to boot; but when the broken axe and money were given he promptly demanded an additional twenty-five cents' worth of tobacco. The tobacco was given him, then he required a half-dollar's worth more of tobacco, which was also given; but when he still demanded something more, Charley's patience gave way and we sailed in the same condition as to axes as when we arrived. This was the only contemptible commercial affair we encountered among these Alaskan Indians.

We reached the wooded island about one o'clock.

made coffee, took on a store of wood, and set sail direct for the icy country, finding it very hard indeed to believe the woodless part of Charley's description of the Icy Bay, so heavily and uniformly are all the shores forested wherever we had been. In this view we were joined by John, Kadachan, and Toyatte, none of them on all their lifelong canoe travels having ever seen a woodless country.

We held a northwesterly course until long after dark, when we reached a small inlet that sets in near the mouth of Glacier Bay, on the west side. Here we made a cold camp on a desolate snow-covered beach in stormy sleet and darkness. At daybreak I looked eagerly in every direction to learn what kind of place we were in; but gloomy rain clouds covered the mountains, and I could see nothing that would give me a clue, while Vancouver's chart, hitherto a faithful guide, here failed us altogether. Nevertheless, we made haste to be off; and fortunately, for just as we were leaving the shore, a faint smoke was seen across the inlet, toward which Charley, who now seemed lost, gladly steered. Our sudden appearance so early that gray morning had evidently alarmed our neighbors, for as soon as we were within hailing distance an Indian with his face blackened fired a shot over our heads, and in a blunt, bellowing voice roared, "Who are you?"

Our interpreter shouted, "Friends and the Fort Wrangell missionary."

Then men, women, and children swarmed out of the hut, and awaited our approach on the beach. One of the hunters having brought his gun with him, Kadachan sternly rebuked him, asking with superb indignation whether he was not ashamed to meet a

missionary with a gun in his hands. Friendly relations, however, were speedily established, and as a cold rain was falling, they invited us to enter their hut. It seemed very small and was jammed full of oily boxes and bundles; nevertheless, twenty-one persons managed to find shelter in it about a smoky fire. Our hosts proved to be Hoona seal hunters laying in their winter stores of meat and skins. The packed hut was passably well ventilated, but its heavy, meaty smells were not the same to our noses as those we were accustomed to in the sprucey nooks of the evergreen woods. The circle of black eyes peering at us through a fog of reek and smoke made a novel picture. We were glad, however, to get within reach of information, and of course asked many questions concerning the ice mountains and the strange bay, to most of which our inquisitive Hoona friends replied with counter-questions as to our object in coming to such a place, especially so late in the year. They had heard of Mr. Young and his work at Fort Wrangell, but could not understand what a missionary could be doing in such a place as this. Was he going to preach to the seals and gulls, they asked, or to the ice mountains? And could they take his word? Then John explained that only the friend of the missionary was seeking ice mountains, that Mr. Young had already preached many good words in the villages we had visited, their own among the others, that our hearts were good and every Indian was our friend. Then we gave them a little rice, sugar, tea, and tobacco, after which they began to gain confidence and to speak freely. They told us that the big bay was called by them Sit-ada-kay, or Ice Bay; that there were many large ice mountains in it, but no gold mines; and that the ice

mountain they knew best was at the head of the bay, where most of the seals were found.

Notwithstanding the rain, I was anxious to push on and grope our way beneath the clouds as best we could, in case worse weather should come; but Charley was ill at ease, and wanted one of the seal hunters to go with us, for the place was much changed. I promised to pay well for a guide, and in order to lighten the canoe proposed to leave most of our heavy stores in the hut until our return. After a long consultation one of them consented to go. His wife got ready his blanket and a piece of cedar matting for his bed, and some provisions—mostly dried salmon, and seal sausage made of strips of lean meat plaited around a core of fat. She followed us to the beach, and just as we were pushing off said with a pretty smile, "It is my husband that you are taking away. See that you bring him back."

We got under way about 10 A.M. The wind was in our favor, but a cold rain pelted us, and we could see but little of the dreary, treeless wilderness which we had now fairly entered. The bitter blast, however, gave us good speed; our bedraggled canoe rose and fell on the waves as solemnly as a big ship. Our course was northwestward, up the southwest side of the bay, near the shore of what seemed to be the mainland, smooth marble islands being on our right. About noon we discovered the first of the great glaciers, the one I afterward named for James Geikie, the noted Scotch geologist. Its lofty blue cliffs, looming through the draggled skirts of the clouds, gave a tremendous impression of savage power, while the roar of the newborn icebergs thickened and emphasized the general roar of the storm. An hour and a half beyond the Geikie Glacier we ran into a slight harbor where the shore is

low, dragged the canoe beyond the reach of drifting icebergs, and, much against my desire to push ahead, encamped, the guide insisting that the big ice mountain at the head of the bay could not be reached before dark, that the landing there was dangerous even in daylight, and that this was the only safe harbor on the way to it. While camp was being made, I strolled along the shore to examine the rocks and the fossil timber that abounds here. All the rocks are freshly glaciated, even below the sea level, nor have the waves as yet worn off the surface polish, much less the heavy scratches and grooves and lines of glacial contour.

The next day being Sunday, the minister wished to stay in camp; and so, on account of the weather, did the Indians. I therefore set out on an excursion, and spent the day alone on the mountain slopes above the camp, and northward, to see what I might learn. Pushing on through rain and mud and sludgy snow, crossing many brown, boulder-choked torrents, wading, jumping, and wallowing in snow up to my shoulders was mountaineering of the most trying kind. After crouching cramped and benumbed in the canoe, poulticed in wet or damp clothing night and day, my limbs had been asleep. This day they were awakened and in the hour of trial proved that they had not lost the cunning learned on many a mountain peak of the High Sierra. I reached a height of fifteen hundred feet, on the ridge that bounds the second of the great glaciers. All the landscape was smothered in clouds and I began to fear that as far as wide views were concerned I had climbed in vain. But at length the clouds lifted a little, and beneath their gray fringes I saw the berg-filled expanse of the bay, and the feet of the mountains that stand about it, and the imposing fronts of five huge

glaciers, the nearest being immediately beneath me. This was my first general view of Glacier Bay, a solitude of ice and snow and newborn rocks, dim, dreary, mysterious. I held the ground I had so dearly won for an hour or two, sheltering myself from the blast as best I could, while with benumbed fingers I sketched what I could see of the landscape, and wrote a few lines in my notebook. Then, breasting the snow again, crossing the shifting avalanche slopes and torrents, I reached camp about dark, wet and weary and glad.

While I was getting some coffee and hardtack, Mr. Young told me that the Indians were discouraged, and had been talking about turning back, fearing that I would be lost, the canoe broken, or in some other mysterious way the expedition would come to grief if I persisted in going farther. They had been asking him what possible motive I could have in climbing mountains when storms were blowing; and when he replied that I was only seeking knowledge, Toyatte said, "Muir must be a witch to seek knowledge in such a place as this and in such miserable weather."

After supper, crouching about a dull fire of fossil wood, they became still more doleful, and talked in tones that accorded well with the wind and waters and growling torrents about us, telling sad old stories of crushed canoes, drowned Indians, and hunters frozen in snowstorms. Even brave old Toyatte, dreading the treeless, forlorn appearance of the region, said that his heart was not strong, and that he feared his canoe, on the safety of which our lives depended, might be entering a skookum-house (jail) of ice, from which there might be no escape; while the Hoona guide said bluntly that if I was so fond of danger, and meant to go close up to the noses of the ice mountains, he would

not consent to go any farther; for we should all be lost, as many of his tribe had been, by the sudden rising of bergs from the bottom. They seemed to be losing heart with every howl of the wind, and, fearing that they might fail me now that I was in the midst of so grand a congregation of glaciers, I made haste to reassure them, telling them that for ten years I had wandered alone among mountains and storms, and good luck always followed me; that with me, therefore, they need fear nothing. The storm would soon cease and the sun would shine to show us the way we should go, for God cares for us and guides us as long as we are trustful and brave, therefore all childish fear must be put away. This little speech did good. Kadachan, with some show of enthusiasm, said he liked to travel with good-luck people; and dignified old Toyatte declared that now his heart was strong again, and he would venture on with me as far as I liked for my "wawa" was "delait" (my talk was very good). The old warrior even became a little sentimental, and said that even if the canoe was broken he would not greatly care, because on the way to the other world he would have good companions.

Next morning it was still raining and snowing, but the south wind swept us bravely forward and swept the bergs from our course. In about an hour we reached the second of the big glaciers, which I afterwards named for Hugh Miller. We rowed up its fjord and landed to make a slight examination of its grand frontal wall. The berg-producing portion we found to be about a mile and a half wide, and broken into an imposing array of jagged spires and pyramids, and flat-topped towers and battlements, of many shades of blue, from pale, shimmering, limpid tones in the

crevasses and hollows, to the most startling, chilling, almost shrieking vitriol blue on the plain mural spaces from which bergs had just been discharged. Back from the front for a few miles the glacier rises in a series of wide steps, as if this portion of the glacier had sunk in successive sections as it reached deep water, and the sea had found its way beneath it. Beyond this it extends indefinitely in a gently rising prairie-like expanse, and branches along the slopes and canyons of the Fairweather Range.

From here a run of two hours brought us to the head of the bay, and to the mouth of the northwest fjord, at the head of which lie the Hoona sealing-grounds, and the great glacier now called the Pacific, and another called the Hoona. The fjord is about five miles long, and two miles wide at the mouth. Here our Hoona guide had a store of dry wood, which we took aboard. Then, setting sail, we were driven wildly up the fjord, as if the storm-wind were saying, "Go, then, if you will, into my icy chamber; but you shall stay in until I am ready to let you out." All this time sleety rain was falling on the bay, and snow on the mountains; but soon after we landed the sky began to open. The camp was made on a rocky bench near the front of the Pacific Glacier, and the canoe was carried beyond the reach of the bergs and berg-waves. The bergs were now crowded in a dense pack against the discharging front, as if the storm-wind had determined to make the glacier take back her crystal offspring and keep them at home.

While camp affairs were being attended to, I set out to climb a mountain for comprehensive views; and before I had reached a height of a thousand feet the rain ceased, and the clouds began to rise from

the lower altitudes, slowly lifting their white skirts and lingering in majestic, wing-shaped masses about the mountains that rise out of the broad, icy sea, the highest of all the white mountains, and the greatest of all the glaciers I had yet seen. Climbing higher for a still broader outlook, I made notes and sketched, improving the precious time while sunshine streamed through the luminous fringes of the clouds and fell on the green waters of the fjord, the glittering bergs, the crystal bluffs of the vast glacier, the intensely white, far-spreading fields of ice, and the ineffably chaste and spiritual heights of the Fairweather Range, which were now hidden, now partly revealed, the whole making a picture of icy wildness unspeakably pure and sublime.

Looking southward, a broad ice sheet was seen extending in a gently undulating plain from the Pacific Fjord in the foreground to the horizon, dotted and ridged here and there with mountains which were as white as the snow-covered ice in which they were half, or more than half, submerged. Several of the great glaciers of the bay flow from this one grand fountain. It is an instructive example of a general glacier covering the hills and dales of a country that is not yet ready to be brought to the light of day—not only covering but creating a landscape with the features it is destined to have when, in the fullness of time, the fashioning ice sheet shall be lifted by the sun, and the land become warm and fruitful. The view to the westward is bounded and almost filled by the glorious Fairweather Mountains, the highest among them springing aloft in sublime beauty to a height of nearly sixteen thousand feet, while from base to summit every peak and spire and dividing ridge of all the mighty host was spotless

white, as if painted. It would seem that snow could never be made to lie on the steepest slopes and precipices unless plastered on when wet, and then frozen. But this snow could not have been wet. It must have been fixed by being driven and set in small particles like the storm-dust of drifts, which, when in this condition, is fixed not only on sheer cliffs, but in massive, overcurling cornices. Along the base of this majestic range sweeps the Pacific Glacier, fed by innumerable cascading tributaries, and discharging into the head of its fjord by two mouths only partly separated by the brow of an island rock about one thousand feet high, each nearly a mile wide.

Dancing down the mountain to camp, my mind glowing like the sunbeaten glaciers, I found the Indians seated around a good fire, entirely happy now that the farthest point of the journey was safely reached and the long, dark storm was cleared away. How hopefully, peacefully bright that night were the stars in the frosty sky, and how impressive was the thunder of the icebergs, rolling, swelling, reverberating through the solemn stillness! I was too happy to sleep.

About daylight next morning we crossed the fjord and landed on the south side of the rock that divides the wall of the great glacier. The whiskered faces of seals dotted the open spaces between the bergs, and I could not prevent John and Charley and Kadachan from shooting at them. Fortunately, few, if any, were hurt. Leaving the Indians in charge of the canoe, I managed to climb to the top of the wall by a good deal of step cutting between the ice and dividing rock, and gained a good general view of the glacier. At one favorable place I descended about fifty feet below the side of the glacier, where its denuding, fashioning action

was clearly shown. Pushing back from here, I found the surface crevassed and sunken in steps, like the Hugh Miller Glacier, as if it were being undermined by the action of tidewaters. For a distance of fifteen or twenty miles the riverlike ice flood is nearly level, and when it recedes, the ocean water will follow it, and thus form a long extension of the fjord, with features essentially the same as those now extending into the continent farther south, where many great glaciers once poured into the sea, though scarce a vestige of them now exists. Thus the domain of the sea has been, and is being, extended in these ice-sculptured lands, and the scenery of their shores enriched. The brow of the dividing rock is about a thousand feet high, and is hard beset by the glacier. A short time ago it was at least two thousand feet below the surface of the over-sweeping ice; and under present climatic conditions it **will soon** take its place as a glacier-polished island in the middle of the fjord, like a thousand others in the magnificent archipelago. Emerging from its icy sepulchre, it gives a most telling illustration of the birth of a marked feature of a landscape. In this instance it is not the mountain, but the glacier, that is in labor, and the mountain itself is being brought forth.

The Hoona Glacier enters the fjord on the south side, a short distance below the Pacific, displaying a broad and far-reaching expanse, over which many lofty peaks are seen; but the front wall, thrust into the fjord, is not nearly so interesting as that of the Pacific, and I did not observe any bergs discharged from it.

In the evening, after witnessing the unveiling of the majestic peaks and glaciers and their baptism in the down-pouring sunbeams, it seemed inconceivable that nature could have anything finer to show

us. Nevertheless, compared with what was to come the next morning, all that was as nothing. The calm dawn gave no promise of anything uncommon. Its most impressive features were the frosty clearness of the sky and a deep, brooding stillness made all the more striking by the thunder of the newborn bergs. The sunrise we did not see at all, for we were beneath the shadows of the fjord cliffs; but in the midst of our studies, while the Indians were getting ready to sail, we were startled by the sudden appearance of a red light burning with a strange unearthly splendor on the topmost peak of the Fairweather Mountains. Instead of vanishing as suddenly as it had appeared, it spread and spread until the whole range down to the level of the glaciers was filled with the celestial fire. In color it was at first a vivid crimson, with a thick, furred appearance, as fine as the alpenglow, yet indescribably rich and deep—not in the least like a garment or mere external flush or bloom through which one might expect to see the rocks or snow, but every mountain apparently was glowing from the heart like molten metal fresh from a furnace. Beneath the frosty shadows of the fjord we stood hushed and awestricken, gazing at the holy vision; and had we seen the heavens opened and God made manifest, our attention could not have been more tremendously strained. When the highest peak began to burn, it did not seem to be steeped in sunshine, however glorious, but rather as if it had been thrust into the body of the sun itself. Then the supernal fire slowly descended, with a sharp line of demarcation separating it from the cold, shaded region beneath; peak after peak, with their spires and ridges and cascading glaciers, caught the heavenly glow, until all the mighty host stood transfigured,

hushed, and thoughtful, as if awaiting the coming of the Lord. The white, rayless light of morning, seen when I was alone amid the peaks of the California Sierra, had always seemed to me the most telling of all the terrestrial manifestations of God. But here the mountains themselves were made divine, and declared His glory in terms still more impressive. How long we gazed I never knew. The glorious vision passed away in a gradual, fading change through a thousand tones of color to pale yellow and white, and then the work of the ice world went on again in everyday beauty. The green waters of the fjord were filled with sun spangles; the fleet of icebergs set forth on their voyages with the upspringing breeze; and on the innumerable mirrors and prisms of these bergs, and on those of the shattered crystal walls of the glaciers, common white light and rainbow light began to burn, while the mountains shone in their frosty jewelry, and loomed again in the thin azure in serene terrestrial majesty. We turned and sailed away, joining the outgoing bergs, while "Gloria in excelsis" still seemed to be sounding over all the white landscape, and our burning hearts were ready for any fate, feeling that, whatever the future might have in store, the treasures we had gained this glorious morning would enrich our lives forever.

When we arrived at the mouth of the fjord, and rounded the massive granite headland that stands guard at the entrance on the north side, another large glacier, now named the Reid, was discovered at the head of one of the northern branches of the bay. Pushing ahead into this new fjord, we found that it was not only packed with bergs, but that the spaces between the bergs were crusted with new ice, compelling us to turn back while we were yet several miles from the

discharging frontal wall. But though we were not then allowed to set foot on this magnificent glacier, we obtained a fine view of it, and I made the Indians cease rowing while I sketched its principal features. Thence, after steering northeastward a few miles, we discovered still another large glacier, now named the Carroll. But the fjord into which this glacier flows was, like the last, utterly inaccessible on account of ice, and we had to be content with a general view and sketch of it, gained as we rowed slowly past at a distance of three or four miles. The mountains back of it and on each side of its inlet are sculptured in a singularly rich and striking style of architecture, in which subordinate peaks and gables appear in wonderful profusion, and an imposing conical mountain with a wide, smooth base stands out in the main current of the glacier, a mile or two back from the discharging ice wall.

We now turned southward down the eastern shore of the bay, and in an hour or two discovered a glacier of the second class, at the head of a comparatively short fjord that winter had not yet closed. Here we landed, and climbed across a mile or so of rough boulder beds, and back upon the wildly broken, receding front of the glacier, which, though it descends to the level of the sea, no longer sends off bergs. Many large masses, detached from the wasting front by irregular melting, were partly buried beneath mud, sand, gravel, and boulders of the terminal moraine. Thus protected, these fossil icebergs remain unmelted for many years, some of them for a century or more, as shown by the age of trees growing above them, though there are no trees here as yet. At length melting, a pit with sloping sides is formed by the falling in of the overlying moraine material into the space at first occupied by the buried

ice. In this way are formed the curious depressions in drift-covered regions called kettles or sinks. On these decaying glaciers we may also find many interesting lessons on the formation of boulders and boulder beds, which in all glaciated countries exert a marked influence on scenery, health, and fruitfulness.

Three or four miles farther down the bay, we came to another fjord, up which we sailed in quest of more glaciers, discovering one in each of the two branches into which the fjord divides. Neither of these glaciers quite reaches tidewater. Notwithstanding the apparent fruitfulness of their fountains, they are in the first stage of decadence, the waste from melting and evaporation being greater now than the supply of new ice from their snowy fountains. We reached the one in the north branch, climbed over its wrinkled brow, and gained a good view of the trunk and some of the tributaries, and also of the sublime gray cliffs of its channel.

Then we sailed up the south branch of the inlet, but failed to reach the glacier there, on account of a thin sheet of new ice. With the tent poles we broke a lane for the canoe for a little distance; but it was slow work, and we soon saw that we could not reach the glacier before dark. Nevertheless, we gained a fair view of it as it came sweeping down through its gigantic gateway of massive Yosemite rocks three or four thousand feet high. Here we lingered until sundown, gazing and sketching; then turned back, and encamped on a bed of cobblestones between the forks of the fjord.

We gathered a lot of fossil wood and after supper made a big fire, and as we sat around it the brightness of the sky brought on a long talk with the Indians about the stars; and their eager, childlike attention

was refreshing to see as compared with the deathlike apathy of weary town dwellers, in whom natural curiosity has been quenched in toil and care and poor shallow comfort.

After sleeping a few hours, I stole quietly out of the camp, and climbed the mountain that stands between the two glaciers. The ground was frozen, making the climbing difficult in the steepest places; but the views over the icy bay, sparkling beneath the stars, were enchanting. It seemed then a sad thing that any part of so precious a night had been lost in sleep. The starlight was so full that I distinctly saw not only the berg-filled bay, but most of the lower portions of the glaciers, lying pale and spirit-like amid the mountains. The nearest glacier in particular was so distinct that it seemed to be glowing with light that came from within itself. Not even in dark nights have I ever found any difficulty in seeing large glaciers; but on this mountaintop, amid so much ice, in the heart of so clear and frosty a night, everything was more or less luminous, and I seemed to be poised in a vast hollow between two skies of almost equal brightness. This exhilarating scramble made me glad and strong and I rejoiced that my studies called me before the glorious night succeeding so glorious a morning had been spent!

I got back to camp in time for an early breakfast, and by daylight we had everything packed and were again under way. The fjord was frozen nearly to its mouth, and though the ice was so thin it gave us but little trouble in breaking a way for the canoe, yet it showed us that the season for exploration in these waters was well-nigh over. We were in danger of being imprisoned in a jam of icebergs, for the water

spaces between them freeze rapidly, binding the floes into one mass. Across such floes it would be almost impossible to drag a canoe, however industriously we might ply the axe, as our Hoona guide took great pains to warn us. I would have kept straight down the bay from here, but the guide had to be taken home, and the provisions we left at the bark hut had to be got on board. We therefore crossed over to our Sunday storm-camp, cautiously boring a way through the bergs. We found the shore lavishly adorned with a fresh arrival of assorted bergs that had been left stranded at high tide. They were arranged in a curving row, looking intensely clear and pure on the gray sand, and, with the sunbeams pouring through them, suggested the jewel-paved streets of the New Jerusalem.

On our way down the coast, after examining the front of the beautiful Geikie Glacier, we obtained our first broad view of the great glacier afterwards named the Muir, the last of all the grand company to be seen, the stormy weather having hidden it when we first entered the bay. It was now perfectly clear, and the spacious, prairie-like glacier, with its many tributaries extending far back into the snowy recesses of its fountains, made a magnificent display of its wealth, and I was strongly tempted to go and explore it at all hazards. But winter had come, and the freezing of its fjords was an insurmountable obstacle. I had, therefore, to be content for the present with sketching and studying its main features at a distance.

When we arrived at the Hoona hunting camp, men, women, and children came swarming out to welcome us. In the neighborhood of this camp I carefully noted the lines of demarkation between the forested and deforested regions. Several mountains here are

only in part deforested, and the lines separating the bare and the forested portions are well defined. The soil, as well as the trees, had slid off the steep slopes, leaving the edge of the woods raw looking and rugged.

At the mouth of the bay a series of moraine islands show that the trunk glacier that occupied the bay halted here for some time and deposited this island material as a terminal moraine; that more of the bay was not filled in shows that, after lingering here, it receded comparatively fast. All the level portions of trunks of glaciers occupying ocean fjords, instead of melting back gradually in times of general shrinking and recession, as inland glaciers with sloping channels do, melt almost uniformly over all the surface until they become thin enough to float. Then, of course, with each rise and fall of the tide, the seawater, with a temperature usually considerably above the freezing point, rushes in and out beneath them, causing rapid waste of the nether surface, while the upper is being wasted by the weather, until at length the fjord portions of these great glaciers become comparatively thin and weak and are broken up and vanish almost simultaneously.

Glacier Bay is undoubtedly young as yet. Vancouver's chart, made only a century ago, shows no trace of it, though found admirably faithful in general. It seems probable, therefore, that even then the entire bay was occupied by a glacier of which all those described above, great though they are, were only tributaries. Nearly as great a change has taken place in Sum Dum Bay since Vancouver's visit, the main trunk glacier there having receded from eighteen to twenty five miles from the line marked on his chart. Charley, who was here when a boy, said that the place had

so changed that he hardly recognized it, so many new islands had been born in the meantime and so much ice had vanished. As we have seen, this Icy Bay is being still farther extended by the recession of the glaciers. That this whole system of fjords and channels was added to the domain of the sea by glacial action is to my mind certain.

We reached the island from which we had obtained our store of fuel about half past six and camped here for the night, having spent only five days in Sitadaka, sailing round it, visiting and sketching all the six glaciers excepting the largest, though I landed only on three of them—the Geikie, Hugh Miller, and Grand Pacific—the freezing of the fjords in front of the others rendering them inaccessible at this late season.