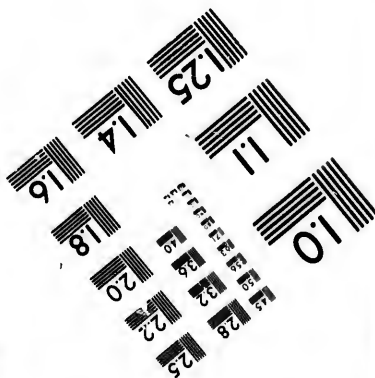
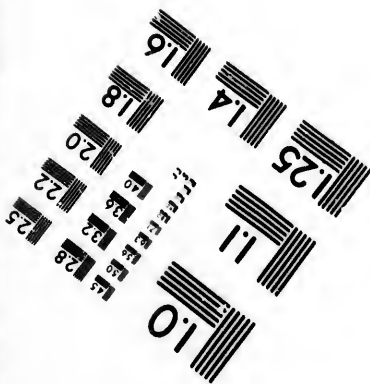
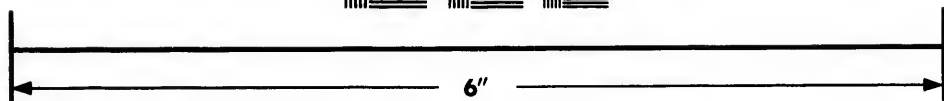
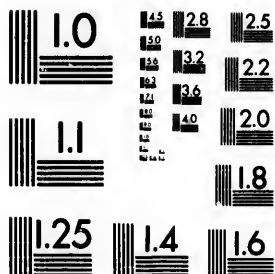


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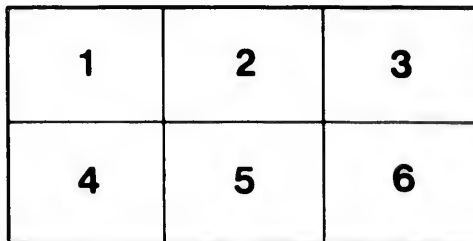
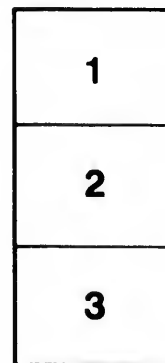
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From Vancouver Island to the Mound Prairies.

In Vancouver Island June is to my mind by far the most enjoyable month of the twelve; the miserable sloppy transition state, filling the gap, as it were, betwixt winter and summer has gone, and in its place we have clear sky, bright sunshine, dry ground, and gay flowers, whilst everywhere one's ears are greeted with the hum and buzz of insects and the cheery songs of birds. Soon after daylight on one of these lovely summer mornings, now some four years ago, I was on board a small steamer, named the Otter, belonging to the Honourable Hudson's Bay Company.

It is not a long and perilous voyage we are going to undertake, but simply a pleasure trip across the Straits of Georgia, first to reach the entrance to Puget Sound, and thence to steam up this singular inland canal, in order to land at Nisqually, a large district of country so named by the Indians, and at this time in the occupation of and farmed by the Puget Sound Company.

Victoria Harbour—round which is built the town of Victoria, the capital of Vancouver Island—is by no means an easy place for a vessel of large tonnage to enter, but when once she has been steered safely past the rocks intersecting its entrance, the harbour is far from objectionable. Bad as getting into it is, getting out again is ten times worse. The passage is shoal, and intricate as a labyrinth; and should the wind blow from S.E. or S.W., the sea comes tumbling in as if seeking safety in the rock-bound harbour from the rough usage of old Eolus outside. It is true there are buoys to mark the way between the rocks, which run out beneath the sea from Ogden Point on the one side, to M'Lauchlin on the other, still, for all this, the navigation is not easy, even to the experienced.

In the absence of all the bustle and confusion which usually precede the departure of a steamer from a pier, it seemed to me that everything was uncomfortably quiet on this particular June morning. But few sounds were audible; the drowsy town was, at so early an hour, hushed in sleep; the water, smooth as polished metal, scarcely murmured its ripple song, as gently flowing over the beach it trickled lazily back again betwixt the shining pebbles. A small flock of "herring gulls" floating near us did not even quarrel on this occasion, —a most unusual event when there are more than two together—but drifted by, silent as all about them. The few blinking, red-eyed

Pacific Island, West - Description
OTTE, (Ship)

savages, who had crept like animals from out their lairs to witness our departure, appeared too lethargic to move even the muscles of their tongues, as they noiselessly squatted themselves upon their heels on the overhanging bank amidst the green herbage.

Perhaps this excessive quietness was the reason why the captain's voice sounded to me so like that of a Stentor's, as "Larboard," "Starboard," "Half-speed," "Go-ahead," mingled with a torrent of incomprehensible orders to the "deck hands" in "Chinook jargon," appeared to my unsailorlike ears as if the confusion of Babel was concentrated in this sea-captain's nautical vocabulary. What was confusion to me, was clear enough to others, for the Otter twisted her way through the crooked passage with such ease and certainty, that I found we were "screwing" along at full speed before I well knew we had got clear of the pier. There are very few prettier scenes than is the one suddenly revealed as we leave Victoria harbour to cross the Gulf of Georgia. To my left, the coast-line of Vancouver Island vividly recalls many familiar spots on our British coasts; its bold rocky sea-line is cut into numerous bays and creeks; above the cliffs, which are far from lofty, grassy lawn-like patches of open ground slope gently towards the timber which crowns to their very summits the rounded metamorphic hills, so strangely different from those of the mainland, which we can see in the distance, towering apparently into the very sky; their summits, white with perpetual snow, appear more like fleecy clouds than the craggy outlines of stupendous mountains. Mount Baker, one of the most conspicuous of the group, has (so say the Indians) been seen to throw out smoke from its lofty summits by men still alive. To my right, the Straits of Juan de Juca resembles a vast canal, shut in on either side by an impenetrable mat of dark-green foliage. Straight ahead, a mere speck in the hazy distance, I can make out the famed San Juan island.

For a wonder the sea was quite smooth, and it was amusing to watch the velvet surf-ducks (*Pelionetta perspicillata*), in flocks of four and five, sitting on the water, and looking wonderingly at the vessel, until one imagined they must be struck down by the ship's cut-water; not so, however: they just pop under at the right moment, to re-appear in the ripple at the stern, fluttering their wings, and uttering their cry, as if the performance was altogether an excellent joke. Save the spouting of a distant whale or two, or the little bands of black fish that roll on, on and on, through the blue water, without any other apparent object than that of exhibiting their indiarubber like backs, there was nothing of any particular interest to while the time away. The countless islands we threaded our way amidst were all pretty much alike, and except that they differed in size and shape from each other, one might have supposed, without drawing largely upon his imagination, that the whole group, had been chopped off one

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by one from the mainland; Vancouver Island being the outer slice, was cut off in a junk, in order to get rid of the ragged inequalities of the coast-line. As we round a sandy point towards sundown, the captain points out—a little village I should call it; at any rate, I cannot count more than twenty small log and frame houses, picturesquely situated in a sheltered nook, overlooking a wide lake-like expanse of water. This place, I am further informed, is “a city,” named Port Townsend, and that the wide tract of water is the entrance to Puget Sound. The Otter’s head bears straight for a ricketty old pier, which runs out about fifty or more feet into the sea, but so covered are its supports with barnacles, mussels, green tangle weed, together with hosts of curious molluscs, up to the tide-line (which tide, by the way, is at this present time at its lowest), that I can hardly divest myself of the idea this pier must have been lifted up in all its entirety from out old Neptune’s realms. Climbing the steps was a service of danger I did not accomplish very creditably; in my zeal to capture a chiton I had not seen before, I reached a little too far over the edge of the narrow ladder by which the ascent had to be made from the boat—it being, as I have said, low-water—to the top of the pier leading to the “city,” both feet suddenly slipped on the green seaweed; I clutched a bunch of mussels, but their beards snapped like thread, down I slid, over the ladder, towards the water, into which I went souse; the boat, perhaps fortunately for me, having been pulled away for the ship. This would not have been so bad a mishap, if the damage had been entirely of a personal nature; as ill-fate would have it, two Indians, “deck-hands,” were following me, and as I spread my legs over the edges of the ladder, a system I was wont to adopt in early life when practising perilous descents on the stair-rail, of course my Indian friends were swept off the treacherous sea-stairs, as spiders are scattered by a housemaid’s broom. I could swim well, so was not much frightened, but ere either of us could reach the ladder, the boat had been turned, and was close upon us; spite of all my shouts to be let alone, the would-be humane boatman made savage plunges at me with his boat-hook, which were just as likely to split my skull as fish me out—the latter was, however, my fate; the hook fixed in my coat, I was dragged into the boat *volens volens*, shaken violently, turned upside down, and when reinstated on my legs, very nearly choked by having strong rum poured down my throat, and all this without being allowed a moment’s chance to utter a single remonstrance, or doing so to be entirely disregarded. The savages, deemed of no value, got off safely, apart from the wetting and fright. Now all this arose from a wish to gratify my curiosity to visit the city, added to a greedy desire to capture a new species of mollusc.

I rowed to the Otter, changed my clothes, and made a second attempt to scale the ladder, and this time very successfully. The captain was

awaiting my arrival, and, having regaled himself with a hearty laugh at my misfortune, we adjourned to the residence of the United States official, whose duty it was to sign the requisite papers, connected with the customs. The office of this magnate was a small dingy room, its only furniture two rocking-chairs, a square table, a six-shooter suspended from the wall, a huge china spittoon, and the "Customs" representative, who occupied one of the rocking-chairs. I include the inmate amongst the furniture, because he gave me the idea of being a part of it; for, in addition to the chair he sat on, his right leg dangled over the arm of the second chair, whilst the other reposed on the table; a plug of tobacco, like a small plank, filled his left hand, and, judging from the semicircular spaces visible in its ends and sides, it was pretty evident Seth Naylor—such, I found, was the officer's name—made good use of his incisor teeth; and, as he rolled round the mass of tobacco thus bitten off from cheek to cheek, anon squirting out a rivulet of brown fluid, I could not help thinking that the Rodent and Ruminant were closely allied in Seth's organization. The process of signing completed, we left the office and its occupant pretty nearly in the same position as we found him. There was but little worth noticing in the city except gandy bar-rooms, billiard and barbers' saloons, dry goods stores, and half-naked savages, who were everywhere crouched in corners, or at the entrances to the stores and bar-rooms. One particularly distinguished individual, who, I am told, calls himself the Chief of the Clallums, and is perhaps the only representative of the aristocracy in Port Townsend, bears the distinguished title of "The Duke of York." The peer was decidedly intoxicated—right royally drunk, in plainer English; but, far gone as he was, still he discerned I was a stranger and a "King George man." Staggering towards me, the "duke" held out his filthy hand in order to grasp mine, at the same time saying, as best he could, between the hiccoughs, "Patletch-lum, patletch-lum" (Give rum, give rum). I felt more inclined to give the disgusting beast a kick. If there is one type of mankind more degraded than another, it is a drunken savage.

The tide was rapidly rising, and the captain anxious to start, so I had no further time allowed me to investigate the "lions" of this diminutive city.

Puget Sound, up which we steamed in the morning—having made fast the Otter during the night to a tree, much in the same fashion as adopted in tethering a horse—is, I should say, unlike any other natural tidal canal in the known world; its length, from its commencement in the Straits of Juan de Juca to its end at the town of Olympia, is, in round numbers, two hundred miles, but of varying width; and although numerous streams, fed by the mountain snow, empty into it—I may name, as examples, the Nisqually, Dwamish, Snohomish, and Puyallup: all these streams are rapid, intensely cold,

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and short of extent—yet the waters of Puget Sound are nearly as briny salt at the head of it as they are at its junction with the sea.

We shape our course betwixt beautiful islands, now winding through narrow crooked passages, wherein we brush the rich green foliage of the pines as we puff beneath their pleasant shade, and so frighten the grebes, ducks, and glossy green cormorants busy earning their breakfasts, that they scarcely know where to fly, and in their terror often strike the vessel, and fall stunned into the water. Out again from these snug retreats, to coast along past immenso sand-spits, in which are numerous shallow bays, the most perfect little nurseries imaginable for the baby-salmonidæ, wherein to gain strength to battle with the world of waters, into which they will sooner or later make their way; on some of these sand-flats, which are covered by the tide at high water, I notice long lines of tiny hurdles as if for folding liliputian flocks of sheep, but I find the sheep enfolded within these strange inclosures are herrings; when the "run" is at its full, the fish come up with the tide in veritable legions, and passing through small openings, purposely formed to beguile and entrap them, are left by the receding water in tons upon the sand. Thus easily the wily savage reaps his harvest of glittering fishes. Not only as "fish-farms" do the Indians use these sand-spits, but they are to them also game preserves; they waste no powder or shot, but wisely watch the habits of the wild-fowl, and ingeniously turn the knowledge so obtained to their own advantage. Numbers of ducks of different species quit the bays, harbours, and inland waters at twilight, to go seaward for the night, returning again at "sun-up" to their favourite feeding-grounds. The "south-southerly" duck, as it is called by the fur-traders (*Harelda glacialis*), usually gives the signal, by uttering its peculiar cry, which has been construed into the words "south-southerly" often and rapidly repeated, then up gets flock after flock of whistle-wings, bald-pates, butter-bills, stock-duck, and a host besides, and in wedge-shaped masses wing their way close to the water, eager to reach the open sea. Here and there these sand-spits run out into long narrow points, which the ducks cross in their flight, and at these places it is the savage intercepts them. The long stiff poles I can see on the point, as we pass along, are for the purpose of supporting the nets, which are stretched like telegraph wires from one pole to another; tiny lairs constructed of brushwood and sanded over, to deceive the wild-fowl, are just discernible near the foot of each pole. Every one of these cells conceals a savage, who creeps in just before the "birds fly," and awaits their coming like a crafty spider; whiz the unsuspecting flock of ducks comes against the net, some are knocked down to be instantly seized by the human spider and summarily despatched, others get entangled in the nets, and are thus easily caught, and very many make their escape. Now we glide along beneath high rocky bluffs, overshadowed

on every side by massive pine-trees. The Douglas pine (*Abies Douglasii*). The yellow fir (*A. grandis*) and the Oregon cedar (*Thuja gigantea*), alike conspicuous for their immense size and altitude, look proudly down upon the green and tangled underbrush, which like an impenetrable brake fills the spaces betwixt them. In the crevices of the sandy rock, sand-martins (*Hirundo riparia*) were busy excavating, building, and otherwise attending to their domestic duties. On the loftiest pinnacles the bald-headed eagle (*Haliaeetus leuco-cephalus*) might be seen enthroned, spreading its powerful wings, and with half-closed eyes, enjoying the warm rays of the morning sun; whilst lower down, perched upon the splintered ledges, the American osprey (*Pandion carolinensis*) and the belt kingfisher (*Alcedo aleyon*) are watching warily for a chance to pounce upon some passing fish. Now and then we pass by an Indian village, placed on the bank of some clear stream, the fire "cancim"* or steamer adding much to the terror of the dingy little urchins playing on the greensward; like frightened rabbits, when a fox or a keeper suddenly appears in the warren, away they scamper, and like rabbits, too, dash head first into the conical lodges dotted picturesquely about beneath the shadows of the trees. The men are fishing, and we get several fine salmon in the way of barter, which are handed up the steamer's side from out the frail canoes of the Redmen. These salmon (*Salmo quinnat*) are taken by trolling, the line being made fast to the paddle is jerked in the act of propelling the canoe, and the slightest tug is readily felt by the paddler.

We reach our disembarking place, some few miles above the regular pier, landing at Steilacome, a small town built for the supply of the United States garrison. My destination—the Puget Sound Company's trading-post—is about two miles from the landing. I climb a very stiff ascent to reach the more level timbered land, and somewhat out of breath seat myself on a log, to have a good look round. On every side the scenery—massive and noble—suggested the idea that it was planned on a scale three times the dimensions of anything I had ever seen before. At every bend of the singular tidal canal, as I looked down upon its glassy surface, varying scenes of the wildest beauty burst into view. The dense gloomy forest, clothing the mountain sides from the water to the snow-line, seemed alone monotonous, from presenting an unbroken surface of green; and it was quite a relief to see eagles and vultures soaring lazily in the lurid air, and to watch the water-fowl flapping along close to the water, quacking angrily at being disturbed in their siesta by the tiny fleet of canoes just discernible, gliding silently along beneath the shadows of the overhanging trees. Yet with all this magnificence fronting me, behind, as I commence my journey to the trading-post, there is no lack of scenes more home-like in their aspect; a gravelly road winds along through

* Fire "cancim," or canoe, is the Indian name for a steam-vessel.

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lawn-like prairies dotted with graceful clumps of the Pitch pine (*Pinus Ponderosa*), the only place west of the cascades I ever saw this splendid pine growing: groves of oak (*Quercus garryana*) that would have made a Druid, however ancient, youthful in heart, if not in years, to wander beneath their leafy shelter, stretched away to the right hand and to the left, in lines so regular that one could hardly help thinking that the work of man must have been concerned in planting them. Beautiful lakes of fresh water, glittering in the sunlight like tiny seas of mercury, looked as if they had been purposely excavated for ornamental purposes, an idea rendered the more impressive by the flocks of sheep and herds of domestic cattle browsing peaceably round their grassy margins. Everything about was so suggestive of a fine old English farm, that it was really very hard to resist the illusion that I had not fallen suddenly upon a civilised land, cultivated by man for hundreds of years, and adorned by touches of his highest art. Quite lost in contemplation of the homelike scene I had so unexpectedly come upon, I did not observe the approach of the chief trader, Dr. —, whose name I need not give, but of whom I may be permitted to say, that a kinder friend, more hospitable host, or pleasanter companion, it would be difficult, if not impossible, to find. We need not linger round the "trading-post;" there is little worthy of observation, either scenic or architectural, to detain us: our mission is to the Mound Prairies; to visit which, I start with the Doctor as guide, a few days after my arrival. The journey will occupy four days, two to reach the prairie and two to return again to the "trading-post." Mounted on sturdy mustangs, we jog along through such a park-like country that I can hardly believe the Doctor when he tells me nothing has ever been done to improve it. It may be of interest *en passant* to glance very briefly at the general character of the prairies common in North-western America.

The lower level prairies are tide-lands, very analogous to the saline meadows so common on the eastern coast. The salt water overflows them only at its highest periods, which may happen three, or perhaps four, times in a year. If, however, this overflow is prevented by artificial embankment, these lands are rich and fertile beyond description. Their natural herbage is a tall, succulent grass, which grows four and five feet in height; but when cleared of the grass I have seen splendid potatoes and other vegetables grown upon these tidal prairies. On the Fraser, near its mouth, capital examples of these tide-lands may be seen from the steamer by the passenger *en route* to New Westminster; examples are also to be met with at the mouth of the Nainimo river, round Shoalwater Bay, on the banks of the Columbia, and in Puget Sound. Higher up the courses of the principal rivers—I may instance the Columbia, at Fort Vancouver, as one case, and the Sumass prairies, on the Fraser, as another—are examples of lands

lying below the level of the summer inundation, which are entirely covered with snow-water from June to August. Here embanking is of no avail, but so fertile is the ground that crops put in after the subsidence of the floods are found to flourish quite as well as if tilled earlier. I rowed over the Sumass prairies in a whale-boat in June, when, with the exception of a high ridge peeping up here and there, and the cotton-wood trees, flooded to their branches, appearing as though they grew from out of the water, not a sign of land or vegetation was visible. In August following I measured the stalks of some grass, picked on the prairie after the water had gone, and found the grass had grown to a length of six feet three inches; in seven weeks all the Cyperaceæ grow with the same wild profusion, after the summer inundation. I placed a very lean ox on this prairie (belonging her Majesty's commission) after the waters subsided, and had it killed at Christmas, when it weighed eleven hundred pounds, and was so fat that the men grumbled to eat it. I merely mention this in proof of the nutritious qualities of the herbage. Still higher up the rivers, frequently occurring among the craggy summits of the Cascades and Rocky Mountains, one constantly comes upon small openings, misnamed "wet prairies," clad thickly with Gramineæ, Cyperaceæ, and Equisetaceæ, all of the most luxuriant growth. By far the most interesting kind of prairies are those which are designated "dry prairies," which are clearly alluvial river deposits, although most of them are raised over one hundred feet above the present water-level, and are covered in many cases with a rich black loam, three feet and over in depth, the result of vegetable decomposition. These fertile patches of land produce all the plants adapted to the climate in startling profusion. The Nisqually plains, over a portion of which we are jogging along, in extent measure thirty square miles. The Nisqually river—we shall cross it soon—may be considered in some degree the southern boundary, whilst the Puyallup river washes the northern border. Conspicuous from their extreme singularity are the "shingle terraces," rising successively from fifteen to fifty feet high, and taking a course, as a rule, parallel to that of the mountain ranges. This terrace formation is common both on the east and west sides of the Rocky Mountains. Near the Rocky Mountain House, Dr. Hector speaks of a valley excavated in the cretaceous strata by the eroding influence of the North Saskatchewan river. "In this valley there are three 'terraces,' extensively developed at twenty, sixty, and one hundred and ten feet above water-level."* The terraces appear to be confined to valleys, through which flow large streams, until arriving near the mountains. "Then they gradually spread out, and at last cover the whole country along the base of the mountains, filling up the hollows and valleys of the outer ranges to the depth of several

* Palliser's Expl.

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entirely embank- put in as well male-boat up here appear- land or he stalks one, and inches; wild pro- n ox on e waters d eleven at it. I herbage. e craggy ly comes kly with luxuriant ose which deposits, above the ch black e decom- s adapted s, over a ty square onsidered er washes arity are fifty feet mountain and west n House, ta by the is valley xty, and es appear ns, until out, and ns, filling f several hundred feet." At Cypress Hills, east of the Rocky Mountains, these "shingle beds" were observed at an altitude of three thousand eight hundred feet above the sea. This is, however, an older formation than the river terraces. I observed similar "terraces" to those on the Nisqually plains at Nevada, on the western slope of the Sierra Nevada, at an altitude of more than three thousand feet above the sea, and from two hundred to three hundred feet in thickness. It was curious to see the gold-seekers washing these great cliffs of shingle away by the "hydraulic method" of "washing for gold." In pursuit of the hidden treasure, the sharpest eye, if assisted even by a powerful lens, is powerless to discover it, so minute are the particles scattered through this mountain of fragments, broken from adjacent and far away rocks; the miner simply does rapidly, by delivering jets of water, under high pressure, directly against the cliff from metal nozzles, as used in our fire-engines, what frost, rain, and snow have been carrying on slowly, though surely, for ages: the latter three transport the produce of their erosive labour down the streams, to be whirled eventually by the eddying water into some hole, crack, or rocky receptacle, to be there left for man to discover, collected and hoarded, so to speak, in a bank of deposit of the Creator's own contriving. The gold-washer, on the other hand, does his work rapidly; the result of minutes may represent centuries when compared with the destruction carried on by natural agencies. He could not afford to wait until the materials washed out settled again in obedience to their respective specific gravities; but to avoid this, the washer constructs miles of wooden troughs, or "flumes," through which pours a swift stream of water, carrying along with it all the shingle syringed down by the nozzles. At short distances from each other, extending along the entire length of the "flume," "police" are stationed, or, in other words, there are small deposits of mercury, called riffles, whose duty it is to seize upon all the golden fugitives, be they large or diminutive, and to hold them prisoners until fire eventually volatilizes the gaoler and sets the captive free, for man to fashion and use as he deems best.

On the great Columbian desert—on the Spokane plain, and along the bases of the Galton mountains, past which the Kootanie river finds its way through the Tobacco plains—on Vancouver Island, at Nainimo, and again in the "Flathead" country on the western slopes of the Rocky Mountains, where the "Flathead" Indians rear their immense herds of horses—similar terraces, shingly plains, and dry prairies prevail.

I ride up on some of these terraces we are passing along by; the surface is quite clear of timber, but clothed with "bunch grass," a festuca remarkable for growing in tufts or bunches, differing entirely from the famed "buffalo grass" found on the plains east of the Rocky Mountains, which is a chondroxium. No underbrush is to be seen anywhere, and there is not a single obstacle to impede one from galloping

just where his fancy leads him, save the gullies, cut by tiny streams through these terraces, which necessitate a scramble down and a climb up the opposite side.

As to the age of the terrace formation, I should hesitate to offer an opinion. The terraces placed the greater distance from the coast, and on the higher elevations, are, in all probability, of a greater antiquity than are these we are traversing; and marked alterations must have taken place in the rearrangement of the materials composing them whilst the continent was being gradually upheaved. Dr. Hector, with whom I travelled through California, thinks—and I am quite disposed to agree with him, although I do not set myself up as a profound thinker on matters geological—that “the shores of the intricate channels and inlets of the Pacific coast of British North-western America, if elevated from the sea, would present but a slight difference from the sides of the narrow valleys in the Rocky Mountains, at an altitude of three thousand five hundred feet.” It is very difficult to say whether the continent has been, in later times, depressed in the mass, or whether upheaval has been greater in the centre than along its margins. The latter theory, for many reasons space forbids my naming, appears to be the more reasonable supposition.

Another thing puzzles me as I ride along. Lakes, large and small, are everywhere visible on these plains, having no apparent inlet or outlet for their contents; and yet the water, as I drink it, is cold, fresh, and pure, as if from a bubbling spring. The shingle, washed clean like that on a sea-beach, round their margins, indicates a rise and fall in the water, yet the Doctor tells me few, if any, of the lakes are ever known to dry up, and further, that they never grow muddy or become stagnant. One can hardly reconcile the belief in a subterranean supply, and yet it appears very difficult to account for their purity and permanence on these shingle deposits in any other way. Encircling all their pools, are splendid growths of cotton-wood, maple, and oak.

As the eye wanders over this immense parklike-looking tract, the surface appears broken by numerous small rounded hills, all covered alike with “bunch grass,” reminding one of the “islands,” so called, on the Texan prairies; now and then clumps of fir-trees (*A. grandis*) grow on these mounds: their graceful branches touch the ground, then the trees taper gradually to a sharp point, an appearance suggesting green sugar-loaves. Backing up the entire scene, though forty miles away, Mount Rainer stands massive and majestic. It seems to me, as I gaze on its glittering white mantle of perpetual snow, that I could stretch out my hand and touch it—and yet I know it is so very distant—it has no apparent summit (I do not know the altitude), vanishing in misty cloud, sky and mountain seem blended together into impenetrable obscurity.

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I did not observe many mammals, but the feathered community was extensively represented, particularly the Flycatchers and their allies, a fact easily accounted for when viewing the varied species of flowers everywhere decking the grassy undulations, and the swarms of insects attracted by their fragrance and nectar. It is singular that the Badger (*Taxidea Americana*) and the Coyote (*Canis latrans*), should be unknown west of the cascades, and yet both are found abundantly by only crossing the water-shed.

We stop to bait the mustangs at Olympia "city," a small collection of wooden houses situated at the head of Puget Sound, a place not remarkable for anything in particular except stores, billiard-saloons, barbers'-poles, a post-office, and groups of idlers sitting in the shade "whittling," chewing, and contemplating their toes, which, as a rule, were elevated far above the level of their heads. A pleasant ride through very much the same character of country brings us, near sundown, to a small log shanty close by a stream. The Doctor being known to the owner, we were soon accommodated with supper and a shake-down for the night.

As we are "saddling-up" to start, the most terrible shouts and yells I ever heard came pealing down the valley. The settler, seizing his rifle, rushes up the course of the river, and we, as soon as we can manage to secure the mustangs, start in pursuit. The shouting continues, and, as the voice evidences intense terror, we think Indians have seized upon somebody, whom they are roughly handling, an idea confirmed by hearing the crack of the rifle. The shouting has ceased, and it is with no little difficulty that we are enabled to discover the whereabouts of the settler and the frightened individual who had called so lustily for help. We come suddenly upon them, more by good luck than good management. The cause of all the fuss turned out to be a large puma (*Felis concolor*). It lay, dead and bloody, near a bullock, which it had dragged down and killed. The strength of the beast must have been prodigious, for the steer weighed (so said its owner) five and a half hundredweight. The puma had evidently fastened on the back of the bullock's neck, and killed it by biting through the cervical vertebrae, betwixt the atlas and dentata. Whilst the puma was quietly gorging itself, a farm-labourer, by birth a German, happened to pass near it. His dog making a yapping noise, induced the German to see what it meant, when to his astonishment he came plump upon the panther, or "painter," so called by the settlers. Of course the beast showed symptoms of anger at being thus disturbed by exhibiting its teeth, growling, and lashing its sides with its tail; further than this, the animal had done nothing more than stand defiantly by its prize.

The German, afraid to run, had seized a rail from off the fence, against which he had backed, and placed himself in an attitude of

defence, trusting to Providence and his throat to do all the rest. His rescue was easily completed by the settler's rifle. Pumas are very destructive to the flocks of sheep kept by the Puget Sound Company. I must not linger longer on the way—though numerous objects come under my view, as we ride along, well worthy of being described.

We push through a kind of gap in the timber, which is thicker here than I have seen it anywhere along our route; and imagine, if you can, a level surface, extending as far as eye can follow it, so thickly covered with conical mounds, from five to eight feet in height and from four to six feet in diameter at their bases, that it was almost impossible to walk about amidst them. I can find no comparison which will bring this wondrous place familiarly before the reader; it was like to nothing I had ever gazed on before, and I have never seen any formation, even approximately, resembling it since. I examined and measured dozens of the mounds, and several I contrived to dig open, but only to find the whole substance was shingle, kept together by a kind of calcareous concrete. All were covered with bunch grass, and on most of them a botanist might have gathered many species of flowering plants. I looked at them from a height, I scrambled about amongst them for miles, sat upon their summits, and held council with my friend the Doctor; but all my theorizing failed to satisfy me as to how these thousands upon thousands of mounds, more or less exactly alike, and in contact at their bases, could have been formed. There was no evidence of a current having "flowed" in a given direction in bygone ages, and so caused eddies, by which mounds might have been formed. No; it was, and is, to me still inexplicable. I saw several prairies subsequent to this visit to "the mound prairie," with small mounds sparsely scattered about over the surface—mounds too, in shape and size, very analogous to those of the "mound prairie," and it is just possible they will eventually be found to have the same origin; still it is the vast aggregation of mounds, covering miles of land, and that so thickly as to leave no room to jam in another, that bothers me. It may not be amiss, having confessed my own utter inability to form even a reasonable theory as to how the mounds were either built up or deposited, to give the opinions of other observers.

Mr. George Gibbs, who was attached to the United States Boundary Commission, and of whom I can say, from personal knowledge, that there are very few keener observers, supposes "the mounds might have been produced by the immense growth of the 'giant root' (*Megarhiza Oregana*), forming a nucleus around which the soil has been gradually washed away."* From this opinion I must beg leave to differ in toto. I have often seen the plant growing further south, but

* P. R. R. vol. i. p. 469, n.

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never to produce mounds more than do trees or a stump of any kind. More than this, supposing a plant had once grown on every mound, why are they all dead? unless they killed one another for lack of room to spread, not a likely occurrence; and even then we might hope to find the plants on more open spaces, a task that is impossible, because it does not grow anywhere near the mound prairies. Mr. Gibbs has, I find, altered his first opinion on reference to his Geological Report.* He there says, speaking of the "mounds," "their origin is clearly due to water." Dr. Cooper, United States, who reported on the botany of the Pacific Rail Road survey says: "I would suggest that there the mounds may have been produced by *eddies* and *whirlpools*, probably when Puget Sound formed the estuary of a great river like the Columbia, or perhaps were bunches of the great system of North-West Sounds, which extends from the Columbia river to Sitka."†

To this theory I am somewhat disposed to be a convert, because I have many times seen the "tide rips," as they are named, in the Gulf of Georgia and Straits of Juan de Fuca, eddy round and round with such force that H.M.S. Satellite has been very nearly turned about by the circling force of the whirlpool. This whirling state of water is more particularly noticeable in Johnson's narrows, where the tides meet, which flow round the northern and southern ends of Vancouver Island. I can very clearly understand how mounds could be raised in this manner, because on the sand plains at Walla-Walla, on the Columbia, the wind does exactly the same thing with the sand, only in a lesser degree. But the numbers puzzle me still. I cannot help thinking the mounds were all made at the same time, and if so, the water must have been all whirlpools. I could have lingered round this wonderful prairie for months without wearying, but the Doctor wants to be off home, so I am reluctantly hurried away. We did not return by the same route we came, still the country traversed was so similar that describing it would be only to repeat what I have already stated. As we skirted the timber I noticed small herds of white-tailed deer (*C. leucurus*) and mule-deer (*C. macrotis*) browsing peacefully within the shadow of the massive pines, and every now and then one's reverie was broken by the whirring noise and sharp cluc-cluc of the dusky and ruffed grouse, roused from their siestas in the flowery herbage by the trampling of the mustangs. The shore-lark, blue-bird, and western song-sparrow lent the melody of their sweet voices to cheer the open glades, assisted by the sand-hill crane, as, stalking like a feathered-wizard through the grass, it screamed discordantly a kind of refrain. Tits, nuthatches, and golden crests, were busy in the pine-trees hunting for insects, whilst further back from the recesses of the forest came the rap rap rap and laugh of the log-cock, the wild shriek

* Vol. i. p. 486, n.

† Nat. Hist. Washington, p. 18, n.

of Stellers jay, and the gurgling jollity of the barking-crow, which appears to be everlastingly making jokes and laughing at its own fun. It was a truly enjoyable ride, and I felt sorry when, towards the end of the fourth day, the appearance of sheep and bullocks revealed our near proximity to the "trading-post," which we reached in time for supper. This was my first, my last, my only visit to the "Mound Prairies," the remembrance of which I shall ever cherish as being the most wonderful place I ever beheld.

