A SHORT ACCOUNT OF THE

Trip to Cape Sidmouth and Back,

IN THE

GOVERNOR BLACKALL, S.S.,

BY

MR. S. DIGGLES, BRISBANE,

Read before the Queensland Philosophical Society, on Thursday, February 22, 1872.

SOME months since this society received a communication from the Royal Society of Victoria, in which was suggested the desirability that the various Australian colonies should unite in forming an expedition to Cape Sidmouth for the purpose of observing an eclipse of the sun, which was to take place on the 12th December, 1871, and requesting that we should make enquiry as to whether any person or persons in this colony would be willing to join such an expedition. The probable expenses were also indicated. This society did not feel justified in sending one of their number, principally on the ground of the expenditure required, though fully agreeing as to the desirability of so doing, but thought it would be very proper to communicate with the government on the matter. Accordingly, the letter from the Royal Society was sent to the Colonial Secretary, in the hope that some scientific man might be selected from this colony to take part in the expedition. A reply was received to the effect that the government did not see their way clear to move in the matter, thus leaving it open to any persons desirous of going from Queensland to do so on their own responsibility.

The expedition had not then been actually determined upon, but subsequent steps were taken by the scientific men in Victoria and Sydney which resulted in the trip being made. The steamer Governor Blackall being deemed very suitable for the purpose, and also lying unemployed in Sydney Harbor, was applied for, and the use of that vessel was very liberally granted by our present government, who also went to a considerable cost in repairing her machinery, reserving to themselves the right of sending any gentleman they chose to represent Queensland in the Australian Eclipse Expedition, as it was termed. Captain O'Reilly was applied to, but pressure of business at the time precluded his accepting the engagement, but that gentleman recommended myself as one likely to be useful in various ways, chiefly as artist and naturalist, I think, adding that I was also accustomed to the use of the telescope, having been in the habit of assisting him in his own observations for some time past. The Colonial Secretary was pleased to accede to Captain O'Reilly's recommendation, and I was accordingly instructed to proceed to Sydney to join the expedition, which was to start from thence on Monday the 27th November, 1871. I left Brisbane on the morning of Thursday the 23rd, and reached Sydney after a fine trip of 42 hours from wharf to wharf. The passage was pleasant, and I must record the kindness shewn me by Capt. Knight of the City of Brisbane, who wished me all success on the trip.

Not having seen Sydney for about 19 years, I was wishful to ascertain whether I could easily recognise the scenes with which I was then familiar, and certainly found that a great alteration had taken place, many of the open parts which existed at that time having been built upon. The main features were there however, and I felt no difficulty in finding my way. After calling at the office of Messrs. Eldred & Spence, the agents for the Governor Blackall, who informed me they had secured me the necessary accommodation on board; I proceeded to the Botanical Gardens, curious to see whether Mr. Moore the manager would remember me after so long an absence from Sydney, and was gratified to find he did so. He informed me

he was going as Botanist to Cape Sidmouth, and regretted that our government had not sent Mr. Hill. I may here remark that I suggested the same before I left Brisbane, and believe that his (Mr. Hill's) services would have been of greater practical value than mine, as it turned out; the great object which I had laid out for myself (the delineation of the corona and chromosphere in their true colors) being defeated by adverse circumstances. After a pleasant chat I left, and proceeded to the Museum, where I was heartily welcomed by Mr. Krefft the Curator, whom I had corresponded with for years but had never seen personally. He insisted upon my remaining with him while in Sydney, and did everything in his power to make my visit agreeable. I spent many pleasant hours in his society, and he was most kind and attentive, affording me useful information on various subjects connected with natural history. Mr. Krefft's attention has been much directed to the study of Australian snakes, the most valuable and reliable information concerning them is to be derived from a work published by him a few years ago. The fossil remains of the extinct fauna of Australia occupy much of his study and attention. There are a fine series of fossil bones in the museum, and though broken and battered are not less valued. A large proportion of them were procured by himself from the Wellington Caves in New South Wales, and many have been received from Queensland, some of the larger specimens in particular; Mr. Krefft amused me much as he described the way in which he was enabled to discover the analogy between recent species and fossil; and in many cases he has the pieces of each arranged side by side, so as to completely demonstrate the truthfullness of his identifications.

The valuable library of the Institution was also used by me I hope to good purpose. I there had an opportunity afforded me of examining works heretofore only known to me by report, and many a pleasant hour I spent turning over the pages of such authors as Gould, Grey, Temmink, and others on Ornithology; and Dury, Hewitson, Westwood, Sepp, &c., &c., on Entomology. Amidst such a mass of information, I only regret that much too cursory an examination was all I was able to give to these works, and I longed for the time when we should have a similar library and a similar museum established among us in Brisbane. Mr. Masters the assistant curator was also very kind and attentive to me. He took me through all the rooms and shewed me the various collections, which were beautifully arranged and classified. This gentleman has done more to make the Entomologist acquainted with the insects, especially the Coleoptera of Australia, than any man living, and has of course an extensive acquaintance with them. He is often sent by the trustees of the Museum on long trips to different localities, where he frequently spends months at a time, always returning with a large accession of novelties. By Messrs. Krefft and Masters I was presented with various works and papers of which they were the authors, viz:—The Mammals of Australia and other smaller works, by Gerard Krefft; and catalogues of Insects by George Masters. The 2½ days I was in Sydney, were, for the most part spent in the Museum. At about 5 o'clock p.m. of Monday, November 27, the expedition took its departure from Sydney Harbour in the Queensland steamer, Governor Blackall. I would here remark that few persons are aware of the loss they sustain in neglecting to call at the Museum in Sydney, any one going from Brisbane or any other part of Queensland, will do well to pay that noble institution a good long visit, and I will promise them a great treat. Mr. Krefft is very affable and shews visitors every attention, being a patient listener to any enquiry which is made, and very painstaking in explaining everything.

The weather was fine when we started, and nothing of importance occupied our attention until we arrived at Percy Island, No. 2, about 3 in the afternoon of December 1. We anchored here for the first time and all went ashore, each bent on some object of interest, some to botanise, some to collect shells, some for anything that would turn up; my own particular intention being to collect all the new insects I could meet with. It will be remembered by some that a melancholy interest attaches to this island, as the locality where Mr. Strange was murdered by the blacks about 18 years ago, when in pursuit of specimens of natural history. He was a zealous and efficient collector and did much to render Australian natural history known to the world. I find his name occurring in the British Museum Catalogues as the discoverer of many species of insects, and he is frequently referred to by Mr. Gould as the naturalist from whom he received a number of the rare birds figured in his splendid work on the birds of Australia.

The shore of this island was a sandy beach, and a little difficulty was experienced in landing on account of the rollers; the boats seeming to have a great desire to get broadside on to the waves which, had they done so, would certainly have resulted in a capsize, but by dint of poling with an oar on each side of the boat all landed without other accident than here and there a wetting. There being no signs of natives, and many of the party being armed with guns which would shoot either birds or men (though only intended for the former), no repugnance was felt by any one to going any where, and different parties dispersed themselves in various directions. The island was hilly and well clothed with vegetation. The botanists made their way into the thickest part of the bush and were rewarded by the discovery of a variety of interesting specimens. My attention was first directed to a

species of convolvulus which had large succulent leaves and lined the sandy beach with its long trailing stems. I perceived that the leaves were a good deal eaten and found a very pretty species of Cassida or Tortoise Beetle in great numbers. It turns out to be a species identical with some I have had sent to me from Cardwell. I searched very assiduously but in vain, for a long time, for other specimens but with the exception of an interesting Longicorn Beetle I got nothing of importance. A nest of turtle's eggs was found in the sand. Climbing a hill I came suddenly upon a steep slope of loose earth and stones, down which I found a number of our party must have scrambled. On reaching them I found them busily employed knocking oysters from their native rock. They were pronounced, though small, very sweet, and seemed like the rock itself, being so embedded and attached as to be completely disguised, and I gave credit to their discoverer for his sharpsightedness. It was now getting towards dinner time and a signal was fired for us to rejoin the vessel, one loiterer only being left behind and a boat sent for him subsequently. On the summit of this island was a square piece of rock so situated as to present a forcible resemblance to the ruined turret or keep of some gigantic castle.

We started from our anchorage on Saturday, December 2, at sunrise. A numerous group of rocky islets next met our view (the Beverley Group), fourteen or more being visible at once. At noon we came upon the Cumberland Isles, which were, some of them, large and lofty; one summit being 874 feet high, according to the chart. From the contour of these islands it is evident that they form the summits of a range of submarine hills. Some portions of these islands were densely clothed with pines (the common Moreton Bay species), but which appeared to be of no great size. The next object which met our attention was Whitsunday Passage, a piece of exquisite scenery which many an artist would give a good deal to have an opportunity of depicting; but as the vessel was sailing rapidly, the utmost I could do was to make of it a rough panoramic outline. Beyond this part of the coast the scenery becomes more grand and impressive, the summits of Hinchinbrook Island ranging from 2990 to 3650 feet. This day being Sunday, divine service was conducted in the morning by the Rev. W. Scott, of Sydney. The water of the sea exhibited a marked change in color, being of a beautiful light blue tint. Passing the Barnard Islands I was reminded that here and on the opposite coast were procured, by Mr. MacGilliray, the rarest of the three species of rifle birds, *Ptiloris Victoriæ*. This species still remains comparatively unknown, and specimens are valuable. Any collector spending a day or two among these islands might be well repaid for so doing, as, no doubt, a very high price would be obtainable for specimens of the birds alluded to. It is to be hoped that Mr. Cockerell, in his adventurous trip in the "Naturalist," has not neglected these islands, as, should he meet with the rifle bird in question, any skins obtained by him would be very carefully prepared, and some of them might chance to come into the possession of the Queensland Museum.* The navigation from this point being less known than the waters to the south some anxiety was felt by the passengers at our sailing after dusk, and Captain Gowlland, more in deference to their feelings, than from any fear on his own account, anchored our vessel at Frankland Island.

Starting early next morning, 4th December, we soon came upon a scene which attracted all eyes, when, at 7.30 a.m., we anchored in a beautifully sheltered bay at Fitzroy Island. Our water being nearly exhausted it was determined to call here for a supply, which we were informed was excellent in quality and easily accessible, as it proved, being scarcely a hose length from the sea side. The beach was composed entirely of fragments of broken coral and emitted a musical or tinkling sound as we walked over them. Though sea worn and smoothed by mutual attrition, they were sufficiently file-like to be very destructive to boots and shoes. The beach sloped pretty suddenly and a little higher up was formed of finer material, but all from the same source and was much intermingled with trailing plants and creepers, with here and there blackened blocks of coral projecting, thus shewing recent elevation. A number of interesting trees were also observable, which tended to give much variety to the scene, and across a flat covered with coarse grass and other plants we came upon the creek from which our water supply was obtained. This creek flows down a valley between the two principal summits of the island, and yields a good supply at all seasons. I did not visit the eastern side of the island which, Mr. Hill has since informed me, is much more prolific in botanical desiderata. The insect tribes were holding high holiday on our arrival, and I was enabled to capture a considerable number of specimens, principally Lepidoptera, several of which, though not new to me, were not to be found so far south as Brisbane. At the north-west and also at the south-west portion of the island were a fringe of huge water worn granite boulders, which from the deck of the steamer, looked small enough; but, when we visited them proved to be of huge proportions. They were mostly of a light buff color and looked like sand stone at a distance. The heat was oppressive, and while we were on shore a heavy shower came on. The crew finished watering towards evening, when all returned on board. Several beautiful birds were shot, which were brought to me for ex-

* I believe Mr. C. spent several days here on his trip up, and obtained a good many specimens.

amination, none being strange to me excepting the Torres Straits pigeon, which here made its appearance for the first time. Mr. Walter, a photographer, from Melbourne, took several interesting stereoscopic views during our stay. We weighed anchor next morning at daybreak, and about noon were opposite the Endeavour River, celebrated as the spot where Captain Cook hove down his vessel for repairs, having previously struck upon a coral reef to the southward. The coast, near the river, consisted of two hills rising in a sloping direction from the water, but near the top assumed a precipitious aspect as the rock cropped out perpendicularly. Coral islands nearly level with the water now became numerous, and were generally clothed with low bushes and other scanty vegetation. At 5 in the afternoon we arrived at our next anchorage, Lizard Island, which was a desolate looking, though picturesque spot. Some went on shore, but I preferred remaining on board and occupied myself in making a sketch of the scene. When our friends returned, they reported having seen signs of inhabitants. Footprints of men, a child, and a dog were found imprinted on the sand, and the remains of a stone building, with a black cross marked on the wall, surmounted with a large D. This is supposed to be a station formerly used by collectors of beche-le-mer, so much used by the Chinese in making soup; but to the uninitiated the animal is anything but prepossessing in appearance, being like a huge slug, from a few inches to a foot or more in length. There are various qualities, some fetching a high price, and the pursuit is said to be a very profitable one. Not much was found on this island, the botanical collectors being the most fortunate. A few grasshoppers of large size, but similar to some too frequently found in our Botanical Gardens, were all that were seen among the insect tribes. Had it been earlier in the day I might have possibly met with something worth capturing.

We started next morning at 6 a.m. and reached our destination, which was an island of the Claremont Group, called No. 6, distant about 9 miles from the main land. The weather up to this time having been so temptingly fine, it was thought that being so near the centre of the totality of the eclipse, better work could be done by all keeping together. No fear seemed to be felt and no doubt expressed that any failure was likely to result from our doing so. The next 5 days were occupied in making the necessary preparations for mounting the various instruments which were to be employed. The first thing to be done was to build solid piers on which to fix them, this was very well and efficiently done, bricks firmly set in cement being the materials employed; Mr. Cassolli, an architect from Ballarat, was the gentleman who erected them. We enclosed in glass bottles, as a memento of our visit — several newspapers from the different colonies of Australia, a list of the passengers, and a few coins, which were securely imprisoned within the different piers. The instruments used were of the best construction, and most accurately adjusted; and in all cases exhibited a freedom from tremor highly satisfactory. Mr. Russell, from the Sydney observatory, brought with him the large 10 feet Equatorial, by Merz, and I had the pleasure of witnessing the whole process of its erection. This instrument has an object glass 7½ inches in diameter, and is of excellent quality; and though of considerable weight is very easily handled, the ingenious system of counterpoises attached rendering it capable of being moved by one hand, but steady as a rock, even with the highest powers. There were also two small instruments of 2-inch aperture, one of which was placed at my disposal, and the other that of Captain Gowlland. These like the large telescope were moved by clock work, and I had here for the first time an opportunity of examining a new description of regulator, which the ingenuity of Mr. Russell has devised, for timeing the motion of the telescope to the speed of the heavenly bodies. As this varies indefinitely according to the declination, an easy and effective means of regulating the speed is of great importance, and still more when combined with simplicity of action, which is the case with Mr. Russell's invention; being merely the immersion of a wooden wheel in a trough of mercury, under which is a regulating screw, which causes the wheel to dip more or less deeply into the fluid. The quickness and certainty of action thus attained is marvellous, and a very short time only is necessary to bring an object steadily on the wire of the finder. Another and larger telescope, by Troughton and Sims, was devoted to the Rev. Mr. Scott, and was fixed to a post, firmly embedded in the sand, and equatorially adjusted. These instruments were connected with what was called the Sydney tent, which was of a size sufficient to cover all the apparatus, and also enclosed in its ample folds a dark room for Mr. Merlin the photographer. The Melbourne astronomical party had a larger amount of apparatus and several smaller tents. I noticed one of the new silver on glass reflecting telescopes, by Browning and With, of 8 inches aperture, mounted equatorially, attached to which was a powerful spectroscope, specially arranged for viewing the spectrum of the corona. Proffessor Ellery and Mr. Black Geodetic, surveyor of Victoria, attended upon this instrument. Two other spectroscopes were in the charge of Messrs. Macgeorge and Foord. A fine transit instrument was used by Mr. White, who was at great pains to secure accuracy in its adjustment. Other instruments, and a variety of photographic apparatus were all duly prepared, and practice in the art of photographing to the beats of the chronometer was well attended to, to ensure

the necessary dexterity and precision when the important hour arrived. Everything was done that could be done to ensure success. A number of cards with a black disk in the centre, intended to represent the dark body of the moon at the time of totality, were prepared, and each observer provided with one or more for the purpose of marking in outline any peculiarity which might be observable in the prominencies, corona or chromosphere. Every one was requested to act independently, and to delineate only what was impressed upon his own mind; a scale of two colors of different intensities, from one to ten, was also provided for reference, in order that while the impression of the scene was fresh in the memory, each observer might select such as appeared most true and appropriate, in the various portions of the sketches made.

The days were employed by a number of our voyagers in collecting shells or taking short sails in the neighborhood of the island. One party consisting of five passengers and two servants with three of the crew, went the day after our arrival to the mainland; on the second day Captain Gowlland went to see how they were getting on, as the Captain of a vessel which anchored near us reported that the trip was very hazardous on account of the ferocity of the natives. He (Captain Gowlland) returned in the evening, reporting that he had met with them, and brought back with him one gentleman who was anxious to return, and leaving another behind. The first party made an attempt to follow some time afterwards, and did not succeed, having to return and spend a miserable night in an open boat, exposed to torrents of rain. They arrived safely next evening, wet, tired, very hungry, and thirsty, and glad to be on board once more. The country was reported as barren and uninviting, and very destitute of water. The botanists, however made some interesting discoveries, one in particular being that of an edible fruit of good flavor, of which they ate a good many. The pitcher plant was also found and some other interesting shrubs. Ant hills of a curious and unusual structure, and of considerable size were also noticed, they were some of them 8 or 10 feet high, and arranged like spires or pinnacles, around a central part. What few natives were seen rapidly decamped, and Mr. Moore the botanist affirmed that he would not hesitate to land again with two men only to accompany himself and two to take charge of the boat.

The morning of the 11th December was a curious one. I was on deck about daybreak and much struck with the appearance of the sunrise. It was of a character I had seldom seen, being much more like a sunset than a sunrise, the clouds being gorgeously colored with all kinds of brilliant tints, red, yellow, and purple. I believe it occurred to me that a sunrise of this kind portended bad weather. The day throughout was unsettled and in the evening a severe thunder storm was experienced, which might have resulted in damage to the ship had she been built of wood. Being a natural conductor no harm was done, though the impression on the minds of all was that the vessel was struck more than once by the lightning, the vivid flashes of which were simultaneous with the thunder claps. Some were of opinion that the weather would clear for the morrow, but the dawn of the great day was anything but promising. During the course of the morning large patches of blue sky were visible from time to time, any one of which would have sufficed for our purpose, if happily favored with such an opening. But as the time drew near the clouds closed in more and more, and scarcely a glimpse of the first contact even was obtainable. As the time for the totality approached the rain, which had been threatening, came down, and we then saw that no observation was possible. With feelings of deep disappointment the instruments were covered over, for protection, and the scene soon closed. Directly it was known the totality was over, great exertions were made to dismount and pack the instruments in their various cases, and everything was secured and shipped before dusk. We left behind us the brick piers and the wooden photographic room, which will form a conspicuous object on that desolate spot, perhaps, for some time to come. On anchoring at Eclipse Island, as it will hereafter be called, great doubt was expressed by some as to whether it was No. 6, Claremont Group, but Captain Gowlland smilingly told them to wait for low waier and then they would see for themselves. At high water nothing is noticeable but a bank of coral sand about eight feet high in the middle, perhaps three quarters of a mile in length by a quarter of a mile in width. A few scanty shrubs and bushes were the most conspicuous objects, creeping plants trail along the ground, and were intermingled with tufts of a brown coarse grass which present a burnt or scorched appearance; but at low water, a tract of flat coral, five miles in extent and covered with shells, etc., is exposed to view, and many of the tourists availed themselves of the opportunity then offered to augment their collections. Seafowl existed here in great abundance, and on our arrival were shot in some number, but speedily became very wary and shy. Here I had the pleasure of seeing the rare Egret, *Demigretta Greyi*, for the first time, and took a sketch of it. The remainder of the species noticed by me were of common occurrance, consisting of Dotterells, Sandpipers, Oyster Catchers, Pelicans, and Terns. Insects were almost absent, even the common house fly was seldom, if ever, seen. A very few species of small coleoptera and a pair of pretty moths rewarded my search. Rats were plentiful

and proved to be the common species. A creeping vine was found, which bore the beautiful shining red and black seeds sometimes used for necklaces. A large yellow flower, something like a buttercup, was seen and pointed out by me to Mr. Walter, who was collecting for Dr. Mueller, of the Melbourne Botanical Gardens. One solitary Casuarina, stunted and broken, struggled for existence. Numerous curious nuts and fruits were cast up on the eastern beach, derived, no doubt, from the islands of the Pacific, and quantities of shells, more or less perfect, were to be seen; from the pretty spirula, like the volute of an ionic capital, to the shell of the pearly nautilus. Some fine Tritons were procured on the reefs around, and a number of curious star fish and holothuriæ were collected. One of the star fish was of a beautiful light blue tint, but fades to a light buff. During our stay at Eclipse Island we had a fine bit of sport with the sharks. Broad-headed, shovel-nosed monsters, they were from 9 to 12 feet in length. Three specimens were hauled aboard and about seven others shot in the head with rifles and then released. Many who had been in the habit of taking headers from the ship's side, ceased from this time to do so. From the great number of these animals and the ease with which they are captured, I feel convinced that a good trade might be carried on in the oil which the livers furnish in large quantities. Our sailors amused themselves in preparing and cleaning the jaws and backbones, which are the only solid parts belonging to them. I took several parasites from these monsters, one was a curious leech of very large size and beautifully mottled with black and green, very much like the markings on a snake; another was a brown fluke, about an inch in length, oval in shape, and quite flat; a third resembled the common white cylindrical worm, often found in the intestines of animals and even the human species, but was deeply imbedded in the muscular tissue from which I had some difficulty in extracting it. These specimens I forwarded to Mr. Krefft, of the Sydney Museum, who is at present engaged in their study and has already published a paper, with illustrations on the subject. I only obtained a few land shells, and might have been more successful in my searches for them had I been better acquainted with their habits, but Mr. Brazier, of Sydney, obtained a good many, some of which were rare and of considerable interest.

The evening before we took our departure from the scene of our heavy disappointment, we were visited by a schooner, which anchored near us. She proved to be the Matilda with a number of South Sea Islanders on board, and the captain of a vessel which was wrecked in Torres Straits. The latter was permitted to remain with us, as he wished to obtain assistance from Sydney as soon as possible. The captain and mate of the schooner reported that at no great distance, perhaps 10 or 15 miles, they had a good view of the eclipse, which took them completely by surprise and they were not prepared to make any observations likely to be of any scientific value. But the account which they gave was consistent and rational enough, and they stood a long and separate examination at the hands of Professors Ellery and Wilson, remarkably well; forcibly shewing that had we been as favorably circumstanced we should have had a great success. One of our gentlemen, an ardent collector of sea-shells, visited the schooner in hopes of meeting with something good and rare, and paid handsomely for many specimens which, I was informed, could be had at a very reasonable rate in Sydney.

Next morning we started early and made a good run, reaching No. 6 Island, of the Howick Group, where we anchored at about 5 o'clock in the evening. Two boats went from the vessel's side, but only one of the parties managed to get ashore by wading through the water, which the others declined doing, and contented themselves with the services of such seamen and assistants who did not object to submerging themselves, and for which services they, doubtless, were paid well, as a number of beautiful specimens of coral were obtained here; in fact nothing got before could compare with them. They were of various species, some very beautiful. Among the branches were afterwards detected a number of small crabs and shells, which Mr. Brazier very industriously fished out and preserved. The party who succeeded in effecting a landing found a few botanical specimens, as the island appeared to be well wooded, and mangroves, which we had not seen much of hitherto, were plentiful around the beach. At night the deck smelt decidedly fishy, and some objection was made to specimens lying about. There was great call for old packing cases and empty barrels, which the purveyor, Mr. Crookes, would doubtless profit by. The evening was spent on deck in a very pleasant manner, and a number of those musically inclined, gave us a specimen of their abilities, some very good songs being sung on the occasion. Next day we started early, and passed Lizard Island about 10 a.m., and about 4 o'clock p.m. a range of high mountains near Cape Tribulation. The summits of many were cloud-capped and therefore invisible, but must have been very high. This part of the Australian coast has a greater elevation than any other part of Queensland, and with the exception of the Australian Alps, to the north of Victoria, is doubtless higher than any other part of this continent. Some of the summits of the Bellenden Ker Range are said to exceed 5000 feet in altitude, and lie a little to the south of our then present position. The atmosphere being hazy it was deemed prudent to anchor at night, which we did in the open sea, which was smooth and not deep,

so that there was scarcely any swell. The young moon was beautiful, bearing in her pointed arms the dark bottle green body of the old moon, in which was distinctly visible some of the more prominent features of the lunar landscape. Next day we arrived at Fitzroy Island to take in water, and arriving when the tide was high had the mortification to find that the supply contained in our splendid waterhole was all salt. A search was made, and a little further to the north, and also not much farther up the beach, was a shallow rivulet, surrounded by trees, which was quite suitable, and during the day we obtained a good supply. I again captured a few insects, but they were much scarcer than before. I got more coleoptera on this occasion, but very few specimens of any kind, the rain which probably extended to this locality having, in all probability, killed them. We started the same evening and arrived on the morning of Saturday the 16th December, at Cardwell, at an early hour. On coming to the anchorage we looked for some signs of recognition on the part of the inhabitants, but none seemed to take any notice, and the only course for us was to land and send off telegrams, which was the great object of our calling in at Rockingham Bay. The telegraph master had a busy time of it, and is not likely to be so overworked for a long time to come; but he went through the ordeal bravely, and I have not heard of any mistakes. I had an opportunity of calling upon several gentlemen here, whom I wished to see, and had some nice insects presented to me by the family of Mr. Baird, the agent for the A.S.N. Company. Mr. Baird was away with the pilot and pilot boat on a visit to the Herbert River, which lies to the south, and is the site of some fine sugar plantations. Cardwell is well situated, but would be much improved by the erection of a jetty similar to the one at Bowen, as it is now all goods have to be taken on shore in boats, which in rough weather must result in loss or injury to delicate articles. The bay is exposed to N.E. winds, but is otherwise well sheltered. The town is a string of houses all in line, parallel to and a short distance from the shore, which is a clean sandy beach, from which even at high tide any amount of fine fresh water is obtainable by digging a small hole. I called upon Mr. Sheridan, the Police Magistrate and Collector of Customs, who shewed me a beautiful tree near the beach, under the shade of which our present governor received the adresses of the inhabitants. It is a fine evergreen, something like the Moreton Bay fig in appearance, and bore quantities of fragrant white blossoms. Mr. Bosisto, a chemist, from Victoria, remarked that he would be able to distil a fine scent from these flowers. The pine apple and banana grow well here, and our voyagers took the opportunity of securing an ample supply. The land about Cardwell seems to be of good quality, and the hills behind, which rise to a considerable elevation, do not seem many miles distant; they are thickly timbered and much add to the appearance of the town, as viewed from the bay. The view from Cardwell is truly magnificent, to the east is Gould Island, and southward lies Hinchinbrook Island with its lofty and rugged peaks. Had I had time nothing would have given me greater pleasure than to have made a drawing of the scene. We left early in the afternoon and proceeded on our voyage, this being our last place of call before reaching Brisbane. We passed Port Denison next morning about half-past 9 a.m., and shortly afterwards were surprised by the captain ordering the sudden stoppage of the vessel, which seemed to be running upon a sand bank immediately ahead. After a few minutes the signal to go on at full speed was given, and the cause of the alarm was made evident when a bucket of water was obtained from the sea, which was discolored in many places over a large area. On examination, it was found filled with small particles of some substance which the microscope showed to possess an organization similar to marine algæ, which it doubtless was, as the cellular structure was sufficiently evident. The difficulty consisted in believing that the same could be so regularly and uniformly broken into fragments, all of the same apparent size. None were more than about the fortieth of an inch in length, and under a pocket lens resembled oat grains in shape. The vast accumulation of this substance was astonishing, and we observed the same phenomena on the two following days. The sea was totally discolored, as if clay had been stirred up and was held in suspension by the water. I procured some of the substance by dipping a sheet of paper in the bucket of water, and the particles readily adhered, and were fimly attached when dried. From this time until our arrival in Moreton Bay, nothing of note occurred. We made the north entrance late in the evening of Tuesday the 19th December, and were boarded by the pilot, who took us to the anchorage, where we remained for a few hours till the tide rose; when, entering the Brisbane River, we arrived at about 6 o'clock in the morning of the 20th. The rest we all know, how the government entertained the visitors and gave them a trip to the Downs, etc., and sent them away with a very favorable impression of this the gem of the Australian colonies.

The trip throughout was a very pleasurable one, and the various scenery through which we passed called forth the admiration of all, from its variety, novelty, and beauty. The steamer did her duty well, averaging ten knots an hour throughout the passage. The company were all agreeable and a greater amount of rational and instructive conversation, perhaps, never was enjoyed by any set of tourists. A number of valuable astronomical works were more

especially read and studied on the trip northwards, but on our return a decided tendency was entertained for reading of a lighter description of literature, more especially among the gentlemen of a less scientific turn of mind. The amusements were various, chess, backgammon, whist, quoits (made of rope), &c.; and a few "chiels" were now and then to be observed "takin notes," the substance of which many of us have, doubtless, had the pleasure of perusing. I might have said much more, but so many accounts have appeared in different colonial newspapers, that anything incomplete in this paper may be easily supplied from those sources. It is a matter of some interest to compare the various accounts, one in particular, which appeared in the Ballarat Star, of January 1, 2, 3, and 4, is well and facetiously written. Being the only Queenslander on board, many enquiries were made by the voyagers as to our mines, plantations, railways, etc., which I hope I was able to answer to their satisfaction. Among so many mathematical men it was necessary to be cautious, and I took good care not to commit myself by any statements of which I was not certain, not being as well up in statistics as was desirable in such a case, and deeply regretting that I had not brought with me such works of reference as would have satisfied more fully their enquiries; but as they were coming on to Brisbane, I told them they would have abundant opportunity of getting all the information they required on arrival. Speaking of gold mining, it was mentioned that companies in Victoria found it profitable to crush quartz yielding only three pennyweights to the ton. I remarked that any reef not giving an ounce, or more, would not be worked in our colony, and that there were plenty of such going a begging, and that if they wished to invest their capital a far better field was open to them here than in Victoria. Great prejudice was manifested by most against the narrow railway guage, which has proved such a success in this colony, one very scientific gentleman affirming that nothing under seven feet ought to be adopted. I hoped that he would have an opportunity afforded him of seeing our own, and endeavored to show that the vastly diminished expense of constructing such a line, especially in a hilly country where short curves were inevitable, was no light consideration in a young colony like ours. I believe the trip they were enabled to make, through the liberality of the government, has gone far to dispel the prejudices entertained by our southern visitors.

The sketches I made were few but interesting, and would be pronounced untruthful in some instances, as where the color of the sea is represented of a bright cerulian blue; this, I affirm, is as I saw it, and it was truly beautiful. Some photographs of scenes I had no opportunity of depicting, I hope shortly to receive from Mr. Walter, of Melbourne, and Mr. Merlin, of Sydney; when I hope by their aid to make some other interesting water-color drawings and to lay them on this table on a future occasion.

I here append a list of the various insects which I procured:—Lepidoptera: Acröe Andromache, common on Fitzroy Island; Danais Archippus, common at Cardwell; Euplöe Darchia, two specimens (Fitzroy); Junonia, Orythia, and Velleda, the first of these was plentiful at Fitzroy Island; Papilio Sarpedon, was seen also but not captured; Papilio Capaneas, two specimens; Terias, the common species, was very plentiful, as were several small blue butterflies; a fine species of Thecla, two specimens; but most abundant was the beautiful Diadema Alimena, of which I obtained a good series of both sexes. Coleoptera were scarce, but I got a few which were new to me. I much regret losing a beautiful Cetonia which I caught in the net, but on trying to release it from the folds it slipped through my fingers and escaped. It was of a brilliant metallic green, and I think would have proved to be Schizorhina Insularis, of which I possess a single specimen from near Port Denison.

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