

ESD 7/11/13

ROYAL BOTANIC GARDENS,  
KEW.



Archives 27





October 4<sup>th</sup>. Lay off today with the intention of putting out to  
sea in the morning favorable breeze. Observed numerous common gulls  
several of the Black-banded G. both old & young. The latter seemed  
inclined to settle on the water when feeding them. The former, the  
B. B. gulls we saw which to Mr. Quincy, do they exist much farther  
than lots at Madras. Oct. 12.

Observed with 95 feet from bottom composed of comminuted  
shells with pieces of quartz &c.

~~the party of B. B. gulls at Madras~~



At Lillingham the "Rebas" overtook the "Terra"  
our sister vessel, equipped in all respects like ourselves  
& on the 24<sup>th</sup> of September we left <sup>that place</sup> Lillingham in company,  
& anchored that night at the "Graves", a few miles  
below the "Dunes". In the following morning we  
were taken in tow by the "Vocate", as far as Maygate.  
When we dropped anchor, dispatching an officer to  
Deal by the steamer ~~to Deal~~ for a new B.B. Anchor, in  
lieu of the one on which we lost at the "Graves".

At Maygate we were detained by contrary winds  
until the 30<sup>th</sup>, when we had a final action at  
the "Graves" of England. - During our cruise in the channel  
nothing took place that struck me, as a naturalist,  
except the appearance of some land birds near the  
ship: a Sand Martin flew about us when off the  
"Graves" light, about 12 miles from land & a wren,  
when about 7 miles distant from the light of "Graves".  
The former I am conscious a very common case, but surely  
7 miles is a long flight for a wren, even through aided by  
the gales, ~~it did not~~ <sup>on the 1<sup>st</sup> of Oct</sup> ~~light~~ upon our sailing.

October 6<sup>th</sup> Lat. Long. ~~This~~ ~~was~~ ~~passed~~ ~~through~~ a  
beautiful luminous patch, about 50 feet long, at 11 & P.M.  
The communications of the central part were described to me  
as very brilliant, - the weather was calm, but the patch  
is ~~narrow~~ <sup>narrow</sup> that the ship had passed through it before  
the water could be evicted. On the following morning

A little pet was well & lively until reading -  
reading when it died.

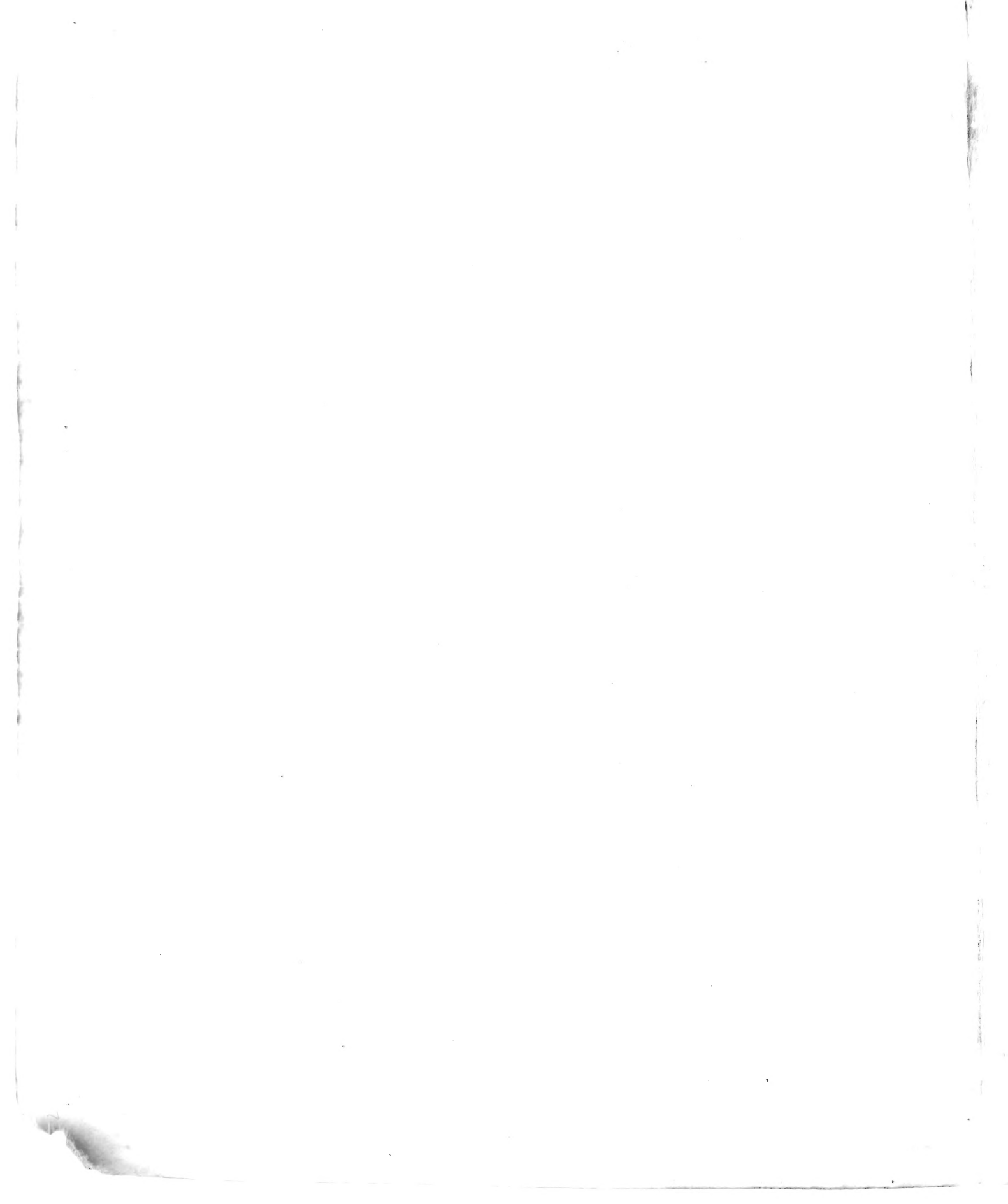


innumerable insects were seen & Mr Smith observed a  
 Redpoll & Thrush flying about the rigging, when they  
 alighted & picked up crumbs from the gun coops.  
 Oct 7<sup>th</sup>, 1847. Today the Captain sounded with 200 fathoms  
 - no bottom. Thermometer was sent down with the chain.  
 Water very slightly luminous to night. Some that I  
 examined contained numerous small gelatinous spheres,  
 apparently flattened, irregular & bases varying from the 3-500  
 of an inch, they presented no appearance of life. The water  
 also contained some small white specks, which under  
 power of 250, little points, shining with great brilliancy  
 from the fluid.

Oct 8<sup>th</sup>. Lat Long. Two water wagtails were seen  
 flying about the ship. One of them was soon afterwards  
 found dead in one of the boats. It was a female (had eggs).  
 The muscles of the Throat, as well as the lungs which were  
 collapsed presented the appearance of violent congestion.  
 The stomach & gizzard were quite empty. On the following  
 morning, <sup>the other</sup> was caught alive, but quite exhausted.

October 9<sup>th</sup>. Mr Smith caught a finch on the rigging.  
 I am not aware to what species it belongs, it soon recovered  
 & is very tame, sings at times, perhaps the *Tringilla*. -

In crossing the Bay of Biscay we have experienced heavy S.E.  
 gales & long swells, the water was constantly slightly  
 luminous, or rather sparkled as the ship passed through  
 it. No sea animals but a few Porpoises have been  
 seen. We have been separated from the "Terror" since Oct. 3<sup>rd</sup>.





October 16<sup>th</sup> Sat. Long. The fine breeze that has  
 carried us on for some days, has left us. The cutter was  
 overhauled & sent to pick up a log of wood that was seen  
 floating at some little distance, when brought alongside  
 the numerous small fish & young dolphins that were swimming  
 around it. When the boat approached it, had disappeared.  
 The log was <sup>about</sup> 8 ft. long, covered so thickly with  
 Barnacles (Lepas anatifera) that no part of the wood  
 could be seen, but by removing some of these cirrhopods, yet  
 it could not have been very long in the water as it was  
 scarcely at all bored by the worm (Teredo navalis).

The only other animal inhabiting it was a small crab,  
 (Leptorhina Pisonii M. D.) that existed there in thousands;  
 the specimens were in all stages of growth, & except in  
 form, no two specimens resembled one another. The young  
 were very small, & like was, quite transparent, with two  
 strong tubercles on each side arising from the side which presented  
 several elevations & depressions. The most remarkable  
 character I observed in the youngest specimens was, that  
 the five abdominal segments, which in the old specimens  
 are turned <sup>in</sup> upon the Thorax, are used as natatory  
 organs, the last segment especially, the feet &  
 prehensile organs of the crabs were in constant motion.  
 This species is very active both in & out of the water, it  
 swims well, by striking the water with its flattened legs.  
 A more variable species as far as regards the color cannot  
 be conceived, the young are generally transparent with a very

*Warma Pavia: Two extreme varieties & young staked.*

*These steps are artificial & support the bullies of the vineyard.*





The bay itself appears a most insignificant village  
almost hid in a small cove close to the sea, the  
houses are all white washed with large black thatched roofs.  
On the side there is a little road about 1/2 m.

The hills about the bay & indeed along the whole of that  
coast are full of vineyards, in each of which there is a  
small scarcely visible hut & very near them a large  
white farm house. Higher up, the vines & large trees  
appear, while the summits of the mountains are broken  
into conical peaks with deep ravines between them  
& here & there a little cascade clothed with brambles.

At 12 P.M. we rounded Cape <sup>Praya</sup> & entered the harbour  
of Funchal, where we lost our fair wind & after being  
buffeted with light breezes, came to anchor close to the  
harbour at 3 P.M. The mountains above Funchal  
are very high, sloping down at each side to the shores  
of the bay, which is much exposed. The lower summit  
of the great mountain generally covered scattered houses,  
resembling along the base of & all the steep hills, they have  
the steep hanging gardens at their backs. Higher up  
are the gentleman's seats with large gardens & shrubberies  
vineyards &c. Still higher the hills are covered with wood  
& the white towers of the <sup>church</sup> ~~harbour~~ of Pope's square seem  
to hang midway between the tops of the mountains &  
the sea situated in a thick wood. Two precipitous ravines  
descend down one on either side of the town. The tops of  
the mountains are very precipitous <sup>when the wind is high</sup> ~~covered~~ <sup>and</sup> ~~generally~~  
covered with heavy clouds. Even after entering the bay we







Page  
The ... is with ...  
Cartesian ...

of the ...

when the rocks prevent this, they are covered with  
Lime, Calcium sulphate & lime. The terraces & gardens  
The gardens of the poorer classes are generally filled with  
Pines & pumpkins, pines, pears, bananas, also some  
& oranges. The stems of the Bananas are made into  
brushes <sup>of brush</sup> &c. There are no large trees near the town  
& what such as are cultivated in the gentlemen's gardens  
& there are generally tropical New Holland plants.  
The public buildings are very pretty. The public houses  
are remarkable from their resemblance to houses. The houses  
themselves are generally somewhat elevated & the doors left open  
& the windows gabled. The church or cathedral is a  
particularly plain building, but contains some  
valuable plates. The lower class of people consists of  
Caribs, some of the best of whom are to be seen. In the evening  
they come in daily subsistence to bringing great baskets  
and cages to market where the women of two or three  
bells (a belt is 5<sup>0</sup>) keep them & the evening during the  
day. They eat no <sup>fresh</sup> salt meat, but eat fish & vegetables.  
The husbandmen wrap a couple of these animals  
to a sort of stage, which is the  
only ~~kind~~ means of transport  
by heavy baggage, as the uneven  
steepness of the streets prevents the use of a wheel  
vehicle, indeed there is but one in the island, & that is used  
only in a few places. The wood

24. The same of your skin in next coat is made to resemble  
the same purpose.



these sleds over the snows very easily, but when they wanted  
to pass, the large drivers cut a piece of timber & let the  
sleds pass over it. Some of the sleds are lined with  
leaves & some are covered with skins.

The houses form another lap of the lowest order, they  
are made of stones, built up the mountain side, the  
roofs are pointed, & the walls are with high stems  
& stone posts.

The mountain slopes were very steep, the houses  
were built on the side, the upper one chiefly English when the  
houses are in the town & these houses & houses are built

on two up the hills they almost never walk, but ride  
the same parties passing from below. The snows are carried  
in small pack animals, just large enough to lie in  
carried by two men.

I was much struck with the  
general tone of civility that prevailed in the lowest order,  
in giving them hats to one another & their children.

Soon after landing we were turning into a wrong street  
that led me to the town where a little child  
immediately guessing where I should have turned, pointed  
spontaneously but me into the right road.

I remained  
about for some time, as there seemed to be  
to be seen, I tried must be in a Latin  
Portuguese & termination as should find me in the way  
of finding a house of my father's, a few times. All are

... made of the Island Mathey, <sup>Leaves</sup>  
... L. pitens the Hill or the road.

... from the red color are ... before fermentation.

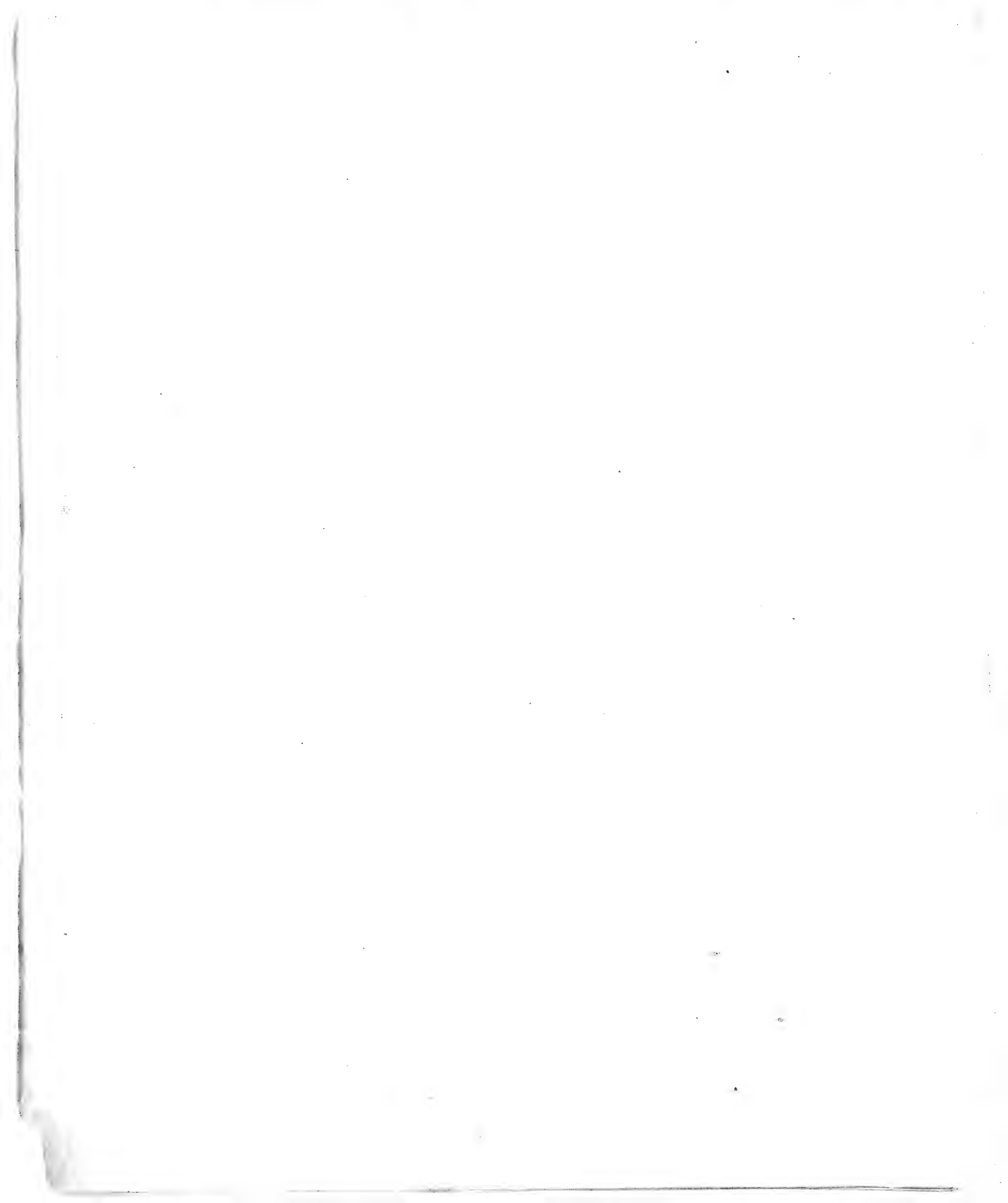
...where maintenance  
 ...English, & having ascertained the truth of  
 ...in afternoon told me  
 ...of the door of Mr. Brown's place of business,  
 ...I was most cordially received & invited  
 ...me to take up my abode with them.

He took me to Dr. L'Esperance's house, immediately opposite in  
 ...to tea. Other settlements  
 ...where you see every one  
 ...of a Portuguese & true English  
 ...about a mile from town,  
 ...that stretch through the outskirts  
 ...a hearty welcome from Mrs. ...

From the steepness of the hills on which these  
 ...the first floor is generally reached by  
 ...whilst the drawing room windows, <sup>opening</sup> upstairs  
 ...the front of the house is <sup>more</sup>  
 ...than the back. The furniture of the

wood, chiefly chestnut & looks very beautiful  
 ...Portuguese, ...  
 ...by their interior from English houses.  
 ...before us in profusion  
 ...three white, Madeira,  
 ...one red, Tinto. The Malmsbury's ...

...to drink much of  
 ...with a red grape, the white  
 ...from the red & white is still seen. The



The windows of the gentlemen's houses are always left open during the evenings, which keeps the rooms very cool. The views were wonderful & beautiful view of the town, which from the cleanness of the night was quite visible. The white houses seemed to descend from us down to the edge of the bay, which was perfectly calm. The "Drebin" & "Terri" were quite visible. I saw also the distant horizon, which, from the height we were, seemed very distinct. The view of the cathedral at night is very striking & from their numbers a perpetual noise which their voices is heard in the streets. We left our quarters at about 10 & returned to town. The sound of the *Relicarios* & *Portugueses* was at times quite unpleasant. The streets appeared quite deserted, but soon after our departure a house, I stopped & listened to the music which at times, was beautifully played by the Portuguese women. At this time I saw some men come to stop, & ask me if the young ladies to get into boat, but we were not allowed to get off so easy, we were immediately invited upstairs & coffee set before us, with tea, some brandy & a profusion of other things. I saw some of the waiting in house & women, some English matters with my gentleman (Gervasio) whom I had seen a fellow student of mine. I only remarked by saying that my gentleman was required on board. After seeing the coach, I left the house, for he seemed to think the services very good. I showed off & enjoyed a half hour's fun in the ship with a boatman who spoke Portuguese with great volubility to me, & was all the while quite content with the answer "no Portuguese - *supere*"



In justice to my kind friend J. I never saw his name in any  
paper or name on any one of the Islands as he did not go  
down as other was accounted for the state he was in.

This garden is described in a manuscript of London  
by Dr. Lippard.

Tuesday Oct. 22<sup>nd</sup> In the morning Dr Lippold came off 12  
 I took me early breakfast with me, he was heartily amused  
 of his last night's work & said, "it was no business".  
 We went together I with my large box of paper, Portfolio, &c.  
 I left with a horse in town, & started for the back of the town  
 In our way we stopped at Dr Denton's, the largest practitioner  
 here, he has lately married a lady, who I used to know well  
 & playmate as Mrs Montgomery & daughter, she is still a most  
 delightful person & looked upon her as the kind of English  
 society, & study of a life of hospitality, industry & charity,  
 can make a person beloved she will discover to be so.  
 With regard our respects to Dr Denton & his Lady & <sup>making</sup> ~~receiving~~  
 a promise that we would return to dinner by 6 past &  
 we left to look over the garden, which abounds in rare  
 foreign trees & plants. On entering, the first thing that struck  
 struck our eye is a splendid Tulip tree, about 60 years old.  
 The garden besides contains splendid Magnolia trees & plants  
 of Conocarpus imbricata, Quercus robusta, Cecropia palmata,  
Prepense japonica, Cephaelis japonica, Antrodiaea sp.  
Asplenium acuminata, Adiantum ~~sp~~ Adiantum sp,  
Calceola plantaginifolia, Myrtus Peruviana, Dracena sp,  
Arum sp, Callitriche, Alnus occidentalis, Pragnolia  
grandiflora, Cephaelis glauca, Asplenium sp in fine specimens  
 Orange, custard apple & other tropical fruits flourish in  
 profusion, the walls were covered with Adiantum sp.  
 After leaving Dr Denton's & starting at the back of the town  
 my excursion was so filled that I was obliged to return  
 with my plants in my Portfolio, on my way back we  
 called on Mrs Davis & some introduced to Miss Davis her  
 only daughter a very pretty but distant girl. In our way left 4 o'clock

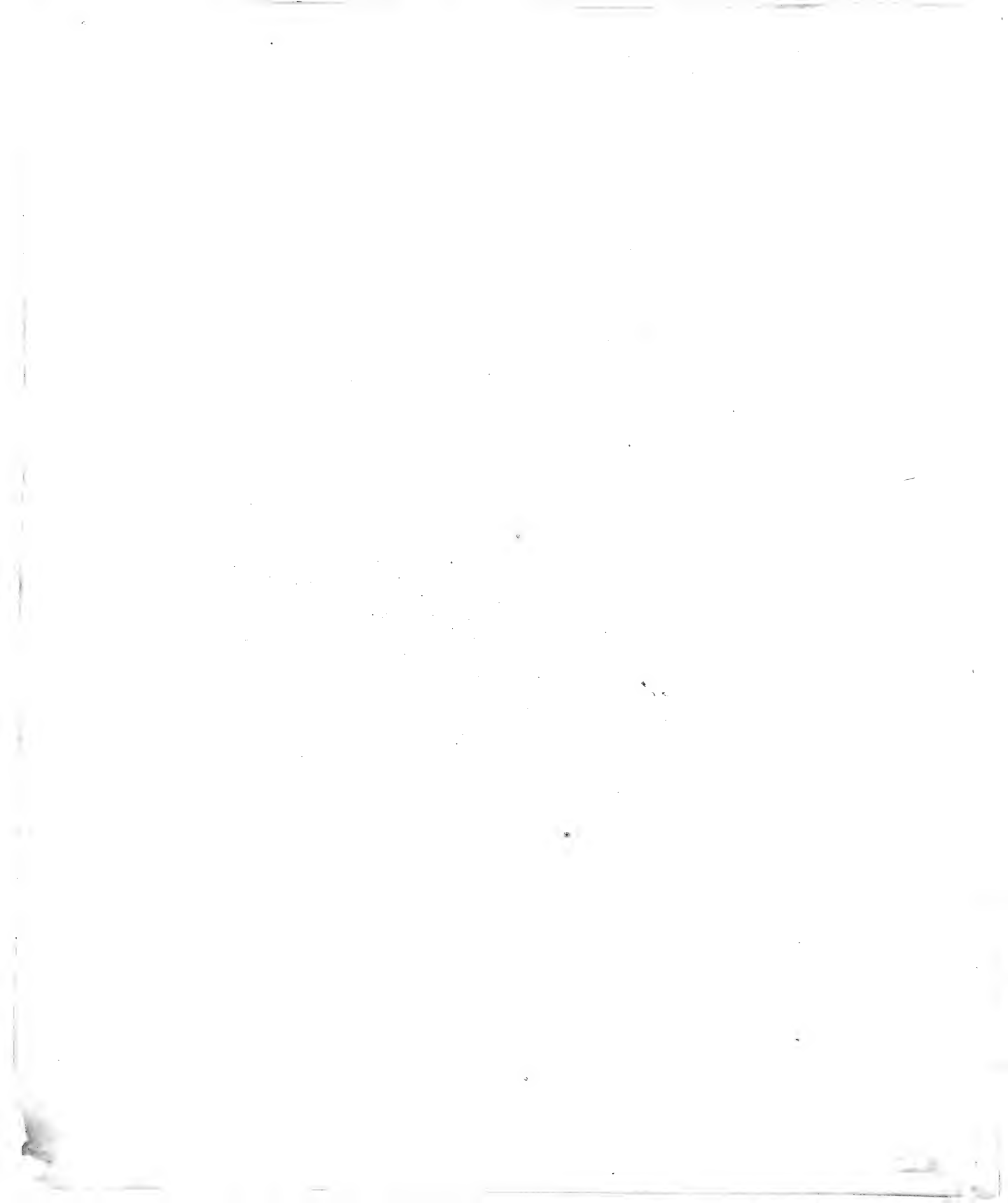
As I have called upon Dr. Lane, the Superintendent of your work,  
I have been very anxious to see you in person & the  
various matters in your mind, attended in Boston & elsewhere,  
and in a general manner, in the course of the summer.  
It was very probably expected his service to me, but not being able  
to give me my attention, as being the winter months, I  
could not see him. I made arrangements however, and  
a note from him, inviting me to his house, I was enabled  
to see him in a very pleasant manner.

Yours truly  
L.

spent in view with my fair old friend Mr. Hally, he was  
 a member of their side, his first job fellow is made  
 he knows it in regard to some application, I was much  
 pleased to talk over our old matters with you, he said he had  
 not had such a pleasant time in view to the doctor, his  
 sister a very affectionate girl is living with him. Which  
 returning through the town I recognized a Glasgow face in  
 Dr. Henderson of St. Andrew's.

In my arrival in Yarm I laid out my plants immediately  
 we sailed from the pier to the east end of the town.  
 Our walk was a very tedious one through the town, but we were  
 rewarded on arriving at some black Potamogeton which we took  
 out into the sea, by finding *Scilla glauca*, *Wulfsbergii*  
 & *Antennaria* of *Hesperis matronalis* at *Northore* or  
*Northore*, <sup>some were at</sup> a very beautiful hairy plant, a species  
 of *Phacelia* which grows there but is so rare a plant as not to be  
 worth the trouble of collecting it. *Plantago lanceolata*  
 was very common, most of these plants were in a very bad  
 state. The return by some hills I found a curious  
*Supina* *his* *nos* *re-rece* *re-rece* *re-rece* & several other plants  
 new to me. I again filled two boxes & on our return in  
 was quite dark.

at St. Andrew's I met several gentlemen, all I believe  
 about me Mr. Burbridge, whose name I had known in Glasgow  
 The conversation was wholly upon Glasgow or Scotland & the  
 University had a long discussion with me concerning the res-  
 toration merits of the University of St. Andrew's. I returned with  
 more to the cause & I supported the former, which was warmer  
 than I should have set home, perhaps. - After dinner I





not very far from the edge. I was surprised to learn that  
 it was the jurisdiction of St. Helena & order, all the coffee was  
 in commerce is retained, however, it is equal to the best made  
 elsewhere, & costs 2 pence in the morning of the day in which  
 it is used. Whilst we were sitting at tea a messenger  
 was sent to from a neighbor that a very beautiful Aurora  
 Borealis was to be seen, we accordingly all called out to  
 the dining room window that opened into the garden  
 & in view this far so southern a latitude, would  
 expect here. There was the light, in the direction of, & was in  
 the appearance of a true Aurora, but whether it was or no  
 is still undetermined, the gentleness present all night in that  
 it was occasioned by the burning of wood at the end of the  
 island. It has been observed in Sept. 1803 the way to the  
 also by the "Lion" 200 miles to the N. of the island. By 11 AM  
 was a mass again raining, and at my journey at 12 o'clock  
 on my way.

Wednesday, October 25. An excursion had been planned for some  
 weeks before <sup>to</sup> ~~the~~ <sup>Quadrira</sup> ~~the~~ <sup>the</sup> ~~time~~ <sup>time</sup> ~~of~~ <sup>of</sup> ~~our~~ <sup>our</sup> ~~leaving~~ <sup>leaving</sup>  
 together visit only the most romantic spots in the island,  
 the town. This morning was previous to my going & found  
 my main ~~and~~ <sup>and</sup> volunteered to accompany us & to see  
 that we were well provided with horses &c. At 10 AM a horse  
 drove off for us according to order & three embarked in it  
 for the ~~mountain~~ <sup>mountain</sup> ~~side~~ <sup>side</sup> ~~of~~ <sup>of</sup> ~~the~~ <sup>the</sup> ~~island~~ <sup>island</sup>. Mr. Wilson, R. A. B. & the  
 Mariner's ~~own~~ <sup>own</sup> ~~house~~ <sup>house</sup> ~~at~~ <sup>at</sup> ~~the~~ <sup>the</sup> ~~island~~ <sup>island</sup> ~~side~~ <sup>side</sup>  
 side's own house, but there was provided for us in the  
 dining room a splendid breakfast with fish, eggs, & a new  
 grapes & apples. Our main soon joined us & other members  
 were mounted upon small horses & species our guides leading  
 them to us. We soon galloped through the town, though this is

Who called saw her & saw the spirit of the minister of  
the church in the paper in some way, which she had  
presented his drawings in any relation. It such a person  
as she is invited to see some thing in the  
of some person in the paper.

was the subject of the. Then we paper the description in rather  
British language, a very pretty specimen, planted with  
Plum trees & cyperus. It struck me as peculiarly modern,  
of the kind. Chert, spot, where so many were said, for  
from their honest friends, who had some, &  
over sent out in the full hope, that modernism was to  
make an incurable complaint. It cannot be said that the  
did of her eye promiscuously here, but almost all are crippled  
down by one or more which nature has planted too firmly in some  
mark to uproot. Others again have fallen martyrs to the  
want of love of an honorable study. Whilst the only other class  
of them perhaps the largest, have thought them even folly, even  
the seeds of their own destruction, in what was otherwise a healthy  
frame. One lay there who I remember having shown me much  
business in my childhood. One Thomas Prior & beside him his  
sister Catherine, a pair that had fair to be ornaments to  
the society.

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against or down, the English never gave the principle of "catch  
me who can" "Then fine me!" The road led us in sight of the  
sea, & the two towers of the tower; at first it was pretty good 15  
but we soon had steep descents & to ascend & descend ravines by  
the most extraordinary roads that I ever saw a four legged  
animal go upon. <sup>except a post</sup> Whenever there is a river here, it runs through  
a very steep & narrow valley, sides are generally covered with  
hanging gardens & vines, and the cottages, seeming to hang  
upon any ledge, surrounded in walls with brick supports.  
The grapes, pumpkins & gourds. The bottoms of these ravines  
are covered & encircled grows with the yam leaves. In the water  
of the river, the washer-women are to be seen & washing in the  
water & washing their clothes by rubbing them, not with soap,  
but with stones with which they pound the linen most care-  
fully. We visited the inside of several of these huts,  
& found them wretched in the extreme, worse even than the  
most wretched Irish hovel I ever saw. Sometimes they possess  
a pig, generally a sow or very fine sow. We were just engaged  
at the by a poor stony mountain in which our own horses passed  
with us up & down the steepest & most insecure places, they  
generally descend slowly grinding their steps very carefully,  
but they will ascend the steepest ascents at a full gallop,  
jutting the upper limbs wide most dreadfully. Our guides  
displayed nearly as much sagacity as the ponies. When ascending  
they held on & derived much assistance from the horses tails,  
whilst on descending whipping or other means with respect  
the poor animal to kick out behind & aid going. This innum-  
erable. At another time however you are looking behind  
yourself as guide & thinking this a, in opportunity, start

Very few of the houses are tiled such as we have red covered tiles  
like old fashioned English ones & built on the roof by means of laying  
large stones upon them.

From what I afterwards heard I should suppose the climate  
be not confined to the very high mountains.

off at full gallop, when on turning some corner you  
 find to your surprise your guide waiting on a slope for  
 you, having taken a short cut & circumvented nose & side.  
 After descending a very steep ravine & ascending a small  
 characteristic Madeira road called "hill horse path," we  
 came upon a splendid view of the sea on one hand, shut  
 in by a tremendous precipice, the highest <sup>cape</sup> in the island,  
 & on the other the high part of the mountains up which  
 we were to ascend. We now struck off to the right towards  
 the centre of the Island, the road was very steep winding  
 down the sides of hills, through narrow gorges, & was brilliant  
 being half way over the road. The banks on each side  
 were adorned with the China rose, *P. multiflora*, & beautiful  
*Forsythia* & *porphyria*, which delighted me beyond measure.  
 After ascending about 200 feet we entered a large glen  
 of the most romantic description. The mountains on  
 each side were split into peaks & their sides covered  
 with forests of small chestnut trees, among which we  
 were. The sides of the path were overhung with (perhaps *Dica*  
*subma?*) a fine *Hypanium* several *Labiatae*, *Pirola*  
*involucrata*, *Imbricaria Bellestoma*, *Forsythia* &c. &c.  
 A circle of them or four miles brought us to the "Jardine" a  
 country seat belonging to the Dutch late British consul  
 here, most beautifully situated in the Chestnut Forest,  
 among the hills. We were here & were conducted over  
 the grounds by the proprietor himself, who paid us every  
 attention & wished us to spend the day with him.  
 The view the highest at which the "Jardine" is situated is

structure of the Gardenia according to Major Saline.

Each of the seeds is somewhat triangular thus differing  
from those of the Pear, & both these are there in a capsule  
except by abortion.

throughout the year a temperate climate, & a wind at 17

The vegetation in this account is much altered, with this peculiarity, that here it never freezes. The mean annual temperature is 63°, is superior higher than that of Formosa.

The soil is composed of a fine red earth mixed over volcanic detritus. The ground is very well covered with chestnut trees one of these is about 9 feet in diameter but quite decayed. Neither bananas nor sugar dates will grow here.

The climate seems peculiarly well adapted to the cultivation of Chinese plants, Camellias flourish, common the kinds we were shown the rare *Camellia oleifera* which we were informed grows in the soil used in China. The soil was certainly very rich. The success with which

Mr. Peitch cultivates the tea plant is most remarkable, so happily situated is the province for growing that plant, that the above mentioned gentleman has formed a project for

making tea in Malacca & thus cutting the E. I. out of the monopoly of that article. He has paid the greatest attention to the subject of the cultivation of the tea plant, has had authentic specimens sent home & bears the different kinds by seeds cuttings with great success. He has also shown us

on the plantation & most liberally allowed me to take specimens of each kind, with no previous notice, that I would not give the seeds cuttings to any merchant in the island.

The plantations consist of 3 or 4 kinds of these different sorts of tea chiefly however of the black & green. They seem to be sown with very little care, some of the kinds the

planted in the year 1804 or thereabouts of these different sorts of tea chiefly however of the black & green. They seem to be sown with very little care, some of the kinds the



Sept. 30<sup>th</sup>

Mr Bird the 4<sup>th</sup> Lieutenant tells me that he has just returned from the Corral has tasted Mr Pritch's Tea & pronounced it of excellent flavor. Capt Crozier tells me he has often drunk Mr Pritch's tea & that formerly it used to be so bad that some civility could hardly tempt him to swallow it, & not do the other thing, but that when he tasted this time was very fine tea indeed.

\* When first discovered the island was covered with wood which was afterwards burnt down. The conflagration lasted during seven years... See Penny Cyclopaedia.

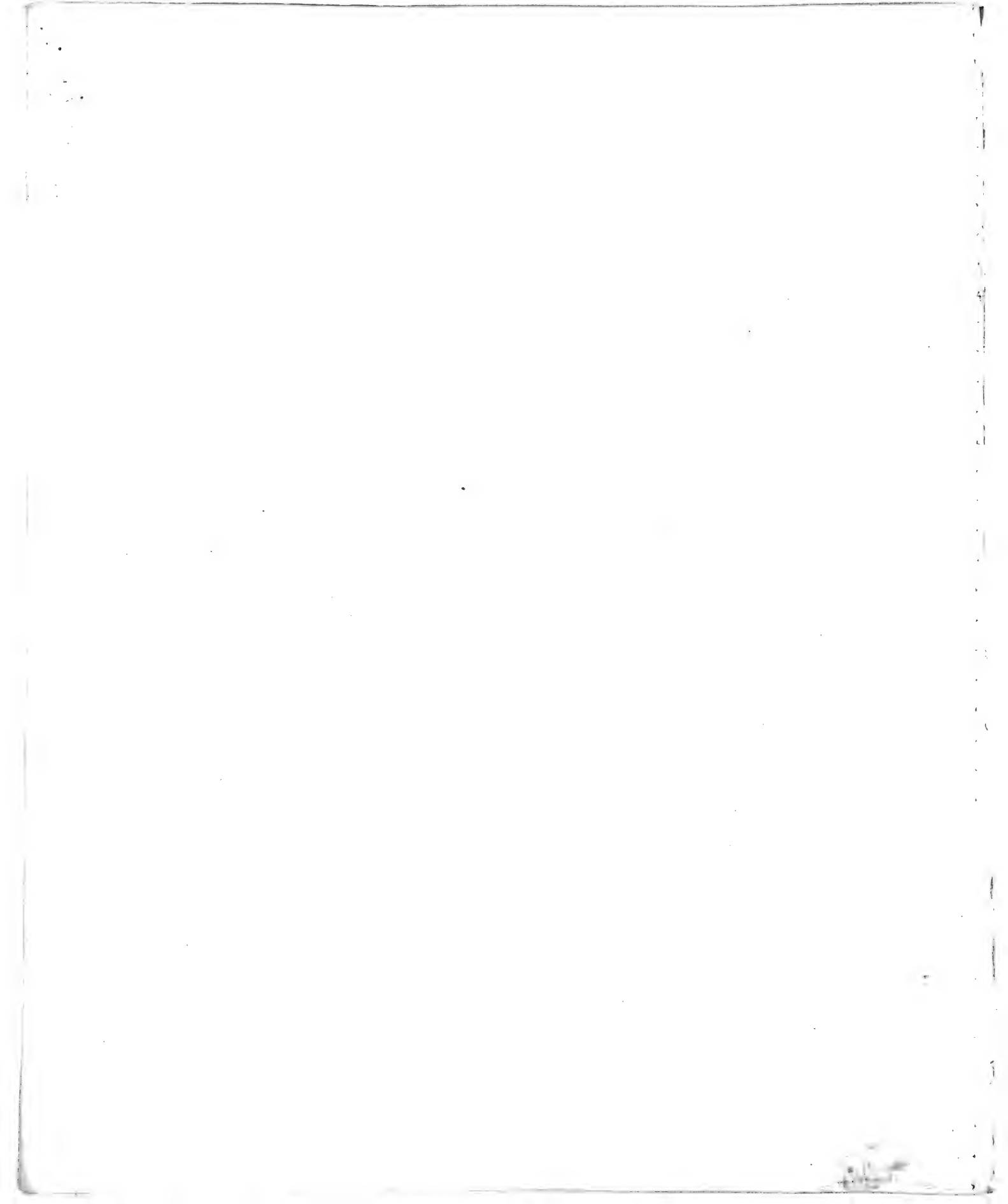
green especially being in every stage of bud, flower & ripe fruit. The following are some particulars of the shrubs.

- 1<sup>st</sup> The Susanguet. A shrub with rather fleshy ovate leaves of a pale yellow color. As a Tea, Mr. Bitch finds it perfectly useless.
- 2<sup>nd</sup> The Ganspowder. Somewhat similar to the last but the leaves less thick. The Tea made from this is very poor.
- 3<sup>rd</sup> The Green Tea. A shrub with thin yellowish ovate leaves, bearing abundant small flowers & fruit.
- 4<sup>th</sup> The Black Tea, with ovate-lanceolate leaves, of a very green color & of a firm texture. It grows on the branches of the flowers.
- 5<sup>th</sup> A very fine shrub of the Cha puyans, with which we were informed the Chinese are in the habit of scenting their Tea, a practice which Mr. Bitch does not approve.

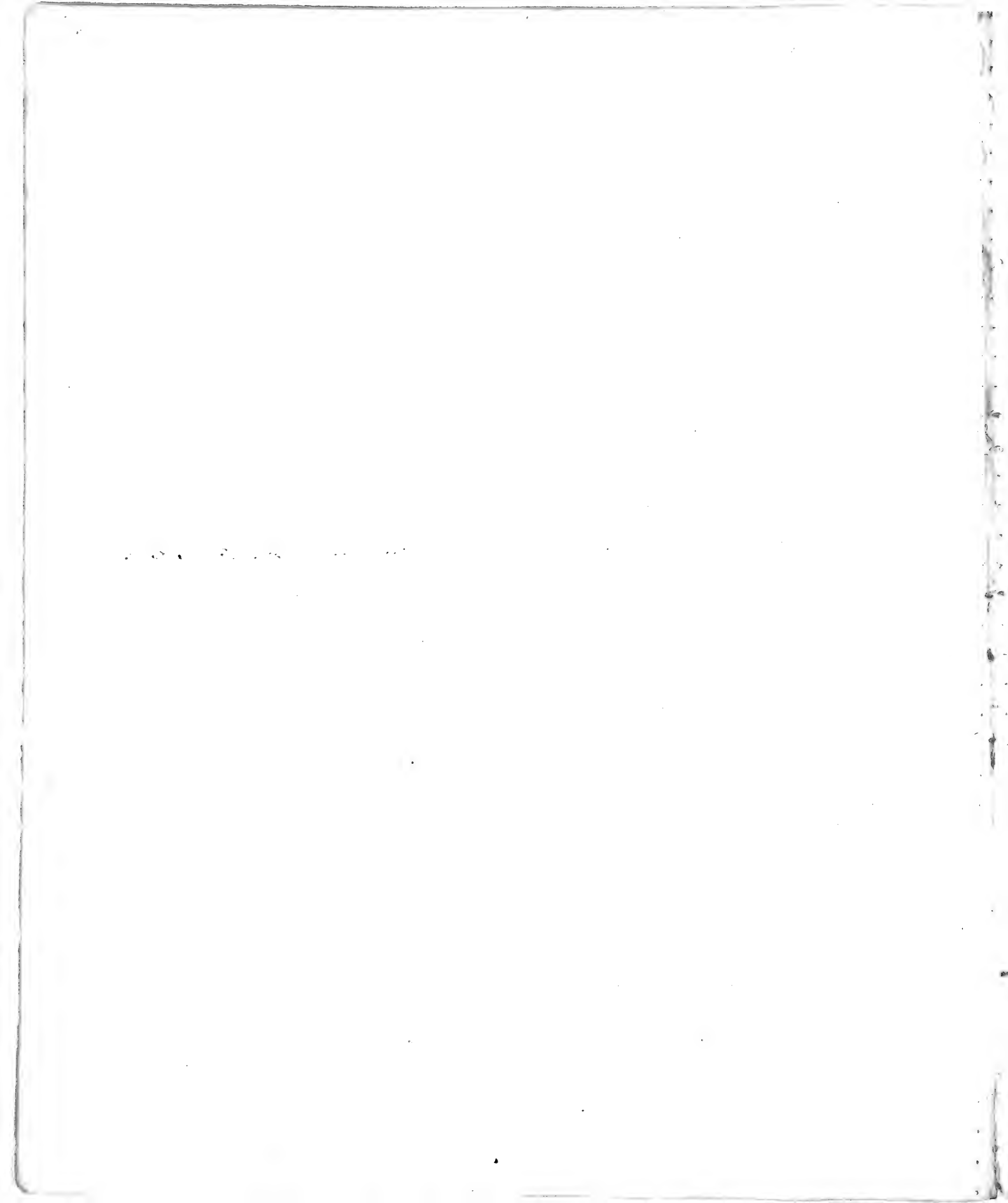
The Tea is prepared for use by collecting the fresh leaves old or young & putting them into a large funnel of tin they are then exposed to a heat of from 90° to 100° by gradually stirring them the dried leaves fall through.

The owner naturally prizes his Tea as equal to the true Chinese sort. Mr. Bitch informed us that it was very well pronounced as by every one who has seen it. The only other remarkable plant I saw was a very fine tree of the Cupressus glauca of which I was told all the old houses & Temples were built. The tree is now extinct.

After leaving the "jardine" we continued ascending up the valley for about 500 ft. the Chestnut Trees, grow smaller & more scattered, until they disappeared altogether, the ground was covered with short herbage & Poona of a stunted description (Cyperus prostratus) we now emerged at the top of the Valley & were suddenly attacked by a party of pseudo Highlanders.



& Madeira, a pair of ragged dirty half clothed Portuguese  
 each bearing a long iron pointed climbing pole, with which  
 thinking no doubt to do us a service, they ascended our pines,  
 causing them to shake & spring over the banks & sweep round  
 the rocks which nearly rendered our seat untenable. This was  
 one, <sup>or</sup> afterwards supposed, for effect, for at the top of the valley,  
 we suddenly came upon the most splendid scenery that I ever  
 beheld. We stood upon the brink of a tremendous precipice  
 that formed one side of an immense gully, the sides were so  
 steep that nothing of them was seen in looking over, but the  
 tops of the overhanging trees, at the bottom, about 2000 feet  
 below our feet, was an almost imperceptible river stretching  
 along among rocks & straws. The opposite precipice, about  
 $\frac{1}{2}$  a mile distant was much higher, & even more steep  
 than the one on which we stood. To the right, the valley  
 continued, bounded by tremendous precipices & topped in  
 chains, till it was terminated by the Town of Funchal  
 about 5 miles off, & the sea in the far distance. To the left  
 the valley seemed to branch into two, its precipitous sides  
~~which~~ more however, doubtless, & rose into sharp peaks,  
 one of which, the Pico Ruivo is the highest in the Island  
 the mountains. They were covered with clouds, broken masses  
 of which crept the precipices, at which appeared to us a  
 very low elevation. The height of our position was about  
 500 feet. The sides of the precipices were covered with  
 scattered trees of Laurus foetida & L. Indica, whose deep  
 green leaves added a gloom to some places while they seemed  
 to clothe the otherwise naked rocks with verdure. The whole  
 scene very much reminded me of a view in the mountains of



Abundant here, when you come suddenly upon the plain of the Dale, give Place *Strutius* away, on one hand, & on the other, you look down into the broad valley of Cloua. The present scene was however infinitely grander, whilst the black & verdish colored basalt of the rocks, the numerous *Laurus* trees give it a different aspect. The river rushing at the bottom which looked like a mere burn, whose course was scarcely heard from the distance, for it is very Scotland to my mind, it dashed along quite white with foam just like the white-water, <sup>even</sup> at the bottom of the gorge of the Dale.

Further the name *Corral* struck me as the same as *Corra*, a corruption of *Cauldron* (I have been informed), a name that is given to large, scooped-out-places, so to speak, in the sides of mountains, in many parts of Scotland.

I have commenced looking out for alpine plants, but from the extreme barrenness of the rocks was quite unsuccessful, a few mosses cut off fruit, apparently *Frichostoma* & a large green *Juncus* or *arnica* grass among the barren side also several *withered* species of *Ledum*. The ragged light anthers, for I can call them nothing else, were most troublesome, incessantly offering us their climbing poles & begging, seeing me scrambling among the rocks they paid me particular attention. A couple of bearded cut-throat swelling fellows in particular with high peaked Carabosides followed me very close, & on one occasion, when trying to reach a bit of the *Laurus foetida* over the edge of a cliff, they commenced crawling out to me most vigorously. You finding this had no effect, one of them descended the cliff after me, & standing himself, insisted upon holding my arm.

I stand brandy as my tea.

After ascending the well: A note.



but I should fall over, I could not help giving the fellow  
 a fist on the forehead, though this regarded services  
 or ascending, I found my companions surrounded with  
 about 20 of the most extraordinary little female children,  
 of all ages from 3 to 12., striped in patterns with little Caraboes,  
 their long hair streaming over their faces, which were of a  
 most determined Porcupine cast. They were all very dirty,  
 & excited our compassion by kneeling & lifting the hands  
 together in the form of prayer. Some of them were really pretty,  
 though very coarse featured. Among them was a very old  
 woman, whose husband had been lost among the cliffs or  
 rather killed. They seemed all remarkably healthy, though  
 they live in the most wretched hovels, & feed upon chestnuts,  
 scarcely ever touching other food. Even the little babies were  
 sucking chestnuts. The Climate here was quite cold &  
 as the rain, we without enjoying it kept ascending on  
 foot, along the edge of the cliffs, we experienced a regular  
 Scotch mist. Among the mountains we met several parties  
 of men, carrying some bags made of the skins of goats, they  
 were carried over the shoulders. The men appeared very  
 picturesque for the Caraboes, long frock & the trousers  
 tucked in at the knees, they wore buskins of wash leather.  
 The wine they were bring, is supplied by contract, for making  
 brandy with. They carry their loads from different parts of the  
 Island, through the steepest & most mountainous road, for  
 an immense distance.

We did not ascend far, but soon rejoined our companions  
 who were seated on a grass bank, where we had left the horses  
 & where there was spread for us a famous cold luncheon prepared

I saw very few insects, a large yellow & a small moth near  
the summit of the valley. The only birds seen were swallows & a finch  
which I take to be the green canary bird it hopped about  
the woods with great agility. No animals but goats.

L60 Dear Mamma.

from Mr Muir. By the bye, I forgot to mention that  
 22  
 Mr Lippard had joined us at the top of the valley, & certainly  
 he remained us during dinner. The young half savages of course  
 clustered around us whilst eating, forming a ring, which  
 gradually approached & hemmed us in. Now the little German  
 abhors the Portuguese beyond any other nation, & he could not  
 brook these unprovoked archers straining near us. He used  
 accordingly, every now & then to start up, take his stick,  
 shout, hooosh, shake his coat tails at & scare the poor  
 little wimps out of their senses, who ~~would~~ <sup>would</sup> run up the hills  
 with amazing agility, their scanty clothing, <sup>tripping &</sup> causing them  
 to tumble over & over as they scrambled along, on all fours.

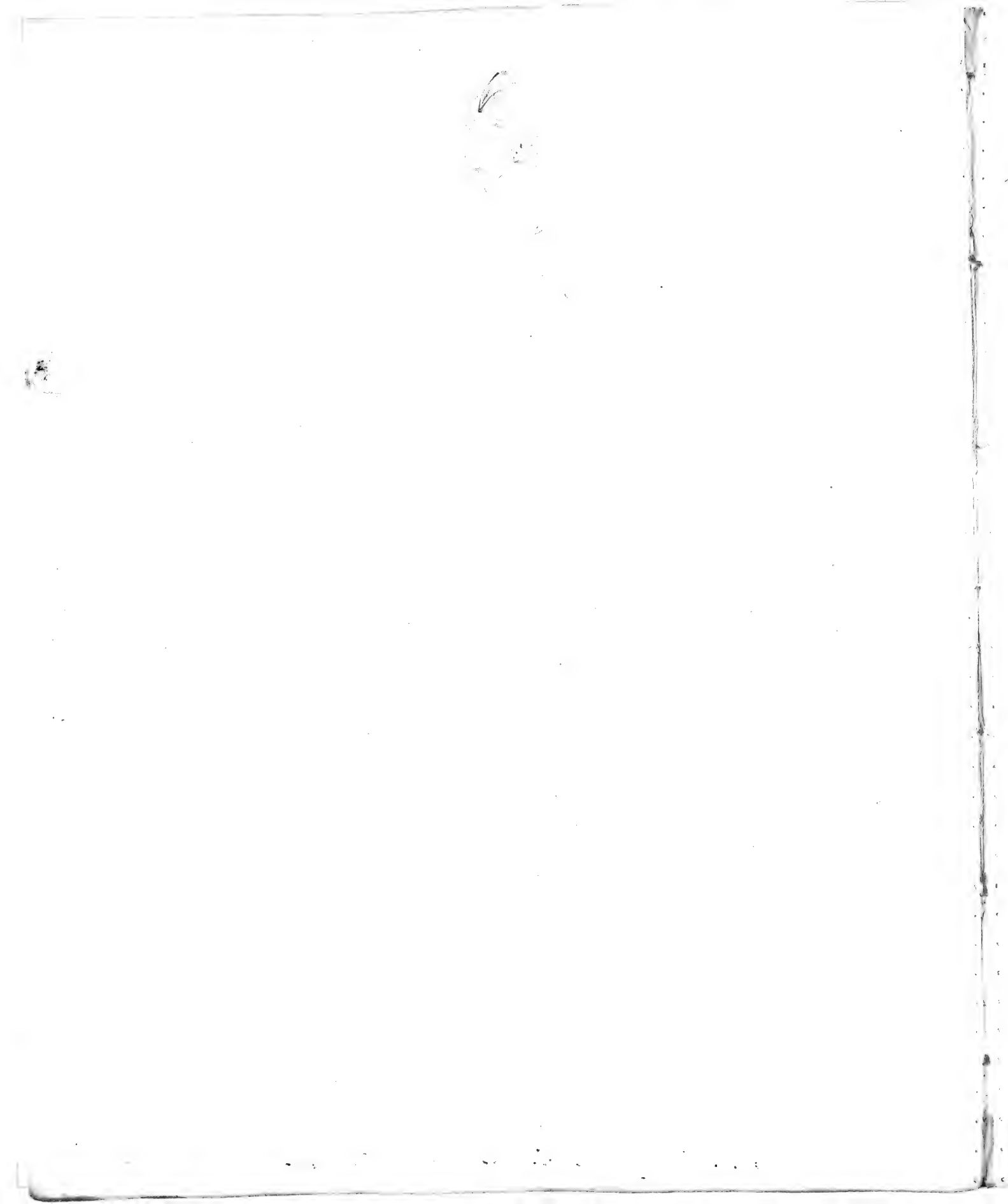
After taking a last look at the Corral, & distributing some  
 few pieces among our young friends, we descended, varying  
 our route a little from the way we ascended. Our poor  
 willing little ponies galloped along without whip or spur,  
 they are certainly the most extraordinary animals I ever  
 saw, some of them worth a good deal of money. We returned  
 to Mr Muir's to tea at half past 6. We passed there a  
 most delightful evening. A Miss Shepherd a very pretty girl  
 was the only stranger there, she favored us with some <sup>finely</sup> ~~pretty~~  
 airs upon a very small full toned guitar, such as are used  
 in the Island, the tunes I recognized as having heard, played  
 by the natives on my return home on a previous evening.

At a late hour we returned on board, I later with plants,  
 & we all agreed that from morning to night we could not  
 have spent 12 happier hours. Mr Muir's family especially  
 rendered our evening, like homes to us, so thoroughly happy,  
 did his attentions make us.

This Mountain was examined by some of the party, one of whom  
brought a specimen of Opeticite from it. - Mr MacLennan told me  
he found some Augite. There is a curious basaltic dyke where  
it shows for the surrounding soil being washed away,  
standing in the like a wall. Mr MacLennan from some description  
I wrote tells me that it is composed of columnar joints, and  
my sketch is copied from Mr Wilkott's but the true name  
given it is called Homium in situ.

Wednesday Oct. 30th. Without, since my excursion to the 23<sup>rd</sup> April, I have been confined to the ship, for its health; - in the interval Mr. Peirce came off to see me, bringing an immense basket of grapes & oranges, Dr. Lippard also paid me several visits, & among other delicacies, gave me a jar of jelly on another jar made in the service of the Passiflora Madagascariensis, the taste was quite that of our P. angustifolia. Several parties came off to see the ship, among others a Mr. Andrew <sup>son</sup> Johnston, who introduced himself to me as an old inhabitant of Norwich, who had known some of my Grandfather's most intimate friends. A fine excursion was made by some of the party to the N. part of the Island, they brought me a few plants on their return, among others a specimen of the Passiflora Madagascariensis & Erica arborea both from the Pico de S. Pedro, the highest point in the Island at 5900 ft. The latter plant grows nearer the summit than any other. Another party that went to visit a bed of shells & some fossils? brought me a few specimens of a Polygonum & Umbelliferous plant.

This forenoon I managed to get ashore, a horse was waiting for me in the town, on which I was accompanied by Mr. Wilmet & Leproy to St. Antonio's, where after showing them the wonders of the gardens, as well as I could, I went to Mr. Peirce's house to dine at 2. P.M. After dinner, with Miss Peirce & Miss Shepherd I visited the two monasteries. The one convent of St. Clara, is where the celebrated Clementina spends her life, we did not see her. The monks themselves disappointed



one by salivating shockingly. They were draped in black,  
with white linen veils, which were fastened by a sort of 24  
wood fittings to the back of the head & ending in a  
plate with division of the hair in front. We spoke them  
through a grating, in an upstairs parlour. After having  
a few artificial flowers, we proceeded to the other (crown) of  
the Incarnation, it was precisely similar to the former one  
only they had excellent ornaments, their flowers even better  
& cheaper, they are made of ducks feathers painted of the  
proper color, to imitate <sup>the</sup> natural flowers. I spent the evening  
at Mr. Miner's with Mr. Johnston & his wife, several of the  
Officers came in after tea. - I was shown this evening a very  
curious ring, made in, & I understand, peculiar to the Island  
it was of gold, on one side were two hands & a star, on touching  
a check it opened out into three rings & at the union of each  
was a small heart. Had I been another day in the Island  
I would have endeavored to have procured one.

Thursday October 31<sup>st</sup>. Whilst on board the "Favor" & day, on  
my way return to Palermo, a gale springing up, which compelled  
me to leave the bay of Trapani without delay, I was simply  
hurried on board & had barely time to write a few lines home &  
a short note to thank Mr. Miner for his hospitality to us,  
before we were under weigh; & stood out to sea. & thus  
ended my pleasant stay at Palermo.

Sunday November 3<sup>rd</sup>. Very early this morning caught  
direct view of the Peak of Teneriffe & by sunset we were  
standing off the Town of St. Cruz, the Capital of this & all the  
Canary Islands. With my glass I at once distinguished the  
Callitriche Canariensis growing all over the Island.

The Spines of the hills above the river are covered to a great extent  
with parallel horizontal lines formed by the water or banks that  
the river follows. They present a most remarkable appearance from  
the sea.

Do the Spines grow at the tops of the hills? which were  
cutted over with some trees, the Pinus Canariensis?



49  
25

Some of the mountains a very fine appearance from the sea; the tops of the mountains are broken into most remarkable spires & from them the valleys run straight down into the sea, they are green with verdure. The rocks principally of which they are very many are quite black & very dark & spotted green here & there with the Sepherbia which was the largest vegetable we could see. The town is well fortified, it is long & built quite close to the sea on a platform, the mountains come down quite close to it, which are crossed by the aqueduct that supplies the town with water.

A small fort is pointed out, as the one from which Lord Nelson took his aim. Of the shells itself I caught only one or two besides glimpses, during almost the whole time that we were in sight of the Island, it was covered with clouds. This evening the surgeon & Purser went ashore, & saw the town, in the Church they saw the two, or called, flags, they are nothing but parts that were taken from the English during our memorable siege of the Island. I made some inquiries concerning the possibility of going to Portaua, & seeing the famous Dragon's blood tree, but found that the town is 28 miles from the bay, that it takes two days to go there & back.

Monday, Nov. 4<sup>th</sup>. During the night we have been standing off the Island. By noon we had approached it again we were now about 3 miles to the Eastward of the town & I landed with the Purser. Mr. Wilmet & Mr. Levey opposite the ship, at the foot of a steep valley. We landed upon a flat platform of rock, with a fine promontory above us

The last description of the Island was in 1710 or 1711.

*Loraxia Paucina?*  
A species of *Poroxia* } & <sup>one</sup> two other sea-weeds.

In the east water pools there grew a very beautiful hard minute  
*Fucus*? belonging to the genus *Leptothamnium* of Malmville's  
arrangement of Leptophytes, he considered it a seaweed. It interested  
me as being very nearly allied to a plant figured in the Hick Tree,  
the *Fucus* <sup>periculatus</sup> Turner, tab. 22 p. figs a-e. *Polysiphonia*  
australis Leard. In form it is very like the *U. mediterranea*  
but much smaller. It adhered so closely to the rocks that I got  
with difficulty enough to identify it.

A large hairy crab was not uncommon but too wary to  
be caught.

At St. John's gun, on the N. coast of Ireland, & the Seaffleur's in  
the Mauritius are splendid examples of this phenomenon.  
Both cases the rocks are Julia, Volcania.

Afterwards saw many holes through which the air rushed  
with great violence. Beautiful rainbows over the spray.

The precipice was composed of strata of Lava that seemed  
 to have rolled at different epochs one over the other with  
 underlinc with was a mass of Pohnian sandstone full of a  
 species of petrified shell & small boulders of trap. It struck  
 all of us that some Pohnian stream of Lava had rolled down  
 from the crater & hardened the black sand into a sandstone.

The platform of rock on which we stood was of this description  
 in it were several large broken pieces of conch shell. It was  
 full of fissures & in deepened communications with the sea  
 these holes were full of shrimps & small fish, which were  
 however too minute for us to catch. A sea weed, *Conferva*  
 we found, also a very small hermit crab that with was  
 crawling about with its pincers loose on its back, it  
 inhabited several kinds of shells. An old woman was there  
 collecting a kind of small shell in a basket, whether for food  
 or ornament I could not make out. Whilst stooping  
 down & picking seaweed out of one of the little tide left  
 pools, I was startled by a rushing & rumbling noise  
 under my feet, I was doubting whether the latent fires of  
 the island were setting to work again, I had selected the  
 spot occupied by the naturalists & the "Belien" as a fit one for  
 a new crater, I started up & on looking around, saw an immense  
 jet of water, sent up to the height of about 20 feet, from a  
 hole in the rocks a few yards off me. Iceland & the geysers  
 came to my mind at once & I shouted to my companions  
 to see this phenomenon. After waiting some time we were  
 gratified with a hearty shaking. I need not add the jets  
 of sea water forced by the impulses of an occasional large  
 wave through the subterraneous cavities in the Rock.

26

Take this *Phacelia* from remembering a specimen of a *Pulsatilla*  
plant with filiform leaves in Dr. Fendler's collection of *Tuareg* plants,  
for which, from its remarkable appearance does not look out as soon as  
I should, neither it nor the *Raphanistrum* had either flower or fruit.

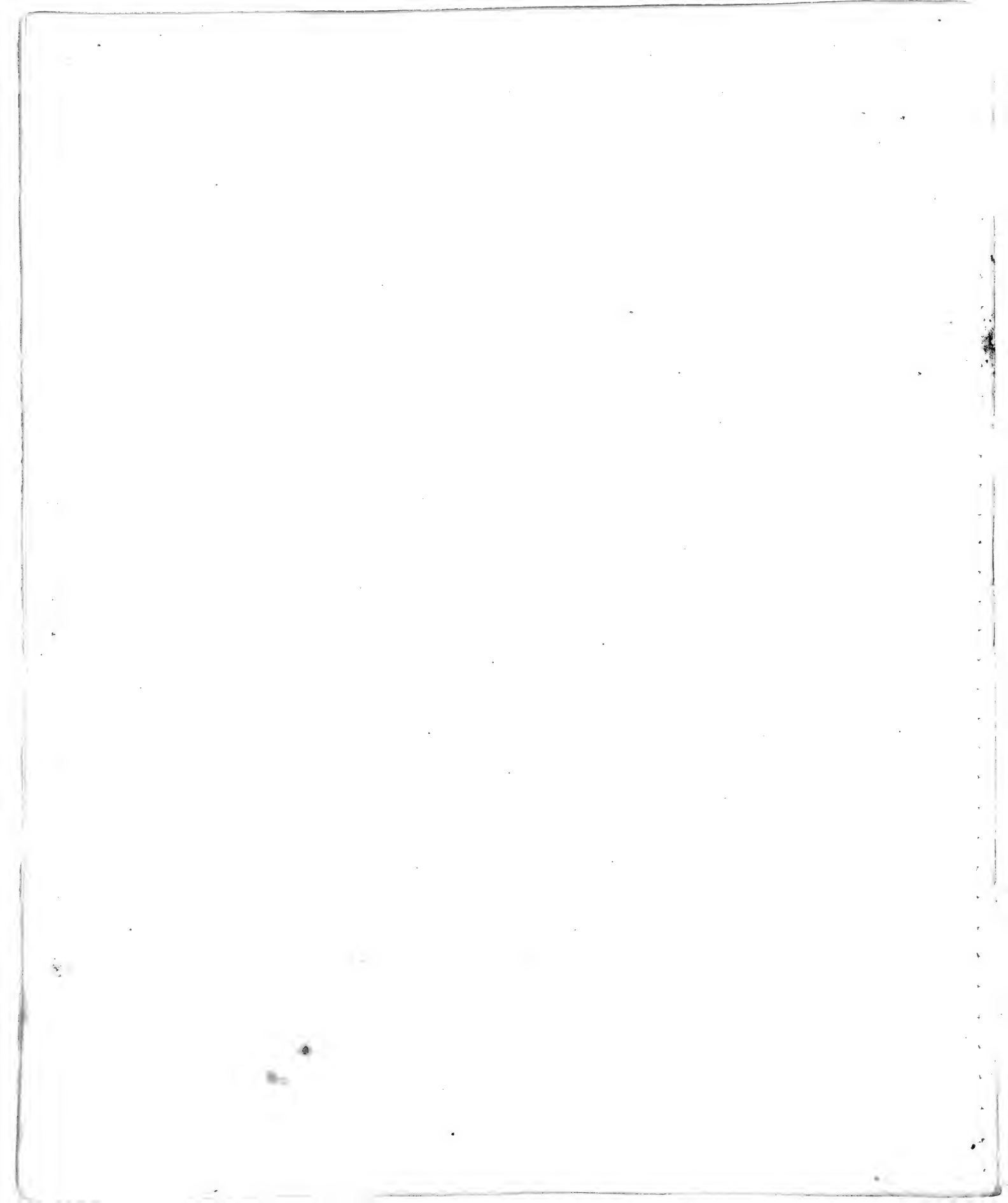


The Captain had altered his mind with the wind & determined to  
sail as soon as possible.

See Catalogue on the King of Spain who built it



The gig with Mr Smith & the stern chute, was now near  
 shore, it halted in telling us to make all haste on to the Cruz,  
 when the friar was to meet the boat & take a letter bag to  
 the British Comdant, the sun was too bright to admit of the  
 boats landing & taking us round by sea. We accordingly  
 started off at full speed, walking along the rough beach under  
 a burning sun. I had barely time to pick up one or two  
 specimens as we almost ran along. About an hour walk  
 brought us to the first fortification, where the guns (as in all  
 the others I saw) were dismounted & none counted, a few Spanish  
 soldiers were loitering about dressed in curious looking  
 uniforms. We passed some natives, chiefly women, carrying  
 the dried wood of the Ruphobia, were sold upon Don Pedro.  
 All, old & young, were atrociously dirty & ill looking, they  
 wore broad brimmed, high crowned, straw hats, with a white  
 handkerchief under it, that hung over the back & shoulders.  
 They appear barely a stage more civilized than the Portegues.  
 One or two small fig trees were all the trees I saw during  
 my walk. The second battery we passed, a small dilapidated  
 building, is the one from which Lord Nelson lost his arm, while  
 ascending the steps of the mole at the landing place, about  
 2 mile off. The streets approaching the town are broad & well  
 paved but very hot, from want of shelter, the houses of the  
 town are all flat topped, with greater balconies out of the  
 windows for which the inhabitants join & laugh at  
 passing strangers, they were neatly painted in white wash.  
 Just before reaching the mole, we passed the new promenade,  
 an insignificant enclosed area, planted with trees, on each  
 side of the gateway is a gilded inscription in Spanish telling the date.





57  
29

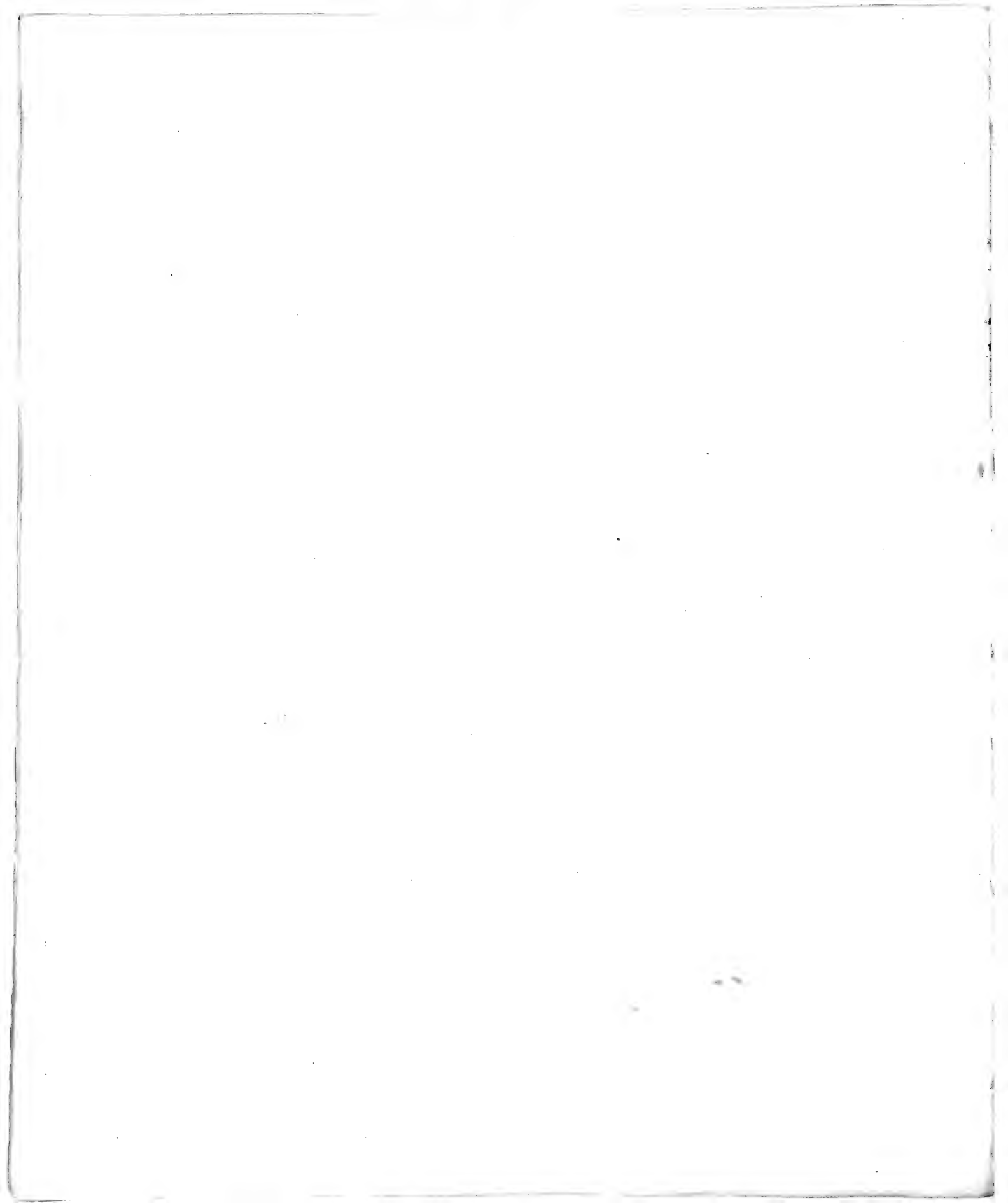
The Town was quite empty, this being the hour when "dogg" & Englishmen only walk out, the inhabitants were all taking their Siestas. After going down to the Mole & meeting the gig we hurried up to the hotel, kept by an Englishman, a Don Rich's room, it was a Moorish looking place & on that account quite new to me, on entering you come to the centre to a square area, beautifully planted with ~~flowers~~ <sup>flowers</sup>, in the centre is a ~~large~~ <sup>granite</sup> water tank with a beautiful device of 3 Dolphins supporting a shell, in which stood a ~~man~~ <sup>man</sup>, we passed along one side of this enclosure & ascended a flight of steps leading to a Corridor round the square, in which were tables well furnished with bottles of Tondriff's wine, we sat down to cool ourselves with this wine, & some of the most delicious & large grapes that I ever eat. Whilst Mr. Hallett was running up to the Council with the letters, we took a hasty look at the Town, the only remarkable thing I saw, was the Camel used as a beast of burden. There was existing a very pretty marble copy of the memory of finding some evidence of the Virgin. I was most anxious to go & see the English Jews but the Church in which they were kept was too far off. I was much amused by the little machines grinning & repeating the words "English play" when asked where the Parochia was. There appeared to be very few shops in the Town, we went into one & bought some small fish Sardines for the ship, they are about 6 inches long covered with large scales like a Polchard & are prepared like red herrings, they tasted something like Anchovies. Except the high crowned broad brimmed straw hats, & here & there a most Jesuitical looking beard, I recognized nothing peculiar in the costume of the men or women.

I afterward understood that the Peak of St. Antonio  
is 5 or 6000 ft. The clouds of the atmosphere make the  
pts look lower than they proved when I visited the  
centre of the Island.

On Mr Walleys return from the Council we hurried down to the  
 beach a long sort of pier built of black lava running out into  
 the sea. One of the steps of it is shown as that on which Lushington had  
 weather when he was maimed. There were numerous boxes here  
 with casks full of bells straggling large bags of the Petal Pine (I  
 was told). The wood was especially red, full of turpentine, very  
 heavy & beautiful. It is said to grow about exactly in  
 the same way, may it not have been the Pinus Canariensis?

This was for building fine wood, also by the fishermen who  
 attached the fish to their lines by large flambear at night.  
 The fishing boats of which there are very many presented a  
 very beautiful sight from the ships from the size & brightnes  
 of the flame of this pine. We had barely pumped in  
 the gig when another signal gun was fired for us, we hastened  
 on board immediately the "Indus" stood away for the Southward

Nov 13<sup>th</sup> This morning we were close to the land of St Jago  
 one of the Cape de Verde Islands. The northern part consists of  
 bare rounded hills based upon flat ledges, their sides are cut  
 by the same parallel valleys that were so common at Senegal  
 but appeared nearly bare of vegetation & of a reddish brown color.  
 As we ran along the coast towards the Southward the hills  
 appeared quite a different <sup>aspect</sup> being very sharply peaked & cut  
 into fantastic shapes, none of them seemed high (2500ft?)  
 & many of them from their insect shape summits quite inaccessible.  
 We was gravely barraged & pestered looking. Many of  
 the valleys bore the appearance of hollow caverns cut in the  
 table land at the base of the hills. The Island of Fogo has been  
 to the Westward, it is short & very high crowned by a volcanic  
 cone with a split crater at the top. When within about 4 miles  
 from the shore, numerous boats came on board among others



a Citronia of African form, Polypodium sp. the Pimenta Lad. <sup>61</sup>  
which I killed from being an old friend's account other species 31

Porto Praya roads Nov. 14<sup>th</sup> Today at 10 the Inter-  
cast Anchor close to this insignificant little town. On each  
side of the Bay, perpendicular, flat topped cliffs, about 100 ft  
high, stretch along the coast, they are of black basalt rocks,  
sometimes columnar & about half way up, intersected by  
the broad white horizontal band, which Prof Darwin describes  
& is the ancient sea beach of shale sand, resting upon one  
layer of lava, & covered by another; it presents a most  
singular appearance. The town itself stands in the  
middle of the bay upon the flat top of a long elevated  
cliff, it is of the most miserable appearance, the country  
for many miles consists of unproductive flats covered by  
yellow withered grass, & here & there rises a short conical  
hill of 2-300 ft alt., sometimes covered to their summits with  
withered herbage, others composed wholly of red volcanic  
soil. Close to the town there are a few Cocoa-cult-trees.  
To the right hand side of the bay there is a small island  
evidently detached from the mainland & separated from it  
by a shallow channel, it is called Luiz Island. The central  
part of the bay consists of a very mountainous region, full of gentle  
peaks whose summits are often split like the crater of a volcano,  
which is never the case in the low hills near the town, that  
I have observed. The highest of them, the peak of S. Antonio,  
presents a very fine appearance from the Bay its height is  
said to be 5000 ft. On our arrival a blowing schooner was lying  
in the Bay, I understood that a more cautious one had  
made sail on discovering us having in sight. The present

We have no commission to catch slaves or to do anything further  
than preventing personal injuries.



The oranges here are the finest in the world especially one kind  
called King oranges which often average 4 to a pound the  
lemons are also of immense size & equally good All the finest  
fruits served will be with no care.

one remained some days, & when taking her departure  
 her drunken skipper saluted us & mocking told us, he was  
 going bigger hunting to the coast.

This afternoon I landed, along with the surgeon, Pinner,  
 & Mr Belmont, we proceeded first to the Point. Consul, a  
 New Barton who was just returning from the coast of Java,  
 I looked most with care, & more skeptical I was as to  
 what he was. I was much struck by it, as his was the  
 first case I had seen of a disease, of which every one has heard  
 so much. The thermometer under a Parasol, in the shade  
 & free from radiation stood at 84.2 Fahr. & the Dew point  
 69. showing 15.2 degrees of difference between the temperature  
 of the air & that at which Dew would be formed. His name  
~~was that~~ of all the few European inhabitants, was like that  
 of a Portuguese with no apparent attention to consent.

The Town is inhabited by Blacks, free & slaves, who very  
 easily pursue various trades. The Negro huts are all low  
 cottages, in which the natives live in great poverty. They are  
 however a fine costume when they like, the men go clothed  
 in cast off European clothes, & the women in loose woollen  
 dresses blue or red, of native manufacture, & adorned with  
 anklets, armlets, necklaces of beads & bangles, they were  
 most anxious to be polite to me & to the  
 Surgeon and visitors. The Town boasts of a sweetened church,  
 which appears to be pointed out to be discovered, barracks with  
 corps of soldiers, 3 ballroom rooms for as many Portuguese  
 inhabitants, & a square surrounded by cottages, in which were  
 sold oranges & tropical fruits. There are also about here on  
 five or six other pieces of the worst description.

We landed among some steep rocks to the right of the Town,  
 & walking along the beach, ascending a most rugged road up  
 to the Town, which was poorly built & filthy & swarming



The ground is very bare full of conical holes which I took to be  
the nests of the Ant. I've as however I could never find the animal by  
digging. I afterwards thought they might belong to a very common large black  
colored & winged Aphid with yellow antennae.



with pigs & miggers, after paying our addresses to the  
 Council we descended at the other end of the Town, by a similar  
 road to the one which we had ascended, & came ~~into~~ <sup>to</sup> the  
 beautiful grove of Cava nuts, Bonanias, Palmettos &c.  
 they grew beside a small stream of dirty water, & flanked  
 the precipice on which the Town is built, being the first I  
 had seen they delighted me extremely. Those who have not  
 been in a tropical climate can have no idea of the graceful  
 beauty of the tree, to me it quite compensated for the otherwise  
 total barrenness of the scene. The ground was scorched & dry,  
 & here the plants that grow on it, continued to exist I was  
 puzzled to conceive, nothing save the palms, above a foot  
 or two high seemed to ~~grow~~ <sup>grow</sup>, but two upon lava streams  
 covered with *Polycaria* sand, this was covered with yellow grass  
 which springs up after the rains & withering from natural  
 decay for the numerous flocks of goats & cattle ~~that feed~~ <sup>that feed</sup> upon  
 this alone, without our climbing. One green plant a large  
 red flowered *Convolvulus* grew every where. Other plants were  
 chiefly small *Sida*'s & Leguminous plants.

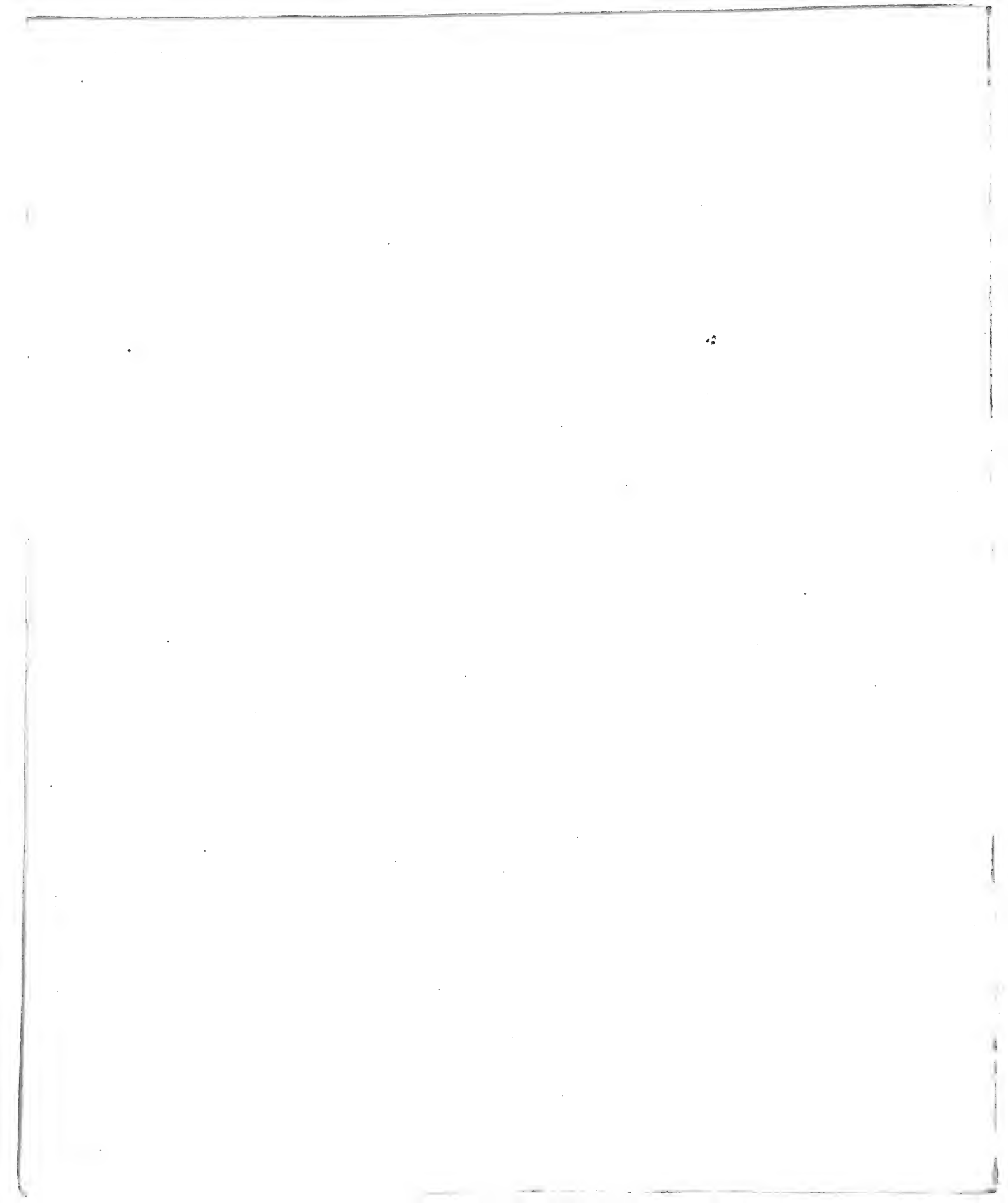
Our intention was to visit the famous *Coconut* tree that  
 grows within a couple of miles of the Town, but, missing our  
 way we proceeded to the westward of the Island, by a small  
 footpath, ~~where~~ <sup>where</sup> there are none. Innumerable crickets & locusts  
 were skipping & flying about in every direction some of a very  
 large size, there were very few other insects of any description.

Our path wound along the bases of low hills composed of <sup>lava</sup> ~~trunk~~  
 where ~~trunk~~ <sup>lava</sup> ~~separated~~ <sup>separated</sup> ~~by~~ <sup>by</sup> the Lava streams ~~which~~ <sup>that</sup>  
 form the <sup>lower</sup> ~~ground~~ <sup>ground</sup> of the Valleys. At other times we came upon  
 plain stretching a some distance for an immense length.  
 The bottoms of some of the Valleys are full of *Palma Christi*  
 bushes, the seeds of which the natives burn, when they give a  
 beautiful oil for their lamps.

I have not the means to buy leaves.

67

*Stentor brevicaudus* frequently grows on the plains & valleys  
near the sea, where they were exposed to the continued steady  
current of the trade winds, are bent at right angles with  
their stems; they very rarely bear any foliage, yet these 34  
branches when broken are found alive & green. A beautiful  
large species of Kingfisher the *Dracole pygmaea*, sits on its  
branches watching insects. This with a true sparrow & great  
numbers of flocks of a small species of finch form the only small  
birds I have seen on the Island. The lantana or bushes are frequented  
by a very large & beautiful kind of spider. It builds its nest  
by throwing an immensely long & strong thread, I measured  
one about 12 ft long, from one branch to another, or that  
of an opposite tree, now, except it is aided by the electricity  
of the dry air of this climate, I am at a loss to conceive, from  
what it sustains a beautiful net, nearly circular in form,  
except where the suspending thread forms a chord to the arc.  
In the centre of this, a huge yellow spider sits vividly  
marked with bands of red yellow & black; near him I  
have seen the remains of locusts  $\frac{1}{2}$  inch long. One indeed  
I found a locust 2 $\frac{1}{2}$  inches long completely entangled. The spiders  
are grey visors & a different corner of the net than are often  
seen many as 40-50 hungry cutworms in close relations with  
long legs, black bellies, & more ignoble quarry beside them.  
One large spider invariably remains chief in the centre,  
whether the others are his property, or usurpers, to whom he gives  
accommodation as long as they remain of a size, not to be  
dangerous, I cannot tell, but this I have constantly  
observed that they never approach the big one. The regularity  
of the net induces me to believe that it is the work of one  
animal. In cool quiet valleys the number of these insects is  
quite astonishing. One catches himself sometimes covering a



a span of 3 or 4 square yards. His very agile & hence difficult to catch, at first I thought I was rather afraid of him, the distinct vision of Tarantulas & my having no fiddle, floating before me, a nigger seeing my perplexity came to the chase very ingeniously crept behind the bushes, in that the Spider could not see him, there, seated upon his haunches he saw, now & then started upon me & kept me rattling fast enough. After proceeding for some way over land currents, we descended in a small rather flat bottomed valley, there was a little water in it but quite hot, its temp. was 86, in it there were Colymbetes gracilis?, on the black rocks near it a most agile Cicindela. We again came upon an open plain on which were flocks of goats & many rocks. I here saw a C. thersites, Pastor but soon came to a bigger hut, the family treated us very civilly, giving us some of the most magnificent oranges I ever eat of an immense size & very sweet they were all bundled into one hut, were cleanly, dressed & all had good harmonious countenances, indeed I never saw a nigger that had not, they are invariably good creatures laughing & smiling at every thing. Having now proceeded 5 miles without encountering the Babob town, the object of our search, we struck off to the N. & with our halibut commenced the ascent of a hill the greenish top of which attracted my attention. we ascended <sup>its</sup> steep sides & after ~~some~~ <sup>some</sup> fatigue, gained the summit, the sun was intensely hot, & my feet were full of the carapels of a species of Picidini, which injected the plains, its barbed teeth sticking through my stockings & plunging into the flesh in such numbers, that my legs & feet looked like a huge pin cushion stuck full of black pins. The hill was about 200 ft high its sides were stony, with a few Acacia trees,

35

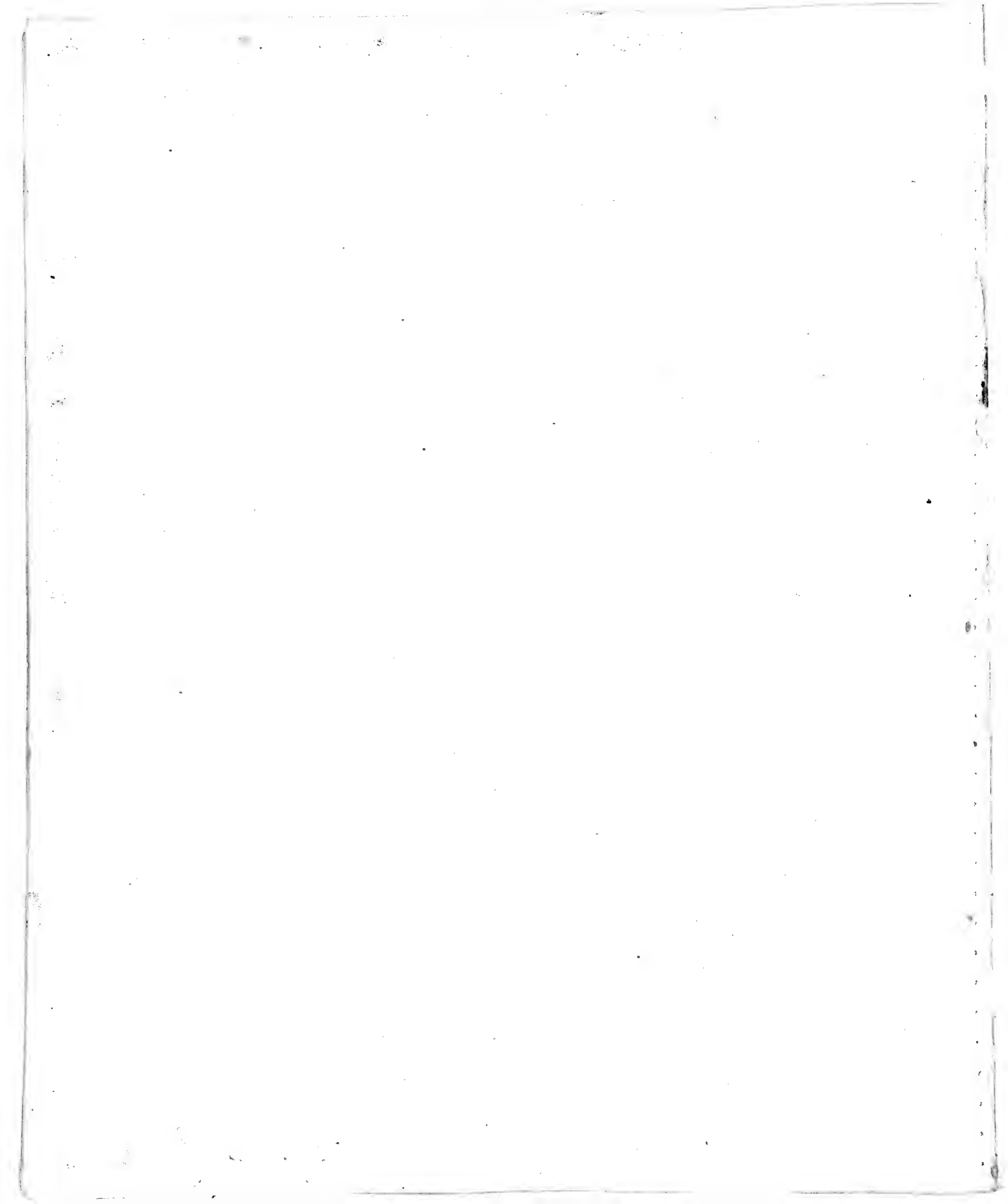
Captain Pop Inocua some afternoon then every night was  
lost. The Patriots got them by sitting under the bushes they  
frequented till night when they drove whole charges of shot  
into them from within a yard or two

The Palmetto is used for straw hats & brushes &c.

a paper can't & Pringe



on which were several of the little Finch, the Oratio  
mashed with black pygmy tern separate bushes from the 36  
females, which are of an ashen grey. Near the summit  
were numerous Palma Christi bushes, & one or two others  
the story to, was covered with a live-oak (of my younger days)  
& other dry grapes, several species of Convolvulus &c. In most  
places the summit resembled that of Ben Pein, the rocks however  
were volcanic & not porphyry, they were sometimes covered with  
an Asclepiad was plant with terete flagelliform glaucous  
leafless stems, & that so thickly that nothing else could  
be seen, but one glaucous mass of many yards long & broad  
which attracted me from a considerable distance, the plant  
had the small umbels of flowers. Here we put up several  
snail, & some flocks of Galena or Guinea Fowl, there were as many  
as you see the coast, they fly neither fast nor far, but are so  
near that they are hardly ever approached within gun shot.  
We afterwards came upon the brink of a precipice, I saw them  
sitting at a considerable distance below us, upon some Palma  
Christi bushes they cooed like barn Swallow & appeared about the  
size times as big as a Black-bird. From the top of this hill  
a very beautiful scene was presented to us, to the N. W. were  
the high mountain tops of the Interior to the N. the sea &  
immediately below us was a beautiful valley filled with a  
Tropical vegetation of the liveliest green, it appeared like an  
oasis in the desert, full of Cocoa nuts, Dates, Palmettos, Bananas  
Pappas Oranges & Limes. Cep. ave. &c. At a distance a little  
to the north of the town, I distinguished the Basal tree  
& for we had wandered far out of our way in search of it.  
After taking a specimen of the rock on which we stood which  
contained small crystals of Epidote? we descended & walked  
back to Porto Praya, by a different but not more interesting  
route than the one by which we had come.





After refreshing ourselves at the Consuls, we procured a 73.  
boat & went on board, Mr MacLennan arrived about half an 37  
hour afterwards. In our return we found that the Consul had  
very civilly left word for us to prepare ourselves for the coast  
guard, which was certain to lay hold of all Europeans who should  
expose themselves as we had done.

Friday Nov. 15<sup>th</sup>. To day, along with Mr Belmont I set  
out to examine the rocks along the shore, or rather I to  
Pohangi & he to George's. We ascended to the bed & found  
it about 10-20 feet thick, running quite parallel to the  
horizon, full of fossil shells, it consisted in the centre of soft  
yellowish crumbly lime, resting on a bed of lava which had  
once been the bottom of the sea & on which this artificial  
shore or beach had been formed, solely by the life & death of  
shells during many ages. One thin shell sandstone bench  
another stream of lava had run, converting the shell sand  
into carbonate of lime, & crystallized, or collected into nodules,  
numerous fossil shells were interspersed through it, some  
indeed along with small masses of limestone, were taken up  
into the substance of the limestream, when the shell  
was hardened to a great degree, & the lime appeared beautifully  
like medullary zeolite in miniature. The rocks above the bed where  
there had been a fissure, were coated with hard crystallized  
Carbonate of Lime. - Mr Darwin describes this metamorphism  
excellently & adds, that all the fossil shells are identical with  
those now found in the neighbouring ocean. Of maritime  
plants I found only one species, that was strictly so. The  
Asclepiadaceous plant grew here in profusion, & I have remarked  
that it seems confined to the sea side & mountain tops, like  
several British plants. Saw several Red tail Hawks.  
We were here joined by another party consisting of Mr  
MacLennan, J. Robertson & Mr Colley of the "Terror" the former

The inhabitants of these cottages are very poor, the  
men work a little & the women spin from the distaff,  
the partitions of the cottages are made of palm tree leaf  
matting, the outside of ground

The Bisan Cal according to the Perry of it's name

following the latter shooting. Under Mr Mc Cormick's guidance  
 we arranged to go & visit a curious ravine <sup>forming</sup> ~~leading~~ out into  
 the sea a few miles off. On ascending <sup>from the cliff</sup> we  
 came upon an immense Prairie, covered with stones that 38  
 were broken by the withered grass. We commenced tramping  
 over this to the eastern end of the Island. The sun was scorching  
 & the walking most laborious, my boots that I had put on  
 to guard my legs from the Redens cuspids were soon cut through  
 & the black stones were so hot that my hand could hardly bear  
 them. The thermometer in the shade rose to 85 Fahr. & the point of  
 the depression of dew 18 degrees below it. The crevices were shallow  
 rocky valleys, & continued our walk till we arrived at some  
 higgis cottages, where we found a party of the "Terror" land shooting  
 with a dog, the only one in the Island that calls itself sporting,  
 it is a regular coach horse or carriage dog but points very  
 well. After being hospitably entertained in one of the huts, we  
 proceeded for some miles, my companions were more than shooting  
 snails which set so close that they were only put up by treading  
 amongs them. We at last came suddenly to the gully,  
 it was a deep gorge about half a mile long & 100 yards  
 broad, with precipitous sides perhaps 200 ft deep, when it opens  
 into the sea the broad limestone band was very distinct.

The place was full of roots & Redens Blow Blow. A wild monkey,  
 the first I had seen was running with remarkable agility  
 along the opposite cliff, he had a tail half as long as his  
 body which he manœvered with great agility. Wild cats  
 + Felis are sometimes seen here. We <sup>now</sup> descended to the bottom  
~~by a very steep road or rather scramble~~ down. There were 8 or  
 10 species of plants in it, chiefly sed as but more peculiar,  
 creeping Convolvulus, Cactos oil bushes & a small Linaria  
 were very common. The spiders were a perfect nuisance  
 their webs being always in the way & adhering to our faces & clothes

Circumference 38 feet.



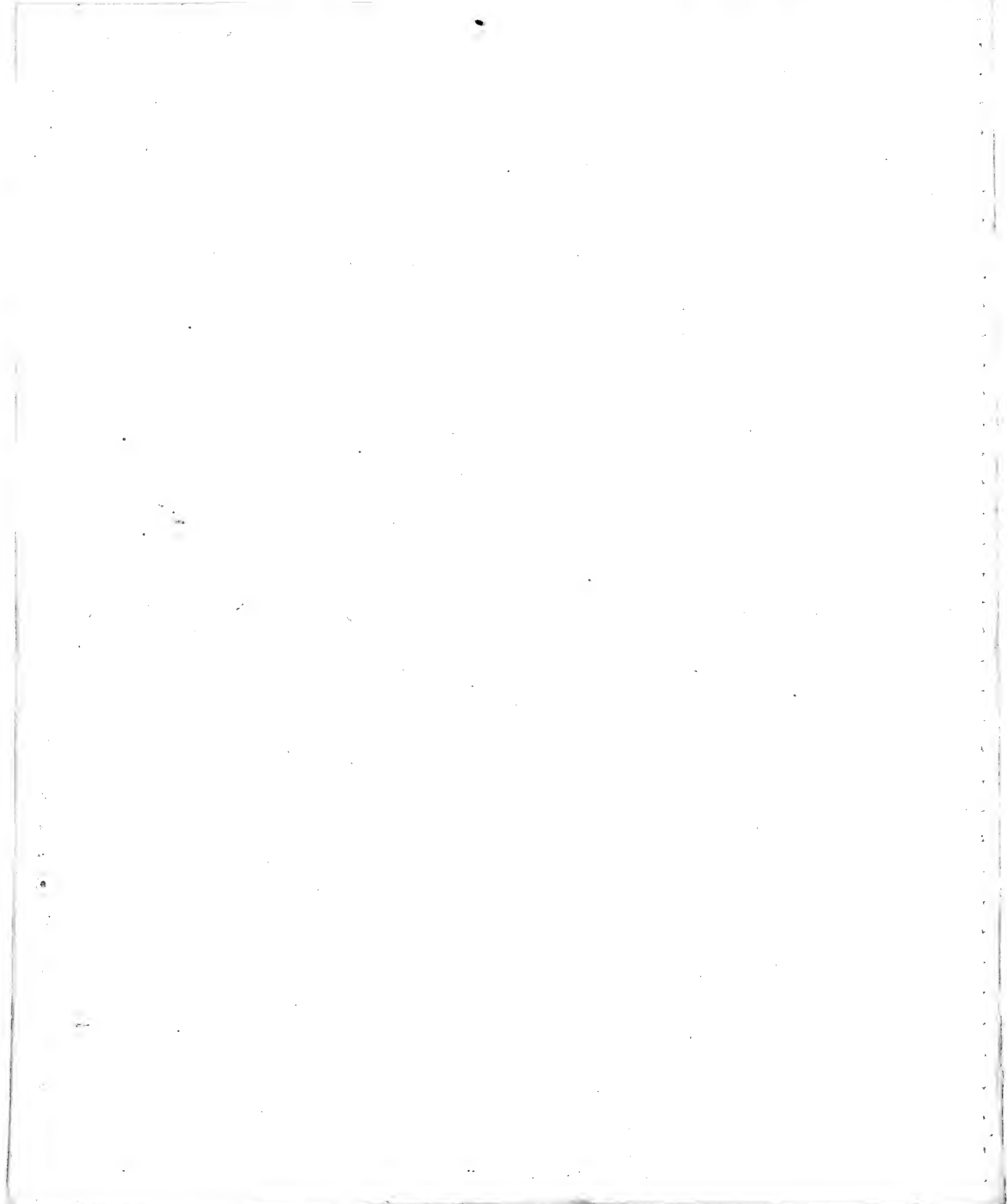




the only two we could procure, & the very worst I ever saw, 79.  
The Jack Raps for which we chose cuts. The Purloo with 40  
I was extinguished our hearts & sent them back before leaving  
the town, & the Jack Raps having performed the part of unroofing  
Mr. Hallett & entering through the town with our ponies  
hanging to his neck, we determined to walk. We passed  
over similar ground to what we had previously, & about  
5 miles out of town came to the foot of some hills, where  
there was a plain, covered with beech trees which were  
scattered half way up at right angles to the trunk,  
by the trade wind; they presented a remarkable appearance  
there were about 200 of them all like one another. The  
largest I saw was about 2 ft in diam. They were all round  
of a height about 10-15 ft. & the horizontal part as much  
more or longer. Mr Darwin mentions this very plain & most  
accurately describes the direction of their trunks as

One tree attracted my attention, particularly its trunk grew out  
horizontally from the side of a steep valley, its self in the direction  
of the trade wind. & I was puzzled to conceive why the branches  
were twisted in a cork screw manner & even very slender.  
A little consideration soon solved the mystery, the strength &  
size of the trunk had enabled it to resist the force of the  
wind, thus in the case with all, as soon however as a branch  
was thrown out from the summit it was immediately bent  
the increase of weight on it, then enabled it to resume its  
original direction by breaking the current, until it overthrew  
itself, when it was again bent. A repetition of these causes  
soon made the cork screw.

Pacing round the base  
a mountain composed entirely of red volcanic stones, we came  
upon another extensive plain which terminated in a small  
valley that led into the valley of St. Domingo at right angles.



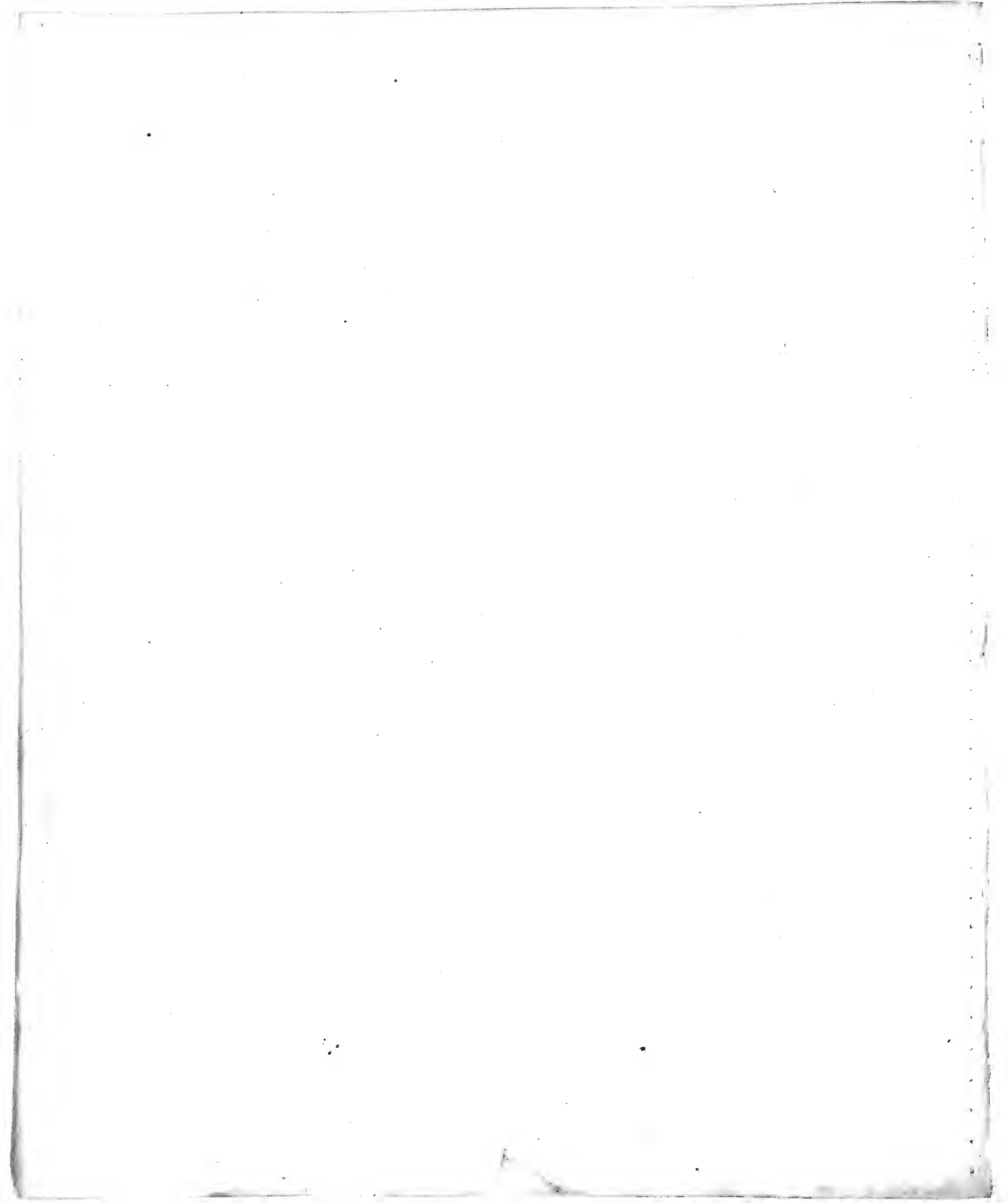


The descent into the Valley was very steep, the rocks of the  
 broad valley became gradually <sup>higher</sup> steeper until we came to  
 the Valley of St Domingo. The scenery at this end was quite  
 - what is called, the valley was very broad, interspersed here &  
 there with trees & parts of rugged, the hill sides were clothed  
 with small trees, chiefly Palms Christi & were grassy for most  
 of the way up, rising to about 2500 ft. we now turned off to  
 proceed ~~up the valley~~ towards the town of St Domingo,  
 the rocks & mountains grew steeper & closer upon one another  
 we walked along a narrow path way among a thick foliage  
 of big bushes & several other small trees. The vegetation  
 was quite different from what I had seen before, though not  
 rank or tropical. Had only time to gather a few plants  
 before evening set in. The beautiful Kingfishers were chattering  
 on the trees in numbers & one little bird sang as like a  
 robin, that we all exclaimed at once we were in England.  
 The evening was deliciously cool, & weary & jaded as we were,  
 no charm of nature could have come more opportunely or  
 revived our spirits better. None can appreciate such a scene  
 & time best without having walked 12 miles under a blazing  
 sun, over rocks that almost scorched your feet as you stepped  
 upon them. Our path way was the dry bed of a stream,  
 full of boulders of trap rock & water worn pebbles. The Valley  
 was very narrow with precipitous mountains on each side,  
 we were evidently in the mountainous part of the island,  
 a mile further opened the town of St Domingo to the S.E.  
 extremity of the Valley. The mountains here were broken  
 into the most extraordinary peaks & pinnacles, which  
 reminded me of the volcanic part of Rio de Janeiro, only these were  
 much sharper. At the base of one of them or rather hanging on  
 its side was a few <sup>the few</sup> huts embedded in foliage, that some

the sun is made here for the eyes and is very sweet and  
is a good food.

the morning of Domingo, we crossed a stream & passing through  
 many plantations & reached us ended the opposite hill. I wish  
 to see it was now dark & going to the chief house near the  
 sea, we enquired for the Pinda, we were answered in French &  
 asked if we could converse. We were then told that we were welcome  
 to any thing the owner proposed, & invited in, further no big man  
 was to be feared. This was too good not to be accepted, & we  
 ushered into rather a good cottage, around which were some  
 builders & carpenters employed being. The owner a Por  
 was a Portuguese native of Porto Praya, but educated in France, he  
 had lived many years in the Island, but had returned to the Valley  
 to remove from the fever, which had so attacked him, that his  
 friends could not recognize him. After having held several offices  
 he now enjoys that of Major in the Army, Quartermaster to the  
 Regiment in Porto Praya. He lived with his wife & several  
 little slaves, his property surrounds his house & is cultivated  
 with tropical fruits & plants. For dinner a fine Turkey with  
 white bread, rum & water were set before us. For desert we had  
 Bananas & a fruit, new to me, the Mamora (pronounced Manaw)  
 like the size & consistence of turnip, after peeling of the rind,  
 like that of a true apple, you come to an inside like that of  
 a turnip with a delicate flavor & of the same consistence, in  
 two to four large nuts are imbedded. This is a fragrant  
 fruit & very rare here, I have some of the leaf of the tree in  
 a tin about producing it. The Valley he lives in is  
 wide & full of Monkeys, wild cats & Galenas, Howls we saw  
 in abundance. The following information regarding the Island as  
 I had it from him, I shall insert here. The Island all around  
 consists of broad flats such as we had crossed to reach the valley.  
 These flats or prairies have round topped hills on them. The country  
 here only is very mountainous, with deep valleys & ravines, in the  
 most beautiful of which we then were. To the Northward the country is

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more cultivated & fertile in the valleys, though there is no sugar  
in the town but Porto Praya numerous Portuguese families have  
large estates & well cultivated, scattered through the Island, but they are  
to be had in the valleys, that form the houses which are very good and  
only become necessary, or of any use, when I spoke for them.

Of Towns the only ones worth noticing are Porto Praya & the present  
Capital, St Domingo once a thriving place now all the Portuguese  
houses are demolished & nothing remains but ruins. & the Island  
(City) is old Capital which some of our party visited, it is well  
situated by Darwin as the Prince's grounds, it contains a Church  
rapidly falling into decay. The climate is very hot & dry,  
healthy from March to August when the rains set in, they  
fall very seldom but then in immense quantities, when life  
is almost entirely extinct. It rains more in the mountainous  
regions of the interior than in the plains below, but St Domingo  
is drenched three times during last rainy season August last  
the rains the fiercest set in & last until February they are  
aid by all the plants to disappear, though none of our ships were  
sunk, it is impossible to expose oneself more than one day.

The plains are most unhealthy; The mountains nearly all  
Porto Praya worst of all, that I can well believe from a small  
space that has infected the town. But why the other parts of  
the plains can be so unhealthy I am not a little to conceive, unless  
as Humboldt conjectures, the gaseous exhalations of dry rocks  
can produce a miasma. The fevers are described to arise  
from exposure to the hot sun, & they commence with diarrhoea,  
fever & hemorrhoid are the only medicines used in the country,  
with the latter the Consul cured himself. The highest Mountain  
in the Island is the Peak of St Antonio it is visible from the  
town & Anabrago rising in the form of a acute peak the great  
height said to be 5000 ft. Its top was almost always covered with clouds.

St Domingo contains about 100 inhabitants  
During dinner our host arranged three little slaves round the

This we afterwards found is the Negro's Spur.

They were very clean & neatly dressed quite young & jet black. 87.  
into America they each received an embrace from their mistresses 44  
to me to us for the same but host said he treated them as his  
children & would not part with one for any thing. On taking our  
departure we gave our kind host all our shot & 4 muskets  
black as the only recompense he would take. Mr Gallett,  
being knocked up, procured a horse to return with, Mr Mac Cormick  
walked. We returned by a beautiful moon light, I determining  
to visit the valley again if possible.

Sunday Nov. 17th. Mr Wilmet & Lepoy, having again to accompany  
me on a second visit to the valley of St Dominick, we left the ship  
early, knowing the uncertain & nature of the intervening  
country we determined to make another sally with the horses.  
We accordingly procured three miserable looking animals  
about 7 hands high, as rough as bears, unshod & having most  
ungainly long ears. The gear was most imprudently the harness  
consisted of them, one having a pad & bridle, another, a saddle & no  
bit. The third a horse hair halter & peevish saddle, then caparison  
harness were so arranged, that the bridle buckled one had the pad  
which was worn through, the harness the full bridle, & the  
saddle or rather, the most run home one, the latter halter.  
Horns & blows would hardly enable them move, they only  
inclined their tails at that & I thought it a remarkable  
instance of animal instinct that they equally insisted their  
side, whether the flank of the animal or the bottom the river crossed  
the blow, I often wished I had his hide to make boots of.  
Mr Wilmet was the first to find out how to make a path.  
Very long galled, if it can ever, it is accomplished by exasperation  
the motion of galloping yourself on the saddle. Pushing your heels  
into the animals flanks & reasoning in a strong posture.  
We arrived at the valley without having seen any thing new or strange.  
The vegetation as we descended increased in richness & I remarked  
several trees that had before escaped my notice, hardly any of

When Lopez dismounted & trusting to the tamandua  
his pony shot him, he made off into the woods & defied  
all attempts to catch him.

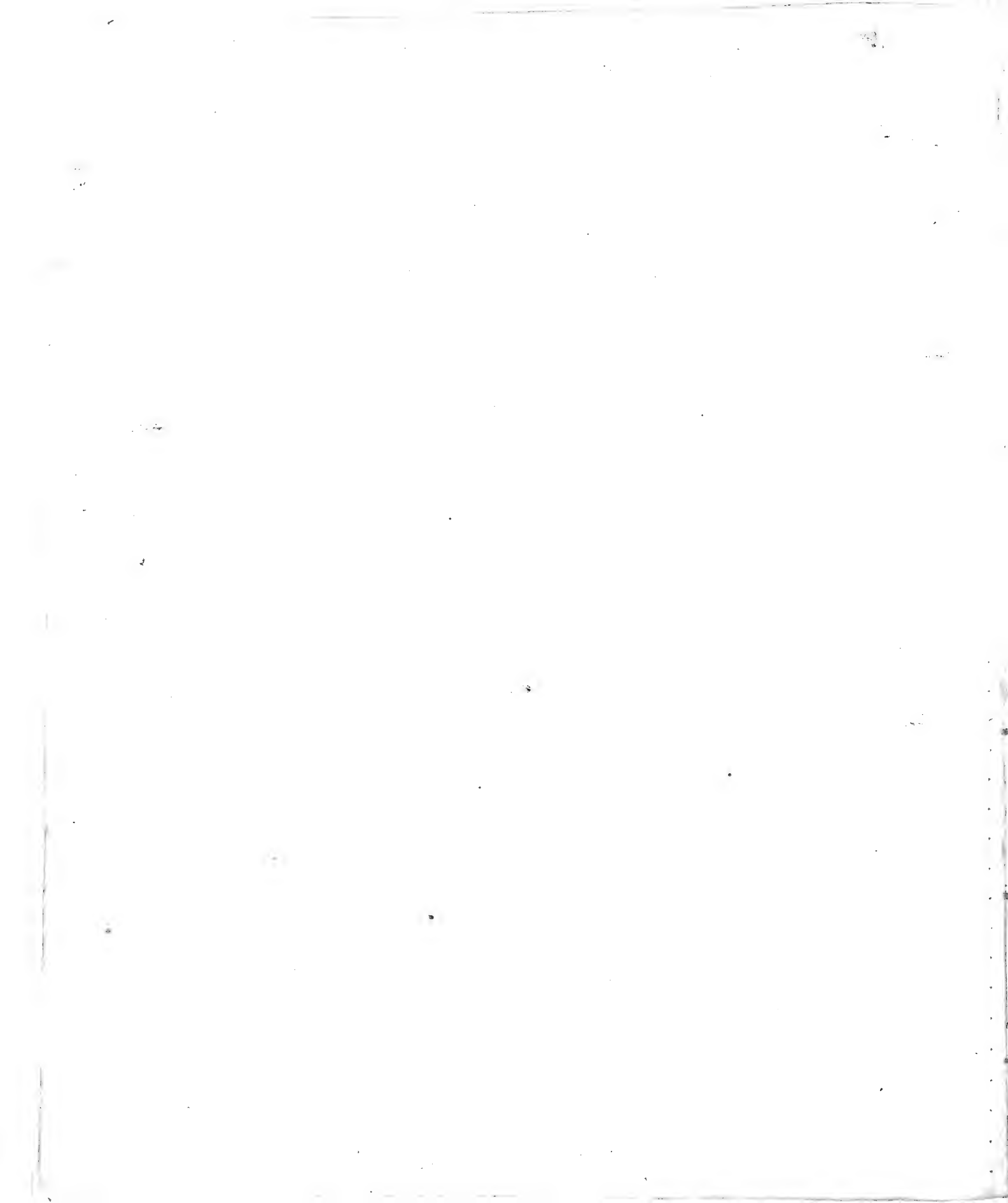
The Tamandua tree is *St. Domingo*. I found one of the only  
two things that I had seen on the Island it was a large species  
of *Polyporus*? I had doubtless grown there in the casing years  
from months ago. On being touched it fell into a cloud of  
fine powder of a rich brown color. I could not procure it.



them were in flower or fruit, they had generally compound leaves. One species of the Leguminosae was not uncommon, though I don't find but two specimens of it. It grew about 20 ft high. 45  
 The underwood was formed of small tidias, Malvas, Solanums &c. the species were not numerous but very pretty & quite different from those of the prairie land, Grasses were numerous & beautiful. Cruciferae only one species of Capparis. One specimen of a species of Lythraea? I collected one specimen, though after diligent search I found but one shrub of it, only two or three flowers. A beautiful evening flowering was in profusion, with several Leguminosae. A few Compositae, all herbs. In passing one bend, the Frenchman's house, I found a fine Acletochloa was plant which one of my shipmates had previously brought some specimens from Acadia Island, it grows to the height of 10 feet, is little branched. Leaves very large ovate. Bunches of flowers large, petals with purple streaks. The fruit is however the most remarkable part, only two seeds the seed at some maturity, the capsule is surrounded by an immense inflated green integument, thin than the clearest paper. The stem is very much so full indeed as to render it difficult to stay. None of the stems I saw were above 6-8 inches in diam. but I saw lots a great large shrub or tree of it existed some little distance off.

We had arrived just at dinner time & were invited to the table. There were many dishes new to me, commencing with Capone root soup which is very delicate & most delicious it looked like a sort of the whitest bread scattered in water, but tasted something like Vermicelli or rather ate like it.

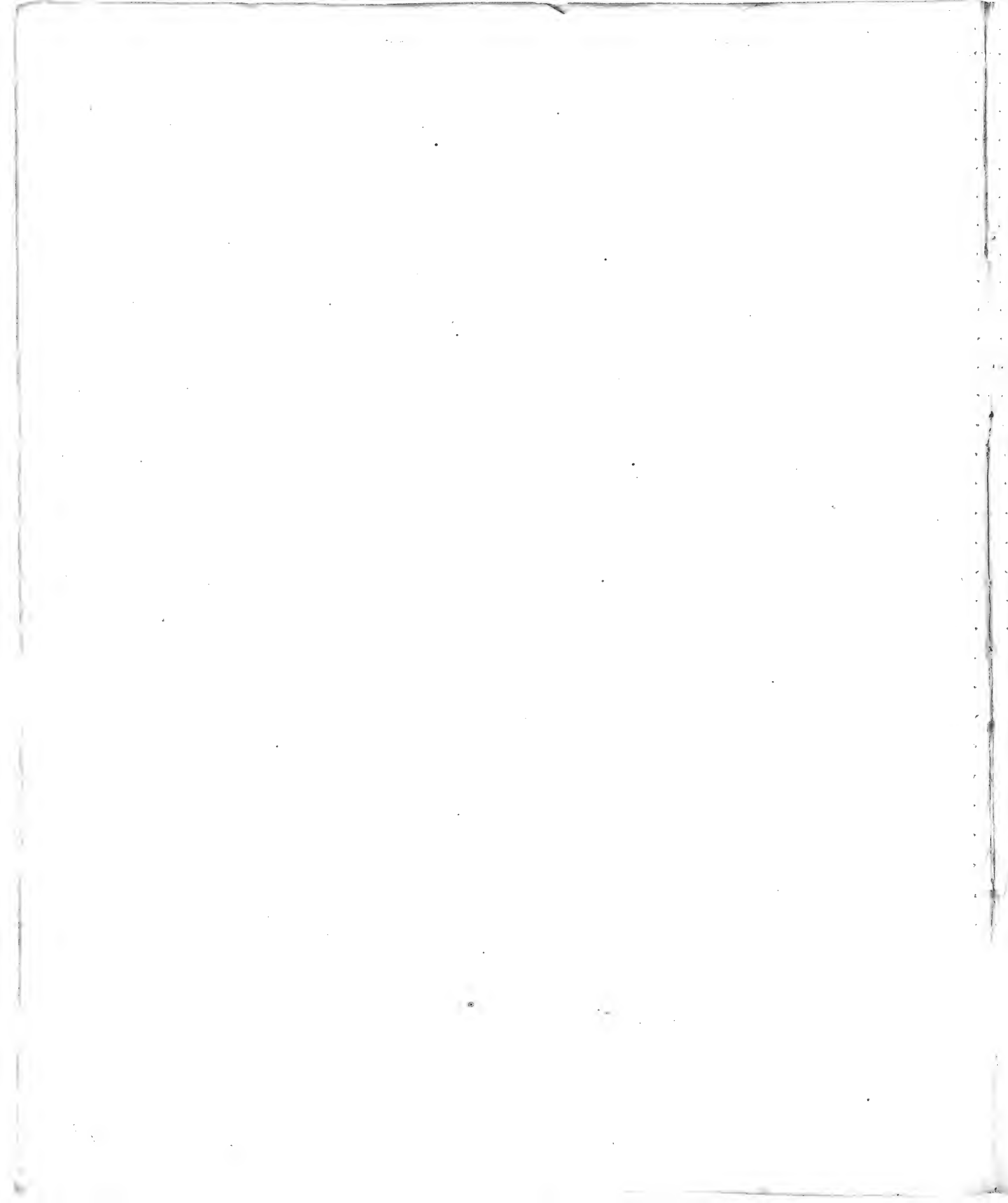
Bread boiled quite dry with Capone roots, omelets & a variety of excellent small dishes followed, we were helped in moderation of each & it seemed to be the custom to eat of all. Having made an excellent dinner, we started to ascend a peak.



immediately behind our friends house. its appearance was that of a steep cone with a pinnacle upon the top of it. In our way we saw plenty of Indigo which is much here as usual & several fine Jamain trees. An ascent of the base was through a dense <sup>field</sup> growth of maize, about 8 foot or more high. Then our path & beating our way was rather arduous. About half way up I met with the plants I had found on the hills about Punta Praga, a little higher at the base of the pinnacle the vegetation altered. Several Lichens grew on the rocks, a Cladonia among others - a Scrophularia, pretty Lobelia? & a composite low shrub, like see Punt. Here I had a collembolus my boy & I summer for an hour or more climb, but without collembolus <sup>gave up</sup> the attempt while Leppy & I proceeded stuffing my pockets with plants at every step. The rock was Basaltic & but for the holes in it some of the cliffs would have been very uncomfortable. One small ledge near the top there grew a most lovely composite with bright orange flowers & long involucre. Above the beautiful blue flowered Scrophularia with a corolla from inch long. The top was gained after much difficulty, the scene of the valley was magnificent & reminded me of the scene in Trappes, high mountains with pinnacled tops seemed to blacken in on every side, while the base was of a rich green. The summit is a very narrow ridge & what we had thought a pinnacle turned out to be a wall with a broken top that our position was isolated from the rest or any easier mode of descent. An Umbelliferous plant the first I had seen on the island grew here, it is a small bush with white umbells. Numerous Hawks, buzzard & vultures kept hovering round. They seemed about dying as well as we they passed. After enjoying the view I gathered specimens of a tree (Euphorbia?) that grows on the summit of which there were only two plants & one spec. in flower we began to think of descending, Leppy took the way he came up

From the can I met with a Sepherbia like Luttraria  
but much bigger on it a beautiful caterpillar of the  
Spring Sepherbia was feeding. On my taking it up  
it ejected on my hand the contents of its stomach a greenish  
acid fluid, doubtless a means of protection

whilst I thinking that no other way could well be worse  
 than the old one, took another. I got easily surprised more than  
 having to cling by my hand & feet & lower myself from ledge to  
 ledge. A lot of little ruffes below were shooting to me & I could  
 just distinguish them among their hands, but could not  
 understand their signs. I was well rewarded by finding when  
 about half way down a bush, fern with beautiful soft green  
 Asparagus growing like our *Asparagus* out of the crevices of the  
 rocks, all green with tops of the *Camp amula* & *Amabilis*, which  
 is put me in mind of old Scottish forms of plants, that I only  
 wanted a companion who had botanized over that power to  
 share my joys with. A very minute moss but out of print goes  
 in my book, very sparingly. In combing as I already was I could  
 not help stuffing every pocket of my shooting coat with the various  
 treasures I encountered, a hamper would have secured 5 or 6  
 species of Lichens besides. I reached the bottom of the vale at last  
 when the little ruffes set in a tumultuous shout, & I perceived  
 the cone which was here covered with Palm Christ plant through  
 which I myself of spiders I had to break my way & wanting a  
 partner found Lepy waiting for me & the Gumbua, who  
 prophesied we would break our necks, delights to receive us  
 again. We remained half an hour to rest ourselves in which  
 time I wrapped my packets into my travelling Portfolios,  
 which I may mention here is the only good way of preserving  
 plants in the Indies & were it not for the weight might be  
 added upon us as an indispensable addition to the Gumbua.  
 The few withered herbs that I gathered on my previous excursions  
 were on my return the more crumpled still from the fiery heat  
 of the sun beating on the Parasolium & some specimens they have  
 made, though invariably put into paper immediately on my  
 return. We had the curiosity to enquire the price of labour  
 from our host today, & were informed that masons & carpenters were

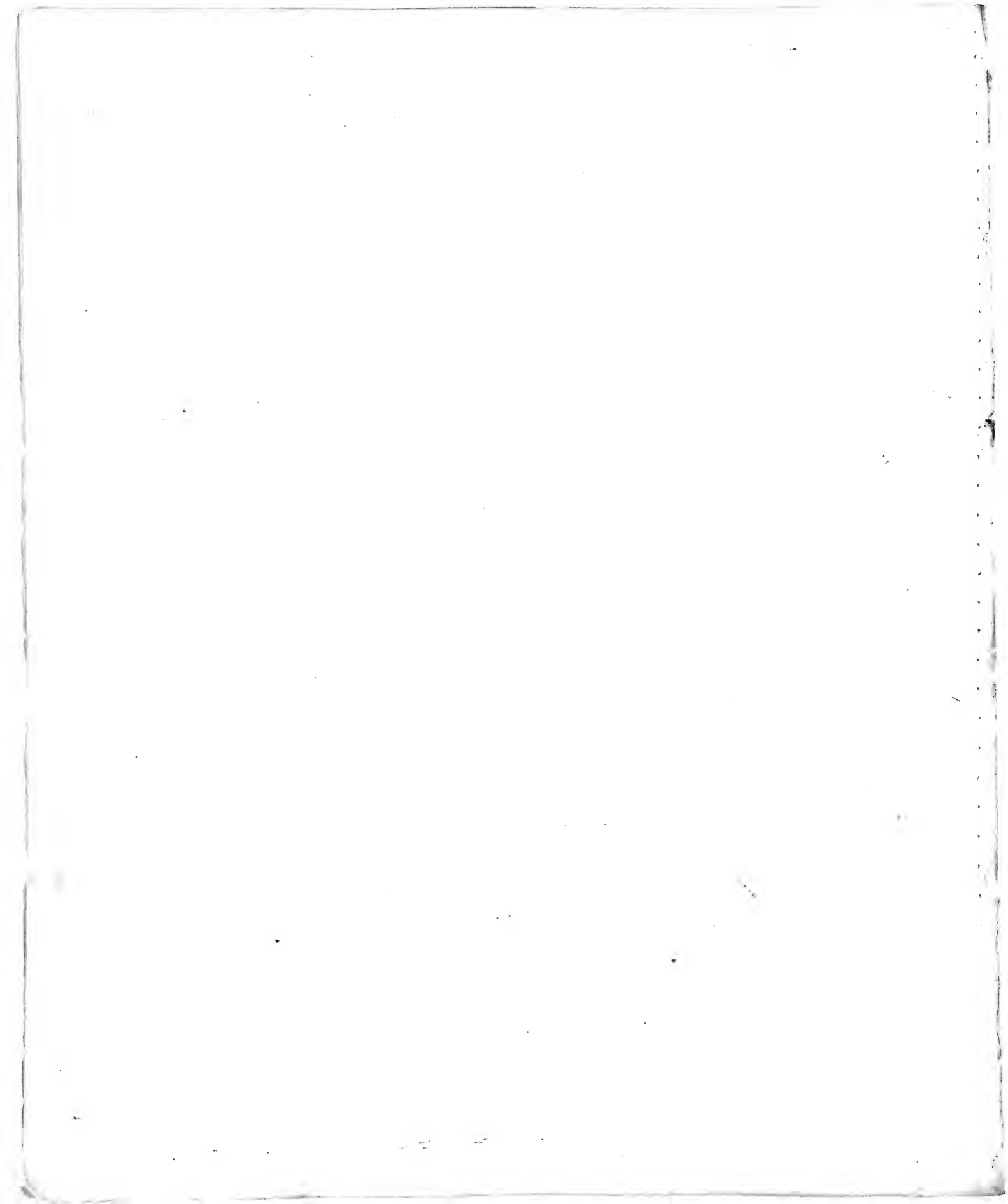


in the habit of receiving 3/- of free day including food, which <sup>95</sup>  
is of course about enough, even winter makes never 2-3 shillings <sup>48</sup>  
stones are ~~of course~~ abundant, the house was building of brick  
and with crypts of hornblende? in it. Limestone is not  
so common as was told, even high up the hills containing  
sea shells, It would be most interesting to know whether this  
is a part of the same bed as is seen on the sea coast, uplifted  
by the volcanoes of the centre of the island, which had passed into  
the beds of lava that covered it down down, or whether it is  
a more ancient bed upheaved by volcanoes of older date.

Having bid a final adieu to our friends of the valley,  
we commenced our return by a different route. Much I observed  
as the Portuguese have been shipwrecked as most unhappy, I  
cannot forbear here calling particular attention to the ground can  
be seeing what a good education may do for one in low circumstances.  
Had he not been in France a completely civilized country, he might  
as most of his countrymen would do, have turned us from his  
stage of their not only parties to personal inconvenience, but  
helped us of the little information concerning the island  
which he alone of the Europeans we saw was able to give.

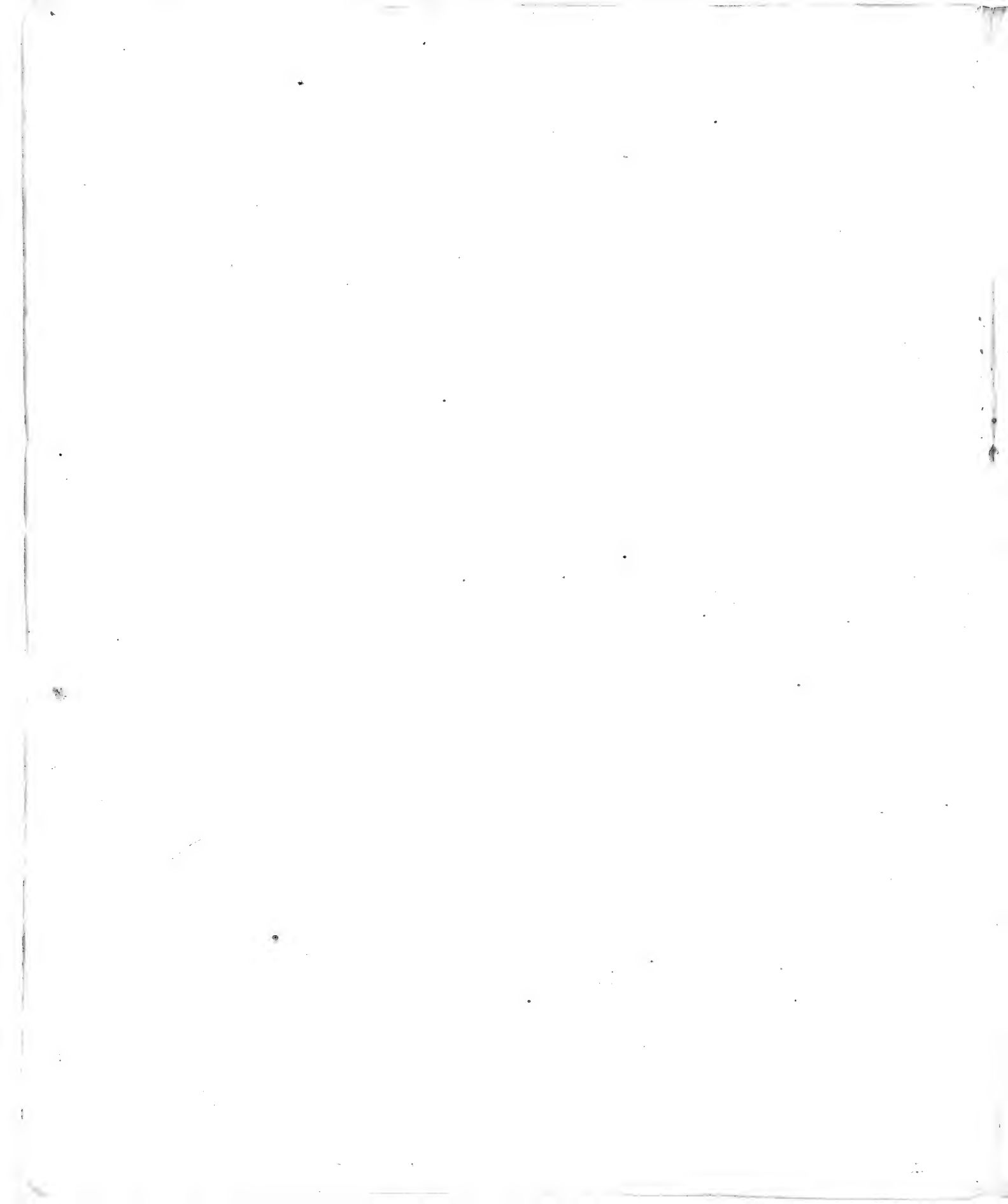
One always looks back with pleasure to such spots as this  
where his interested curiosity has been shown him, when to this  
is added a new country & the charms of a scenery half tropical  
& half what is nearer still to one's native, both as to scenery &  
the general features of a <sup>scanty</sup> vegetation. His happiness to whom the  
works of nature have ~~been~~ <sup>charms</sup> for the time, complete.

According to our new <sup>direction</sup> the directions of a little black  
guide we <sup>path</sup> went up the valley for a mile further, (it  
might have extended two or three more when it widened & was  
bounded by the above mentioned volcanic <sup>of my pictures</sup>) &  
then struck off to the right by a narrow pathway that wound



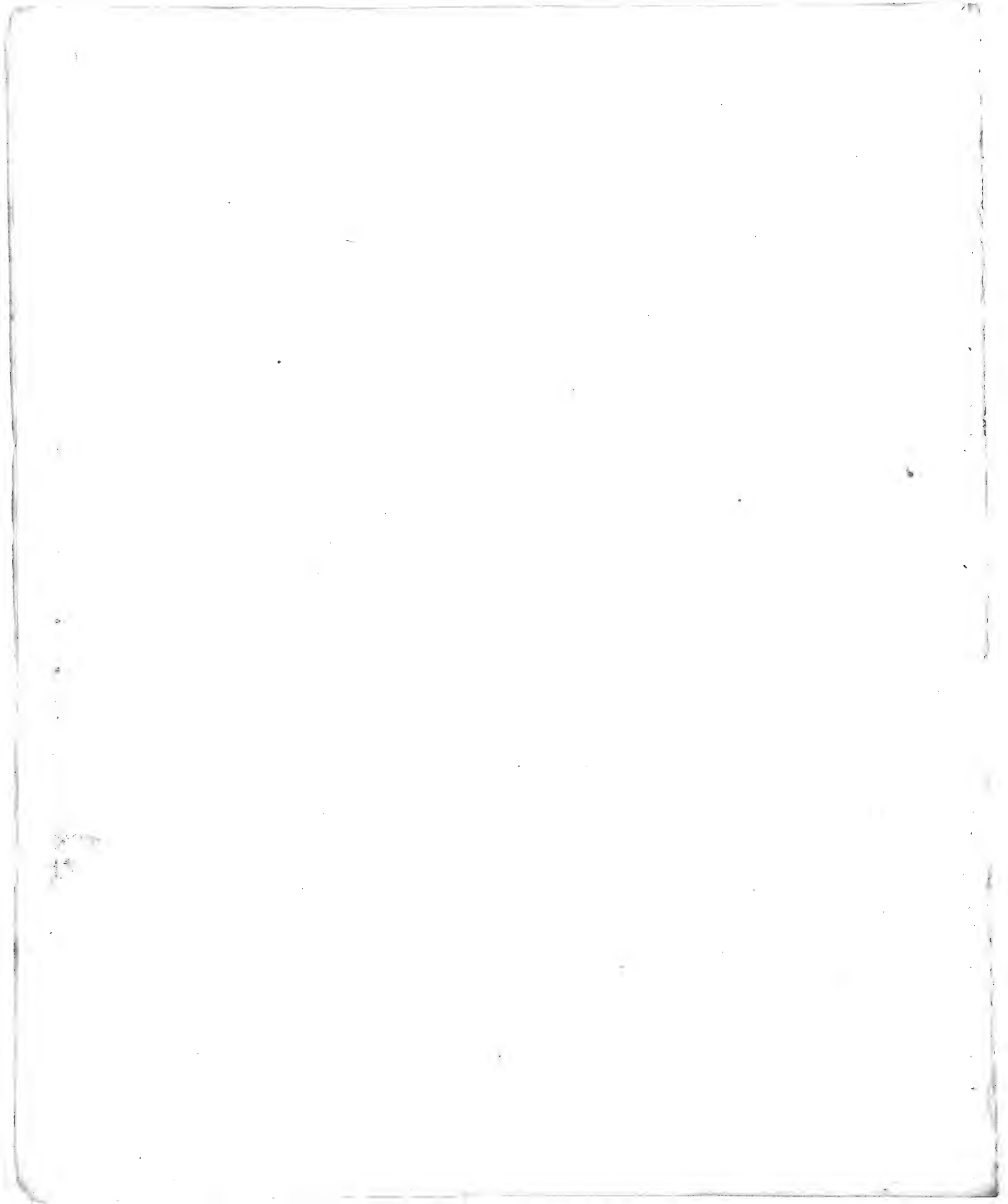


the side down to the hills is a jagged mountain, we had seen to  
 the summit one horse & our guide left us. but ascended through  
 the hanging brushwood of the hill. The crickets chirruped in  
 a tone some members as impatiently & shrilly that it quite  
 annoyed us & rendered it difficult to hear one another talk at  
 a few feet distance. The voices of some were raised & even  
 animal, putting me in mind of an arrow's ad. to the grass paper.  
 The ascent was most uniformly steep & laborious by the time we  
 had reached the summit which we agreed to be about 2500 ft  
 above the valley, it was past sunset. The moon was & being  
 in the full shed the most beautiful light over one of the most  
 interesting valleys I ever beheld, it gilded the peaks all around  
 & I could hardly distinguish the houses of St Domingo from  
 beneath us. The peak we had ascended about 500 ft below  
 our present level. In the darkness, I picked one or two of the  
 head plants, but we had no time to delay. We took a last  
 look at the valley & commenced our return. The small path  
 we had followed soon dwindled into a mere goat track, & with  
 nothing but the moon & a compass we fought our way  
 through groves of wild trees, every now & then our way was  
 completely obstructed by a cliff, deep valley, or the trees growing  
 so close that we could not lead our horses under them.  
 The latter indeed were bad parts, they were more tiresome than  
 ourselves & it caused us much trouble to urge them on. In such  
 our terms of leading, the way we went in front leading a beast  
 the second led another & kept leading the first which he then  
 brought up the rear urged on the second pony, heartily glad  
 we then were that Leproy's beast had been away & we only wished  
 that the cart had followed his company. After wandering about  
 for an hour or more during which time we very miserably degraded  
 ourselves into a Beale person, we left Leproy with the horses & led



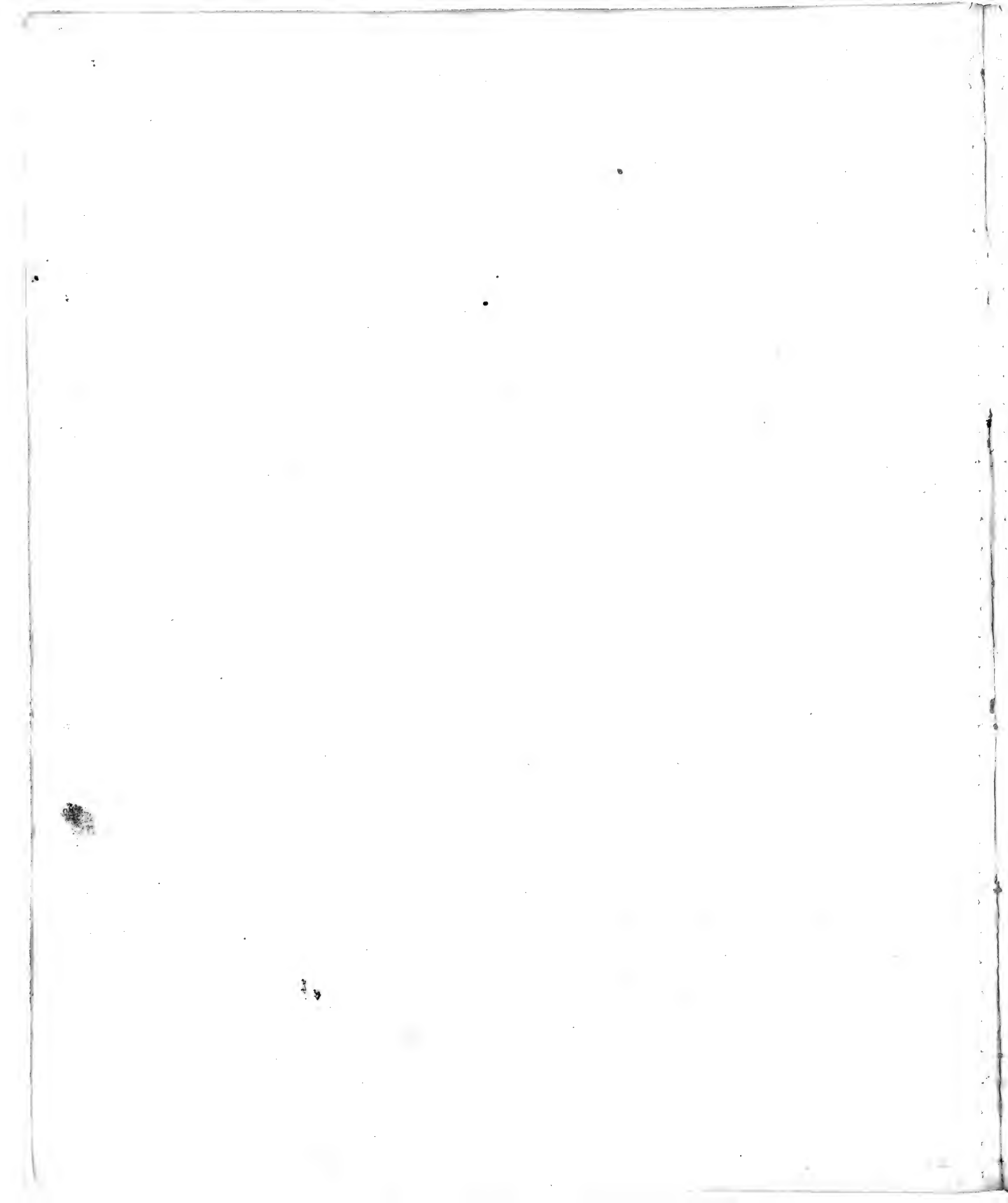
we went off into different directions to find the direct way. After ascending the brow of the hill I observed a hill, round the base of which we had crossed in going in the morning & the plain full of brackish trees, we soon came upon a path which led into the direct road. This way we ascended & returned by the head of the valley with the basket tree. On arriving at Porto Praya we repaired to the Council to enquire what arrangements Lopez should be prepared to make or rather receive with regard to the boat money. We were surprised to hear that a dollar or two would make up for all. As the animal was sure to return as soon as it should have satisfied its ravenous appetite on the greener grass of St Domingo.

Tuesday Nov. 10<sup>th</sup> Had we not expected to have sailed this afternoon, Schuertz had certainly made arrangements to have ascended the peak of St Antonio, or must did I expect from the subalpine or rather temperate nature of the vegetation upon the heights above St Domingo. As it was I had time to visit Scaul Island & to examine the bed of shells which traverses it. The plants on it were the same as those of the neighbouring coast, with the exception of the large leaved *Asclepiadaceous* plant that grows there in the interior. The Island is flat topped with precipitous sides all round. The summit consists of black trap rocks, either split into tubular masses or presenting the appearance of a liquid mass which had dried gradually, presenting forming circles round the stones & that opposed its progress up. The whole coast was covered with the stunted wrecks of the *Alou*, like trees & pieces of copper lying about everywhere. The top was covered with withered grass, besides which about 20 pieces of plants grew on the Island. There were on the coast ~~the~~ considerably above the water mark, the shells of a beautiful



100  
crab  
which ate certain narrow leaves the sea crawling up the  
cliffs, leaves its shell crawling out by a small an aperture, that  
it cannot be discovered but by knowing where to look for it, & so 51  
completely does it unsell itself, that the corner of the eye is left  
behind. The shell is so brittle that it can hardly be touched without  
breaking. The crab itself I saw close to the water, on the rocks, but he  
is much too cunning to be caught. There were very few mussels  
around shells on the coast, nor did I see either the Ulysses or  
Cotopax that Mr Darwin described.

The only landing place or beach on Enail Island is  
to the westward. This is formed of a volcanic tuff containing  
boulders & water worn pebbles of trap rock & quantities of  
sea shells, chiefly fragments which has taken up in its  
substance. This present beach is covered by the calcareous sand  
which presents the appearance of an indurated shell sand  
with water worn pebbles &c. The lower part is most homogeneous  
the shells & particles of the upper portion being mixed not  
yet exposed to the usual action of the old sea & tide. This bed  
all along the coast is covered with the best lava stream that  
has covered the Island. - Down to the southward this sand  
assumes the appearance of sandstone being more compact &  
more hardened than it is in contact with the superior  
trap lava stream. It contains some beautiful fossil shells &  
is so hard that it is now using on board for bolystering the  
decks. To the S. W. this bed disappears & there is interspersed  
between the trap tuff of the beach & the usual lava current  
a very thick bed, disintegrated volcanic rocks, full of pebbles.  
This I at first supposed to be result of the disintegration of  
the night aurine rocks taking that name the shell beach.  
but it contains no shells itself. it may therefore be either a  
formation of itself or a mass of matter carried forward by the under-



lava stream & which from being above the surface of the sea <sup>102</sup>  
or tide during the formation of the neighbouring ancient sea  
bed, was deprived of sea shells & other fossil remains.

52

It appears from the most likely theory is that it was  
upraised by the lowest bed of trap tuff, for I find it not only  
hardened by it but also by the recent ~~trap~~ lava current above  
it. Further to the N. the overlying lava current assumes the form of  
Basaltic columns rising from a <sup>stratified</sup> base that overlies the disintegrated  
trap at the junction the latter ~~bed~~ & contracted the  
recent lava running into the fissures left. To the N. the  
columns become larger & present more transverse fractures.

The stratified bed as here inclined at an angle of 25° toward  
the N.W. A little further on the shale bed reappears interposed  
between the disintegrated rock & the lava bed above, it is at  
its first appearance not above a foot or two thick, it  
soon deepens to a foot & for that distance, it is not only  
extremely hard itself but the disintegrated trap is hardened through  
it, its fissures being full of calcareous matter. The calcareous  
bed soon thickens is at its centre ~~soft~~ & lower part soft but  
above hardened by the overlying lava current, which here  
presents numerous columns 2 or 3 feet in diameter. The lastward  
of the island I did not examine, but on passing it in a  
boat I saw the calcareous rock lying on the disintegrated  
trap & covered by the trap columns above.

Wednesday Nov. This morning we weighed anchor  
& soon lost sight of the Cape de Verde. I noted no thing  
are from any kind of partaking as they appeared to me to do  
of the vegetation of the I. of Europe. The species observed &  
tropical species, their examination through a microscope  
afforded me the highest gratification as a Naturalist.



December

<sup>before</sup>  
On my departure ~~from~~ <sup>from</sup> the Company of Proprietors at St Pauls Point  
when I did not have time to prevent the appearance of a chain of little  
islands arising from the sea. A remarkable one was brought on  
from them this, St. Peter's Head, & a coal one the only living inhabitants  
of the island but a few birds mentioned by Dr. Huxley.



Dec 2

This morning we arrived off the small island of Trinidad from a distance it presents the appearance of a numerous rocky rugged hills & the aspect is pleasing it is not improved.

The rocks appear to descend perpendiculary into the sea & the two most remarkable points were the Sugar loaf hill & the principal rock. The former rises from near the sea to a considerable height in form as its name pretends, the principal rock as an is the most remarkable phenomenon. I saw behind, it rises from the sea in the form of a cylinder to a height of at least 700 ft. its sides except at the base when it is at a way up, continuous with a ridge of hills are more than perpendicular for the side hangs over with the top it more reminded me of an enormous apparatus built on the end of a perpendicular pavement than any thing else.



The length of the island is about 6 miles the beach on the whole the sea sound except the windward where really comes over the sea. This land of Guayana seemed to all, bare of vegetation except a little green grass in the valleys & a naked trunked tree that grows toward the tops of the hills & formed them a small loose wood under some of the cliffs. The highest point of the island might be about 3000 ft. the summits of the hills were universally capped.

At 10 AM. when about 3 miles from the land the boat was hoisted out to go ashore, I accompanied me for the "Linn" which followed our Commodore. The birds flew about us in great numbers they were chiefly shearwaters Boobies & a very beautiful small tern of a spotted white color with black bill passing just over our heads they were very tame & flew quite close to us. In our ground a flat ponded water seaward I on nearing the shore saw several species of fish. In stored our course toward a small cove & the "Linn" of the island & it is a curious black cliff rock about 100 ft

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The water here the mainland & bounded by the sea birds  
 it was a narrow passage between their islands & scattered a patch  
 of heavy sweetish small, any thing but a crab. 34  
 We found it impossible to land here from the tremendous sea and  
 a storm during we were & I could see small doubtless whether  
 a landing could at all be effected. We continued coasting along  
 to the southward & westward as far as the Sugar loaf hill shore.  
 The waves stopped to the sea & were covered with stumps of trees  
 but even then the heat was too rocky & the rain interrupted to  
 land could have ensured the total destruction of the vessels.  
 We now retraced our steps or rather way & proceeded past the mine pier  
 come to the N. E. point when the coast was still more inaccessible  
 than ever, again returning we at last disembarked in a little cove  
 to the S. of the mine pier cove

The only advantage we enjoyed from our long pull was that we had  
 a full view of what the coast and the P. E. about from the hills  
 that came rolling across the N. E. & S. E. points, we deemed not  
 worth attempting. The island is sand earth & volcanic formed  
 a greyish basalt with burnt then reddish masses & black dykes  
 which run out upon prominent points in the sea. Some of the dykes were  
 very narrow a few feet & ran winding up the faces of the cliffs for  
 many hundred feet. There were several springs & runs of water  
 which even quite fresh from the rain which was descending in  
 torrents on the high tops & deluging us with a veritable torrent  
 of rain. The coast seemed formed of shallow coves with steep  
 precipitous sides, the tops of the hills were very rugged & we  
 easily pictured to ourselves the figures of gigantic Leeches  
 in the summits. The bottoms of the coves were filled with  
 green grass, & the slopes were there were any were in some cases



The shafts were remarkable.

scattered over with the white dead trunks & small trees  
 the former I remember could give a picture was continued to the  
 tops of the hills when the trees grew & there only. The water along  
 the coast was very dark and dangerous for the lumber canoes. The  
 bottom is covered with a white mudstone & a curious black fish  
 the old wife swims about quite freely.

he landed on a rocky promontory to the S. of the ice to the S. of the  
 main pin down but with great difficulty. When within 50 yds  
 of the shore a propeller was discovered. The cable suddenly  
 returned the boat was then covered & the work when another man  
 jumped ashore with a lead line by the opposite action & then too the  
 boatmen prevented on one hand from being beaten in the swell  
 & the rocks & on the other from being swept out to sea in the  
 surf. We jumped ashore in the intervals & the instruments  
 followed us. To join the shore line for some way said was  
 impossible we had to crawl up & our lances & water along a narrow  
 ledge to the bay carrying the instruments in our turns both officers  
 & crew.

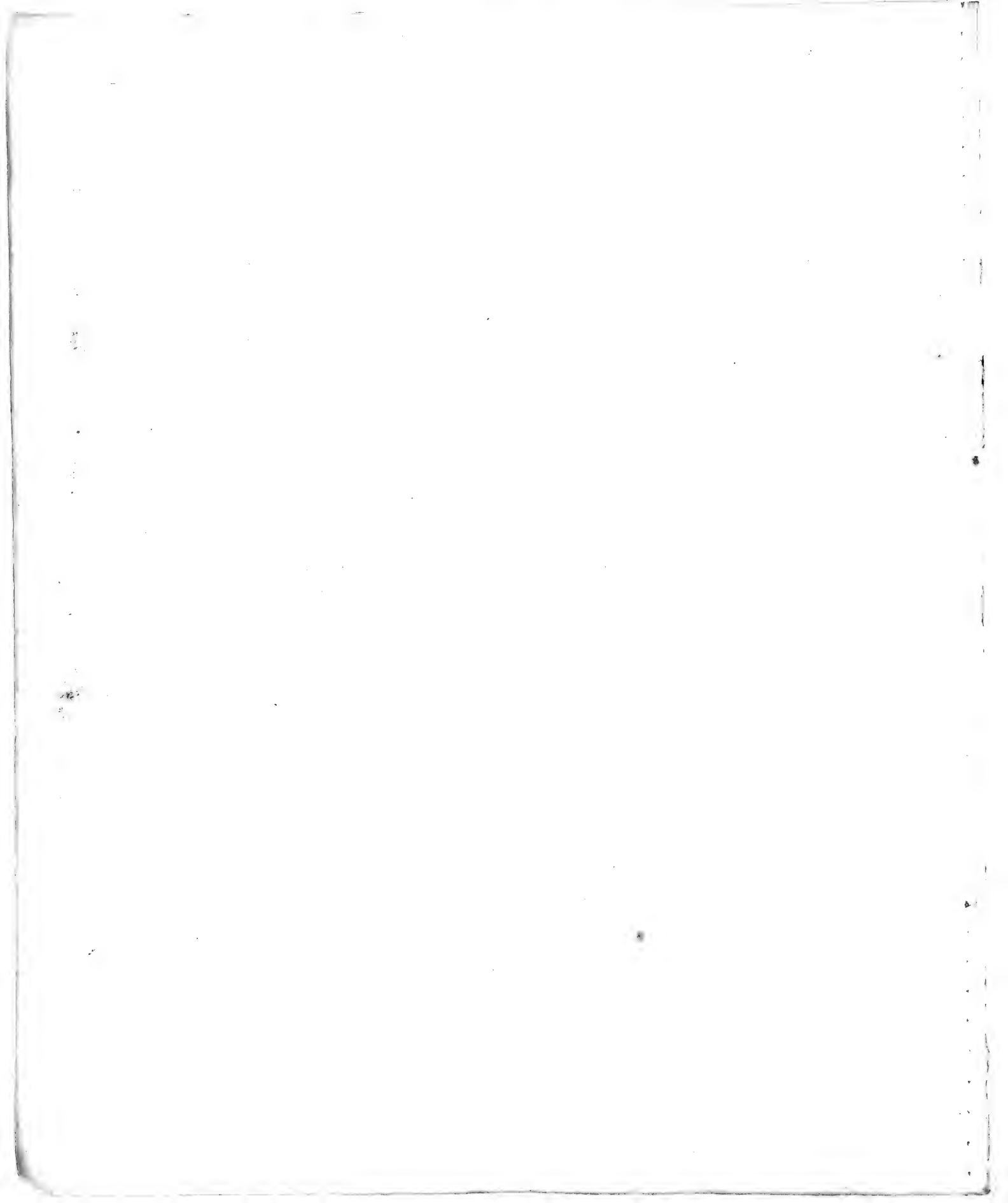
The shore was rocky & barren to a degree. The shore was a pebbles  
 the same as we had seen at St. Jago & St. Pauls rocks, an  
 immense or see also with long black & purple shell nestled in  
 holes of the rocks under the sea, & <sup>2 or 3</sup> species of shells were all I  
 saw. except a small banded fish in the pools, no sea weed nor  
 maritime plants. The beach was very narrow & formed of the  
 rounded pebbles of the volcanic rocks.

he immediately commenced ascending the hills around the  
 bay the hope of penetrating to the other side of the island. Some  
 the valley descended to the sea, he ascended over loose stones  
 covered round them with <sup>2<sup>d</sup></sup> grass & a crisp fern.  
 The stones were covered with lichens of many two kinds as were

Age of this specimen proves the soil to have existed as it is for many years  
& that no internal seas or torrents could have destroyed the trees.

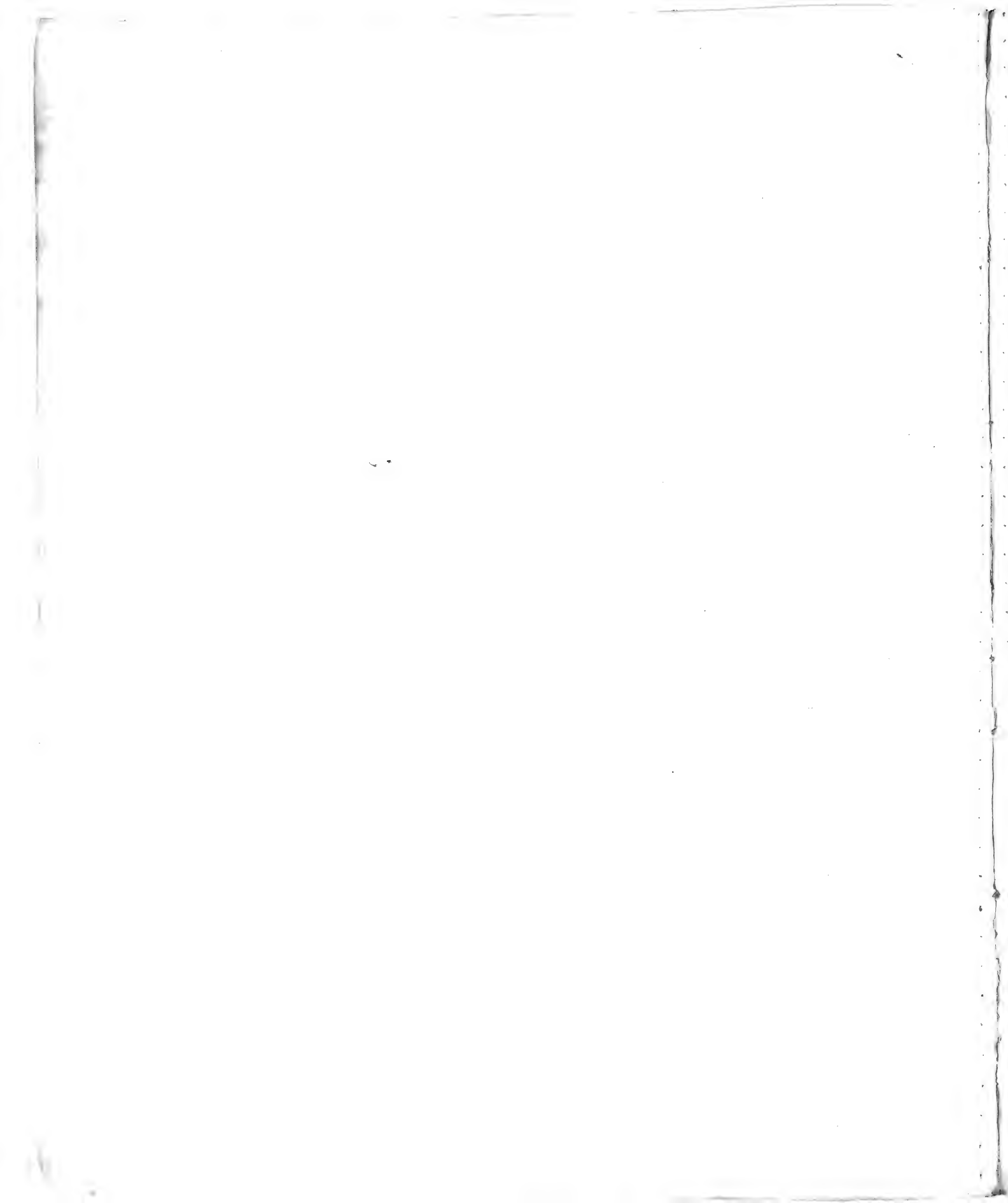
Good! Goodies why?

a few pieces of wood we found. From about an hour with 56  
 a kind of crab, a short & thick set arachnid looking animal  
 it was very common under the stones. Beside a reddish yellow  
 with black eyes & a very large mouth. When angered it would  
 take up a shell and position fix its large eyes on you & then  
 out its claws & place them in its mouth in a menacing attitude  
 as much as to say "I'll eat you if I can" it reminded me of the  
 attitude of what the I. Sea Anemone & Fucus & other organisms  
 who threatened the fishes by making canniballi signs to them  
 when caught it had a bad habit of throwing off its claws & that  
 after catching several I only got one specimen with a riping.  
 It occurred for the first time in the sea to do so. After ascending  
 about 700 ft of this series of loose stones we arrived at a  
 complete semi-circular barrier of cliffs quite insurmountable  
 in most places proper chimneys & smooth & others broken into  
 & sized angular masses that gave way when the least force was  
 used. The nature of the terrain to them below on foot was the only  
 animal seen (Horsburgh says. Told fish & goats are abundant)  
 the vegetation had not altered as that night. A Coprosma plant  
 was isolated tufts with thick roots & large heads of flowers.  
 a very beautiful leaved <sup>Epiphyllum</sup> ~~Sagittaria~~ was very common it had  
 long slender filiform leaves & often formed a thick black mouldy  
 stem by immovations like some *Asplenium Ludwigii* L. There  
 a Pod looking grass & then a *Sichem* & the fern were all  
 could find of plants. The little creeping things were full the nests  
 of the tern & shearwater. The former is the most attractive bird  
 its form with unruptured feathers was almost dazzling. In the  
 evening both of intelligence & appearance was quite charming  
 when it would come within arms length of us hovering close



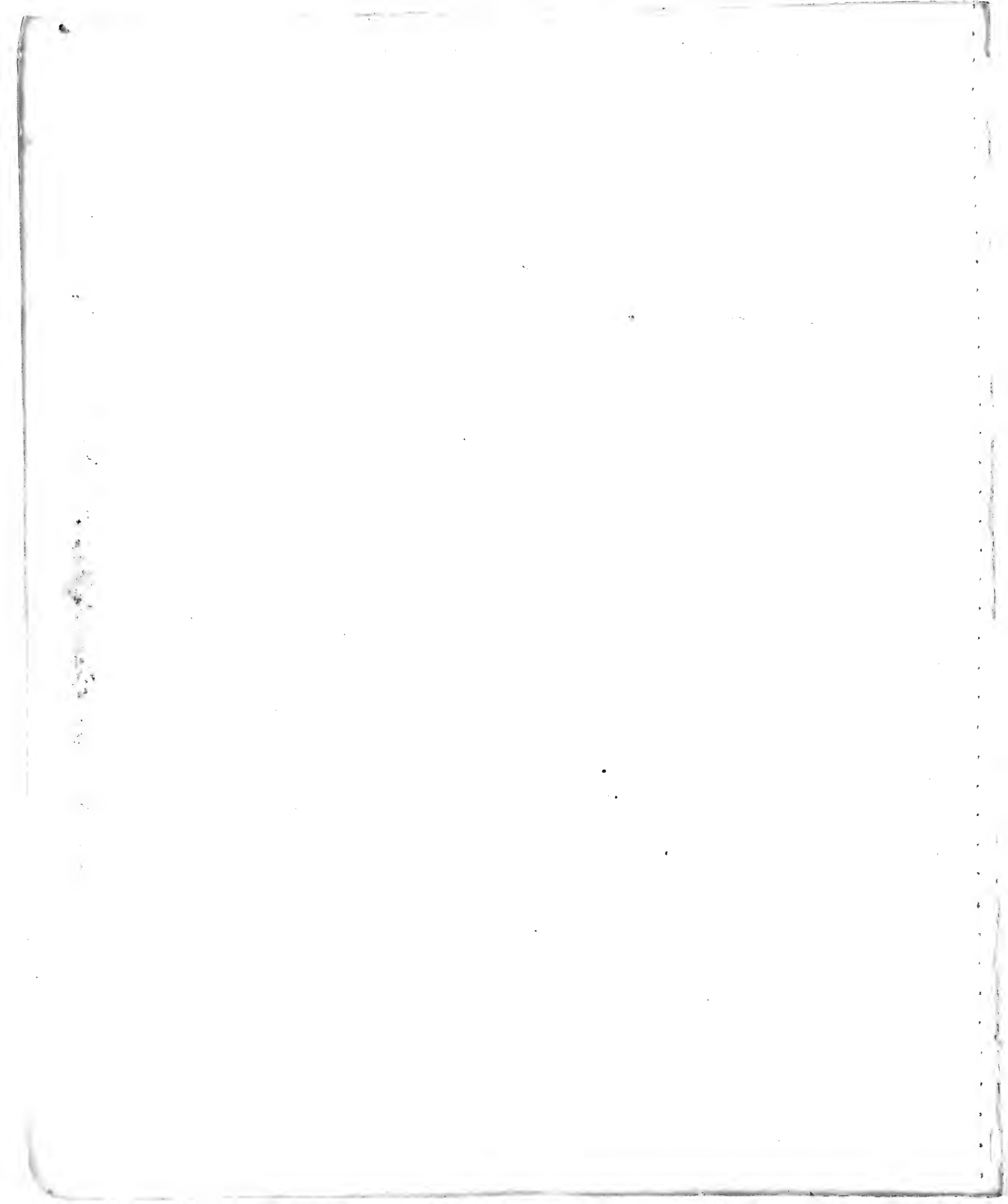


found our heads over now. Then standing still in means  
 its wings & tail within a few feet of our faces; fix its its piercing  
 black eyes on us with the most enquiring look. It seemed to me  
 a perfect emblem of purity & innocence. It never perhaps did its  
 approach as seemed to sound as we were with guns & rifles. Nor was  
 its impudence easily dispelled. After being fired at it did not  
 at all withdraw its approach & keeping before us as we ascended  
 appeared to guide us all the while. Its altitude for its ground  
 was very remarkable. It was its position the low edge of the  
 rocks from it forms a too conspicuous mark for the distance  
 the various one per animal closely protecting a young one  
 stood in fire & upward. I do think most of which struck within  
 a few feet of me after being then turned wounded to us I believe  
 was at last when it deserted its charge & retired to a rock  
 a prospect of which it continued to watch. A single arrow at its  
 breast which was soon struck down & came tumbling off  
 the rocks. When taken the young one showed fight, except showing  
 some down among the feathers the plumage was the same  
 as that of the old bird. Having exhausted the resources of this bay we  
 took the boat & attempted to land in another bay to the S. of the same  
 bay. we embarked with great difficulty having to creep under a ledge of  
 rock up to our middle in water & I was very nearly washed away by the surf.  
 Our disembarkation was also very troublesome it was at the foot of a  
 high mountain where the top of which some green trees were growing to which  
 we ascended to ascend but after reaching 1000 ft. had to give it up some wide  
 subtle gorges lying between us & our object. No new plants or any other  
 objects were seen. On our descent we met another party who had gone  
 to see a crop erected as the carved wood said by the chief "Waher" Guirane the  
 "Cuma" some tobacco was found near it & a good deal of a week of a  
 crop that was stored here many years ago. After getting a measure full  
 of fresh water & some minerals we returned & pushing up Captain Cook's



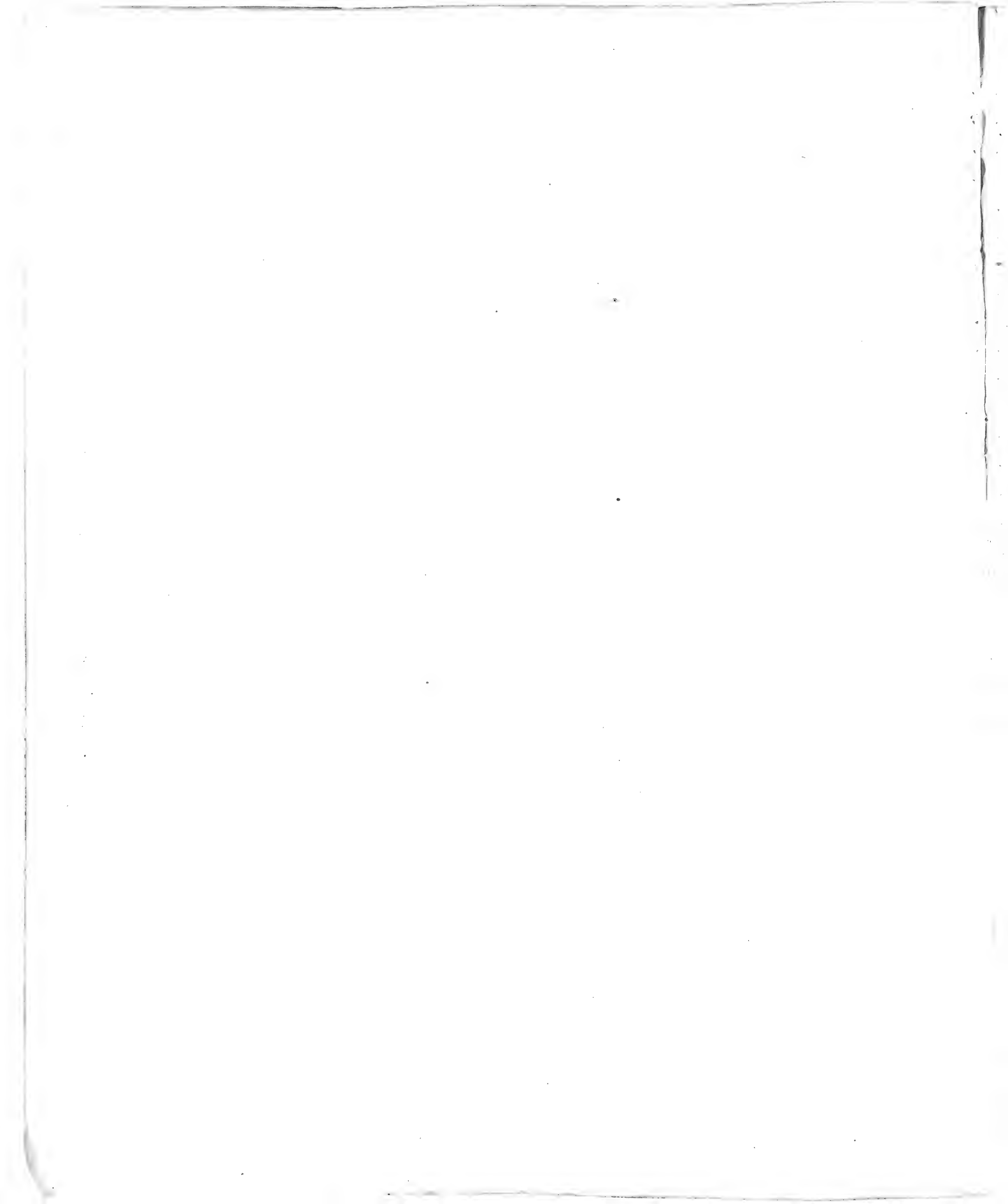
just returned on board - The soil of the Island is Barath. tobrum on  
 a part of the main soil - I sometimes see very large *Chrysolids*  
*Chrysolids*? I think to be *Chrysolids*, it is of different colors & attracts the eye  
 as though in the distance. I got *Chrysolids* results. Small detached portions of  
*Chrysolids* were found here & there. The following are the insects, productions  
 of the Island. - *Grubs*, *Grubs*, *Grubs*, *Grubs*, *Grubs*, *Grubs* & sea shells.  
 : *Chrysolids*, *Chrysolids* & several fish - *Hemichordates*? & *Chrysolids* common  
 around the *Chrysolids*, *Chrysolids* - of plants & ferns, some *Chrysolids*, & several  
*Chrysolids*, & *Chrysolids* - A tree unknown & the stems dead of weather. -  
 of minerals green stone & different basalt, *Chrysolids* & *Chrysolids*.

Some of my collections I took by the sea in embarking for Poverty Bay some  
 & named them it by one of my specimens, which resembles it Poverty Bay in  
*Chrysolids* Island. > *Chrysolids* kept a pair of *Chrysolids*



Sunday January 31<sup>st</sup> This morning the British & French embarked & the  
 roads of James town at Helena. The island has a most interesting aspect  
 more so than any land I ever remember having seen. The valley in which the  
 town is situated is barren & the extreme very narrow & fortified at all points  
 the houses are few situated about the very great & clean bank with little rain  
 interested vegetation. Fruits & grains are brought from every wood & corner where  
 it seems possible to grow a footing. Except for the length of a few yards near James town  
 & a few other equally small dependent bays, the island is totally inaccessible. The hills  
 around are so high that nothing of the interior of the island can be seen, & they  
 themselves are so thick & barren of such sombre coloring & such enormous in-  
 ferior that nothing can be conceived more ruin interesting than the North side  
 of St. Helena. A few English, Danish & American ships were lying in the bay,  
 but no vessels came off to the one banks are well loaded & embarked, no money  
 received from there, no wanted orders, nothing to congratulate us after a 74 days  
 cruise & to make us bless the day we anchored in St. Helena road.

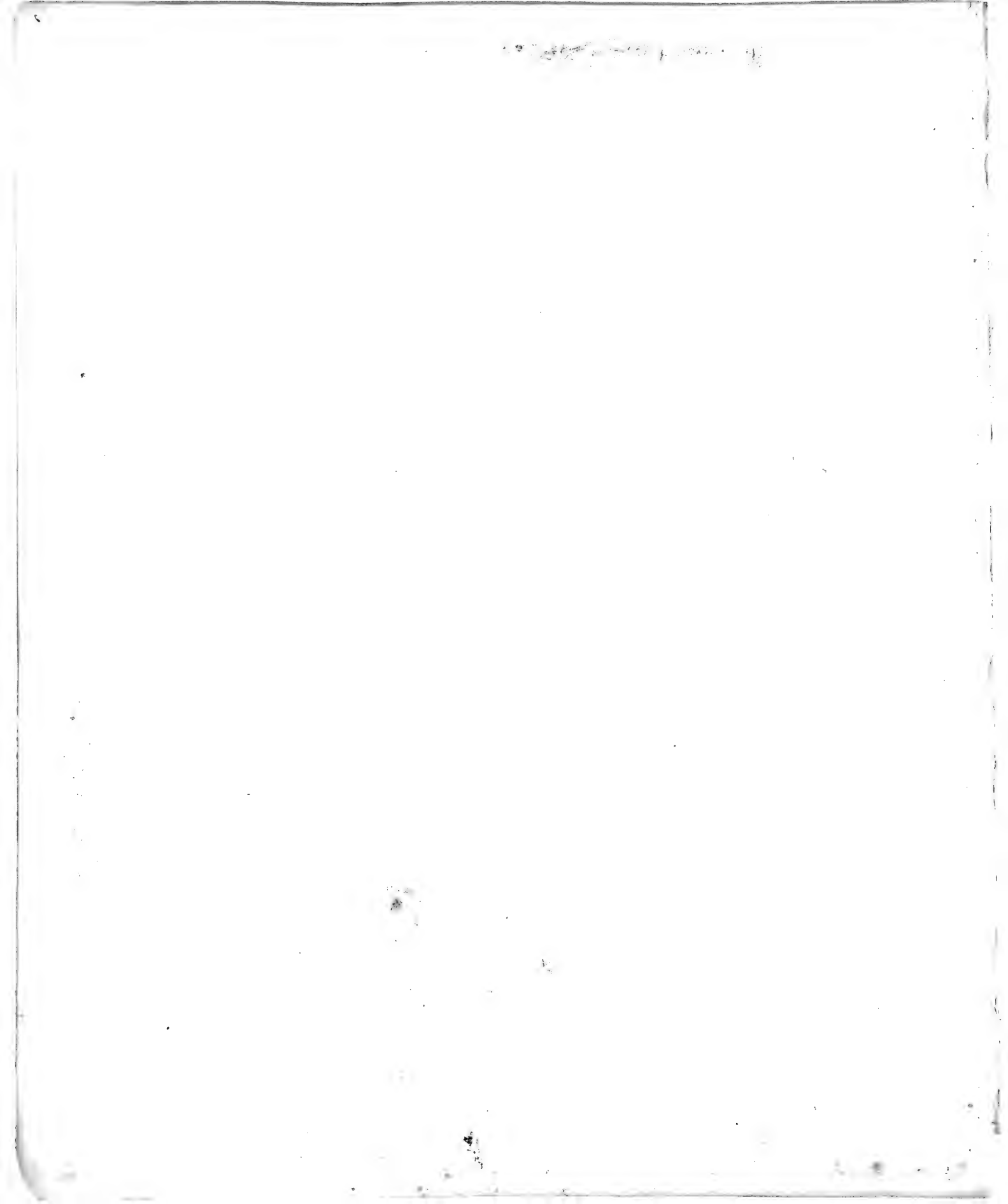
Saturday evening February 1<sup>st</sup> This evening I landed with several of my  
 companions to take a look at the town but landed on a very small Quay so  
 small that only one boat can land at a time we took paper & a long line  
 of poles & masts & crossing a straw bridge we entered the town by an arched  
 gateway To the right was the famous ladder hill 600 ft high & so steep  
 that it is only accessible by a most circuitous road or by a ladder of 600 steps  
 this runs straight from the town to the summit without a break or curve.  
 When like all sailors first visiting the island we started & after some rests  
 arrived at the top when there is a large fort & barracks & for the artillery -  
 7 minutes is the shortest time in which the ascent has been accomplished &  
 1/2 the descent, the batteries below have been manned in 3 1/2 minutes by  
 military men from the summit. The view of the sea is magnificent  
 embracing James town at our feet & nothing however of the country is to be seen  
 from the higher hills surrounding us a few specimens of a *Portulaca* (*S. salsa*?)  
 & a tree to be seen from the top. The appearance of James town is rather pretty  
 when viewed the right side of the valley the principal town is it are James town  
 & a few Hospital points. The church & a few government buildings stand in the  
 town but none are at all striking or handsome.



From the square we proceeded up the only street, lined with neat white  
houses & a few shops every thing however seemed deserted, no carriages or  
carts or ladies & gentlemen or any thing like that. The cause of this is  
that like most military garrisons it is a most atrociously profligate town  
another attraction for foreigners to live in the country is the exquisite heat of  
the valley which is as it is on all sides & exposed to a tropical sun. In fact  
the only one or rather two or three houses (I should say) is a wretched establishment  
where every thing is wanted has to be sent for - in the first room stand two  
billiard tables cut to pieces, no one is allowed to play there because the  
house is not licensed & that effect. make permit costs £20. Besides  
atrociously heavy taxes are imposed even on the newspapers of Cape Ladring even.

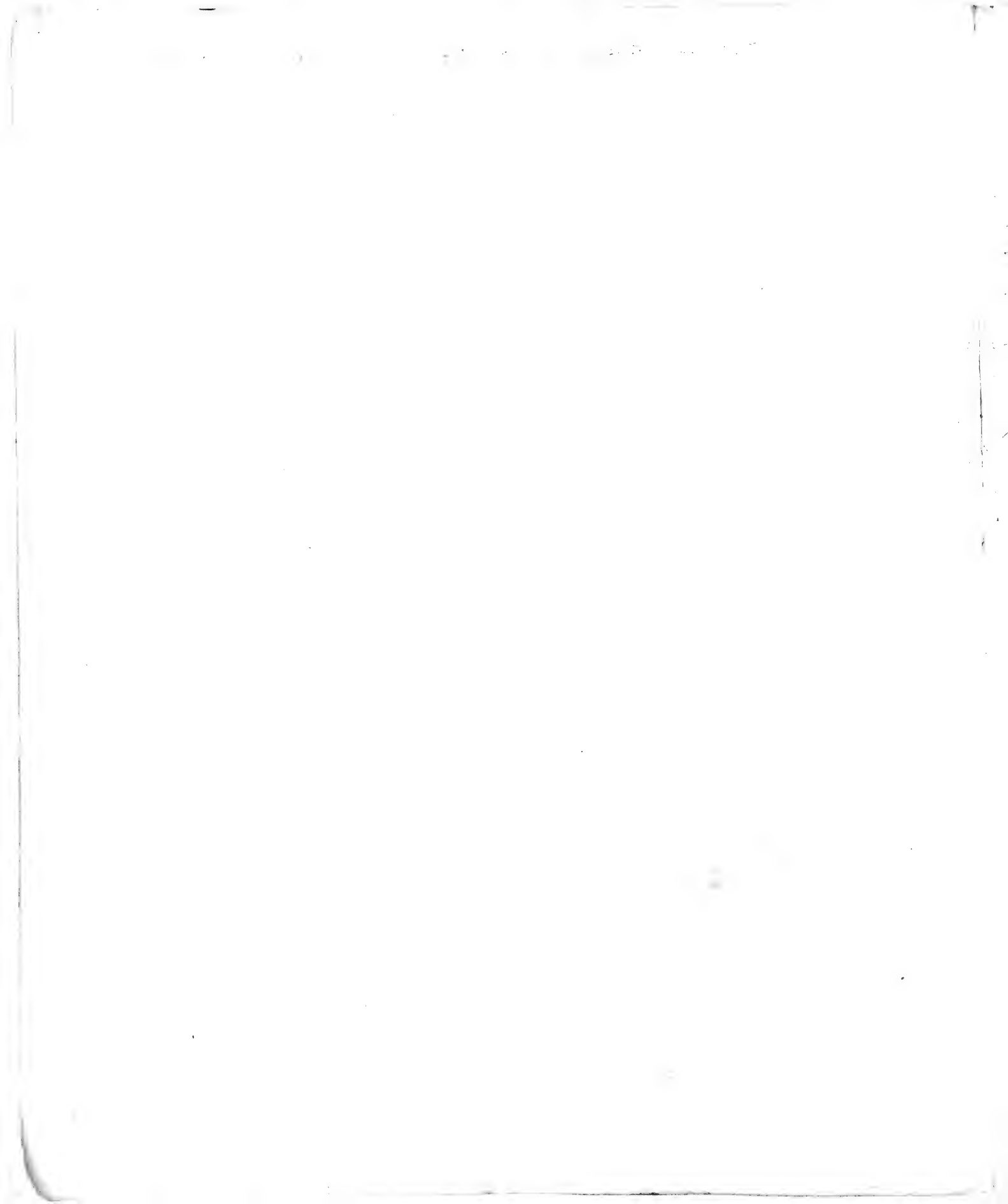
Solomon's establishment we next visited he keeps a large stable with a most  
splendid &c. very chief person that has ever visited the Island knows him  
& was experienced either his hospitality or his extortion as it suits his fancy  
of which he shows a strange mixture. I was charged 12/ per stage for some  
ale but when in the shop & asking for a glass & drink, intending to pay for it  
Solomon immediately showed me into a splendid apartment where  
refresments were offered me & nothing to pay. For drawing paper he charged  
4/ per small sheet yet the same one the use of an excellent house for writing.  
The printer bought largely from him & being in bad health, or his leaving  
Solomon asked him to accept of a present of peaches grapes figs &c. This  
present was accordingly sent off with a charge & that not a light one for freight.  
I left here a little of instruction. I had paid Mr. & Mrs. White the chief justice  
where from a satisfaction of 7 miles per James Town.

Sunday July 2<sup>nd</sup>. This morning with Mrs. Mc Cormick I landed & we  
waited upon Mr. Gulliver the harbor master who promised to take us out  
the country to the house of a Mr. Grover one of the chief merchants of St. Helena.  
& the first free settler who had not come out as a soldier like Mrs. Solomon  
by the by it is not generally known that the latter person through a few casual  
persons on the Island had his property through immunities is well qualified to  
be called Doctor. After service which was performed to a woman then  
arrangement concluded we proceeded out of town. We were informed the  
road being too hard to walk. There are only two roads from the town except  
the one that leads to the top of James valley, these however are

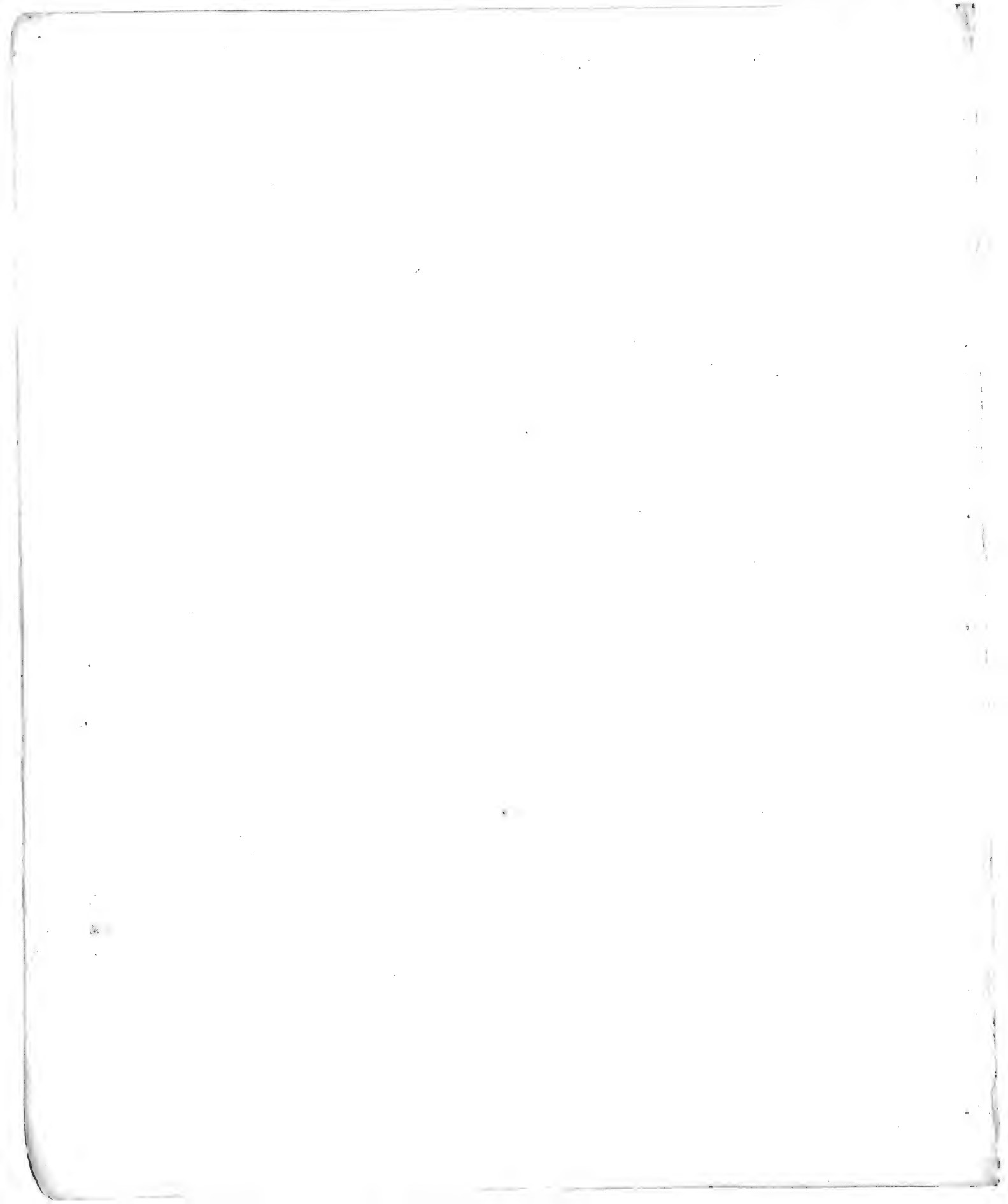




one of these runs to the S. E. of the island ascending the E. side of the  
 valley by a long straight continued plain & passing through the town. The other  
 that by which we first ascended runs by a zigzag line of low hills & then runs  
 to the S. of the island. After a half hours ride up a narrow winding road  
 we found ourselves at the upper end of the ladder that we had ascended before  
 in a few minutes we then struck off to the S. up a steep hill with a few  
 cottages on it crowned by a tower & castle called the Knoll or which stands a  
 few miles from the coast. The ground was very barren nothing  
 appeared but some quantities of Sida & an introduced *Passiflora* plant.  
 Here about 4 miles higher to us a totally different scene the country  
 broad deep valleys filled with rocky places & covered with fir trees among which  
 were the white houses of the inhabitants chiefly retired officers scattered here  
 there in most convenient situations with gardens pastures &c. Horses & black-  
 sheep were as common as in Scotland mixed with *Platanus* *Japonica*  
*Guajacum* *Arbutus* *Sida* *Mullein* in abundance the scenery was  
 so to the eye. The whole interior of the island is of this description & is every  
 where very beautiful. Birds were scarce, pheasants & partridges are preserved  
 by strict game laws, canary were not uncommon as well as two or three  
 other small birds (the sparrow is not found here). Insects are scarce the death  
 hawk with a another are common where small (Polymonia) blue butterfly  
 hovering over the white flowers. The blackbees are better though smaller &  
 more fast than ever seen. - We passed the gates of the Governor's estate with  
 a grand plantation house, near which is a very pretty church surrounded  
 with tall cypresses. A quarry follows the road was cut through from fir trees  
 whose roots straggled down the banks, forming reminding in every respect of their  
 Caledonian brethren so strongly indeed that I could have looked under their  
 shade for *Pyrola asarifera* & *Linnaea borealis*. The roads are cut over these  
 ancient an trails with incredible labor, they are very good though in a few  
 places our horses were up to the knees in mud. After a 7 miles ride we descended  
 a hill into a valley that opens out into the sea & came to Sir J. Gordon's house  
 on the top of a hill surrounded by strawberries. Mr. Widdow's house is on  
 an opposite cliff the weather was warm, though we were surrounded by mist

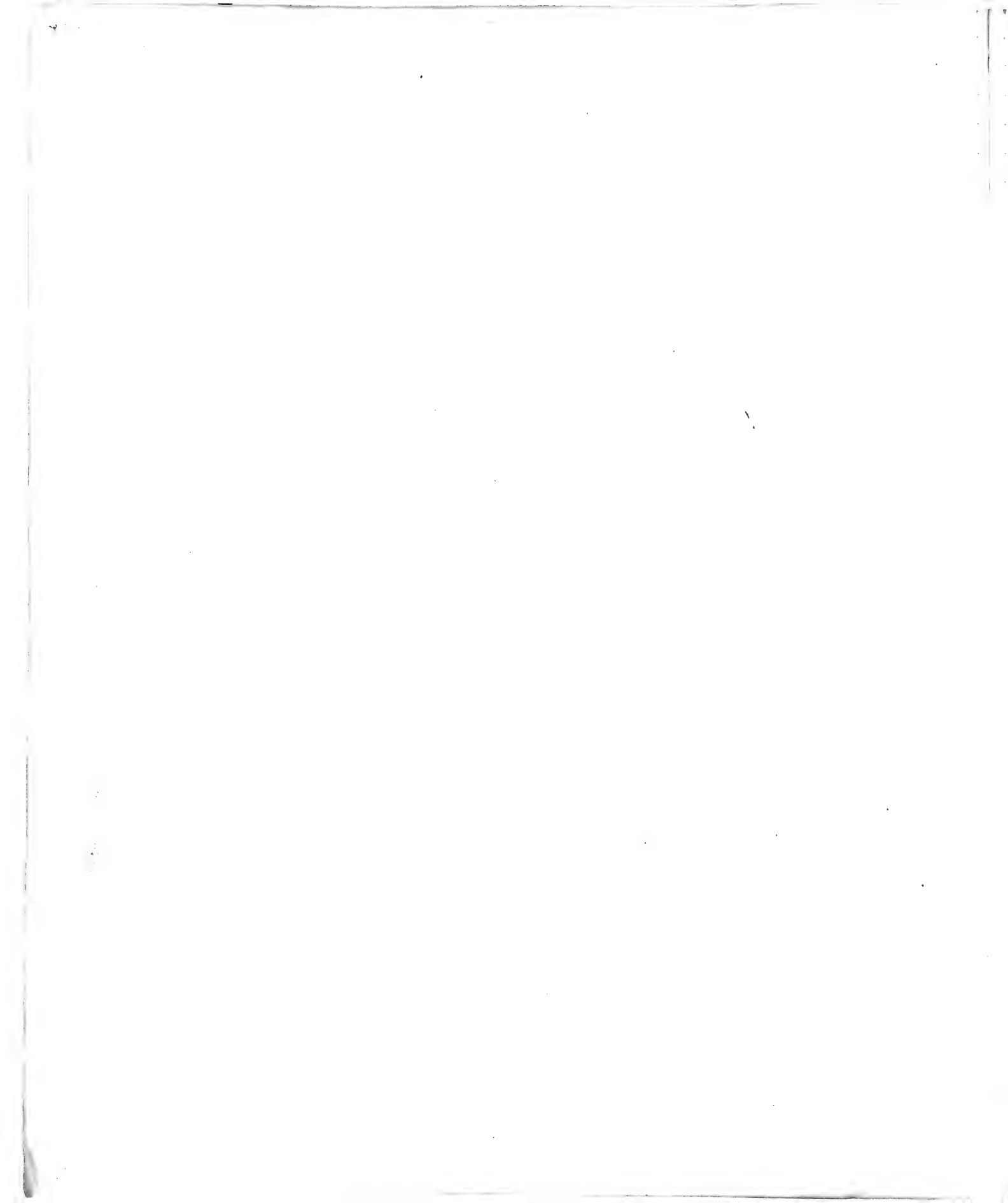


and fog obliterated portions of which were driven by the wind over the hills sometimes obscuring every thing even a few yards ahead, this gave a delectable appearance to the country which it certainly in other respects did not merit. From here it was my intention to have gone over to the saddle but the fog in the intervening valley was so dense that it would have been impossible without a guide to have found any way. As it was I was kindly welcomed by Mr. Gordon & his family when we experienced true Highland hospitality, but such a time was constantly changed by dry ones & a fire was added to our comforts. After dinner the fog lifted a cliff at the head of the cottage & there we enjoyed a splendid view of the valley in which we were seated to the sea & the mountains & is bounded by hills on all sides, to the south St. Jean's Peak 2690 feet presents a very rugged wall covered to its summit with a soft fringe that surrounded our view the precipitous & clothes the whole with the best green brown moss. The cliffs & side slopes were covered with fine plantations various which the white houses chiefly of returned E. I. C. officers were in a wooded down into the broad valley & a narrow strip of sea coast. The white line was broad & distinct though sea distance was too great to hear its roar. This bay (Landy bay) though quite inaccessible from the violence of the surf & its exposure to the S.E. trade is still further fortified by the hands of man. Batteries indeed bristle every where on the island. The hills above the sea are rugged & even steeply barren, and broken into little parallel spurs & valleys. Some very remarkable rocks are situated on the hills to the N. north of the bay; they rise perpendicularly from the brows of the hills, one called Lot is a cone, Lot's wife a more respectable one still looks like a huge log placed on its end, Lot's children the other two are smaller but no less remarkable. They are narrow isolated promontories of rock whose bases are in the case of Lot's wife is smaller than the upper part their formation is basaltic in some parts columnar as I could detect with my glass the columns being sometimes some what of the pines erect, the disintegration of the surrounding hills is said to have left them standing. After dinner having given the ladies a perfume that we could get there, another visit we were allowed to depart, it was dark by the time we reached the town & went on board.

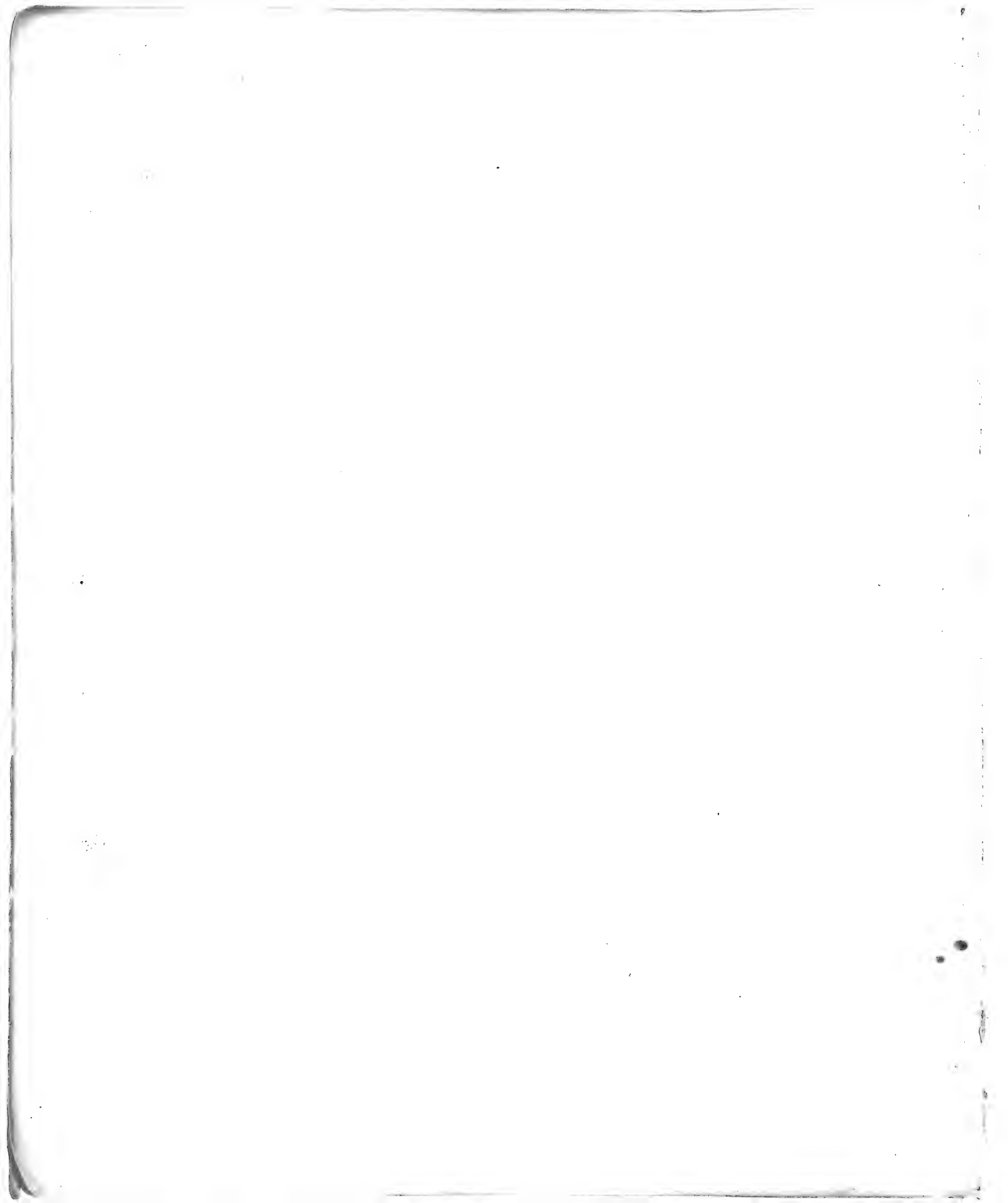


Monday Feb. 3<sup>d</sup>. This afternoon I rec'd volume I was very kindly  
 received by Mr. [unclear] the chief justice who had come to town to study  
 he invited me to visit him on the following day in company with  
 Mr. [unclear] the military chaplain to whom the doctor showed me & who showed  
 me great kindness I was introduced to Mrs. [unclear] who proposes a very nice  
 "mount & shells" to whom I was introduced by a letter in relation regarding  
 the island as well as for some invaluable specimens of minerals which are  
 much sought - as specimens of St Helena mineralogy so poor is it - this  
 two Thomson alms from Sandy bay, a very remarkably beautiful piece of  
 Carbonate of lime almost identical with that of the [unclear] but  
 with narrow con bands. She had received from an old friend of mine, I think  
 the first mineral for me as far as I know from the [unclear] & beautiful  
 there are some that exactly flowered with her.

Tuesday Feb. 4<sup>th</sup>. Being fully equipped for a visit to the [unclear] Mr. [unclear]  
 & [unclear] to the top of Diana's peak I started early with Mr. [unclear] on horse back  
 & after passing over a similar country to what I had on a previous occasion  
 crossed the [unclear] Diana's peak & came down to the head of the valley  
 that flows into Sandy bay. The difference between the climate of this & the  
 the extremity of the island is very remarkable. It is felt simultaneously; the  
 temperature in the upland countries they are brought by the S.E. trade are  
 intercepted by the broad long horizontal wall of Diana's head which falls  
 there in the shape of rain fog & mists. Keeping that side of the island is a  
 cool & refreshing state a little snow then crops the hills & falls at [unclear]  
 more in the form of great drops which is soaked up at once by the thirsty soil  
 in passing down. The stones are [unclear] bordering a few bushes I saw two very  
 fine Norfolk Island Pine not less than 50 or 60 ft high - They are  
 here are full of a small shrub & a raspberry with a large white flower &  
 very large red berries the which is very juicy but with a somewhat [unclear]  
 taste hardly pleasant to eat. The fruit is as large as a quince with  
 the [unclear] & more [unclear] than many of the [unclear] which  
 most resembles. After breakfast we went out to see how British trees  
 succeeded in St Helena soil of these I shall give a short list of the [unclear]  
 plants. The [unclear] we found it was a tree of *Mangia Americana*









we returned to the ladders with a good appetite for dinner at 6. When after  
 putting the same delicate & simple and into plates an excellent dinner was  
 served. The dinner consisted of several courses fresh salmon & trout & fine carps & oysters  
 & the same volume the very high price of meat in this colony renders  
 this one of the cheapest forms of best animal diet. I James Town salt provisions  
 are served out 3 times a week to all public officers from the Governor  
 downwards most vegetables are also very high priced. Potatoes (B) are scarce  
 & such as are very fine but cheap. Fish, a small Mackerel & a very large one  
 the Cavallo an excellent salt fish, Pomato & cabbage are called St Helena beef  
 & are very good though not very abundant they used to believe to be more so  
 when the Islanders are still called game stocks a name they are not  
 ashamed of. The St Helena Parrots are the most beautiful I ever saw  
 this species from the quantity of feathers in the colony with which birds they  
 mingle, the markings of some birds' feathers we have seen on board  
 is just that of the pleasant sometimes even of the color, their bodies black  
 & legs are also very long. After dinner we saw several signs of some  
 kind of small birds. One of the most remarkable, is the  
 following in my opinion I have seen since leaving the colony.  
 Except that they are of the same color as those whom I saw in the colony.  
 There was nothing to destroy the illusion that I was in the colony - I  
 was called of the St Helena the kind friend who had been in the colony - I  
 looked in the first room that he had been in the colony - I  
 saw a large white house for one side built to accommodate some  
 the total darkness of the night we required a boy with a lantern to guide us  
 through the

Thursday July 6th. So very much is talked about Claps bears bones that  
 though I felt very little interest in seeing it I was determined to see  
 & called a goat which name I had learned from my previous travels & was  
 the most valuable spot than Richmond or Kensington Gardens. Having only  
 a few traps which I might nearly as well have left behind me  
 the S. side of the valley of James town. The road continued in  
 a straight line along the side of the hill into it reached a height of about  
 400 feet its banks were barren in the extreme nothing but the Salsola  
 & the Portulaca & other flowers at about 400 feet it was cut through

The island consists of a mountainous interior the highest peak Seaview Peak. 3000 ft from the centre to the S. & broad precipitous valleys the ends to the sea to the N. & to the valleys are long narrow & the interior very little level land flat tops. There is hardly any sea coast when it exists it is too steep & rocky to allow of rooting for plants. The central & highland part of the island is the only sea level point that chiefly to the S. & E. from the broad belt of Seaview Peak catching the snow here brought by the S. P. trade. The hills to the N. & W. are probably of a different rock for though equally exposed to the same winds they are totally bare of vegetation. This is probably also the reason why the well watered table lands dividing some of the valleys to the N. & W. are so barren. The northern valleys are for some reason even to this day especially barren their sides are almost precipitous without any ledges on which vegetation might rest, their bases are not watered from the steeply and absorbing the moisture on the flanks of the hills. The rain only falls occasionally & in great drops the higher parts of the Southward are mostly covered with snow. Spring is but 16° they receive 3 times as much precipitation & heat than the southern side & this heat is <sup>concentrated</sup> by day & radiated by night from the surrounding cliffs. That the rain when it falls

had a great shells from water belonging to the species *Mercurius* (see  
 Darwin). Near the top of the hill the road takes two or three sharp turns  
 the different vegetation commences large patches of *Mercurius* *Mercurius*  
 introduced from the Cape with yellow flowers & *Trigonotis* *Trigonotis*  
 two kinds of grapes on the wine grape a sort of *Cynodon* which sprang up in  
 abundance abundance on one part of the island after the destruction of the  
 trees, small patches of a *Passiflora*, a composite. One shrub with yellow  
 flowers of which only one or two carried seeds I found a black berry eaten by the  
 children - A fine one *Podocarpus* *Podocarpus* like a willow, a Cape *Mercurius*  
 with large yellow apples in the top of the hill was a large plantation of  
*Podocarpus* *Podocarpus* with the *Podocarpus* & *Podocarpus* bushes the stems of these  
 bushes were covered with a light red fungus which it made the bushes  
 appear curious. This hill divides the valley of *Mercurius* from *Podocarpus*  
 valley at the top of which, I agree valley the land is *Podocarpus*. On reaching the  
 top we were opposite Longwood it seemed a pretty plantation on the edge of  
 a steep cliff on the opposite side from us to visit one small ascent to the  
 head of this valley & ascend its ground to the other side. The atmosphere  
 here was cool & refreshing the wind strong. The mountains were covered  
 with *Podocarpus* & the *Podocarpus* had a few *Podocarpus* on them. The *Podocarpus* I said  
 which seems you about the mighty *Podocarpus* *Podocarpus* guarded by a *Podocarpus*  
 shrub. On turning your head upon him numerous children appear you  
 with flowers, *Podocarpus*, that the *Podocarpus* was found to be bearing into a  
 very full *Podocarpus* to get some all at 2/ per bottle. The *Podocarpus* was so soon  
 shown than our *Podocarpus* with it, it was the *Podocarpus* that *Podocarpus*  
 of the other thing our *Podocarpus* *Podocarpus* *Podocarpus* with the *Podocarpus* her like  
 his subquity certainly *Podocarpus*. As a last *Podocarpus* I commenced gathering  
*Podocarpus*, surely the hero of *Podocarpus* could leave nothing to do with *Podocarpus*  
 one stone wall, when another did *Podocarpus* *Podocarpus* came to inform me  
 that the *Podocarpus* had *Podocarpus* *Podocarpus* the position of his tomb & that the  
*Podocarpus* was found of the wild plants I had in my hand I fairly took to my  
 feet. *Podocarpus* *Podocarpus* *Podocarpus* *Podocarpus* *Podocarpus* *Podocarpus* *Podocarpus*  
 & *Podocarpus* the *Podocarpus* had had his wish of having *Podocarpus* *Podocarpus* *Podocarpus*

brought little moisture is proved by the the shores run when falling  
leaving little effect upon the vegetation. These shores are never covered  
over by a strong breeze. The island was once it is said covered by native wood  
this is proved evidently by tradition but for the pieces of native wood strong & grain  
to this day in different parts. (see Cook's voyage) Hawaii mentions that goats  
were the principle agents in destroying the vegetation. When the island was in this  
state we should its climate was modified as vegetation is well known to  
alter the seasons in their nature see Herodotus account of Egypt, the old  
written account of the N. Am coast, Humboldt's narrative.

The principle native wood of the island consists of soft brittle composition  
15-20 ft high with trunks 9-14 inches in diameter. It is remarkable that  
there is not a single vegetable produce of the island that is used for food, fruit  
bearing except in southern parts even for firewood, pine cones being substituted  
before the Caribbees & for pine to any size houses & skeletons used to be sent  
out from England. If cultivated land there are only acres & of land  
fitted for cultivation. (Forster's voyage) The Pasturage is of Anthoxanthum,  
Linn. the only native grasses & other introduced grasses Trifolium & Lucerne.  
All other kinds are introduced Water cress &c. & are chiefly European



At the junction of the river the river is small and the water is  
in a shallow stream being very much vertically compressed the stream runs  
to the river mouth. Reservoir at gate





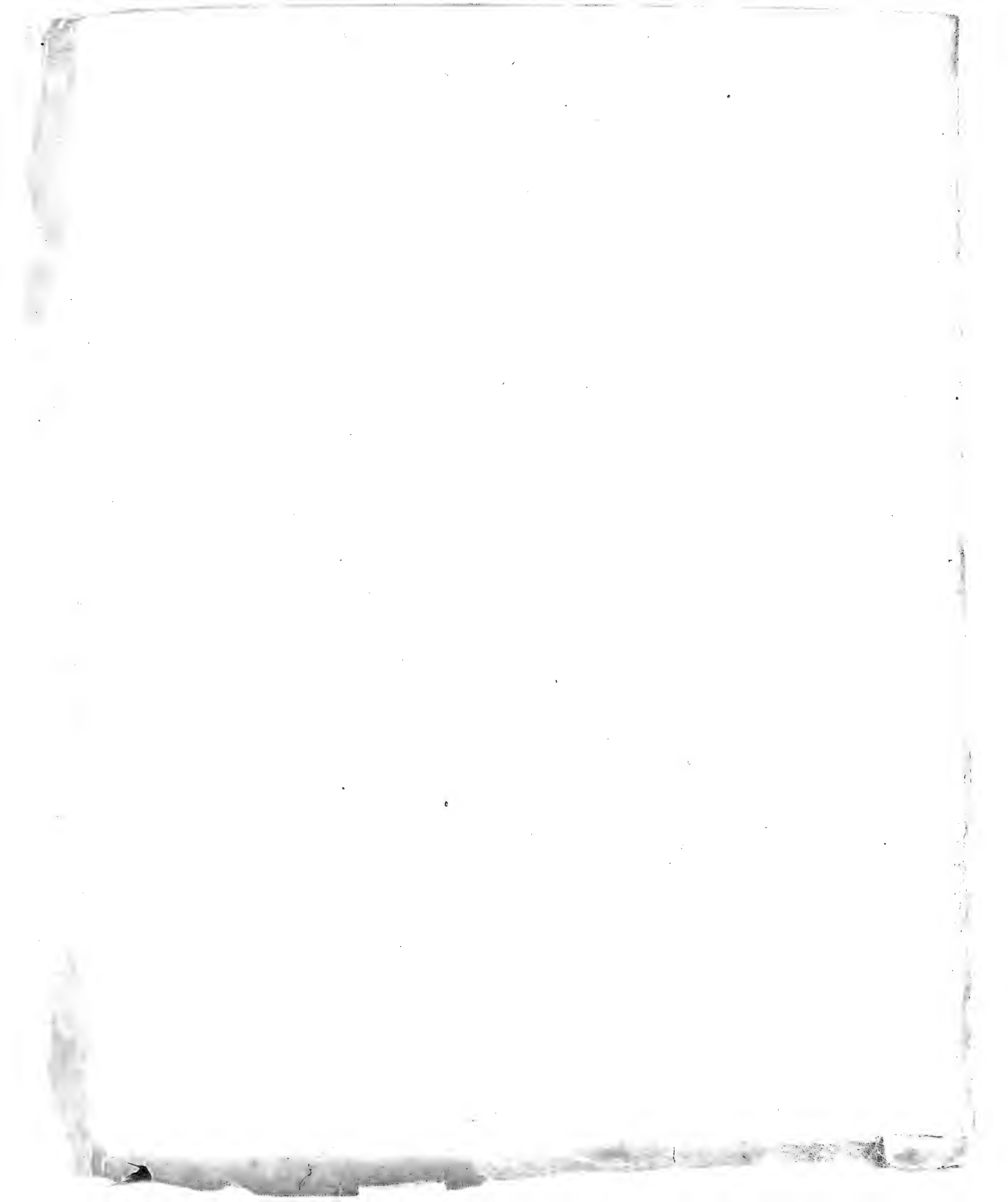






To see the gentleman Capt. Leman it is on the same day, having left the way  
 to Laramie, and the first thing I saw was a suspension bridge over the  
 river, and was much surprised to see it, it was the first I had seen, and it is  
 a very fine one, and I was much surprised to see it, it is the first I had seen, and it is  
 a very fine one, and I was much surprised to see it, it is the first I had seen, and it is

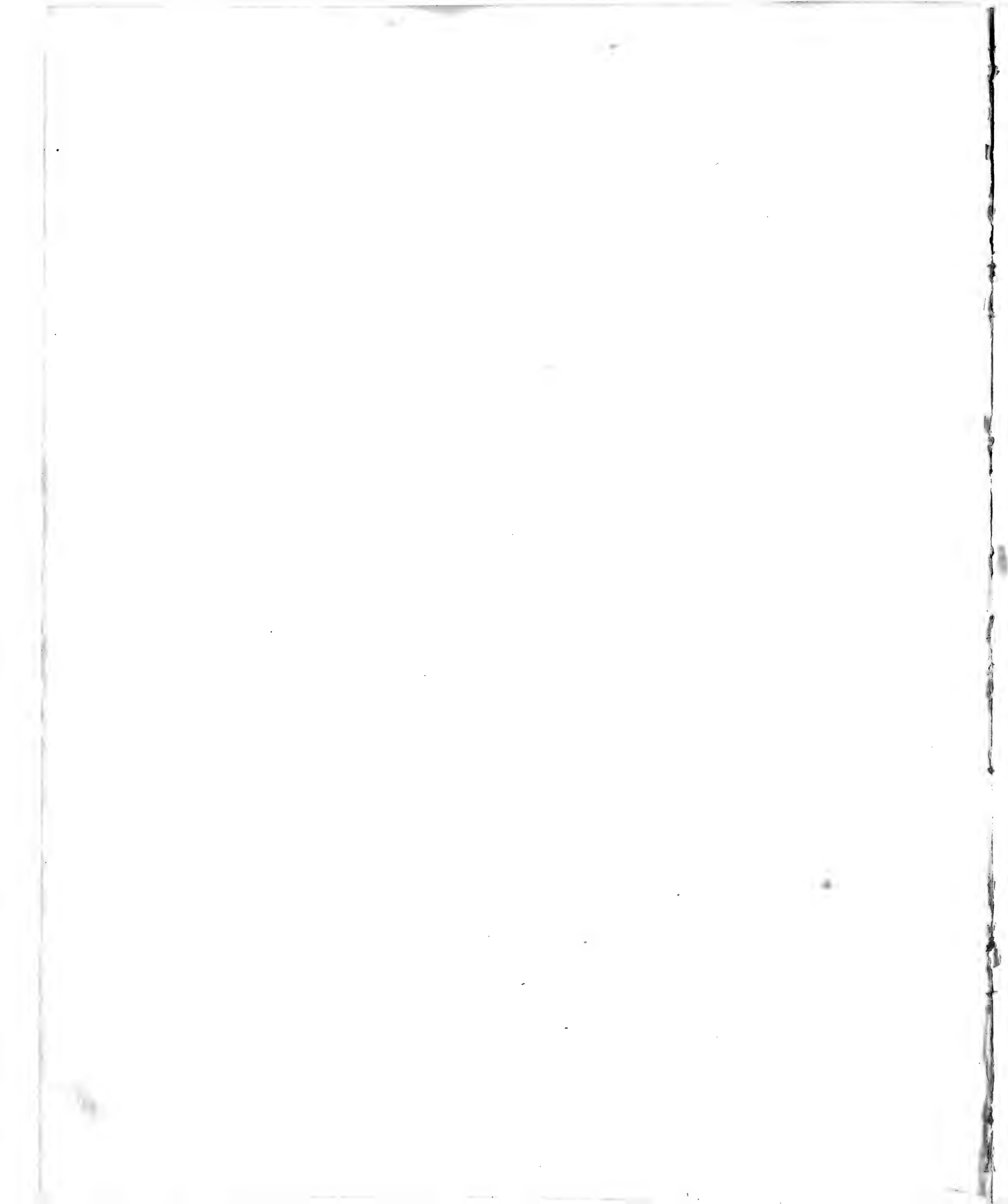
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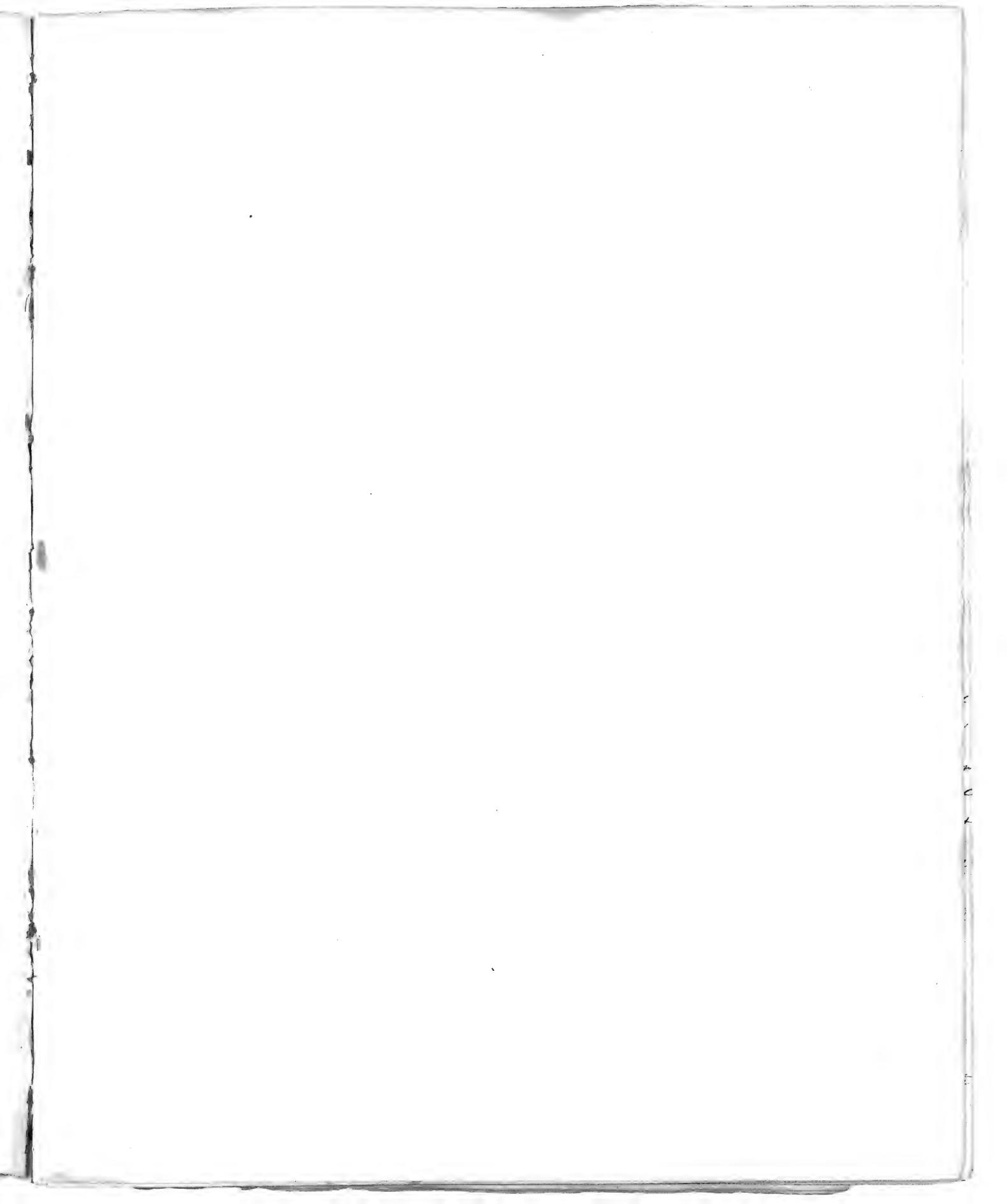


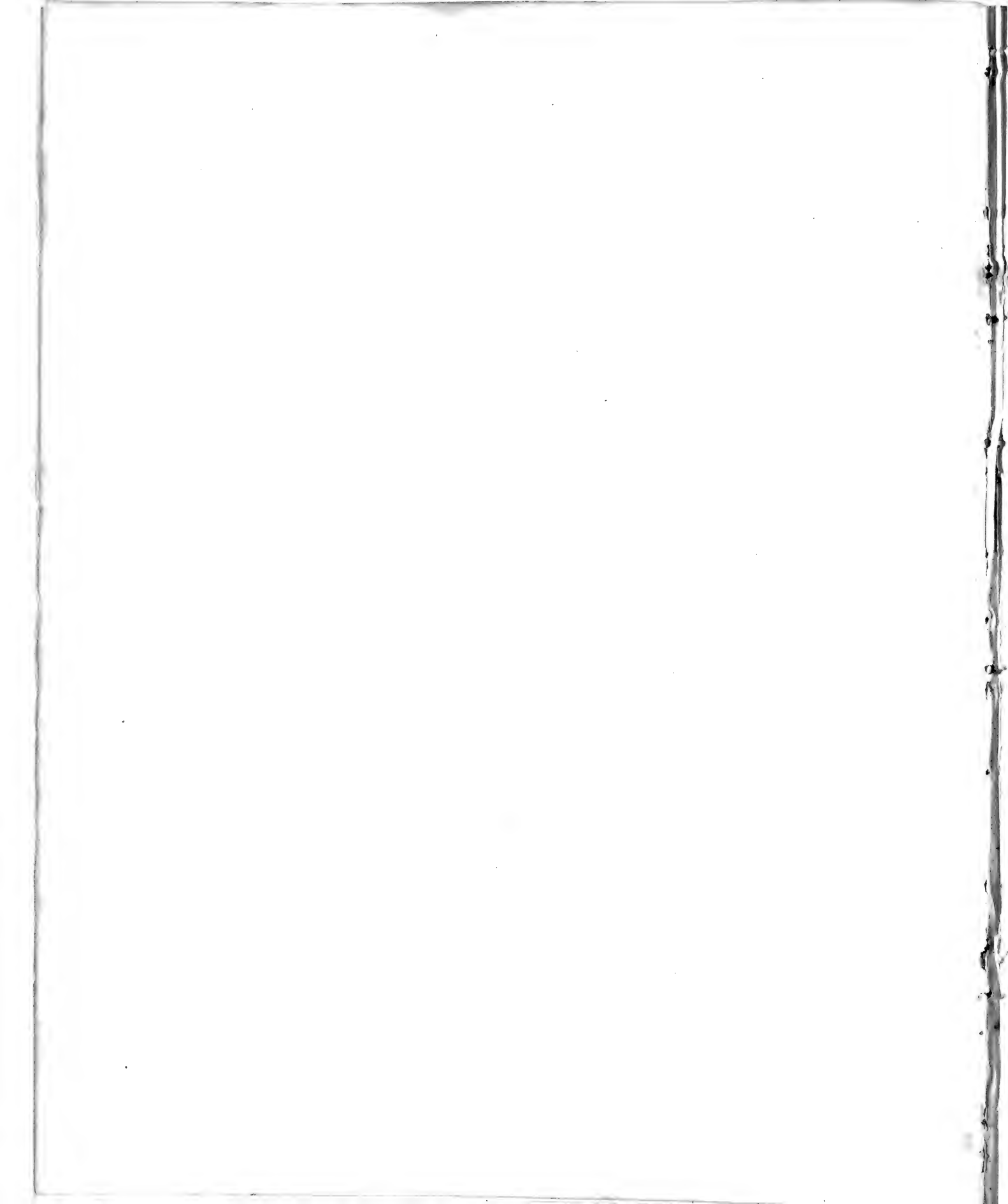
J. A. Rodgers

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Journal  
Commenced, April 8<sup>th</sup> 1840.  
Finished September 8<sup>th</sup> 1843.









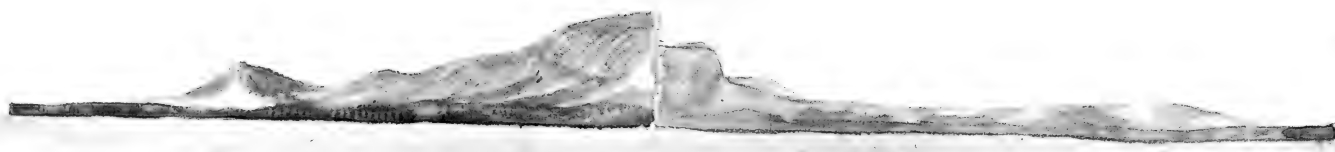
April. April 6<sup>th</sup> 1840. Worked out of Talu Bay & stood to the S. E.  
 7<sup>th</sup> Cropping the Aguachai Bank. which abounds in marine animals  
 12<sup>th</sup> of the sea with specimens of Macrocypris pyriferus none however of  
 the gigantic size mentioned by former voyagers - The following  
 were at different times taken in the net & had not been met with  
 north of the Cap. - Pisces, 3 sp. - Cephalopod, 2 - Molluscs, 2 - Archel-  
ous Mollusca, 2. - Crustacea, 11. - Besides these, 20 species were taken  
 & which were common on the lower latitudes. One crustacean animal  
 of the collector was very abundant, & during the day shed a bright  
 ultra-marine blue light about the size of a shilling in the water,  
 on looking over the ship's side they were very evident. Under the  
 microscope the animal is nearly transparent, mottled with light red,  
 which changes in some lights to the most intense blue. In a turn of  
 water it looks like a fish scale. A small Argonaut was  
 also taken (n) which readily left its shell & withdrew by its sucking  
 head down to the bottom of the basin. Several specimens of a  
Carinaria of small size were in the net. none of them had any  
 shell or a vestige of one. May not this animal sometimes appropriate  
 the shell of the Argonaut, & thus reverse the formerly received opinion  
 that the Argonaut resembles the Carinaria. Of the fish two  
 were very remarkable a small Pteronotus (n) & an apparently

new species of or Ribboned fish, remarkable for being destitute of any other fin than the small pectoral ones, it may be the same as (n) taken in the Tropics - The head is most remarkably small for the body, of the most wolfish form & the eyes are particularly bright. - Receptaculum testaceum were extraordinarily numerous, often filling the net to the almost total exclusion of any thing else - they were generally solitary; but on the 9th the ship captured through some immense, broad, broad, which consisted of a conglomerate or preparious Prothoea (n) the specimens seemed to have no organic connection together, but there were always two fixed points of contact - they herded in two rows, of indefinite length, & moved simultaneously in wavy lines, but were very abundant, & some of them whose phosphorescent, especially one large one (n) - A smaller one armed with two very large spines was common (n) but seems confined to the latitude of the Cape.

There was an evident want of the Autonostreus phosphorescent creatures so abundant in the lower latitudes - Pyrosoma very scarce - Chirypus larger than the Tropical ones - Helicella & Prionosa the latter phosphorescent, common - A new Porpita (n) very different from those which are confined to the neighbourhoods of the line - swimming down almost empty - The feet of the Sudana seems to be Hyalocetes several of which were in central common opening underneath - Stygalis Agalax 2 sp. - Harmonides & Spereus, were particularly numerous - Receptaculum testaceum generally herded together when young & separate when older.

17<sup>+</sup> Birds (the large albatross began to be very common, as also some large dark colored Petrels & two small stormy Petrels) The weather now began to assume a winter character. The thermometer rapidly falling & the wind being keen & cutting - Lat. S. Long. E. Birds began to be numerous especially albatross, P. Pigeons Coccyzias common & several other Petrels - The small albatross has not been seen S of the Cape - Its chief amusement consists in catching with a hook & line the large albatross this hook the bait goes dry & are almost always brought up by the hook - sticking into the upper mandible. Cape Pigeons are caught in the same manner, when steeped in salt water both these birds are cooked without washing the Cape pigeon tastes exactly like a fresh herring being tender & not rank though abundantly fishy - The small generally prevents our using the net overboard, today however after a short fishing of 1/2 an hour at 5 PM there were

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*Sketch of Maine Ids. The center bearing N. W. by long.*

several shrimps (n. 289) - (187) very numerous - 189 scarce - *Corinaria*  
172 scarce. - A *Spirula* dead though the empty shell looked fresh, covered  
with young barnacles - *Notas* 59) very small specimens scarce - &  
a new species of *Hyalaea* (186, differing from the large one in the shape of the  
shell.

18<sup>th</sup> With the towing out at 2 P.M. I took two shrimps (n. 188) & one (n. 187)  
also a small barnacle swimming free. Young of the *Lepas anatifera*  
swim very freely & I was once puzzled for a long time with a very small  
one which I took for a small *Notostomat* crust. Since entering the cold  
Latitudes none of these latter have been seen nor have I observed any  
other animals take their place.

21<sup>st</sup> Sailed to the southward of Marion Island Sat. 2. Large. After two  
hours to land. The Island seemed volcanic being very high in the centre  
with ridges of mountain coming down to the sea of a deep black & some  
of a red color. In other places long flat terraces with bluff faces extended out.  
The foot of the hills on which were one or two red conical hills. On  
the slopes & flats were covered with abundance of greenish brown grass,  
large stones & I thought some very small stones. Clouds covered the  
summits of the hills on which some snow was lying. Seals & penguins  
were seen for the first time the latter swimming round the ship while  
their companions had formed a large colony on a sloping part of the beach  
& there being among themselves they at a distance looked like a regiment  
of soldiers in white trousers. Above them a few albatross were scattered.  
At night we dropped in 96 fathoms water between Marion & Prime  
Edward's Island no seaweeds dirt or sand were brought up, but the  
sledge was filled with a white coral & a fragment of a grass which is  
numerous in the Islands. Amongst the coral were  
numerous marine animals, far more than the coldness of the climate  
with respect of the Islands covered with snow. The produce of the  
sledge was - *Porolithes* 2 sp. - *Serpulac* 2 sp. - *Serripilac*, 3 sp. - *Pteropoda*, 6 sp.  
- *Crustacea*, one large *Leptocera*? (n. 196) & *Serolis maylandi* King's argas.  
A *Fulgica* animal of which two specimens were found (n. 190) -  
*Holothurica* (194 & 195) - *Periclis* (91) - (193) *Asconellid*, - & an empty tube  
with a perforated propodium at the orifice - *Spheroz* 2 sp. - *Chimera*.  
*Siphonaria*? 3 sp. - *Corallines* 4 - *Flebotia* 1 sp. - *Sponges* (some drawn).  
Altogether 37 animals taken in one shot dredge of a few minutes  
duration many of them abundant & a few chiefly the shells were only  
remains or dead. When it is remembered that the coral filled half a  
common ship's bucket amongst which there were no stones dirt or sand  
it must appear that the bottom of the ocean is here quite covered with  
coral, though small & delicate, its color was white.

28. I was disappointed to have fancied to day but during the night we had been blown so far to seaward of the Islands that it would have taken us too long to have worked up. so we proceeded towards the Crozets though I felt much annoyed the employment was not on a time. My exercise afforded some to alleviate my dis-appointment. -

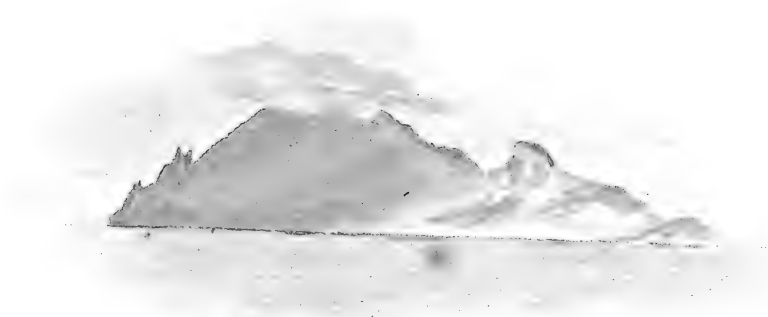
Instead of sighting the Crozets to day in which latitude according to the maps we were were, we were lying in a heavy gale of wind the weather being so thick that we could not see any thing 1/2 a mile from the ship. - The sea birds alone were in their element.

26. Early this morning King Island the western most of the Crozets was seen Lat 5. Long 2. far to the East of their situation according to the maps. - With us were of Grasshopper Island, a large rugged mountainous island with precipitous cliffs bounding it. Its general appearance was volcanic but the distance was too great to make any thing out satisfactory. -

29. Heading up for Popoia Island - A large mass of the leaves of the brought on board produced, ~~through~~ <sup>the</sup> of seaweed from its roots. A bright yellow fungus was seen around and on the ponds which in its turn produced a Fucoxia & a small channelled serpula which always was found close to the hinges. - A few young & old Ternacles - A very remarkable animal (or ) was very common & on one of the seaweeds a curious jointed coral (? (or )

I took this opportunity of examining with a high power the sections of the stem leaves & bladder of this seaweed. The Praxos cystis pyropora - In the leaves & stems there is a distinct central axis of cellular tissue as much condensed as the cortical, & a cylindrical surrounding the axis of very loose cells. In the very old leaves the transverse section presents the appearance of thin parallel plates & condensed cells united by transverse bars of loose cells. The general appearance of such ponds is that they are in a state of fructification which I have not yet discovered. - The granites of the bladder are formed of very loose cellular tissue particularly the central part where the cells are very large. The cells all through the plant are often supplied with one or more greenish granules irregularly disposed.

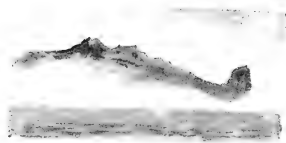
At about 11 AM we hove to in King, Popoia Island? were immediately visited by a party of seals who have taken up their residence on this desolate spot, & for whom we had some provisions in the shape of bags of rice Coffee tea &c. nothing could be left interesting than their appearance, penguin skin boots with the lathers turned inward was the only peculiarity of their costume. They were apparently very comfortably off so far as food is concerned but nothing could warrant their state of dirt & filth, so dirty are



H

Inaccip. de Islanda  
Coryphi.

1846



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*Easter or Hagg - island*  
*Coast*

*S.M.S.*

*Blighs Cap.*

*L.*



that they actually struck upon coming on board, the lead man like some African prince was preeminently filthy & without a more independent gentleman. About the natural productions of the island I could glean no further information than that there were no biped animals but abundant ones of *Peromyscus*, *Albertus*, sea Elephants, seals, & shells of plants only a long coarse grass now going out of flower & a kind of seaweed grass. The land was high here & there covered with green patches, the rocks black & red evidently volcanic, some snow was lying here & there - The coast was generally rocky & bluff - Mountains of seaweed was in the bay - As we coasted along the N.E. part of the island we passed many little covelets with green smoky margins old trees on the side of a hill. From here Easter Island, the Southern high, but except the top of the highest part, was hidden from us by a remarkable bank of dense haze of a white color extending from the sea upwards & leaving the top of the mountain perfectly clear & distinct of a black color faintly veined with patches of snow & the lights & shadows cast by the sun striking on it - This bank of haze is of almost constant duration when the island has been called Hazy Island. There is a party of seals on it

Sounded in 25 Fathoms between Peppison & Easter Island, the lead brought up the same Coral as that is common off the Marine Islands.

- 6<sup>th</sup> At 1 PM made Whigs cap, very thick weather common & we were obliged to keep off the island of Kerguelen land during the night.
- 7<sup>th</sup> Found our claw about 15 miles to seaward of Christmas Harbour & had to beat up.
- 8<sup>th</sup> Having beat up all yesterday & to day found ourselves at night fall within 2 miles of the entrance of the Harbour. Wind on to blow.
- 9<sup>th</sup> How to is a heavy gale of wind, drifting to the N.E. of the island.
- 10<sup>th</sup> Having drifted far to seaward yesterday, we have again to beat up for Christmas Harbour.
- 11<sup>th</sup> 5 PM anchored in the mouth of Xmas Harbour - weather bright & clear very favorable - Kerguelen Land from a distance appears formed of successive parallel ridges of rock on which there is a considerable quantity of vegetation - The snow lying on the steep sides of the hills makes the land look striped. The points of the bay, are generally flat ledges of rock with precipitous sides & bluff terminations towards the sea. The rocky rock is one of them best perforated in an extraordinary manner.
- 12<sup>th</sup> This morning the Linn was discovered beating up the harbor having a more favorable wind than we had she soon beat past us & continued at the head of the bay - she had parted company from us at Lake Bay & had sailed on of the small islands to the E. of Kerguelen's land

May

# Herqueler's Land.

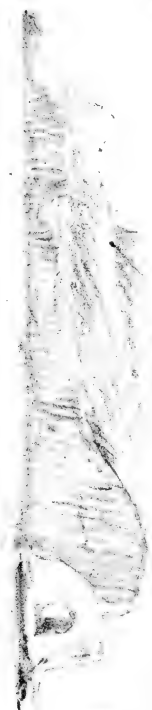
The weather not permitting us either to enter or sail up the harbor we remained at anchor - The shore had to me a most inviting appearance the broad bands of brown & green being seen in indication of the presence & abundance of meadows. Nor could any thing the ingenious Mr Anderson i Cooks voyage said persuade me of the contrary - Bright green ledges were scattered every where upon the slopes down to the water's edge while the flat ledges were covered with grass - Surely I thought this cannot be such a kind of Desolation as Cook has painted it contains only 10 species of plants

15<sup>th</sup> Employed waxing up the harbor which we accomplished by 12 o'clock when the ship was finally moved - The harbor here is very narrow with high hills on each side those to the S. very precipitous with a narrow beach covered with large stones & brown vegetation - Cook's view of the harbor is tolerably accurate - The Bay is so full of the *Praxos cystis perfoliata* (I think *Praxos grandis*?) that it is difficult to pull the boat through it - The leaves do not lie along the water but are dependent from the spear shaped blades of the stems - The roots are not large in comparison to the size of the plant & within the length of the stem they never even have been observed in red-blooded worms, *Pyrenogonum*? etc. *Serolis* of the same as Darwin found & several other crustacea, a few other fish also attach themselves to the roots, but few shells or corals.

At 1 o'clock with two or three boats I landed on a black rock to the right of the harbor & walking round to the head of it came to the beach of black sand described by Cook where there were a few Penguins, small bodied creatures with black backs & white breasts like pinacops - Their gait being naturally slow in their motions when on land they were easily caught - young did it rather than running - when frightened they make for the water running down & avoid diving down into the first surf - The noise they make is like a duck's but more prolonged note - On being caught by the leg they attempt to bite but their beaks being too short reach the hand holding the foot they snap at their own bodies a little below the wing - when they are secured the wound is not very severe their bodies being soft & feathery like fine velvet those of the other parts of the body hard & with little plume on them - the common species here belong to Lewis's genus *Captens dytes*.

On first landing I was surprised to find three species of plants in great abundance - All *Cercia* or one of that tribe of composites with creeping succulent branches flowering out pinnated silvery leaves like those of a carrot - It was in flower & covers the ground with a soft green carpeting, wherever the bamboo or other plant, which was covered with immense tufts of Anderson's *Saxifraga* umbellifera to which *Tragopogon* *Trifolium* I think also belong. A small *Ranunculus*? was very common in pools of water with a *Portulacaceae* plant like *Portulaca oleracea*.

Acorn





But what pleased me more than any other plant was one that Mrs. Brown  
 had pointed out only directed my attention to it is the Cabbage of Cook's Cove & a new  
 remarkable Cruciferous plant without any development between the leaves.  
 It was not in flower but in a fine state of fruit - It is very common by the  
 sides of rivulets especially beneath little banks the thick root projecting  
 horizontally sometimes 2 or 3 ft long & 2 inch diameter & bearing at its  
 extremity a tuft of leaves like the common Cabbage from the side of which  
 a tall leafy spike is thrown out bearing numerous short green siliques  
 with scabrid scales - some specimens are rather hairy others not so  
 The root tastes like horse radish but much milder. The leaves like gar-  
 lic mustard in taste but of rather a scabby consistence very good however.  
 The leaves when boiled look like Cabbage one of the consistence of Spinage  
 & have a striped & peculiar medicinal bitter taste which some of the  
 crew are very fond of - The seeds are large about the size of onion seeds, triangular  
 notch with the contiguous lobes. The perisperm is light yellow &  
 a leathery consistence - This is very dry with little of the acid cruciferous oil.  
 The head of Hercules' Laurel grows up into a large flat valley - The slopes  
 from the sea gradual & very marshy the soil being full of holes & craters  
 covered with mosses & the grasses. I saw several small plants here  
 some varied with little flats or banks covered with the Cenia or  
 spongy holes covered with perispermia (or) & the Ranunculus  
 the streams run through rocky beds of volcanic rocks chiefly trachyte filled  
 with oblong cavities & flattened or radiated crystals of minerals peculiar  
 to this formation - Proceeding up the valley we arrived at a small  
 lake about 100 ft above the level of the sea & 1/4 mile distant from the sea, it is  
 surrounded with rocks covered with mosses & most beautiful in Siberia.  
 I never saw even in the Highlands of Scotland rocks so variously  
 painted by nature's hand than these which else would be the dreary  
 masses of volcanic stones the colors though sometimes bright were  
 all uniformly harmonized. Proceeding the most pleasing object in the valley  
 my only regret was the difficulty of procuring characteristic specimens  
 their extreme tenacity causing them to be removed with the living rock.  
 My delight was great here in finding a species of Amalaxia growing like  
 a reed tree in small tufts on the stones which with the Celastrus  
 & a S. Am. one in herb wood will make 7 known species of this mountain  
 genus. In the waters of the lake there grew a Conifer of a green color  
 & another blood red - also a small Ulex & a Chama they were not  
 however abundant. The general appearance of this lake & the  
 little lake on the hills to my mind. A few ducks were seen but  
 no land birds - I was much surprised to find the common Saxifraga  
 here & several small Grasses were not uncommon.

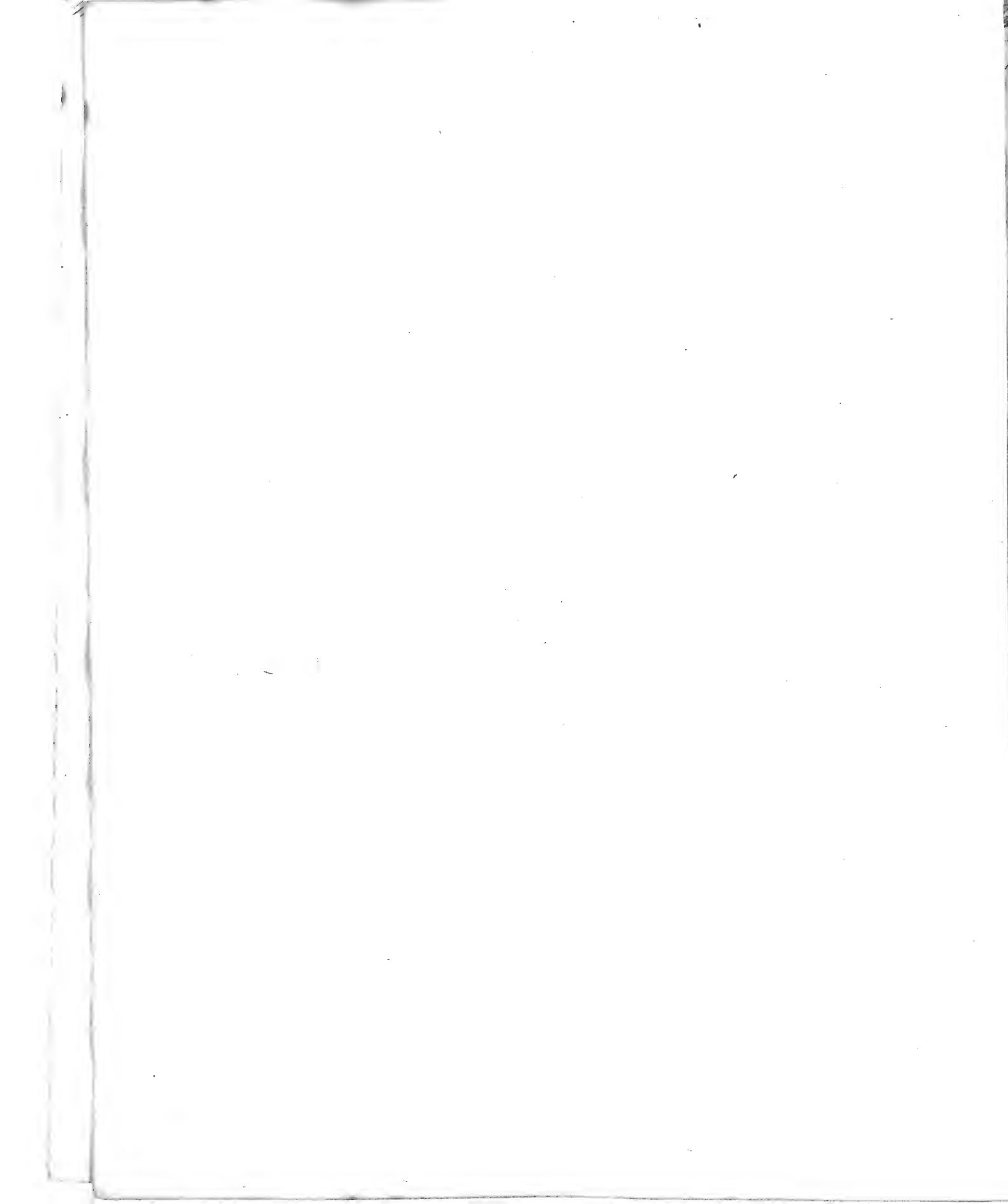


May

## Kerguelen's Land.

The flats here were very barren being covered with stones & tufts of moss  
The few grasses that grow in wet places. One very elegant species with a  
large effuse panicle of flowers was scarce & almost out of flower.  
Continuing our course along the nearly one curve to another very small  
small marshy lake on which were some wild geese & beyond this a  
steep precipice overlooked the sea in a bay at the N. end of the island  
the cliffs which surrounded the bay were perhaps 200 ft high & formed  
the bay with a nearly impenetrable wall of volcanic rocks against  
which the surf beat with terrific violence. I descended to the sea  
by a narrow waterfule with great difficulty - the same plants grew here  
as on the opposite side & several nice snipes. About 1/2 way down  
the cliff was intersected by a horizontal bed of soft grey clay from which  
split into rhomboidal fragments it was split & could be cut with  
the knife or scratched with the nail. Some red rock like with also  
occurred with it. The rocks at the margin of the sea were covered generally  
with a green Conferva & the holes filled with salt water afforded me some  
algae but none different from those of Christmas harbor. I was struck  
aback with the tameness of a beautiful white bird something like  
a pigeon with black legs not webbed, black & eyes, it ran with  
great agility among the rocks & came close to examination one. Its  
plumage is of a spotted white with a slight pink tinge on the primaries  
of the wings. The tail has a sheath common to the two nostrils. In the  
Eastward the cliffs were of immense height & some large sea birds  
were soaring like Eagles round the top of it. - In ascending & returning to  
the ships I passed under some very low cliffs of trap rock to the N. of the bay  
where were also innumerals apparently of the scapolite family, feldspar, calcite,  
in a sort of hydroxide rock as far as I could judge, nodular scapolite, Plagioclase  
and some fragments of a white milky looking mineral of a light  
weight & granular uncrystallized. In returning on board I found that  
the ship had been over very small animals which besides together &  
when one went like sheep all would follow, as food after being  
skinned & cooked they were at first very much relished but one  
after some days found a fishy flavor - then I soon preferred salt  
famine to their fresh meat. - The seaweed being however less delicate  
On arriving on board I found that I had ascertained the longitude &  
at least 39 deg. of height in one day, within 2 miles of the harbor  
thus proving that the land was within our instruments & not imaginary







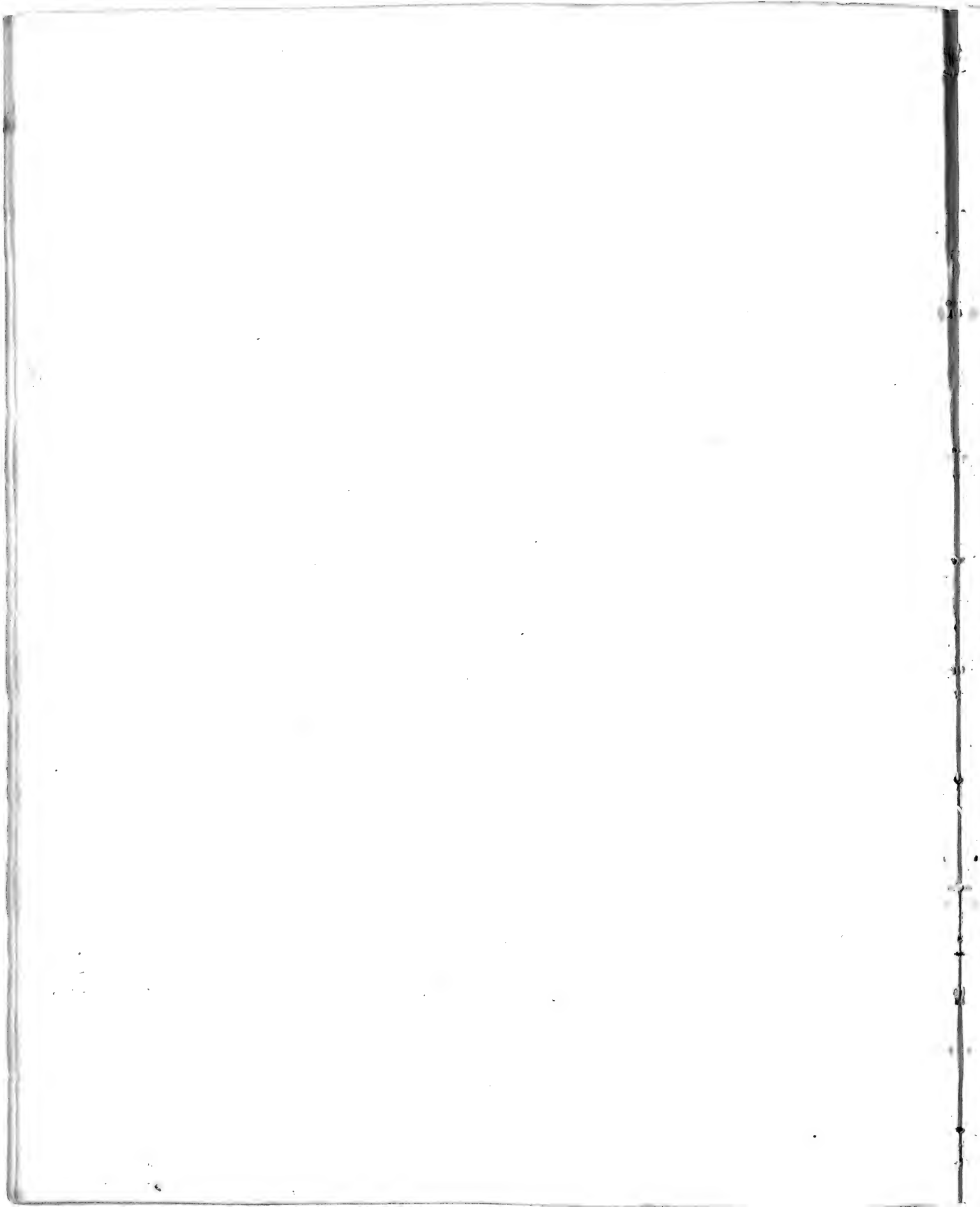
Saturday - This morning I set out to visit the hills to the S. side of the harbor  
 of the blue sea which bears so conspicuous a place in Cook's record. The  
 ascent was by a green slope on which I found a plant which I took to be  
 of Asina it grows in wet places altogether like our Conoclinium & the most  
 slightly acrid taste. Also the Ranunculus in fruit. The  
 Umbelliferous plant in flower several new Myrtaceae plants  
 The ascent was by successive flats & terraces of cliffs of green stone or sand  
 basaltic rocks with the vestige of columns or their structure - Minerals  
 were very common. On ascending the height of about 400 feet  
 the huge black cliff or rock that surrounds the hill the surface consists  
 of masses of breccia or conglomerate formed of a base of weathered green stone  
 in various pieces of various sizes it was very hard - The black rock  
 was formed of the same with veins of a more recent lava running  
 through it perpendicularly upwards - at its base when it considerable  
 wood imbedded in the rock so natural was it & like wood in a cut state  
 that Mr. Cornish who first picked some up took it for wood left by the  
 whaler or perhaps Capt. Cook himself. The summit of the hill is  
 a level and to the top of the hill among a good deal of ice & snow. The  
Cabbage Ranunculus & Ms were common at this elevation  
 in fr. but much smaller in size. The Andromeda in several other places  
 were beautiful. The weather was very thick with snow storms so  
 that no view was obtained not even for a few yards before us. The top  
 of the hill was flat & a curious regular wall of trap rock cropped the top  
 of it - this wall was regular & straight where there were of a height  
 from 2 to 4 feet it had evidently been left standing by the disintegration  
 of the surrounding rocks, on it & on other flat topped stones there grew  
 a magnificent Lichen belonging to the genus with resembling  
 sulphur yellow porous stems & large peltate jet black apothecia  
 what nourishment so large a plant could derive from the hard dry rocks on  
 which it grew luxuriantly I was at a loss to conceive. Other Lichens were  
 very common covering the stones with their painted ponds & appearing as  
 integral parts of the rock on which they grew. In some cases nothing but breaking  
 the stone could satisfy the mind that it was not the colors did not arise from  
 their mineral composition. On descending I took Mr. Cornish to the top  
 of it & examined it more fully - The rock underlying it was composed of a trap  
 conglomerate of great hardness - The trunks that were very numerous were  
 covered by a layer of shale which probably there probably from being carbonized  
 by the volcanic stream. Some of them had much the appearance of  
 recent wood the bark & concentric layers being most evident sometimes  
 amounting to more than 100. knots & the holes were branches that had been

broken & were also common. In some specimens the inner part of  
the wood was converted into a very hard black shining crystalline  
mineral with a foliated structure & striated appearance. Some clefts  
or rifts in others contained small cinnamon colored crystals of a  
transparent mineral. The most beautiful specimens were of a light  
grey color with darker grainings & looked like some silicified  
specimens I have seen from Lough Neagh in Ireland. The trunks lay  
compactly packed together in a bed from one to 3 feet in thickness some  
of them were many feet in length - A recent vein of lava flowing  
intersected the whole one part also passed through the fossil bed when  
the wood was invariably turned into a mineral resembling coal  
which does not burn & is perhaps the *Sordawalite* Thomson p. 380...

I have hitherto seen but two species of insects on the island - one a sp.  
of *Cecylia* not in common among the Umbellif. plants & the other a  
pair of moths of the *Phalena* order near *Hypermaria* both sexes of  
abortive wings, they vary in size from  $\frac{1}{4}$  - 1 inch & are covered with  
short soft hair of a mouse grey color: the latter are scarce - Today  
I had added at least 10 sp. of *Mosquit* & *Lichen* to my collection.

18th Monday: Landed aboard the ship on the S. side of the harbor under  
the cliff close to the beach intending to follow the line of coast until  
reaching Arch Point which is separated from the narrow part of Christmas  
harbor by a shallow bay. The cliffs were very moist & produced many  
mosses, among them an *Azatic* one like *Hedizopia azatica* with  
an abundance of capsules among the lower branches - The space  
between the beach & cliff was very narrow covered with immense  
cushions of the Umbellif. The grassy spots were full of the *Ranunc.*  
*culcus* &c & the flat margins of the rivulets with several grasses  
the *Agnes* & *Cabbage*. Very few seaweeds grew on the shore the  
sea was very calm. Birds were very numerous especially the large pigeon  
& small mouse grey tern. Two large Petrels, a short beak gull  
& the curious white bird mentioned before, which is called the Shear-  
water by the Sailors - In turning into the bay the cliffs became  
very much higher & the sloping beach was covered with huge jagged  
rocks & cliffs & was very steep. Two birds were attracted our  
attention the Shear water & a new species. The former exist here  
in numbers they are so tame that they allow you to come quite  
close to them, there was a case like the Jacksnipe seldom repeated  
but when commoning to fly. Except when much frightened they  
never take the wing, but run with agility among the rocks  
like *P. armiger* - helping themselves by the wind-joints of the wings  
which are provided with two callous or bristles admirably adapted  
for this purpose - In one occasion I thought to fly out down on a





stone & commenced whistling a tune when on turning my head I found  
 I had unwittingly been performing an *Exorcism* - Last for some days -  
 20 of these beautiful birds had gathered about me & were gradually getting  
 the same in their own minds & I was obliged to watch my motions  
 Among them were some Penguins peering over the rocks of a small  
 size with the white eyes and short beaks & several with yellow feathers  
 on each side of the head pointing backwards from the eyes, they were so  
 tame that they allowed me to take them by the beaks - The spaces  
 between the stones were covered with guano - a mixture of guano  
 some belong either to the young birds or the adult male & Penguin or are  
 obtained by their moulting, some may have come from dead birds &  
 others there were many skeletons especially Penguins which are I suspect  
 destroyed by a very large <sup>fungus</sup> of which two specimens preserved some  
 by hooks & claws of great strength - The Penguins too is a very fine  
 bird - The skin of a common one was full of small insects &  
 the white birds are omnivorous eating fish seaweed & kelp - In that  
 we kept on beach used to see about the rocks with the shells & as their  
 guano used to help us to find their holes eating meat & kelp & some  
 kelp & seaweed & I would not wonder if some piece of kelp!! its  
 soon turned grass & then wood - Very beautiful minerals were exposed  
 in the continental part of the coast, which had been large cavities filled  
 with beautiful crystals, also a very fine yellow ochre  
 & common colored mass of crystals which were quite new to me.  
 After proceeding about two miles I was brought up by the large ascending  
 hills formed of black volcanic rocks from whose summits enormous  
 clouds of steam issued, there scarcely left the summit where they were  
 blown into columns of spray by the violent eddies of wind the effect  
 I saw the steam seemed such huge clouds of spray was much  
 shown every drop glimmered like a diamond - In the cavities of the rocks  
 several small & curious lichens grew with some snaffles & gelatinous  
*Tremella* which consisted of small botryoidal greenish yellow patches.

19<sup>th</sup> Monday. To day I ascended the hills that lay to the S. of the Bay & from  
 the top perceived an inlet which it had been reported separated the  
 part of K. G. land we were on from the mainland - I immediately started  
 over towards it & descending its precipitous sides walked along till  
 I found myself shut into the head of a narrow harbor much  
 deeper & as narrow as a musk harbor. The mountains rose very steep  
 & precipitous from the water's edge to the height of perhaps 1500 feet



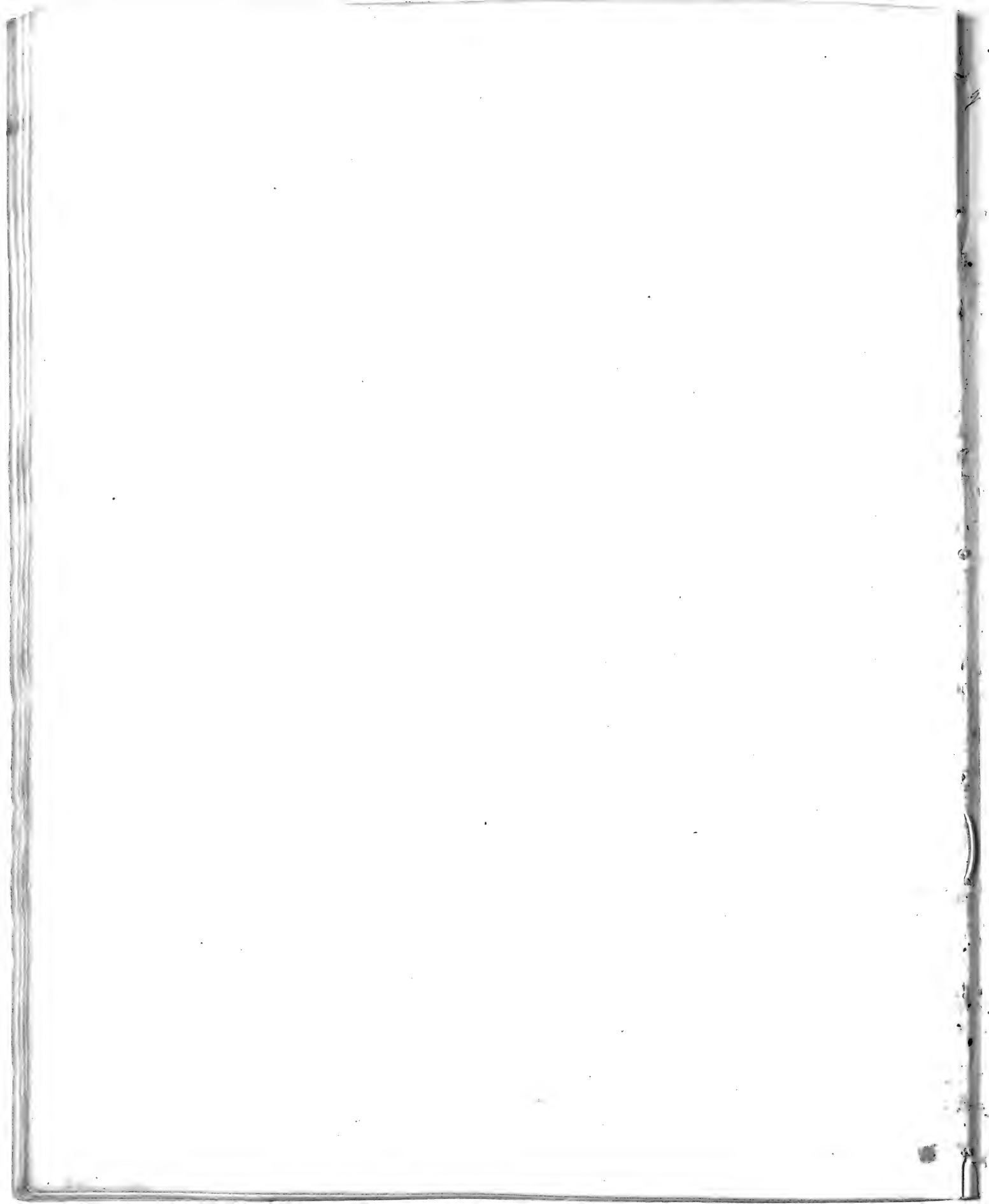
with long narrow ledges of porphyry formed of black trap rocks which produced great quantities of the chrysolitized minerals so common near the ships. From the steepness of the cliffs around the bay I found the vegetation very much retarded & gathered several plants in flower which I had not seen in that state before. no new plants however were seen. Birds were very numerous & consisted of Skuas a fine bird with white breast blue back & a yellow breast the soot of the bill, a beautiful black backed gull which brought limpet shells in great quantities to several apparently favorite spots near a stream at the height of 300 ft above the sea. <sup>with</sup>

The little tern & swidgeon, the large petrel & a dusky colored one with a white bar on the wing were also very common. The spot was wild & desolate in the extreme the mountain sides which shut out my view on every side were half covered with snow the cataraacts were frozen & not a ripple agitated the waters of the bay which reflected the black cliffs like a mirror. Nothing but the scream of a gull broke the silence & it added gloom to the scene.

From the head of the harbor I must return as I came or ascend immediately showing this course I found there were 3 ridges of hills intervening between me & Anas harbor. They were all covered with snow & formed of parallel ridges of trap rocks those near the tops of all the hills I have seen & those only at that elevation are distinctly columnar. The columns are formed of blue trap rock are 6 angled pretty regular some very much so & do not produce so many minerals as the coarser grained rocks below. Overhanging masses of this columnar rock sometimes left caves beneath it where drops thus appeared perforated with hexagons of from 2-3 ft in circumference - Snopes generally frequented these spots but were barren. On the summit of the hills many snow cryptogamic plants were seen especially fine tufts of a Scirpus and a beautiful Androsace which formed rich brown pubescent masses - Except a small Urtica & Thalictrum ? no animal life is found anywhere but near the sea coast; the birds seldom ascend the hills.

Sea bears are not uncommon at the head of Christmas harbor & Foul haven, they are so tame that they are easily approached & separated by a blow on the nose with a club or boat's stretcher. On being attacked they open their mouths & make a clearing spring at the assailant which is easily avoided perhaps no animal of its size is so helpless, their average size is 4-10 feet, they produce excellent oil for burning to small seals taken in foul haven yielded gallons. The fur is fine short & soft of a uniform brown color with a shade of yellow. I have never seen the fur seal or Elephant seal here though they were once very abundant.







The northern shore of Christmas harbor is overlooked by a curious hill with a conical summit which forms Cape Francis. The lower terraces of which it is composed consist of a hard stratified Basalt, the upper of the same rock but presenting a columnar structure, the cone is also formed of hexagonal pillars but they are broken up into angular fragments or in some places bent & so tilted up that, ~~that~~ the bases of the prisms are exposed forming small topolates walls, the summit presents the appearance of a crater bounded by an uneven ridge of loose stones with a small shallow pool in the centre, the diameter of the summit is about 100 ft from E. to W. & 50 from N. to S. The flanks of the cone are so covered with debris that I could trace no lava currents nor did I see any fragments of a different rock around the crater than those which are found at the lowest columnar ridge. There is one peculiarity in the columns forming the cone, viz that they contain large nodules of --- it is a beautiful mineral of great specific gravity. The same plants Leukens &c are found on their heights as on similar ridges to the S. In the N.W. a stupendous precipice forms the side of this hill, it is marked by parallel lines indicating the successive streams of lava the upper of these are as on the S. side of the hill columnar, here & there red streaks cross the cliffs.

20<sup>th</sup> Visited the cliffs to the S. of the harbor towards Arch pt. in search of minerals, with Mr Smith. The lavas here are full of druse cavities containing many aluminous minerals some of great beauty. In the soft ground under the overhanging cliffs a reddish white substance is found filling up the interstices of the debris & covered like an underground fungus by a layer of soft earth. The roofs of these shallow caves are covered also with a white snow taccan which often forms small stalactites or botryoidal masses. The cliffs themselves contain strata of Calcite (m), Quartz (n) a hard red substance (o), though rarely large masses of a dark colored rock with an indigo blue cast & conchoidal fracture (p). Near the point where intercourses between Arch pt & the head of James harbor Mr Smith found a mass of rock in whose druse cavities are beautiful silky light spicula like that seen on the sides of our Asclepias but infinitely more delicate. Round the point he found large beds of coal close under the cliff (m) lying under a clay shale, the average thickness of the bed is 2 ft. The coal is of a fine clear kind & does not soil the hand its fracture is conchoidal & its color perfectly black, burns brilliant green fine, burns with a clear gasous flame when thrown into a clear fire.

The vessels: myself having, on a late excursion killed 3 sea bears  
 Captain Ross dispatched a cutter for their carcasses which lay at the head  
 of Foul Bay. We started at 10 AM & ran down Christmas harbor  
 with a fine breeze then rounding each point we stretched up to  
 the head of the haven. The birds especially a large gull L. cutensis  
 were & had already commenced the work of destruction picking out  
 the eyes & entrails. Mr Dargman had accompanied us to assist  
 & survey the harbor but a violent snow storm having come on we  
 were glad to make off with our party. About 1/2 way down the bay  
 we discovered 3 more sea bears which we immediately attacked &  
 added to our previous stock, all were males. Thus loaded with 6  
 seals & 10 men we pulled along until we could take advantage  
 of a slant of wind, which was blowing so strong that a sudden  
 squall coming over the cliffs near each point carried away our  
 mast & sail having taken it in we pulled on with boars.

The sea broke so violently at the 6 point that we had to keep out  
 from the wind now being dead out of James harbor we had some  
 difficulty in making a slant across the harbors mouth which  
 brought us under the lee of the rocks on the Cape Horn side where  
 we pulled up to the "Icebergs" thoroughly abated, cold, wet & gloomy

from the bad weather & the short trips of the days my other excursions  
 in the neighborhood were generally limited, consisting of short walks  
 about the hills or in boating about the mouth of the harbor. In one of  
 the latter I visited Arch Pt. & walked up the harbor from it to a curious  
 cavern by the sea shore running in about 50 yds. under the cliff near  
 it was a bed of soft coal covered with a good deal of shale; its average  
 height (of the cavern) was about 10 ft. The bottom made of a deep layer  
 of decomposed whitish rock. Some earth & birds some of which it  
 emitted a most nauseous smell a section of the sand showed layers  
 imperfect of Penguin's bones & innumerable particles of broken eggs.

The day Mr Mc Cormick returned from a surveying excursion to  
 White Bay & Cumberland and harbor he brought us new animals or  
 birds, quantities of coal & spirit wood & numerous specimens of Lichens  
 & very large crystals & many geological specimens of plants not  
 found in the neighborhood of Christmas harbor I saw Asplenium  
 (n) a new grass (n) & a magnificent Aspidium (n)

Mr Robertson returned from a similar excursion on the same day &  
 in addition to the above gave me a little Catarrhus (n) which  
 with what I have gathered here makes 10 the number of flowering  
 plants hitherto discovered on the Island. Of these 16 are abundant  
 near the ships all gathered in the winter season. The high tides  
 weather have detained me from landing sometimes for several days -  
 continuation during which no boats could gain the shore. Snow seldom  
 lasts very long & engulfs very few of the plants. The Thermometer never  
 fell below 27 F. when the frost did not affect vegetation.



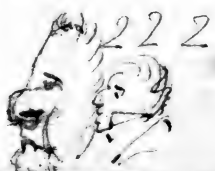
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- Sept. 1. Branic Bay
- 2. Branic Bay
- Sept. 3. Bridging
- 7. Bridging
- 8. - duties
- 9. shipping wood

*Dear Mr. ...*  
*August 22*  
*Dear Mr. ...*

22.22

*Call*

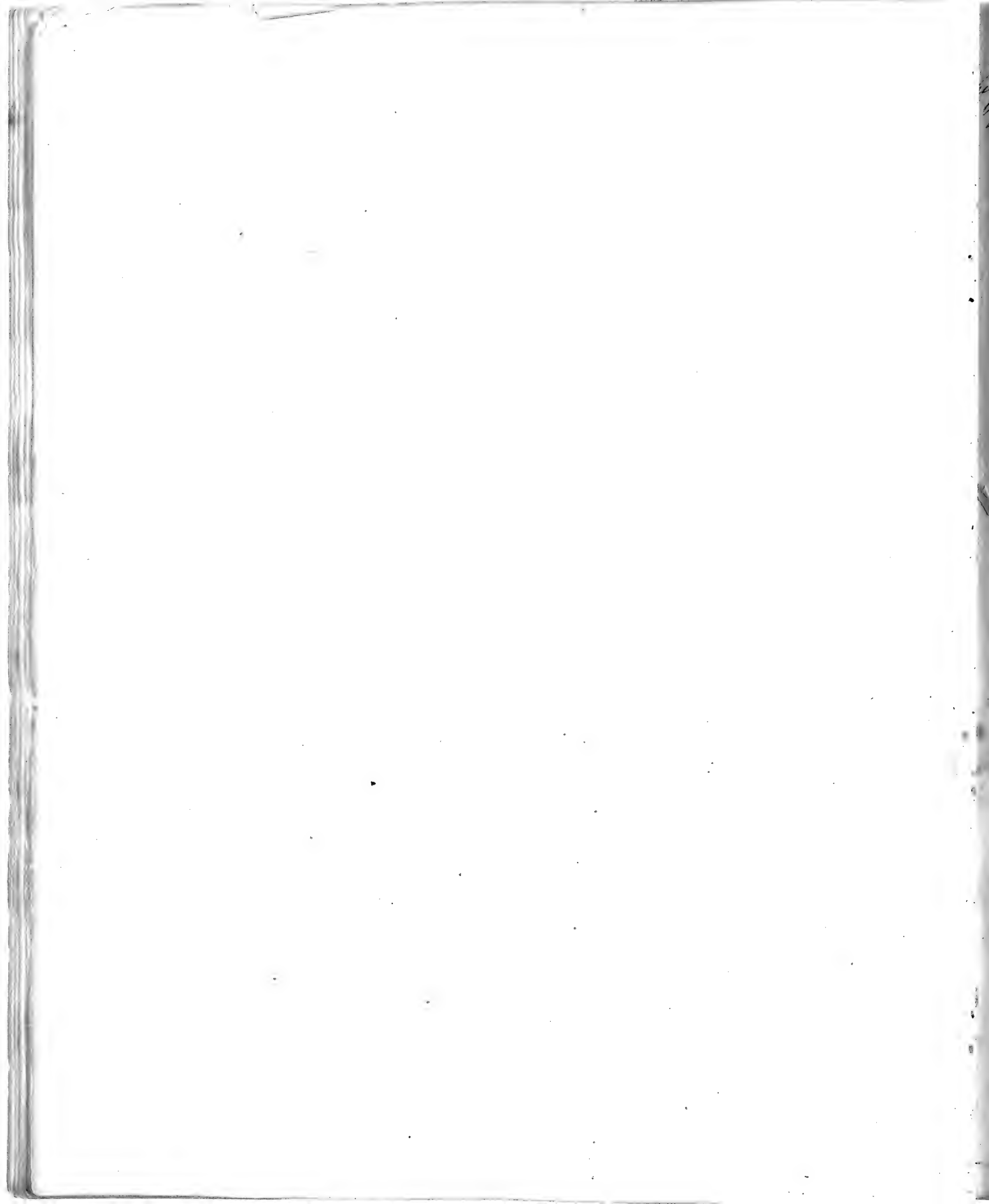


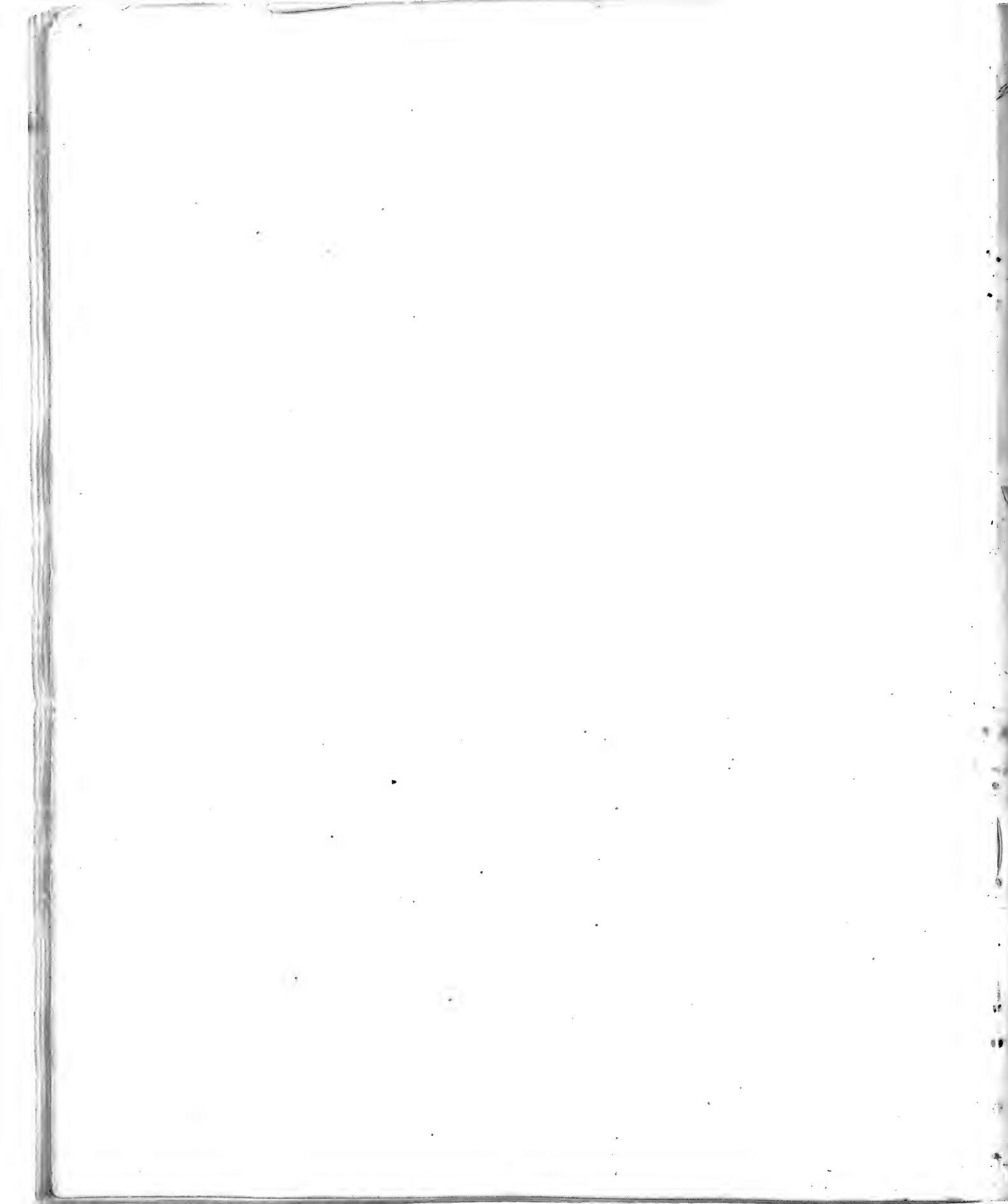
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the excursion killed 3 sea bears  
 carcasses which lay at the head  
 I ran down Christmas harbor  
 again. Here we stretched up to  
 finally a large gull. A catwalk  
 with 4 destruction picking out  
 and accompanied us to sound  
 snow storm having come on we  
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 I was immediately attracted by  
 seals. Thus loaded with 6  
 until we could take advantage  
 being so strong that a sudden  
 bank point carried away over  
 we pulled on with bears -  
 about that we had to keep out  
 of 2 more harbor we had some  
 across the harbor mouth which  
 on the Cape Francois side where  
 quite abundant, cold, wet & relieved  
 much of the days my other expeditions  
 by winter, consisting of short walks  
 the mouth of the harbor. In one of  
 up the harbor from it to a curious  
 about 50 yds under the cliff near  
 a good deal of shale etc.



Port to the  
 Monday returned walked about  
 Friday from the point to sea coast  
 Saturday from sea coast to sea coast  
 to ships  
 Sunday  
 Monday  
 Tuesday  
 Wednesday returned to the point  
 Thursday  
 Friday  
 Saturday  
 Sunday





except the limited extent of country over which I had the opportunity of collecting & the moderate size of the hills afford but little variety in the distribution of plants. Of the Phlegmaria genus none are found at any elevation which do not exist some very abundantly in the lower grounds. The summit of the highest hills near Christmas harbor do not exceed 1500 ft. The Cabbage (n) is the most universally distributed plant growing at the summits of the highest hills & on the most exposed places it is generally there stunted & more hairy than usual bringing its seeds however to the most perfect maturity. The little Hoa (n) possesses a height of 1100 to 1200 ft growing in the clefts of the rocks. Below this elevation all are confined & appear in the following series from 500 - 1000

- 1- 1500 the Cabbage (n)
- ~~1- 1200 Hoa (n)~~
- 1- 900 Potentilla (n)
- 1- 700 Solax (n)
- 1- 500 Ranunculus (n)
- 1- 400 Haloragex (n)
- 1- 400 Lemna (n)
- 1- 200 Graminea (n)
- 1- 200 Peccana.
- 1- 50 Lenticularia (n)
- 1- 200 Graminea (n)

All these which form a series commencing from high water mark are often found exposed to the spray of the sea which does not seem to affect them the Cabbage & Graminea & Lenticularia are especially luxuriant just above high water mark.

The following are only found at particular elevations

- 300 - 1200 Poa (n)
- 300 - 700 Agrostis (n)
- 300 - 700 Caryophyllea (n)
- 300 - 500 Ranunculaceae (n)
- 300 Scrophulariaceae? (n)
- 300 Juncus (n)

Of these the two last are found in one spot only

I have found only one truly aquatic plant which like the Lenticularia matures its fruit some inches beneath the surface of the water it is the (n) & grows only in the small lake near the N.W. Bay in a muddy bottom each unripe ovarium contains a bubble of air generated by itself. The Juncus grows on the margin of this lake only as far as I have seen but it is so obscure a plant that it may probably be overlooked elsewhere. The Caryophyllea (n) & Poa are the only two except the Ranunculaceae which are never found in wet places but invariably grow on the gravelly debris of the volcanic rocks the others all prefer a rich wet vegetable soil often inundated such as the alpine Juncus of the North Pole.



The *Asplenium* brought from the South by our Mr. Cornish grows  
in places with the fine *Lycopodium* (n) The smaller *Lycopodium*  
(n) brought by our Robertson & the former grows in shady spots & moist.  
The other *Cryptogamia* are distributed like those of the alpine peaks  
of Europe the finer tufted *Dicranoid* mosses affecting the high tops  
the larger *Hypnum* & *Funaria* mosses the low grounds as in Britain  
the larger *Funaria* grows high up at about 1600 ft. of elevation the  
smaller like *Sc. rupestris* grows on the rocks low down. Of *Agrostis*  
mosses the *Fontinalis* (n) grows in the waters of the lake the  
(n) grows by the side of waterfalls the *primula*? (n)  
is found on rocks only near the sea. The generality of the lichens are  
confined to the rocks which they cover with a beautiful coating of  
bright colors - a *Peltidea* (n) is common among the rocks the  
fine *Leucoglyphis* (n) is found from an elevation of 600 ft. to the summits  
of the mountains invariably growing upon the upper surfaces of  
the rocks the *Stromphelium* being the only mammillate it can  
obtain in such situations. Several *Conferve* are found in the streams  
& in the still waters of the lake where a *Chara* is abundant which does  
not exhale so strong a smell as many of that genus do. The damp  
sunder faces of the cliffs produce several *Tremella* - The only fungus  
not infrequently on the black wet earth near the sea to 200 ft. of  
elevation. Sea weeds cover the bottom of the bay & the rocks near  
*Massula pycnantha* (*Fucus giganteus* Banks) & the *Laminaria*  
*radiata*? The former of these forms a band about 20 - 30 yds broad  
or less round the margins of all the bays in the deep water. a few yds  
from the shore it grows so densely there that a boat can hardly  
pull through it in some places forming a perfect submarine  
forest for fish & crustacea. It also sometimes grows in the deep  
water in the centre of the bay attaining an immense length.  
A small white *Scirpus* generally inhabits its ponds & its roots  
which sometimes form a branching tuft a yard in diameter are full  
of *Amphidetes* & *Crustacea*. The *Laminaria* grows on rocks immediately  
below high water. The root consists of a smooth yellow semiorbicular  
mass 3-6 inches in diameter giving off one or more slightly compressed  
stems 1-3 ft long which expand into a lengthened & bracteate lamina  
of a brown olive green color which is divided into numerous laminae  
of a thick leathery coriaceous slimy substance it grows on rocks  
most exposed to the violence of the tempest & I think I may







safely affirm that no other species in the vegetable Kingdom has so secure a rooting as this sea weed has on the bare rocks. I have often seen after the ebb's overhanging the sea at the N.W. Bay during a gale of wind & watched the surf break with terrific violence on the rocks which are often themselves detached & alternately swept back & forward by the swell & reflux with a sea, even swar, side the coraceous ponds & this weed are with impunity washed back & forth & forwards their firm attachment defying the power of the sea & the strong parting partly from their elasticity & flexibility & partly from their coraceous consistence escaping without a rent & going in safety for many successive years - the most exposed places. The only use in nature I can ascribe to them is the shelter they afford to a species of *Peridilla* from the attacks of the gulls which never abound during low water & secure as their grey and imbricate shells find which is exposed the weight of the ponds of the *Laminaria* hangs down over the dry rocks forms an unsurmountable obstacle to the birds.

From the scanty nature of the vegetation of the Island combined with a supposed equal temperate throughout the year, there cannot be much difference in the comparative produce of the Islands at different seasons nor are the flowers of any of the plants found so conspicuous such as those of the plants of our highest coasts, much less can they vie with the Saxifrage, Poppy, Tuberoses & other short lived beauties of the British regions. Much of this is doubtless to be accounted for from the sterility of their soil & perhaps more from the barren nature of the soil & perhaps the almost total destruction of vegetation at successive periods by the violent volcanic action to which the Island has been subjected. Situated far from any land that could radiate to it through the dreary winter part of the year that large continents absorb during summer, equally far removed from the chance of hyperborean migrating birds that could transport seeds, unable to profit by currents which run N.E. to the Eastward towards the Australian coast & which could they bring seeds would cause their death by long immersion & the low temperature of the water, the insulated spot I now look upon cannot be expected to produce much. Further the most recent current is the Indian Sea one which sweeps to the W. round the Cape of Good Hope & the N.W. wind is a trade confined to about this latitude. In spite of all these opposing causes it may be argued that the Island was once covered with wood this the numerous beds of coal & fossil trunks since so stably preserved how these came here & when it is not my department to solve but as there can be no doubt that it was many ages ago it is not unlikely that it

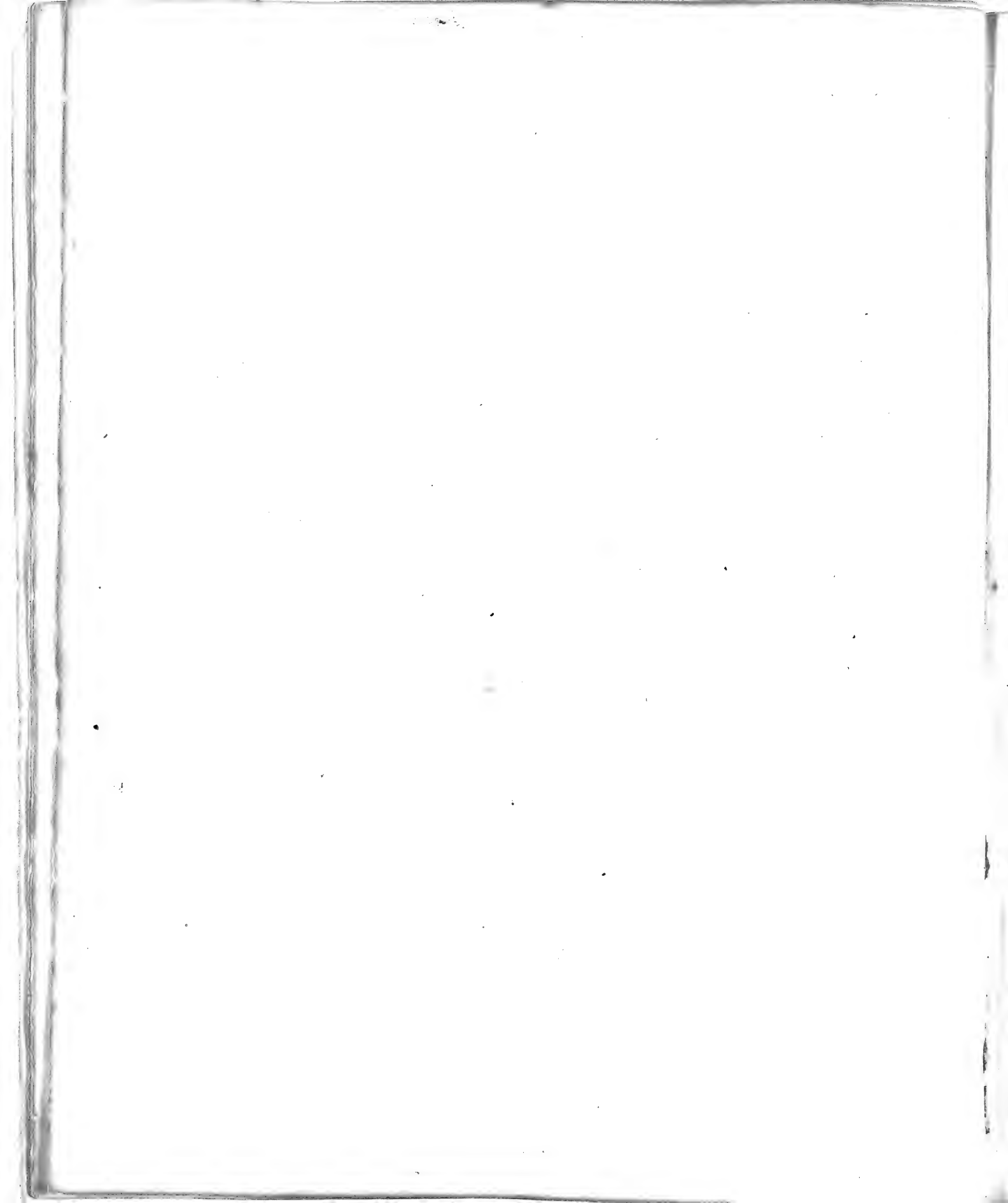
took place when the Island may have enjoyed a very different geographical position with regard to neighbouring lands than it now does. I am aware that the Island of St. Pauls in N. Lat. & E. Long has perhaps within a few years undergone a change similar though on a more limited scale ~~to~~ that which killed the vegetation here, for Lehillarsien in his account of Dantons cautious voyage states that in passing to the N. of it he found it in an active state covered with smoke which being carried off to the ships emitted a strong odor of burning wood; that this Island was (perhaps) covered with wood is very likely being as it does within the influence of the great westerly current which has covered the Cooks Islands with vegetation. until however the nature of the plant of that island is better known it is useless to conjecture.

Perhaps no land could be more favorably situated than Dentonian Island for <sup>or substituting</sup> transplanting ~~or substituting~~ ideas of vegetation proceeding from one spot. Most Islands are known possess a vegetation possessing the character of the nearest continent certain grasses, but the vegetation here is quite peculiar to itself but very much what is to be expected in a land circumstanced as it is. The lowest orders are the most abundant and their forms are Arctic or alpine. The more imperfect Endogens only are found & a few herbaceous Exogens the most of which are analogs may be found in Arctic vegetation as I shall attempt to show. The remarkable fact is that there should be such an analogy between two such separate parts of the world when it is considered that the vegetation of one is bounded & of the other peculiar & limited to two degrees of latitude & one of longitude.

Temperature another source of abundant vegetable productions, here if it has modified or rather diminished the number of species it has within a limited area than in they have accumulated themselves to its variations & this without any adventitious shelter of shrubs warm valleys or a soil that would be likely to radiate much heat during the winter months. - Cook visited this May in December, the height of summer when only 10 plants were collected including Cryptogams of course the most abundant. 5 plants he mentions all in flower. Of these 5 plants I have gathered 3 in flower abundant as the other two, viz the cabbage & Helorapee ?? (the latter grows here) just pasted flower of these 5 - two remained in flower till July 20th & all but the cabbage remained in full seed, further I collected nearly 10 Phamganian plants of which 16 had either flower or fruit in the accompanying order. One Helorapee ?? (or ) was in a luxuriant state but with no traces of fl. or fruit the other 2 grasses were brought to me from the D. the glumes only remaining on the spike.

Of the 10 sp. the following accompanying list will show a good





few of them had performed the functions for which they were intended before the winter set in. Of the rest our residence of 2 1/2 months proved that they were not only evergreen but were capable of discharging their seeds in the most vigorous weather for we had frequent falls of snow of several days duration & at other times the ground was covered with sheets of ice from frozen rain sticks after a few hours sunshine nature would appear green again, there being only one plant that suffered from being under the snow for 3 days & that was the herb *Stellaria* (n) whose leaves were frost bitten & turned brown while the young fruit was completely destroyed this was however probably its second season of flowering as among the roots numerous ripe brown capsules are very common. In July I found seedling plants of the Cabbage growing in several places they had probably planted themselves a few months before when a most remarkable little water plant at the bottom of the fresh water lake is full flowered & young fruit growing under 2 feet of water covered with 2 inches of ice this I suspect is its only flowering season.

Thus a simple inspection of the Botany of this Island shows goes far to prove how uniform the temperature of low land is surrounded by sea is the state of the herbage at present showing the mildness of the winter & the want of animals proving that there is no general month to call forth vegetation with the sudden energy which they require. Though the abundance of poplar wood proves that the Island was once thickly clothed with vegetation it must not be too hastily concluded that the presence even of a gigantic vegetation was necessarily accompanied with an equal luxuriance in the more lowly herbage the wood is *Antarctic America* though composed of immense forests contain a meagre flora & the same may be said of other Islands situated in more favored latitudes.

Even in this remote corner of the Globe & scanty though the vegetation be, it has been planted for man that more than an ordinary interest for the utility of trees & its products. The destruction of its former forests has produced abundant stores of good coal. Cook mentions the remarkable Cabbage which to a crew long on salt meat is an invaluable anti-scorbutic & to many a most agreeable dish unlike other pot herbs its properties after boiling so much of its essential oil as entirely to neutralize or destroy any symptoms of heart burn or flatulency nothing can be more wholesome than it is. The root eats like horse radish & the young hearts like coarse mustard & cress, the seeds are the food of the innumerable insects on the Island. Growing as it does near the sea on a spot upward of 1000 miles from any land where fresh vegetables can be obtained it seems expressly planted by nature's hand for the poor mariner who suffering under his own peculiar malady.

Two grapes each & from most excellent milk & nutritious  
food for Cattle as we proved by some sheep being let loose on  
the Island who soon ran wild & though they were landed hungry  
& lean they were fattened & thrived - goats, pigs, rabbits, sheep &  
perhaps small cattle would all thrive well on the Island & would  
be no ordinary boon to the Whalers. The little Musciculus is the  
only bird I have found near the Harbor as I suppose it  
must have been this that Cook's party ate for creep it appeared  
to me any thing but wholesome. Among the seaweeds many are  
doubtless eatable, on one occasion I found our Gunner seated on  
a rock with his feet in the sea paying down what he called dulse.  
it certainly was eatable raw, I need not add my friend was a  
Scottishman. The Lichens are all most too tough to afford any  
hopes of supplying the Island with food. Some of the Mosses might  
be used by the Laplanders as they do their own as swaddling clothes  
for their babies.





*Aptenodytes demissa*



Sea bears the *Otaria ursina* is the only animal that ever is seen on shore, the young dogs are constantly coming up on the beach & barking in the same way few females were seen. Sperma ceti whales are very common & often come into the Bay when after glaucousing & playing about for some time they dive into deep water throw their tails up in the air & disappear. Two seals were sent to the Naturalists Library were some very abundant here but during our stay we have seen none on any sea elephants.

I think there are a good many species, all but one sea birds during our stay were species were collected most of them were very common. *Macropod* *vaginalis*? the sheath hole I would say this is the same as the New Holland bird, the forehead is not bare the sheath is not loose the hole over is the hole so broad & large as that of the figure in Rees's Encyclopaedia. It is all over of a pure white the young birds with pink legs the wings, eyes black with a red serrated eyelid beak black.

In the second line of the wing there is a small mark in the situation of a white among the large black ones along the shore and along the shore the inclination to the wings when the bird jumps against the rock. It is very tame, seldom flies, when it does it invariably utters a double shrill croak as it rises on the wing, when hard pressed it takes to the water but this was seldom seen slowly. They are so tame that you may approach within a yard of them when they move quietly over the wing. Curiosity is a free dominion and feature with them if you sit down they will gather round & examine you very minutely. Jumping perch on your feet & looking their heads on one side in the most interesting manner. In their tameness they formed a constant prey to our sealions & sports men. With a gun they are hard to kill flying about with a change of shot quite run on comely. Their food is any thing they can get especially dead Carrion. So find they are tolerable eating rather than they have a rank flavor & small when newly killed & again so when before looking when they eat well is just another advantage. When kept on bread if given the scraps of the deck they get very tame eating & drinking laterally every thing when put in cages they spend all their strength & energies in incessant attempts to escape & if 2 or more are together they fight like game cocks like our sealions I am sure they would get very dirty on board. I suspect they build among the rocks.

2. *Apennicola dimissa* the common Jack As penguin is one of the most common birds here they come up in flocks out of the sea & spendable near the shore doing nothing but standing upright & looking at one another. To catch them you must see between them

of the wing. Curiosity is a free dominion and feature with them if you sit down they will gather round & examine you very minutely. Jumping perch on your feet & looking their heads on one side in the most interesting manner. In their tameness they formed a constant prey to our sealions & sports men. With a gun they are hard to kill flying about with a change of shot quite run on comely. Their food is any thing they can get especially dead Carrion. So find they are tolerable eating rather than they have a rank flavor & small when newly killed & again so when before looking when they eat well is just another advantage. When kept on bread if given the scraps of the deck they get very tame eating & drinking laterally every thing when put in cages they spend all their strength & energies in incessant attempts to escape & if 2 or more are together they fight like game cocks like our sealions I am sure they would get very dirty on board. I suspect they build among the rocks.

Perquemens Land (Continued)

& the sea & then out of their retreat then they will fly dispart a  
page of persons you will see & fishes which immediately are  
brought when a shark chase even bring you up with them & after  
a good deal of evasions & struggles they are soon made prisoners  
if they do gain the sea they immediately slide under the first boat  
& disappear at some little distance they are very strong & easily tamed  
At first we had about a dozen or so and running wild over the rocks  
following a leader they cannot climb over any obstacle 2 or 3 inches  
high so we thought them safe until one day the leader finding  
the house was empty swam directly under his side & was followed  
by the rest each giving a valid slow croak as he made his escape  
Their flesh is black & very rich & was much relished at first for their  
own carries & after a day or two we found it too rich with a disa-  
agreeable flavor whence partly from prejudice & believe they were stuffed  
except in the shape of soup which is certainly the richest I ever ate  
much more so than whale soup which it much resembles. The  
Penguins are very full of blood hence a few small shot kill them  
though they will take any number of strokes on the head or elsewhere  
with impunity. one or two found were full of impregnated ovaria.

3. Diomedes exilis Chapliniana. the handsome King Penguin is quite  
uncommon singly or in pairs amongst the common ones. they are  
a much more quiet bird sometimes creating 22 lbs weight  
I have seen so few that I have no remarks to make on their nature  
than that they take 1/2 lb of food to kill by pressure on the breast  
holding the nostrils & that they are the worst bird of preys to  
kill.

4. Diomedes exilis chrysolophus. is the smallest & rarest of the Penguins  
it has three or four golden feathers hanging down behind the  
eye. I have seen it occasionally but among the rocks in the S. E.  
The legs & feet sufficiently rare. it has a brilliant red eye & is  
no tame that one. caught allowed me to take it by the neck  
without the smallest objections the other Penguins jump the rocks  
banks to the rocks which they are inhabitants I only found them on  
our first arrival in July not one was to be seen. though their  
bones were common enough whence I supposed that they had taken  
a victim to a large gull that prey on all it can kill.

5. Larus catarrhactes? an immense black colored gull with a dusky  
beak & eye claws to the tip of his webbed feet is not so common  
it soars about the tops of the cliffs where on edge is most in view  
when wounded I believe when a true bird of prey it kills the  
weaker inhabitants of the Bay. it also eats carrion.

5. Larus This is the only other gull found here & is a very beautiful one the young ones are mottled the old ones have long black backs & wings. The margins of the latter with the breast all are a hon white, it is gregarious flying in flocks & a number of times upon the rocks, it screams like our black backed gulls and in any cove it can find takes upon limpets which it picks from the rocks & carries to some height upon the hills where it eats them up to leisure I have often disturbed them in their banqueting one at a height of 200 or 300 feet above the sea where they leave what would be beds of fossil shells.

6. Sterna a small grey tern is one of the most abundant birds at the head of the bay: when it flies over the water every now & then dipping down for its prey. In the night or morning they assemble among stones on the beach by dozens when any number may be shot for the pot, they are very delicate eating but have rather a bitter taste. The young are mottled the old ones slate grey.

7. Sula A large shag or Cormorant is extremely common the mature bird has a white breast & belly with a very tint under the breast the back is of a rich blue black mixing with that of the crown the bill is long with a big ho yellow cere. They sit very tamely on the rocks or up in clow above a boat that they may be shot with a pistol or allowed to be caught on the jet-boom. Their food is fish. The young have grey breasts. They make splendid game and are themselves good eating.

8. Dionaea During the time we wintered in Christmas harbor no large albatrosses were seen nor were they observed for some days when approaching the land. The nest of the D. exulans? I found among the rocks above Cape Francisco & is the only nest I ever saw on the island it consists of a raised cylindrical pile of earth constructed above & below swelling out in the centre with a depression at the top. They were situated, insulated together as many as 50 or 60 of them & were built on the grassy ledges above the sea.

a 70 or 80 ft above the sea. A good deal of straw & stubble were mixed with them or rather plastered up with the clay to give it consistency. Their height was about 1 1/2 ft. & their nests much the same. For a distance they looked like so many chestnut chasses.

9. Dionaea fuliginosa. This is a dark dusky black bird about the size of a quail with a long jet black bill black eyes & a white membrane over them. I found a nest of them with three in it on the sea after some climbing I reached them when by shutting their membrane over their black eyes they appeared to be sleeping in the nest.

in various manner when it was clabbed the quantity all at once. They are tame insipid creatures rarely making any show of resistance. I have never seen the bird flying about the harbor.

10. Procellaria Capensis the common Cape pigeon which has been our constant com. since some years the Cape is abundant on the harbor flying about every where it builds in crannies & ledges of cliffs about 50-100 feet above the level of the sea. It is not a tall & tall bird its note is a short hoarse croak. I found two one near but quite mature.

11. Procellaria <sup>gigantea</sup> barbata? a very large bird for the Southern Cape more of a dusky brown color it is very common I have feeding on Cairns till it cannot walk when approached in this state it has to vomit its prey before it can walk to repeat the operation before mounting & a third time to disgorge previous to making well of the mark this disgusting bird! Ever seen?

12. Procellaria barbata? a smaller petrel about the size of a gull. It is mostly brown color with a white bar across the wings, it is not so common but I know nothing of its habits &c.

13. Procellaria A very pretty little bird with white breast & belly spotted across the neck. Blue black back & head black bill & legs, sky blue legs about the size of a thrush more short & thick set than other petrel I have seen. It flies in small flocks about the mouths of the harbors the wings being small & curved it makes very rapid motions with them which surprises me as it remains long in the air some yards of a mile from land the sailors call it the Rosebay Petrel. They often fly on board steering sight. This was the case in coming from the Cape to some far out at sea. They do the same in harbor & are often picked up alive or dead in the morning. At night they burrow in the ground in large holes they under the broad banks in walking about night they may be constantly heard uttering a chirruping croak under your feet. The young seem darker bellies & breasts than the old.

14. Procellaria of this bird only one was seen found & that was deep out from the holes which the former inhabits, it is much of the same form as the former but rather longer of a uniform slate color with a black bar across the tail. Legs black. Perhaps the black bird

15. Procellaria one of the most extraordinary birds seen it is nocturnal is about the size of a Cape Pigeon or rather larger. It is wholly black all over. The wings are of the form of those of the large Albatross I think it should be strong on the wing. The head is very broad between the eyes flattened above with a projecting forehead over the bill. At night they may be seen flying about the water or right down over the harbor for what food I cannot guess. They build on the



same holes as the two previous birds but always choose a bank with water at the foot of land which they climb to gain entrance, after slipping away the earth for two or three feet & laying open their hiding places, they are found to consist of a circular vault with a ditch round it which carries the water off & shows the passage which is always an inclined plane; they then keep themselves dry in the damp sand they build in. I was generally found together. An egg was found in one nearly as large as a Hen's egg but broader & proportionally above and sharper at the other. These birds are exceedingly numerous & as soon as night falls they keep up an unintermittent groaning peculiar noise, like a human being in great distress. I have often heard them above me when I was out when returning from my excursions at night & they have sounded so much & so much, I may say that I have been glad to hasten on to avoid them.

14. A small duck very common on the ridges every where about the size & color of our wild geese it afforded excellent food for our geese & was taken as many as 4 or 5 brace being often brought in by our sportsmen. To the south they are so common that Dr. Robertson shot after me rising within 20 yds or less. It is the only species around which follows the marks of their feet in common in the snow. They are especially tame about the Cabbage only they resemble like a Teal go in couples or large flocks of from 2 to 10 brace. They very seldom take the water: are winter residents here.

The other birds but 2 are never found for any distance out of the harbor. The Cape pigeon is our constant companion & so has been the black bird? or is it the black bird we have seen but not seen to catch at sea. The other sea birds viz the Albatross, the grey petrel & the small black one have not been seen. The Shear is seen within 50 miles generally above land & the Penguins put their heads above water a few miles at sea & instantly swim like loons or divers.

Of Fish very few, only 3 species have been seen & they are very & tremendous ones 2 or 3 large & smart fisherman eating the other small & picked up on the shore. The Turner catches fish constantly for his dog in various the rocks we catch very few. One of the fish has a curious head shape than all its body together with an enormous mouth & six teeth we call it Turner's & Robertson's birds from its likeness to one of British shepherds character of Pearson's popular piece.

Bergue's Land. Nat. Hist.

Crustacea are not numerous in the Bay but species though some are very curious 3 Pycnosoma are found one very large & a small white one on seaweed. A small Leucosoma is very common & a basket comb like Peripatus was in a few days brought up full of these animals & Peripatus larvae. A new species of Stenosoma covered with spines is rare. The Securidinae Marcellana is very common creeping about the bottom or seaweed.

Shells of these I have only seen 8 kinds the large Patella are common on the rocks & good to eat. A smaller one very delicate & flat about 3/4 inch deep lives in deep water & was brought up with the chain cable. A very small oblique animal on white seaweed that sticks to the rocks near our landing place & is very common all these limpets have rich orange insides. Two kinds of muscle are seen one like the common one but rather larger, the other one much larger with the shell gered. A small Canary Island Merisaxis is very rare it comes up with the seaweed.

Land shells there is only one kind a very small Chely that lives under the stones. A small Urosalpinx is common in the Maragati & red blooded worms there are some fine Aphrodite 2 or 3 species & several Pericelis. A fine Holothuria ( ) the same as for the islets is very abundant & sticks to stones & to lateral rocks.

Of Sponges there are 3 or perhaps 2 kinds, one cylindrical & hollow of the same consistence as Turkey sponge it forms usual balls on seaweeds; another forms long yellow projections from the roots of seaweeds. A beautiful Bi-cellaria is very common & another Corallium belonging to the genus.





At Sea

July 20<sup>th</sup> Fair day. At 9 AM we were under weigh & were fast running out of harbor, though no breeze a gale I was rather both to have one that had afforded me so many days amusement & instruction. I took with me one of wood cases containing all the flowering plants I had found on the island, it is put under the stern window & the Captains cabin some cabbage seed are soon among them.

Last night we lost the "Tiger" to our no small satisfaction as though her bad sailing she has delayed us considerably. This afternoon the favorable gale which has carried us on unerringly at the rate of nearly 1000 miles a week, fast over sea & by the rapid fall of the Barometer it was evident that a violent gale was bearing the Barometer fell to its lowest at 5 when the gale increased to nearly a hurricane. The Captain kept the ship before it under a close reefed fore top sail & fore stay sail at 12 just as the sky broke & the Bar. immediately rose. I continued seeing all night.

July 30<sup>th</sup> At 3 P.M. as we were pursuing pleasantly on to our destination we were suddenly apprized that a man had fallen overboard. The ship was immediately heeled to the life buoy to go & was to throw over board. A boat was lowered with all possible expedition but was too late in reaching him as it had been secured for the first boat we had experienced. Another boat was despatched soon after which picked up the life buoy; his name that of another man which had been known at the time were also found, but no traces of our now deceased shipmate. In enquiring who it was it turned out to be Mr Roberts our Waterman who was leaning over the railing at the waist when the main topmast stay sail sheet lifted & he fell overboard. He long struggled manfully for life but with the water & at last he could not be remembered. One of the boats was so anxious in the sea & two men washed out of her who luckily grasped the painter which is the means of saving the boat had been allowed to tow overboard, the 2nd boat towed them alongside & we proceeded on our voyage though a general gloom was diffused through the Ships Company; credit to their credit a subscription was immediately raised for the widow before any suggestion was made to that effect by the Officers.

Several Cape pigeons & the Aquintins Albatross have been our constant companions & it was a peculiar & happy sight to see these birds sweeping over the head of poor Roberts. Hardly any Albatross have been seen & but a few whole birds. Many Gulls were passed & a stave of a cork was picked up a day or two ago. A seal was seen far at sea

- Aug 5<sup>th</sup> Pedrosotas. The weather since leaving Christina Harbour has been very squally & with showers of snow, sleet, or rain. The temperature variable from 32° - 45°. That of the sea higher than that of the air. As yet we are under the influence of the Antitropical current. The weather is rather mild with some sun & occasional hail. This morning it is of the largest bivalves I ever saw, fell in the shape of cones with rounded bases the length 1/3 inch & breadth 2/5 inch. The largest. The sides of the cones were rough as if the water was frozen, trickling down them, then we got them crushed they struck heavily, the shower lasted about 5 minutes. Shape of Pearl stones - small ones had a much less elevated cone from the apex of the cone to its base, they were soft.
- 6<sup>th</sup> Tuesday. For the first time saw several specimens of a new bird flying about the ship, it is grey white with some grey markings of the size & shape of the squinting albatross which is still common they both keep somewhat aloof from the ship. Specimens of the same were uncommon. The night being quite calm with no sea on the top not was thrown several of a large transparent shrimp which was hatching its young in a blind. The water was rather luminous lately in small flashes caused I believe by small specimens of the Diptera (c.) the common the Imperial one. The very common land few animals are seen & of birds the Cape pigeon & the squinting albatross which is the small (C) fuliginosa? & the white bird is what I saw on the 6<sup>th</sup>.
12. Wednesday. Since leaving our last port we have been harassed by continual gales of wind. This morning we saw the Lbr. Cape of Van Diemen's Land at 3 P.M. the barometer fell very much only & being already low was followed by a very severe squall that carried away the lee sheets & our trundle reefed them to wind. - During the afternoon the wind increased to a gale & for a gale to storm. Our main top sail was rent & shivered, then sometimes our boats were damaged by the heavy seas & amongst many other misadventures my plants & boards were severely damaged. The tent put lasted till 4 the next day when it was blown from the rigging of the barometer continued very low during all this time.
15. This morning land was again observed & at night we had the halcyon of anchoring off the Don Pedro light in stormy sea. Nothing could be seen the pleasure the sight of land covered with wood gave us.

August

River Derwent. Van Diemen's Land.

16<sup>th</sup>

This morning a Pilot came off & we proceeded up the river. Its banks were bounded by low undulating hills covered from their summits to their bases with evergreen trees of the Eucalyptus whose white stems were very conspicuous, at some places the wood opened into the finest park scenery ever seen & then displaying the neat, some cottages of the settlers surrounded by smiling corn fields, precipitous rocks of basalt generally fringed with wood often dipped down into the water forming a most creek water scene. Altogether the river Derwent for the size of the stream showed the grandest & yet the richest scenery of any stream I ever saw.

Sullivan Cove is what we anchored on the night of the 16<sup>th</sup> on the S. side of the river & is the harbor of Hobartown an irregularly built town chiefly of brick houses straggling up the Wellington or Table Mountain a grand mass of basalt that runs 4000 ft above the sea wooded to very near the top which was covered with snow.

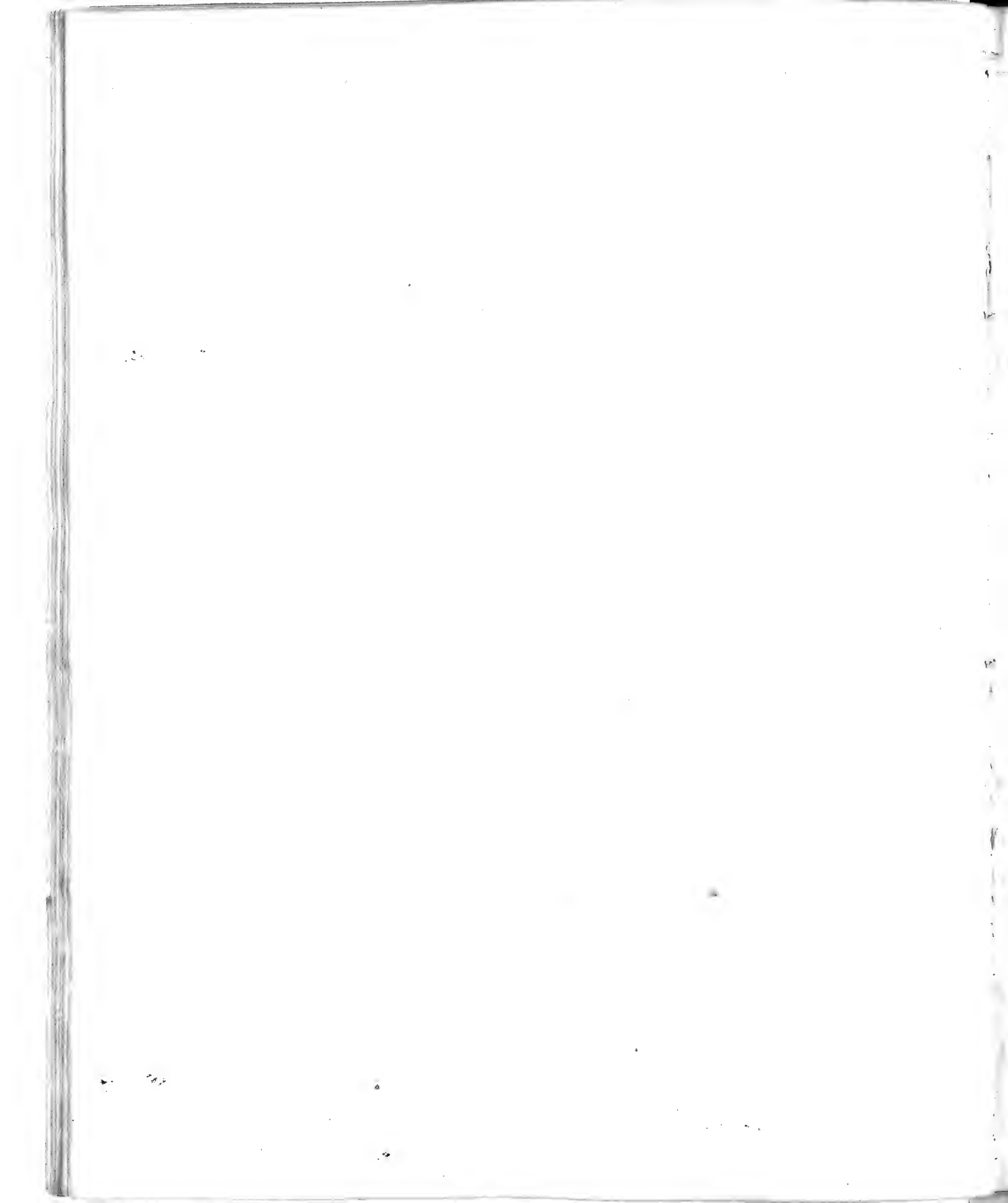
17<sup>th</sup>

To day we warped up the river to opposite the Paddock a piece of ground belonging to government to the N. W. of the harbor is covered with small trees & fine grass here we finally moved at a most delightful anchorage out of sight of the town - to the S. Mt. Wellington bounds in view raising its snow capped peak above the paddock. To the S. the river stretches down and until its turning its banks forming an undulating slopes covered with dense dark wood. The N. side of the river is also covered with wood in hills which rise & descend to the westward from suspiciously grass tree hills. Across the basin & Mount Direction which meets a turn of the river & shuts out our view to the W. Mt. Wellington is the only very high hill seen being the only one whose summit is bare of wood & covered with snow, it stretches to the W. forming a vast amphitheatre of white peaks.

21<sup>st</sup>

Went ashore for a short walk under the trees of the Paddock. They were the Eucalyptus sinuata & amygdaloides the former forming the larger tree whose white trunks showed of the outer layers of bark were twisted either to the right or left. They were strongly resinous & broken trunks exuded a green white humor as exuding or exsuding the resin is not transparent the young plants have the leaves opposite & bear a remarkable similarity to a Syzygium as the tree grows they set their





retention & shape. The wood is not good being brittle & transversely undulated of a yellow red color. Under foot the ground is covered with short fine grass with tufts of a cutting grass leaf.

Patches of the Prunus are half brown. Black bottle trees were everywhere but with dark green pinnate leaves & a dark black bark. Many of them were covered with galls of a large size.

22<sup>nd</sup> Walked into the Town which is of considerable size containing inhabitants. The streets are very badly paved & in such weather dirty but they are well laid out at right angles to one another. There are no public buildings that make any show but a new Court House seems best thing of the kind.

27<sup>th</sup> At 11 AM Capt. Forman called a brigade to take Mr. & Mrs. Linnick & myself on an excursion into the interior. Taking my papers & for collecting we proceeded up the river in his boat. The scenery on the banks of the river as it diminished in width was very beautiful. To the N. a vast amphitheatre was formed by Mt Wellington which enclosed a small fertile spot of ground on which New Town was built. The flanks of the mountain are densely wooded & intersected by numerous steep black volcanic ravines & gulches. To the S. the banks below Mt. Direction & were steep & in some places precipitous, covered with wood within in dense thickets or open glades. Beautiful little coves ran up from the stream communicating shafts before branching. After proceeding for 4 miles up the river we put into one of these coves on the N. bank where a ferry crosses the stream about 500 yards broad & confined by sandstone rocks. Muscles & oysters were common. Through the water is not very salt but no seaweed. On landing we walked up to Disden a beautiful spot situated at the foot of Mt. Direction. The thickets consisted of Eucalyptus, Casuarinas, Excelsior, Castor, Myrsine & other trees covering an under scrub of Myrsine, Tetrathema, & different species of Opuntia. Mr. Ferguson's house is situated on the site of the first Government house that was built in 18... by Governor... & near it is a large Eucalyptus tree under which the aboriginal settled pitched their tents. The view from Disden (the home of Governor...) is very beautiful. Opposite to it is Mt Wellington & the river winding down to its great basin at Wesley Island. Spent the evening watching. The most abundant tree here is at the same time a very beautiful one. The Leucaena affinis or silver wattie it forms a small tree with silvery leaves & a profusion of light yellow blossoms which perfume the air with a most delicious fragrance closely resembling that of the Spirea ulmaria, it often forms a yellow fringe to the dark evergreen Eucalyptus wood.



The Wattle is white & equally common but a very far less beautiful tree.  
The Cherry tree Boerhaavia is a small tree with a short trunk & some  
oval form of foliage the tips of the branches hang down its color is  
brilliant yellow green, the average height 20 ft. The common Eucalypti  
on the low grounds are E. viminalis? & E. amygdaloides the latter is  
small leaved the former forms a very large tree with tall white  
smooth ascending stems, usually twisted either to the right or left.

The London shrub is of a lively green formed by Peucephyllum, a num-  
bered one of Croton or the yellow green Woolly. The decayed trunks  
of trees are covered with mosses & lichens so as to appear quite green.  
Here for the first time I saw a Bankia the Honey suckle tree of  
the continent, it was a tall shrub or small tree with bright green leaves  
glaucous underneath & oval cylindrical heads of yellow flowers.

A species of Leptospermum (L. acutum?) was very common as also  
several Urtica & Plagiandra. Birds were not numerous nor any of the  
animal Kingdom - we returned about 6 PM to enjoy the hospitality of  
our host Mr. Greyson & his delightful family.

28<sup>th</sup> Next morning after visiting the original garden of the first settler  
in which we saw some magnificent almond trees now in full bloom with  
young Greyson I proceeded to ascend Mt. Derwent. Our path led up  
a slope covered with rough Eucalypti, Casuarinas of 2 sp. & Wattle.  
There was however little variety in the vegetation, especially as the  
ground was too dry for the Cryptogamia & the season too early for  
much else. The Eucalyptus globulus or blue gum is very common  
forming a tree whose lower & younger leaves are glaucous blue & the  
upper showing of a very different shape. The Casuarinas did not  
strike me as very handsome. The summit is also covered with  
brushwood & commands a very splendid view of the interior more  
especially of the Derwent winding upward through a most magni-  
ficent country. The Coccoloba was very common here with an  
Adiantum & one or two other ferns. Under foot a small red flowering  
Spergularia (Petrolochea purpurascens) - Plum covers the ground producing small  
snow green berries which when red are ripe & from the acidizing & acid  
the pulp called Cranberries - a name however given to all red berries  
Spergularia. The wood of the two Casuarinas are much valued & being  
cut down are conveyed to Hobart where they are valued at 12 p per  
& used for firewood. Saw none of any great size above a few feet in diameter.  
A few Cockatoos & ground doves were the only birds seen & no animals of any  
kind small birds were not so common among the trees but some in flocks.  
The trees here as every where else bore the marks of fire caused by the burning  
of the bush which is at different times resorted to both now as well as among  
the natives of old. As every part of the island bears the same marks of fire cut



*Cappata* - *Ficaria* - *Oenothera* - *Rubus macrobotrys* - *Acronyctus*



follows that the charred trees must have existed in that time for perhaps in some places many centuries. In some places they are hollowed out by fire for the purpose of forming houses for the natives but this I saw to be done for their usual habitations were made by forming a slating roof of pointed bark of gum trees against the fallen trunk of any large tree under which they nestled & they consist of an old a middle aged man & a child, they are very savage but seldom seen only some lately & then near the latter the interior. We returned to dine at Gregorys where I met a Miss Scott the daughter of an old son upon death of my father. <sup>NO</sup> she is now the adopted daughter of Major the father of Richmond. After dinner we drove over 9 miles to Richmond. The road is a very splendid one winding as it were along the side of a magnificent ravine shut in on either side by densely wooded hills in which Wallabi Kangaroo are still found - grazing some huts that were built for the accommodation of the road parties soldiers & we arrived at the top of Gray's hill so called from the number of Stanthorpe oaks growing but confined to the summit. The view from this spot is very grand especially to the westward an immense & densely wooded valley through which our road wound, opened out into a large plain bounded in the distance by an oval range of hills. As it was growing late I had little time now to examine its botany for Spence & I obtained & carried on with me. Richmond nearly due N of Hobart town is a small town the houses are very scattered but many of them exceedingly good. There is little wood about it except on some hills near it which are very low. The Dist water Secutment is the Navy & the police Major Grant of the district, his travels in Norway & Sweden are well known. I have been here he has been writing some poetical poems & is now making a work on the Clang. For the time he has been here he has amassed a very splendid collection of the fossils of the Island including some impressions of leaves in an oblique clay, immense masses of silicified wood & some fossil carboniferous plants some many of these & an immense collection of the fossil shells that he proposed are of very great interest. Among his animals he obtained as a white rat & white Procyon several Poronous snakes & adders. - Then we met Lieut. Mr. Drummond & Mr. Robertson of the Terror. & we had together a very pleasant evening Mr. Drummond's house being perfectly English & his drawing room table covered with as many new periodicals & such books as we are accustomed to see at home including prints pictures & a pleasing change after 4 months of our narrow cabins.

29<sup>th</sup> We went up to Gray's hill in Mr. Gregory's long bodied vehicle which has been christened the Coffin. & after spending some time met the women who had just turned out this morn'g to hunt the Wallabi Kangaroo. The burning of the days in the deep valley caused a beautiful view among the hills & could the nature of the country admitted of the possibility of following the bounds I could not conceive more of hills along through dangerous sport. Two Kangaroos were presented shown by the way & dropped the road slowly pursued in a succession of jumps mostly was brought late at night & I did not see it. On my return to Richmond I witnessed a match between two horses Waterbury & Ranvold. The former won

saidly the race almost disbanding the antagonist the second heat being declined  
the winner walked his horse round the course or rather started with that  
intention but the animal breaking side a gallop ran off with its side & after  
4 times running round the course (1 mile) started off into the bush & after muddling  
the jockey was captured at 12 the same night. The evening came in event  
that nothing could be done & I spent it with Dr. Coverdale the district surgeon  
who was an old friend of college acquaintance & who in a few months was  
enabled to drive his carriage again. Next morning being fine he drove  
me to Grap tree hill & with young Ferguson who I met there I botanized  
the hill & descending by a deep gully arrived again at Resden by 2 P.M.  
The Grap trees are confined to a low bush on the summit the highest shows  
up stems about 4 ft. sometimes dividing into two & about 1 ft. in diam.  
their summits are crowned with a tuft of grape leaves like the *Napoleonea* or  
*Phoradendron* amongst which a dense cylindrical spike of flowers 2-3 ft.  
shoots up of a dark brown color - the new ones had not yet appeared. Some  
beautiful *Sparisidella* especially the *S. impropria* *Privalis* were very common.  
Also the *Abrotana glauca* with a *Corcia*, *Corcia viridis*, *Goodenia*  
*ovata*, *Cassiarinus Exocarpus* 2 sp. & the *Dialypilus globulosus* were very  
abundant. - After lunching with Mrs Ferguson I returned with  
Capt. Forman to Hobart on paying the *Diostemon* second steam at  
Resden & a few other plants.



2.

3.

12<sup>th</sup> At 3 AM we sailed down the Derwent with Sir John Franklin on board followed by the Government Schooner the "Eger". After proceeding about 30 miles down the Channel the Governor left us after exchanging three cheers with his schooner. The weather was thick & dirty.

13<sup>th</sup> Lat.  $44^{\circ} 10' 15''$  Long.  $149^{\circ} 29' 9''$  Course S. 56 E. Dist. 102 miles.

Many great Albatross *Diomedea* & patches of *Macrocystis* about.

14<sup>th</sup> Lat.  $45^{\circ} 13'$  Long.  $151^{\circ} 54'$  Course S. 59 E. Dist. 122 miles.

15<sup>th</sup> A Land bird a species like a water rail flew on board much exhausted after a N.W. gale. An Aurora was seen in the evening tow in the vicinity of the 1<sup>st</sup> stretching along of a dull undefined red color.

Lat.  $45^{\circ} 33' 0''$  Long.  $152^{\circ} 45' 29''$  Course S. 50 E. Dist. 38 miles.

16<sup>th</sup> Lat.  $46^{\circ} 15' 00''$  Long.  $154^{\circ} 20' 11''$  Course S. 59 E. Dist. 83 miles.

The Aurora was again seen as well as some hummings patches in the water, nothing very remarkable however. Bar at 12 29.045

17<sup>th</sup> Lat.  $47^{\circ} 46''$  Long.  $157^{\circ} 59' 31''$  Course S. 57 E. Dist. 165. Bar. 29.536.

Many patches of hummed & hummings patches.

18<sup>th</sup> Lat.  $49^{\circ} 33' 1''$  Long.  $160^{\circ} 9' 33''$  Course S. 44 E. Dist. 135 Miles many birds seen in the sea. Bar. 29.536

19<sup>th</sup> Lat.  $50^{\circ} 20' 6''$  Long.  $164^{\circ} 9'$  Course S. 67 E. Dist. 166 Bar at noon 29.554.

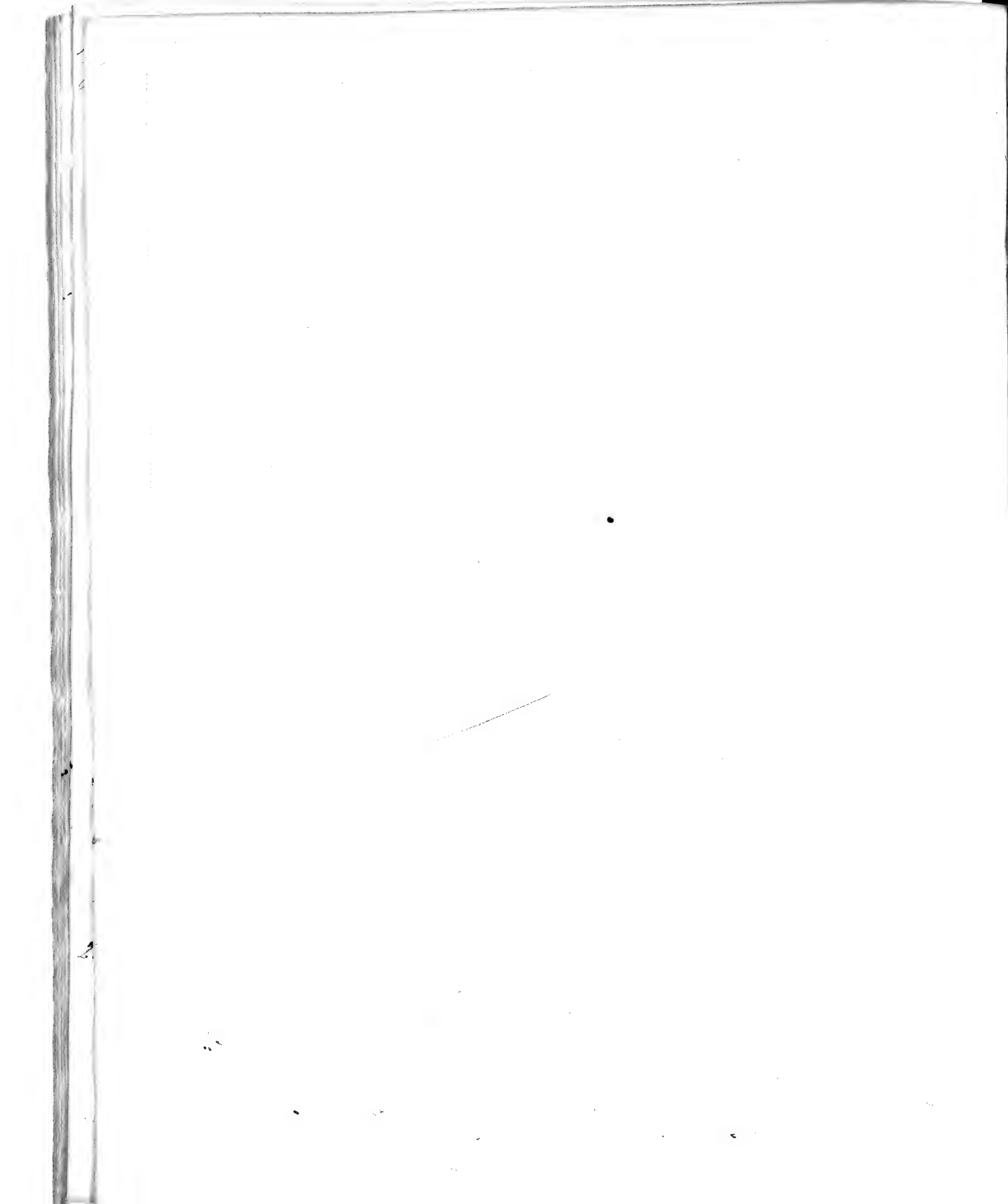
20<sup>th</sup> Lat.

Early this morning Lord Auckland's group were discovered they consist of one large Island & some small ones separated from the former by narrow channels of water - The Interior is formed of undulating hills green to the top of uninteresting forms except where, here & there a big tree looking dark stand on their sloping sides. Long flat topped spits run out into the sea with bluff terminations of black rock covered with two brush wood the Islands are all like this - In the forenoon we worked up a broad harbor on the Leeward side & anchored about 4 miles from its summit in a small bay called Sarah's cove. The Island was discovered in 1810 by Christopher who called this Rendezvous harbor to the N<sup>o</sup> & S<sup>o</sup>. The harbor where we lay is bounded by low lands a chain of Islands to the N<sup>o</sup> with precipitous shores & flat wooded tops, between which the sea breaks with great fury on a reef of rocks connecting them together to the mainland - A long wooded low point stretches out to the South - To the Eastward is the sea to the west the land rises into a hill perhaps <sup>1600</sup> ~~2000~~ ft high sloping upwards covered at the top with grass & from about 1/3 up down to the shore which is low & sandy with small trees & shrub of a dark green or rusty brown color. The shores themselves are brightly green from some plants that grow on them such this green fringe is confined to the immediate margin of the bay.









1845?  
23<sup>d</sup>

The beach is narrow & covered with black sand & large round pebbles no plants in particular grow upon it. On the rocks immediately above it which are composed of common black basalt a very delicate Pteris (*Pt. Brunonianana?*) is very common but not yet developed also a *Stegania* & two species of *Poa* one broad leaved with culms 2-3 ft long erect & a large panicle the other hanging in very delicate tufts over the rocks. A pinnatifid leaved plant in Composite (*Cenia?*) with tomentose stems straggles very commonly every where. Some mosses & lichens also grow upon the stones.

A beautiful stream of water here comes down from the hills & the ground has been cleared by some sailors who once resided here. The sailors tomb is here on a rising ground to the left of the stream now overgrown with many remarkable plants among which are what I take to be a European *Poa* & *Stellaria* which have completely usurped the inside of the mound raised round the poor fellow probably introduced with the cabbage seeds. Raising & observations here has made the little scene look quite alive & reminds one of the first labors of our emigrant colonists.

On the grassy banks here grows a large plant belonging to the *Cruciferae* (in ) of a lively yellow green color very succulent & rank both in growth & smell (something like soy) with rounded leaves & compound umbells of small waxy heads of yellow flowers with purple discs. It attains a height of from 3-4 feet & is of as much in its circumference. In *Acena* (in ) crawls about every where in the immediate vicinity of the sea. Two fine Umbelliferae *Pucedana?* grow as rank & large as the *Cruciferae* plant. Among these grows a fine Carex 2-3 ft high with large black spikes (the *Poa* before mentioned). These together with an *Utricularia* & a few ferns cause a rank bed of vegetable matter to be deposited & nourish a rich pasture for cattle. Among the more lowly herb age are one or two creeping *Coprosma*s a *Cardamine* & *Hemerocidus* both confined to the neighbourhood of the sea. A *Stellaria* & a plant out of flower found in *Merquiers's* Land.

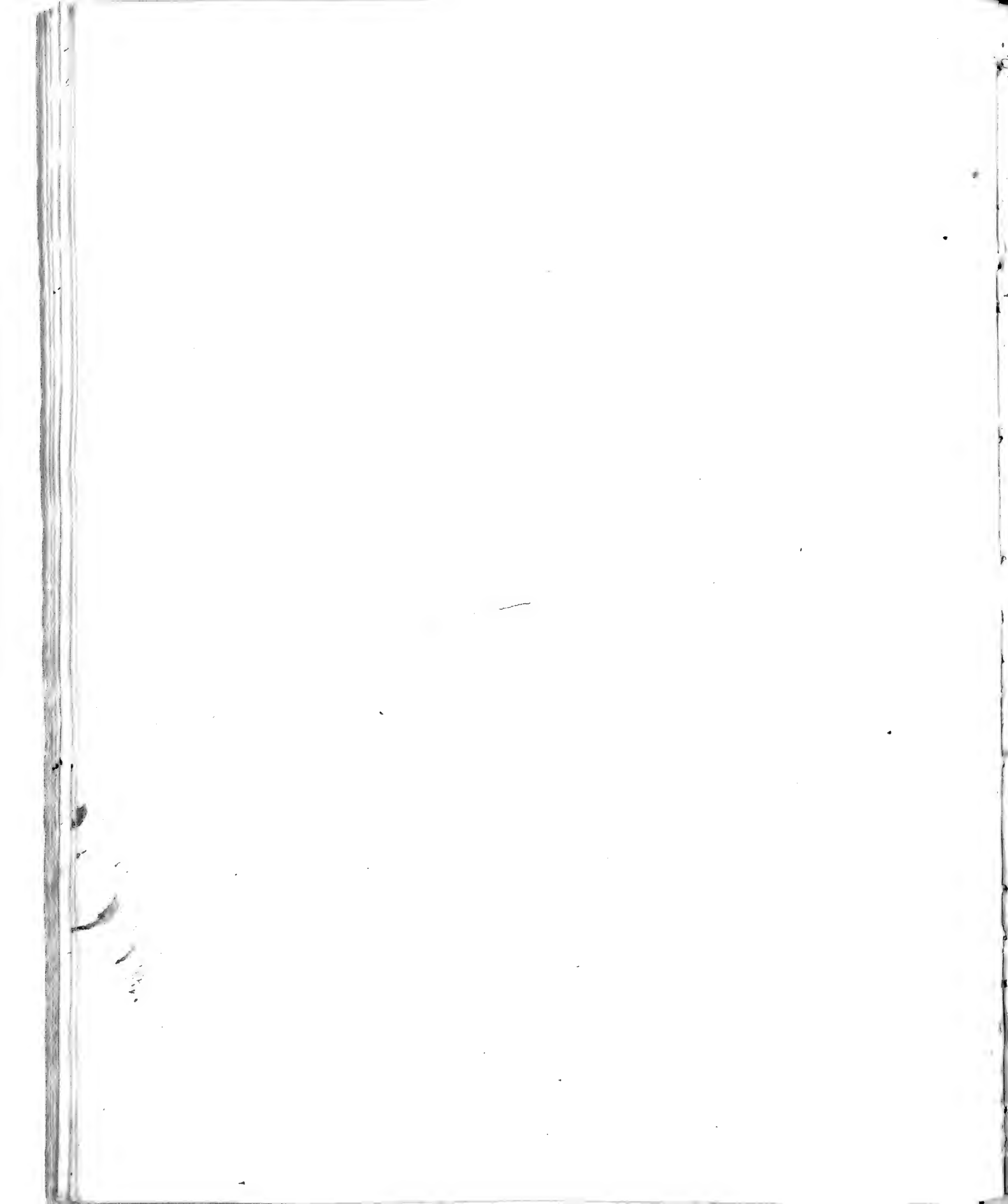
From hence I entered the wood & commenced ascending the stream the bushes & branches were so very dense that it was with considerable difficulty that I pushed along & proceeded up

its banks for a considerable distance - Nothing can be more beautiful than the little fairy spots through which this stream flows it has sunk for itself a little hollow in the rich soil & sometimes extends into a pool or contracting forms a cascade covered in by the tops of the trees meeting only a few yards above the ground is green with immense patches of beautiful mosses or brown with fallen leaves the twigs & branches are fringed with Stictis - The dense low nature of the wood is its great obstacle requiring much hard & slow work but a Botanist is richly recompensed by the Cryptogamiae stores he meets.

If birds there are hardly any but a small green finch which is itself rare but has a full rich melodious whistle like our Starling very occasionally uttered. I saw no more.

The trees are of several kinds which I enumerate according to their prevalence - A Myrtaceae with hard elliptical leaves is the commonest tree here its branches are from 3-4 ft long round & covered with red peeling bark generally inclined & at about 5 ft from the ground very much branched - the branches are flat topped & leafy only at the top when they are exposed to the light & atones when looking up into any of these trees nothing but a confused mass of red branches is seen - The flowers are now in a very young state enclosed in red brown bracts they are terminal the petals white with a red lip? - A curious tree belonging to the Proteaceae genus Sphaeroloma or Draconophyllum comes next, it throws up a straight round stem of very hard wood covered with black brown deeply furrowed regularly bark. The upper branches are very twiggy bearing grassy leaves at their extremities, imbricated when lamine hanging down of a green or brown color - The flowers are white in axillary racemes very pretty. Small bushes of it are very troublesome in the thickets the twigs being very elastic - The ground underneath one of these trees is covered with the deciduous red leaves - A tree in Cruciferae with dark leaved green leaves in thorns is the young plant & serrated forms generally large bushes from 5-15 ft high generally very dense the flowers are small

105



Foot  
23.

And green in simple umbels the fruit white with black tips to the styles. Its natural affinity to the Log is very close though it has not the climbing habit.

Two species of *Coprosma* are very common the larger has bright green elliptical leaves & large bright red berries it attains a height of 20 ft & has an intolerably fetid smell like a *Hibbertia*. The second species is smaller with a low woody gnarled black barked trunk bright red berries & small serrate leaves it is a pretty bush from the bright color of the berries & shining dark green leaves its height is from 2-4 feet.

A plant whose natural order I have not yet ascertained forms a woody shrub very commonly in the woods it has broad obovate leaves minute axillary flowers & a pale blue berry. Its branches are very stiff.

*Myrtanthes* forms a dense fasciculate bush with a rough round stem, bark whitish very much cracked. Leaves green above rusty yellow underneath. Flowers white in terminal umbels.

A round cross leaved *Phylloium* grew near the stream with some fine specimens of a *Nigamia* two *Asplenium* with very coriaceous green fronds two species of *Grammitis* on the trunks of the trees, the *Polypodium Battersdickii* climbing their trunks very commonly. An *Utricularia* & another *Carex* were very common in the woods with curious plants like *Empetrum nigrum* creeping over the tufts of moss under the bushes - One or two species of *Orchidaceae* showed their leaves & last year fruit on the tufts of moss & a little *Hyponidymum* grew in the most shady corners - Rush *Prospis* & *Juncus* were common near more abundant than any - covering the rocks under the roots & branches of trees with broad belts of green yellow & brown forming beds for the more delicate plants to grow on & swelling in the shade & moist time these low damp woods afforded them. Among others a *Diarrhena* was very common & neither the *Stork. pinnata* or *gradiflora* scarce together with some *Hypnea* & a noble *Lyopodium* growing on the ground.

The animals have hitherto been seen or heard of but some since a nest of which were dug up by one of the men engaged in setting up the observatory, the weather has been tolerably good rather breezy sometimes wind is the bane of these latitudes.



1840

## Pinnaculous Harbor Lord Auckland's Islands.

Nov.

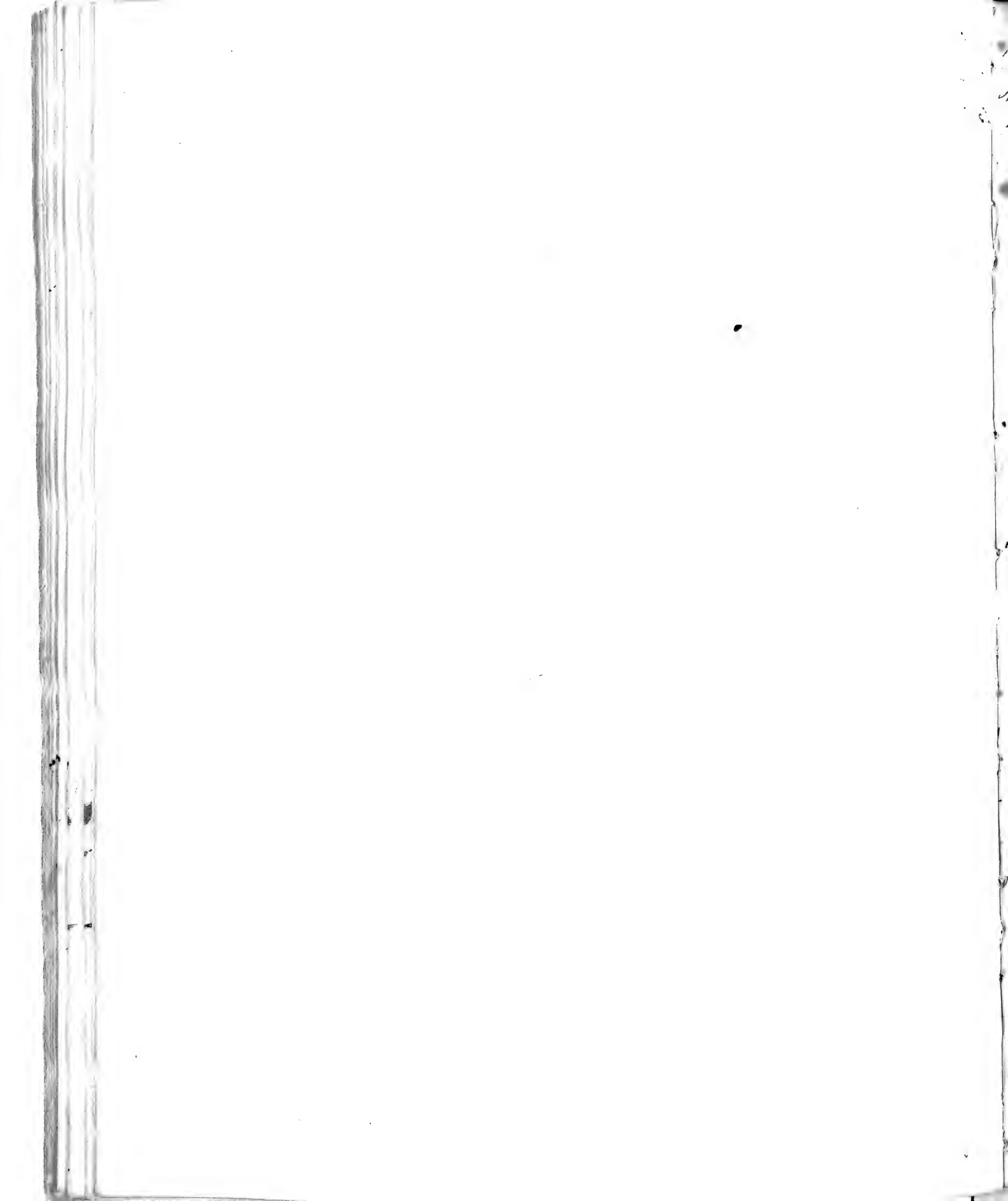
25<sup>th</sup>

Today I landed with the intention of skirting the sea among the woods to a curious conical peak of rock that forms a conspicuous appearance at the N.E. end of the Island. Landed at the observatory & immediately plunged into the woods that border the sea where they are much larger than any where else - The *Myrtaceae* tree here grows 30-40 ft high. The *Fraxinifolium* & *Araliaceae* tree reaches high with the *Cipressina* in proportion forming a very dense wood very dark & damp. Here the ferns flourish in beautiful luxuriance & first of all I was delighted to find two tree ferns with short stems 2 or 4 ft high & fronds 4 or 5 feet long. Their appearance was equally striking & unexpected one species has the fronds much more horizontal than the other, both belong to the genus *Aspidium* & I am not aware that tree ferns have been found further south in the islands.

Other ferns were equally luxuriant two *Asplenium* with shining dark green fronds - two *Polygonum* one a large one the other confined to the immediate neighborhood - The *Pteris Browniana* forming large glaucous green patches <sup>also</sup> near the sea - Three species of *Polypodium* chiefly found on stumps of trees one on the ground with drooping fronds which are acutely serrated - The *Polypodium Billardieri* growing up & along every tree & a lanceolate leaved *Grammitis* generally accompanying it. Two *Procris* were not uncommon one forming a tall pale green leaved shrub near the sea with white flowers - The other with crinate pinnate leaves very regularly also formed a small bush 2 ft high & very erect & sparingly branched - A large plant belonging to the Compositae with pinnate roots elliptical silky leaves & a stem with large blackish buttons & drooping capitula grew from 1-4 ft high & curious coarse fibrous substance grew at its roots close to the ground. Some leaves were upward of two feet long. The *Horaria quadrifaria* formed large staid green patches on the earthy bottom, where several other small scarlet leaved *Cipressinae* kept along - *Fragaria* & *Marchantia* were in immense abundance and with *Lichens* & a very few *Funghi* - no *Polytrichum* or other *Sylvan* species - The little hills I found with some difficulty for the woods to be dense that







Nov 25<sup>th</sup> I walked around it before Harvins Cove near Iwas. I stand above to a little bay of the Sea is about 200 ft high covered to the top with wood; it is formed of Masallie columns in which were some small crystals of benzite or tourmaline. The ascent or climb opposite the Sea is steep. A green *Alva* grows on a moist spot on the rock with a beautiful little branching *Perovnia* with bright blue flowers & ciliated leaves. The large *Noa* mentioned before is abundant on its cliffs as well as another equally large but very sized with smooth involute leaves. A large *Promus* grows in similar tufts. The top is flat covered densely with small trees of the *Pygmaea* plant about 2 1/2 ft - 4 ft high their tops being reduced to a level by the wind you stand among & look over them. The view from it is comprehensive. Especially of the low coast land to the S? one sees an undulating mass of tree tops so close that they look as if they could be walked over. - Some tracks through the bush at the top puzzled me much, they were abundant in the wood below but less distinct, they are I suspect made by pigs some of which were left by Piris too in 1810. At the foot of the hill are numerous plants of the succulent *Arabiacea* & a tall herbaceous plant out of flower like an *Urticaceae* one. The former has exposed roots like those of the Kerguelin's Land Cabbage & much resembling them in appearance. A little way back from the Sea the appearance of the wood changes becoming smaller not more than 15 ft high the trees being branched from the bottom make it denser & very difficult to penetrate. The soil is rich black & good formed by the perpetual decay of the leaves. The tracks of animals were here very distinct & I found the marks of two or three cloven hoofs.

From here I descended to the Sea by a small bay where a stream entered it densely fringed with tree ferns. An *Urtica* grew on the pebbly beach that stung about as much as the *U. urens*. From the rocks in depth a very minute muscoid plant in large green tufts it is apetalous & presents some anomalies in any Natural Order to which I can refer it.

The Sea was calm & some whales were blowing in the bay.

1840.

Penitentes Harbor Lord Auckland's Islands.

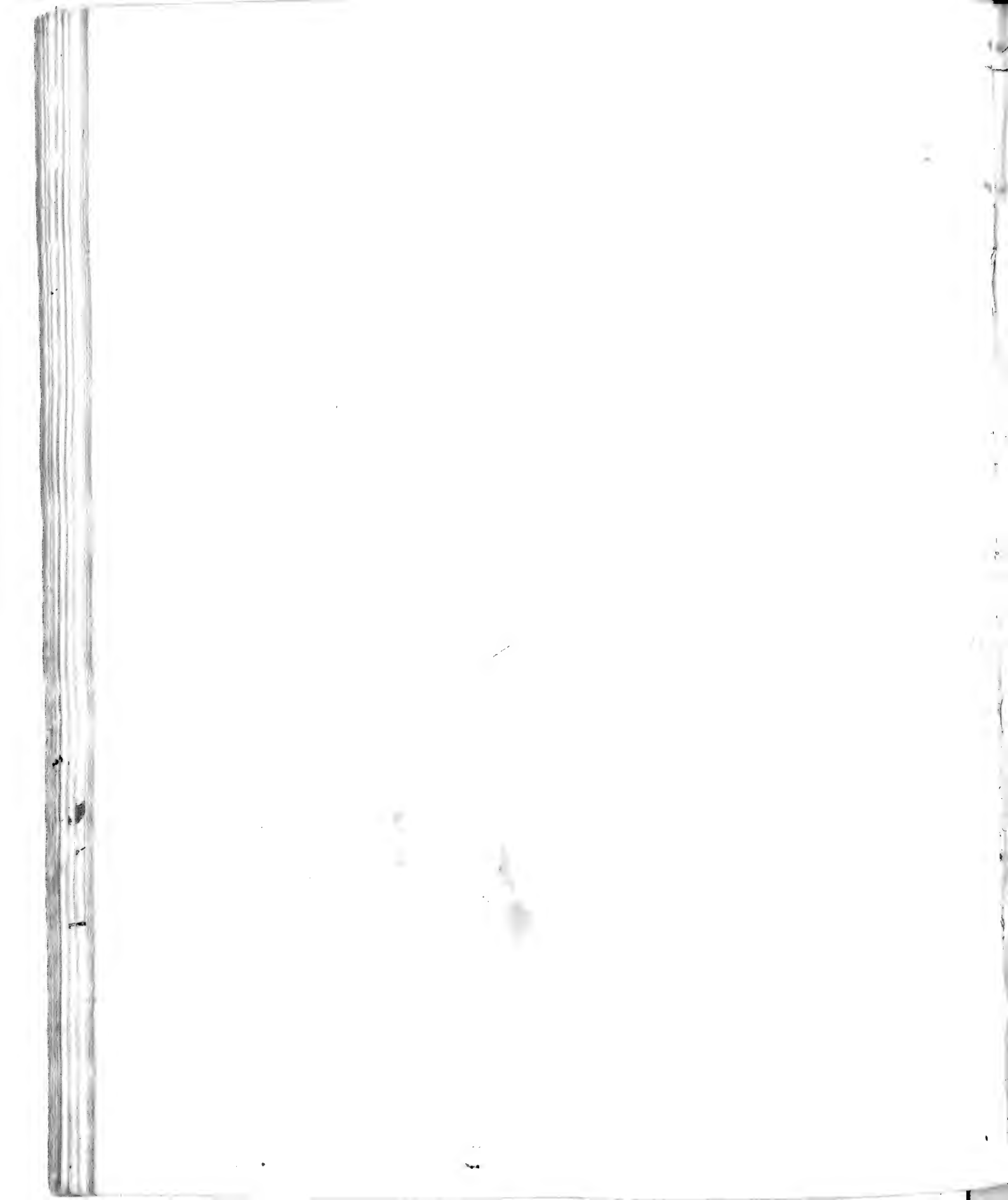
Nov. 25<sup>th</sup>

fully raising their huge backs out of the water & tossing over  
 & over blowing with a sudden snort at every ripple around & after  
 some time throwing his tail into the air preparatory to a deep  
 dive - Some beautiful small grey gulls were sitting on the  
 rocks picking up a sustenance while a lovely Tern the most  
 elegant of all sea birds with silvery belly ash grey back & jet  
 black head was pouring himself in his long songs slopping &  
 pushing the water scarcely agitating it as he fed himself.  
 On the low cliffs some numerous looking shapes with white fronts  
 black backs & crested heads were seen some what I was about  
 after picking up some seaweed & returned to the bush & water  
 we was back to the observatory.

2<sup>nd</sup>

This day I started to explore the mountain that rises immediately  
 above Paraka's bottom - After striking through the woods which  
 retains its character for about 250 ft above the sea in coming  
 to certain breaks in the continuity of tree & bush a large Moss  
 commences to cover all the open spaces growing in large close  
 tufts 2-3 feet high of a light straw color a little higher  
 or about 300 ft above the sea though generally covered with some  
 brushwood chiefly of the Myrtus Tracophyllum & Chamaecyparis?  
 there are spaces of bare ground exposed to the light such are  
 generally covered with a species of Antelia of small size with red  
 berries, a very curious plant near Juncea with upright very  
 rigid leaves - a new genus belonging to Polytrichum a very small  
Polytrichum & a beautiful little Gentiana - Here the Antelia  
 & Juncea are the most generally distributed sometimes even  
 entering the brushwood The Polytrichum & Gentiana are quite  
 confined to the very limited spots of bare black earth the former  
 grows in dense hard green even patches dotted with the white  
 flowers, having a purple anther in the center - The column is  
 not visible. In the woods here when there is a stream & water  
Cryptogamia vegetation is very luxuriant the large Polypodium is  
 abundant & the Asplenium with drooping leaves - also a smaller  
 one that grows in patches on the trunks - One or two Cephaelis





commence here forming lay shrubs among the stronger low wood  
Some Juncus mannice that cover open ground also are found as well  
as a minute Drosera out of flower in tufts of moss.

At an elevation of about 1000 ft there is a broad green swamp on the  
face of the hill covered very densely with small shrubs of two  
sp. of Coprosma one with the short date leaf & the Rhamnus ?  
Among these the two Peucedane the succulent Arabis ceae -  
the silvery leaved Compositae & a beautiful plant in Asphodelaceae  
grow so luxuriantly that you walk up to your knees in water  
at a every step crasing through their succulent stems & slipping  
into little holes of boggy earth. The plant in Asphod. has a  
thick fibrous root a short stem of 1-1 1/2 ft high of sheathing imbri-  
cated patent or reflexed leaves 1-2 ft long bright green & very succulent  
from the centre of these leaves it throws up a scape generally about  
a foot long bearing a thick spike of golden yellow flowers <sup>is</sup> <sup>is</sup>  
in length emitting a delicate scent. Sometimes though rare  
2 or more spikes are thrown up the plants are some barren & some  
fertile the latter the rarest - a more beautiful ornament to such  
a desolate situation I never saw. This with the broad red umbels  
of the Peucedane the waxy flowers of the Arabis & the silvery  
Compositae form a most curious marsh scene with here & there a  
tuft of the Proseris or Carex ? - Underneath these on the  
ground are irregular large flowered Ranunculus with bright  
coriaceous green glabrous shining leaves is common & the large  
shrubby blue flowered Veronica forms a handsome addition  
In these bogs some mosses also grow among others a Polytrichum  
with smooth leafy stem a Psartranhia ? also a small white  
flowered Geranium - ascending a little higher toward the top  
of the hill other new plants appear & first a beautiful Hieracium  
smelling very strongly like Woodruffe & with a handsome golden  
panicle drooping - a curious Plantago very succulent - in  
water ? a most beautiful thing with ~~see~~ imbricated glabrous  
shining deep green leaves & erect spikes with large drooping  
white flowers with purple discs was very common also a little



## Lord Auckland's Island.

Delichon are with silver leaves straggling over the rocks. The summit of the hill is flat topped with some long walls of corall limestone in some parts. Some little green finches were seen of the same species as those found in the woods. A large petrel with a white bar on the wing was also common. But the pride of these situations is the large albatross now sitting on its egg. These immense birds are of a pure spotless white all over the belly breast head & neck, marked with brown & black between & on the wings & back. Their nests are scattered among the tufts of grass - are merely low heaps of earth scraped together into a cylinder about 2 inches high with a depression at the top filled with coarse grass & what the mother deposits one egg of a white color generally very dirty - In approaching them they stretch out their necks & clasp their huge mandibles at the intruder which are no stronger than the skin of the finger - One fresh topped them made over heels of the nest when the egg is taken the bird getting up & looking tamely on. The remaining one position on the ground. These eggs are very large weighing from 15-20 oz. & holding about 3-4 quills & water they are excellent eating the albumen massa bluish in cast & the yolk is pale yellow.

The hill top is covered with long bromus & leaves of the silver composite & another very beautiful one with large purple flowers of the same genus? as the white flowered aster? Another small composite is also common as also some two tufted monocotyledons the Plantago &c. In the rocks a fine Scypha is abundant as also a fine plant like Junca triplex was near that genus but with elongate styles & very large stamens - also a Carolinian a hairy Ranunculus a Potentilla? very scarce & a very curious Scypha looking Embryaceae near Adoxa which grows in the holes among the rocks. If ferns the Asplenium trifidum trifidum grows without arborescent caudices - the serrated leaved Asplenium trifidum is numerous abundant & a small very conspicuous leaved creeping grammitis in crevices. If Andropogon Andropogon is common as also a fine Conostemum? Plantaginaceae Diapentem? & several Lycopodium that do not grow on the low grounds. Persea persea & Lichens are also common.







Dress

Accompanied Mr. Ward & Hallett in the 2nd Cutter to the N.W. extremity of the Island about 4 miles from the ships the sail under the rocky cliffs of the sea covered with wood was very pretty - plenty of gulls & Cormorants kept flying & hovering round us.

Landed on a shelf of black trap rocks opposite an Island that lies off this point between which there is a chain of breakers my companions were in search of figs of which many had been seen by some of our sailors when ashore. The ground was covered with long grasses & the Solanum seemed composite growing there - 4 ft high evidently recently broken down by the figs of whose trunks & marks we saw many but none of themselves. In the beach the *Persea* or *Leucaena*? grew of a large size & in great abundance along with three other plants belonging to that Island - the *Halimolobos*, *Por. tuberosa* & the green plant of small white flowers which proved it to be a true *Buddleioides* which is I suspect the general Southern form of *Tillaea* - The *Suboragoneae* also produced several of stamens & pistilla & a re-examination confirmed the views I had taken of it from an examination of the imperfect *Persea* land - Specimens. The *Artocarpus* grew here also a beautiful blue flowered *Amelanchier* a tufted *Scorpius* or rather a genus near *Scolopis* a very curious *Plantago* with leaves closely appressed to the rock & a plant with flowers apparently a *Rumex* - In the stones & trunks of old wood a pretty *Marrubium* was common - In the sea were several green alga & other curious seaweeds.

Proceeding northward & eastward the sea forms a shallow Bay from which projects a beautiful arched rock a very fine object though inferior to the 1st bay harbor one very much resembles it however - It was capped with trees & tufts of grass that took away from the desolate appearance of the black amphitheatre of precipices that surrounded it. Numerous gulls, Cormorants & Petrels were flying about it - Returning to the boat I picked up a beautiful *Halimolobos* & some other shells for the

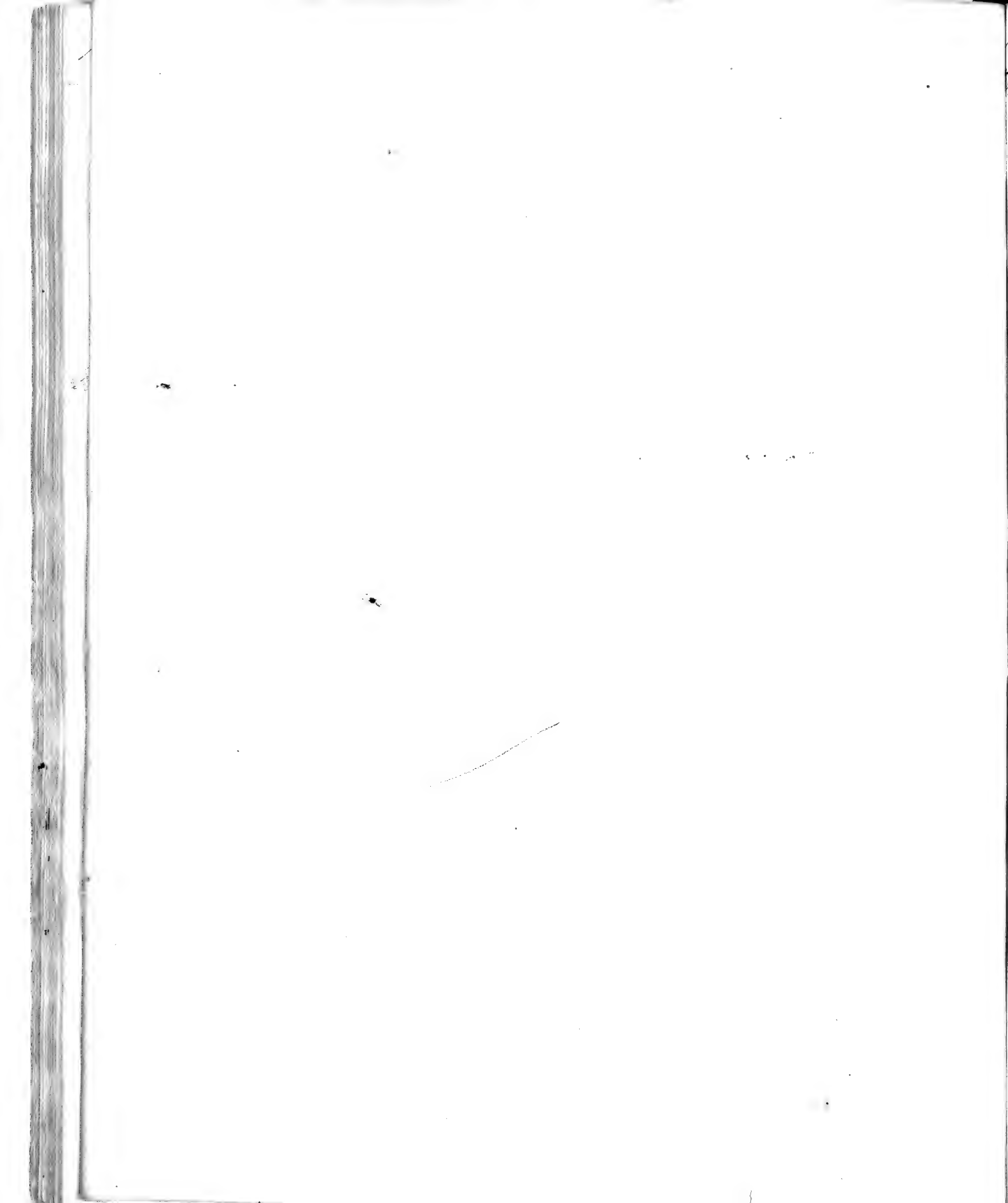
## Lord Auckland Islands.

most part much weather worn - A fine Seal was swimming about within a few yards of one rising out of the water & staring with open eyes, he had a fish in his mouth - Embarking again we commenced pulling back wards & landed under some trees & wood when one of our sportsmen shot a young bird in the woods found a *Splachnum* which I had before gathered on the side of a marsh here growing out of a moist hole in the trunk of a live tree it somewhat resembles the *S. muricoides*. Saw a fine *Bombus* hovering over the woods -

Oct. Descended with Smith the hill above the observatories I added a few plants to my collection - The day being fine we with a box of lucifers fired the bushes for many miles a strong breeze soon formed the flame & kept up a glorious blaze clearing a way up the hill in rapid manner which is very much wanted for fire being through the bush is most tedious & destructive to the heronets - A curious little *Spizidium* grew at the top of the hill with glossy red leaves in the summit we kindled a glorious blaze among the long *Prostratus*. Descended to the observatories & picked up a third *Spizidium* like *S. alpinum* with red flowers. A party returned from Indulgys Island & brought me the *Prostratus* *Prostratus* & the white bird of the hill top - They were both growing near the sea - as was a beautiful *Prostratus* which is confined to an extreme rock & which I had picked up out of flower on Horse Shoe Island. it has a very ugly appearance but smells very disagreeably in drying - From Sandy bay I secured an *Amphispiza* & curious plant of *S. alpinum* which was rough in growing prostrate in the sand bearing large purple red berries.

A night on this Island is very noisy from the quantities of the blue petrel (which only one was seen during our stay) which come out of their holes at night & flying about that uttering a series of dissonant notes they are very numerous so much so as to keep up a perpetual din - They are called mutton birds from their flesh when boiled tastes like mutton they lay one large egg - When seen complete & eaten they are pretty creatures





## Lord Auckland's Islands.

19th. They were attracted by lights & after flying into the Observatory striking against the walls &c. a fierce black petrel somewhat larger than about with it.

Recondered the hill for the last time making a very hurried excursion. Found a fine *Procyon* growing on the moist soil near the top - also small *Agrostis* on the rocks very scarce. A *Juncus* sort of flower with articulated leaves. The *Conium* also near the top the *Spilobium* like *Calpurnium* & a *gentiana* perhaps a large one of the small one. On descending about 1/2 way down found a beautiful *Chailanthes* in one very circumscribed spot only among some loose tree wood.

10th. At 8.30. Saw the crimson light of the Aurora australis extending from N.E. to S.W. a few degrees above the horizon.

## Lord Auckland's Islands.

This small group was discovered by Minckley during a cruise in a whale ship in the year 1810. He left some pigs here. It is often visited now by Sealers & partly of whom one lived here having erected a small hut in Parakee's bay. The present site of our Observatories. Our ships are I believe the only English ones that have touched at them for scientific purposes since, but some were not aware of their existence. With the American ship I think some visited them but only within the last 12 months as the accompanying copies of two statements both by U. S. Brig Porpoise & the French corvette L'Esperance show.

Climate

The climate of this group is probably very uniform during the whole year the land being surrounded by the sea all the trees are evergreens & many of them show the last year's fruit in a very perfect state which would not probably be the case were the winter very severe. During the 31 days that we lay at the Islands the maximum of the Therm was  $83.5^{\circ}$  & the minimum  $36^{\circ}$ . The sea generally  $2^{\circ}$  -  $4^{\circ}$  colder than the air. Rain was frequent it fell during 9 days - Snow 1 day. Only once saw the snow lay & for a very short time only on the tops of the hills. A very great wind, rain generally pervades the air the dew point was taken 2 times during the day. During 33 times of observation the dew point coincided with the temperature & 24 times <sup>out</sup> of these rain was actually falling. - There was a difference of only one degree 3 times. - of  $28^{\circ}$   $3^{\circ}$   $2$  of  $48^{\circ}$  - 8 times. -  $6^{\circ}$  -  $8^{\circ}$  11 times. - above that 14 times & once or 2 times obtained with  $13^{\circ}$ . The average height of the barometer was extreme  $28.906$  &  $30.512$ . - The Wind generally prevails in strong breezes from the West, often accompanied with thick weather.

Position





10

10  
Geo.

Lim

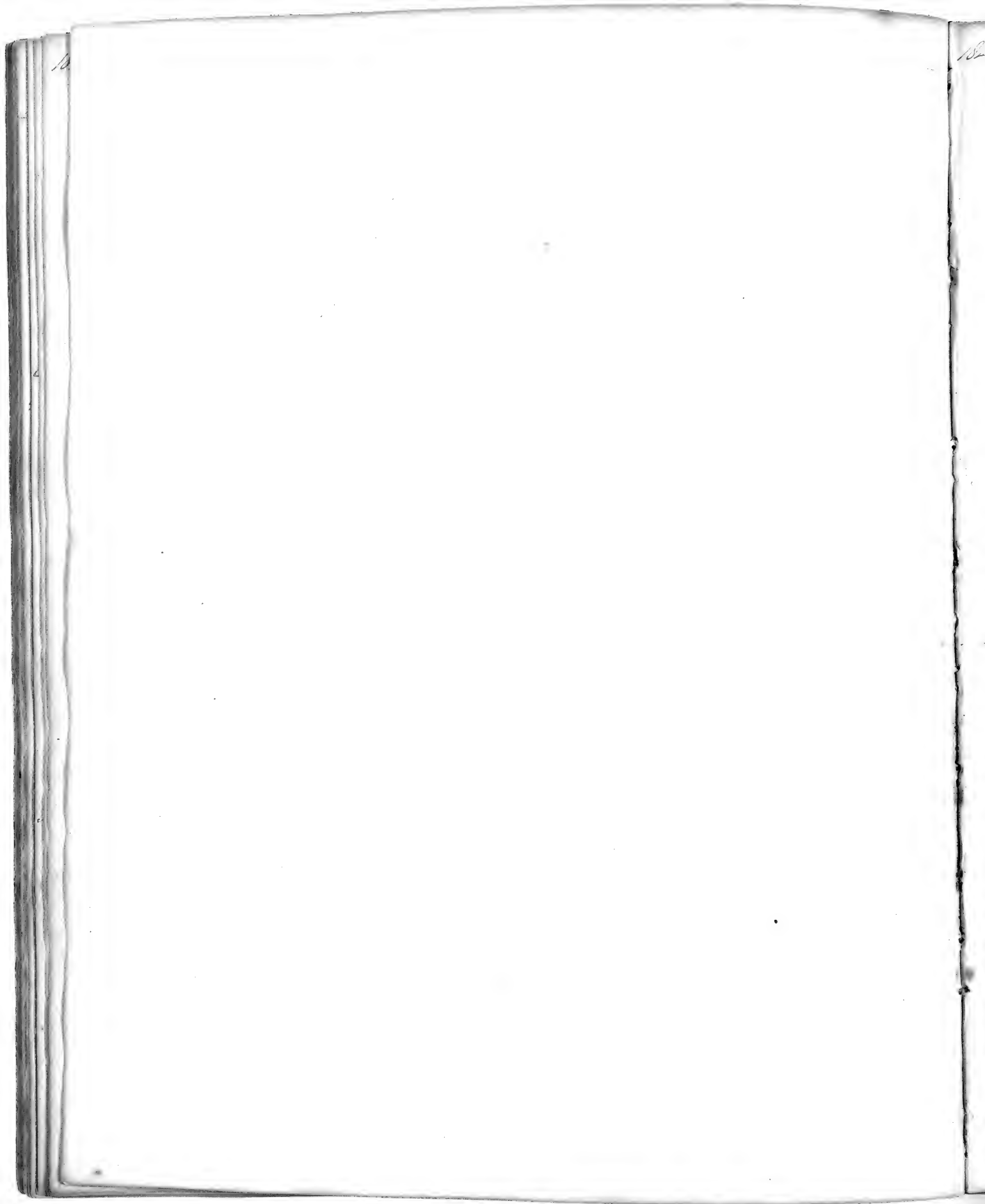
Some of the rocks from especially around the Camp.

Asiatic











Lord MacArthur's Island.

1842.

Mar. Malia.

Wild frogs are perhaps the commonest animal on the Island as soon as they were introduced by Capt. Mearns & others in no particular form others in similar situations I need not dwell on them.

Spice - some small mice were dug up when digging the digging a more later for the same stories. They were described to me as similar to the common mouse.

Cats. Two young cats were found attended by the mother who escaped they were of a red brown tabby color tail rather thick they were not many days old whether wild or not I cannot say probably they escaped from some sealing party.

Seals. A small eared kind called the Hair seal was taken & preserved.

Whales. The sperm whale is often seen grubbing in the bay. The black whale was also seen by some.

Fish. Though the sea was fine but very few fish were taken only about 5 or 6 kinds which were preserved in the government collection.

Insects are very scarce on the Island. A small *Culex* was the only color brown. A small *Phaenocarpa*, the common blue bottle most annoying blowing on sea clothes & a more troublesome kind by that name on the shores.

Crustacea. Some small long legged pinnares crabs with nothing to eat in them some small shrimps. &c.

Mollusca Land shells one very small - Limpets 3. Bivalves 3.

Marine annelids 3 - *Salicaria* 1. *Chiton* 3.

Arachnida. The common earth worm, several marine arachnids.

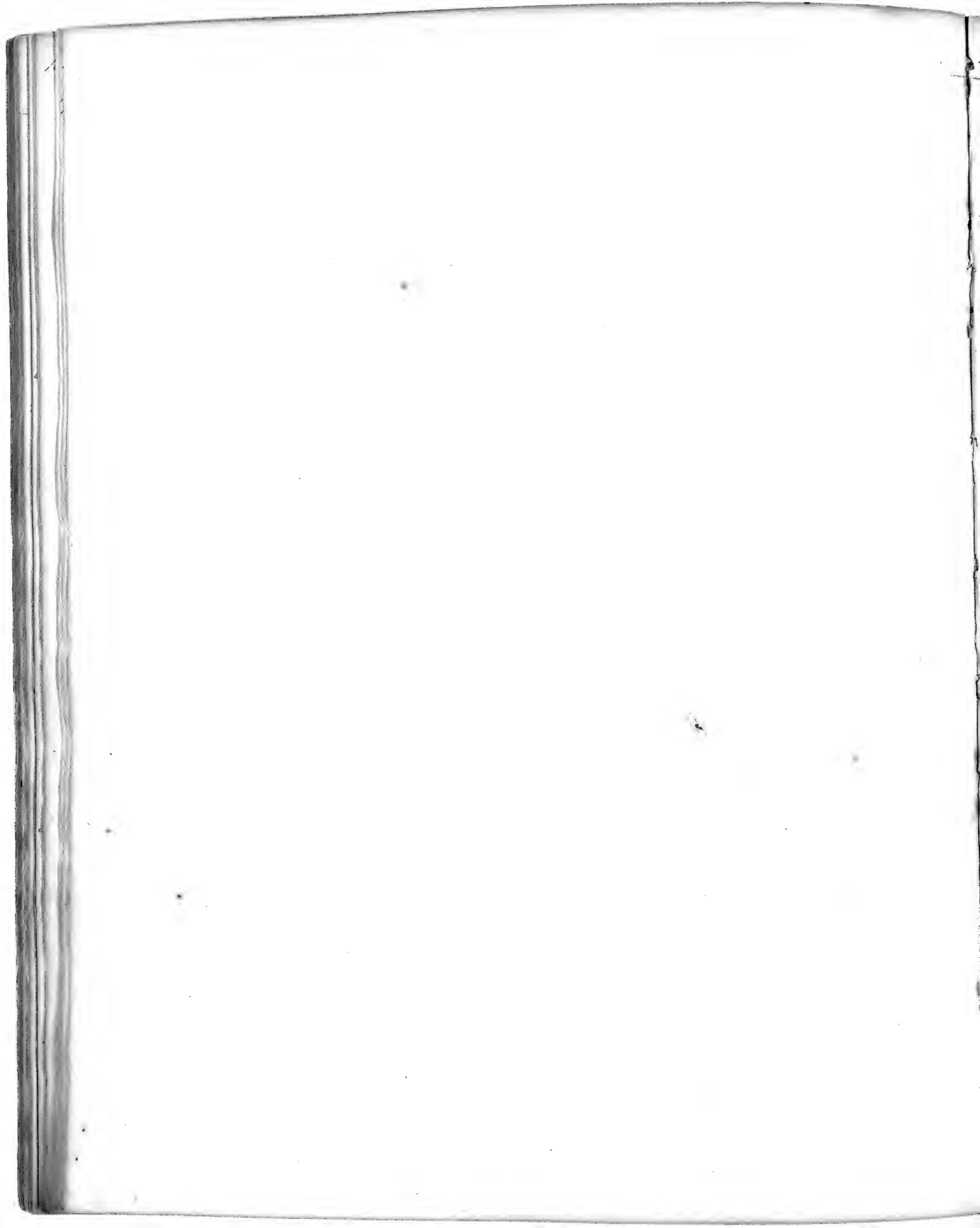
Polychaetes numerous in the sea consisting of *Syllis* - *Corobius* - *Corobius* & *Polydora* &c.

Birds. Land birds are few in number & very scarce.

Falcon one sp. with rusty red bars on legs. 2. A curious bird all over of a dark bronze green which we called the Pearson bird it is of the size of a black bird with two long & curly white feathers under the tail. 3. A small green very tame finch that utters a peculiar monotonous whistle is the most common land bird. 4. A small green parakeet rather rare. - 5. A small rail. - 6. A Puffin very common & abundant on some of the islets of the main Island. 7. An Antitrogon or Tit Lark, & a black cap.







Dec 5<sup>th</sup> 12<sup>th</sup> I left the island by the steamer which I had seen. The indigenous birds were  
 12<sup>th</sup> glossy swallows - flying through much stained. It is the same as the  
 one of some specimens we had seen at the same place. These birds appear common at sea during the same  
 season as the appearance of my country.

13<sup>th</sup> I left the island of St. Ignace. - Early the morning I saw  
 Campbell's Island. The island is a magnificent range of hills. The  
 points of the island evidently volcanic. The island is very fertile  
 and some curious rocks were found. In the western side of the  
 island I collected some grass but we got none. The island is very fertile  
 and was of the beautiful Liliaceae plant found on  
 at over than two miles from shore through a high of holding the grass  
 perhaps with yellow in some places was in. All the coast is covered  
 all over covered densely with low woods. With the climbing into the woods  
 a very precious sort of the sea dog which we had to swim to length  
 to miles & mean breath it stimulated me very strongly of the island  
 part of such also on the shore being densely wooded from the water to  
 to all above in of 2-200 ft. The mountains rise to an  
 enormous height. The mountain is covered with tables or sugar  
 cane. The water was deep. In the very shore of the island  
 I was looking up the water in appeared almost to rise  
 over the land. At 3 PM when nearly at the head of the bay we landed  
 on a bank with no slight assistance to shake that we were possessed of  
 a few minutes after the island about a mile distant of us after  
 some hours we got off the boat and went to the shore. I was not released till the top of the night had -

14<sup>th</sup> I stay at St. Ignace a good many of the plants of the above grounds.  
 The whole island is a garden. The same nature as St. Ignace was  
 vegetation is not so large but I think more abundant than the hills. Some  
 more numerous of them forming more woods. The hills being  
 large of woods. Some grasses abundant. I saw a few of the same  
 plants as we saw in some places. A few more of the vegetation &  
 only one (the large succulent) *Brasilia* etc. - The ferns were of the same  
 kind & stature as those at St. Ignace. The *Lyonia*, *Polypodium* & *Cheilanthes*  
 & some *Symphylla* in some of the highest plants of the hills  
 grew at the water edge. The margin of the sea was low and  
 the *Lyonia* & other seaweeds were common. In water, the  
 same may be said of the *Propus* & other *Lyonia*.

1840

## Campbell's Island.

Dec.

12<sup>th</sup>

The same sea birds were seen - The W. backed gulls & barred winged petrels had many nests on the banks of grass on which they were sitting, and Albatrosses were very abundant on the hills. Some sports men procured little else but gulls, Shags, & Petrels, one double was killed.

15<sup>th</sup>

I started early for a long excursion on the hills with my rifle & some powder. Early & soon we landed in a little bay near the head of the harbor. There were the remains of a hut & two tombs one of a man & the other of a French woman recently erected. The beach here was muddy, & the banks near it mainly with plants of *Phagnalon* the Camp Cattail etc. two *Epilobias* & other things. The wood was all burnt down doubtless by the Natives who had made a track through the bush but kept ascending a valley that ran to the hills through a burnt bushwood chiefly composed of the *La. Auckland Island* *Sphero-tona* after leaving it with fire & hand well scattered we ascended a hill about 1000 ft high covered with the *Promus* blue flowered *Pisonia* & other small plants. The top was a mass of burnt broken up into fragments. The debris of which especially that exposed to the west was rich in plants especially grapes of which 7 species were gathered. Here I separated from my companions who kept along the ridge to look for Albatross eggs which were very abundant whilst I descended to view the sea on the western shore. Deep grassy banks covered with the *Stem-belligera* the succulent *Arctostaphylos* & the *Asplenium* descended to within 20 ft of actual coasts of basalt. Near the coast the water courses were filled with *Epilobias*, the *Callitriche* plant &c. Amongst some rocks that formed a grassy debris a curious stemless *Caroliniana* was found also a little *Chrysopsis*? that also occurred at the top of the hills. Lichens were very abundant on the rocks. The coast view of rocky hills & bold *Stem-belligera* peaked hills & iron bound bay, washed by a swirling reef was very grand & brightened by the black forms of some enormous rocks that stood out to sea and mixed by the angry sea. The birds seemed very restless of being disturbed in their haunts especially the bar winged Petrel near whose nest I was encroaching & who kept screaming over my head as if they would commence an attack & flying along the ground like *Pterodroma* to lead me from their quarry.



Index

15. I again ascended to the top of the hill among a lot of *Albatropus* plants the mother seemed to have no wit some of them were not attended by their mates who always made it at my approach. The weather was much to be desired still & off. Saw three green & small *Lycopodium* on some moist earth & the small *Ly. complanatum* of *L. complanatum* stand across from this hill to a high one on the N. side of the neck of S. harbor which forms the first highest of a long ridge that extends North from South harbor. The former of these is much the steepest & left steep on the banks & nothing like so landlocked or sandy. On a long wall of trap about 20 ft high I found a *Proserpinaca* & my old comp. *Linum catharticum* I go on ascending with some other plants. *L. catharticum* - ascending through many *Albatropus* mats of small I could count about 20. Came to a smelly spring with a pretty weed growing in it of the same genus as that on the hill. The *L. complanatum* which I had just gathered in great abundance at the summit of the hill. Slightly descended it has scattered large cartilaginous capsules. The summit of the hill was covered with fused *Dioryx* masses of basalt one about 100 yards long & three or four by 50 broad & 10 ft high. This forms the N. E. corner of the island. The narrow beach between the *Dioryx* & the sea is very soft & exposed a situation. Descended to the harbor about a mile below the summit. The tide was low & the beach was very sandy. The tide was low & the beach was very sandy. The tide was low & the beach was very sandy.

The *Dioryx* near *reticulatus* was abundant in the same manner as was the little yellowish *Dioryx* & the *Dioryx* plant in very insignificant states.

Many specimens of very coarse *Dioryx* were picked upon the beach of this island as well as some small quartz crystals. I saw a thin bed of white chalk traversing the basalt. A third besides the common ones, last island the small *Dioryx* 1/2 inch left *Dioryx* was found, and this one was abundant. Latitude of South *Dioryx* Longitude

1840.

## Campbell's Island.

At Sea.

- Decr. 17<sup>th</sup> 9 AM Thunder. Wind in evening & sailed out of South Barton for the Antarctic Sea. The weather being thick with squalls we soon lost sight of the land - Lat.  $52^{\circ} 21' 5''$  - Long  $169^{\circ} 11'$  - Air  $40.5$  to  $44$ . Sea  $1^{\circ}$  lower. Bar  $29.684$  - 29.682 -
- 18<sup>th</sup> Lat.  $54^{\circ} 21' 23''$  - Long  $169^{\circ} 11'$  - Air  $40.5$  to  $44$ . Sea  $1^{\circ}$  lower. Bar  $29.684$  - 29.682 -  
strong N.W. breeze
- 19<sup>th</sup> Lat.  $55^{\circ} 56'$  - Long  $169^{\circ} 29'$  - Air  $41$  -  $44$  - Sea  $3^{\circ}$  lower - Bar. fall.  $29.757$  -  $29.623$ .  
foggy & raining - nearly calm at 4 PM & freshen up again. Observed many  
White winged Gulls & Petrel, heard Penguins.
- 20<sup>th</sup> Lat.  $56^{\circ} 44' 36''$  - Long  $169^{\circ} 33'$  - Air  $38.5$  -  $40.5$ . Sea  $2^{\circ}$  lower. Bar. rise  $29.993$  -  $29.345$ .  
Wind S.W. in strong gales force 8 from 2 o'clock onwards, abating at night.  
Saw several King Penguins & 1 King Penguin also some sea eels. plenty of  
the blue Petrel or mutton bird
- 21<sup>st</sup> Lat.  $57^{\circ} 47' 20''$  - Long  $170^{\circ} 23' 45''$  - Air  $37$  -  $41$ . Sea  $2^{\circ}$  lower. Bar.  $29.351$  -  $29.231$ .  
A little snow in air, Wind more moderate N. Many small mutton birds.  
Observed but lost the bottle & 2 sets of thermometers.
- 22<sup>nd</sup> Lat.  $59^{\circ} 0' 30''$  - Long  $170^{\circ} 53' 55''$  - Air  $36.5$  -  $40.5$  <sup>over 30°</sup> Sea  $2^{\circ}$  lower. Bar. F.  $29.277$  -  $29.354$ .  
foggy weather with a little snow - Wind changes to moderate  
Many mutton birds & a Noddy some sea eels - Observed in 45° of  
length of the water.
- 23<sup>rd</sup> Lat.  $59^{\circ} 41' 4''$  - Long  $169^{\circ} 35' 48''$  - Air  $35.5$  -  $40$ . Sea  $2^{\circ}$  lower. Bar.  $29.310$  -  $29.675$ .  
Wind West again but draws round to the N. E. - Fine with a little snow.
- 24<sup>th</sup> Lat.  $60^{\circ} 31' 34''$  - Long  $170^{\circ} 32' 43''$  - Air  $33$  -  $37.5$ . Sea  $2^{\circ}$  lower. Bar.  $29.310$  -  $29.675$ .  
Steady breeze from the N.W. - Day very fine with a little snow. Tried the  
temperature at 300 fm. Heaped several patches of snow.
- 25<sup>th</sup> Lat.  $62^{\circ} 10'$  - Long  $170^{\circ} 24'$  - Air  $34$  -  $37.5$ . Sea  $2^{\circ}$  lower. Bar.  $29.527$  -  $29.425$ .  
foggy raining & snowing wind strong S.W. from 10 AM - snow to  
a gloomy obscurity the sea was broken by ice with other instruments in view  
can be distinguished only by compass. saw a very large ice berg. The  
ice was seen in all the afternoon & night.
- 26<sup>th</sup> Lat.  $63^{\circ} 3' 25''$  - Long  $170^{\circ} 47' 53''$  - Air  $35$  -  $38.5$ . Sea  $2^{\circ}$  lower. Bar.  $29.710$  -  $28.562$ .  
Strong West & NW winds (5) with mist & heavy weather
- 27<sup>th</sup> Lat.  $65^{\circ} 43' 25''$  - Long  $173^{\circ} 46' 40''$  - Air  $30$  -  $35$ . Sea  $1^{\circ}$  -  $3^{\circ}$  lower - Bar.  $28.567$  -  $29.044$ .  
equally but dry weather Wind rising with the barometer blowing a heavy  
N.W. gale (4). Searching for the first time
- 28<sup>th</sup> Lat.  $68^{\circ} 41'$  - Long  $174^{\circ} 41' 25''$  - Air  $30.5$  -  $33$  - Sea  $2^{\circ}$  lower. Bar.  $29.347$  -  $28.907$ .  
More moderate wind N.W. in morning draws round to E. (1-4) with snow  
The Temp. of water in 400 fm. - I saw a school of Whales & for the first time  
saw Iceberg a snow mountainous flat top an island of ice about 160 in  
& 400 ft high. The night was very fine & we soon saw again.  
Several times more saw ice as large as the one first seen.



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26<sup>th</sup> 30' reaching the bottom - line broke  
in hauling up



1841.

## St. Paul

- 4<sup>th</sup> Long  
Lat. 65° 21' 19" Long. 172° 29' 44" Air 30-31.5 Sea. 29.5-31 Bar. 28.523-29.181.  
Rising in morning with wind from SW - S.W. with much snow.  
Clear in the P. & P.M. with clear weather at 7 P.M. 28.523 in @ 40.2. Lat. 4°  
Whales, Seals & Petrel.
- 5<sup>th</sup> Lat. 66° 32' 16" Long. 174° 31' Air. 29-31 Sea 29. Bar. Falling 29.180-28.814.  
Clear weather with strong N.W. breeze (5). Saw many Penguins  
Seals, also Penguin was seen to us here short back greyish red eyes  
& is of a hoary look. They are very common on the sea.
- 6<sup>th</sup> Lat. 68° 17' 24" Long. 175° 21' Air 25-30.5 Sea. 28-30 Bar. Rising 28.777-29.122  
Light S.W. breeze with beautiful weather. (retained in some sea at 9 P.M.  
driving the ship through the loose masses of sucking out lanes of water  
to avoid the streams of ice) Many penguins & Seals on the sea.  
Being 2<sup>nd</sup> Day assembled in the cabin to watch the cake given us in  
showed in the ice on this occasion - Capt. Provis on board.
- 7<sup>th</sup> Lat. 68° 31' Long. 175° 49' Air 29.5-35 Sea 28.5-32 Bar. Rising 28.952-29.078  
Clear in all day breeze a little lake among the ice with sea visible  
beyond the horizon every where. Seals Penguins & White Petrel.  
Captain went to observe on the drift ice.
- 8<sup>th</sup> Lat. 69° 15' 30" Long. 176° 13' 45" Air 30.5-30.5 Sea 28.5-29 Bar. Falling 29.055-28.846  
Strong S.W. gales & with the bar falling & much snow.
- 9<sup>th</sup> Lat. 68° 28' 29" Long. 176° 21' 22" Air 29.5-31.5 Bar. 29.078-29.179-29.075  
Another calm & beautiful day. - But the boat swabbed & among in a  
small white fish about 1 inch long 3.6 times in a boat by the ship some  
beautiful specimens of the Limacina (210) & Prove (in 220) & in various bags  
specimens of a genus near Suzes but showing the visible plate of the tail  
entire with two small lateral lobes & legs near the extremity.
- 10<sup>th</sup> Lat. 70° 23' 16" Long. 173° 48' Air. 28-31 Sea 28.5-29.5 Bar. 28.553-29.349  
Wind S.W. (7) with snow moderating with the rising bar & driving to SW & S  
Whales, white Petrels & Stormy to the latter simple only, mostly probably  
immature birds. - Penguins - The sea apparently cleared the great mass  
of ice, which for the last few days since the 6<sup>th</sup> has consisted of flat broken  
pieces from a yard to 20 or 30 yds square elevated 1/4 a foot above the water.
- 11<sup>th</sup> Lat. 71° 14' 35" Long. 171° 15' Air 29-40.5 Sea 29-32.5 Bar. 29.316-185-386.  
Very fine with the wind N. & N.W. a beautiful clear day - Whales & many  
Penguins & Seals again & Strophomena etc. - In day we have beaten coast  
a matter of considerable rejoicing with all of us.  
At 2.30 AM commenced our Arctic old courses by making some snow  
capped mountains at an immense distance ahead  
N.W. extreme of land S.E. to S.W. - Sketches the same course being a matter  
of immense mountains all peaked or nearly so formed into cones & pyramids

5th. Entered the pack

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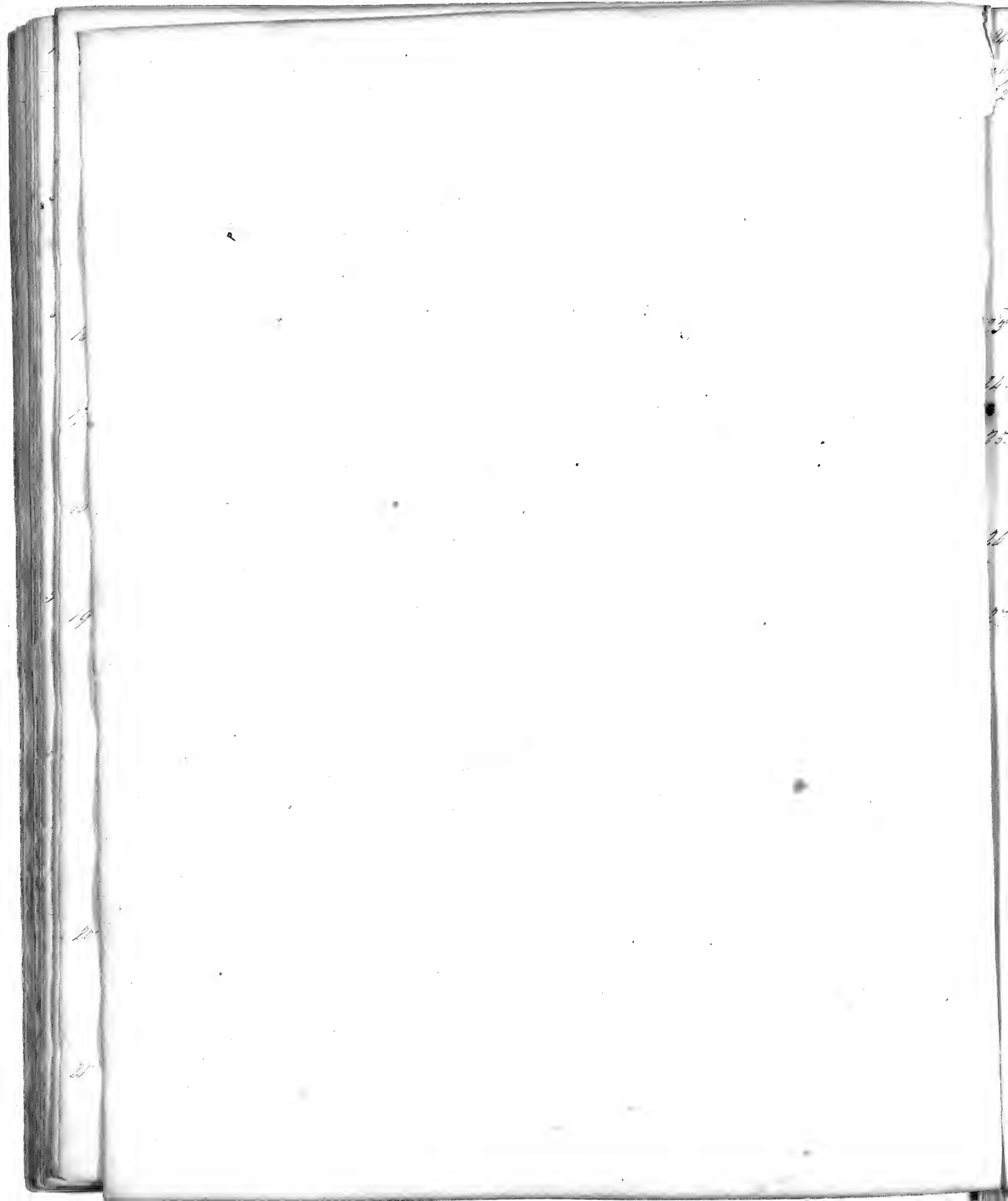
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Lat 75° 31' 30" Long 175° 22' 30" Air 21.5-22.5 Sea 29.028-29.030  
 Fine sunny weather. Light breeze from N. E. ...  
 Evolved in depth at 2 AM. brought up an immense host of things ...  
 other corals. *Halysma* & *Squilla* ...  
 genera *gammareus* *Salmonia* & *Chironomus* numerous other fish & *Hydrozoa* ...  
 on very large nearly 1 ft deep the kinds many sponges & other corals ...  
 much mud - A beautiful spring *Leptodactylus* above plates smaller on the summit ...  
 some smaller & brilliant emerald green light - ?

Lat 75° 23' Long 175° 35' Air 21.5-31 Sea 29.030-29.035  
 Strong breeze from the N. E. with clouds ...

Lat 75° 26' Long 173-1 Air 20.5-24.5 Sea 29.025-29.030  
 Wind light from ...

Lat 75° 28' Long 173-1 Air 20.5-24.5 Sea 29.025-29.030  
 Moderate breeze from the N. E. with clouds ...  
 whole quantity white ...  
 with ...

Lat 75° 28' Long 169° 42' Air 20.5-24.5 Sea 29.025-29.030  
 Moderate weather with ...  
 & sponges ...

Lat 75° 47' 26" Long 169° 25' Air 21-24 Sea 29-31.5  
 Very fine & clear with ...

The ... of the island is ...  
 of red & white twisted in a very ...  
 generally of small size ...  
 most common - ...  
 other ...  
 appearance of a giant ...  
 appearance from being ...  
 maps of the ...  
 gradually increasing till the support ...

between the base of the cliff & the sea the roll of the soil of sea were  
 were becoming the nucleus but should this ever become the case they  
 will become the nucleus for an iceberg which will extend itself until  
 its size is so disproportionate to its attachment that it will be washed  
 away & carry out to sea not only the bed of gravel that was its nucleus  
 but all the debris of the cliff that formed the original gravel nucleus.

In its substance in the strata it is shown & seen there are many  
 over immense tracts of submarine land or to be observed on a scale  
 & from a bed of gravel perhaps deposited on the rock on which it lies.  
 Between the cliff presented to the sea & the commencement of the  
 hill of which the Island there exists a narrow <sup>level</sup> valley a few  
 150 feet above the sea parallel to it & starting the coast inside the  
 barrier cliff. The valley may be 20-30 feet deep the <sup>ground</sup> slope of it is  
 more regular than that of the slope towards from the sea & which presents  
 a series of irregular prominences or broken walls the bottom of the valley is filled  
 with snow & masses of ice which roll into it from the slope above & get piled  
 up against the parapet. The expansive force of the ice & the weight of  
 the snow & must now then detach large masses of this wall &  
 precipitating them into the field & <sup>which</sup> afford a means of transport  
 for ice & boulders. Some rocks lie in several places off the shore  
 & from their nuclei for bays which must after be detached with portions  
 of their nucleus. One slope about 150 ft. above the sea stopping down  
 from the upper ledge through a break in the parapet is covered with  
 frozen snow presenting the appearance of immense little pits  
 about 1-4 ft high of a black & white color this is apparently a  
 gravel bed held in its place by the ice binding it to that of the bank  
 from which it slopes a very slight thaw would break the connection  
 & precipitate it. The deep water below a mass of frozen snow & pebbles

Along the coast there is an immense quantity of ice in the shape  
 of small bays & fields floating or stranded, many of them are covered with  
 pebbles & gravel & others contain large rocks like the last in size  
 the coast is more or less colored some pieces containing boulders  
 some lying on their sides one of which are picked off about 20 ft. away  
 there are no bars along the coast, but there were evident signs  
 some of them the other boulders are paper but all were marked up  
 in a small sketch. After going on two hours above the coast within  
 a few miles of the land either on account of the great steepness of  
 such small pebbly benches as there were or the steepness of the coast

129

Ch. J. T.

W. T. J.

W. T. J.

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W. T. J.







July 2<sup>nd</sup>

At 9.15 hours to and rounded in 260 fm. mud by traces of *W. sinuata* P. 2. 1st 2.  
near part 5 layers. Lat. 2. 40. 3. 6 one farther south. Long.

Feb. 7. Took two specimens of fine new Stone (drawn) described in spirit. 2.

February  
1841

At Sea

- 7<sup>th</sup> Lat. 77. 10.30 Long 192. 48.18 Air 13.5-16.5 Sea 28-29.5 Barom 28.908-289.  
 S.W. winds 3 with misty weather. Saw the usual quantity of West Greenland  
 fish have hitherto been seen except in the month of November & the whole of the  
 they seem like a small fish - keeping in a pool of water like a lamp, but  
 numerous & small size, as far as the eye could reach by day. None of the  
 Penguins were caught in us for the first time, they are very fine birds indeed  
 much larger than the King eiders Land one & thicker with though the quantity  
 in number is same, two of them weighed 66 lbs & the other 57 lbs - Lat. 77.5' cannot  
 walk & made back & about half an acre of ice from which lumps were taken  
 to watering the ship - all hands were employed about it, it was a very amu-  
 sible sight
- 8<sup>th</sup> Lat 77. 12.50 Long 189. 22. 0 Air 14-23 Sea 28.5-29.5 Barom. 28.879-29.076  
 S.W. winds (3, 2, 5) clear weather with blue sky - Saw the usual animals & birds
- 9<sup>th</sup> Lat. 77. 1. 20 Long 186. 55. Air 19-29. Sea 29-30. Barom. 29.077-29.265  
 S.W. & light N.W. winds with fine weather. Running through a narrow ice
- 10<sup>th</sup> Lat. 77. 39. 2 Long 187. 5. 20. Air 23-31.5 Sea. 28-31.5 Barom. 29.238-29.268  
 Wind S.W. & N.W. light breezes with clear weather - Saw a bay with ice  
 5 PM observed the barrier S.W. - 1 PM descended in 180 ft. wind - between  
 8 & 12 PM sailing among newly formed pancake ice between a patch of the barrier -  
 the narrow ice which is about 1/2 in thickness & about 1/4 - 1/2 mile thick  
 this was 3, 4 & 5 ft generally upturned edges from their proximity together
- 11<sup>th</sup> Lat. 77. 56. 20 Long 190. 15. Air 16.0-28.0 Sea 28.29.5 Barom. 29.267-291.  
 S.W. & light winds with mist & fog - Saw quantities of various whales in Bay & saw  
 ice in a small bay formed by the barrier & ice within 1/2 of a mile  
 from it - a very grand sight - it proved to be 1/2 in height - all day passing  
 through much ice
- 12<sup>th</sup> Lat. 77. 32. Long 186. 48. Air 19.5-27. Sea 28-29.5 - Barom 29.274-29.458  
 S.W. & light breezes with overcast & gloomy weather - Running along a line of  
 pack & loose ice passing through quantities of loose ice
- 13<sup>th</sup> Lat. 76. 11. 2 Long 187. 51 Air 18. 22. Sea 28.5 Barom. 29.508-28.496  
 Wind S.W. & S. (5, 6, 7) with overcast gloomy weather & snow. Running along pack & loose  
 through streams of loose open cake ice - 11
- 14<sup>th</sup> Lat. 76. 31. Long 184. 50. Air 20.5-26. Sea 28.5-29.5 Barom 29.125-28.877  
 Wind S.W. (7) with overcast gloomy weather with snow, passing among loose ice  
 & through bays & - Saw to
- 15<sup>th</sup> Lat. 76. 50. Long 183. 16. Air 26-31. Sea 29-30.5 Barom. 28.934-28.284.  
 S.W. gale of water snow all the day, passing through much loose ice. Saw to
- 16<sup>th</sup> Lat. 76. 22. 03 Long 178. 15. Air 29-33 Sea 30-31. Barom 28.603-28.847  
 Wind the same but moderate with much snow. Saw in addition to the usual  
 animals & birds, a brace all along in the night time above since entering at 11
- 17<sup>th</sup> Lat. 76. 3. 11. Long 178. 15. Air 26-28 Sea 28-30. Barom. 28.852-29.177.  
 E. winds (5) with gloomy weather & snow. Passing through much loose ice.

1847.

# At Sea.

The Island on which we landed on Aug. 11<sup>th</sup> was again seen to day, viz 5 miles at 3-30 pm. When boom drings were obtained in 50 fms. depth & again at 11 pm. 380 fms. depth & mud. - Beneath young ice was seen a layer of light brown color, when lifted in water it deposited a very fine sediment composed of particles of minute brown, arenaceous, tubular, plates each formed of numerous parallel prisms of a perfectly regular form & giving each plate a pitted appearance, numerous circular discs also found, much more scattered among them, they were very minutely reticulated & had often irregular centres. All the young ice was very full of it, when lifted out of the water it did not appear thin or dry, many were seen covered with it. It appears to be some mineral with a very regular structure probably connected with the Island.

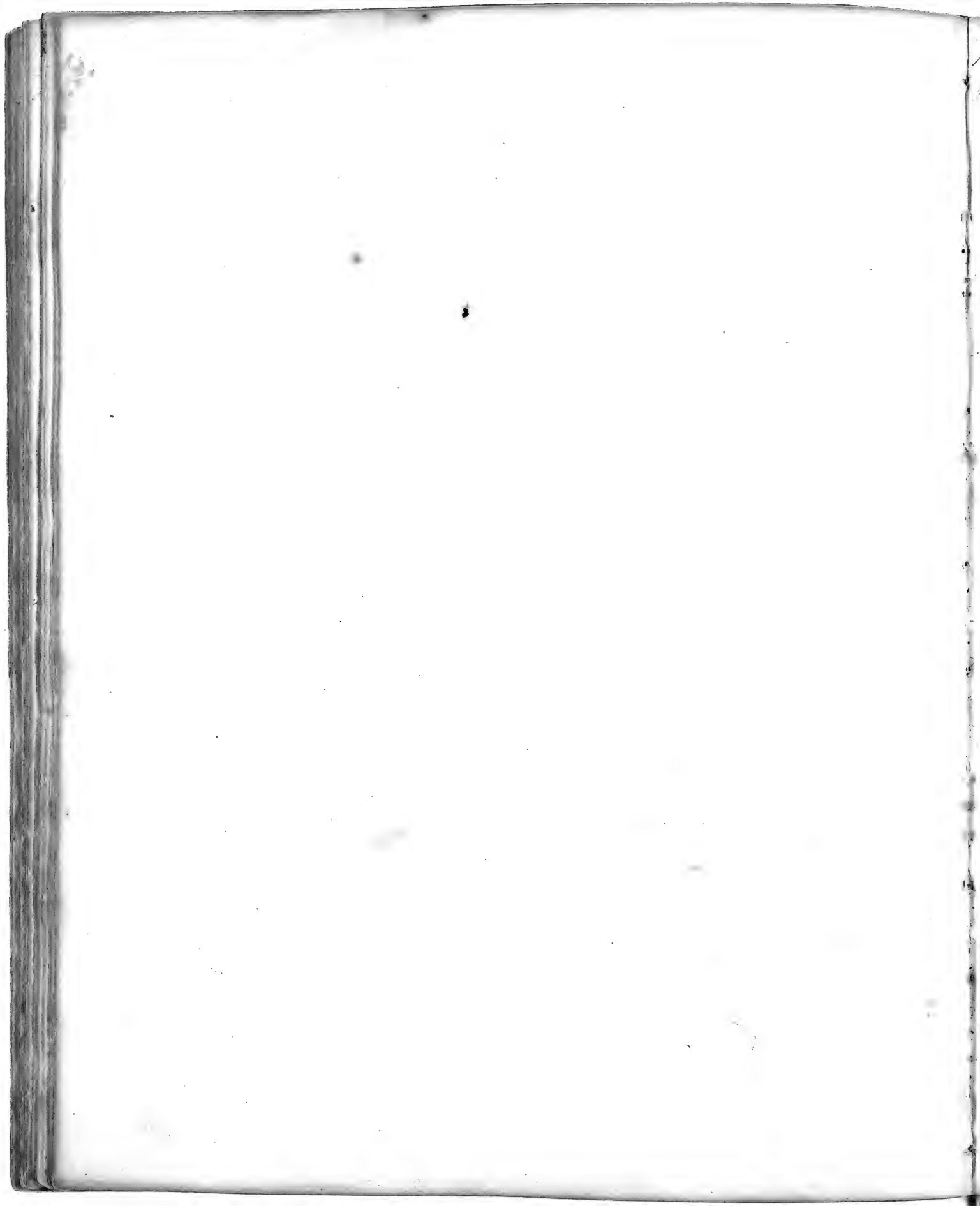
Lat. 76. 32. 3 Long. 146. 12. Air 36-32. Sea 29-27.5. Wind 29. 157. - 29. 210. Calms & very light breeze from all quarters, blowing through much ice. The appearance of the sea covered with young ice is very curious especially when very small separates the immense white solid field that extends so far as the eye can reach all around. Very many seals were seen & a school of young whales in some open water. At 10 pm. sounded in 365 fms. green mud. Mt. Erebus is very plain, exhibiting both immense volumes of smoke & ascending flames just above the mouth of the crater. The height of smoke reaches 4000 ft. as the apparent height of the mountain & these jets away for an immense number of miles to the westward.

Lat. 76. 35. Long. 145. 21. Air 35.5-33.5. Sea 28-27. Wind 29. 157. - 29. 150. At. found Mt. with gloomy weather. At 10 pm. E. 7. Some clear weather - blowing through much drift & young ice along the side of the peak etc. The land was this morning discovered above young Mt. Erebus with the main land & forming a deep, bright, roll of ice that prevents our viewing on the south bay water pole which without doubt may be come used to be in sight.

Long. E. 157. 39 the greatest dip of the barometer obtained being 28.45. The variation is & has been for weeks by very large that combined with the deviation at every point & the sluggishness of the compass it is quite puzzling to know about where the ship is steering. We are now to the northward of what may be considered as our present position <sup>in this region</sup> & 3.45 further than any human creature has penetrated & 600 miles beyond the limits of the tracks of ships of any other nation - Since the days of Cook in 1771 no one but Weddell had passed nearer the pole than the French & American crews both have attempted it the former on two occasions, first by Weddell's track & then by our present one stating as their reason "because they heard the English ship had been going to attempt it in this longitude" they have been well served for their pains & discovered no better from their obstinately attempting to outstrip the our project. The romantic accounts of their voyage speaks for itself suffice it to say that we have some entering the antarctic circle only had seen on the list & they only for a few days of the most trivial kind.

75.49





13<sup>th</sup> Lat. 76. 5. 30 Long. 166. 11. 30 Air 21.5 - 23.0 Sea 28.5 - 29.0 Barom. 29.248 - 28.917  
 Light variable winds from ... through much ice. Ice seals are very numerous on the banks of the bay ... as many  
 20 were counted yesterday above ... seals are very numerous ...

Temperature 12<sup>th</sup> was taken this morning, he was very ... spotted with  
 large yellow blotches on the back & sides - ... is seen all day ...  
 ... distance - a small ... of ... was ...  
 ... seen in sight near the ...

14<sup>th</sup> Lat. 75. 3. 20 Long. 163. 4. 39 Air 21.25 - 22.29 Sea 28.5 - 29.5 Barom. 29.004 - 28.870  
 Weather ... breeze ... true in sight of the coast with gloomy  
 weather - ... passed the ... of the ... of the  
 continent ... to see an ...  
 ... in 78° where it ...  
 ... and which we ...

15<sup>th</sup> Lat. 74. 9. 29 Long. 171. 26. Air 21.24 Sea 28.5 - 29.5 Barom. 28.816 - 29.057  
 ...  
 ...

16<sup>th</sup> Lat. 71. 5. Long. 169. 58. Air 23 - 26 Sea 28.5 - 29.5 Barom. 29.067 - 28.870  
 ...  
 ...  
 ...

17<sup>th</sup> Lat. 70. 27. 0 Long. 166. 40. Air 22.5 - 25.5 Sea 28.5 - 29.7 Barom. 28.646 - 28.482  
 ...  
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18<sup>th</sup> Lat. 70. 17. Long. 167. 32. Air 22.24.5 - Sea 28.5 - 29.5 Barom. 28.523 - 28.762  
 ...  
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 ...

19<sup>th</sup> Lat. 70. 14. 39. Long. 167. 34. 30. Air 20.2 - 27.5. Sea 28.5 - 29.5. Barom. 28.667 - 28.622  
 ...  
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20<sup>th</sup> Lat. 70. 6. 28. Long. 167. 26. 30. Air 18.5 - 25. Sea 28.5 - 29.5. Barom. 28.529 - 28.777  
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21<sup>st</sup> Lat. 69. 52. 20. Long. 168. 9. 8. Air 22 - 21 Sea 29 - 29.5. Barom. 28.112 - 28.7 - 28.5  
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1841  
Feb.

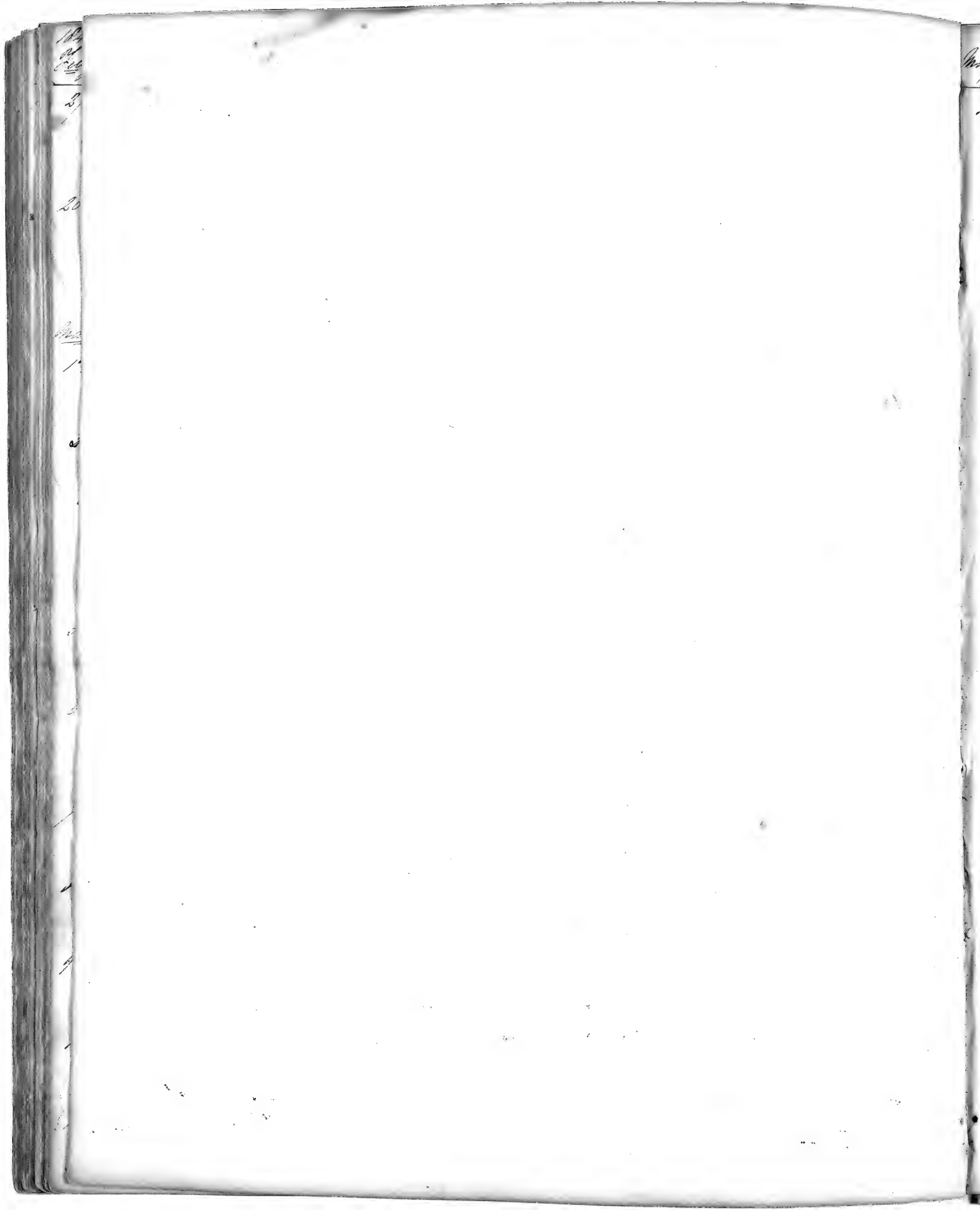
# St. Ice.

- 24<sup>th</sup> Lat. 69. 23. 52. - Long. 167. 55. 30. - Air 15-29 - Sea 28.5-29. Bar. 29.570 - 29.570  
 Was sailing with partly winds blowing & snow. Noon wind changed to W. & cleaner  
 & more moderate westerly gale at night. Sailing through young ice. Saw many  
 Cape, Stormy & a large Petrel - several Albatrosses brown gulls & a Finnian whale
- 25<sup>th</sup> Lat. 69. 56. 39. - Long. 167. 26. 18. - Air 14 - 26 - Sea 20.2-29.5. Bar. 29.692 - 962.  
 A strong N.W. gale (27) all day with clear weather - Last sight of the land this afternoon  
 at an angle to the Northward along a heavy pack with snow boys in it.  
 Saw many Cape & White Petrel - at 11.30 the Aurora made a beautiful display &  
 March the Westward.
- 1<sup>st</sup> Lat. 69. 4. 24" Long. 167. 12' Air. 19.5-22. - Sea 28-29. Barom. 29.794 - 29.860  
 No breeze with snow in the morning. Still off the pack with much ice about. Saw  
 many Cape penguins & a whale } Saw an Albatross of land N.W. to N.W. by land.
- 3<sup>rd</sup> Lat. 67. 32. 14. - Long. 167. 1. Air 11.7-15.5 - Sea 28-29. Barom. 29.664 - 854.  
 Drifting along the pack through much ice. Saw many Whales & Petrel.
- 4<sup>th</sup> Lat. 66. 43. 38 Long. 165. 45. Air 16-27. - Sea 28-28.5. Barom. 29.772 - 772.  
 Was falling in the forenoon to strong N.E. wind with snow; rising in afternoon to S.E. gale  
 with more snow. - Mason Island from S. 23 W. to S. 7 E. 25-30 miles off. Sailing through  
 heavy ice with a heavy sea saw many Fulmars - at 9 PM saw the Aurora & heard  
 many Petrel. Penguin. Sailed the Antarctic circle.
- 5<sup>th</sup> Lat. 65. 33. 43 Long. 167. 47. 17 Air. 23.5-26. - Sea 28.5-30. Barom. 29.709-939.  
 A strong wind with fine weather. Sailing much ice & snow. - Saw many Whales  
 Cape penguins brown gulls & blue petrel. At 9 PM a very fine Aurora.
- 6<sup>th</sup> Lat. 65. 50. 31. Long. 164. 45. 13 Air 24.5-31. Sea 28.5-29. Barom. 29.924-9901-  
 Light E wind & calms shifting at night with falling bar to North with snow. 28.871.  
 Many whales Cape penguin, white & blue petrel, brown gulls & penguin - few terns.  
 Sailed over the E extreme of the mountains land no soundings over it in 600 fm.
- 7<sup>th</sup> Lat. 65. 29. 27. Long. 163. 15. Air 24-32. Sea 28.5-29. Bar. 29.764-29.828.  
 N.W. breeze with the bar falling but rising again to S.W. winds - saw much  
 ice & many Fulmars - a faint Aurora at 10 pm.
- 8<sup>th</sup> Lat. 64. 37. 55 Long. 162. 53. 15. Air 26.5-32.5 Sea 28.5-31. Barom. 29.877-29.918  
 N.W. & N. winds with much snow - Sailing through young & stream ice. Saw  
 several whales & Penguin - at 15 a fine Petrelion
- 9<sup>th</sup> Lat. 64. 20. 53 Long. 164. 32 Air 30.5-33. Sea. 30-31. Barom. 29.880-615.  
 North winds & snow all the forenoon. - several blue petrel & shoal of porpoises  
 a few terns & several brown gulls & whales.
- 10<sup>th</sup> Lat. 64. 5. Long. 163. 17. 0 Air 30.5-31.5. Sea 29. 30.5. Bar. 29.536-682.  
 North gales with snow - many Cape penguins blue petrel & a black Albatross  
 some Fulmars &c
- 11<sup>th</sup> Lat 64. 3. 20 Long. 163-12. 11 Air 28-32.5 Sea 29-31. Barom. 29.807-580.  
 N.W. winds with snow. Many whales Cape penguin small & black Albatross  
 with a few Fulmars.



- 1<sup>st</sup> Lt. Atte saw a very bright Aurora - all day pouring through streams of ice & snow  
 ice. Saw several white polar bears.
- 2<sup>nd</sup> Lt. Atte saw 23 long. 160° 6. 18" Alt 16.5 - 27. Sea 20-29. Barom 23.791 - 560.
- 3<sup>rd</sup> Lt. Atte saw 23

Appearance of land 20th. H. W. to S. W. W.



- 12<sup>th</sup> Lat. 61. 12. 2 Long. 161. 28. 10 Air 25-33 Sea 20-29.5 Barom. 29.566-28.492.  
Wind N.W. S.W. very light with snow & gloomy weather - Killed some sea & saw several large  
New 2 spotted finnae whales - several Cape Pigeons small albatross & blue petrel.  
D. 45 A faint Aurora.
- 13<sup>th</sup> Lat. 63. 28. Long. 159. 35. Air 25-32. Sea 28-32. Barom. 29.500-29.411.  
N.W. gale in the morning with snow shifted to S.W. with gloomy weather  
Hearing the sea again saw a white petrel many Cape pigeon & another bird  
perhaps their young of which many were caught.
- 14<sup>th</sup> Lat. 63. 41. 33 Long. 156. 59 Air 26.5-30. Sea 29-30.5. Barom. 29.231-538  
N.W. winds with gloomy weather - several large i sight saw 2 white petrel.
- 15<sup>th</sup> Lat. 64. 0. 58 Long. 155. 53. Air 21-32. Sea 28-31. Bar. 29.263-28.818.  
Large heaves Cape pigeons, blue petrel snow all morning with light winds cloudy  
afternoon with N.W. S.W. winds
- 16<sup>th</sup> Lat. 64. 40. 11 Long. 154. 40 Air 20.5-23 Sea 28-29. Barom. 29.222-964  
light breezes with gloomy weather. some sea & many whales & birds 1 white petrel.
- 17<sup>th</sup> Lat. 65. 21. 30 Long. 152. 58 Air 21.5 25. Sea 28-29. Barom 28.99-29.022.  
N.W. winds with snow all the morning shifting to S.W. by S. with gloomy weather.  
Made the pack again much worse. saw sea, large & - saw several black albatross  
blue petrel Cape pigeons. 11 pm a pale white Aurora.
- 18<sup>th</sup> Lat. 63. 51. 0 Long. 157. 17 Air 26. 31.5 Sea 29. 31.5. Barom. 28.970-29.144  
Calms & variable winds gloomy weather.
- 19<sup>th</sup> Lat. 64. 21. 20 Long. 148. 36 Air 21-30.5- Sea 28-31. Barom 29.061-28.716.  
N.W. & S.W. winds with much snow all the morning clearing in the afternoon  
Hearing thunder (6) - At 12.15 AM saw the Aurora. Saw an albatross Cape pigeon  
& a brown gull at night swimming along the pack through streams, young sea.
- 20<sup>th</sup> Lat. 65. 10 Long. 143. 21. Air 17.5-22.5. Sea 28.5-29.5. Bar. 28.817-29.009.  
N.W. S winds with gloomy weather (6) - Swimming along the pack through much ice.  
Many heaves whales Cape pigeons penguins & a white petrel.
- 21<sup>th</sup> Lat. 64. 7 Long. 140. 22 Air 21.5-27.5. Sea 28-30. Barom. 29.050-29.260.  
N.W. & S.W. wind with a little snow - a shoal of porpoises going to the S. saw  
several Cape pigeons brown gulls blue petrel.
- 22<sup>th</sup> Lat. 62. 58 Long. 139. 18 Air 27-33.5. Sea 29. 31.5. Barom. 29.242-28.979  
S.W. winds with snow. Saw a whale many heaves - Saw the Aurora in the  
morning & a beautiful one at night.
- 23<sup>th</sup> Lat. 62. 12 Long. 136. 17. 45. Air 32-35 Sea 32-33. Barom. 29.953-29.122  
Light & variable wind with snow & gloomy weather - Saw Wharves  
Penguins & Cape Pigeons, & an sea hag. Heard a Aurora australis  
at night.

March

At Sea.

- 24<sup>th</sup> Lat. 61-11. Long. 133-52. Air 32-34 Sea 32-34. Mar. 29. <sup>385</sup> ~~385~~ 28 <sup>332</sup> ~~438~~  
 Strong easterly wind (6) with thick weather & much snow. Saw a Ptarmigan  
 & dusky Albatross - One Aurora at night. No Sables seen to day.
- 25<sup>th</sup> Lat. 60-22. Long. 131-28. Air 33.5-39 Sea 33.5-36. Mar. 29. 464-426.  
 Light easterly wind & clear weather - Saw many Sables & seals of  
 the Aurora white & yellow.
- 26<sup>th</sup> Lat. 59-24. Long. 130-3. Air 32-37.5. Sea 34-36. Mar. 29. 748-29168  
 S.W. winds with gloomy weather & some snow. Saw an Sable, an  
 Albatross, some Ptarmigan & Cape Pigeons & the Aurora night & morning
- 27<sup>th</sup> Lat. 58-3. Long. 128-40. Air 32-36. Sea 34.5-36. Mar. 29. 819-29223  
 Easterly wind with thick weather snow & rain. Saw large flocks  
 of Black Petrel ?? & an Aurora all night. No Sables.
- 28<sup>th</sup> Lat. 57-21. Long. 127-46. Air 35.5-39. Sea 36-37. Mar. 29. 238-2736  
 Strong N.W. gale with thick & squally weather - At 9 AM saw a large  
 flock of black colored birds by tens in a line over 6 or 7 miles going  
 to the N.E. supposed to be young of Cape Pigeon why? At 3.15 PM saw  
 another flock - Faint Aurora at night - None to.
- 29<sup>th</sup> Lat. 56-28. Long. 129-57. Air 36.5-38.5. Sea 36-38. Mar. 29. 755-29299.  
 Strong N.W. gale with cloudy & squally weather - Brilliant Aurora in  
 morning - 2 PM trapped many Gulls etc & saw several Mergs - Large  
 flocks of young Cape Pigeons - Many Stormy Petrel - Several large  
 schools of Porpoises going N. - Splendid Aurora at night.
- 30<sup>th</sup> Lat. 55-9. Long. 132-28. Air 36.5-44. Sea 37-39. Mar. 29. 335-683.  
 Light N.W. winds with clear weather - Aurora & falling stars in morning.  
 2 Sea buoys & some Penguins - Green & Pink Aurora at night
- 31<sup>st</sup> Lat. 54-6. Long. 134-51. Air 38-41. Sea 38-39. Mar. 29. 741-458  
 N.W. wind (4) with gloomy misty weather - Saw an Sable & Aurora  
 at morning - Albatross, Petrel, Stormy Petrel, Cape Pigeons - Many  
 an Aurora at night.

April

- 1<sup>st</sup> Lat. 53-4. Long. 135-10. Air 36-38 Sea 38-40.5. Mar. 29. 451-324.  
 N.W. winds with squally weather Rain in morning & snow in afternoon  
 an Sable seen from westward several Albatross Stormy & dusky Petrel
- 2<sup>nd</sup> Lat. 51-10. Long. 136-56. Air 36.5-45. Sea 40-42.5. Mar. 29. 568-326.  
 N.W. wind - ESE gale (2) at night with rain. Saw Penguins dusky & blue  
 Petrel & a pair of Leaved N.W. Gull sounded in 1540 fm. At 7 PM trapped 8 & 6.

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- 29<sup>th</sup> Lat. 44. 56. Long 138. 34. Air 38.3 - 42. Sea 42-47. Bar 29.327-707  
 from southerly gale (D) with equally weather - Many storm, I hope  
 4<sup>th</sup> except a whale, - sawed - Running before a heavy sea all day.
- 30<sup>th</sup> Lat. 46. 34. Long 140. 36. Air 41-44.7. Sea 49-51. Bar 29.709-30.145  
 Blowing a strong southerly gale (a 7) with equally & gloomy weather  
 at 6.30 AM running before a very heavy sea carried away the barrow.  
 25 ft cutter &c - Saw luminous patches in the water. Saw Porpoises  
 Penguins, Albatross Cape Pigeons &c.
- 31<sup>st</sup> Lat. 44. 52. Long 143. 27. Air 45-51.5. Sea 51-56. Bar. 30.162-29.973.  
 Variable light winds with rain in morning.
- 1<sup>st</sup> Lat. 44. 1. Long 145. 57. Air 51.5 - 59. Sea 53-50 Bar. 29.942-1045.  
 W. & W. wind (475) with much rain - 10.30 AM Land seen NE 1/2 E.  
 5.30 AM ramped cables - I made out Mouni Island Light.
- 2<sup>nd</sup> Position of Horn Blk & Derwent. At 1 AM Wind from port. Light - 0.45 AM  
 Pilot came on board - 12.10 Sir John Franklin's came on board, checked ship.  
 3.45. Came to with 13 1/2 fms off port. Water marked with 50 ft or 100 ft the W. N. W.  
 & 13 1/2 fms wind with 5/8 ft S. S. E. - at 7 AM went ashore to Messrs at 7

July

- 7<sup>th</sup> A.M. 6-40 Stepped anchor & made sail down the Derwent  
Major Stovay & Lang we took as passengers to Sydney. J. Howe &  
off Sullivan Cove & his by calling Sir John Franklin came on board  
9.30 Sir John left the ship saluted us with three - afternoon  
sailing down the channel.
- 8<sup>th</sup> Cape Pillar S. 58 W. North & West winds blowing an  
immense abundance of all these Albatrosses Cape Pigeons & Stormy  
Petrel many hundreds of Leucis.
- 9<sup>th</sup> Schouten Island N 92 W - winds light North & West  
The same birds seen as yesterday.
- 10<sup>th</sup> Lat. 40-44. Long 149-13. Air 52.5-57 Sea 52-54.5. West winds  
with the bar. rising much seaward but few birds.
- 11<sup>th</sup> Lat 37.50. Long 150-22. Air 54-60 Sea 54-59. Bar 30.196. }  
West winds, shifting to N.W. at night. Made the land of  
New Holland - Cape Howe N. 29. W. 22 miles. - No birds or very few.
- 12<sup>th</sup> Lat. 37-19 Long 151-37. Air 57. Sea 59-61. Bar 30.160. No birds seen. N.W. beating winds.
- 13<sup>th</sup> Lat. 36-1. Long 151-48. Air 58-59. Sea 59-61. S.W. winds  
heavy showers lightning & morning no birds, numerous flashes in  
water at night.
- 14<sup>th</sup> Early this morning descried Sydney head the southern of which is  
a very fine bold bluff - with a light house on the top. The coast of  
New Holland which we ran along this morning reminded me of parts  
of England the coast of Suffolk & Norfolk especially, it consisted of low  
cliffs of Sandstone stretching inland into downs covered with grass or  
a straggled green herbage there & there were white sandy beaches  
The distant hills were densely wooded with a kind vegetation of  
palm trees. 11 A.M. passed the mouth of Port Jackson a very large  
harbor with an open mouth & some reefs of rocks near the northern  
shore the cliffs all round are very low & somewhat steep. The yellow  
of the sandstone rocks contrasts much better with the dark foliage  
than the black volcanic cliffs of the estuary of the Derwent & the straits  
of these cliffs were brown oval. At 1 P.M. we were under the light house  
rock which is a very fine feature crowned with the light house & the





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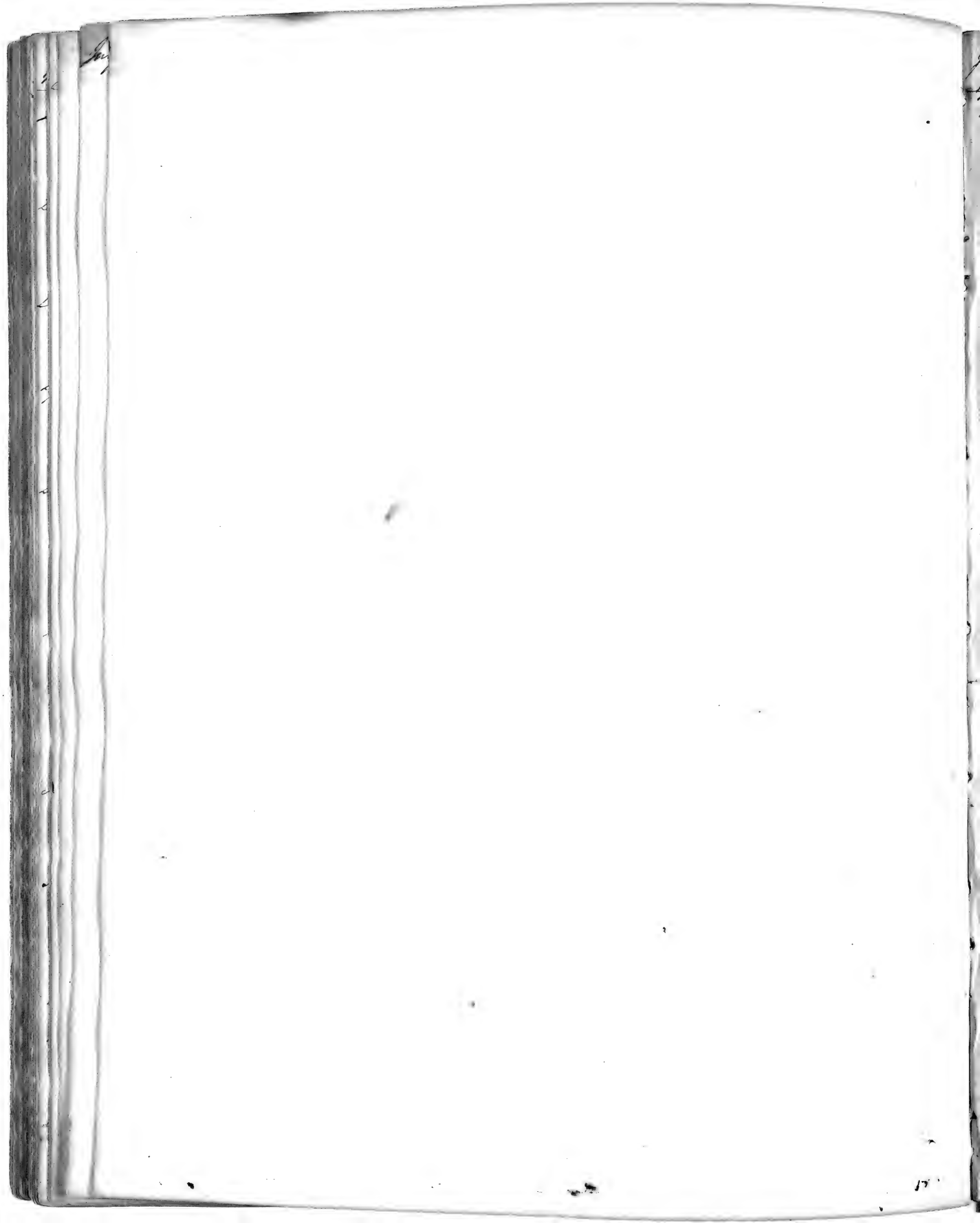
- 14<sup>th</sup> Several Mast on which were hanging numerous flags the entrance of Port Jackson is narrow & the view looking in is very pretty the hills & mountains are well wooded & there are so many bays that only the tops of the towers are seen & there are several windmills scattered the eye first & then some very fine houses indeed, the new government house especially not yet completed is built in the Egyptian style & is well placed on the top of a promontory opposite Garden Island below it is Mr Mr Leys the late colonial secretary a very handsome white build being - The house of Major Gibbs the custom & comptroller is also extremely pretty & the masonry several times the wind, sailed us & were obliged to tow the ships up to their moorings between Garden Island & the fort Jamaica opposite English Bay & inside Pinchgut Island it called several some convicts were once starved on that lonely little rock. Very little of the town is seen from the ships but part of the shipping higher up the Bay & a fine noble common anchorage. Some very fine Norfolk Island Pines are also great attractions as well as some not beautiful - In evening the watch & our own on board.
- 15<sup>th</sup> A fine young man ship the Herald arrived & anchored opposite us she seemed very full of both cabin & storage passengers. - Upon Mr Mr Leys, (jun) came on board with the Captain & a private friend & showed us the drawings of Constable made during the voyage. It is the only branch of that kind in which the particulars are carried so well - He told me of a genus of Hemiptera being common on the salt water of the Bay! Busy making up letters for home.
- 16<sup>th</sup> Had rain all day with S.W. wind, at times the rain falls more heavily than I ever remember having seen it. Sent letters to England. Capt. D. P. King came on board. Some fish caught in great numbers in the Bay with the Seine were brought along side they were called black fish & are very poor eating among them was a big fish called a whiting. All the evening there was heavy showers & flash lightning.
- 17<sup>th</sup> The rain has been falling without intermission all night & morning. Went ashore at 11 AM intending to call on Mr Mr Leys - but did not. Government called the government domain, it is comprised of several towns.

July 27th

July 27th

rock; the ground is very prettily laid out in numerous walks & drives among a low arborescence of Eucalypti Cassarina & Mankia Sphenocoma & Leptospermum. The Banksia & a beautiful Pimelia in beautiful bloom. After going the length of the domain the town is seen to the right hand & to the left a village of good gentlemen houses called Woolloomoollo with windmills on it. The town lies in a hollow running up from a Bay called the Cove the streets terminating in dirty sharps. The houses are very long with some fine stone building of a reddish sandstone but more dirty insignificant ones. They are broad but ill paved & in this weather very dirty. Public houses predominate. The Banacks are very large & the dead wall that surrounded them runs a long way down George's Street which it only disfigures. The Churches are not prepossessing on the exterior & there is a sad want of taste displayed in building them, one for instance has a cylindrical tower for a steeple with battlemented tops. Perand who are not some manner before the shop doors & smoking along the street seems very much practised, to such an extent that notices are often to be seen prohibiting the practice in places where no one in England would think of using the weed. - Vanilla cigars are the only ones used & the Argilian or Australian tobacco (both pig's head). The club house is said to be good but it excludes mates & their class of the Navy. - The Blue Bell Hotel is kept by a Mr Petty, close to the Banack gates & is certainly an extremely good one & moderate considering how high priced many things in the colony are. The market place is good & butcher meat cheap. Oranges though grown abundantly are dear for 1/6 to 3/4 per dozen. Other vegetables except Potatoes are scarce & the best of the latter are brought from Morris's river N.D.C. Some of the shops are good but none very fine none much finer than the Hobartown ones. - There seems a want of a good lounge or place of Rendezvous such as good Confectionaries. The whole town is perfectly English. - Went out to see Clerk's an experiment with Turbines & saw a very pretty little instrument the Thermo-Barometer constructed lately in England on the principle of the Lycopodium but Mercury is used instead of oil it was





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17.

Lydney.

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1841. manufactured by - its readings gave 30.32 while ours  
 on board stood at 30.328. I may here remark that the Barometer has  
 stood very high through all this deluge of rain having risen to  
 30.426 with the wind from N.W. by S to E.S. when the rain ceased  
 with the Barometer falling at 8 P.M. - This & June are the rainy  
 months when the falls often lasts for 8-10 days doing great damage.  
 On going down to the wharf to go on board the *Sudora* I met some  
 persons landing from the *Herald* when I was accosted by one of the  
 fair sex with "It is an uncommonly soft day" The *Herald* brought out from  
 Greenwich 303 Emigrants - The watermen here are equipped like  
 those in London - 4 pole skiffs or Wherries & one smaller strict regulation  
 lined with tin & brass addition in the *Sudora* Frigate Mr D. Egan the  
 agent here - Capt. A. gave in 1838 a bill to all the then inhabitants  
 of Port Phillip including the Governor who were ranked as gentlemen  
 they mustered 7. & another 7 months afterwards when 72 were entertained  
 At night the streets of Lydney are well lighted with gas - except at  
 the wharf where from the intense darkness I unluckily walked over  
 the into the water when I stuck in some sand up to my breast in water  
 At luckily the tide was no higher & I escaped with a dunking. - At  
 10 pm all the shops are shut up & Constables patrol the streets in aban-  
 doned who keep the peace. Oyster an abundant but only tolerably  
 good they are coarser than the English ones & have a longer shell.

1841. Cleared up with the Bar. falling all day with westerly winds - In afternoon  
 Mr Lind the barrackmaster late of Gibraltar came on board with Mr  
 Nathan the Marine Comptroller who set Myron's Hebrew Encyclopaedia to  
 music, he is a Turcomanian Jew - Landed on garden island on island  
 the observatory frame here. Placed its Lat. is 151. 15. 45. This  
 up than 1/2 mile long covered with small trees such as a *Suaeda frutescens*  
*Banksia*, *Casuarina*, *Leptospermum* & several others with which  
 I am unacquainted - On the *Banksia* a *Soranthus*? grew. There were  
 2 *Acacia* one like *Sophora* the other like *strita* of *Persea* & *Chilomena*  
 & *Adiantum* - A *Prospis* a *Quercus* *Myrica* - The stones were  
 covered with *Lichens* & the sea with a nodulated weed - A pretty  
 scarlet *Pyropus* & a curious cup shaped *Lyoperdon*? were the only  
 fungi except a *Clavaria* - *Agaricus* were common on the rocks with



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18th a Chiton & other shells. In the evening I tasted some Sydney apples like <sup>all the</sup> others I have tasted in hot climates they are sweet & without flavor.

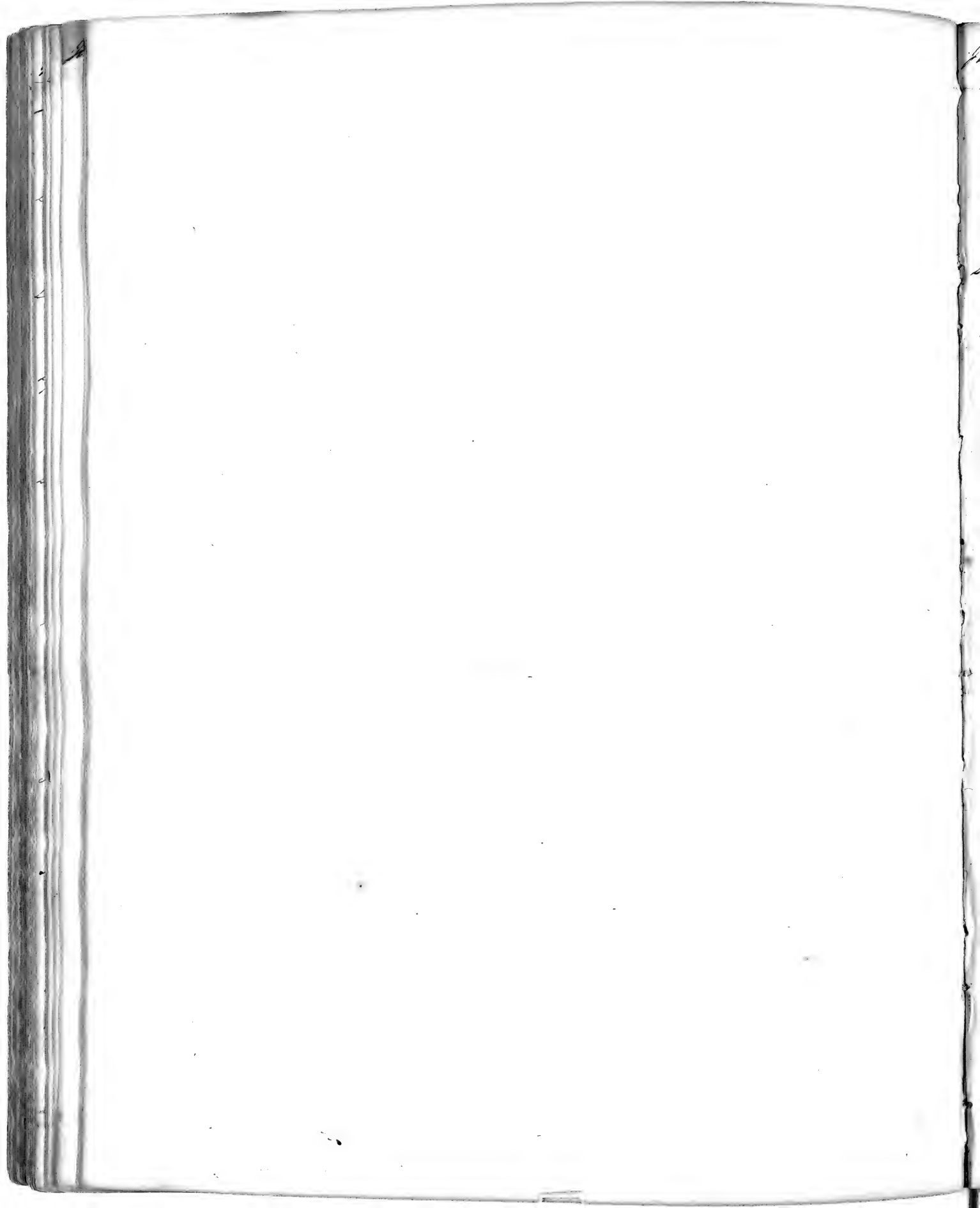
19th Stormy weather threatening to rain with the barometer rising - Capt. King & Mr Mac Leay came on board & were employed all day looking over our Southern collections. The presence of living corals at such great depths was proved never very remarkable - Some of the shells Capt King recognized as S. American especially the small yellow bivalve from the *Pracrocystis* - Dined in the cabin & heard a good deal of poor Allan Cunningham whom the disease which terminated in his death was contracted by sleeping too often in the open air in New Zealand a few hours before his death which occurred in Sydney Capt King called on him & told him of Capt Hobson's discoveries, his countenance was immediately brightened up & he asked "did they go into the interior" on hearing the answer "no" he seemed much disappointed & never spoke afterwards his head fell back on the pillow for the last time. Richard Cunningham through a good arrangement of collections was very inferior to his brother both in the field & in ~~the~~ knowledge he was unfortunately addicted to the bottle - Capt. Forster was an intimate friend of Capt Kings & before his leaving the Straits of Magellan was often in bad health which weakened him much, so much so that he was apt to suppose the day of our departure he should not have strength to save himself his after fate proved the truth of his words. - Many sea urchins of Dr. Purkin's kind were seen, rats & the Labyrinthian followed. - In the evening the same was drawn in some of the small bays when a good many fish were caught including cat fish, sting rays, Porcupine fish, Mackerel, Whiting, Gad fish very poisonous, & a small Sardine - a few shells were brought up but none of any value.

20th Tuesday - a tolerably fine day with strong wind from S. the barometer rising fast. Went ashore to the government domain with Hallett & Portman to the sandy soil found some very fine *Sparganium* *Staphidium* & *Macraea* - *Pinus* - *Geranium* on *Casuarina*, *Manis* 3 - *Quercus* & the *Bianthus frutescens* on sandy soil - *Gravillea*, *Persea* & *Myoporum*

21st Very heavy rain all day with S.W. winds & the barometer rising fast to 30.38. - Mr Mac Leay came on board again to look over some more of our Sea animals especially the Auckland Island ones. Among them is a *Galathea* very like the Arctic one & a fine *Gravillea* - It exhibits several from New Zealand land appears rather more nearly to the fossil *Trilobites* than



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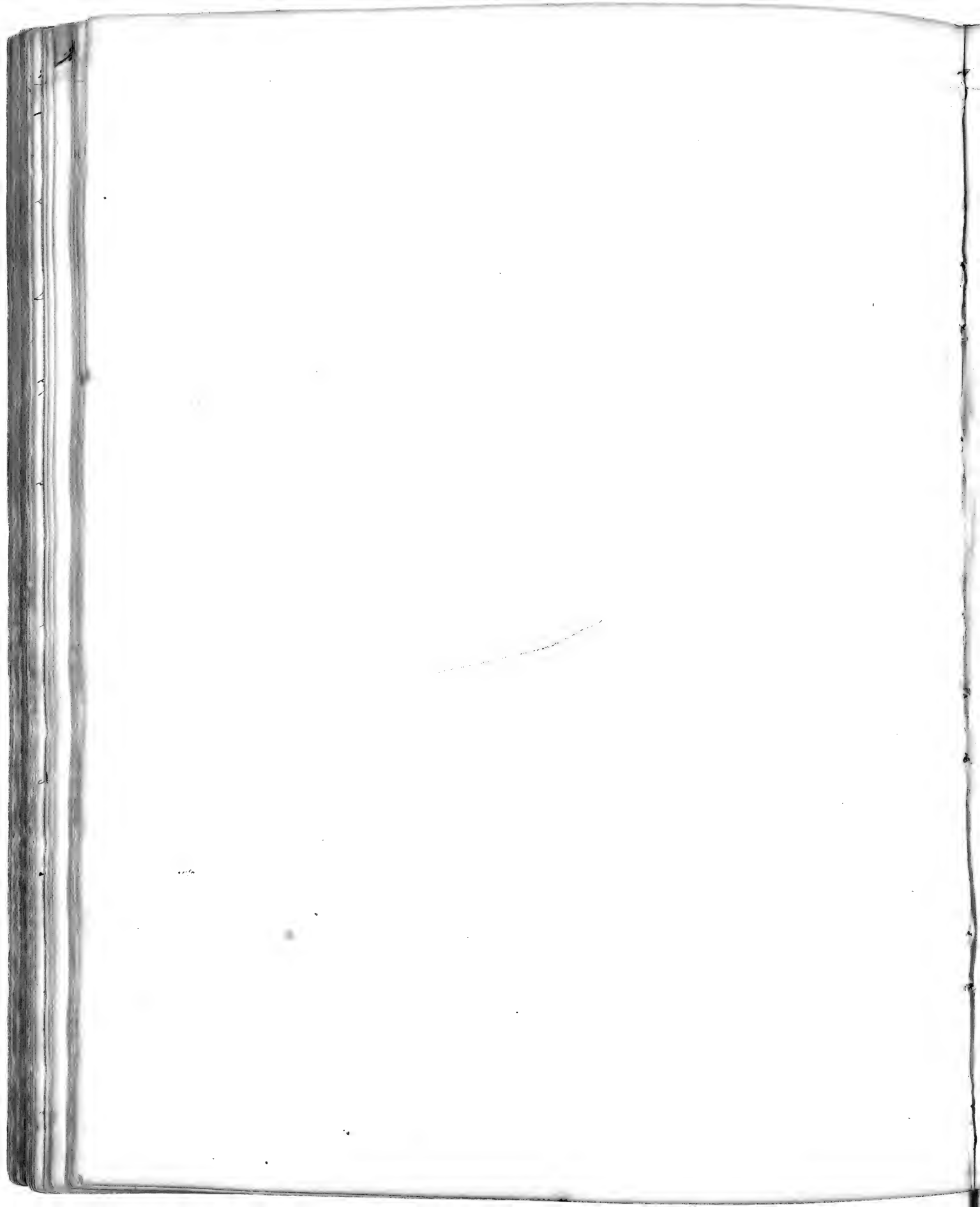
ing without, his covered the entrance being apparently wanting & the eye  
 see as in the fossil *Antonomos traca*. Was told that Dr. Huxley could tell  
 the age of a skull by the taste, which he proved by producing that of an old  
 woman buried a few years before which tasted greasy &c. The same was tried  
 again to night with good success. Baskely brought back some specimens of  
 the *Acmenes* & *Perostictium alii* &c.

22<sup>nd</sup> Thursday - stormy day employed all day, taking Brown-ston, changing, plants &  
 raining

23<sup>rd</sup> Sat 7<sup>th</sup> landed in Elizabeth Bay at the foot of some fine Sandstone rocks  
 opposite to Mr. P. Leary's house & next Mr. J. M. Sharp Mr. Leary in the  
 garden. We spent an hour looking over his beautiful grounds which  
 consist of 25 acres of sandy slopes and the hill & sub light soil on the  
 flats with occasionally a clay soil the Sandstone rocks breaking  
 out here & there. Though this was a most comfortable time for  
 visiting a garden every thing dripping with the torrents of rain  
 that had lately fallen, my surprise was unbounded at the beauty  
 natural beauties of the spot the inevitable taste with which  
 the grounds were laid out & the number & variety of the plants  
 which were collected together - The garden occupies the whole of  
 a beautiful bay, exposed to the North cleared in some places & in trees  
 covered with native shrubs such as the *Acmenes* - *Leptosperma*  
*Pittosporum muricatum*, *Glacarpus eguincarpus*, or fringe tree,  
*Dongarria excelsa*, *Lancia spiralis*, *Roulingia*, *Callitris*, *Casuarina*  
*Eucalyptus*, <sup>*Antipogon hastata*</sup> the wood pear tree & many smaller shrubs - The first  
 things that struck me were the abundance & luxuriance of many  
 species of orchidaceous Epiphytes which clustered & crowded over  
 the branches of many trees in sheltered spots most suitable to  
 their growth such as *Dendrobium acuminatum* n. sp. Mr. Leary -  
 another sp. with large yellow flowers, a *Gymnaria* from Hastings -  
*Gymnidium planum* all the former on a fig tree, with the mag-  
 nificent *Aspidochloa grandis* which envelopes the larger branches  
 like some gigantic fungus - On the rocks & stumps of trees in  
 similar situations there were pointed out to me among other  
 orchideae. the *Dendrobium muscipulum*. *Sarcobolus falcatus*  
 another *Gymnaria* from Macararra, *Dendrobium torrefolium* from  
 Cooks river, a *Coryanthes* from low pastures - *Phaenocarpa* *conium* &  
*Aspidochloa falcatus* both wild - On the rocks were specimens of the

*Dawsonia* n. sp? the same as *gemmae* from Ann May brought from the Bon Leay river several ferns as *Asplenium nidus*, *Pteris caudata*, an *Allantodia*? & *Acrostichum grande* adorned their most orchidaceous habitats in profusion the *A. nidus* especially throwing out a beautiful crown of deep green fronds 4 feet long. The Terrace which faces the sea in front of the house an of fine free stone which however gets sadly blackened by the dripping from the gum trees, there are tallered over & covered with *Papilion*, *Mignonia*, *Cacti*, *Aristolochia sempervirens* & *Yucca* which does here extremely well. Above this Terrace there is a fine lawn composed of *Clusia* & *Gynerium* *Dactyloctenium* the latter of which is sometimes got frost-bit. but together they form a short thick clastic turf. The house a beautiful 2 story square house is about 100 feet above the sea on which it looks down opposite Garden Island & the richly wooded banks of Port Jackson as far as the mouth of the Port where the town shuts out the sea & the north head with its precipitous bluffs is half hid by the South head on which is the Light house & Signal station. The garden below sloping down to the Bay forms an most exquisite foreground & the white ships of the horns of *Shijaboth* are strongly contrasted with the tower's foliage above & the deep blue water beneath. Behind the house are the Quarries from which the stones have been taken but as they have been cut away from the front of the hill they will form a most picturesque feature when planted over. The interior of the house by no means belies the exterior, the <sup>Parquet</sup> ~~hall~~ is large & adorned with beautiful marble hall tables & native marble white with rich brown & red variegations & the bustle of Polish of *Fine* of lime. The vestibule opens into a large oval atrium from which the rooms branch off lighted by a cornice with rich windows & lantern skylight. which a hand once stair case runs diagonally along the side to a gallery <sup>into</sup> ~~from~~ which the upper rooms open. On the right is the Library a magnificent lofty room well lined with the chief part of Mr Bon Leay's valuable collection of books chiefly of Natural History, it is lighted by three windows on one side of plate glass the panes & all the wood work are of what is called Cedar here the & looks as handsome as *Prady* any cabinets what appear to me Egyptian pillars & door ways.





The drawing room & dining room are in equally good taste & richly furnished the latter especially containing some good paintings. Mr. De Laey my father's old friend I found looking & conversing well though quite grey headed, he was busy with his & some his architect. Before breakfast we went down to the rocks to the West of the Quay where the *gleichenia spelunca* was growing very luxuriantly. The Devon's wharf was very beautiful the same which brought a shoal of herring & smelt or *Sardines* as good as the Italian fish - Many squid were taken (cuttle fish) which ejects a quantity of black matter when irritated - Sting rays & leather jackets were also common. Some best French wine is allowed to pass in the Quay & we are not allowed to walk on the shores above high water mark & as the houses on either side of the quay are steep there is no possibility of any persons intruding. At breakfast I was sweet cordially welcomed by Mrs & Miss De Laey & after it went upstairs to the wine book shop the smell of camphor & specimens so well known to me at home reminded me strongly of former times especially as I found every thing in the most stable mixture of confusion & order in which Mr. Brown's shop at the Museum & his rooms in Dean Street are wont to be. It was a square room with one window, 2 1/2 sides lined with cabinets & one with books for immediate reference the centre was occupied by a beautiful <sup>portable</sup> table framed in a cabinet of cedar containing 150? drawers framed & glazed 12 inches by 12" all of Sydney manufacture & equal to any thing I have seen at home Mr. Phillips of Liverpool not excepted. There were four other cabinets around the room - composed of an ordinary interest to the Antonomologist, all of the old fashioned forms, like chests of drawers below & folding <sup>down</sup> drawers & a single smaller top with glass doors lined inside with blue silk they were painted in a rich colour as brought by Mr. De Laey whose drawers are all formed of different kinds of woods, one of the best known of his insects was the *Scarabeus macropus* the second is that of General Davies the third Mr. De Laey's own containing many very rare insects a third of his British insects & the fourth Mr. De Laey's collection of cabinet. - Another unfinished new cedar cabinet is intended for *Crustacea* - Here also there is an immense & invulnerable collection of Cuban insects amounting to species



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23<sup>d</sup>

July 23<sup>d</sup>

A splendid & complete collection of Lake Insects in alcohol. These  
of Mr Perreux which both Mr F. & his brother & I have been collecting  
they were bought in boxes of 4 by inches containing perhaps  
sp. for 350<sup>l</sup>. The Australian collection is of course more varied  
in Propristocera especially & Lamelli cornes. - Of Crustaceae many are  
highly curious especially those from the northern & western parts of the  
Island brought by the Wato mast. At 11 AM the weather cleared up  
& the view of the mist rising from the hills & valleys was beautiful,  
a few clouds only hanging on the tops of the higher trees, while  
nature seemed to revive again, a few birds came out, the Diamond  
bird flitted from the trees, & the Large Sea Eagle (Ceryle) left his  
lonely lair & commenced wheeling over the calm waters of the bay.  
We went out this time to look over some of the larger trees on  
the ground, there were especially the Aracariae the Propell  
Island pine is particularly a Ulcera tree of which opposite the  
stable doors are nearly 30 ft high. The Callitris pyramidalis is wild  
on the grounds & forms a beautiful soft looking oval tree about 25 ft  
high with prominent twigs & leaves. Others are a curious Podocarpus  
from the north, the Chilian Aracaria imbricata, Aracaria odorata  
the Kauri & clausonara, Pinus longifolia, two New Zealand Podocarpus  
Aracaria portulacensis, Pinus abies, Juniperus penicillata, Burghas,  
Teacote occidentalis, rigida, Halimolobos maritima, pauciflora,  
capensis, longifolia, Pinus canariensis - six - a Chilian one.  
Among other curious tropical & other plants a Pothos from the Mr Sea  
river. Strelitzia australis, Eugenia jambos & Ardisia, Stadmannia,  
Phyllidrium, Strawia, Flagellaria, Papilionia & Ardisia, Sacconia,  
Coccoloba racemosa & the W. Indian water lemon P. lobatifolia, Placodium,  
Phoenix Leonensis, Sterculia, Cacti grafted on triangularis are C.  
spiphyllum, Flagellaria & Halimolobos. Siphocoma, Calanthe ver-  
atrifolia, Nubius rosafolius & the S. Ind species near it (without compound)  
but different, Alpinia nutans, Cinnam pedunculatum, Hellenium  
coruleum, Martonia, Corypha umbraculata, Sterculandron, Altingia,  
Isostemone with a profusion of yellow flowers, an S. Ind Baccharis,  
Cerbera Bahavia, Leid claudon austratifolium 15 ft high, - of the  
more curious native plants were. Doryanthes excelsa coming into  
flower with a stem 10 ft high. - Sterculia heterophylla, the Wato





This mountain is Tongviner superior in elevation to that of Segments, both  
are Volcanic but neither active

May 1st, a King George Island *Verticordia*, *Argemone*, *Grevillea*  
*obovata* a fine tree 20 ft from Anoretta Bay - *Polopoa speciosa* capitata  
 the noble Maratani of this colony - A *Capparis* from the North, a  
 Anoretta Bay *Pyronia* & *Dendrothele* *Loanthes* common on *Cassarea*  
 which it does not injure, another species that our Mr Leay has seen  
 as *apiculata* itself as to be so distinguished from this plant the *Cassarea*  
*Scaphothia elegans*, *Lychnis australis*, - of European plants the  
 Jay-dove well & all the common ones as Snowdrops, Daffodils  
 Jonquils &c. The *Crataegus oxyacantha* rather elongated in leaves &  
 Peduncles - *Canthaceae* succeed to *propagation* & the *plum* is now  
 sown or planted so as to grow into a hedge

From the former garden we went to the orchard among groves of  
 oranges, Lemons & sweet Lemons, *Carimovillas* & another perhaps  
 old limit Chinese species brought from S. Am. by the Yankee Squadron  
 The various other mancheria orange, *Euphorbia* *bona* & *Lechee* -  
*Custard* species, mangoes, the ever green *apricot* from China, *Avocado*  
 pear native & St. Ind. *peaches* - African *fig* apple, guavas, date  
 palms *Pandanus* *oculatus* the *Lechee* raised from seed ripened in the  
 garden, *Lamarcanda* & *Logan* *fig* & *peaches* & a short every fruit  
 except *gooseberries* & *currants* succeed, the apples though good are  
 often attacked by an *aphis* which nests among the roots & requires  
 the extirpation of the whole tree. A splendid olive tree here attains  
 a height of 30 ft. & bears much to abundance - *Strawberries*, *Plums*  
*Apricots*, *raspberries* &c &c - The vines also do well & grow in pineyards.  
 From thence we walked round the bay to Bush gutters bay & saw  
 the *Ady. cerea* forming a tree low heavy looking tree on the water edge.  
 & returning by a short cut to the house passing some most convenient  
 spots, especially the projection which forms the S. cape of Elizabeth  
 Bay which projects into a rocky precipice christened *Junium* on  
 which it is the intention to build a temple - In the forenoon we  
 remained in the museum till dinner time when Mr McDowell arrived  
 who has lately travelled a good deal through the northern Island of  
 New Zealand which he crossed having ascended a mountain 14000 ft  
 high from which he brought many new & curious plants & *Corus* -  
 some fine *Potto carpi* &c - I had nearly omitted mentioning Mr McDowell  
 when blood bound there very fine dogs one white & black of a tan

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the color with most intellectual lines on his countenance, the other  
was an old bitch & a pup dog both black with tan colored feet bellies  
& marks over the eyes. These dogs never bark when loose but bay  
& are very savage, they are set loose at night to guard the grounds  
The fourth is a Scotch blood hound called Wolf much larger more  
very trained & more savage than the others, though not so noble  
a looking animal.

24<sup>th</sup> A much finer day. Captains Pop & Crozier came to breakfast at  
9 AM. & we again went over the grounds - Our New Zeal property  
is valued at £2000 per acre - Some land in the town sold the other  
day at the rate of £5,000 per acre. At 1 PM went to meet our Michael  
at the club who took me to his house to show me the New  
Zealand plants amongst which is a specimen of *Dawsonia* as  
large as any of the ferns but more bushy leaved like the  
figure in the Encyc. Exot. From thence we went to the  
Botanic gardens beautifully situated in the bay except in the town  
they are neatly kept & tastefully laid out though I was much  
disappointed in the paucity of rare plants to be seen.

25<sup>th</sup> Sunday a very fine day - Pearson brought off me specimens of a  
beautiful *Laminaria* with serrated edges.

26<sup>th</sup> On opening the Maori cases found some of the *St. Aust. unis. & Amphipodius*  
to be alive in the inner box the Ferns packed round with mud  
all dead. Sent the former to our New Zeal. - went ashore to Garden  
Island found a few shells on sea weather, *Pteris tylosis* & a few other things

27<sup>th</sup> Tuesday a very fine day Major Mitchell & J. Nicholson came on board  
the latter gave me a very kind invitation to his house, thought our  
ships fitted in a very superior manner to those of the former some  
of whom were very nice fellows told me that at the same place also  
the same parallel as Auckland a stream of mineral waters issues  
from the top of a hill & discolours the waters of the sea for many miles.  
2 PM went ashore to botanize over the government domain with South  
got several things as a *Deer*, *Platanus americana*, *Laetia*, *Sonchus oleraceus*  
*linguiformis*, *Thymus ericifolia* *Epacridium* &c. Went to the Botanic gardens  
& walked about saw the sea horse strainer go down the harbor for Capt Phillip.  
& returned on board by tea time.

28<sup>th</sup> Wednesday raining with gloomy weather nearly all the day, wind  
changing, waves &c.

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July

Sydney

29<sup>th</sup>

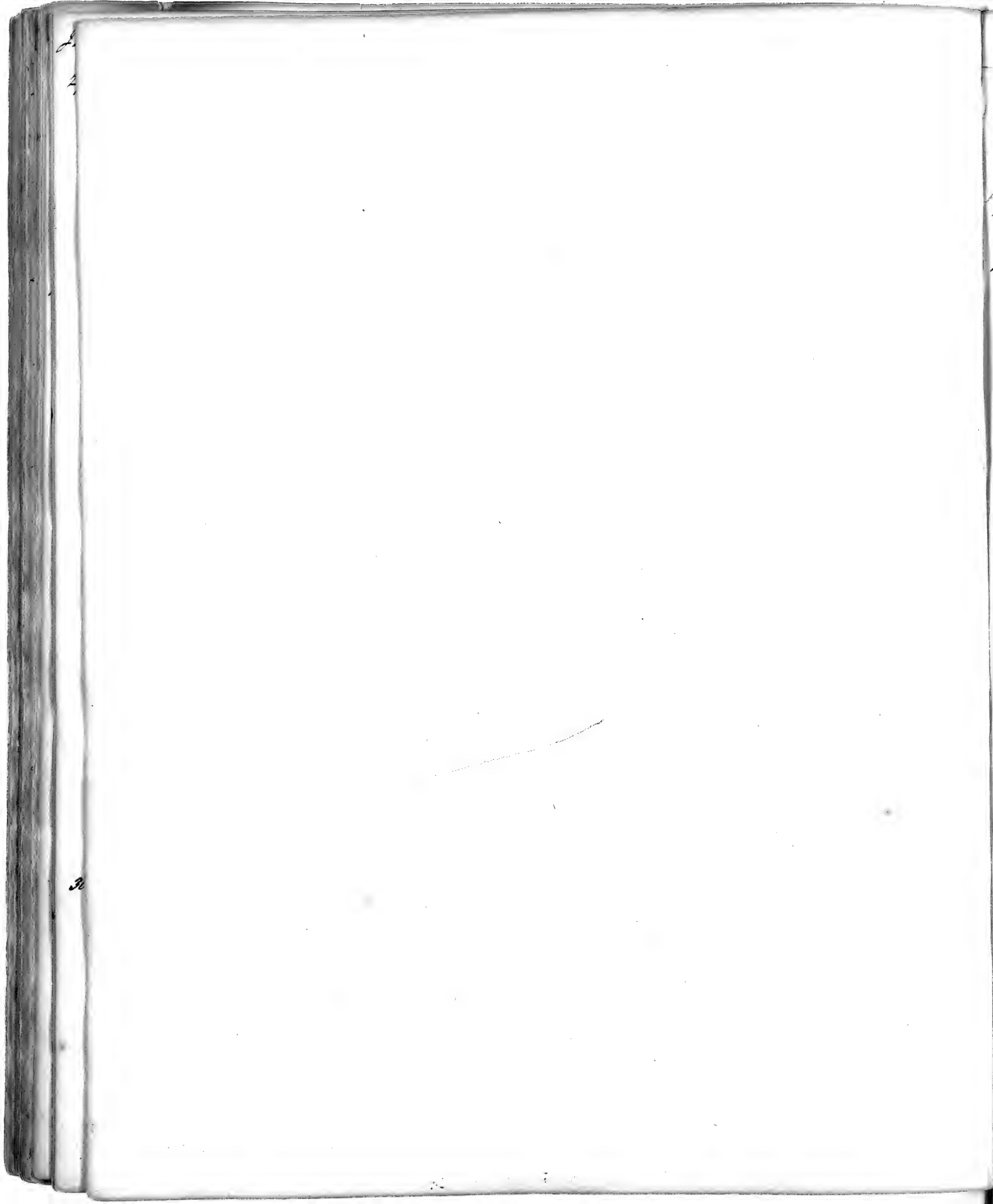
miscellaneous class of English farmers, Yorkshire from their speech, in their delight at being emancipated from the ship they dreamed of nothing but comforts to await them up the country & seemed to think that their hands hips were sure on tables of having a nice house with a Perandah on a hill near the water with garden & I really her husband must provide her such a one; little did she think that she will perhaps have to spend two years in a wretched house, with a marsh before the door & the bush for a Perandah; & another congratulated herself on the prospect of making herself useful by knitting muslin & cotton nets for her father, if in three months time she is making onion nets, or Sines for a neighbouring lagoon, it will be perhaps the brightest part of her daily toil. Generally speaking the young men were smoking, tea and drinking but in cold gray; one talked of going to a billiard table & another of the theatre, after having spent the day going about to milliners shops with their concertos - What this colony is for a settler I do not know, but to me there seemed a most mistaken set of people in their ideas of future comfort or happiness, if they are so rich as to afford these idle amusements, why leave home where they can be obtained at a much cheaper rate? if not his little all is much better spent in useful tools & books which he can buy here when he can afford time & opportunity to enjoy them. As a general rule to be observed by settlers in Van Diemen's Land & I suppose here, none but the male & stronger part of a family should come out first who should be ready & willing to endure many privations to the end that they may soon be able to receive their wives & sisters & to afford to them comforts which else they must procure in a hotel at an enormous expence. & from which they must be headstrongly debauched, & the money which was spent in procuring them recovered must be recovered by submitting yourself & family to a series of privations & sufferings. - It soon started raining & we started off through the town & government down air for the ships splashing through the mud at every step while the little machine compared us carrying our traps to a process among the bulldozers.

30<sup>th</sup>

a tolerably fine day - Started with Mr Smith for a walk to Motary bay, went into town first to get some salt for the towing out & some glass bottles for preserving animals - Passing some low cleared hills to the southward of the town we fell in with the eldest son of Judge Stephens who volunteered to accompany us, he had just emerged from the Sydney college school in England would be thought was they no higher hills than school for the tops of these hills the views of Port Jackson Sydney & the interior as far as the blue hills is very fine indeed though tame I think to a degree of a very faded color & very dry looking from the rivers being hid by the trees that cover most of the land. To the southward the low hills along the coast are distributed with the road here is very bad these hills being of a clay soil are very much cut up by the late rains & are almost impassable for a light vehicle.



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Further on we enter upon long & broad plains of low declivity, sand hills  
covered with a stunted vegetation 1 to 4 feet high. The road through this  
consists of a series of east tracks through the bush as deep as sand &  
like all the Sydney roads I have seen, consisting of 1/2 + sections again at all  
quarters. Several lagoons were passed among the hollows which through nearly  
the summer are now full of water & abound in fish & some small fish, plovers  
& a kind of Snipe. These banks are covered with different grasses & herbs as  
Juncea &c. while a pretty Callistemon & several handsome *Spartea* etc grow  
in them. The ground here is covered with *Mystaceae* & *Portulaca* especially  
the *Lambertia* & a *Leptospermum*, several curious small *Eucalypti* are  
common. A dissolious *Casuarina* of stunted growth some *Leguminosae* &c.  
About 4 miles on we passed a deserted black fishing water side beside  
a running stream over which there was a wooden bridge, in this stream a  
kind of trout are said to abound. Proceeding over similar ground for three  
miles further our descent commenced & a fine view of Port Jackson bay, fringed  
half a broad sheet of blue water. Apparently 6 or 8 miles long & 4 or 5 broad  
bounded by a low line of hills densely wooded at their base - a line of  
low wood before us indicated our approach to the salt water with a  
marked difference in the vegetation. A pretty *Acacia glaucochroa* grew in a  
marshy spot inside the woody belt among some *Cantharidaceae*. The  
trees were chiefly *Eucalypti* of no great size with *Acacia Brachyloba* a few  
*Leptospermum* & *Vicia* &c. Under which was a dense scrub of *Mystaceae* &  
*Portulaca* with a pretty white *Saprobium ceras* plant, *Remedios* climbing  
up the bushes with numerous clusters of blue flowers & other abortive plants.  
The breadth of this belt was about 1/2 a mile when we opened the waters of the  
bay, a large two story house belonging to a Mr Brown whose domes this were  
said to be the first, turning off through the bush to the eastward  
we came upon some huts with some boats lying off it & a family of the  
Aborigines the most degraded looking savages with the men & women with  
no clothes but a blanket thrown diagonally across their persons, about the feet  
were a species of tall grass & they with red calico to their legs nearly black  
with bushy black hair broad faces large mouths & high cheek bones, the  
women with immense necklaces of some beads round their throats, the men  
with long light slender fish bone spears armed with a simple iron spike.  
The huts were inhabited by white men, his partner, to one of whom we applied  
for something to eat but he was such a sulky dog that we could make nothing  
out of him at all so proceeding to another we found a very civil old man also  
a fisherman who engaged to provide us with a few hours time  
in the evening while we walked along the beach to the *Peruvia* monument  
The beach here is very low & sandy bounded by wooded banks & on  
low cliffs of sandstone among which the *Conocallis* grew in abundance  
There were few shells on the beach & in seaward.

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1841.

30<sup>th</sup>

# Bydney.

Proceeding nearly a mile we turned a cape & saw the entrance of the bay which was rather broad & bounded by low sand hills & sandstone cliffs on the north horn stand a square tablet erected by the french (having obtained the governors permission to La Perouse) this having been the last place where the camp were received of him, Capt. Cook having sent him here, until his melancholy death was decreed from the - (faded?)  
The distance of the monument from us being too far to allow of our reaching it this day I was glad to receive this further information from young Stephens.  
"During the stay of La Perouse at Botany Bay, Monsierr La Rocqueur  
"an artist to the expedition died from the effect of wound received from the  
"inhabitants of the Newingtons Isles; La Perouse erected a tomb to his  
"memory which was destroyed by the aborigines but Governor Phillip's  
"first Gov<sup>r</sup> of N. S. Wales caused the inscription to be engraved on a copper  
"plate & to be affixed to a tree, it seems thus written by La Perouse -

Hic jacet Le Rocqueur  
E. F. F. minima Gallia Sacerdos  
Phisicus in circumnavigatione  
Mundi.  
duce de La Perouse.  
Ab. 17. Feb. 1778.

I was unable to procure a copy of the inscription on the monument which I have described is long & written in French by what expedition I do not know.  
The name of the unfortunate La Perouse is so deeply engraven on the mind of every child & called up in mine so many associations connected with the time long gone by when what was known of his voyages & that of D'Entrecasteaux a search of him used to perhaps first turned my mind when for travelling that I looked upon this spot with no ordinary interest; The day however was drawing to a close & our prolonged fast which proved that it was dinner time so we returned to the two hermits and to enjoy a good dinner of coffee, champagne, &c. & the con. The old man had been 53 years in the colony & came out in one of the first prison ships having soon obtained his liberty he rapidly acquired a competency but was fortune overtook him. I not being such a far seer as most he neglected those golden opportunities which here have produced fortunes to his worthy members of society. His acquaintance with the colony was of course intimate having attended the first governor in all his excursions & knew Sydney before there was a good house in it. To young Stephens mainly I am indebted for the following account of the aborigines which he most kindly supplied in manuscript some of the facts were given me by the old fisherman & which I should corroborated afterwards - see opposite page.

Though it was bright moonlight we had some difficulty in finding our way back the numerous cart tracks so constantly intersected one another.



Jan  
1874

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July  
1841

Sydney

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31<sup>st</sup>

Morristown with Dr. Mitchell for whom I had brought letters from Mr. Waller is the favourite. In entering his study I was much pleased with the nice library it presented the books were a very choice selection chiefly of Philosophy & subjects of Natural History. Chemistry &c. On a table stood a very fine sphinx from New Zealand, a portrait of poor Allan Cunningham has hung in the room. Our conversation naturally turned upon the Expedition as when upon that of the American case when I was surprised to hear that Cunningham alone & Withers was much disliked by his officers, the better part of them especially, with whom he was not even upon speaking terms & further that they could not see so much land as he did & that though they could not tell him so they are persuaded that much of his coast line is imaginary, his temper seems to have been disagreeable & repulsive, which three of his officers however the Dr. Mitchell were very superior persons in deed. An extraordinary fact was related to me connected with the meteorology of the colony, namely that two large lakes, George & Bathurst have dried up since the British have settled here one of them entirely while the other has been dried into a chain of ponds they both abounded in fish & the largest the sea was 12 miles broad by 4 wide & sufficiently deep.

From Dr. Mitchell I went to Mr. Mitchell's who engaged to take me out to Bondi Bay in a gig on our way we called in at Mr. Mac Leary's - Ascending some hills lower down the harbor than Sydney we kept on a tolerably bad road past the Roman Catholic school & about 5 miles out of town descended a shallow valley toward the sea. Few new plants struck me on the road but a beautiful *Sprengelia* in full flower which is common on these heights, an *Epacris* & several *Protea*. Approaching the sea we entered a more humid atmosphere where several *Ferns*, a *Stegania* & the *Benemunda* barbate grass in great profusion. The head of the bay is sandy & covered with the *Linca aqua* & some *Grass* & *Epacris* plants. The sides steep & rocky covered with brush of a *Melastomaceae* & where some *Curias* & *Dioscorea* were abundant. Afternoon it commenced raining & continued sporadic night having capsize the gig on the inner stable road we drove home to dinner - both from Clouston's head.

August  
1<sup>st</sup>

Sunday

- 2<sup>nd</sup> Went ashore to Mr. Mac Leary's & found a fine *Scolothemia* on the rocks above high water mark. Saw a paper containing the new New Appoin. made 23<sup>rd</sup> March at night an eclipse of the moon total, shadow of penumbra very distinct.
- 3<sup>rd</sup> Excursion on and round the Island. The Day boat at low water mark to search for marine animals & seaweed, returned very successful.
- 4<sup>th</sup> Preparing for sea. Got 10 dozen bottles on board in preserving animals.
- 5<sup>th</sup> At 11 AM. Sailing down Port Jackson along the cold bottom sands & two cliffs driving Sydney with few regrets but at leaving Mr. Mac Leary's fine estate which I had seen was much to see.



1<sup>st</sup> August  
10 1841.

# At Sea.

- 6<sup>th</sup> Lat. 33. 52 Long 154. 8'. Bustering before strong breeze cloudy & rainy  
Wind N.W. Bar falling 29.78 to 55.3. Lightening at night in West.
- 7<sup>th</sup> Lat. 33. 57 Long 157. 14 Still raining before S.W. winds & the Bar rising; plenty  
of rain all day - no birds seen hitherto
- 8<sup>th</sup> Lat. 33. 27 Long 160. 43. - S.W. wind as before with little rain - Bar rising  
between 29.75 & 29.858 Temp. 56 to 59. Some Cape Pigeons & black albatross  
seen, a flying fish came on board
- 9<sup>th</sup> Lat. 33. 40 Long 164. 5 - Wind drawing to the S. & S.W. Clear & squally  
with rain - Saw 3 W. hales. Many falling stars at night.
- 10<sup>th</sup> Lat. 33. 41. Long 166. 23. Wind variable, squally with a little rain - Saw  
several albatross & Cape Pigeon - A shoal of Porpoises - One struck twisted  
the iron of the harpoon - They should be hit at right angles to the length  
so that the flat iron enters between the ribs - Many falling stars at night.
- 11<sup>th</sup> Lat. 33. 32. Long 167. 44. N.E. winds squally with a little rain - Bar at noon  
29.886. At 9:50 shortened sail & sailed in 200 fms. Bothen shells, corals  
black stones & a worm - But the dredge over which probably did not  
reach the bottom as it brought up very little - Saw two Solan geese & a  
shoal of Porpoises - Many falling stars at night.
- 12<sup>th</sup> Lat. 32. 53. Long 169. 25 N.E. & S.W. winds squally & rainy. Bar rising  
29.905 to 30.016. Tried for some time with 400 fms. line.
- 13<sup>th</sup> Lat. 32. 12. Long 170. 27. Bar rising to 30.170. N.E. winds squally with  
heavy rain all day. A shoal of Porpoises & all three albatrosses.
- 14<sup>th</sup> Lat. 33. 27 Long 171. 21. N.E. winds very squally with heavy rain all day.  
Many flocks of Seamed & black albatross & Cape Pigeons
- 15<sup>th</sup> Lat. 34. 22 Long 172. ~~22~~ N.E. winds squally & misty. Made the three Kings.  
which are the long island so called by our Seaman after the three Kings of Cologne  
or some such thing see Cunningham's Voy. who says "Abel Jansz Taorman a  
Dutch navigator despatched by the Government & Council of Tam Batavia  
in the 13<sup>th</sup> Dec. 1642 for the <sup>proposed</sup> Land in 42 S. & about 170 E. which was  
the West Shore of the North Island & New Zealand: His vessels the  
H. consvick a 400 ton & Zeehaan (Hen of the Sea) a fly boat ran to the North  
island covering neither inland nor animals - Entering Cook's Straits  
he anchored in Bundress Bay where he took a hearty dinner & boats crew  
from an attack of the natives. Before leaving he fired at two canoes -  
Steering along the E coast of the North Island & passing Cape Maria  
Par Diemen he made three little Islands & on the 6<sup>th</sup> January 1643  
came to an anchor in an offing on the North Side of the Island & in  
allusion to the Day Epiphany he named them Three Kings the names  
Christ having on that day been visited by the three Kings or wise  
men of the East. - Some Shags, Solan geese Black Petrel & Petrels with  
flying fish seen to day.



16<sup>th</sup> Lib. 34. 21 }  
Lons. 172 - 48 }

J. Allen  
10/18/88

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August  
1841.

At Sea.

Bay of Islands.

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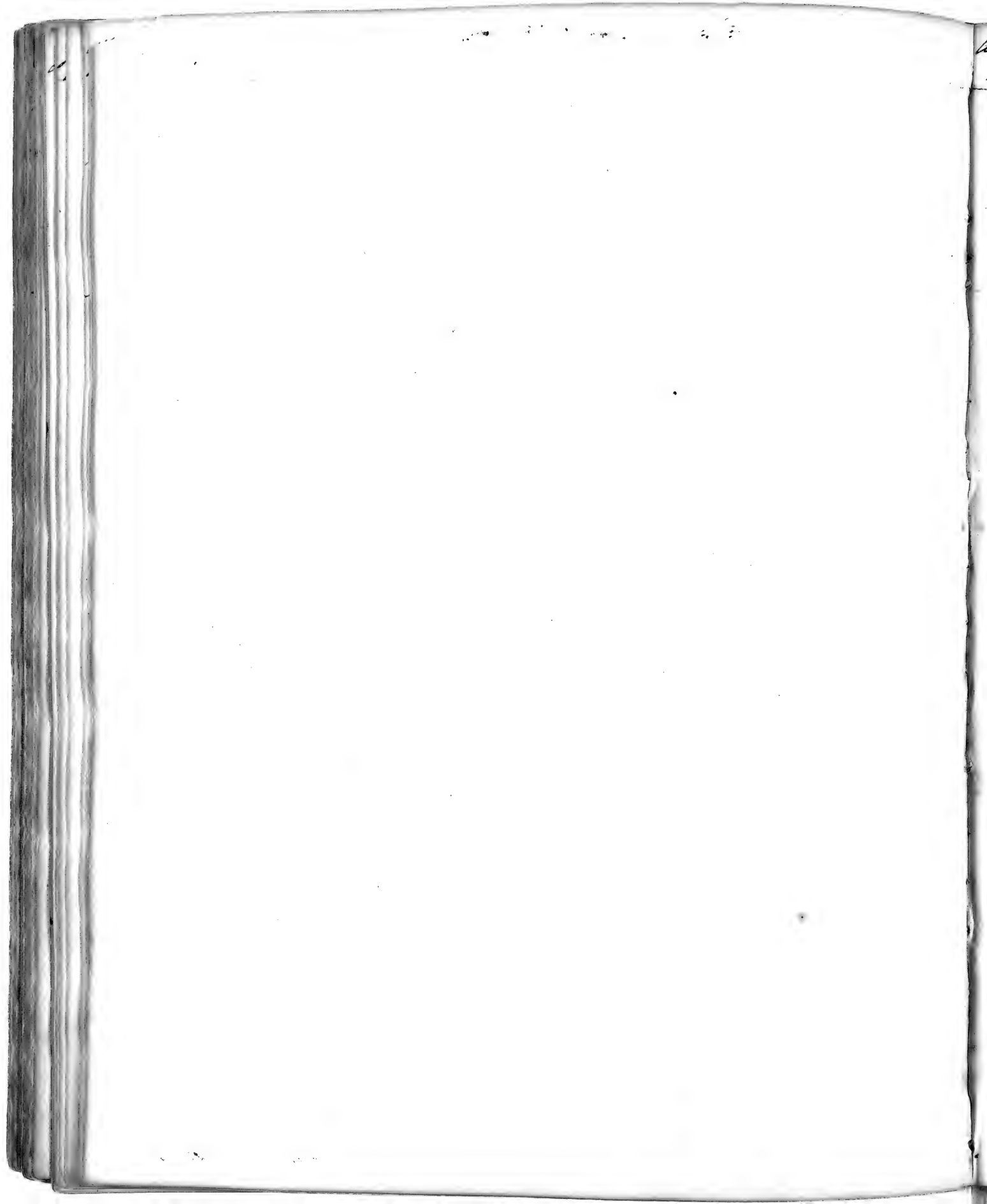
- 17th Lat 34 27. Long 73 30. (Many ice pellets, Nodules & Spherulites). (We are nearing the land very fast which consists of bare rocky colored hills about 1000 ft high under a soft breeze in towards the sea & passages covered with ice - Cape Maria Parry & North Cape conspicuous - many Nodules seen - Porpoises & all Gulls all between 10 and 12 - day 16th -
- 17th Ice mostly to ice the wind going along the coast with wind N.W. S.
- 18th Having laid to all night this morning the ship's head was put towards the land & though the weather was thick by getting on land later on both beams consisting of rocky bare capes & leading up we saw into the Bay of Islands with a thick & very squally weather tremendous rain & violent gusts of wind so that we could see very little of the scenery - several ice hills were gone off the horizon the only town on the N. side of the Bay & several several wharves - we saw the fort town Capt. Belcher. Proceeding with our Spruce we saw for a while the anchorage we came to in the lower lower river - a strong tide & this being the first harbor we ever came into with a sea wind we were soon covered the "river" between Pointe à Matla Bay to the S. E. of it the town S. W. of it a specimen & evening it continued raining hard.
- 19th A dense mist covering every thing so thickly that this morning we could see only a few miles - calm - light air by our side with a S.W. wind soon overclouded the beauty of points & bays of the Bay & the morning was obscured a calm & cloudy forenoon - A canoe coming along side we with some of our crew entered a wish to be landed indebted to a French gentleman. These canoes are made out of a single piece of wood thin & extremely wide shaped about 10 inches broad & 20 feet long with no keel. The bow & stern very raking & obtuse - very weak - The paddle set in the stern as in our own style joined below with a feathered screw, & eight shaft bones, & pointing tips & strike the water alternately on each side with a short paddle having a long pole <sup>drive</sup> between the blades, & quaters in the middle. we reached the shore in safety though we rather overclouded the little craft which sped with fleetness over the bay. Landing on the N. shore of the bay we started for Parvia the Indian or settlement where I had a letter to deliver to Mr. Colenso the printer to the establishment for Capt King. The shore was alternately sandy or rocky the rocks being low flat & or trap which here & there were cut in spots. The rocks there were produced in shells - a Hermit crab - some Tadpoles, Gammarus, a fine Skink, some Annelids, Chitons & Crabs & a curious little spider that swims over the surface of the salt water - Sand flies were very abundant & annoying they were small black flies that settle in swarms especially on the hands when after sucking their fill of blood they fly away leaving the spot of blood growing numerous vesicles, lead down in the water divided by low bushy hills with steep <sup>clay</sup> banks low and the water above the high water mark.

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Bay of Islands New Zealand.

19<sup>th</sup> The plant on the beach was the *Salicornia pedicellata* growing on the rocks but within high water mark but the specimens were small - Above this at the foot of the cliffs were the *Mitrasacme tomentosa* & *Myoporum laetevirens* the former a very fine tree coming into flower which like the Auckland Island one has the flowers terminal & the bark furnished with large tufts of pendent chloromata. The bark is whitish the leaves deep green with tomentose undersides its whole habit was that of the southern one mentioned & they doubtless form a separate genus perhaps peculiar to these Islands - Among the true wood a pretty *Leptospermum* with white flowers is very common & beautiful. During sharp noon a rocky point after a miles walk all suddenly opened before us & we were much struck with the beauty of the spot. Above a long sandy beach on which a long surf was rolling in a beautiful curve of about 1/4 mile round were some pretty white brick cottages fenced in with gardens & a long low wooden breakwater opposite the water & backed by some swelling wooded hills & valleys. The spot was retired in the extreme & shut out from all publicity - Several neatly & well dressed clean natives were at work in the gardens while other healthy & strong young men were launching a boat - Some little English girls (with long tails like *Monkeena* hair) were playing about one of the doors & altogether the place wore an air of English neatness & comfort that was pleasing in the extreme while the long canoes & black faces added interest & gave a foreign aspect to the scene. Asking for Mr Colenso's from an intelligent native we were directed to a square brick one storied cottage with a high roof in which was the printing establishment as well as the owners dwelling. Entering the the arrangements were they seemed all very busy & the sheets of native language well struck off & ready to be dried in the sun. I was surprised to find on the wall one of the time when I was going backward & forward & I should I was wont to act as printer & devil to my father. In the sitting room was a portrait of poor Allan Cunningham & a pretty line tree in a bottle as also some of my father's botanical works on a table - Mr Colenso's success in any kind of & talked some fine collections he had sent home & of the gratification their immediate acknowledgements gave him from Glasgow as also of Bishop's & Lady Franklin's visit. The difficulty now is going about the country arises from the scarcity of natives who being few in number are monopolized by the British at Korarika when their intercourse is not improving to the blacks - Any part of the country may now be travelled over with safety the natives invariably offering they never steal from the European who fear none but the





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1841.

Pichie, Bay of Islands.

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a depreaved set of remembrance & the outcasts of Sydney - of shells Mr Collins has 150 species with many insects & minerals in his little garden I saw the Longus carpus - Oleanthus pumilus. Thalassia Ferseri, a little Glomera from the Southward the Phormium tenax a curious far shaped variety of it with striped leaves like gardeners quarters & a new species of the same genus - Some double sweet violets pleased me beyond any thing not having seen the flower since leaving home - Some natives here invited us shaking hands all round smiling very good natured & seeming very well satisfied with themselves & others. From his house we went to look at the Chumka very neat low square white walled building with benches, clean wood floor pulpit & organ complete; it is generally well filled with about 100 natives who attend English service in the morning & native in the afternoon - Some small houses in the neighbourhood seemed a good breed & I was told they were Christian - Leaving Pichie we walked on passing a boat which was taking on board some geese round in a curious manner being enveloped singly or in pairs tail to tail by snatching their heads only being exposed which gave the living train the a wadd appearance - Some native women & girls came up & commenced jabbering their tongues they were short & square built broad shouldered copper black & very dirty with tangled black locks that hung over the backs of their heads & were cut short over the forehead Some wore ear ornaments of bone & another had a short shaggy grass petticoat very thick & clumsy - All the older ones were more or less tattooed especially at times on the sides of their cheeks blabbery lips which were in no wise tempting, they smoked & some carried child deer gipsy fashion on her back in an old counterpane - The shores of the bay were covered with Turnips, Radishes & cabbage & all seen to with & seed & among them a fine native Euphorbia like the E. glauca Hook & a smaller one - Other seaside plants were the Mycoporum laticornis a low very glossy green tree - The Longus carpus, Labiocornia indica an Exalis, Lonicera macrocarpa & the Antrodia before mentioned - Passing another bay we came to some flat marshy land & turned up towards a rounded valley bounded by some hills The rich soil of the plain gave place to Sparganium angustifolium, a Phragmites & some Scirpus with Procyon & Fernaria hygrometrica. The ground was very where covered with a Leptocarpus in beautiful flower, Hidradia pilosa ? L. Phragmites ? a Sparganium, Epitobia, Pellaea nodosa & Ceratium vulgatum ? At the foot of the valley was a large swamp breast high with Sagittaria angustifolia & Cyperus setulatus & lunate leaved Drosera & many marsh plants Hyacinth &c The hills were steep with rounded or conical summits formed of a reddish yellow stiff clay which formed long land slips carrying down the forms to the swamp below - They were covered with Pteris caudata



August  
19th

Bay of Islands - New Zealand.

1841. *Dioscorea esculenta*? & other ferns. The gully which ran among the hills was very deep & thickly wooded & at the bottom where the *Gaussia glauca* a fine tree fern grew was especially dense & dark. The trees were the *Corynocarpus*, *Vitex littoralis*, *Fuchsia eximiate*, *Prostrata*, *Arabidopsis*, *Pittosporum*, the *Daisy diem plumosum*? & other trees on which grew many ferns & Parasitic plants. The ground was covered with the *Asplenium sanguinolentum*, *Stegaria*, *Asplenium*, *Agrostis polypleura* & many other Ferns which preponderated above all other vegetation. *Asplenium* *Asplenium* *Asplenium* grew in the more open ground with a *Worm* among the *Rubus Schriberianus* crept over every thing & together with other climbing plants often rendered the thickets impenetrable. *Asplenium* were absent almost as was *Leucopogon fasciculatum* - The *Podopisium truncatulum* was very common with some Lichens - A little green bird was singing lustily among the woods & a pretty fly catcher? with a fan tail of white & grey feathers - Returning as we came we found a whole party of the natives opposite the *Misericordia* houses all well dressed some nearly as handsome fellows with well tattooed faces - One chief had a curious Chank tooth in his right ear & another a Parson bird skin in his - some of them went through some steps of a war dance which appeared to me to consist of violently stamping the foot on the ground in time & with regularity making certain motions with the head & hands & singing a monotonous quick howl - Opposite the ships we found a small large canoe to take us off with a man & woman, who had a fine dog & two mat baskets one of Potatoes & the other of Coles which are here abundant & good. The man wanted an equivalent sum for his trouble but did not seem to know the value of money & soon came down to a couple of shillings - He could not speak English & indeed I can scarcely find here so few who can among the natives. many of them at *Pachia* however could & also were clever arithmeticians for we tried them & found one labouring man who added up *Shillings* on the sand very quickly double the labour of the *Misericordia*.

20th Accompanied Mr. Baily & Abernethy in a boat up the *Caia* *Caia* river the past time over ~~some~~ sheep. After passing the *Barometer* the river gradually narrows through still nearly a mile broad its banks are steep & rocky with numerous mangrove swamps in deep bays, the water muddy & dirty. The trees on the banks are small & generally confined to the little valleys in the depths of which they gain a considerable height at times - These valleys however are of a bright green tint even now in winter time which strongly contrast with the lead green woods of the *Tararua* & of the *Hevon* river which this in some points resembles through distribution of the noble timber which adorns their rivers banks. Proceeding about



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two miles up we came to a very neat little built village belonging to a Capt. Balem on the Post Office close on the banks of the river - About a mile further up we landed at a Capt Swain's & crossing a hill came down to a Mangrove swamp said to be full of ducks but except a few Shags we saw no birds - The mangrove at the bank opened into a valley up which we went. The brushwood at the bank was adorned with the large *Lycopodium densum* *Dracopis brachyphyllum* & *Qualtheria antipodica* with the everlasting *Pteris* & *Asplenium* - In the wood which was rather dense & very steep were some beautiful *Asplenium* & other ferns. *Lycopodium volubile*? *Polypodium articulatum* climbing high up the trees - *Polypodium frustulatum*? *Hypolepis rufescens*, several *Lomaria* & *Asplenium*, *Allanetta oleifera*, *Asplenium lucidum*? *Pteris*, *Adiantum affine*, *Trichomanes venosum*, then a few *Asplenium* & above all the *Cyathea dealbata* which throws up stems about 12 ft high with a crown of leaves at the top. In reality these tree ferns, all far short of the Hawaiian *Diplazium arboreum* which I have seen attaining a height of 100 feet with stems 2 feet in circumference & a rich brown color & beautiful tufts of leaves of a rich yellow green & a graceful wave - while these are miserably herring gull like things with black stems a few inches in diameter & a naked tuft horizontal dark green fronds with silvery undersides - the latter their only beauty. There were also many specimens of what I took to be *Arca rapida* with *Lycopodium* *stolon*, *Arthropodium curvatum* & *Cordyline australis* which grows on the branches of trees in immense tufts sometimes crossing one with an immense mass. Among other trees were a *Coprosma* in flower & the *Phyllostachya* <sup>*trichomanoides*</sup> ~~*trichomanoides*~~ of small size however & what I took to be the *Fragaria* growing up a tree near the head of the valley the little *Pteris* *brachyphyllum* was in full flower of proper the chief were a *Durum* like *glauca*, *Passiflora tomentosa* some several *Cissampelos* & *Asplenium*, *Hootia* *quadricaria* & *rotundata* some *Pongia*, *Lycopodium*? *Mercurialis setigera* & *plum* *folia*, several *Schlotheimia* - & some more minute mosses *Lichens* & *Fungi* were seen to the top of the hill I collected a few more specimens of the *Phacelia* seen the day before, but it grew sparingly. The view from the summit was of a succession of low round topped hills covered with fern & here & there clumps of wood. All along the tops of these hills the natives have their tracks in which they walk in Indian file but I saw no signs of the fortifications that the Durum mentions. - And even in the neighbourhood of the villages hardly any cultivated land is to be seen. Keeping along the top of the hill towards a high one we crossed several heights & at length came to a wooded saddle looking

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Bay of Islands.

down from which into the valley the scathing summit of the Gastrea  
& the curious Arctostaphylos on the summits of the dead & live stumps &  
trees had a curious & beautiful effect among the bright green foliage  
which remarkably reminded me of Diana's seat in St Helena in some  
trees here the hickory stone was in fruit a little green leaved Discocarpus  
which I had found I think I saw in D. Auckland's Island - From this  
we ascended to the top of the hill about 900 ft above the sea & enjoyed a  
magnificent view of the bay, truly a bay of rocky islands & the sea beyond  
the river Rawa cawa winding up among wooded hills & to the  
Southward & Westward some detached ranges of blue high crater shaped  
mountains altogether the view was very fine though deficient in any  
striking point, it was pleasing & beautiful but not grand or fertile.  
Near the summit we shot a Lark & I found the Thalictrum Horstii a  
flower which is of a very pale purple or nearly white, & a small Prinos  
among some stones - From this we returned to the Westward & descended  
to a Mangrove swamp at the head of the Bay. The Swamp was  
left by the tide & very muddy, intersected by muddy deep streams over  
which we leaped & were nearly bogged at times the mud is of a yellow  
brown color out of which the Albizia tomentosa grows forming a  
thick green thicket of trees about 12-14 feet high branching from the base  
with smooth rounded dirty grey trunks & branches very sparingly leafy,  
under foot the mud was covered with the solitary shoots of the plant  
from 2-4 inches high all muddy. Delicious reptiles were abundant on these  
shoots & on the trunks of the trees while cackled a Quail? covered the  
ground. Some King fishes were common near the sea the Alcyon indianus  
was abundant. No Prinos but some blackish looking Arctostaphylos grow on these  
solitary shoots. Mangroves, nor did I see any insects. In the middle of the  
swamp were some large lumps of a vesicular slag like that which covers  
nearly all the Bay from quite distant from the hills which are Trap - walking  
around the Bay we came to some wet rocks where the Leptos tomentosa  
arborescens was abundant & is a very handsome tree from its bright  
thrust, pale green foliage & the large size of the capsule. The beautiful  
Rhipidolobus repens was also common with a little Peperomia  
perhaps the serotina Rich. - Further on on a rock there had settled  
an immense swarm of flies & another on a smaller rock near it which  
brought them there I cannot conceive as there appeared to me no attraction  
of animal matter on the bare shaded face of two particular rocks which  
they entirely blackened by their quantity. The rocks were trap within a  
few yards of the sea the one in particular on which they settled out of the  
two is most abundant & might have weighed 3 or 4 tons, thousands of  
similar rocks were near it on which there was not a single fly. nor did  
they seem to be busy about any thing about a mile further came to a  
similar swamp. A little flycatcher was busy visiting on them.

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1844.

Bay of Islands.

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During the day we came to the banks of the Cava Cava river opposite our ships at the residence of the American Consul who rents his house for 600 a year from a person who has been in the colony 23 years & who came out as carpenter to a whaler & has since by business &c amassed a great deal of money. I kept one of the missionaries but the oldest resident in New Zealand he is a Scotch man & was a school fellow of our Governor Abernethy. He very civilly gave us a boat to take us on board.

21<sup>st</sup> During plants all the morning. In the afternoon we sailed at Point Amatin where there is a small depot of 10 Soldiers the main body of military being at Auckland which has now become the seat of Government & the residence of Capt. Hobson the Lieut Governor. - Crossing the hill descended into a little valley running of the country from a mangrove swamp full of tree ferns & with the native huts also. Two of the ferns grow here the Dryopteris caespitosa & Asplenium ovatum. The former was a pretty young tree with several upright branches & the latter had a stem a inch about 50 ft high branched only at the top of a rich red brown cylindrical & straight, about 3 feet in diameter - some little fly catches grow & look like 10 feet of grass birds were shot in the woods of the valley. The Holmstromia vegetation took great sprouts & drooping branches of trees with an Orthocentrus chromis which was a little Reddish Shrimp. In the lowest parts of the valley, the plants in common were uniformis were abundant on the ground, stones & trunks of trees with Hymenophyllum & several other ferns. Near the head of the valley the little Phacelias pauciflora was abundant & the dicentra reticulata. I met not in flower on the top of the hill we came to one of the numerous little native paths which intersect the country & found a little signal made of two sticks splined together stuck into the ground with a bit of red cloth at the top - a practice common among the Maori. Descended to the beach opposite the ships & in looking a piece of rock near the sea found a species of Peris? living in such situations.

24<sup>th</sup> A Sydney ship brought letters from home & the Tong boat & ultimately lay a week came down by Van Diemen's Land.

25<sup>th</sup> Walked along the beach opposite the ships to Paikia, found several seaweeds & a curious epidermis remaining on the top of the salt water and a pretty white sea plant not a Cornucopia flora a species of ichtyocolla near uniformis Stm. At Paikia made arrangements with Mr Colenso to start next morning for the falls of the Kidi-Kidi river.

26<sup>th</sup> Set out early this morning for Paikia & found Mr Colenso already waiting with a nice boat & a crew of 3 boys to give us on our excursion - Sailing down the bay we landed opposite the entrance of the harbor at a point on Mr Mackay's estate called Maatanga it was a low steep mass of black trap rocks upon which a dangerous spit runs out to sea on these rocks several snappers & Licium gracile grow with an Asplenium near caespitosa & new Chilanthoides & Juncea Pomelia with guar if arous leaves Talium indica, Sambucus littora also & the large huphorbia all seems chiefly above high water mark. A stoa & whirl do not leave the sea coast.



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# Keri Keri river New Zealand

Above them were the *Mycopogon latum* & *Melasiolus tomentosus* while the rising ground was usually densely covered with *Leptocarpum* & *Pomadourus viviparus* & *Pteris* - A curious little bristled scurrier perhaps a *Chondrus* was common on the rocks & on the beds pools a kind of great settler & swarmer - A few insects were found under the stones - some *Geophila* & a large *Fosficula* a tailless scorpion & small *Scelopendra* - *Senecio muricatus* formed large dense tufts - with a small *Scelopris* & other *Proseris*. *Arthropod* *diversus* *endyline* & *Phormium tenax* We now commenced sailing across the bay for Herts passage but it blew so strong that a bubble of sea got up between the dipping tide & wind & lowering the sail pulled for Point Herts passage at the mouth of the Keri Keri gables from Paria - *Senecio* as we under some steep trap precipices had found nothing to interest; the *Proseris* commenced their dances by dancing a fire to boil their potatoes before settling themselves they strip off their trousers & coats wrap in a blanket until <sup>the</sup> is accomplished they do not seem half comfortable - Near the mouth of the river are several small Islands & large shoals which at low water extend nearly across - I was much surprised to see the extensive operations the natives had conducted here especially in flattening the tops of the hills & digging huge trenches round them in the clay soil almost all of these hills there were very many bare marks of fortifications. Their mode of warfare was very desolating & consisted in taking possession of the hill tops as long as they could, depending themselves with simple embarked spears of wood which are however so slender that the forest was generally to break off & the curious stone club called *Meri* they stationed avoided close quarters & when they were forced to it though always with extreme reluctance, they fought with savage ferocity. They invariably kept along the hill tops to avoid ambushes of which they stand in great dread. Many of their cuts & clearings might easily be taken as marks of old water levels or other geological formations. - About two miles above the mouth of the river it is intersected by two parallel narrow black trap dikes about 200 yards across leaving here & there passages for boats they are about a mile long & frequent more or less above the water - a small peninsula is not uncommon here which seems like a rock. Garnets gulls & Tern are also abundant - About two miles further up we landed on a small rounded Island a mud channel - or rather mud was between the shores for the real channel is very narrow & compared to the North side of the river bounded by the South by an immense flat sand bank left dry at low water & abounding in cockles - The Island was called *Taranakke* & from it of clay stone on it were the *Pteris* in immense abundance - *Senecio myrtilus* & *Wahlbergia* the pretty *Pimenta* several *Proseris* - *Arthropod* in great abundance & above all the magnificent scarves of crimson flowers the leaves were a low bush with magnificent scarves of crimson flowers the leaves were much eaten by some insect - The top of the Island was flattened & was for purposes of warfare & it was lately sold to an Englishman for £3 for what purpose I cannot conceive it is not more than an acre in area.

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About 3 miles past the Island the river narrows to about 200 yards and flows through mangrove swamps amongst low woods marked hills. In places one or two very green spots where the *Phormium tenax* flourished I was told that they were left untouched from being valued or sacred to the memory of a chief's wife buried there. The natives from motives of fear & superstition dared to gather any of the plants that they saw grow. This appearance of the *Potamogeton nodosus* began to be common along the banks it was a small branching watered tree with numerous green almost yellow blossoms. The rocks of the bed of the river are considerably rough after overlying a kind of white clay called here pipe clay & used as such. Passing a two fortified hill the residence of the late deceased chief. Having we came to a dead end bend of the river & after our usual stormy journey were kindly well come by our hosts. The Missionary residence at Keri Keri (pronounced Kiodi Kiodi) a rapid here prevents boats ascending higher & we disembarked opposite a large stone two storied building built by the Missionaries in which they store their stores for trade to with the natives. The site of the settlement was very naked the only trees being those issued from around the house consisting of peaches apples &c. - The floors of the rooms were covered with mats made of the *Phormium* & the lower with others of a finer description was only worn by the natives as slacks & generally were supported by a dirty English blanket. The borders of these mats are often beautifully worked in with patterns of black & red the former color produced by the bark of the *Khas cusperus* human & the latter from roots picked from sea-side shrubs. These mats were common & a much higher price than those they should have & hence it is very difficult to procure a really good one under £2.0.0 & the same may be said of their clubs axes & other carved instruments.

27<sup>th</sup> The morning broke beautifully though some heavy clouds to our view. I was about a regular day. - Saw a magnificently dressed chief who was as usual wrapped in a dirty blanket his naked forehead for he was adorned in gear even reached up to the crown of the head a beautiful diverging curved line from the meeting of the eyebrows. He was of commanding height with a fine open good natured countenance & in talking to us had his most polite gestures & soft flowing language appeared quite courteous. On asking the natives for an explanation of the language he gave me to understand that the natives were in the habit of picking up enormous quantities of Potatoes & wither work frames to make what feast large sometimes several tribes subscribe they then wash the whole pile & as a given signal they all fall to with their hands & in a few minutes, such is the capacity of their stoms that an enormous quantity of the roots are devoured. - The procedure put me in mind of the lessons commemorated in the Druids crossing our forefathers. The necessary consequences of these feasts in a country where the soil is naturally ungrateful is a famine with its concomitant train of evils & it is on this account that the Missionaries who are any thing but averse to the natives retaining their innocent amuse-

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# Falls of the Keri Keri river New Zealand.

ments have long been endeavouring to dissuade them from this feat. - On Mr Kemp's telling this story that he preferred such a meeting to Church the spirit immediately answered that there was no more harm in his going to the feast than in the inferior ones attending committees which like our Scotch fairs of the terminate in a succession of agreeable reverses.

Before breakfast about a dozen little native girls met for morning prayer & sang a hymn very correctly & with voices of a sweet fuller tone than the throats of their equals in Britain would produce. The river here is not much more than 30 yards wide & we crossed it below a little fall & ascended the opposite bank to some flat hills covered with short Fern & the usual fern land plants & totally bare of trees. Proceeding up the river towards the falls of the Keri Keri saw immense quantities of the *Podocarpus*, *Leucostyge* *Leucostyge* & the leaves of the *Microtis* - *Pteris hirsuticoides* & *attenuata* the former I can scarcely suppose to be an introduced plant - these in many places the *Gleichenia hirsuta* grows 3 or 4 feet high.

A walk of about a mile brought us within hearing of the falls & we soon afterwards sighted it. The river in the shape of a rapid stream runs through open Fern lands & suddenly precipitates itself over a mass of trap boulders columns of 76 feet high in one clean fall in an immense wooded basin receives the flood & a beautiful rain-bow spans the dark ravine. The effect of looking down over the fall into the steep below is very pleasing from the variety of foliage from the dark green *Cephaelis* & *Linum catharticum* to the lighter glaucous *Lauri* & the pale waving fronds of the tree ferns which first met like magnificent plumes of feathers. Above the fall the river runs among brushwood & then the little *Qualitaria fluvialis* & the *Drocephalum Tapanianum* abound. Descending by a narrow winding path into the ravine the transition from a soft open Fern land to a steep & rank forest was very sudden & we at once plunged into a region of proper ferns though a careful & practiced eye could with a little study define the limits not only of the great classes & orders but of many species with accuracy. At the base of the valley the masses of tree ferns consisting of both *Gymnocarpium glaucum* & *medium*, *Loxoma tenuisquamis*, *Homophylloides*, & *Lomaria Fraseri* which has a peculiar appearance was quite remarkable. The *Lauri* *Tanacetum* another formed large trees with the *Distichlis distans* & *Fuchsia exaristata* though there was no timber of any great size. Proceeding upwards to the falls the narrow path became almost dangerous from the quantity of water & the slippery tops of the columns - a large cavern runs about 20 yards under the cascade formed by the removal of a large bed of soft clay about 12 feet thick which the immense body of water resting on a mass of hexagonal columns held together merely by the cohesion of their adjacent sides inspired a feeling of dread as on feeling oneself under so enormous a weight in combination held together by its all appearance such a precarious slight means of which must at some future time prove too slender a support when many thousands

of iron & rock will be precipitated with a few feet short into the black shales  
 beneath. The cavern was very dark & produced some curious ferns & mosses  
 & very large seaweeds *Marchantia* & a beautiful little *Mercurialis* which lined the  
 roof in which also grew the *Mercurialis depressa* &c. - Under the fall of water itself  
 the little *Exilis* *retrofracta* & *gracilissima*. *Veronica* were common with  
 the magnificent *Hypnum Menziesii*, *filicoides* & *comosum*? - Followed  
 the river down on the opposite side in a dense jungle among which the  
*Polypodium* & *Lygodium* showed out their long wing stems - Found an  
*Antennaria filicifolia* which I had several times small but which from  
 its sameness of color &c. to the *Senecio* *tenax* & some leaf-moss was easily over-  
 looked the name is certainly most appropriate though I cannot agree  
 with Mr. Linnæus as to its nearest affinities. The little *Polypodium*  
*hypnum* was very abundant with the *Corina* *Emersleyi* & many other  
 plants new to me & *Impatiens* *innumerable* - Ascending from the fall found  
 the *Phacelanthus*, *Asplenium* & little *Strophitis* very abundant - Birds &  
 insects were very scarce. Followed the river for about a mile above its fall  
 the banks are lined with the two common *Dracontophyllum* - *Knightsia* *eximia*  
 small & the *Persea* *Tenuis* - *Leptospermum* on which the curious little  
*Persea* *salicoides* *viridiflora* & *Fraxinea* *antipoda* with some *Conocarpus*  
 & other plants - Descended to the valley to take a last look at the rich variety  
 of vegetation of which the common shrubs & trees are *Lauri*, *Coprosma*  
*Parviflora*, *Leptospermum*, *Conocarpus*, *Coronocarpus*, *Ficoides*, *Podocarpus*,  
*Castanea*, *Myrica* *glaberrima* & *Metrosideros* *obovata* a few - Returned to the camp by  
 dark & enjoyed a pleasant sail back to Pichia landing at Tararua  
 as we passed for specimens of the *Chrysanthemum*. -

11th. Walked along beach to Pichia - At Main Bay & which the observations on island  
 there is an extensive flat of which a narrow river runs & a broad sand flat extends  
 for some hundred yards across the mouth of the lower lagoon. On the margin of  
 the flat immediately at high water mark are an immense quantity of the roots  
 & branches of mangroves which are now exposed to a depth of 12 ft. above the flat  
 where the river forms a large swamp. A few stables & I viewed an *Atteris* up  
 on the beach - collected some *Impatiens* & made arrangement with Mr. Collins  
 for starting on the morrow for Wai-caddi. - Close to the high water mark  
 on the beach beyond the observations are three or four solitary trees about 45 ft high  
 of the *Cordylus* under which the unfortunate Capt. Marion's body was cooked  
 & was afterward as is customary with the natives removed to a distance to  
 be eaten. An old man seen lately since known to the inhabitants who was  
 present at the time of the murder which was said to be going to the French  
 cutting wood on a *Talood* place - The ground about these trees has been  
 talood ever since & the beach known by the name of Marion - The extensive  
 sand flats are the favorite resort of numerous cockles & other bivalves, hence  
 the natives of one district purchase the right of gathering them for a certain  
 time from the owners when at spring tides thousands of hands come  
 down the river & the women immediately commence collecting, using a small



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piece of stick to turn up the sand & picking up the shell fish with extra-ordinary dexterity. The men never or hardly ever assist their helpmates but scunter along the beach or making a fire commencing cooking & eating them, they are called Papis & as often eaten raw as cooked when they are opened by smashing them one against the other.

2<sup>nd</sup>

On 7<sup>th</sup> Mr. Adams came along side for me with his boat - The morning was foggy in the extreme & calm showing the sea quite white - proceeding up the Kawa Kawa river about a mile we turned off to ascend the Mt. Dore a light breeze springing up & dissipating the fog in this the broad part of the river. The rich vegetation along the banks began now to be evidenced by the Pomadouria Kimmerichia coming into flower a plant which was much a favorite with poor Cunningham that the natives always called him by its specific name - Popping Capt. Watermans some extensive second forest were pointed out to me on the hills, caused by the natives firing indiscriminately any part of the ground where they wish to commence planting & letting the fires run into the whole forest when immense tracts of land are laid bare & timber of immense value wantonly destroyed. From the East the river turns up to the Southward & narrows considerably among some high densely timbered hills. The scenery here is remarkably beautiful, from the numerous deep valleys & the richly wooded forests that run out into the water - The fog still continued to hang in the low sheltered parts of the river & the sun now up caused a curious low snow white rainbow a little above the water. Here we met the "Torons" boats coming down loaded with spears of fine wood that had been cut in some of these valleys - A little higher up the river ran through a long flat muddy bed covered with low mangrove trees amongst which were numerous double Island geese & some Gulls feeding on the shell fish. These extensive mangrove swamps so often occur where the salt water meets the fresh in these rivers above which they run with more rapidity through deeper channels & accompanied by a marked difference in the vegetation - Through the trees glimpses of peaches in full flower whose petals in some cases nearly covered the stream showed that we were approaching a Missions station - It being low water we had some difficulty in getting up to a small creek where we put the boat & crossing a low rustic weir came to a large stockaded Pah, which though contiguous to the Missions settlement was I was surprised to hear not Christian - At the Missions station we were kindly welcomed by Mr. Baker & then proceeded up the Valley on a path that had been cut for the transport of timber through much good cultivated land, we passed also an extensive brick field whose produce was good as was expected. - Both the Gatheria medullaris & Dicksonia speciosa were not uncommon in the little woods we passed through & a pretty sweet scented Clematis. The Cerano campus now coming into flower was a common tree & among the



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Waikeri River New Zealand

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The low herbage with several introduced plants was the little *Lagynophora* personating our English Daisy, & the *Carolinian delicia* - Entering the wood we at once plunged into a dense vegetation of tall tree ferns *Coprosma*, *Kingletia Lauri* & all the large trees of the forest growing in a rich vegetable mould which overlies a stiff clay soil - Along the bottom of the valley the Ferns & mosses were in immense profusion. The *Hymenophyllum* especially on the damp rocks, trunks of trees & banks. The noble *Rhynchospora* is abundant in such situations & a beautiful *Podocarpus* with a crested teta - Further on we came to a little waterfall lined with *Fuchsia*, *Staphylea* & other ferns. The *Arceuthobium* was here abundant with the *Phlegmaria graciflora* & *Lygodium articulatum* which two latter form an almost impenetrable jungle. The *Phlegmaria* throwing up Eric's long black cones which crop one another in every direction running along the ground & tripping you up at every step whilst the *Lygodium* hangs down like a dense living mat from the branches above like the *Cephaelis* in N. H. and cannot be broken or waded through but must be cut. In the dampest soil close to the stream of water the *Urtica* covers the ground with a rusty brown foliage amongst which the *Asplenium platyneuron*, *Thromaria discolor* & *Asplenium* are abundant forms. Very few birds but this flitting among the trees & the curious little chattering green bird were seen except here & there a solitary pigeon among its heavy flight among the trees with a whirring flap of its dusky wings - I must have some bush *Colaptes* are said to be in summer abundant in such situations ascending the side of the hill from the valley. The steep banks were covered with moss & other ferns which tone a drier situation very little vegetable matter covered the hard stiff yellow soil amongst which a number of the larger timber delights to grow. The *Phyllocladus trichomanoides*, *P. decurpi totara* & *Leucophaea australis* with trunks of 20 to 30 feet in circumference - Its foliage & branching are peculiar & different in the young & old trees - The *Podocarpus* *Excelsa* is common in such situations & becomes a very lofty tree - *Lauri* form the most extensive portion of the other lofty vegetation under which the common shrubs are *Araliaceae* - *Myrica*, *Melicope*, *Leptocarpus*, *Leucophaea*, *Gastardus*, *Grass*, *Pteropoda*, though the common tree fern *Gastardus* *dealbata* does not here attain the height it does in the lower valleys still it covers a much greater proportion of the surface & its fronds if any thing are through shorter than in more luxuriant. The herbage plants in these situations consist of some Ferns the common *Schizaea dichotoma*, *Loxaria Fraseri* & others such as low the drier woods. - The *Metrosideros* climb up the large trees their trunks closely appressed to the trunk for 10 or 15 feet when they branch out into a dense rich dark green bush, their presence does not always materially affect the jet tree they encircle. - Orchids abound more in these situations than elsewhere - In the horizontal branches or fallen trunks &c. of the trees the *Larrea* & *Dendrobium Cunninghamii* are abundant with two other parasitic

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## Waikari River New Zealand.

orchidea & on the ground the *Pterostylis Marchii* & another smaller species, the *Urananthes* n. sp. which delights in drier places than the *A. rivularis*, & a small *Cyrtostylis* both growing on dry or moist soil, under the shade of the larger trees - At the summit of the hill about 700 ft above the sea we were disappointed in finding the wood so dense that no view could be obtained - a potato plant left by some natives was the only novelties seen - Descending to Mr Walker the view of the valley with its shepherds, wheat stacks, cattle & brick kiln except the fortified fort was interesting. - The soil requires much treading before it is good for the cultivation of wheat or other better grain - Maize does well in the lighter soil - Potatoes in one good crop exhaust the ground Peaches thrive amazingly Mr Walker having in one season gathered 1000 bushels from the trees round the house they are considered very good though superior in flavor to the English ones, they sow themselves & it is a common practice with the natives to propagate them by seed Apples grow well when better stocks & cuttings are established - The Cape gooseberry has covered the ground in some places to a great extent - British Currants, Raspberries, nor Kidney beans have done well with Mr Walker - The houses at this station are what are called Rapoo houses, & the walls are made of the *Yappa* tied up in bundles with the *Phormium* or *Syzygium* inside it is white washed or very neatly in some instances covered with a matting formed by interweaving the segments of the leaves of the *Areca* of which the roof is formed & then tiled with shingles made of the *Darygium* exclamum - The kitchen is generally detached from the building in case of fire, or if a fire place is introduced it jets out a considerable distance from the gable is built of stones with which also the neighbouring walls are cased

Tuesday  
3.

Early in the morning I was roused by the loud notes of the Tui & other birds common in the neighbourhood & getting up walked round the establishment - a nice sweet briar hedge runs along a considerable enclosure & promises well as does another of the common Hedge or Hawthorn in these alluvial valleys where there is a stratum of good soil above the clay some grapes chiefly introduced propagate themselves & afford a good fodder for some fine cattle which however are not benefitted by the amazing quantity of the Leek which was originally introduced by the French Mariner & has found too suitable a soil & climate here, as it sometimes covers large tracts of ground - In this instance a very fine herd of cattle emitted a most nauseous smell for feeding on it, instead of the pleasant smell the animals naturally emit - It does not however seem to affect the milk or butter which are extremely good. Pigs which almost run wild in the country are the standing stock both of the natives & of the settlers, they are not however rich of fat like the English breed but lean & comparatively tasteless & the flesh when

hatched cats is much like hutton that it is often difficult to distinguish them in this state - in the coast the natives feed the swinish multitude on New York herring they become inedible except to the natives to whom no course food comes amiss.

Some patches of dense mist hanging across the upper wooded portions of the hills are here considered inevitable signs of rain which soon followed. a succession of smart showers. with a rapid tide we sailed down the channel of the Pomare after looking into the Pak. & as the day cleared up we commenced planting on its banks which are densely wooded with Lauri & among others found the Laurus californica in full flower & a tree of Podocarpus foruzensis in fruit a tree of a dark green color & which as far as I have seen never looks rusty inside the dead, which is not the case with the Platanus. There banks are amongst the best localities for Propolis which grow under the overhanging branches & roots of the trees abundantly. I was much pleased with a little Polytrichum which grew on the clay soil & had a capsule much resembling that of the Saxifraga. Lower down we landed on a small island on which a beautiful Aspidium was found along with a rapid Plantago & Chenopodium & the Entelea. On the coast opposite we collected a set of Lichens from one Man grove tree & on the shore a fine Tiscum in full flower with a Isodonca (diversum) & the curious Myrsine Wrightii in fruit. The Myrsine tatum is in flower & some other plants. Landed at Capt. Bonteman's Quik by my plants.

Ascended the Kawa Kawa river with Abernethy passed Pomare Pak which is in very bad order & much frequented by the crews of Whalers & large Grey ships is near it. Pomare is a chief of very bad character, cunning greedy to a degree & cruel he conceives himself one of the great men of the neighbourhood though of mean origin & visits all the ships that come in draped in military trappings & a gold lined cap on, accompanied with his wives & slaves daughters & children trucked out with as much European trumpery as they can lay their hands on. - In person he is tall & thin not well tattooed or otherwise remarkable. - The hills on both sides of the river are nearly denuded of wood by the fire, though nature is quickly replacing the loss. The Knightia is here very abundant standing alone the other foliage like an ombocane Poplar. - From the South the river turns to the North & divides into two branches the S. at a great swamp covered large beds of dead shells, the Kawa Kawa runs South again & the Karatoo up which we went continues to the Westward amongst mangroves & swamps of the Sypha bounded to the South by low ferny hills & to the North by higher wooded ones. - The head of the river is in a narrow dense valley when it runs through some of the Dacrydium excelsum, at a village formed of many scattered huts on both sides of the river with a considerable deal of cultivated land. - Ascended the hills which are well wooded but



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Paraka Bay.

remained here for nothing but considerable quantities of the beautiful  
Dasydium cupressinum & the Glaucocarpus Hinzei with which the natives  
are a beautiful black color. Found a little Lindaea in the dense wood.  
with abundant of the Lomaria Fraseri. Descended to the beach &  
returned stopping in our way at a Mr Johnstone an old Whaling Capt.  
was known John Jorgensen by name being originally a Dane himself  
from Botomans went on board. Found that Mrs. Favorite had arrived on the 2<sup>nd</sup>

9<sup>th</sup> Spent the day looking over Colman's collection of plants, from whom  
I received some valuable additions & information. -  
Was sent for late to go with Capt. Bateman to Paraka Bay, at 10<sup>th</sup>  
pulled up to the cottage & slept the night.

10<sup>th</sup> Traversed crossed the hills to the northward of the Ngai carri, all of the  
Ferns being Stem of trees but in the valleys kept along the ridges where  
the paths lay on the hard clay soil descended into a broad marshy field  
of seeds & the Gypha & struck up an opposite very steep ascent & through  
a thick wood from which we emerged at the top of the hill which  
commanded a good view of the numerous Ngai country, all covered in  
of barren yellow or deep green wooded hills. Descending through a valley  
passed a large mass of pure flint & seen it some fire stone & continued  
our route to a Swampy swamp with its characteristic mud & marsh  
plants, which led us to Paraka Bay opposite an Island island  
separated this from Manawa Bay. The scenery here is pretty, the  
beach either pebbly grit with wood & the landscape or else steep the rocks  
prettily clothed with low herb or with here & there fine trees of the  
Antiviv divers tern centura. Large Swamps of the Salicornia indica were  
common under which was a little fresh water? Lagoon? A rafting  
a Canoe from the opposite side a little boy canoe a very delapidated  
one with which he joined us one by one was a river which enters the  
Bay - but as it was blowing fresh it could not take us across the bay.

Third woman was how she witness of our dis trip & she accordingly  
crossed the Bay to us in a large leaky cranky boat after getting a  
good drinking we were landed in safety on the Island among some  
huts in great deal of very good land well & very cleanly cultivated  
by the natives who were planting their potatoes ascending the hill we  
looked right down upon Paraka Bay studded filled with white islets  
among of which Paraka Crash Prison was killed - Here I had hoped to  
find some the antique plants & especially some good recovered but  
the shores were too bold steep & exposed for either & a sh. of Proseris was  
almost all that repaid my toil. Introduced to Mr Partley & returned  
to Bateman's house.

11<sup>th</sup> ascended the Ngai carri river with abundantly to complete the vegetation

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Myai Kari River.

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Had a distinct view of the forest of Sauri river as above. Taking a  
 path from Loos Path where the natives came to visit our boat, we ascended  
 the hills to the S.E. first passing through the pine swamp, full of noble trees  
 rising to 70 ft in a straight bole of 3-6 feet in diameter curiously shaped  
 to a proper circular lines - growing in a heavy swamp over which the natives  
 maintain grew with some other plants. - The shrubby under vegetation was  
 peculiar but the trunks were generally bare of much cryptogamic vegetation  
 some of some women cultivating their potatoe ground in a part of the dense  
 wood cleared by burning they were cooking the Koomerah & Popy, or potatoes  
 to which our guide very ceremoniously helped himself while they looked  
 upon it as a matter of course that the men do as they please - ascending  
 a slope we came to where the natives expected some pigeons *Cuculiza* the  
 beautiful *Columba ocellata*. which returns to the hills in winter to rest  
 & breed in the morning, to feed during the spring on the *Laurus* trees  
 in summer on the *Ficus littoralis*, on which I have observed they grow most  
 in autumn & winter when they are in the best condition on the Sauri river  
 & elsewhere. which afford even to the natives a necessary article of food.  
 At this season they are found on the *Laurus* trees high up among the branches  
 where they are only detected by the keen eye of the native who sees their white  
 breasts contrasted against the sombre shade of the tree - when shot or  
 scarcely more than a day, bears flight that a second shot is seen to bring  
 them down on the wing. - Proceeding by a narrow track up a valley I  
 commenced ascending one of the higher hills in the night woods. after  
 passing through much cleared land on a ridge where the pine swamp  
 when striving for the mastery I entered the dense wood where the  
 predominates & I hoped to return my way easily by bending back a  
 found every few yards so as to show the *Laurus* under the looking down  
 side - after a hard pull through the dense vegetation keeping close to the  
 I reached the top but found the wood here so dense that I had to ascend  
 a *Totara* tree to be sure of the fact. From the topmost branches the view  
 was beautiful of the Myai Kari river emerging as a small stream from  
 the wooded mountain rising through the Missionary establishment  
 then through the native Puket & Puket & mangrove swamps till it formed  
 a wide stream confined by low undulating wooded hills & finally emptied  
 into the Bay of Islands & mixed with the water of the sea which here rounds  
 the promontory. A ridge of hills rises running to the northward to Cape North  
 bounded on the S. the valley of the Myai Kari running down numerous  
 streams for its destination, from E to S.E. The dense sea appeared  
 to the S.E. in the far distance the little island called the "Four Kings"

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11<sup>th</sup> just emerged above the horizon. To the southward & N.W. the view was most striking of an immense gulch of wood bounded on all sides by two old hills, beautiful from the various tints of the foliage but giving the most perfect idea of solitary grand & impenetrable forest that can well be imagined, I looked back & thought of the heavy sighs the present bitter ascent had cost me & turned again to the maps of jungle which has often stopped even armies of the natives themselves when can thread these mazes with wonderful alacrity compared to the foreigners who visit them. To the west were a quantity of wooded hills covered with a slight haze which the sun shed on them of a pale blue tint, along whose crest the noble Kaundi tree was here & there conspicuous.

Taking new bearings my descent was at first easy as long as the broken ferns were found as soon as they were lost, so was the path for though in ascending it is easy to keep along ridges & avoid valleys, in descending it is quite a different thing - & I soon found myself in thickets of the *Ara* which was very abundant in such places from 2 to 6 feet high but in which a flower or fruit with here & there immense masses of the *Lepidosperma* which was found of growing where a tree had fallen & I explored a piece of ground with compass & hand after several hours I emerged & as is usual in such places not very far from the right place, the difficulty of ascending these steep gullies amongst the *Smilax*, *Rubia* & *Lycopodium* & at the chance of finding the top since is hardly worth the trouble for they are so numerous that few ridges run long in one line - such as there are the natives however many cases constructed narrow paths along them Benquide had found several figures in the lower wood. Returning to the Pat after calling on Imtrakui we descended the river & I soon went on board.

16<sup>th</sup> Went to Pichia & walked along the bank with Colman to the bytangi found several *Spilobolus* & an *Opheiodon* in grassy places or little hillsides.

17 Visited with Gutz some of the hills & valleys opposite the slope on of which in particular is more rich in ferns & other plants than any spot in the neighborhood with which I am acquainted saw several species of ferns & ferns - before I had visited the same spot to collect ferns & other plants for Mrs Leach to whom I sent two boxes for the Favorite.

18<sup>th</sup> Walked with Smith to the bytangi river & after coasting it for some time turned off up the hills to the right of its bank - crossed 2 or three ridges with abundant of the *Leucopogon Fraseri* - all very barren. came to the village of Pica Patika or rather from the Sat & Patika flat fish. The natives being accustomed to catch them in the neighbouring river which falls into the bytangi after obtaining some eggs from the natives who form a village we proceeded several miles up the valley in which the *Leucopogon Fraseri* grows abundantly amongst grass & damp places. Leaving Smith



I ascended some hills & slipped into a deep wood which filled the valley & in which the Demon Dory stem was abundant but no other trees in particular, descending it found Smith had sprained his leg most severely warning him to return to his patch I ascended another chain & proceeded several miles along hill tops all so like one another that it required a considerable degree of caution to keep the proper way. The beautiful Clematis Indica was seen only in the woods but sempervivula blue found except it grew near the margin for though very conspicuous when looking down on a forest when the forest is entered the scene totally changes & the plant makes no show against the sky. - followed Smith to the village & returned to Pichia by a narrow road through the hills leading amongst woods chiefly of the Danda & a Leptospermum. - not being able to obtain a boat at Pichia we had to walk on to the Observatoire & on board in the night.

23<sup>rd</sup> Sun day. Sailed Wed. Favorite for Sydney to return with our letters & talk plants for me (eng.)

24<sup>th</sup> Went down to Kerararika with Wobben & returned, highly disgusted with the dirty hamlet which consists of one bad hotel, 3 cheating stores, many junk shops & more houses of ill fame..

25<sup>th</sup> Went to Niapataka with Legale & Wobben, found some difficulty in crossing the stream from the hills being up. The narrow muddy stream crossing ascended some hills over the Wytangi falling to descend at the falls & that river which however we missed & after descending to a flat coconut grove a good deal of steep soil sparingly but covered with the Otoria & came to a small & pretty little fall in a streamlet over on which the Grapholium Kerium & several other scarce plants grow. also saw it a curious little new fern near Lysopteridium remarkably like an American plant in habit. - Saw returning over the hills saw many owls. - Supper at Tibby's hotel at Pichia & went on board.

30<sup>th</sup>

Started with Wobben to go to Maimata in company with Mr. Main a gentleman who has been 20 years in the Island having first come out as Carpenter to a Whaler, he made a considerable fortune by repairing & refitting ships, now built a stone masted ship. The daughter of one of the three first missionaries on the Island bought property on part of what at the Wharfed he lives at the residence of the American Consul Mr. Eldon is one of the best houses on the colony, though the soil around is poor, he has formed a nice garden full of figs & fruit trees. House much furnished, rooms lined with Sydney Parakeety or Cedar the same as Mr. McLeys & varnished with a varnish better known than that which is made from the Kaalidigum by the American crew & when he sold the wine at 1/2 per lb. this gum is nearly insoluble in proof spirit & is I was just before deposited in hot spirit or more likely spirits of Turpentine. - Met Mr. Main at Pichia who had brought over a horse & bag with his boat to take us part of the way. At this season the flowers are beginning to make a pretty show at Pichia with plenty of roses, lilies, Iris & Foxgloves in Mr. Eldons garden especially where there are many English & some native plants. Papid <sup>Dr</sup> Ford the former surgeon to the Establishment who has one of the best



horses I have seen: the Island, one of men that were imported from Chile  
is a large <sup>old</sup> man of war & with which the Island ~~is~~ started they are strong  
& sure footed good tempered & some of them fine looking though generally  
domestic animals.

Leaving the horse & boat about a mile up the Wytangi we commenced  
our walk crossing a neck of land over a hill we came in full view of  
the falls of the Wytangi, pouring over a ledge of rock into a large basin  
below. There are horse shoe falls about 22 ft high & 30 or 40 yards broad  
the neighbouring country being comparatively bare, the falls are very  
conspicuous. Passing a large enclosed fence of Don Williams for keeping  
cattle in I was astonished to hear how expensive this sort of railing  
was though made of a very common & easily split tree the Karkatea.

On the even over in the flat valley of the Wytangi bounded by low hills  
on all sides undulating covered with fern & the valleys or rather  
gullies with wood about 100 ft above the sea & the first of the  
steps which rise are especially in crossing this part of New Zealand.

The land is very bad of stiff clay. I was once covered with forests.  
Descending to another slight one small hills we stopped to enjoy the  
beautiful view to seaward - a narrow road traversable by bullock  
carts here turns off to a large farm belonging to one of Williams' sons  
about 10 miles distant. Here we saw a table of sugar beet which  
the natives often dig to sleep in at night when on journey & also to keep  
potatoes in near their huts. As usual the tops of these beets were  
all cut & trampled - Descending came to some very good rich land  
though not much of it - This is easily detected at a distance from the  
myriamite with which the native plants grow in the rich black  
mould which sounds hollow under the feet. Coming to a narrow belt  
of marsh, found the *Tormentilla* abundantly scenting the air like new Hay.  
& a little *Agriophyllum*. Passing on to more bad stiff soil when certainly  
the worst I have seen, on which the fern was scarce & a stiff brown  
grass grew in scattered tufts with fine *Thelmitia* *Thi crusta* *Polypodium*  
in abundance - all characteristic of dry poor land. Expired the Wytangi  
at a ford which was swollen a little & above the horse ranches which  
took us over one by one. A few *Leptosperma* & *Karkatia* trees grew  
along the banks with true fern & plenty of brushwood. Herds of  
there is a good deal of marsh land covered with the *Phormium* today  
& here & there a *Dact. sp.* when raising its immense trunk bare & black  
& charred by the fires. - The Wytangi is here so often swollen by rain  
that all communication is cut off between the *Wytangi* & the  
Island. Ascended another tier of hills where there was much  
fine clay scattered in soft lumps through the clay earth which gave  
it a marbled appearance - From the top another flat was aimed to  
be crossed a little below beyond which the *Wytangi* district extended

are best stepped in a long straight line - Below us on the flat there was  
 an immense quantity of grass belted by extensive dark colored forests which  
 stretched to the Southward where in the distance the blue hills of the  
 Maikara harbor were relieved against the sky. At the back of Maikara  
 & a little to the Southward were two isolated hills perfectly volcanic in  
 appearance with crater formed tops - Numerous fires sent up a blue  
 smoke along the edges of the forests caused by the natives burning the wood  
 for as they never cultivate their potatoes during two consecutive seasons  
 on one spot & gradually eat into the wood burning & clearing, in  
 so doing destroying immense quantities of magnificent timber - A few miles  
 back we had met Baron & Phoebe Perry who has made such a name in  
 London - he had a squad of natives with him mounted on some fine horses  
 the Baron himself is worth nothing almost & lives in a most wretched  
 manner at the Hokianga district where the natives laugh at his claims  
 on the land, many of the latter being much richer than he is especially in  
 horses & cattle in fact I was given to understand that they were a very superior  
 class & as their appearance testified were well civilized as is often the case they  
 had been made a tool of by the Baron who had got them into scrape about  
 some cattle which he had given them in payment without having a right to  
 them himself - The view on first coming on this settlement of the Missionaries  
 is very pretty, after passing some smiling corn fields we came to a large grass  
 flat bounded by trees on one side, while a stream ran through it throwing  
 a water mill & a bridge thrown across, led by a road to the village perfectly  
 situated among the trees, fenced lands, hedges & grass den ground, while the Church  
 spire in such a situation brought England to the mind in full force -

Davis  
 Taylor  
 Clark

The land is a light loam with a great deal of Iron - Passing on to Mr  
 Taylor's we found his boys playing cricket on the green, the house is one of  
 3 which belong to the Mission, all are alike & continuous rows with their  
 gardens wild & hedge cows, rabbit briars & roses. At Mr Taylor's we received  
 a hearty welcome - The climate here from the elevation is much colder than  
 at the Bay of Islands but all English fruits do well, no others however but  
 the Cape Gooseberry. The garden here is very good & kept in excellent order, as is  
 a small flower garden in which are some of the (rare in this country) English  
 plants, Cape bulbs, & Australian shrubs. - The little Torrel dock is however  
 the most troublesome introduced weed. - In a tent saw some very interesting  
 specimens of large birds some fossil from the S. Cape - a fine Apterix seen in the  
 night I ever saw - The bill of the bird when first was described to me as very  
 beautiful & covered with a transparent membrane through which numerous  
 small red blood vessels ramify & anastomose - also a feather of a bird sent from  
 a hill called - near the S. Cape which is described as slatyish & cannot  
 fly very large & very fat almost wingless, their feathers & food were observed for

The chiefs and the tradition is that now only one exists in a cavern on the  
mountain & is looked upon with superstitious reverence. Mr Taylor thinks  
his fossil bones may belong to it. The name of the bird is Tarapua the  
excitation was something like a ground parrot partly mottled. - The species  
is very rare now not has one been heard for some time. The subscribers  
are still of opinion that a second & larger species exists on the middle island.  
Mr Taylor's fossil wood some are very good they are common in this neigh-  
bourhood - as are lignite & the cause of the black pine imbedded in a  
sulphurous soil near some hot springs about 10 miles to the S of Waianua.  
Some of the fossil shells are very interesting chiefly brought from the  
limestone at the E. Cape. Of his recent shells the fresh water ones here  
some of Europe are Unio, Lymnaea, Fusus Dentalium, Crapudula &c.

Of the land shells some noble Bulimi & Planorbis. - asking about the  
Chatham Island these people inhabitants Mr Main informed me that  
their original settlers were New Zealanders not differing much from those  
of the Islands - that Capt. Harwood arrived at Pt. Moresby in 1823  
where in exchange for pigs & fowls he agreed to assist the natives to expell  
the Chatham Islanders for this purpose he supplied them with ammunition  
& took over 240 of them at one time leaving his mate, & at another time  
as many more also driving the Islanders up into a corner killed them  
for food until they could raise their potatoes, & finally exterminated them.

<sup>Harwood's</sup> Roberton returned the natives cheated him with regard to his cargo & his  
expedition did not succeed, he pretended that the natives took the ship  
from him. These facts are ascertained by all of whom I asked on the subject  
& further accidentally heard through Mr Main that ~~Roberton~~ Harwood  
was lately seen begging in the streets of London - Another person of the name  
of Roberton afterwards went to the Chathams & after purchasing potatoes of  
the natives refused to pay for them & getting irritated from the natives  
impertinently he stabbed him through with a harpoon which was at  
hand & left the Island. After that Roberton returned as whaling master  
to a French whaler to the Chathams when the natives murdered them  
all. On the arrival of the French corvette Capt. D'Almeida he  
went to revenge his own nation but could only catch an old woman or  
something of that sort. These imported natives then split into two  
parties one of whom was driven the other into a isthmus where they are  
starving them out. - The customs of the natives have given rise to  
many quarrels with the English which have arisen through mutual ignorance  
but from superstition on one side & selfish aggression on the other  
have terminated seriously. Thus the natives when purchasing ground  
from one another hold the land only for life, Tabooing <sup>are</sup> all instances



October 31st

Getting up early I walked about the settlement & was both surprised & gratified at the early hour of 5 to hear the natives at their morning prayers at a bush near that I passed. With the situation of the place & the course of the river cleared, it is kind of wood land with a staple of pine, the hill lands above are generally neatly kept grasses both of natives & are in two English acres in all the English scene. Descending from the hill entered a little wood with a stream of water in which were some proper & took notice of the following trees which compose the generality of the small woods. *Pithecellobium littorale*, *Laurus Tavea* & *Aracari*, *Alouatta excelsa*, *Dacrydium cupressinum*, *Ulexcham* near the water, *Piper excelsum*, *Laurus culicaris*, *Myrsine Coriellii*, *Geniostoma*, *Prunus australis*, *Coffroana*, *Fuchsia* whose mouth like berries are eaten, *Gattica glauca*, some *Araliaceae*, *Polygona*, *Risnomia* &c. Sketching the Church - this spot returned by the banks of the garden where a profusion of sugar roses hang over the palms - Saw two *Tylor's lizard* or *Guiana* one of which *San Columbus* had in spirits, it is a harmless animal, eats nothing in confinement & suffers itself to be handled without exciting its curiosity or showing any irritation, its motion in walking is unobtrusive with the legs sprawling out horizontally & the tail on the ground. The natives regard it with some dread others with reverence & superstition regarding as they consider it, a devil, or god or a receptacle for the departed spirits of their relations, a few of the more civilized natives will look on handle & even catch it alive, as will even some of the more brave natives, others again, as in a case *Columbo* told me of, dare not approach it, & one in particular a man otherwise of strong mind a good man & a particular friend of the mission, entreated *San Columbus* not to bring it into the room or near him, manifesting in an excusable horror & repugnance at the idea of seeing it & covering his head, his mat he actually covered from superstitious fear. Yet this man's Christian faith was impregnable, we laughed at this in a message but saw many among our slaves betray more foolish & reprehensible fear for *Spina* or *Bookwash* - who once ate *natunaini* & are disgusted with an insect.

At *Bookwash* had some fern made of the fleshy bases of the bracts of the *Thylenia* the species & cut up & preserved in sugar it is very sweet with a slight peculiar flavor which reminded me strongly of Strawberry Jam. After breakfast started for the volcanic looking hill which from being low the *Waimate* level higher than any of the surrounding country. Had hoped would have produced some peculiar plants. It is called *Pika Pika* literally the big hill. Cropped a wood by the *Hokiang* road in a moist place of which was plenty of the *Pteris Brunoni* Spet high amongst the bushes it is a peculiar looking plant *Pandanus* fern - very excellent in the young state - Passed through a village at the base of the hill whence two natives came & insisted upon accompanying us - The road was steep but

The height could not exceed 4000 ft above the sea & it was covered  
with *Fern* & the *Coriaria*. The crater at the top was filled up & very  
indistinctly marked - But the view through the day was very im-  
mense & splendid. To the East was the *Pravinata* like a garden under  
our feet the Church bearing N.E. & beyond which again was the Bay of  
Tahiti the peaked hills of Cape Mott. To the Southward a succession of  
woods & hills were bounded by the *Kiapara* hills E. S. E. To the West  
a large extent of flat bare & wooded country with a large square lake  
called Lake Mawe (or *Prapere*?) about 4 miles across apparently & nearly  
square, the extremes N. & S. & E. & W. it was bounded by marshes  
flat land & forests of the *Kai ka tea* in the far distance were the  
mountain at the *Hohiang* & the sea N.W. To the Northward was  
a large deep valley in which the *Pravinata* river runs well wooded above  
short more elevated table land runs along & the forests join on to the  
great *Kai tea* forests which had never been cropped over by natives  
till the *Missionaries* cut a path through after a fortnight's labor to  
a more westerly station. - Descended towards the lake & after a walk  
of 2 miles came to a native village around which were very many peach  
trees & *Cape gooseberries*, some of the houses were very neat as was a church  
in which one of the native school masters performed service every Sunday.  
A narrow path way took us down to the lake through a dense marshy  
wood, where some canoes were - It was our intention from hence to have  
visited a place opposite where there are some curious reefs in the rock but  
it was blowing so hard that the natives would not go to sea. The lake  
is shallow all over particularly on the West shore where extensive  
sand flats are. On this the East side the wood is most dense with an  
undergrowth of *Sporocarpium* & that peculiarity which marks the presence  
of much *Sarr. exilissimum*. The absence of water plants as *Potamogeton* &  
*Nymphaea* was noticed this was also the wrong shore for shells & I  
found nothing but a small *Lymanea* an *Elaphidium*? & *Hydrophilus*? with  
plenty of larvae of *Melanozonia* & some curious spiders & the remains of  
the cases of *Libellula*. - of plants a fine *Sorostomum*? not in flower. The  
*Proserpinaca* & several other things also a small land *Helix* & plenty of a  
*gammurus* or *Talitron* not only on the banks of the Lake but under  
dry dead leaves far from any water. - a curious green *Tremella* was  
washed up & also found under the stones of the beach - Capt Pop afterward  
hailed the Seine in the Lake & took a fine kind of *Amia* - *Anatina*? -  
a large *Chara*, a fine Cray fish, a very few small fish & plenty of fine  
large Eels - hanging on the trees were some fishing baskets round made  
of wicker work with mouse trap entrance holes. - fish are however

scarce in the lake & small. The tradition among the natives of the formation  
 of this lake is that it was thrown up in token of the anger of the gods, with fire &  
 smoke & that an island rose from the bottom & disappeared again, however  
 saw no promise on the East, Lee shore, & as I before remarked the whole lake  
 is shallow & sandy, where Capt Rogi's net was torn by the stumps of trees.  
 That however the lake is of recent date is probable from the fact that all  
 the points which now ~~are~~ <sup>was</sup> in shallows once had the names of now  
 submerged villages. - However this may be it is certain that the land on the  
 opposite side has been rifted by earth quakes & indeed the whole country  
 is more or less volcanic. - Having strayed for some hours I soon lost my  
 companion & from a mist coming on my way in the wood, with the  
 compass indeed knew my direction but there are so many branches &  
 thicket that it is difficult to follow a straight line. Weblee however  
 had no casual smelt his way to some potatoes I sent a native to look for  
 one who came in a little canoe along the banks of the lake, hallooing  
 singing & shouting, on seeing me he became impetuous in his noise the  
 more so on seeing me walk back into the wood. For my part I had no  
 idea what he wanted with me & as there had lately been a battle in the  
 neighbourhood I did not like the idea of this tattooed customer with sharks  
 teeth in his ears, seeing however that he was determined to leave me for  
 the night & as he gave chase to me in the wood I thought it better to give  
 him a good grace much fearing I had been trespassing on taboo ground &  
 that this fellow wanted to avenge his father's angry shades. After a great  
 deal of persucision I entered his canoe not knowing what better to do  
 & at the same time determined to resist any attempts he might make to  
 devour me for Ki Ki (Eating) lay down in the canoe but he was <sup>not</sup>  
 talking angrily to me in his kingly tone which I made answer of Kapei Kapei  
 (good good) on all occasions, finding me incorrigible he leff off & landing with  
 his frail bark <sup>289</sup> ~~asked~~ <sup>asked</sup> me to follow him to some smoke in the wood where I was  
 not sorry to find Weblee cooking potatoes with two other natives & some women  
 pigs cats & dogs. I found that my friend had been explaining me for keeping  
 them waiting so long & a great deal more. They were all very civil & well behaved  
 making the women cook porree, Potatoes & Kumeras. One pulled the testament  
 (native) out of his pocket & told me it was Kapei, whilst another showed me  
 his knife shirt & one little girl rather a pretty one brought me a pet pig like  
 had in her crown for my especial admiration & another a dog or cat - all  
 of which lived together in great harmony. The Crutians do not eat salt which  
 every New Zealander traveller should carry with him. - They looked at my plants  
 with great curiosity telling me their names as however I could not spell them  
 correctly & Mr Colver knows them well I did not take them down finding  
 that I had gathered one out of flower one of them immediately started off for



the wood & returned with flowering specimens - It was now getting late & one of them immediately started to put us into the Waimate dead an old knife & a few six pence delighted them all & we rubbed noses on parting though I believe it is *taka etiquette* - I should be on meeting - On our return we passed some fine horns belonging to a chief on the Hokianga district who proferring them things to Gungueto & powder the general demand, has as many as 30 fine head of cattle & other good stock -

As we gained Mr Taylor's it had begun to rain hard - These table lands are much colder & more rainy than the lower ones scarcely a week passes without two or three days of rain or drizzle & near is there a whole dry week. The name Waimate means the waters of bitterness or as some say the sick waters referring either to the cold climate, to some cows or cattle lost there or as another says to the Chalybeate waters in the neighbourhood.

After dinner had a good deal of conversation <sup>with Mr Taylor</sup> about the hot springs & the Kauri forests to the northward. Lignite is in the process of formation in several places where now no Kauri exist. I made very curious observations. Especially in an earth full of Sulphur near the hot springs where temperature is  $137^{\circ}$  Fahr & taste strongly of Alum - Once when travelling through the great Kai Toia forest he encamped among the Kauri trees where they are most abundant on elevated ground growing in moorish but very stiff clay soil covered with their own debris. The night was dark & rainy every thing was saturated with moist dew & a dense mist hung among the trees on the ground, the weather was warm & close, when at night looking about him he saw in the tent several globes of fire floating about in the air of the size & appearance of a common *Semultra* standard lamp & after a few seconds appeared to hang to the branches leaves of a palm which stretched into the tent. Thinking it might be an illusion Mr Taylor shut his eyes & on reopening them found that they had changed to parallel vertical beams of light floating in undulating lines & lastly they dispersed into luminous clouds like those of the Aurora borealis the slightest movement put them in motion & on touching him, as they felt to him like as if a soap bubble had burst upon his cheek. This he believes to be a gas disengaged from the Kauri trees during the decomposition of whose resinous debris <sup>this</sup> gas is evolved. From the density of the atmosphere the gas could not rise & its own motion may have produced combustion as in the case of Phetors - Certain it is the immense portion of resinous matter in this of all other timber must where the tree abounds produce some atmospheric phenomena whether appreciable to us or not & as nature can combine causes to produce this highly inflammable substance, may she not also separate them during their decomposition under such circumstances especially



This subject is of course intimately connected with the formation of coal & with the meteor called Jack o' Lantern on both of which I received from Mr Taylor two very nice views - The latter the Tyris fatness became witnessed. The lens of Lou Collins here, "I was returning" he said "one night from a neighbouring parish when I saw a faint blue light, playing before me on the side of a path in a grassy spot several feet above the ground, the slightest breath or motion set it dancing about; with great care I approached very near it when it suddenly divided into two & vanished, the light was so strong enough to show me 2 white gate posts at a little distance which were otherwise not discernable" - This he also refers to the pressure of gas evolved most probably from the peaty matter which exists in the fens.

With regard to coal the belief is that it is formed of Coniferous woods & of them alone. In the lens of Lou Collins here there are two preserved woods Oak & some Fir the remains of ancient forests which tradition tells us covered the land. The oak remains hard black & entire under the superincumbent weight, but the Fir is partly decomposed & pressed down into thick beds of peat. owing he thinks to the pressure of serious gapes which tend to preserve the wood after certain stage of decomposition. It is said favours their conversion into coal - with most other woods this is not the case & they therefore would decay or decay. The remains of wood at the mouth of the Mississippi would probably not turn to coal but decay all except the pines. Some crude Polars of the same sort occurred to me in Kerguelens Land where in one situation the fossil wood is turned to stone & in another to coal. I yet coniferous woods do not always turn to coal as in the instance of the V. I. Land which is chiefly wood. The quantity of Kerguelens wood destroyed about to estimate is incredible & there are all other of these parts of the Island the ground is dug up every where. - I saw some fine specimens of the Sphæria Robertini called here the Peulruch caterpillar, the whole body of the animal is filled up with the fungous matter & immersed in the ground the spindle shaped gnat only is visible it is common under the Lythaea glauca. Mr Taylor also gave me for my father another splendid series from the Puerambic eye river in New Holland. Both grow from the first joint of the body between that & the head & the spines most probably most of these as the caterpillar works with his head down into the soil to form its cocoon.

October 23rd  
 Raining hard during the night & this morning Mr Taylor told me during breakfast that on the west coast Sandhills are daily forming from the violence of the winds blowing up the siliceous fragments, these are held together by a Drift sand like the Maram of the Norfolk coasts, when this is burnt as is sometimes the case, the sand shifts to sea amazing & last

when detached masses of the roots are blown about, rubble & from the hills  
for other hillsides when these flat roots become strata roots of dead  
trees & comminuted shells of course, are common: now under favorable  
circumstances they would become sandstone fossils. In other places  
the sand dunes are backed by low hills of trap over which the  
violence of the wind blows the particles of sand. whence sand flats  
are formed separated by a range of hills from the sea, now it occurs to  
me that ~~the~~ such a situation should abound in the volcanic coast of  
Marina Superior <sup>Calcareous tuffs of</sup> ~~crustaceans~~ which are lighter than the sand. If  
again should the sea retire from its present level this artificial  
marine formation would be attributed erroneously to the presence  
of the sea. - Mr Taylor has also some very nice fossils among them  
a beautiful *Meretrix* & a noble *Locusta* which lives in the trees here. -  
also very many pretty & characteristic statistics of New Zealand scenes  
started for Pichia in a tremendous shower of rain - found the vegetation  
very much recalled so as to be difficult to crop - after descending for  
several hours did not see emerged from the rainy night quite drenched  
through - Some land here was pointed out to me as having been given  
to Mr Busby the British resident by the natives as a donation to  
atone for their having attacked & fired into his house when he was  
lying unwell, a heinous offence in their eyes. to attack a sick man -  
government now claim the land which Mr Busby resides in. Passing Mr  
William's fence examined it, & it is made of Totara wood of 4 rails  
the 3 lower rails close together so that pigs could not get through &  
costs 4/6 per rod. - walked round the beach to Pichia & expressed  
ourselves. Mr Mair's boat came across, & <sup>he</sup> put us on board  
a Lay missionary gets £100 a year with rations & £10 per annum  
for each child of his own. Mr William's gets £15 for each child as being  
the head missionary & having worked for many years as his pay as Lieut.  
in the Royal Navy. - Each child when 14 years old is thrown off the hands  
of the Society with £50. Further an excellent education is provided  
for the children, the Society having appointed Mr Taylor to board the males  
& the Williams the females besides his £100 & house & £10 for each  
of his two children he is allowed I think £20 for each child he schools  
of whom he boarded 23 having an apprentice allowed him. He also  
instructs the natives two nights in the week by means of an interpreter  
some of them are very quick & I heard some candidates for Baptism (spelled  
long responses from the catechism with wonderful accuracy &

fluency - the girls especially - sometimes as many as 60 or 70 attend the schooling on the Friday night several had to come for 5 or 6 miles in a boat back night through a screaming rain, all their ears and some throats, their eyes in some cases were very accurate but their voice very hoarse from want of training - The best of these scholars are appointed to be catechists in the several villages where they do much good & are always respected by the other inhabitants. Long ago there were very numerous almost all being affected by them which through their own carelessness often led in consumption -

October  
7th

Having procured the loan of a nice dingy from Mr. Main, Smith, Jackson & I started up the Kawa Kawa river to visit the limestone rocks at Wainoni. The wind was blowing down very strong raising a bubble of a sea, so that we had some work to get up to the bend, after that however the tide being favorable we soon sped along to Johnsons where we got a good haul some potatoes & Eggs in addition to our previous stock; passing the mouth of the Karitoo we ascended the Kawa Kawa to the southward among many banks confined amongst low hills tolerably wooded here & there - about 5 miles up came to some Egger huts who were cutting the Darr. specimens into planks here we made the boat fast & crept on rollers to the village which is large & rather compact with much good cultivated soil & a stockaded Pak - in very dirty condition backed by a buzzing ground & a native church & school house. Asking our way we were told that we should certainly be eaten by the Gouls amongst the rocks for the place was taboo - ascending a hill about 400 ft by a narrow path we came to some trap boulders & enjoyed a fine view of the Kawa Kawa running up amongst extensive marshes & immense black forests of the Darr. specimen which have a most gloomy appearance & of the native village with a pretty stream running through a valley in which the native women were washing clothes, a scarce occurrence the naked littleurchins bearing bows to use a land the men tall lounging about witnessing their duicidally better halves hard at work on the potato ground. - Proceeding on a narrow ridge of hills came to many more trap boulders some of large size & found the ground all cut was to leave a very narrow path bounded by the slope on each side & the road apparently raised across the most depressed parts. - The soil was all clay & bare of any thing but Fern &c. - After walking about three miles we came to a much higher hill from whence we could see the position of the Wainoni bearing W. 1/2 N. Andan & Tennies range leading from the interior the west coast at Kia para where they were very craggy - from N.W. to S.W. by S.



We soon came in sight of the rocks of a gray color amongst some  
fern & tree wood on the face of a small hill above a native village  
for this distance they reminded me of the pictures of Stonehenge -  
on the neighboring hills were plenty of masses of limestone & grass  
covered with ochreous matter (iron?) All around was however very  
naked there being few trees but in the narrow gullies - In approaching  
the stones we found some native words cut near in the clay soil  
the path entering along that the place was above & warning others  
not to trespass - The first mass we came to was nearly square  
with many parallel deep channels on one face, about 12 inch  
every way, composed of beautiful white crystalline limestone which  
takes a grey line from exposure to the air & grows a curious  
black lichen. Other of the stones are full of small round pebbles  
some of them are large masses 30 ft high & look as if built up with  
the hard slab upon slab so that the appearance of ruined walls  
& old castles is quite striking & complete. An old man came from  
the village to stop our hammocks a very fine looking man quite  
grey headed & tall and abounded to nearly to the crown. He had  
around the back of which was a ring of white hairs. He harangued  
me with great earnestness pointing away & particularly drawing  
my notice to hobble with horror when was coldly sitting astride on  
a pinnacle singing melodiously, my plants he particularly  
abhorred as being gathered there; all my Kapaia were of no avail  
& even that universal Panacea Tobacco he threw away so to disquiet  
after a little time however he became pacified & left us more in  
sorrow than anger. In the mean time the women collected at the  
bottom of the hill calling out & using all inducements to draw  
us from a place they dare not approach. Having satisfied our  
curiosity we descended to the village which is small & scattered, the old  
man however would not appear to us but a young chief did with one  
of the staffs of office Cook represents & of which Colman gave me a  
very nice one - In passing there is nothing or little to interest, except  
(as in most tattooed burial places) that the brushwood is in some places  
rather more luxuriant than usual, the difference of soil does not  
show a different vegetation nor can it be ascribed to any particular  
spot. Returned to the Sages & sailed down the river to the junction  
of the Kanito & Hawa Kawa on whose South bank we made arrangements  
for passing the night under a fine tree of *Buzopur sen latum* - Lightening  
the fire was our first object & then after arranging a bed of fern branches

working - & sleeping -

9th

Immense fleets of Canoes are coming down the river to attend a baptism at Paikia, considering how scattered the population is, one wonders where they all come from but there are the only hold there or four each they make a great show. They are all rigged with a bow and a sprout & a blanket for a sail with which the natives manage them admirably & their appearance emerging from the little creeks & surrounding the points is very pretty & pleasing. I ascended a high range of hills amongst dense wood of the same nature as has been described before then walked along the water side which is trackless & the beach covered with Sambucus & Plagiocentrus dicaricatus found a small Triglochin in a salt marsh. - When the wood has been cleared from the bottoms of narrow valleys I have often observed the Ferocaria to cover the ground with native & Europ. fern weeds amongst it, when it is herbage very rare culent & does not flower - At the top of the hill I saw the pigeons flying down to the lower valleys for food & the hawks already on the alert & a few birds chiefly a little green one & the Tui were very very pretty in the morning but birds as usual were scarce - Being anxious to visit the pine forest on the river I we ascended the Kawakawa track the boat up above the village where the river is narrow & rapid & the ferns on the wooded banks very pretty. The Myriophyllum & a Callitriche were common in the stream with a narrow leaved Potamogeton in the shallow water also a Utricle in the stream - The forest was characterized by the same vegetation as that at the head of the Mycari & at Lake Maue. Descending the river with the side & current through its narrow bed we let her shoot - Popping many canoes with the youngsters of the family who had gone down to Paikia, fishing with rods & lines, rods hooks of various kinds & bait. They were catching a small black eel-like fish which is also caught in the sea Bay of Islands - The little boys seem perfectly happy singing their native songs, which only admit of three tones rather howled than sung they either refer to old traditions which I have learned from Coleridge the events refer to unknown or forgotten deeds of valor & sometimes the very words they use are obsolete now can they explain them The first then of the generality of their sea songs is of paddling - "Speed along good canoe, on good canoe go very fast, &c. & of fishing "Come good fish, catch away good hawks, for the like. - At night they more commonly sing than in the day to frighten away the Devil. - A young man on passing the village showed us a very true green Jade ornament cut into a supernatural monstrous figure with sealing wax eyes a form commonly taken in their carvings though they worship no idols. He was anxious to part with it for Sam's the Jeweler's of very old fashion only cut according to fashion in preference to a most excellent pair of glasses thick cloth ones. - These Jade things are of very great value now & can often hardly be procured at any price.

to much for a love of fashion in a New Zealand - The stone is the nephrite, nephrite, a green jade, a serpentine mineral of great toughness of which the natives make fine ornaments & they is in stone clubs, hatchet heads & I never saw a native or unworked specimen & the accounts of its original state vary much amongst the residents. Some have told me & insist that it is dug up soft in the mountainous interior of this island & cut into the requisite shape & then dried by exposure. But from the nature of the mineral is obviously, untrue & impossible, nor am I sure that is ever found in the Southern Island - Most of it, perhaps all, Colenso tells me is brought from the mountainous parts of the Middle Island - "the natives" he tells me "procure their axe stone from the neighbourhood of L. Chartwell's sound in the middle island, which article they value highly (as gold) & named it Pounamu - the sea adjacent, was hence named, Te wai Pounamu - Englished thus, - the water (where) Pounamu (is found); - hence Capt. Cook's error in calling that island Tavai Pounamu - is easily supposed." - Paper's several weeks in descending the river & landing at our working place we dined & returned on board by night fall.

9<sup>th</sup> Called on Mr. Main & from thence went to Kororarika

15<sup>th</sup> Drifting the East shore of the Bay from Inain to P. Maata for shells & seaweed with no success the bottom being all very muddy from the estuary of the river.

16 Took the gig to dredge the "Swornite" bank with no success many comminuted shells & but no large ones or marine animals got much better ones along the rocky beach beyond the lagoon where Oysters & Patella abound.

The common sea shells are Cardium, Crepidula, Chiton, Patella, Coluta, Turbo, Donax, Purpura, a beautiful variegated Lobostrotia very rare, Perma, Pholad in the soft clay rocks, Tellina very common, a large Maia, Pecten, Strombus, Stalioa, Bulla, Puccinella, Urosalpinx, Turritella, Calyptra, Streblospio, Urosalpinx & several noble medusae, though rare, Hyalaea & Cressis the former very rare Spirula & the beautiful Agonote for a specimen of which belonging to the late Mr. Cunningham I am indebted to Colenso. Other ceph. algae are not rare. - The beautiful Santhomea purpurea is taken commonly by the whales from the stomach of the sperm whale and I have taken a smaller species in the outer sea as well as the genera Hyalaea, Cressis, & Cleodora. On the West coast there are many very fine shells of other species differing from those of the E. coast. Amphipods are numerous sometimes boring into the soft rocks - as are some betulae & various Polypi - of Decapod Crustacea there are 20 or 30 species of Grapsus, Hypsenosoma, Permethus, Pagurus, Eurypedes & Porcellaria of the Macranga betaeus, among the rocks very fair eating. G. vella in the sand at the mouths of rivers. Palaeomon a common shrimp in tide pools &c. of Amphipods Paludicola or faucinus every where along the coast.



There are several sp. of *Actinia* & some neighbouring forms & the rocks are covered with a *Serpula* - Corals are scarce a few *Coralina* *Flores* & sponges. - Fish are plentiful & good in the harbor especially the red mullet & *Trigla* several small kinds of *Muraena*. one I recall the yellow-tail a kind of *Thunnus* attains a weight of 1600. - The soles are all of very small size but the *Flounder* are large & rather good. Sting rays & Sharks attain a good size & are very voracious. - *Warra cora* are caught at times, *Hippocampus*, *Bole John Daries*, *Leather Jackets* & *Wardson's Gurnet*. The *Wardson's* are good for fishermen with the rod & line using a bit of *Prothia* of *Pranal* or *glaps* to attract them & the hook also with the hand net & with *immense* seines which several parties use together made of any shreds of the *Phormium* knotted together. They shoot these nets in deeper shallow water & when hauling it in or more go outside the ~~net~~ <sup>light</sup> of the net & splash the water to deter the fish from returning, sometimes using fire to attract them of *Kauai* *gum* &

24<sup>th</sup> Sunday Morning *Ward's Favorite* made her number in the Bay & soon afterwards was moored between us & the "Terror". She brought a *Capanga* & *Lin* *clain* who took letters for me from *Seyland* & *S. I.* and in the *Asia* *convict* ship, sailed from *S. I.* to *Ydney*, took the opportunity of the *Favorite's* sailing to follow me here. I was not a little glad to have some one with me attached to the study of plants -

28<sup>th</sup> Accompanied *Lin* *clain* to *Pirihia* where he took boardings at *Tilly's* hotel, from whence we went to my favorite glen for *Ferns* where in the space of a few rods we gathered nearly 40 species besides plants in *frustration* - *but* *Seavale* who has shot me a beautiful *Pigeon* from a tree of the *Peter* with some berries in its crop was killed

29<sup>th</sup> Accompanied with *Woolber* went to *Pirihia* took *Collen's* boat with *Sinclair* to the *Wai-tangi* River ascending as high as the falls. The name *Wai-tangi* is derived from *Wai* - *tangi*, sounding water from the roar of the falls which are heard on the side heights at *Kororarika* & all over the bay about 5 miles off. *Wai*, water, is the common first syllable for rivers, as *Wai-kare* or properly *Wai-kare* - fluctuating water from *Kare*, *Kare-kare*, verb, to shake as water in a bucket, from the troubled state of the water when the wind & tide or currents are opposed. *Wai-uate* is another instance & *Wai-ono* - from *Wai*, *o*, *no*, a prayer or ceremony formerly used with the dead. - The river *Karatu* is so called from that being the name of the ledge so prominent on its banks. - The *Kaua Kaua* is a diminutive from *Kaua* better, *Kaua Kaua* betterish perhaps from the salt water. - *Keri keri* pronounced *Kidi kidi* is a place partly dug from *Keri* verb to dig. Again the place where *Marion's* body was cooked since *Talood* & called *Madison* (the native pronunciation is as *de*) bore the name of *Haurua*, from the *oo* form of the outline of the sandy beach from a night *haurua* verb, is the stern part of a canoe. (Derivation from *Collen's*). - Below the falls which are 22 feet at high water there is a very large flat, part surrounded on all sides by *barbaric* rocks



sparsely covered with vegetation from which however several good species  
were procured. Ascended trees or three miles above the river & saw a good  
many ducks in the stream with some Chagot on of which after being shot  
about over the fall & in spite of the enormous load of water this lowland  
state came up apparently unharmed in the pool below. A naked savage came  
with tattooing & also I had seen prowling about in the morning immediately  
struck out for it he put me much in mind of Darwin's Savage, with the  
on the next with us this river with the horrible countenance - Found some  
fresh water shells in the streams but little else. - Insects are very numerous  
the day was splendid & we sought diligently. - A few of them & the species  
especially are very common all others rare though there must be many  
species in the country but few specimens of them - Scutellars are very abundant  
as are some Grylls from the trunks of the trees one of which attains an  
enormous size - An extremely beautiful little Pterobrythid insect is very  
abundant on the flowers of the *Leptospermum*, with some *Gallia*? *Carabidae*  
are very few except a species of *Licindela* perhaps the *tuberculata* Fab. whose  
habits are those of the night ones. I have heard of a *Ditycus* but never saw  
it. - an *Elaphrus* is not uncommon in the same situations as at home. the  
*Staphylinidae* are very scarce. *Curculionidae* more abundant but confined  
to the wood where a noble *Prosternus* lives in the Kandii - *Lamellicornis* &  
*Longicornis* I suspect from the largest proportion of Coleoptera the former on the  
hot exposed plains & the latter in the woods. There are also some *Pterostoma*  
a large *Dermis* is very common under the stones. - The species of *Blatta* is  
intolerably fetid from living under the barks of dead trees & devouring the  
*Cimicidae*. its smell is certainly more loathsome than that of any thing with  
which I am acquainted. I may be winded several yards. - *Staphylinidae* &  
bees in the houses. - *Libellulidae* are very abundant. Of *Orthoptera* three species  
a wood boring Grylls a *Locusta* & small *Acyda* with one or two others.  
Of *Hymenoptera* a small bee which kept *Propolis* in are very abundant  
born into a soft cliff near the hot springs, & a large Ichneumon also one  
or two species of ants. Several *Phasma* - all apterous that I have seen.  
Some *Phygadeuonidae*. - Of *Lepidoptera* 2 sp. of Butterfly a *Gynopalis* &  
a sphinx several *Arctia*, a good many *Pictus* & *Geometrid* & some *Crambids*  
& *Lincea* amongst which I saw a feather wing. - *Hemiptera* are in considerable  
proportion & *Diptera* abundant especially a small black round fly & a common  
small blue bottle that blows upon meat & soon as it is killed, or upon any  
animal substance & is a serious nuisance. As the eggs are hatched in its body  
I have often proved by cutting them open & taking the crawling maggots out.  
A species of *Mosquito* I have been told of but never saw. *Tephala* & other  
long legged gnats are common indeed both in number of species & specimens  
I should think the *Diptera* exceeded all other orders put together.

of reptiles there are none but 2 species of Lizards which I have seen, one the  
 large one from the coast the other more or less common - no Snakes or Batro-  
 cinens or *Acacia* newts. What Rutherford means by saying that this place  
 produces tortoise shell I do not know, see list of New Zealand there being  
 no chelipeds in the Island. Birds are scarce about the Bay of Islands but  
 much more common to the Southward - here there are two Hawks & an owl  
 one found under the fronds of the tree fern. Several Crows & the beautiful  
 one some small birds like Titmice - a Ground Lark - a flycatcher, a small  
 cuckoo, one or two Warbler birds. A pretty Kingfisher which sits on the branches  
 of the *Aricecunia* & darts down on the *Porcellanaria* when they emerge from their  
 holes their stomachs are always full of their crustace. for what purpose its coverts  
 are very thick, indurated & transversely rugose. - a small green parrot & a large  
 species both nesters? the *Columba spodiophaea* - a true Bittern - two varieties  
 a red billed & capped Tattler? Three Scaup all common, two species of duck & the  
 common & rarer little in ordinary appearance from the brown English Rat. - Cats dogs &  
 pigs are already beginning to run wild about the country the latter especially.  
 Monday Capt. Ross, Crozier & Sullivan with a party of 15 men went by the *Kari Kari* to Waimate  
 taking the *Leine* & skin boat with them. - Hunter board the *Favourite* & *Thomas* to Paikia,  
 returned & dined on board.

Went with Sinclair on the hills at the back of Paikia to a wood near *Kiapataka* where  
 we found the *Cyathus medullaris* in full fruit. It is by far the most beautiful of the tree  
 Ferns. The trunks are jet black & about 12-14 feet high, the tops of fronds are well known, red  
 but at an angle of 45 gracefully curved outward, the *stipites* about deep black 10 feet long  
 the upper sides of the fronds glossy dark green contrasted beautifully with the abundant  
 dark brown clusters of *Sori* on the under surface. The young crozier headed *stipites*  
 are densely clothed with bright long dark scarious chaff. The inner substance of the  
 trunk & *stipites* are composed of cellular substance of a pure white color & jelly or  
 mucilage, so that a piece of it looks something like half dissolved white sugar  
 or more like bread soaked in thin arrowroot. The taste is mucous rather sweet  
 & melting in the mouth. When used for food it used to be roasted or half cooked  
 when it is said to be very nutritious as is also the rest of the *Pteris excelsa* with  
 which I collect the natives never can starve.

Sailed the harbor master Schooner *Frent* with *Leute Wood* & *Phillips* for Auckland.  
 she visited a *Pennant* on being under our command. Left the ships to go to Waimate  
 with Sinclair, & bid adieu to *Prober* who had been our informant since the *Favourite*  
 sailed for Sydney & was embarked in the "*Frent*" for Auckland.  
 Next Collier & Sinclair at Paikia & took *Libby's* boat to the falls of the *Waihera* where we  
 got out to walk on to the *Waimate* (4 miles) on the road the vegetation had advanced  
 a good deal especially amongst the ferns & *Glomera* in general - also some beautiful  
*Convolvuli* appeared in full flower with a *Sparanium* & some other common plants.

The *Psittacaria fluviatilis*, *Viscum Salicornoides* & *Dracopis Leprosorum* were as common on the upper banks of the by-jump as on the Keri Keri above its falls while the beautiful *Agrostis* was a noble ornament to the river banks its appearance strongly reminded me of the *Arundo phragmites* but it grows in moist drier places. The river was very low at the crossing place & in the stream I found a *Ceris* & *Scipidula* - also one or two beetles on the sandy banks. Near the *Waimate* a fine *Epilobium* 3 feet high upwards had come into flower on the upland regions. Found Mr Taylor in his garden & heard that Capt Pop & his party had the next morning left for the Keri Keri on their return to the ships. - in fishing they had had very poor success. The quail was now forward & what they were weeks ago, the *Strawberries* were nearly ripe & also the early peas.

5th

This morning found all the boys of Mr Taylor's school very busy making a *Gay jump* for the famous 5th of November for which they had a holiday. These old customs remind me strongly of home at such a distance in so very wild a spot. Went to the *Kaundi* forest & on my way entered a small wood in which were abundance of the *Peperomia* mellea a very beautiful fern then near to me - crossing the *Waimate* river in a deep hollow we left the *Waimate* district at the base of some hills of the yellow clay. densely wooded through a good road for the transportation of timber was cut into it. On the upper parts the hills are among fine *Kaundi* trees one of which measured 27 feet <sup>at 4 feet</sup> above the cone of mould & debris which forms round the trunk I must have been much larger below, as the crown was 9 feet high as with the former ones I had seen the crown smooth trunk was 40 to 60 feet high unbranched & then throws out irregular limbs horizontally from which the branches & leaves descend forming a small oval head in the most perfect specimens. The young trees are very different looking but peculiar & beautiful, a perfectly straight *tapa* stem is thrown up to the height of 60 to 100 feet. The branches commence from 1/2 way up are few in number, first divaricate at an angle of 45° & then rise straight up provided with little tufts of leaves or naked curved sprigs. The leafing is so scattered that the stem is seen up to the top & the outline of the ramification is conical. The bark above is green trickling down like amber in one spot. I saw a beetle in a cavity of the wood which is too well known to require description. Several *Curculionidae* & a beautiful *Poncia* & several *Spid* & appear to live on the live wood raising a vast quantity of dust. Under the trees found abundance of small specimens of the *Dicksonia squarrosa* covered with clusters of *Sori*. After dinner Mr Taylor accompanied us to the wood where the *Peperomia* mellea grows where we gathered a pretty little *Trichomanes* on some loose rocks near the stream - also the young of the roots of the central leaves of the *Arce* which taste something like Chestnuts. The Bark of the *Laureus Torua* makes a tolerable tea which was much used by the early settlers as does those of the *Piper* & *Colub*. still used for that purpose in



Auckland formerly chewed to cure the toothache by the natives. - In a hole amongst the  
 banks above the stream some natives bones still remain deposited by a tribe now  
 expelled from that district they deemed those of a child but very few were seen - In  
 the stream found a Dentalium hanging on to the stones under the water. On one return  
 I found a little stream of chalybeate water in which the fishes &c were coated with the  
 ochreous matter, when, as some say, the name Wai-mata is derived from the latter or  
 bad water though it is very good. The first Kaundi trees to be seen in this part of the  
 island are in the great Kai-tea forest to the northward of this district occupying  
 about 30 miles in length of hard clay soil & crossed by one or two low lines of hills. - here  
 there is a tree upwards of 40 feet in circumference & another of 7 large branches growing  
 close together & called the T-wister. - At night the boys having cleared a large open  
 space among the fern on a hill the Guy was burned to the infinite delight of the  
 natives many of whom asked an explanation of the ceremony & showed their detestation  
 of the foul act in the conspiracy by firing their guns at the burning effigy.

This morning left the Waimata to walk to the Keri Keri by the only cart road. -  
 New Zealand more than a few miles long this being (10) & very fair the whole way  
 though sometimes rather round about. Descending to the river about three miles  
 we came to a Akari or one of those series of stages on which the natives are  
 accustomed to pile provisions & give a feast rather feed. These beautifully  
 situated near a little village one flat surrounded on all sides by low wooded steep  
 hills, out of which the river emerged among trees of the Dairy Gorseum. - crossed by a  
 neat wooden bridge. It consisted of 3 parallel rows of Sapani Sack saw planks about  
 6 paces apart, formed of Kaundi wood in general but not all. The middle row was  
 upright running E.S.E. & W.W. & rose to a height of, perhaps 150 feet, the two other  
 rows were placed one on each side of the middle one at three paces distant & leaned  
 towards the central ones to which they were lashed, it had then the appearance of  
 a very high roof, at the gables of which were one or two slender spars leaning to. -  
 transverse stages were then formed across these uprights & these too at equal distances  
 above one another of strong short spars lashed firmly to the others & crossed by  
 wattle, here & there rude rattles ran up to the top for the convenience of  
 carrying up the provisions. - These parts are now becoming rare & I never heard that  
 any ceremonies or religious rites were in any way connected with their use or fabrication.  
 What should induce the natives to erect such unwieldy & inconvenient tables for  
 the convenience of their guests I cannot conceive except it may be that as it is their  
 usual custom to avoid robbery by placing their food on high trees or posts when  
 their collages, it might be so convenient to watch as many stages as would hold  
 all the food during the length of time it must have taken them to collect so much. -  
 Ascending some steep wooded hills came to an immense tract of flat land covered with  
 fern & sedge marshes. None of the marshes are deep, the covering of decayed vegetable  
 matter being from a few inches to 2 feet above the clay soil, which very often abounds  
 in masses of the Kaundi grass. whence it is inferred that that tree once covered the ground  
 though there are no trunks roots or remains of it to be seen amongst soil perhaps because

The forests were burnt down when rising to the numerous nature of this tree  
the fire eats down destroying the stumps for some feet under ground as I saw to  
it would be curious to know in what state the roots exist but the soil is the  
best of my delays. The mass has all covered with reeds 3 or four feet high, amongst  
which the *Glicheria hirsuta*, three species of *Drosera*, *Microseris laevigata*  
& some other plants grow. On coming to a pretty stream crossed by a neat bridge  
found abundance of a beautiful little *Libertia* & the *Loxome laevigata* in a  
very diminutive state under the bridge all evidence of the existence of former forests.

The view of the settlement at Waimato with its wooded hills & hills from three  
sides is very beautiful, at about 4 miles from the Keri Keri the Estuary of that  
river is seen on one hand (the right) & its falls on the other pouring over a shelf of  
rock into a wooded ravine & winding above it in the distance amongst groves of  
the *Daisy* deer exclaiming whilst far to the northward the wooded hills of the  
Keri Keri forest close the view. The descent to the valley of the Keri Keri is  
sudden & the view of the river immediately beneath ones feet with the culti-  
vated meadows & orchards its houses orchards & the boats in the creek are the  
more striking from the contrast they form to the barren land we had just  
been traversing. Went into New Kimp at the Kimping Station finding that  
Mr. Tappin's boat had arrived we crossed the river went to the falls under them  
& round to the other side where we hurriedly returned & as darkness was coming  
we sailed down to Pahiia whence I returned on board.

17<sup>th</sup> Went to Pahiia & thence to the hills opposite the ship obtaining with Dr. Sinclair  
returned to Pahiia.

18<sup>th</sup> Collecting shells & seaweed along the beach with Dr. Sinclair.  
Walked along the beach - Colburn is passing with his boat pushed up & took us  
on to Mr. Bartley's at the Writangi over whose ground he took us, where he has a  
large Pine & Fig plantation & above a capital series of cordyline trees to protect his  
vineyard from the E wind - pointed out a new *Cepromia* along the beach. Beach  
some fine *Cacti* had its purple fruit quite ripe which was not had eating  
leaving Colburn we continued along the beach where the *Phormium tenax* was  
in full flower & full of a watery honey - it was growing in quite a dry place  
found many new seaweeds - a little *Limnospira* & an *Actinopteryx* with some  
other plants.

19<sup>th</sup> Entomologizing over the hills caught a pretty *Cicadella* & continued on to the  
Haurangi crossed the stream & collected plants along the woods to fill my  
Harold's case.

20<sup>th</sup> The Jupiter sailed for Sydney taking my dried plants to go home. Filled Harold's  
case with plants chiefly pines, other timber trees & ferns on that day.

21<sup>st</sup> On board writing &c.

22<sup>nd</sup> Landed with Sinclair at Mr. Harris & walked from there to the high hills visited  
on my first excursion to Mr. Bartley's at Paruah Bay, found on the way the small  
*Leptis pumila* beautifully in flower above the air two species of *Umicia* & a grass  
like a *Microphyllum* Observed two skulls at an old burial place close to Bartley's

Capt Bateman & party accompanied us part of the way back. Stopped at Mr Main who gave me an axe head made of trap & used for cutting. - comes after having Mr Main was the first person who introduced the Phormium tenax into Sydney by buying 1/2 ton which was laid up for 1/2 year & snapped. When laid up for it is used for whale lines though the Manilla hemp is far preferable. Capt Harrison R.N. was a great advocate for it & the "Tern" was rigged with it. I was sent that something may still be done with this valuable plant by proper & careful husbandry. Now I doubt but that the nature of the hemp of the large & flowered northern species of which coarse mats are made may differ materially from that of the small yellow flowered species with which the southern natives make such a beautiful fabric. - With regard to the extensive destruction of the Kauri I heard an instance to night two tribes disputed the possession of a large tract of wood & met at Wanganui point to settle the matter, when the one tribe treacherously followed the other & murdered many of them, the remainder rather than see the forests fall into the others hands destroyed 25 miles of the trees the fire passed quickly from tree to tree & was nothing but the skeletoned stumps remain. It appears that this tree once existed nobody in the middle but a Stewart Island as a native servant to Mr Main who was brought up from that Island immediately recognized the gum in the ground behind the house gave the proper name for it & said that when she came from the natives show it a practice now very much discontinued but once in full vigour when they were accustomed to pass it from mouth to mouth the method of sending ships for this wood is the most expensive & least satisfactory of any that could be employed the same purpose might much better be effected by contracting with the natives for a certain supply to be ready for transportation or still better with a trading ship acquainted with the coast & the language. The Phyllocladus makes most beautiful decks for ships which never require caulking its spars are who excellent. The Dairy does excellently is useful for spars & requires constant greasing or it will snap - The Burnet & Fern are great objections to the rearing of sheep, as well as the scanty pasturage - Whales which used to be common & frequently taken in the Bay are now rare - Capt Bateman has also taken them close to shore. He tells me that the Amblyopsis is only found in the smaller <sup>lower</sup> intestines of weak & sickly whales, which produce no oil, its present value is 3/6 per ounce but it is of no known use.

21<sup>st</sup> Sunday - Capt Bateman came on board at noon told us that immediately after our departure from Parua Bay on the previous day, they had observed the smoke of a Gun Robertson to be smoking on one of the Islands opposite & that on going on to assist in quenching the fire they found the whole edifice a rafter built, burnt to the ground as was the kitchen removed some few paces from it. Near the position of the fire place were the bodies of a woman & child both dreadfully mutilated the breasts & limbs of the former being cut off & then the trunk burnt so that they could not be identified - the servant a man was found murdered near the house, he had been lying asleep near the house had two wounds in



skull apparently made by a Carpenter's broad axe. A little boy was missing  
was the widow of a local captain who had left her the house  
with some land, money & the strict permission of that party the Island. The  
deed was supposed to be done by those convicts who were had been at  
labour in the Bay but who were imprisoned at Kororangka for further  
offences & who had the lately effected their escape. A canoe was seen  
to go to the Island that morning. Miss Robertson had been for the  
day before settling her claim to the land with the Government Commissioners  
who were at the Bay & held for the purpose of enquiring into the several  
claims of the different land owners. Capt. Bateman soon left, & we  
afterwards heard that the murderers were natives of Manua who had  
also seemed to think according to their own customs that from the death  
of the perpetrator purchase the land is given up to the original proprietor.  
They had taken the boy with them & kept him at the Pal refusing to  
restore him to any one. The whole circumstance was considered as a  
precursor to a general rise among the natives some of whom are jealous  
of the inroads of the English & say that native or "Maori soon go into back  
all the same as pig" whilst others again resist the authority of govern-  
ment which has refused leave to any of the purchasers of property to en-  
ter into with all the claims throughout the Island are settled, such as  
are friends to the purchasers have been known to declare that they will  
burn the Kanoe trees rather than let such a law be enforced. There are  
rumours about the murder was known of at Kororangka on the Saturday.  
Many of the better natives are most anxious to bring the perpetrators  
to immediate justice & felt much offended when some persons suggested  
that Maoris had done the deed when they mustered to search the  
Island for the missing boy & to keep guard over the Island, as who to  
discover after their own fashion over the little girl who was killed &  
burnt, she happening to have belonged to a civilized tribe who are  
desiring for revenge. Went to Paikia in the afternoon but heard  
no more news in the Milan Choy subject. Colman had started a few  
days before for the E. Cape - went into his garden to take a last look at  
his native plants Phorrea Nep rose & violets & returned over the  
hill to the Observatory & thence on board when all was ready for sea.

22<sup>d</sup>

Monday passed over very quietly though there were rumours of an insurrection  
amongst the natives & the guilt was fully established upon the Maoris who  
still refuse to give up the Bay. Sent plants on board the Explorer for Sydney  
in Ward's care for which they want an equivalent charge. Sinclair came on board  
sent him letters for England & a few more large Catapilla for my father  
bid a temporary adieu to the Footstool & to meet again at the Christian Isd.



About 10 PM a boat came on board from the "Favorite" with a requisition requesting an armed force to take possession the town &c. - Sent Lieut Ellerman to the Hononaike to see whether there were any real grounds of fear was returned with a favorable report. which we were very glad to hear as it was now full time for us to be off for the Antarctic regions. -

23<sup>d</sup> At 4.40 AM. weighed & made all plain sail down the harbor with the Favorite in company remaining under topsails jib & brim set beating us with way stuck of canvas set Shudshupails &c. - When off the dock work done by Capt Sullivan came on board. at 10 he left we exchanged chers & the Favorite parted company steering down along the coast for Auckland. -

At noon Lat. 35. 14 Long. 176. 39 wind S.W. 3 to 6 at night squally & cloudy Air 56 to 66. Sea 60. Bar. 29. 801 to 29. 700. - 5.40 AM took plants from Fiji.

24<sup>th</sup> Lat. 36. 27 Long 177. 34. - Air 56 - 63.5 Sea. 61 - 63.5. Bar. 29. 777. to 29. 601. Wind S.W. & S.S.W. 3 to 6. - Cloudy. Saw some Cape pigeons, Black albatross & Blue Petrel. - Saw Rodgers Seaman brought on deck for punishment, jumped over the stern - gave to clove bottom. - Let go the life line & pushed him out ship going to the 76<sup>th</sup> - Wind increasing at night all with vivid lightning in the S.E.

25<sup>th</sup> Lat. 38. 17 Long 179. 51. - Air 61 to 53 Sea 60 - 50.5 Bar. rising 29. 606 to 755. - S.W. wind 4 to 5 with clear weather & a little rain. Many albatross & Blue Petrel - Sailed some seaweed. -

26<sup>th</sup> Lat. 38. 54 Long. 178. 48 West. - Air 53 - 58 Sea. 57 - 58 Bar. rising 29. 703 to 29. 905. - Wind S.W. squally with a little rain. Many albatross & Stormy Petrel, luminous patches in the water. - Having seen from E to W. longitude this again becomes the 25<sup>th</sup> of the month. - at 4 AM split the topmast stay out in a squall.

26<sup>th</sup> Lat. 39. 1 S. Long. 177. 40 W. - Air. 53.5 - 58 Sea 56.5 - 58 Bar. July. 29. 880 - 29. 885. - Southerly breeze. - 1.15 AM to & tried the temperature of the Sea at 300 & 150 fms. 3.40 AM. Sailed a broken spar apparently with rigging hanging to it. - Saw a Penguin many albatross, dusky petrel Cape pigeons. -

27<sup>th</sup> Lat. 39. 10 Long. 177. 20 W. - Air 53 to 63. Sea 56.5 - 58 Bar. 29. 834 to 29. 639. - Southerly light wind drawing wind to N.E. & N. with the bar falling. - many gloomy. Many albatross about. -

28<sup>th</sup> Lat. 40. 47 Long. 176. 57 W. - Air 54 - 61 Sea. 57 - 59 Bar. 29. 635 - 603 - 652. - Bar. falling with the wind drawing from N. to W. & rising again to S.W. & S.S.W. gloomy & squally with rain - Sailed a patch of seaweed with many Petrel about it.

29<sup>th</sup> Lat. 41. 49 Long. 176. 14 W. Air 53.5 - 63 Sea. 57 to 59 Bar. 29. 665 to 29. 552. - N.E. & E. wind Cloudy. - Saw many albatross. Schools of porpoises & patches of seaweed. - Saw Rodgers for Rodgers Seaman for Rodgers Seaman &c. -

# At Sea

Star

- 30<sup>th</sup> Lat. 43. 43 Long. 177. 5 W. - Air 54 - 61.5 Sea. 52.5 - 57 - Bar. 29.600 - 810. -  
 N.W. breezes - Cloudy foggy with rain mist. - Saw many porpoises, one cormorant  
 Albatross, 13k backed gulls, petrel & Tern & several small sea birds. At 7.50  
 A.M. saw breakers S.W. There are the rocks to the northward of the Chester  
 Id. i. which we hope to anchor soon - 1.10 pm. obtained soundings i 100 fm  
 So very thick that we cannot stand i for the land & having no time to  
 lose few used on our course
- 1<sup>st</sup> Lat. 45. 40 Long. 176. 41. Air 52.5 to 50.5 Sea. 52 - 54.5 Bar. 29.761 to 30.265  
 wind N.E. 4. cloudy & gloomy, fished many quantities of Leanneid, Albatross  
 & blue petrel. - the Pinnacled?
- 2<sup>nd</sup> Lat. 47. 21. Long. 175. 23 W. - Air 51 - 57. Sea. 51 - 52.5. Bar. 30.269 - 30.408.  
 N.E. wind 4. Cloudy & equally. - Saw many quantities of Leanneid & Albatross.  
 This seaweed is chiefly the Mucos cystis papifera with sometimes a large  
Laminaria - fished a wicker basket & a dead bird.
- 3<sup>rd</sup> Lat. 40. 47. Long. 173. 36. Air. 40 - 57. Sea. 30 - 54 - Bar. 30.405 to 30.285.  
 N.E. light wind with gloomy weather - Saw many Albatross, Stormy Petrel  
 Petrel, 3 sperm whales. a brown gull & many quantities of seaweed.  
 Found the current to set 0.35 by compass S 1/2 W.
- 4<sup>th</sup> Lat. Long. . Air 47 - 55 Sea 51 - 53. Bar. 30 - 279 to 30.011. -  
 wind N.W. by North to N.N.W. with gloomy weather & light breezes. Saw  
 several Albatross, Penguin, brown petrel & Whales. Fished for soundings <sup>in water</sup>  
 1100 fm. Landed away & took 400 fm of deep sea line, two deep sea lead & 2 thermos.
- 5<sup>th</sup> Lat. 49. 27 Long. 170. 47. Air 47 - 50.5. Sea. 49 - 52. Bar. 30.066 to 29.880  
 wind light east & light. cloudy many Albatross & Leanneid.
- 6<sup>th</sup> Lat. 50. 1. Long 160. 40 W. Air 40 - 59. Sea. 40 - 51. Bar. 29.085 to 29.636.  
 Northw. light wind & cloudy - fished a shoal of black fish a bit of drift wood  
 some Penguins & Leanneid.
- 7<sup>th</sup> Lat. 50. 40. Long. 167. 40 W. Air 45 - 51. Sea. 47 - 40. Bar. 29.604 to 29.697.  
 E & N.E. wind with gloomy weather. - Saw many Albatross blue & black petrel  
 & Leanneid, 2 Whales
- 8<sup>th</sup> Lat. 51. 36. Long. 165. 20. Air. 49 - 43.5. Sea 50 - 45.5. Bar. 29.660 - 410.  
 N.E. breeze shifting to S.W. gloomy weather with rain - several Albatross & Petrel.
- 9<sup>th</sup> Lat. 52. 32. Long 161. 20. - Air 42 - 36 Sea. 44.5 - 40. Bar. 29.389 - 29.115. -  
 Equally S.W. wind with hail & snow. fished some seaweed, a large whale,  
 some Cape porpoise & the small blue petrel, the smutton bird? many spotted  
 porpoises.
- 10<sup>th</sup> Lat. 53. 1. Long 157. 49. Air 36 - 42 Sea 44 - 46. Bar. 29.134 - 29.576. -  
 S & E wind cloudy with rain & snow in the morning - Saw seaweed  
 Albatross & whales many dusky petrel

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Wh. Seas to the Park Sea

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- 11<sup>th</sup> Lat. 52.50 Long. 154.0. W. Air 30-44 Sea 46-44 Bar. 29.606-29.861.  
winds S.E. drawing round by S. to West with gloomy weather saw some  
Mushy & blue petrel & whale some seaweed & a shoal of Grampus. -
- 12<sup>th</sup> Lat. 53.12 Long. 154.21. Air 41-51. Sea 45-39.5 Bar. 29.840-29.864. -  
N.W. winds with cloudy & gloomy weather - saw some common & bottle nose  
whales, stormy & brown petrel. -
- 13<sup>th</sup> Lat. 54.56 Long. 150.30. Air 46.5-40 Sea 30-40 Bar. 29.625-29.300. -  
N.W. wind with rain & thick weather, saw black albatross porpoise a bottle  
nose whale & some seaweed. -
- 14<sup>th</sup> Lat. 56.20 Long. 140.0. W. Air 40-35 Sea 30-35.5 Bar. 29.300-29.294.  
light winds from N.W. with some fog & rain many blue & black petrel a  
shoal of Petrus Cape Porpoise & a piece of seaweed. - a line of tide from N to S.  
Tried the track of the sea at 10.50 pm. very near that of surface - gulls beating &  
geese flying as they were at 10.00.
- 15<sup>th</sup> Lat. 57.4 Long. 147.40. Air. 33.5-41.2 Sea 37-34. Bar. 29.335-29.417.  
N.E. light winds with some fog. - saw many petrel & an albatross - crescent  
setting 0.65 pm down to the S.E. - geese, hells, & geese going like a 12 show.
- 16<sup>th</sup> Lat. 58.36 Long. 146.43. Air 40-33 Sea 34-32. Barom. 29.410-29.563.  
N.W. light winds with fog & rain. - at 5.30 AM saw the first iceberg & many  
more during the day. -
- 17<sup>th</sup> Lat. 61.3 Long. 146.3. Air 35-28.2. Sea 32.5-29. Barom. 29.566-29.797.  
N.E. winds overcast with some snow. many icebergs & loose ice Cape Porpoise  
whales & red colored petrel. - killed one last Phocaena.
- 18<sup>th</sup> Lat. 62.50 Long. 147.25. Air 36-20 Sea 20-29. Barom. 29.790-29.986.  
E.S.E. light winds with gloomy weather. - many icebergs - at 4.15 AM. entered the  
fark looking out lanes in the sea. many large white petrel seals & Arhalis. - 1
- 19<sup>th</sup> Lat. 63.23 Long. 149.50. Air. 39-27 Sea 20-29. Bar. 29.980-521. Light winds  
from S.W. 2. with gloomy weather - swimming through openings in the ice.  
Laps went observing on a piece of ice. saw many Cape Porpoise, seals, whales, white  
petrel & penguins of the largest kind caught last year, they are easily seen down  
on the flat pieces of ice sometimes not seeing till the party is close upon them -  
it is the same with the seals, both an utter help & danger calls against  
man though the seals attack & wound one another for prey. saw a number  
of both sexes are caught much pleased both of these animals also of cod fish &  
especially on a large red shrimp of which their stomachs are often full as also of  
the heads of large & small cuttle fish gravel is also contained in the stomach  
consisting of pebbles & sand of trap, granite quartz & other primary rocks  
either brought from the land or picked off some pieces of ice. -



In the Part. Dec -

- 20<sup>th</sup> Lat. 63.47 Long 151.34 W. - Air 27-29 Sea 28.5-30 Bar 29.963-943.  
 Light E.S.E. wind with fog & gloomy weather. Sailing as usual through openings in the ice - caught some seals - shot a Mother Carey's goose - saw a flock of Tern on the ice & all the other commoner birds - some of these Tern have been shot by the "Terns" they are very pretty little birds much like the Auckland Id. ones but smaller -
- 21<sup>st</sup> Lat. 64.50 Long 153.23. - Air 27-33 Sea 29-32 Bar. 29.833-29.778  
 Wind the same with cloudy misty weather & snow in the forenoon - keeping the ship through heavy ice. In the same animals as before - much of this ice is discolored as was the case last year from the same cause - when melted it gives out a strong animal smell -
- 22<sup>nd</sup> Lat. 65.30 Long 154.19. Air 24-35 Sea 21-29. Barom. 29.794-29.910.  
 Winds E.S.E. gloomy & foggy weather - saw the same animals as usual with a flock of Tern - occasionally we pass considerable bergs - moving amongst the ice bearing to a south of clear water & firing fog signals &c.
- 23<sup>rd</sup> Lat. 66.59. Long. 155.44. Air 22.5-34. Sea 27.5-29. Bar. 29.927-992.  
 Light E.S.E. wind with fog & a little snow in the morning - at 1 P.M. watered on a floe - beating about in pools or working amongst the ice. Seals, large Penguins - White, Petrel, brown backed do, are all common besides which are sometimes seen the Cape pigeon, stormy Petrel, mother Carey's goose, the small Tern & Duck albatross, who more rarely the hank gull with a white bar on the wing so common at Franklin Island.
- 24<sup>th</sup> Lat. 65.50 - Long 155.54. - Air 26-33 Sea 28.5-30.5. Bar. 30.009-29.971.  
 Calm & variable winds - with overcast misty weather - Tackling & going to an open pool of water all day - or warping through the ice - being done by the Capt & gun room officers spent at night in our berth.
- 25<sup>th</sup> Lat. Long. Air 27-27.5 Sea 28.5-31. Barom. 29.976-749.  
 Light wind from N.E. 786h. with snow at night - 11 large barrier bergs in a chain from East to S.W. Beating in an open pool of water amongst the ice. Dined in the forenoon as on last year Christmas day.
- 26<sup>th</sup> Lat. 66.9. Long. 156.23. Air 27.5-31. Sea 28-29. - Bar. 29.732-29.395.  
 Winds N.E. (3-5) with equally heavy overcast weather. - Beating about in an open pool of water a heavy swell from the N.E.
- 27<sup>th</sup> Lat. 66.16. Long. 156.29 W. Air 28.5-34. Sea 28-29. Bar. 29.366-29.101.  
 N.E. & N.W. wind moderating but foggy & misty with snow in the morning - beating all day in an open pool. - amongst the ice.
- 28<sup>th</sup> Lat. 66.20 Long. 156.38. - Air 29.5-37. Sea. 28-29.5. Bar. 29.222-29.135.  
 N.W. & N.E. light wind with fog & snow in the morning beating all day in an open pool of water - saw several flocks of Tern besides the usual birds.

- 29<sup>th</sup> Lat. 66.24 Long. 156.9 W. Air 30-35 Sea. 20-29.5 Barom. 29.133-28.930  
Northerly light wind with fog & snow. Still heating in an open pool of water.
- 30<sup>th</sup> Lat. 66.31 Long. 156.19. Air 30-42.5 Sea. 20-30.5 Barom. 29.001-29.096.  
W. winds & calms with dense fog & snow in the morning - at 1.15 P.M. a light swell from the southwest and at 10 P.M. let the stove to dry the stoves. - Heating still in an open pool of water - at 6.20 P.M. made fast to a piece of ice with the "Terror" alongside the same piece - employed watering & mutual congelations.
- 31<sup>st</sup> Fast to the same piece of ice drifting slowly with a very light S.W. wind. Air 43.5-29. Sea 20-30. Bar. 29.091-29.146. Foggy & snowing hard most of the day. Crew employed on ship's duty as in harbor. Spent the last night of the year in great festivity on the ice.
- Jan 1<sup>st</sup> Lat. Long. Air 38-28 Sea 27-29. Barom. 29.150 to 29.461.  
1842. Light E.N.E. winds with gloomy weather & a little snow in the morning. Still fast to the same piece of ice, hemmed in amongst heavy ice - Received gratis Jacket, Goggles, red shirt, 2 comforters, Wash wig & Best hose. - Dined in the Cabin.
- 2<sup>nd</sup> Lat. 66.36 S. Long. 156.28. Air 27-40.5 Sea. 27-28.5 Bar. 29.466-29.741.  
Light E.S. wind with gloomy weather shot a hawk gull & a ~~Arctic~~ Carey's goose. - Saw two small Penguins on the ice the same as seen last year - "Terror" alongside.
- 3<sup>rd</sup> Lat. Long. Air 27-35.5 Sea 28.5-27.5 Bar. 29.796-30.8-550.  
W.S.W. winds 2-4 cloudy & misty - Terror still in Co. lashed to the same piece of ice.
- 4<sup>th</sup> Lat. Long. Air 34.5-26. Sea 28-29. Bar. 29.358-29.462.  
Southerly wind 2-4. with snow all the morning many birds & seals about. Received 2 pair of white gratis. Fast as yesterday.
- 5<sup>th</sup> Lat. Long. Air 26.5-39. Sea 28-29.5 Bar. 29.461-29.357.  
S.W. winds 4-6. with a little snow in the morning. "Terror" alongside.
- 6<sup>th</sup> Lat. Long. Air 35.5-27.5 Sea. 30-29. Barom. 29. ~~324~~<sup>321</sup> - ~~776~~<sup>039</sup>.  
S.W. winds in the morning with snow shifting to S.S.E. with gloomy weather. - many seals birds whales & a shoal of small fish. - at 1.15 P.M. cast off from the ice & made all sail before night had to heave to in a pool of water. - Being 12<sup>th</sup> night spent in the cabin for the 12<sup>th</sup> cake.
- 7<sup>th</sup> Lat. 66.13. Long. 155.41. Air 27-31 Sea. 28-29. Barom. 28.972-496.  
S.W. winds 3-7. with mist & much snow. - Tacking about in a pool of water.
- 8<sup>th</sup> Lat. 66.12. Long. 155.27. Air 35-28. Sea 30-28. - Barom. 28.476-762.  
winds shifting from West to S.S.E. gloomy & foggy. - 30 Icebergs from the west head. - still heating about in an open pool. - Appearance of land S.W. by compass.
- 9<sup>th</sup> Lat. 66.5 S. Long. 155.42. Air 24.5-31.5. Sea. 28-29. Barom. 28.764-29.198.  
Still heating about in an open pool of water.

Jan'y.

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10<sup>th</sup>

Lat. 65. 59. S. Long 155. 30 W. Air 25-30.5. Sea 28-30. Barom. 29.210-559.  
26 Berge seen from the mast head. Southly. wind 2 D 3 with clear weather!  
Keeping in an open pool & occasionally running to the S. in lanes of water.

11<sup>th</sup>

Lat. Long. Air 25-27 Sea 27.5-29.5. Bar. 29.589-561.  
Eastly & Southly wind (2 1/2) at 4 AM a partial Eclipse of the Sun. at 0.30 PM  
made fast to a piece of ice with the "Terror" fast to the same piece.

12<sup>th</sup>

Lat. 65. 54. S Long 156. 30 W. Air 26-34 Sea 28-30.5 Bar. 29.576-537  
Southly & Eastly light wind with gloomy weather. Caught a small fish with  
the towing net. at 8.40 cast off from the ice & made sail running in openings.

13<sup>th</sup>

Lat. 66. 11. S. Long. 156. 57 W. Air 27.5-36 Sea. 28-29. Barom. 29.545-374.  
Eastly wind (N.E.). Keeping the ship in clear water all day.

14<sup>th</sup>

Lat. 66. 6. Long 157. 12. - Air. 32-25. Sea. 28-29.5. Barom. 29.365-29.262  
S.W. wind 3/4 with gloomy weather & a little snow. Barking filling in a post.

15<sup>th</sup>

Lat. 66. 2. Long. 157. 30. - Air 24.5-28 Sea. 27.5-28 - Barom. 29.363-489.  
S.W. wind (3-4) at PM. 330 PM. with "Terror" made fast to a piece of ice. Water

16<sup>th</sup>

Lat. Long. Air. 25.5-40 Sea 28-30. Barom. 29.606-556.  
Light S.W. wind 2 1/2 at PM. - still fast. Sea very heavy all round - Heavy swell  
bringing all the bills & bumping the ship.

17<sup>th</sup>

Lat. Long. Air. 27-36.5. Sea. 28-29. Barom. 29.475-190.  
N.E. wind (1-6) equally & gloomy. heavy swell from W. & N.W. sea heavy & close.

18<sup>th</sup>

Lat. Long. Air 27.5-34. Sea. 28-29. Barom. 29.163-28.949  
N.E. wind 6-8 in the morning shifting to North with much snow & fog.  
A heavy S.W. swell carried away at 4 AM the main hawser, at 4.40 carried away  
both main hawsers, & lost ice anchors. - at 5.30 PM. fast to a piece of ice  
made sail, set double reefed topsails, courses, jib, staysails, Toppail & driven  
& cleared Berg N.W. a cable's length - Shortened sail again - sea heavy & close

19<sup>th</sup>

Lat. 66. 18 Long 158. 30. - Air 31-38 Sea. 28-29. Barom. 29.221-28.904.  
N.W. wind 2-8 fog & snow at morning & night. a heavy swell carried  
away several hawsers. at 2.30 AM cast off. Tacking about in heavy sea at  
5 PM passed the piece of ice we cast off from with a dead end & on it.

20<sup>th</sup>

Lat. Long. Air 34.5-30 Sea. 29-28. Barom. 28.885. 413. 754.  
A heavy N.W. & N.N.W. gale blowing 10 & 11 all day, ship heaving about with a  
very heavy long swell from the Westward amongst cloud & heavy sea. - with  
fog squalls & snow. - Parted main topail close reefed - set the Toppail  
& fore staysail - sea close on all sides, striking very heavily - 9 AM a heavy  
piece struck the under & wounding the head - 11 AM the vessel received another  
heavy blow. "Terror" striking very heavy carried away girders & deck.

21<sup>st</sup>

Lat. Long. Air 34-27 Sea. 28. Barom. 28.776-29.004  
S.W. wind moderating very fast. 7-8 - gloomy with a little snow - 0.30 AM  
outwards & made fast to a piece of ice with the Terror in company - Unheeded



The rudders & ... and found the head much ... after  
 falling pieces torn away - when some copper torn away from the ... "Terror" is  
 a much worse state much copper lost & ... whale boat stove & ... much  
 damaged as to be broken up. See close packed & heavy all round.

- 22<sup>nd</sup> Long. Lat. Air 30-24.6. Sea 27.5-28 - Barom. 29.010-396.  
 Southerly winds 1-7 with gloomy weather - Ice heavy & close all round - <sup>damaged.</sup> repairing.
- 23<sup>rd</sup> Lat. Long. Air 24-34. Sea 27.5-28. Barom. 29.421-480.  
 N.E. light wind & gloomy weather - Ice very close & heavy all round.
- 24<sup>th</sup> Lat. Long. Air 27.5-36.5. Sea 27.5-28. Barom. 29.494-459.  
 N.W. strong winds - cloudy & gloomy. Ice closely packed in the morning slack at  
 night to the S.E. a swell from the W. still fast to a piece of ice with the "Terror" Co.
- 25<sup>th</sup> Lat. Long. Air 37-29. Sea 28. Barom. 29.500-29.326.  
 Southerly winds 2-3 with mist. Ice close & heavy - Fast to a piece of ice.
- 26<sup>th</sup> Lat. Long. Air 29.5-36. Sea 28-28.5. Bar. 29.306-28.971.  
 N.W. gale 2-8 with fog & snow. Ice slackening to the S.W. Fast as before.
- 27<sup>th</sup> Lat. Long. Air 30-34. Sea 28. Barom. 28.905-794.  
 Strong N.W. winds with gloomy weather & snow. Ice heavy but opening to the  
 S.E. at 9.30 P.M. last off from the ice.
- 28<sup>th</sup> Lat. 67.39 S. Long. 155.59 W. Air 37.5-28 Sea. 28-29.5. Bar. 28.800, 846.  
 Light W. wind with gloomy weather & snow in the morning. Ice close all round.
- 29<sup>th</sup> Lat. Long. Air 26.5-29.5 Sea. 27.7-28. Barom. 28.809-711.  
 S.E. wind 4-7 - with snow all day. Ice heavy - at 8 P.M. made fast to a piece  
 of ice with the "Terror" fast to the same piece.
- 30<sup>th</sup> Lat. Long. Air. 28.5-34 Sea 28.225 Barom. 28.716 - 889.  
 N.E. wind 3-4 with snow all day. Ice heavy long streams with pools between  
 at 1.15 P.M. last off ice very heavy from S.W. to West, N.W. to N. lower to S.E.
- 31<sup>st</sup> Lat. 67.21 S. Long 157.57 W. Air 28-39. Sea 28-28.5. Barom. 28.923-29.199.  
 Light S.E. winds with gloomy weather & snow all day. Ice starker, heavy in streams.
- 1<sup>st</sup> Lat. 67.18 Long 158.12 W. Air 28-33 Sea 27.5-29. Barom. 29.206 - 29.368 - 257.  
 Southerly & westerly winds with gloomy weather & snow in the morning - Seals, Cape pigeons  
 white petrel, jaegers do & whales seen. Trudging & tramping as necessary to avoid  
 the heavier ice - Ice at night slack all round.
- 2<sup>nd</sup> Lat. 67-57 Long 160.3 W. Air 33-27.5 Sea 28-29. Barom. 29.200 - 057.  
 Westerly winds with fog & snow clearer in the afternoon at 2.20 P.M. after passing  
 through some streams of young brash ice we cleared the pack far to the westward  
 of where we entered it having been 47 days in the pack all the while coming  
 from the westward showed that we were very far from the pack  
 edge - we have seen upwards of miles through this pack. - Saw many Cape



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10<sup>th</sup>

Pigeon, stormy Petrel the former & latter of which are common amongst the ice also some Ducks, Grebes & gigantic Petrel - some whales & a few white Petrel. - 11.30 Saw some Stars.

11<sup>th</sup>

3<sup>d</sup>

Lat. 60.23 Long. 159.52 W. Air 26.5-30. Sea 20-20.5. Barom. 29.067-266. Southerly winds with snow & gloomy weather. - Heaving to the Southward made the pack ice again hard & close to the S.E. end of where we left it with several bergs amongst & near it - dragging pieces of ice away from it but the other waters are pretty free from ice & bergs. - Large Pigeons become scarce as the pack edge is approached & the white Petrel take their place with the brown backed Petrel. -

12<sup>th</sup>

13<sup>th</sup>

4<sup>th</sup>

Lat. 60.50. Long. 160.20 W. Air 20-35. Sea 20-29. Barom. 29.291-29.561. W. winds & cloudy with snow in the afternoon - Heaving to the S.E. (true) off a fine hard pack edge.

14<sup>th</sup>

15<sup>th</sup>

5<sup>th</sup>

Lat. 60.59. Long. 163.53 W. Air 29.5-31. Sea 29-28. Barom. 29.561-20.277. Wind N.W. in morning - N.W. gale in afternoon snowing & very thick amongst streams of ice with a heavy crop, and struck a piece of ice & carried away both the stay - at 7.30 the 1<sup>st</sup> Terror S. L. E.

16<sup>th</sup>

17<sup>th</sup>

6<sup>th</sup>

Lat. 69.51. Long. 167.39. Air 29-32. Sea 20-29. Barom. 20.839-581. N.E. wind moderating with much snow & fog. Packed much stream & some heavy ice.

18<sup>th</sup>

18<sup>th</sup>

7<sup>th</sup>

Lat. 70.10. Long. 169.49 W. Air 29-24.5. Sea 20-20.5. Bar. 20.565. - 036. S.E. wind 4-6 gloomy & squally. - amongst much stream ice near the pack edge - many bergs.

19<sup>th</sup>

20<sup>th</sup>

8<sup>th</sup>

Lat. 70.19. Long. 174.0. Air 24-29. Sea 20-20.5 - Bar. 33.962-20.683. S.W. wind (2-5) cloudy & snowing - still off the pack edge. Many bergs & ice.

21<sup>st</sup>

22<sup>nd</sup>

9<sup>th</sup>

Lat. 70.39. Long. 174.31 W. Air 26-33. Sea 20-29.5. Barom. 20.682-959. S.W. wind (2-4) with occasional snow squalls. - still off the pack edge, close & heavy. Many bergs & much ice - large flocks of birds - some whales seals.

23<sup>rd</sup>

24<sup>th</sup>

10<sup>th</sup>

Lat. 70.3. Long. 176.23 W. Air 36-34.5. Sea 29-20.5. Barom. 20.970-29.27. S.W. wind a fine day. - still off this pack which obliges us to keep to the Westward - many birds.

25<sup>th</sup>

26<sup>th</sup>

11<sup>th</sup>

Lat. 70.6. Long. 178.14 W. Air 29-32.6. Sea 31-30. Barom. 29.109-20.63. W. wind (3-6) with fog, mist & snow squalls. - Many bergs & heavy ice. we have now cleared the pack which terminates in a point - ice heavy & close.

27<sup>th</sup>

28<sup>th</sup>

12<sup>th</sup>

Lat. 71.2. Long. 179.12. Air 28-34. Sea 29-30.5. Barom. 20.781-29.067. Winds S.W. shifting to N in the afternoon with snow - a strong blizzard from S.E. & N.E. - many birds.

29<sup>th</sup>

30<sup>th</sup>

13<sup>th</sup>

Lat. 72.27. Long. 178.40. Air 20.5-27. Sea 30-32. Barom. 20.940-674. W. wind (2-3) with fog & snow in the morning. - Open water & many birds.

31<sup>st</sup>

14<sup>th</sup>

Lat. 73.22. Long. 177.56. Air 29-26. Sea 31-30.5. Barom. 20.585-691. S.W. heavy gale with fog, mist & much snow.

24.2.  
July 15th Lat. 74.26. Long. 102.0. Air 24.5 - 26.5 Sea 20 - 30.5 Barom. 28.705 - 29.106.  
Partly gales with fog & heavy Snow Squalls. - Some large bergs about.

16th Lat. 75.6 Long 107.4. Air 24 - 26. Sea 30 - 31. Barom. 29.109 - 180 - 28.970.  
Sally & N.E. wind gloomy, heavy white mist & Lake Peppers. - we are now in

181

numerous as also  
water at 11.5 PM

found the current  
T. - dredged & preserved  
(list notes) -

Bar. 28.862 - 29.038  
in heavy ice -

29.053 - 28.846.  
ice - sounded in 300 fms.

on. 28.835 - 510.  
in 240 fathoms.

Bar. 28.896 - ~~29.038~~  
28.880. - (many birds)

on. 28.277 - 282.  
with the wind S.W.  
ice about.

Barom. 28.860 - 29.081.  
& many birds about.

ice of black rock upon  
- at 11.50 PM made

Barom. 29.151 - 28.987.  
with this colored ice

ice. - many bergs one  
in backed, white mist.

- a berg with rock upon  
by. Tacked up caused  
red Pramake ice.

at we saw last year  
last extreme of ice

at like the salient  
dredged best comes to  
with low flat seabed

the which become

Pigeon, stormy Petrel the former & latter of which are uncommon amongst the ice also some Dusky Albatross & Gigantic Petrel some Whales & a few white Petrel. - 11.30 Saw some stars. -

3<sup>d</sup> Lat. 68.23 Long. 159.52 W. Dir 26.5-30. Sea 28-28.5. Barom. 29.867-266.

Southerly wind  
made the pack  
several bergs among  
the waters are  
pack edge is appa  
rantly Petrel.

4<sup>th</sup> Lat. 68.50. Long  
Windy winds  
off a firm hard pack

5<sup>th</sup> Lat. 68.59. Long  
Winds NW by N  
amongst streams  
away both holes

6<sup>th</sup> Lat. 69.51. Long  
SE wind made

7<sup>th</sup> Lat. 70.18. Long  
SE wind 4-6  
edge - many

8<sup>th</sup> Lat. 70.19. Long  
SW wind (2-5)

9<sup>th</sup> Lat. 70.39. Long  
SW wind (2-4)  
heavy. Many

10<sup>th</sup> Lat. 70.3. Long  
SE wind  
to the water and

11<sup>th</sup> Lat. 70.6. Long  
Windy wind  
we have now a

12<sup>th</sup> Lat. 71.2. Long  
Winds SW by S  
SE 1/2 S to NW 1/2

13<sup>th</sup> Lat. 72.27. Long  
Windy wind 2

14<sup>th</sup> Lat. 73.22. Long  
E. N. E. heavy gale with fog mist & much snow.



- July 15<sup>th</sup> Lat. 74. 26. Long. 102. 0. Air 24.5 - 26.5. Sea 20 - 20.5. Barom. 29.705 - 29.106.  
 Partly gales with fog & heavy Snow Squalls. Some large bergs about.
- 16<sup>th</sup> Lat. 75. 6 Long 107. 4. Air 24 - 26. Sea 30 - 31. Barom. 29.109 - 180 - 29.970.  
 East & NE wind gloomy. Many white Petrel & Cape Petrels. - We are now in  
 greenish water evidently discolored. The white Petrel very numerous as also  
 the brown backed Petrel & large flocks both alight on the water at 11.5 AM  
 Healed & sounded in 390 ft green mud & soon 1st bottom found the current  
 to set S. 70 W true - 6.37 per hour perhaps a wind current. - Dredged & preserved  
 a few animals different from those of last year (did not list water).
- 17<sup>th</sup> Lat. 75. 47. Long 104. 20 Air 25.5 - 29.5. Sea 20.5 - 29. Bar. 29.862 - 29.820  
 NE winds 4 & 5 overcast & squally with snow. Heaped some heavy ice.
- 18<sup>th</sup> Lat. 76. 52. Long 178. 00. Air 26.5 - 24.5. Sea 29 - 29.5. Barom. 29.053 - 29.046.  
 N & E winds with Snow & gloomy weather. - Many birds & Whales. Sounded in 300 ft.
- 19<sup>th</sup> Lat. 76. 41. Long 173. 40. Air 24.5 - 19. Sea 29 - 20.5. Barom. 29.835 - 510.  
 Wind East & NE with cloudy weather. Many birds Sounded in 240 fathoms.
- 20<sup>th</sup> Lat. 76. 14. Long. 167. 25. Air 16.5 - 19.5. Sea. 20.5 - 20.7. Bar. 29.496 - <sup>287</sup>~~296~~  
 E & SE & SWS Gale (4-9) 4 Bl G. - Lowest of Barom. 4.30 AM. 29.200. - Many birds  
 Heaped some heavy pieces of ice. - a heavy crop breaking sea.
- 21<sup>th</sup> Lat. 75. 53. Long. 165. 00. Air 19 - 23.5. Sea. 20 - 29. Barom. 29.277 - 242.  
 A heavy S & S Gale (10-9) all morning moderating in the evening with the wind S. W.  
 & much snow. Barom at 1.30 AM. 29.257. - Some heavy ice about.
- 22<sup>nd</sup> Lat. 76. 42. Long. 165. 50. Air 24 - 20. Sea. 20.5 - 29. Barom. 29.860 - 29.081.  
 Moderating with wind SW & NW (4, 3) Some heavy ice & many birds about.  
 Heaped some streams of ice - Saw a small berg with a piece of black rock upon  
 it. - Sounded in 190 fm. green mud & small black stones. - at 11.50 AM made  
 the Barrier from East to S. E.
- 23<sup>rd</sup> Lat. 77. 49. Long. 162. 35. Air 30 - 19.5. Sea. 20 - 29. Barom. 29.151 - 29.987.  
 N. W. Wind (2 & 3) 6 Bl with beautiful weather. - Heaped much discolored ice  
 occurring through much bludge & pale brown pea-cake ice. - Many bergs one  
 with large flocks of birds upon it. Some seals, some brown backed, white petrel,  
 a black gull shot. Saw some Penguins & Whales blood - a berg with rock upon  
 it. - Running through much ice toward the Barrier at 7. Tacked up carried  
 home to at 1/4 miles from the barrier amongst thick discolored Pea-cake ice.  
 The barrier here is lower & much more irregular than what we saw last year  
 though we were enabled to reach the present part to the last extreme of ice  
 that we then saw. - its outlines more regularly jutting out like the radiant  
 angles of a fortification - the precipices generally not so bluff but consist of  
 short weathered terraces of snow elevated up into firm arches with low flat ledges  
 at their bases which receive broken masses of snow on their tops which become



detached from the cliffs above, then creep then float off to sea when the wash of the waves easily removing the snow from one side they lose their balance & become inclined, Capt. Peary saw several such & told one of them pointing out their origin at the same time to me - An appearance of land is seen over the barrier whose upper surface rises into long undulating low hills of snow. The maximum height was 140 feet. Here & there it ran into deep heights 700 ft. - one was about 7 miles deep. we were able to lay down about 140 miles of barrier & the land I did from the point where we began to extend it about 30 miles over extreme South Latitude at this time was  $70^{\circ} 9' 00''$  & the Longitude  <sup>$161^{\circ} 27' 2''$</sup>  we were entirely surrounded by young ice. Leaving the barrier at this late date it was time for us to commence our homeward voyage for the Falkland Islands tracing the pack to the point where we left it on the 11th. we could now see it a little to the eastward of us extending nearly down to the barrier the intervening space being filled up with young ice.

- 24th Lat.  $76^{\circ} 57'$  Long.  $161^{\circ} 30'$  Air 21-20. Sea 20-29. Barom. 20.973-406.  
 NE strong wind with heavy snow. much loose ice & many streams along the edge of the pack. bore up occasionally to keep off the pack which is firm and heavy.
- 25th Lat.  $74^{\circ} 50'$  Long.  $166^{\circ} 15'$  Air 27-20.5. Sea 29-20.5. Bar. 20.473-380.  
 N & NE strong wind with gloomy weather & snow running rapidly to the northward along the Pack edge.
- 26th Lat.  $72^{\circ} 46'$  Long.  $170^{\circ} 1'$  Air 27-23. Sea 29-20. Barom. 20.435-610.  
 Strong SE wind with some snow in the forenoon. slide off the edge of the pack very close & heavy running through much brack & young ice.
- 27th Lat.  $72^{\circ} 1'$  Long.  $172^{\circ} 25'$  Air 23-25. Sea 20-29. Bar.  
 Earty wind 2 & 3 with cloudy weather clearer in the afternoon. Sailing through much young ice along the Pack edge. Keeping more to the westward as it trends so.
- 28th Lat.  $70^{\circ} 54'$  Long.  $175^{\circ} 30'$  Air 24-27. Sea 20-29. Barom.  
 E & NNE wind (3.475) with gloomy weather & a little snow. Sailing through much Pancake & stream ice. we are now approaching the point of the pack we left on the 11th. many bergs about. at 7 PM. breaved sharp up to weather the pack among a chain of enormous bergs. He counted at one time. - all round in one quarter completely lining the horizon - apparently shaded their mouths and passages by the pack. - at 9.45 observed bright streaks of the Aurora & saw some falling stars.

- March  
1<sup>st</sup> Lat. 69.52. Long 180.5. Air 24-27. Sea. 28.5-29.5. Barom. 28.562 to 28.731.  
Easterly winds (3-4) with moderate weather. Off the Pack with many bergs about  
at 1.35 PM hauled round the point of the pack on which some seals were sleeping & lay  
up more to the westward with an open sea before us. Aurora seen early this morning.
- 2<sup>nd</sup> Lat. 68.4. Long 176.35 W. Air 26.5-31. Sea. 29.5-33. Bar. 28.724-631.  
Easterly winds (4-5) equally & gloomy with some snow - very few bergs, many whales  
no white Petrel but Cape Pigeon & Blue Petrel & Aurora seen in the morning very faint.
- 3<sup>rd</sup> Lat. 67. 20 S. Long 174. 27 W. Air 30-37.5 Sea. 33.5-32. Barom. 28.652. 702. 504.  
Calms & N.W. clear wind in the morning shifting to north with squally weather strong  
breezes & snow. Faint rays of the Aurora no ice. - Current 0.25° per hour S 30 E True.
- 4<sup>th</sup> Lat. 67. 30 S. Long. 171. 47 W. Air 31-33 Sea. 31.5-32. Barom. 28.547 at 1.15 fell  
to 28.170 at noon & 28.162 at 0.15 during a heavy N.E. gale with much snow equals to  
in the afternoon on the barometer rising it drove recalcitrant & drove round to the  
Pack & fell nearly calm Bar. 28.230. - One Berg seen in the morning many blue Petrel  
Cape Pigeon, a gigantic Petrel & Dusky Albatross. Saw a shoal of small finned whales  
tumbling about in the sea. A faint Aurora at night.
- 5<sup>th</sup> Lat. 67. 0 S. Long. 171. 38 W. Air 34-29. Sea 32-32.5 Bar. 28.377. - 489.  
Light southerly air drawing round to strong W.S. breezes with snow. Many whales &  
Penguins, one Berg seen. at 6.30 PM. S.L.E. to Terror having cleared the Antarctic ice.
- 6<sup>th</sup> Lat. 65. 6. S. Long. 167. 39 W. Air 30.5-39. Sea 32-33.5. Bar. 28.423-570.  
Able strong breezes now drawing & drawing round to south with gloomy weather -  
Aurora in the morning, many small pieces of ice & a shoal of Porpoises.
- 7<sup>th</sup> Lat. 63. 30. Long. 165. 30 W. Air 32.5-29. Sea. 33-34.5 Barom. 28.599-694.  
Southerly winds 2 & 3 equally with snow all day. Faint flashes of the Aurora in the  
morning. A large glacier berg. at 5.10 PM hauled the first piece of seaweed seen  
apparently the *Macrocystis pyrifera* in an entangled mass then Lat. 64. 00 probably  
the highest latitude in which vegetable matter has been observed. The last seen was  
in Sta. 20 S & Long. 140 W. Sea from 30-35.5 the current then was N.E. & no ice had  
been seen nor was till the second following day when the top of the sea fell to 32°  
in returning from the southward last year the first weed seen was on April 3<sup>rd</sup> in Lat.  
51. 10 & Long 137. Sea 40° being the day after the last iceberg had been seen & in  
going to the southward in Dec. 28 39 the last weed seen was in Lat 60. Long 170 when  
the temperature of the sea was to 9 miles to the northward of the first Berg seen  
the only two seaweeds picked up on these occasions are a large *Laminaria* & the *Macrocystis*  
both in full life though many thousand miles from the nearest land - hence  
these cases the disappearance of the weed on the first appearance of bergs is remarkably  
uniform. - Much more seaweed was picked in the afternoon -
- 8<sup>th</sup> Lat. 62. 16 Long. 163. 50. Air 30-34.5. Sea. 34-34. Barom. 28.644-813.  
Southerly wind gloomy & misty. - Found the current to set N 59 E. true 0.38 per  
hour. more seaweed picked to day in matter patches.
- 9<sup>th</sup> Lat. 60. 57. Long 160. 49. Air 31.5-34.5. Sea. 34.5-37. Barom. 28.817. 29.060.  
Southerly winds & equally but rather fine weather. No ice.

- 16<sup>th</sup> Lat. 59.1. Long. 132.20. Air 37.5-30.5. Sea 36-39. Bar. 29.794-932  
Strong SW wind with gloomy weather & a little hail. Merg & Ice about.
- 17<sup>th</sup> Lat. 59.39. Long. 127.12. Air 39-36. Sea 37-40. Barom. 29.764-461.  
strong westerly wind 6-7. with rain all day. with squalls & sleet some heavy  
icy ice. Saw some luminous patches in the water at night.
- 18<sup>th</sup> Lat. 60-21. Long. 122-50. Air 36.5-39.5 Sea 40-37. Bar. 29.701-100  
W. wind cloudy & raining at night. Many blue petrels 13k. k. albatross 9 3  
Seabird seen.
- 19<sup>th</sup> Lat. 60.2' Long 120.55. Air 39-35. Sea. 37-40.5. Barom. 29.103-20. 227.  
SW. wind 9-10 with generally clear weather rain snow & hail squalls several  
Seabird seen.
- 20<sup>th</sup> Lat. 59. 21. Long 114-27. Air 36-40 Sea 30-40.5. Barom. 20.767-937  
SW. wind squally with snow rain & hail moderating at night. 3 Ice bergs a  
Kotche & gigantic Petrel.
- 21<sup>st</sup> Lat. 57.9' Long ~~114~~ 111.0. Air. 36-37.5. Sea. 39-41.5. Barom. 20.905-29.100  
SW. wind (4-6) with much snow. 3 Ice Bergs seen.
- 22<sup>nd</sup> Lat. 60. 20 Long 100. 00. Air 30-33. Sea. 41-39.5. Barom. 29.170-277.  
Southerly wind (4-5) squally with snow. on Berg, many birds about.
- 23<sup>rd</sup> Lat. 50. 36 Long. 104. 40. Air 31-33.5 Sea. 39-41. Barom. 29.200-000.  
Southerly wind (2-3) variable with snow. no Bergs. 2 Penguins.
- 24<sup>th</sup> Lat. 50. 57. Long. 101-26. Air 32.5-39. Sea. 40.5-42. Barom. 29.050-216. 2899.  
Southerly & westerly wind squally with a little snow. saw a Hawk Gull & Kottche  
with many other birds
- 25<sup>th</sup> Lat. 50. 56 Long 96. 0. Air 42-30 Sea. 40.5-42. Barom. 20.940-20.002.  
SW. wind. squally with a little snow.
- 26<sup>th</sup> Lat. 59. 2. Long 91. 30. Air 41-35. Sea. 41-42.5. Barom. 20.806-601. -  
SW. wind gloomy with hail & snow saw Penguin gigantic Petrel &c.
- 27<sup>th</sup> Lat. 50. 2. Long 87. 21. Air 34-40.5. Sea 41-42.5. Barom. 20.569-634. -  
W. wind cloudy & squally with hail. - pieces of ice fell at 6.30 AM. 1 1/4 inches  
in circumference. Many birds & a shoal of bottle nosed whales.
- 28<sup>th</sup> Lat. 50. 55. Long 83-30. Air. 35-40. Sea. 42.5-41. Barom. 20.646-949.  
light SW wind with much snow. a shoal of porpoises & many birds.
- 29<sup>th</sup> Lat. 30. 22. Long 79. 50. Air 39-44.2. Sea. 41-42.5. Barom. 20.963-29.071.  
SW wind in morning veering around by N. to NW. saw many dusky & black  
backed & one large albatross - Cape pigeon blue & ash colored Petrel one gigantic  
Petrel a Tern & whale.
- 30<sup>th</sup> Lat. 50. 20. Long 70. 20. Air 37-46.5. Sea. 42-43. Barom. 29.025-20.625.-  
SW. wind shifting to NE. with hail. saw Tern & one black Petrel.
- 31<sup>st</sup> Lat. 50. 34. Long. 74. 20. Air 42-30 Sea. 41-43. Barom. 20.595-367. W. wind  
3-6 with rain & a little snow - many ash colored Petrel, Stormy do, Cape pigeon &c



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1st

Lat. 57. 20. Long. 70. 22. W. Air 37. 42 Sea 42.5 - 45.5 Bar. 28. 385. - 872  
Westerly winds (4-7) Squally with a little snow. Puffins Cape Pigeons Ash colored  
& Stormy petrel, Dusky allatrop & Black backed & large do. - a Tern.

2nd

Lat. 57. 20. Long. 67. 36. W. Air 43 - 39. Sea 43 - 46. Barom. 28. 834. -  
Foul Easterly winds shifting in squalls with very heavy rain. At 7. 20 saw a  
patch of seaweed. Many birds about. 7. 45 The whilst reefing the courses J. A.  
Angelli's quarter master fell overboard from the main yard, but away the life  
buoy which he immediately got upon, the sea being too heavy to lower a boat  
made all sail work & stood towards the buoy. 8. 20 when within a cables  
length the wind's heading obliged us to heave to leeward the man still clinging  
to it. 8. 40 Tacked, & heaved close to the windward of the buoy from which  
he had but a few minutes before disappeared & was lost.

3rd

Lat. 50. 41. Long. 65. 9. Air 38.5 - 40.5. Sea. 42 - 45.5 Bar. 28. 539. - 910.  
Fair winds & drawing round to W. by N. (3-7) gloomy & squally with  
rain in the morning. Saw in the evening several white birds apparently  
the Chionis of Cook's second voyage. Many Puffins Stormy & Ash colored Petrel.  
Cape Pigeons - large & black allatrop - Black backed & small gull & a Tern.  
Saw no other seen birds so numerous as here especially the ash colored one  
which Cook calls the blue winged petrel, the Cape Pigeon & Stormy petrel  
at 6. 30 The heaved a strange cry standing to the S.W. the first indication  
of migration ever since leaving New Zealand.

4th

Lat. 54. 47. Long. 61. 51. Air 41 - 38 Sea 44 - 46.5 Bar. 28. 970 - 39. 490.  
Westerly winds 5-7. Squally Rainy & a little snow, many birds Chionis &  
seaweed &c

5th

Lat. 52. 36 Long 50. 42. Air 30.5 - 19.5. Sea 45.5 - 48. Barom. 29. 402 - 805  
S.W. light breeze & fine weather at 5 A.M. made the land of Beauchamp's  
land down wrong. Capt. Fitzroy took but correctly in his charts very many  
birds & much seaweed - heaving along the land.

6th

Off the Land into which we stood about noon when with very thick  
foggy weather we commenced running up Berkeley Sound - The land seen  
in the morning was low but hilly with many white quartz cliffs but  
little broken land as yet toward the hills tops. Raining very hard all  
the afternoon - At 5. 10 The shortened sail & came to anchor in 5 fms.  
off God House. Land very low & undulating green & yellow with  
fading grass no bushes or trees to be seen a few latite & wild horses on  
Long Island. A small boat came off from shore (there were no people but  
a small schooner) & two men, who took us for whalers told us that there  
was a change of sovereignty & that the place had lately received a vessel

1842.

March  
10<sup>th</sup>

Lat. 60.10. Long 154.7. Air 30-34. Sea 35-36.5. Barom. 29.075. 352.005.  
S.W. wind gradually & finally shifting to a N.W. gale with snow. Papered a piece  
of sea ice at 6.30. At 1.30 <sup>over 16</sup> P.M. we saw a large E.S.N. at 0. P.M. papered some  
heavy wash ice off the Berg. Many birds.

11<sup>th</sup>

Lat. 60.10. S. Long. 157.32. W. Air 33.5-37. Sea. 34-35. Barom. 28.941. 306.29373  
S.W. gale with mist rain & snow. With papered several pieces of sea ice no ice.

12<sup>th</sup>

Lat. 60.12. S. Long. 147.25 W. Air 34.5-37.5 Sea. 34.5-35. Bar. 29.400-069.  
Overcast with light N.W. wind in the morning increasing to a W. gale  
with snow & rain in the afternoon. got papered a piece of sea ice. 10 a small  
berg. S. 41 E. 5! at 11.45 another 36 S 1/2 E. 5' 9' N E. 6! variation 16. at 5 P.M.  
papered some small pieces of ice & a shoal of porpoises at midnight a Berg. 6 1/4 miles.

13<sup>th</sup>

Lat. 60.0. Long. 143.40. Air 35-39 Sea 34-36. Bar 29.160 - 475 & 176.  
A S.W. gale 67. Overcast misty with falling snow squalls drawing to the  
N. toward 7 moderating during the day. At 0.30 close reefed fore & main  
sails before the wind in a heavy sea at 0.45 P.M. when clearing up the sea  
sprang for close reefing a large berg was seen close on the starboard bow, should  
to port, observed the "Error" on the starboard bow under her topmasts foremast  
running across us, how all aback & immediately afterwards the two ships  
came in violent contact collision, the Error striking us ahead & remaining  
entangled about 10'. she papered to starboard having carried away our bowsprit  
fore topmast fore topmast yard, starboard cathead, bowsprit anchor braced sharp  
upon the starboard tack but finding we could not weather the Berg & with  
having room to bear round the berg by & set the main sail making a  
stern board along the weather side of it. the yard arms almost touching  
its perpendicular face & the spray breaking a board of us, the strong wind  
back along keeping the ship off it. at 1.30 having cleared the point of it filled  
I ran through a narrow channel between two bergs, observed the Error's  
light N.W., burnt a red light which was our signal, home to tide morning.  
At daylight observed a chase of 7 large bergs from S.E. to S.W. W. which we  
had papered through & found the following damages. The Port Bower anchor  
(22 cwt) firmly set into the ships side by both jibs under the fore channel  
just below the water line. Sparson & Starboard Bow carried away. --  
First cutter stove & rig completely destroyed life buoy & 6 lb mortar gone  
Employed during the day clearing the wreck making a new bowsprit & preparing  
for unloading a fore topmast. Observed the Error with top of foremast

14<sup>th</sup>

Lat. 59.23. Long. 141.27. Air. 37-36 Sea. 35-36. Barom. 29.122-720.  
Strong N.W. & S.W. wind with gloomy weather & a little snow & rain Employed  
refitting & unloading bowsprit many bergs & heavy pieces of ice.

15<sup>th</sup>

Lat. 50.50. Long. 137.26. Air 35.5-40. Sea 36-39.5. Bar 29.730. - 004702  
Westerly wind & fine weather in evening to a gale at night many bergs  
about & papered many heavy pieces of ice.

Governor is Lieut. Thomas Mowdie of the Royal Engineers who arrived in Jan. with 12 of the Sappers & miners & three women - there are 14 persons in all in the colony & about a dozen houses - country for very desolate appearance & dark looking houses very miserable looking - Gov's house a low white washed building on a hill close to the water near a little cove which was a relief to our eyes as long we were bound to the sea - no news had been received for 3 months - Mr Hallett & Baskely went to Governor who sent some papers off to the Capt & a long list who were Surmises & John Giese which are common here with Capt. Craigie, Lieut. Birds, Mowbray & Smith's promotion in the Navy list. but no letters or despatches for us.

7th Thursday - Morning five Lt Sergeant of Engineers came on board with a Dutchman & 2 Gua chas (one an Englishman) with whom we were to send a party to catch Bullfrogs at Long Island. - This part of the harbor rather wide but secure with low cliffs shores of slate a few low hills to the northward to the eastward the sound - to the southward some hills which stretched away from Port Permet to the Wickham bridge on the S.W. & a high round topped hill Mt. Simone in the distance S.W. the most conspicuous in Port Permet capped with quartz cliffs & above whose sides much quartz blocks had fallen towards the water but apparently checked by some stable land. - To the westward at the head of the harbor the land is very low & runs across to St Salvador harbor 2 1/2 miles by the road. Started with the bullfrog hunting party (with Baskely) in the cutter & first landed on the main opposite Long Island to get another Gua chas & French birds seemed very numerous especially along the beach & very tame some Perijins & numerous Snaps in the water for the beach Kelp Geese some Antarctic which feed on Kelp & kelpweed also a few captures a small handsome bird which eats berries - Oyster catches, a large bold Hawk & the odious Turkey buzzard, Sandpipers. Grapes were the predominant but had with the beautiful *Ternstroemia littoralis* & many smaller plants especially the *Diodea* *Diodea* *dec* (*Rapistrum rubrum*) forming a small low shrub shorter than any we had but bearing a profusion of red berries which like the Scotch plant ought to be great in the mouth by handfuls crushed & spit out again to avoid the bitterness of the kernel. Several English plants at once caught my eye especially the *Thlaspi bursa*, *Sonchis vulgaris* *Ulex europaeus* our Gua chas here procured some raw hide Saddle's Laps & the Kolas



Apr

# Falkland Islands.

I was cropped over to a or cattle killing place on the island at a low point easily distinguished by the whitened head & bones of the cattle & the crowd of filthy Turkey buzzard & Hawks which flew over our head in immense numbers sometimes hovering close to us & diving as we intently or again forming or some meat. The quail was here caught the horses either with the Lapon or Polas mounted - Few of the island have many cattle on them but here they are driven over a ford from the main land having been previously taken wild among the hills & turned loose to feed on the Tupas grass a species of ~~grass~~ which abounds near the sea & appears a very large size - After mounting the quail caught the half tamed cattle by the Lapon & dragged them round fast to the horse down to the wharve where they were immediately hamstringed & slaughtered, a very cruel though quick operation. As the poor animal after being thus hamstringed after escapes for a short distance on his fore feet dragging his hind legs after him in a manner painful to witness - The operation of Lapping was not cleverly performed & though very interesting to one who has not seen it before is so well described by many that I omit it here. The island is low & swampy the soil peat over the slate covered every where with grass especially the *Abundant Alopecurus* found - now turned yellow which was much eaten down by the bullocks it grows in clow & large tufts to the height of 2 feet or thereabouts, numerous rills & pools of water covered the bog in which situations a fine sweet scented *Scirpus* abounded with two small *Carex* the fine *Senecio* & various other plants. - Snipe were not uncommon & very tame as well as some Yellow Finches. - Near the beach amongst the Tupas which forms large rounded hummocks with its matted roots a little *Galium* & several other grasses grew also the *Prasica Magellanica*? very unlike any other species I know of but not in flower. also a beautiful *Statice* like *armeria* but much smaller & many other minute but curious plants as the *Azorella tri cuspidata*. The fine wild *Celeri Apium graveolens*? not, but though seen I doubt not eat very freely of Ferns there was a little creeping *Aspidium* with spiked fructification & a small *Stegaria* very abundant in some spots. Lichens were not numerous nor mosses but *Lichens* most probably formed the largest proportion of the vegetable kingdom especially in number of species.

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Along the rocky beach the Trap & Steamer ducks (*Anas microptera*) were remarkably tame the latter live in the water near the beach especially amongst the *Macrocystis pygmaea* & go in pairs or flocks sometimes emitting a curious sound between a wheeze & a whistle, they hardly move off for a stone being thrown at them but when much frightened they immediately get their stream up & paddle away, they swim much deeper in the water than any of their tribe with which I am acquainted. Another kind smaller was also common it quacks & flies. Of insects there was a remarkable dearth nothing but a Spider & small Ceratididius beetle under stones near the sea. Marine crustacea were however common especially *Gammarus*, *Salostea* &c. shells very rare except mussels & *Patella* having procured four fine cattle we returned on board by dusk.

Accompanied Hallett to the hills at the back of the settlement which are low & undulating lying on clay slate which is covered with a very tolerable vegetable mould of a very swampy nature the valleys are often broad & flat bottomed through which streams run often very deep & whose margins support a bright green vegetation of several grasses the *Gemma* *Arvensis* & some very low composite forming bushes 2 ft high - In some places the rabbits introduced here by the French breed in immense numbers they are larger than the common English rabbit very much in color & the flesh is very white & exceedingly good. In the upper part of the hills the soil is often very poor consisting of a stiff clay which supports the curious *Polyp globaria* the balsam plant or "misery balls" the colonies of it form large rounded very hard green balls & hemispheres 2-3 ft high & as much in diameter of a pale or yellowish green color & exude a pale yellow red balsam or sometimes white which is used both as the *Plata copaita* & for wounds & hurts & always with success it is said. The pretty *Primula* is common on the hills with the *Sempiternum rubrum* or *Sedum* & other smaller alpine looking plants. Toward the top of the hills the Quartz generally appears supporting a bad marshy black peat soil on which however the *Arundo alpina* grows a most excellent fodder grass grows abundantly in tufts. The Quartz forms white bare cliffs & its presence is always announced by the appearance of a fine *Stegania* 2 ft high growing abundantly at the foot of the cliffs. Here I saw for the first time

a stream of Stones (and Darwin) composed of membranes irregularly broken masses of Quartz rock lying at the bottom of a little valley below a small cliff of the same material. Several hawks seen one very beautiful with white belly & breast? Geese very common called upland they are the Anas leucoptera & whilst they feed on the Empetrum & other berries they are fat & their flavour excellent quite equal to any English goose but as winter progresses they have recourse to the seaweed on the bank for food & then their flesh becomes not only disagreeable but very nauseous. They go in flocks from 2 to 8 or even 40 or 50 I have counted. The gander is white with a few brown bars on the back, the goose of a rich brown beautifully barred all over the breast & belly like a pheasant. They are very tame & easily brought down with No. 2 shot. - Snipe are very common & unlike the English Snipe they seldom turn in their flight & are very easily shot, their flavour is excellent. The pretty little Myrica rumicoides is abundant crawling on the ground like the Simca its berries are large bright red very soft & sweet with an aromatic flavor or rather resinous like Venice turpentine but not at all disagreeable; the leaves are used as & called tea & are very much liked by the settlers & Guaschans many of whom prefer it to the Chinese tea; it is however very diuretic & is said to destroy virility (which I much doubt.) From the summit of a hill saw St. Salvador bay close under us very low looking place, the neck of land between St. Salvador & the Sound is narrow not 2 miles at one place across. Returning fell into a road which leads <sup>across</sup> the creek & was used by the Sealers who have a hut on the bay for transporting their oil across. The houses at the settlement are very poor <sup>modern</sup> built one very neat one belongs to Capt Gardiner but who resided in the Looche country at the Cape of Good Hope - the others are chiefly occupied by the wives & families of the Seapersons in the Government employ. Passing the observatories on a hill between the bay & which we use & the Lagoon which runs up to the settlement, saw some sick men & Mr Whittington's house is the best wooden of two stories with terraced garden.



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9th

The *Crebus* this morning shifted her berth & was warped up to within a few hundred yards of the shore called at Government house where the governor asked me about *Lupae* grass which is the best fodder in wet or dry on the Island & on which the herds of wild cattle get immensely fat. one man can cut ~~the~~<sup>50</sup> bundles of it in a day 2 of which are sufficient fodder for any horse & they greedily eat it in the state of hay. Gosh house is thatched with it but it is too soft & brittle for that purpose. - Gullson Library at Gosh house - walked along the beach toward the head of the bay low cliffs of clay slate whose strata are much inclined about against the beach & as the water trickles over them they support comparatively a very luxuriant vegetation amongst them are many kind of grasses a fine *Triticum* a large *Arcena* the *Guernese* a puning a large size a little *Ranunculus* two species of *Agrostis* & several other plants. -

Kelp geese were very common on the beach & extremely tame as were Shags in this steamer docks & many other sea birds. At the head of the bay came to a pretty little lagoon of fresh water in a flat valley close to the sea the water is of excellent quality & in it an *Glechomis* *Calthe* & *Thyris* were abundant. Met Cotta & returned to the *Terror* & dine. - The "*Crebus*" shifted her berth today close to shore

14th

Went with a rabbiting party to Johnsons harbor & ascended the N. Look out hill grasped the *Fis hemurus* huts. (Orchis small *Compositae* & *Calceolaria*) at foot of the hill is a ravine covered with bushes of the *Chilostachyum emulloidis* about 2-4 feet high appearing cover for numerous rabbits which were shot or taken by the dog - In damp places found a handsome *Lychnis* left the clay slate & on the hill came to Quartz which caps the hill alt. with the Quartz a handsome large *Stegaria* appears. - several plants at the top of the hill especially a small tufted *Compositae* & a pretty little *Andrea*. The stones on the summit were piled in loose large masses. At the bank to the north of the hill is an immense swamp covered with black peat bog & little peat holes or Lagoons on it which bog stretches on to the sea on the north coast. On this elevated bog were immense tufts of the *Guernese australis* & large hard very flat square yards of the *Costaria pumila* amongst which the curious little *Calthe appendiculata* grew. Near the Lagoon was a little *Hypochaeris* & a *Drosera* very scarce both of them a little pretty fish was abundant especially on the rocky places & so tame that they would almost be caught with the hand



The rabbits around the hills for 1000 feet & more burrowing amongst the loose quartz rocks in these situations their fur is thicker than of those on the lower grounds. Some springs here were all plenty & contained specimens of a fine *Hypnum* (barren) abundantly also a *Physium*? & *Sphagnum* whose decomposition aided the formation of peat though in a very small degree to what the grasses ferns & other plants do. *Grass* are abundant in all situations here & find fueling ground as Darwin says almost every where. They are said to migrate in Autumn but no one knows where & though they appear scarce in winter I have put up a good many always from the little water courses where I expect they pass the bad season. Several couples of them were shot today & got heads of rabbits which from their large size were almost more than 5 of us could carry. On our return saw several owls which live in holes in the ground & are rather common. They are the only animals to be heard here at night. . . . .

15<sup>th</sup> Walked along the beach collecting plants amongst the clay slate rocks which abut on the sea. Many plants not found by me elsewhere are common here because it is the most favourable spot for soil & shelter. The cliffs face the N.E. & are formed of a crumbling or in some places in detached clay slate whose strata are much inclined & sometimes vertical after full of pebbles. The soil on them is good rich & soft & in the crevices of the rocks many *Senecio* & *Spergularia* grow with a *Viola* *Wanumulus bitermatus* & many other plants. Lichens also abound but I have not attended to them yet also Algae along the beach.

16. Called on the Governor & afterwards walked about the hills found several specimens of the *Chlorocera*? the *Pimpinella magellanica*? & abundant of the *Rhali emuaphylla*. Near Foot Town some apparently introduced plants thrive well & have perhaps from there through the agency of man but chiefly of Cattle spread over the whole island & become perfectly naturalized. Of these the most common is the *Osia annua* & Dutch clover which form a fine rich soft but short.

has some near both house on which the sheep are fond of feeding. These are the *Senecio vulgaris* - *Cerastium vulgatum*? *Thlaspi bursa pastoris* - *Rumex patens*? & *actaea*? The *Alisma media* may be a native but I am not sure. The others are doubtless introduced & now are spreading on an immense surface of ground. I say the *Alisma media* may be a native because one or two species were certainly natives of the Auckland & Campbell's group & yet it must be planted very easily disseminated. The common species with the *Poa annua*? covering the Frenchman's ground in the former island. I have seen no other introduced plants & the flower has not changed from immediate vicinity of both house. - - The brig Alarm of London from Jersey arrived to day bringing a Mr. Wesley the both steward & some sheep from Buenos Ayres last.

21<sup>st</sup> Thursday term day.

22<sup>nd</sup> Walked by a tolerable road to St. Salvador Bay. Over ground of a soft peaty nature covered with little trees & the around *algae curus*. The banks of the Bay are low & its arms run up in long narrow bays with low clay slate cliffs exposed to the N. winds & hence generally barren of plants. The coast is covered to an immense extent with seaweed algae growing in a thick clayey mud on which numerous shell fishes & steamer shells were feeding. On the cliffs found some new plants a curious new sp. of *Polytrichum* & a fine shrubby composit. *Senecio Smithii*? the largest <sup>shrubby</sup> plant <sup>seen</sup> on the cliffs. *Trichomanes* that grows in the island. it is not however common. Where the fresh water streams enter the sea the curious little *Psyllidium*? of England & Auckland was abundant and also on the beach an *Actinoptera*? called *Spina* & water as south. *Val. Festuca*? with pungent distichous leaves also a var. of *Alisma lacina* & the *Cerastium rubra*, *Cardamine glacialis* L. & another crucif. plant. In a little lagoon found the *Callitriche* & a curious little aquatic *Ranunculus* the *Lychnis viscaria* & found. which grows like the *R. aquatilis* though its leaves are subject to no variation - Groped over to the bay of St. Vincent & came to the Lagoon which runs up from Port Louis at the back of Long Island. called *St. Louis*. *Fitzroya* is mistaken & walks here one has constant companions: the *Cavacava* *hauca* *Guia* are so bold as to appear familiar. The *Alouatta* have a narrow white band

across the tip of the tail as figured by Temminck. They are perpetually  
hovering over head & whirling close to one narrowly watching all our  
motions They have none of the bold appearance of the Hawks from  
carrying their tails horizontally when they settle on the ground which  
return blunts their claws. Their legs are long & not feathered down, as  
the colors of both legs & at all ages are the same except the white bar  
They have been known to steal the caps from the head of the traveller  
No meat or bird can be left for a minute alone except the weather  
be dark & hazy when they are never on the alert. I ~~never~~ There are  
three other Hawks common & the Turkey buzzard a loathsome bird  
frequencing the slaughter places of cattle & then very bold & tame  
I have not however seen them common elsewhere but on the hills  
over whose tops they wheel & soar like Condors - The Polyborus is  
another fine Hawk but by no means so common. Bolder as the  
Carnivora it is of a large size & looks like an Eagle - Its plumage varies  
much from the adult? with a snow white breast & belly & ash blue  
back & head when it is very handsome to a rusty grey with black  
spots & many intermediate colors - A smaller hawk with long  
very slender legs & graceful form & long tail with a white band  
across the top of the tail is also still less common but varies  
as much in color as does the 4<sup>th</sup> kind a stout little bird a little  
larger than our sparrow Hawk with short strong legs it is the  
parent of them - We have four ches on the Mesophages filled with  
half digested carrion which are very perceptible hanging down  
when flying over head. They emit a rank smell when skinning  
the fat is like sweet white & hard <sup>the 2<sup>d</sup> kind of large hawk found the same</sup> to have a scabrous opening in the air <sup>through the</sup>  
Saturday - ascended Mt. Permet which lies to the S. of Port Louis  
after leaving the shores of the Bay you cross a long narrow flat  
of clay slate covered with the Ar. aspicurus & a little Sira &  
at the base of the hill come in the quantity of which it is formed &  
which crosses the island from Port Louis to the E. to Mt. Simon on the W.

15<sup>th</sup>

No.

23<sup>rd</sup>

forming low hills running parallel to the two other belts of Quartz which intersect the Island one of which the northernmost runs to the N. of Berkeley Sound & St. Salvador Bay forming Port Phillip to the E & the South look out hills - between these two clay slate districts of Port Louis & Antaresnes & to the N. of the latter all is Quartz. The third or highest range <sup>which</sup> crosses the middle of the Island from Port William on the E. through Port Kent to Port Melbourne on the W. is the highest of them all, the latter not being 1600 ft high - is called Wickham ridge. Between these two is Quartz & spurs from each ridge join one another. To the South of these again are fine flat plains covered with the ground slop. & formed entirely of Clay slate. The streams of stones are confined to the Quartz ranges & indeed they are the only formation that rises to any height. Found few new plants ascending the Port which was formed of numerous miniature streams of stones with an abundance of the *Saxifraga* growing amongst them with subterraneous stems. In the cliffs the Lichens abound especially the beautiful primrose color *Usnea* with black scutella which I never have seen on the low grounds & which seems to require the additional light granted by elevation. Perhaps also the extra moisture of the atmosphere for nothing can be harder & less nutritious than the rocks it clothes. A little *Juniper* the *A. actosa* was common with very succulent leaves as good as the best, where place it took here. In addition of height produced no new grasses from the especially poor nature of the soil but many ferns were seen a new *Senecio* & other species as also what resembles in much the common little *Agrostis* *microphylla* *compositum* perhaps the smallest known fern none can be more inconspicuous growing in hard black looking tufts in the clefts of the rock. At the top the rocks are piled in irregular masses & the strike of the Quartz which sometimes runs itself in long walls 20 ft high is *S. E.* with an angle of 40°. The little *Hypnum* *Gaudichaudii* ascend here as also the *Abrotanella* & *Wax* *glivaria* the latter very small. The N. sides of the rocks were most abundantly



clothed with Lichens from the greater light one was very handsome  
having a golden yellow crust & scarlet leptotheia. *S. Umbilicaria* was  
also common with the *Strata gonolichandi*? Many others. On the  
South side again *Impatiens junciflora* abounded most. A large  
valley running S. & N. on this hill dipping with way: with two  
ridges to the N. & the top of Mt. Permet to the S. is full of enormous  
masses of Quartz doubled precipitated from the hills & cliffs above  
forms the noble stream of stones which Darwin particularly notices, looking  
down upon it the valley looks as if full of plants of Paris which in  
drying had split up into irregular masses. Though the sight struck  
me as most extraordinary still I think it may easily be accounted for  
from the stones breaking away from the hills above, where the strata  
of the Quartz are much inclined & the masses constantly breaking up  
for the combined agency of wind & frost I was quite surprised at  
finding how loose many of the large masses were lying on the slope  
of the strata which though of several tons weight could be precipi-  
tated by the feet down the hill. It is on this hill that Fitzroy saw  
the lights like flashes at night caused, as he no doubt correctly  
supposes by the falling masses of rock. We never saw these lights, indeed  
the weather was seldom tempesting enough for us to walk the slick &  
look for them. The Island must however have undergone some  
terrible convulsions from the curving of the Quartz & irregularity of  
the dip of the clay slate which I shall mention hereafter. At the back  
of the hill some miles off the Wickham heights formed a bold distance  
with broad black great gaps between singularly contrasting with  
the snow white cliffs & streams of stones of the hills to the S.W. Mount  
at the foot rose till but his home terminated the prospect between  
which & the many fingered St. Salvador bay but Simone rose like the  
cone of Chimborazo - Perhaps sound was at our feet with Long Isd  
& Urania bay where the ship of Capt Freycinet was lost. To the S.E.  
Peak Middleham Cape Pembroke & the narrow bays thereabouts.

The view of the Mts certainly struck me as very <sup>grand</sup> beautiful & I hardly know why for their height is comparatively ~~low~~ little & their form certainly not grand or elegant. Perhaps the total absence of vegetation or any thing comparatively to these hills gave the idea of being on a great height & looking at objects much higher than from Fort William. Ben Lewis also saw look very high which from the Cairn gormon or Ptarmigan range its height ~~does~~ seems stupendous - Nothing can be more exact than the similarity between this Mts & its hills to the Quartz district of Connemara & the Princeps hills &c.

A little yellow finch & a few Turkey buzzards were the only birds at the top with a few geese & plenty of rabbits.

26th M.S. "Anon" arrived she is a Ketch stationed on the Mts for surveying

28th Thursday Early this morning a party started with Sp. Smith & some of the various <sup>cattle</sup> hunters to St. Salvador Bay. Copied out & sent the above a description of a fine camp which he informed me was the <sup>top</sup> of the Mts. - Started to follow the latter party - arrived at it about 10th & found them encamped with a boat & camp on the following morning a fine night. - both making a great hubbub & frightening the dogs.

29th Rose early & launched the boat blowing hard from Westward. Three fine dogs of mixed breed with us caught some rabbits - after a hard pull landed on a little promontory about 1/2 miles down the bay & pitched the tent in a sunny cove on a bed of the *Stegania polytrichoides*. On the beach found some specimens of *Patella truncata* & a small *Perstratula* among the roots of the Kelp. also the curious little *Halimolobos* found at Newland & King head growing where fresh water meets the salt. The sand here is tolerable with however a good many misery shells but no cuttle. Shot a small bird called here the Brent goose said only to come over in autumn. This only half the size of the upland goose of the same color <sup>& mark</sup> as the male bird of that species. There is scarcely any difference between the sexes. They sat like the upland geese & feed on berries of the *Empetrum nigrum* & *Arbutus*.



About noon it helled & we put to sea again & after a few hours  
hard pull managed to cross the Bay. where they were a drove of  
cattle. The dogs were with difficulty restrained from jumping out  
of the boat on landing crept quietly up the cliffs to the herd of about  
10 or 15 cows & bulls which as soon as they saw the dogs set off at full  
speed followed by the dogs & men; the "Arrows" men being accustomed  
to the sport soon distanced us who had foolishly encumbered ourselves  
with rifles. The dogs soon caught one cow by the nose & tongue whilst  
a third held him by the tail till a man came up hamstringing him  
with two strokes of the knife plunged it into his throat kicked the  
dogs off who commence licking the blood & give chase to the rest of  
the herd. All this scarcely took a minute, so fleet are the dogs. The  
men so active that they sometimes take 3 out of one herd, as far as  
we soon dropped it & stared with astonishment. The dogs receive  
little or no food for two days & are trained never to attack the bulls  
whilst though they always run away are dangerous when harassed.  
We got two cows & then chased a calf for about two miles which  
being hard pressed & surrounded took to the water & swam about  
a long time on coming ashore again the dogs soon seized it & brought  
it down - It had been raining hard for some time & night was come on.  
The calf was cut up & disembowelled then turned over on its front to  
keep the flies from it. & we returned. Altogether the sport is very  
hard & exciting but there is too much butchering. The sagacity of the  
dogs is surprising, one of them always takes the nose & another the  
tongue whilst the third seizes them by the tail till the man comes  
up & as quick as thought hamstring the animal & then sticks it.  
The dogs seem to thirst & work for the blood of the animal & it is a  
disagreeable sight to see the avidity with which they drive their muzzles  
into the wound in the neck & the difficulty with which they are kicked off  
to follow the herd. At first the shouting of the men baying of the dogs  
& howling of the poor cattle, give an idea of danger & yet there is

not an instance of any one having been hurt. The old birds generally  
 act as sentinels to the herd & look as the Falklanders would it is not off as  
 soon as they spy danger giving the alarm to the others but they never dream  
 of attacking any one except when much irritated. They however manage  
 to be in their dens or tracks when pursued as they will not get out of the  
 way for you in these cases the arrows never lie down when the general  
 starts on one side invariably & besides we never turning to attack -

Returning to the boat found the tent pitched in a snug little cove near a  
 little fresh water lagoon every thing swamping wet for the cruise in the  
 boat & again from the rain covered the bottom of the tent with wet gravel  
 & made up our beds such as they were - at night the rain turned to sleet &  
 then to snow after which it froze hard & was very cold -

30<sup>th</sup> Left early the following the cattle whilst I went botanizing along the cliffs of the  
 shore, a beautiful day - The sea  $\frac{3}{4}$  inch thick in the lagoon - These lagoons are  
 common features in the island & are almost constant where the valleys come  
 down to the sea they are shallow fresh water pools only 2 or 3 yards from  
 high water mark into which small streams flow & then on to the sea over  
 a bed of shingle. There are several large islands in the bay covered densely with  
 the *Tupia* grass which does not grow along the coast or has been cut down up  
 the cattle. Along the tops of the low cliffs of the shore the cattle have tracks  
 deep in the soil & every here & there large masses of earth has been raised by the  
 old birds during their flight season especially where the *Tupia* grows which  
 they kick up to a great extent. Found few remarkable plants but the  
 large fern found on Long Island the lower parts of whose stems contain  
 fine juicy matter as good as the *Tupia* it grows here sparingly & just high.  
 In the day of our visit the *Polypodium* is abundant & a small *Craichium*  
 plant of a new genus was sparingly growing like a *Pruba*. *Conocarpus* & the  
*Polypodium* are very common with many other birds the *Boat* goose & *Wheland*  
 which at this season for the birds growing masses come down to the sea  
 & feed on kelp which spoils them as they grow thin. The *Boat* goose is a  
 most common bird on the beach in pairs or flocks the goose is nearly  
 white with black wavy lines on the back & the ground snow white  
 they feed entirely on marine confere & are very tame only taking to the  
 wing when much harassed when they do not fly far one sex whistles & the  
 other cackles but I do not know which they eat much & fish or on the rocks.

The next bird is abundant as it is dead generally more common in the  
Steamer duck *Anas platyrhynchos* (Logger head & Racer of the Sealers) They  
sometimes assemble in flocks as here but are generally in pairs swimming  
very deep uttering a peculiar sort of whizzing noise & diving for  
Art. Therid often in 5-7 fathoms water when they stay below about 30".  
They swim slowly & are very tame, when disturbed they take to steaming  
along with wings & legs seldom rising altogether out of the water &  
progressing for 100-1000 yards at the rate of 10<sup>th</sup> pr. hour. Ashore they feed  
on mussels which they break with their strong bills & eat whole &  
little masses of comminuted blue shells are very common along the  
grassy places of the beach voided with their excrement. The common  
black bill gull often hovers over them at some distance & scatters ~~them~~  
for the purpose of scavenging away what they die for which they  
generally accomplish very successfully & dexterously. The poor birds seem  
to know that from their sluggish motions they have no chance with  
the gull & not at all discomfited by the robbery immediately dive  
for more which sometimes over & over again becomes the prey of the robber.  
Their average weight is lb 8-10 (Darwin says 20) & they are unattractive.  
The male? utters a short guttural chuck while the female? whistles  
A brown Duck is also very common on the water generally in pairs they  
fly far & quack but are not good eating - The Seal is also common  
is much smaller than the duck very fat & good eating, they generally  
flock sometimes in hundreds in the fresh water lagoons in which they  
feed - There is a larger Seal called redheaded Seal (or blue crown) which  
I have not seen alive it being very scarce. The only other bird of this  
tribe is the Swan of which there are perhaps two kinds one with a  
black head, we saw several but they are scarce; Salt berries on the  
Pitcairnia return & stalks to the water in winter, they are very shy, their  
flesh is good - Two small grebes are very common in some places, one  
the most common is black backed with a bronze breast & belly the other  
ashy with white belly - They swim slowly with their long head & necks  
erect & their gony generally 2 by their sides round their scarlet eyes are  
star of white feathers & with very motion of the feet in swimming the bill

their head forward in a singular manner - There are two varieties or  
 perhaps species of Shags the larger has white breast & belly,  
 the smaller is all black, they flock in immense numbers on the rocks in  
 the water are very tame & winter the stones with their dory is looking at  
 you they slow their head in a conical manner as if their vision was  
 oblique & poke their head forward & ashwards. They swim fast in the  
 water about 5 miles per hour & dive for 20" very rapidly - On a rock  
 projecting into the water saw a flock of 20 Chicoris which is a different  
 bird from the Regulus land one they were all white even did I observe  
 the very tint of the Reg. land ones on any of them their bills & legs yellow  
 & have a yellow cere over the eye reaching to the base of the bill -  
 They feed on shell. Have a rank odor. Their voice is a sharp creak not so  
 loud sharp was frequently uttered as in the other species in flying they carry  
 their legs straight out behind them like the other wading birds & seem  
 to have much more power of wing than the other has  
 Two other wading birds are very common the Hematopus lactuosus, Cuv.  
 & Water Kite Mcill. The former according to Cuv. is peculiar, they often flock  
 together & their habits are the same, they seek shells & along the beach are  
 tolerably tame & fly all one side uttering sharp loud short whistles  
 which appear to alarm other birds which often take to the wing as these fly  
 over them; they are tolerably good eating - The other birds of this family  
 are a very pretty little sandpiper chestnut brown above, white below with a  
 black ring round the neck not common, also a bird I do not know perhaps  
 a Tringa called the Jack snipe here & two species of Scaup one is a very  
 rare of an ashy grey above & dirty white belly & the other all ashy blue with  
 white spots of which I have only seen one - The clay state along the beach  
 seems to have a quadrangular dip & is sometimes quite soft at others  
 horizontal forming small flat terraces - Near the Bay where the calf was  
 killed last night came to a fresh water lagoon rather larger than usual  
 with some teal in it - There found a new Potamogeton like the bydrophilus  
 which was also common there but had the leaves tridentate at the apex  
 also found two species of Najas phyllum which depend on the depth of  
 the water for their characters - where the stream entered the lake I remarked  
 that the terminal branches were often spirally twisted both to the right &  
 & left - Some bird I had chopped the stems up into little pellets which were



April  
May

Falkland Islands. Pt. William.

about 1 inch long & floated about i. profusion - can this be done to search for Larva in the stems? In the water found moss-balls formed of what I think is an epiphyllous *Jugermannia* rolled down by the streams into the water where they settled at the bottom - Returning found that the back cattle party had killed 5 cattle - but did not see to cover the bottom of the tent & make a better bedplace.

31<sup>st</sup> Pulled down the Bay to pick up the cattle killed to a small cove completely covered with Geese of all 3 kinds Ducks teal & other birds which kept up a din like a prairie yard - Large beds of a grey or whitish clay occurred abundantly out of which beautiful pipes are made & fitted with stems made from the small wing bones of the Albatross - No horses or ~~cattle~~<sup>rabbits</sup> have as yet migrated to this side of the Island. at least on the S. side of the Bay - Pulled back to the tents & then to the head of the Bay where Smith shot a small Hawk with a white band across the root of the tail, & walked on to ships the day was very fine.

April  
May  
9<sup>th</sup>

At 9. PM with Mr Tucker went on board the brig Alarm with Mr Tucker - The governor having kindly asked me to accompany any himself & Mr Robinson to Port William the next harbor to the S. of Berkeley I. which he wished to survey, he chartered the brig on purpose - It was then doubtful whether that Port (being much raised made & entered) would not present greater advantages for the first settlement than St Louis. Early this morning made sail down Berkeley Sound with a W. S. light breeze & foggy weather. Passed many Islands covered with Lappas which are let or sold in 300 acre allotments including where they are small the requisite portion of land on the opposite coast. Saw many of the black backed Albatross at the mouth of the Sound swimming & feeding on the water. The shores of the Bay are so barren that a little deep gully filled with Fascine bushes appeared quite an attractive spot from its green ness & shelter but soon doubled Point William with Cape Pembroke stretching out to our S. & East. The whole coast line is formed of Quartz rock on the N. Shores of Port Wm & on the south running inland from Cape Pembroke are low sandal along Sandhills of a dazzling whiteness covered here & there with a long grass & interspersed by barren rocks which run out from little coves where the water is

Cross  
1842

Port William

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of a ~~stagnant~~ bright blue color like that on the side of the Bay  
to the N. side of the Port a well sheltered cove runs in under Port Louis  
& opposite to it on the S. side a narrow channel about 200 yds. wide com-  
municates with a long Lagoon called Jackson's harbor which runs E & W  
parallel to the Port - Cape Pembroke forms the termination to the S?  
of the Wickham heights the three ranges of Quartz hills which crop the  
Island. The views of these mts. in the evening are very beautiful & form  
a striking contrast to the same scenery of Port Louis. Port Louis presents a  
fine abrupt precipice whilst at some distance to the N. two beautifully  
peaked hills rose like two sisters & between them the higher & more distant  
outlines of Mt Kent & rose one above the other some were gilded by the  
setting sun whilst some dark heavy clouds with purple fringe began to  
crowd on the range & hid behind a snowy snow. In the flanks of Mt Louis  
saw several troops (called flocks here) of wild horses trotting along in Indian  
file & on entering Jackson's Lagoon where we anchored some wild cattle were  
seen on the S. Shore which trotted off the moment they saw us. The evening  
was very fine & we landed on a point to the N. of the entrance of the Lagoon  
the beach is very steep & deep pebbles the bottom is stiff clay - The ground in  
the Quartz was very bad & unproductive covered with the small *Stegaria*  
n. near the beach the *Senecio vulgaris* was common with *Cerastium vulgatum*  
also *Senecio Smithii* & the little *Cardamine glacialis* forming a good  
salad herb. Came to a large *Lupae* patch on the first rock among which  
the walking was very difficult. Shot a blue heron with white spots  
but saw nothing else remarkable.

Friday. Landed at the same spot. The soil here as in most other places on  
the Quartz is formed of shallow layers of peat of the same consistence throughout  
some about 3 feet thick lying on a bed of very stiff tenacious white or pale  
blue clay 2-3 inches in thickness which lies immense sheets on the Quartz rock.  
This same clay is also universal between the vegetable soil & clay slate & is  
thus the second geological era of the island the first being the clay slate containing  
shells abundantly the second its disruption by the elevation of the Quartz  
the third the formation of the clay & the fourth the vegetable peat but  
and in consistence every where containing no traces or signs of being composed  
of any other vegetable matter than that now existing on the island.



walked over the sandhills which lie between Port William Jackson  
Lagoon & run along east & west sometimes interrupted by the quartz  
capping out forming Cape Pembroke they are formed of shifting very  
fine white quartz sand exposed to the violence of the N.W. East & N.E.  
winds which often come down in heavy squalls from Port William  
In many places they are bound together by a strong wiry grass which  
however does not grow by summer but in *Lupinus* to the height of  
3 or 4 feet. In other places immense beds of the singular looking  
*Senecio candidans* bind the sand & with them are associated a  
few more common plants of smaller size. The highest part of  
the range may be 50-100 ft above the water & to that height  
pieces of seaweed & shells are drifted on the smooth slopes, which  
are raised into rippling ridges like those left by the waves of the  
sea & exposed by the falling tide. Where the sandhills meet the  
beach there is an excellent spring of fresh water quite free from any  
peaty taste. A few quartz rocks of the most acid description crop out  
on their summits one of a dazzling whiteness & on them 2 minute  
crustaceous lichens grow. In some places the rock is much bent &  
is then stained with red oxide of iron - any vegetation refuses to grow  
on this narrow belt & walking amongst the rocks & sandheaps recalled  
some pictures of desert scenes to my mind. - From these hills to  
Cape Pembroke the soil is still very peaty with an abundance of water  
here & there of the same description - Many cattle & horses had however  
frequented the spot to feed on the *Arundo calopocurus* & their dung  
was as away where else in the island covered with a red protophyte.  
To the south of Cape Pembroke is a Bay exposed to the S.E. with a  
fine sandy shore where I first saw the *D'Urvillea*? a truly  
gigantic seaweed in form like a small birch tree with  
pendulous branches & leaves. The stems thrown up in enormous  
quantities like drift timber on the beach were more or less compressed  
8-14 ft long with the branches & arising from a broad root composed  
of many stout cylindrical branching interlaced fibres the stems were  
sometimes a foot in the broadest diameter & a section of the fragments

con centric rings of cells surrounding a pale stony axis. The leaves  
 are from 1-2 ft long very coriaceous & shiny - These with other  
 gigantic seaweeds & many of smaller growth seem to have been  
 washed away from the Wolf rocks on which the surf was breaking  
 with violence - The *Lupae* grass was here very abundant & struck  
 me as one of the most singular grasses I ever met with covering a  
 small hilly peninsula which jutted out of the land & was formed  
 of pure sand so that nothing could be seen but its rocky beach &  
 the waving tops of the grass. In ascending it I was still more struck  
 to find that it hung over our heads growing in detached clumps  
 which formed a perfect labyrinth - These mounds were raised from  
 3 - or even 5 (I have been told) above the sand, have steep sides  
 are as much in diameter & formed of the interlacing roots & fibres  
 of the plant with the oblong leaves, from their summit the culms  
 & leaves spring of a pale green & the latter are often 6 feet long their  
 tops waving over head - The panicles are in very handsome compressed  
 Panicles sometimes a foot long, green or tinged with purple (rarely)  
 Many Penguin holes & dens of sea lions were excavated under smooth  
 walls which we fell up to our waists to sometimes sermons. The focal  
 dining of the birds - Along the beach was another immense *Lupae*  
*grass* one part of which had been completely destroyed by the cattle  
 having eaten down to the roots & the ground appeared covered with  
 large sea crabs - To the Southward of this Peninsula (which the former  
 proposed to call "Wolke Id." I reserve it for a *gott. Lupae grass*) is a  
 steep beach formed of large round pebbles covered with thousands of  
 stems of the *Schizocolla* & other noble algae - a heavy surf kept  
 constantly battering these round pebbles with a hoarse rattling  
 sound Immense numbers of Kelp geese & the beautiful *chionis* were  
 feeding here & so tame that they wd stand to be walked up to -  
 Turning inland we walked along the side of Jacksons Bay over a very  
 rank peaty soil with many hills of peat water to the brig & coast on

board highly gratified by what I had seen & with the collection made especially of algae & grapes. Mr Robinson who had been smuggling returned soon after & with sharpened appetites we got down to dinner. The fish Schooner had come in with live & dead cattle taken at Port Pleasant to the S. as also the fishermen's little boat which at this season meets with very little success but in summer with much when the fish are dried like Stock fish & prove most excellent eating. The gunner sent on board the Schooner for some marrow bones which cooked form a Falkland id. breakfast called by the Gaucho's Caracause.

Early in the morning it began to blow very hard in heavy squalls of rain & hail from the SW. W. & NW. The gusts sweeping down from the hills with great fury & tearing up the water before them. The hills were covered with a dark grey mist which occasionally clearing away showed their black summits against the angry sky. Such partial clearings were generally followed by heavy squalls as if the lighter masses of vapour ~~were~~ ~~also~~ themselves made way for the condensed fury of the clouds. The squalls lasted all day but spent their fury by the evening when they were succeeded by nearly a calm night.

Sunday morning - A most lovely day with S. breeze which gradually the grey mists which had shrouded the hills all yesterday. The gunner read the Church service & in the evening we explored the harbor to Sparrow Cove an excellent small harbour for shipping with some fair water in it. A an excellent landing place formed by a steep shingly spit of pebbles running out like a natural pier. Near it were some lagoons of water on whose banks the Cardamine glacialis grows in such profusion that in a few minutes we gathered an excellent salad which mixed with a little wild celery was very grateful. But Louis rises abt. 8 1/2 ft above this cone & we ascended it in about an hour having to cross several small streams of stones on which the Pernetia grows abundantly bearing large oval snow-white berries. From the summit had an excellent view of the country from Cape Argos to Fanning's head





Port William

Monday. Landed on the S. side of Jacksons Lagoon where with the  
gunner we had left off the walking survey of the neighbourhood on  
Friday. The ground still very peaty as we proceeded to the West but  
with abundance of streams of water draining down the hills. Found  
the *Ammodendron muscosa* in very wet bays with *Sphagnum* in part &  
the *Ammodendron microphylla*? growing so like the *Sphagnum* numerous  
that they might easily be taken for one another. Also the *Juniperus*  
*complanata* & *officinalis* on the steeper banks. At the Western end  
of Jacksons Lagoon a large stream enters a very peaty bottom &  
the largest I have seen in the island. Walked down the N. side of the  
lagoon crossing over every now & then to Port William along a side of  
low rocks until arriving at the opening of the lagoon then went  
on board. -

Tuesday. Took the jolly boat to the N. head of the Lagoon hoping from  
thence to Port Kenton but William through the day was not very propitious  
walked to the West under the fine projecting quartz cliff of Port William,  
which is stratified. The strata singularly bent with a most remarkable  
convexity upwards. It is the largest instance of curved Quartz I saw in  
the island & is really very fine. What are we to suppose to be the cause  
of their upheaval of such enormous beds of Quartz which as Darwin says  
must have been in a partly state at the time? Doubtless it is effected  
by rocks of igneous origin either granitic or volcanic perhaps the same  
as that of the Anta etc continent. That it took place under water  
is certain from the shells contained in the clay slate which overlies the  
Quartz. Whose strata are not less distorted than those of the Quartz  
& often perpendicular. The clay overlying the quartz slate again is a  
third formation probably fresh water. - Proceeding onward to the  
two peaked hills mentioned before came on some troops of wild horses  
which made off at full speed. The wind shifted to N.W. bringing such  
dense mists of vapour that the mountains were completely hid &  
when I had arrived at the top of a ridge from which I should have  
seen Port Kent about 4 miles off there appeared nothing but a golf

of course - Finding it impossible to find my way should I proceed I retraced my steps in a direction for Port Harriott on the S. side of Port William. The ground was partially rocky & sometimes boggy in every way remarkably different from other parts of the heavy formation. A good stream of pure water runs down from Port William into Pt. Harriott near which abound much of the same. Somewhat I was growing some in places which looked very handsome for the size of the heads. In the banks of Port William saw a very fine old bull with large mane & sweeping tail immense neck & quarters after waiting until he approached pretty close he turned tail & made off tho' I had some fears about his horns looking formidable. A party near Port Harriott saw a troop or rather several troops of perhaps 300 horses (some plain & some white) who were frolicking about & enjoying themselves in a fine grassy place careering & prancing about in circles most of them were black & white & some few were black & white some all white. I have sometimes seen some horses on the hills which have probably hurt themselves among the streams of stones or been fighting with one another. These horses though little animals seem very weak & cannot be ridden hard for two days running they will not eat oats or any corn & consequently have no bottom & it appears doubtful if they ever will rival the La Plata horses. The Japanese also see them very ill & leave them miserably bruised & galled. Forty miles is considered a great feat for a horse here & then he is not able to work for two or three days afterwards. - These kept in stalls and fed all the year round except Japan two bundles of which are sufficient for the day, a man can eat 50 bundles a day & tramped from Port Harriott to Jackson's Lagoon & went on board the Brig after a miserable days ramble.

Wednesday - Got off at day light with the intention of taking the boat to the river of Port William & crossing to Port Louis this being the usual way. But by calling wished to return that it blew so strong at North that it could have been impossible to pull up especially as the ebbing tide had already made in the narrow creek at the head of Port William up which we must pull. Landed at a little cove on the N. side of the Sandhills where were the bones of a whale which had been entangled in the lagoon & taken by some sealers. A fellow Licker was near the beach & also had attached himself to them with some ropes. Proceeded along Cape Pembroke to the



## Port William

see birds mentioned before & collected seaweeds & rock specimens of Lichens

Thursday morning started at daylight from Jackson's Lagoon & up to the head of Port William following a narrow creek which runs into it & presents very pretty scenery from the steepness of the rocks covered with bushes, the places well sheltered & such spots are the only really snug ones I have seen in this desolate place - The soil however is very bad & from the neighbourhood of the mountains the climate is all probability more rainy & generally cooler than Port Louis - Leaving the boat commenced walking over to Port Louis in a N.W. direction by the shoulder of Mt Permet. The whole soil is formed of dense black heat bog with no fine bushes on a lumpy soil & no variety of vegetation. Some streams were larger than we had been accustomed to see & one indeed was with a little trouble crossed being just too narrow broad to jump & very rapid - ascending a hill crossed as usual with loose masses of lumpy came suddenly on a large troop of wild horses who appeared very tame & followed ~~over~~ our rear approach - The day was very fine & our view excellent similar to the one from Port Louis. Ascending Mt Permet saw some traces of rabbits which it is singular enough have not crossed a line drawn from Port William to the arms of St Salvador Bay. Probably from the extensive destruction & tramping of the broad belly dog which exists there, they however inhabit other very damp situations saw a very few pipes which have all migrated beyond a month ago probably to the St. Salvador S. America though it is difficult to conceive how they can stem the strong S.W. wind, they are however good barometers & may take a more Northward course for the Pampas - The little sandpipers have entirely disappeared & these are the only birds of shore migrating habits I am assured - The little Brent gull is said by Fitzroy to be migrating but I can hardly think so - during the 5 months of our stay in these islands they were always exceedingly abundant at St. Salvador bay, but never came to Berkeley Sound or the E. coast, their habits are quite similar to those of the upland form feeding on berries as long as they last & then coming down to the sea for shells in winter.

From the Forest, from account I mentioned before, descended to sea - There  
 being other I have been very much pleased with the journey. The mountains  
 being new ground though a botanical station Philibian is infinitely  
 inferior to Port Louis except for the Marine large seaweeds - The only  
 novelty I can now expect in the Island is from a visit to the places where  
 the Veronica cheapata is said to grow & which is most probably on the  
 S.W. part of this & the W. Island for the reason told me that they are  
 scarce & only grow in narrow valleys exposed to the winds that blow  
 direct from the Russian coast & that they are not to be found in other  
 neighbouring valleys whose direction is different. If true this is a  
 singular instance of strict coincidence between local cause & effect  
 were these Islands suitable to the growth of trees they would surely have  
 extended themselves generally over the Island - I am inclined to  
 attribute the total absence of trees on the face of this country to the want  
 of shelter shelter the mountains are all low & rounded the valleys  
 all broad & swept by the cold winds so much that even the grapes  
 have their bent as much as the Acacias of St. Jago in the Cape Verde  
 & apt to the greater luxuriance of the grape caused by the warmth of  
 the season. I often think that these plain hills must much resemble  
 the Tundras & steppes of Siberia as also the barren land of  
 Arctic America where nothing higher than willows grow as the  
 Philibian does here & only in <sup>sheltered</sup> places where the hardiness  
 is formed of Arctic plants & lichens whose analogies are also seen, even  
 a short vegetation is checked from too much exposure, in the north to winter  
 frosts & snow & summers radiation at night, & here the south from the  
 violence & heat of the S.W. blasts from the ice region of the Antarctic  
 continent - In short I judge that these Islands what the course of  
 the Siberian & N. American rivers are to the ~~the~~ tundras & barrens where  
 Beeches, Fir trees & winter bark take the place of birch willows & poplars  
 but more of that after visiting those regions - As to the formation of the  
 land I attribute the want of trees on the Falklands & rest to the climate  
 rather than that it is modified by such local cause - Place completely on

or I'd concluded grass in the same ~~at~~ position & I don't see but  
that heeches would soon be found on them - Per an these islands  
without their analogy. The Orkneys, Shetland, Feroes are placed  
in very similar circumstances with regard to Norway & the British  
Isles & why are they not wooded? They too have a great deal of  
good soil on a similar formation, afford an abundant pasture for  
horses cattle & sheep, are well covered with great trees & yet through the  
opposite coast of Norway for 10° further south is covered with trees  
no person wonders at their nudity, whilst there are plenty to hold up  
their heads in anton's lament at the bareness of the Falklands because  
the opposite coast of Georgia for 4° further south is well wooded. If there  
be other appreciable cause for the want of trees here it must be looked  
for in the circumstance of their removal from immediate contact of any  
great body of land - isolated pieces of land have generally equal  
temperatures & thus it is that the pattern of Antarctic vegetation differs  
from Britain in the prolonged continuance of temperate & even tropical  
genera into high Southern Latitudes. Now the Falklands are more  
isolated than Georgia whence they ought to have a more equable climate  
& their latitude is lower whence that climate should be warmer. If however  
the climate be colder it must be accounted for by the prevailing winds N.W.  
S.W. being cooled by passing over the Georgian heights (whereas they ought  
to be warmed or why is Staten land so luxuriant?) In no way can  
the climate be considered as very different from that of Georgia Georgia, it is  
not to that cause therefore that the want of wood must be attributed.  
Where it is the same latitude as the Horn & is <sup>at its</sup> present ~~the~~ distance  
from the main should then expect it to be a very barren place however  
well sheltered as then the prevailing wind would ~~not~~ blow direct  
from the sea & not cross Georgia when its valley & woods would be sheltered  
like those of S. Georgia with icebergs & glaciers whose presence on Western  
Georgia is much encouraged by the contour of that land. Lastly I have  
reason to believe that the open shores of Falklands are much clearer than





Falkland Islands.

horizon with a tremulous motion either from the level of the sea or from heights I suppose from the snow there being carried off horizontally by the wind & rapidly, first forming a thick dense stratum of vapour. Night hoar-frosts are very prevalent & have been since our arrival for the clearness & stillness of the nights, they do not affect vegetation much but lower the thermometer to 26°-32° where

June winter seems now to have set in in earnest with heavy snow storms & severe frosts - The snow lay on the ground for several days & almost weeks from 1-3 ft deep in some places occasionally thawing & decreasing & then increasing by new falls - The winds too, whiffy, are cold cutting & violent - The cliffs near shore are covered with ice from the occasional gusts that fill up the little gulches with water which freezes into miniature glaciers - Young ice forms constantly between the ships & shore thick enough to impede a boat's pushing - The birds party which have been at St. Salvador Bay since our arrival lately shot 2 swans of different species one black headed & headed also a widgeon - A few foxes also have come down to them but none have been shot.

August Spring sets in about the middle of this month with N.W. wind & a finer sky & weather the country for all the winter has been of a pale brown color from the withered bracken aloe curves. The fascine, Empetrum & other hardy woody or shrubby plants in cluding <sup>the</sup> Asyelle & Portia Andromeda & the ferns especially continue evergreen the herbaceous vegetation including the grapes killed to the roots by the snow storms. The lichens which cover the cliffs are of course unchanged - on the South side of Port Louis they are so abundant as to give a white appearance to the rocks - It is very singular to see how studiously they avoid the shaded sides of the cliffs & cover them exposed, particularly such as are dried & also exposed to the reflection of light from the immediate vicinity of the sea. A small sitta contains a noble Asyelle grows a span long with a smaller species completely covering some cliffs with a white hoar coat whilst the rocks & stones are completely coated with crustaceous species & some under surfaces of projecting rocks I gathered what appeared the

imperfect forms of them of a peculiar consistency. Abundant  
 nature one of a bright pink red & another beautiful chrome yellow  
 The former was I believe a *Regulus* land plant. when I found it  
 under similar circumstances. most of the light it receives is reflected  
 over the water. Several *Conopsea* green. The dwarf rocks, a *Tremella* &  
*Calothrix* of a purple color on black wet soil also on Selva on rocks  
 moistened with fresh water which I have also found on the skin still  
 covered with hair of a dead rabbit on the tails completely covering the  
 wet sun decomposed remains of the animal which were sodden with water  
 In the streams of fresh water the little stems of grasses which hang into it  
 as also the masses sometimes become water with an exquisitely delicate  
 pale brown slimy coniferoid substance which under a very high power  
 seems to contain or be composed of Infusorial animals some of them like  
 those of the antarctic sea. In other fresh water pools gelatinous masses  
 of emerald green or yellow tremella float about abundantly often half  
 suspended in the fluid. - Little fish are not uncommon in the streams  
 said to be a kind of trout but I have never seen them out of the water  
 Several salt water fish are abundant in the summer season especially  
 a large fish called Mullett here very good eating salted & cured with  
 several smaller species of fish found under the stones all the year  
 round -

Alga are immensely abundant on the coast both of the Bay & the  
 rocks out to in the open sea - The sea beaches that I have found producing  
 them are of three kinds. 1. The common beach of Port Louis composed of  
 shingly clay slate <sup>stones</sup> through which the clay slate often crops out &  
 from sunken rock spits & shoals. Near shore in the sheltered places  
 all the commoner forms of algae grow especially here *Enteromorpha*  
 & *Lythorea*. In the deeper water *Laminaria* *Macrocystis*, *Ulva*,  
*Ballia* & some *Ceramium* attached to their stems. 2. The same general  
 species which are everywhere in shallow water. In the deep water  
 where *Laminaria*, *Macrocystis* & *Ulva* several species of coral form  
 truly submarine forests & afford a shelter for various *Floridæ* & *Ceramium*



when a <sup>or simply</sup> sandy beach lies abreast such places on the zigzag  
drift wood like trees are thrown up in enormous masses - The stems  
of the *Gracilaria* are laid from the bottom of the sea into a  
rope sometimes 1 ft diameter & a hundred or more long, while the  
length of each strand of such a rope is quite undeterminable - The  
stems of the *Gracilaria* piled one on another after 12-15 ft long & 1 in diam  
with *Laminaria* as long & whose digitate fronds are 2-3 ft diameter  
together form a mass of vegetable matter 10-10 yards broad & 2-2 ft high  
in some situations - The mass of seaweed goes on very slowly or then  
melts from the least state of the atmosphere & the known vitality of  
such cellular plants constantly increases with decay & when decomposed  
detritus is removed by the tide - It has often struck me that were  
such a mass thrown up on a tropical shore with its concomitant  
swarms of marine animals, a terrible miasma would soon ensue  
such forests of weed are happily not known in warm latitudes -  
were they banished hence thousands of birds & probably seals would be  
deprived of nourishment - 3<sup>d</sup>. The low flat muddy shores  
generally far distant from the water coasts & abundantly supplied  
with fresh water mud are the upper arms of St. Salvador Bay where  
the tides are very irregular & where thousands of streams enter each arm  
The beach is clay slate covered with a layer of slimy mud partly  
formed by the decomposition of the slate & seaweed as when for the  
depth of the streams - Here broad belts of a lined dirty green color  
are formed of various confervae & algae creating a slimy mass  
difficult to cross from its tenacity & here the hills give small water  
oyster catchers Plover's skimmer ducks & swarms on or two species  
from the mass of this vegetation - - In all the submerged floors of  
the Falkland it is singular to observe how the higher & more  
gigantic forms are invariably found in the most open places where the  
full action of the sea is most felt & where its waters are least obstructed  
They too receive most light & enjoy a more uniform temperature than  
any other plants can this too is a remarkable difference between  
algae & Lichens that the latter appear thin & highest forms

I are most developed when they are most exposed to the vicissitudes of the seasons & of the daily temperature. As we approach the shore & a less pure state of the sea water algae present lower forms, & finally where the beaches are flat & muddy the tides expose mud banks, where the water is much deteriorated & the plants exposed to the cool of the water & the heat of an overcast rather than they disappear altogether or present the lowest forms of organization.

June arrived HMS "Carysfort" Lt. George Paullet Capt. Through a brother of Secord Smith's on board (Lt. Henry Smith) I heard that my father had just been directed to come on board a ship belonging to Mr. J. Whitington assigned to Mr. J. B. Whitington on these islands. Also heard that HMS "Fly" & "Pembroke" were coming out here with our despatches on their way to Jones Straits. She brought the "Custard" bowsprit & "Arcturion's" cap. I enjoyed a days skanking on the great pond with Mr. Robinson.

July 7th Sailed HMS "Carysfort" for the N. coast of S. America.

Aug. On one of the first truly spring like days walked to the stream of stone mentioned by Darwin really a most remarkable phenomenon & well described by him though I can not say any part of it is so minutely by leaping from stone to stone. The work is however most fatiguing & one is apt to slip - The *Stegania* (large) was very common on it as well as a beautiful new *Aspidium* with narrow fronds & of a very coriaceous consistence. The Pines are directed downwards & spread closely overlapping each the base of the other & sharply toothed very beautiful on the stony ground near it a good many *Lichens* are found - A stream runs at the bottom at a considerable depth as I could see where see it but hear its gurgling course very distinctly as it is into Salvador Bay - Above the stream but Vermont above indeed the stream runs down a valley on Mt Vermont dividing that hill into 2 parallel ~~two~~ portions on the Northern of which I ascended on April 23<sup>rd</sup>. This Southern top was now before me consisting of a rugged mass of quartz 1200 ft high

Mt. Vernet & Stream of Stones.

capped with a good deal of snow & communicating with a fine  
compass the top of hills which joined on to Mt Simon to the West.  
Its sides from the abundance of rock were very barren & intersected  
by bluff precipices of quartz the plants except the more hardy ones  
were all dead I found however the rare *Lycopodium* not seen  
since April 14th. & the *Haplospira* <sup>subsp.</sup> ~~*quartz*~~ *quartz* common. There are  
a similar altitude & the specimens gathered on Mt Laine - on the top  
was a long exposed narrow ridge of quartz running S.W. with a  
turbulent top completely covered with the Canada Lichen it is a  
formed of a strata whose strike is to the S. These strata are all broken  
up into cubes with spaces between them which made this top very  
hollow exceeding dangerous to climb this novelty arises from that  
being the form of cleavage of the rocks & the joints separating the pieces.  
The quantities of loose fragments over at the very top were amazing &  
had a very threatening appearance. It appeared to me that between  
this top of Mt Vernet & its northern ridge opposite me between which  
the stream of stones is, that stream might be doubled by a very slight  
shock from Sarthouagne & when it is further considered how much  
steeper the banks of the valley must have been & with how much  
proportionate rapidity the stones were loosened it appears to me that  
the stream of stones might all be formed within a very short period  
after the elevation of the Quartz. stupendous as it appears & really is.  
The *Polysphaeria globaria* was abundant even on the top & on its heights there  
grew a scarce *Polytrichum* like *Polytrichum* of the north on the  
rocks. I found a new *Primmia* scarce a fruit somewhat like the *P.*  
*fulvoinata*. On returning at the head of the May found a shot  
party Mr Lyell had just shot a gander on the water when the  
woman would not leave its dead companion but kept swimming about  
him until likewise shot. This affection is I believe thus shown  
only during the <sup>spring</sup> ~~winter~~ season which has just commenced. The party

had seen a Fox at St. Salvador May & shot some specimens of  
 the *Larus rubicundus* a lovely small pink cold black headed  
 ash headed gull with red legs & black. The new birds I have lately  
 seen are this one which is migrating had disappeared before our  
 arrival & had just returned also a plover like the little *Simpsoni*  
 but larger belonging to Dr. Robinson & a little Lark - Two red colored  
 Ducks had been shot by Cassall at St. Salvador May but could not  
 be picked up. Mr. Robinson (of gold house) showed me the little Petrel  
 which we at Reguellers house all the Petrels it was shot in the  
 Harbour - I have also seen a Hawk very like the common Caracara  
 but stouter & shorter built with bright yellow & very large black &  
 talons, feathers on the neck more distinctly a cinnamon color  
 also to the common Caracara but with a broad rusty band just  
 above the top of the tail.

A smart lovely day walked to Urania May. The ground in the morning  
 quite hard from the previous night frost I have often remarked the formation  
 of ice to cause a singular phenomenon - In some frequent small isolated  
 bare spots on the clay formation which are quite destitute of vegetation  
 the soft dense mould is covered with a narrow stratum of pebbles & coarse  
 sand which is pretty weather seen suspended separately in the air a little  
 above the ground. In picking a piece up I was quite surprised to find  
 that on each  $\frac{1}{2}$  of vertical parallel loosely connected <sup>prismatic</sup> crystals of ice  
 were from the surface of the mould & supported the gravel above it. The  
 ice thus formed was very beautiful & closely resembled a loose specimen  
 of fibrous gypsum or still more nearly the mineral Thomsonite as the  
 weather was cold I carried it for a long time in my hand when the effects  
 of the sun shining through these pillars was sparkling & beautiful  
 The prisms were of uniform height longitudinally striated generally compressed  
 with 3 or more angles 1-2 lines in diameter. The mud or soil below was not  
 frozen below its surface. The ~~new~~ deciduous leaf plants have  
 already begun to show leaf especially the *Cypripedium* *conocarpus* & some of



Marine Bay.

The grapes - The little Lampyrids have within these two days come over in immense abundance a brisk N.W. wind has completely covered the ground & (which is not new) some amongst the grapes extend at the rainy season they are said to be confined to the neighbourhood of the beaches as on our first arrival - Lizards have also lately come in & they are said to be frequently heard at night whining over heads. Though one looks very closely for Cryptogamic plants in all high N. S. latitudes it is strange how many escape us in so much that I have hardly ever gone out without adding one or two to my collection Today on the banks of a little stream found a fine *Protan* *Trichostema* sometimes in short tufts when the fruit was abundant and others having long fluctuating stems in the stream. Marine Bay is due to the E. & has a fine sandy beach backed by two parallel rows of pine sandhills like those of St. William's producing similar plants. This Sp. had much interest to see from its being the situation of the encampment of the Capt. Freycinet's crew when wounded on their homeward voyage after a cruise of his covers. The "Uranic" keeping too near the N.E. entrance of the harbor struck on some lumber rocks & to save his ship Capt. F. ran her up, as she was fast filling & she finally struck on some rocks close to the shores of this Bay. It was a most providential thing that the wind was at East which is not the case once a month & never for a day together had he experienced the usual boisterous weather of these regions they must have taken to the boats probably with disastrous consequences. (See a sketch of the scene of the encampment done by a kindly sent me by the Governor) I easily recognized the precise spot where the Parson had his cell dug in the side of a cliff & the flagstaff hills. No traces of the "Uranic" remain but 4 or 5 2-ton iron water-trucks & about 20 lbs of old copper a little wood &c. The results of Mr. Freycinet's

Magnetical observations give the nearest approximation to the true position of the S. Magnetia Pole of any made previous to our determining the spot in which we landed in 1822 & the immediate neighbourhood

of the scene are two large shallow fresh water lagoons in one of which I found *Gambusia* and *Limnæa tenuifolia* L? & his *Myriophylla* besides all the other plants almost that he mentions, close by.

Found several Nisus on the sandhills especially a large *Portula* in a fine state & a young *Emmanis* bearing some fruit on some shaded wet rocks - Saw several flocks of the small black headed gulls which have lately arrived & are really very beautiful birds their colors being especially delicate they have a harsh loud scream & in the way they fly about irregularly & dip to pick things up the water they very much resemble Tern. The pale rose color of the belly & breast under quill & tail feathers is of the most delicate conceivable & I can only compare it to that of Rose Quail, they say here that this color fades & is lost after skinning, much I suspect depends upon cleaning the skin in which respect for much care can not be taken with sea birds - An Iron glass doubtless depending on the close contact of the plumage gives a glistening appearance to the parts of these ~~land~~ aquatic gulls & Petrels which are immersed in swimming this feature is most remarkable in the white Antarctic Petrel.

Went to the Governor's & saw to my great delight many young plants of the *Koopa* growing in his garden planted in rows by the former farmer they were very healthy I promised to be being raised from seed there is little doubt but that the plant will do well elsewhere. - Had some tongues of the Sea Elephant given to me, rather & much dried, they are broad & flat oval in shape dark red brown not only to the taste & smell, very heavy & weighing 6-10 lbs. apiece. For seal skins sell here for 20/- 30/- per skin they are getting very scarce on the island. The fisheries are regulated by Government.



Sept 1842  
30

went in the 1<sup>st</sup> cutter dredging for Marine animals with tolerable success off the mouth of the creek on the S. side of Berkeley's Basin. Vah at Uranic Pass. Kept a sharp look out for any remains of the *Uranic* on the rocks where she struck but to no purpose the whole ocean was covered with a forest of Kelp of which the *Macrocystis* was the most abundant but the *D. viridula* most striking, looking down on the top of its branches covered with pendulous leaves which completely obscured the view of the bottom reminded me of a gulph of foliage as seen from the top of a hill in New Zealand. What swarms of animal life do they protect, what a miniature world of the lower ocean! I often think that these two weeds are of more use in the animal Ocean than any other cryptogamic plants. They perhaps also operate on a grand scale in purifying the waters near shore, where the dead organic remains putrefying on the beach & dispersed through the internal region of the Ocean must tend to the pollution of that fluid. It would be interesting to know whether they, like vascular plants, absorb carbon acids & give off oxygen gas, the green color of many of them would lead us to suppose so & at any rate the wholesome nature of the whole of them would warrant our concluding that their functions are widely different from that of the *Fungi*. The noxious properties of the latter arising from this simple truth that they give off carb. acid abundantly do distinguish them from both algae & lichens & although the borders doubtless inordinate or speaking more correctly perhaps include two other ordinating groups, in general terms the following distinctions hold good in the higher classes of each.

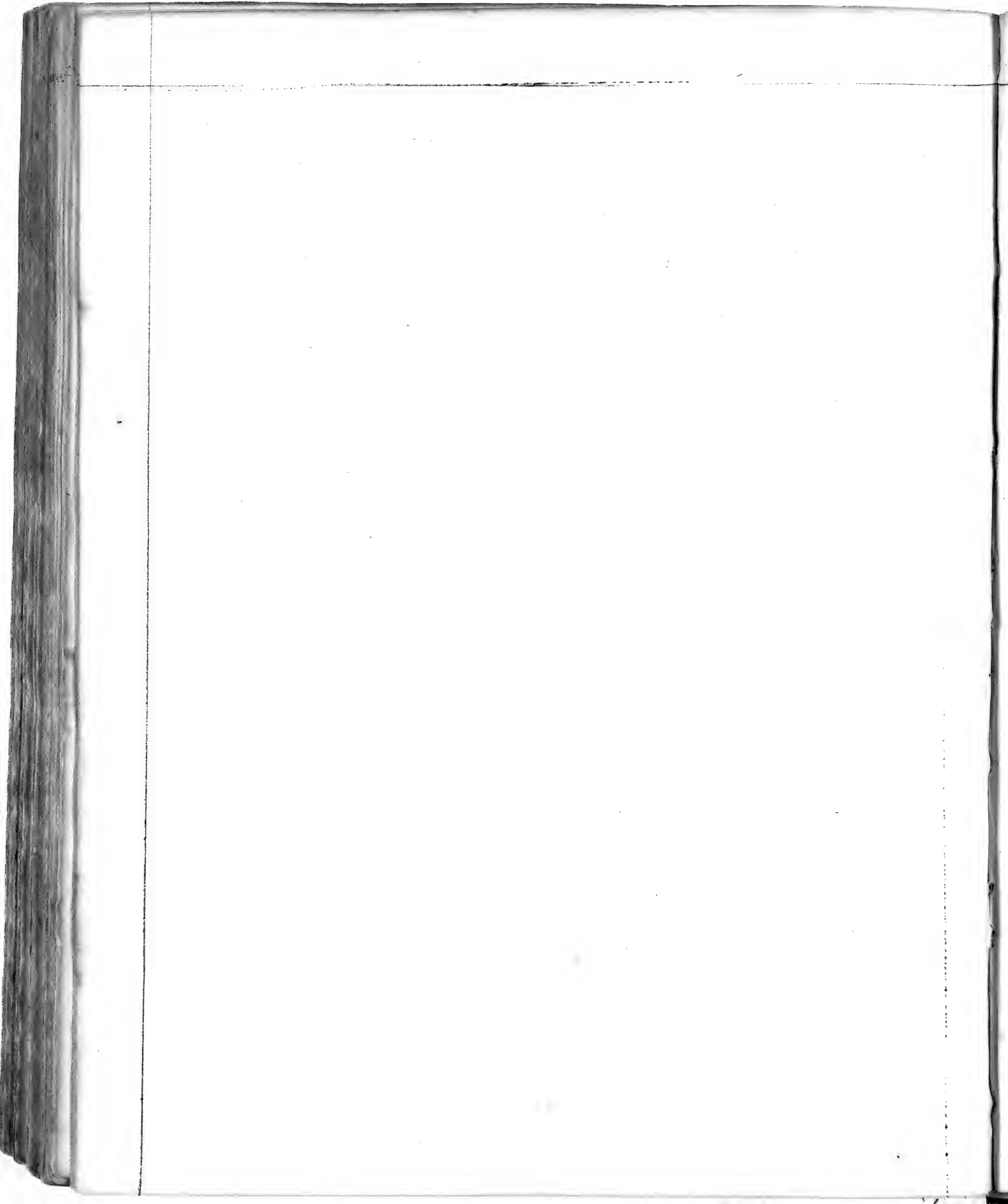
Quant. of Algae	Fond of light.	wholesome	- Like an equal temp. - absorb carb. acid.
Quant. of Fungi	generally do.	unwholesome	- only thrive in warm. - give off carb. acid.
Quant. of Lichens	Particularly -	wholesome	- Delight in extremes of light & cold.

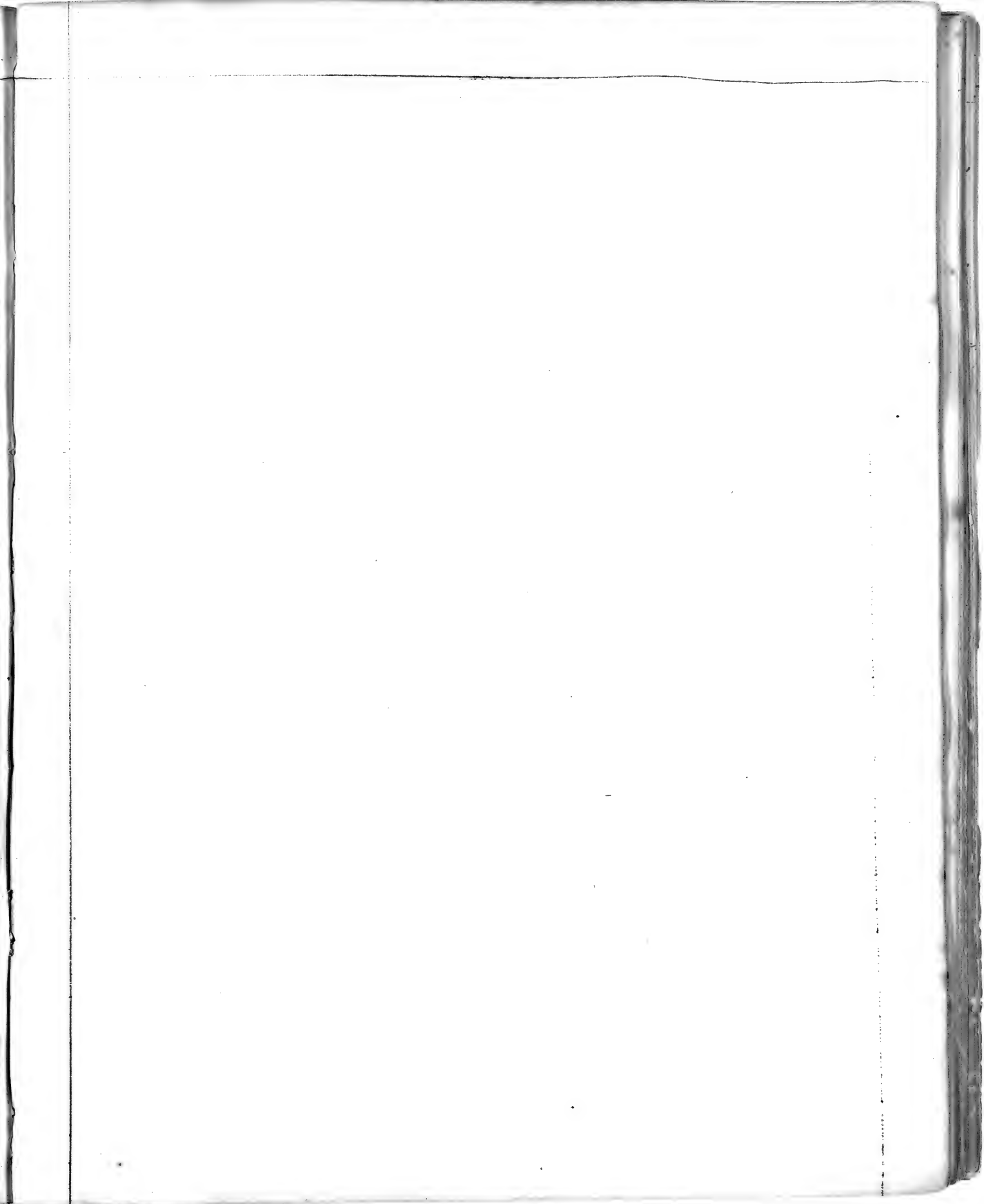
\* Yes they do, vid. Daubeny in Phil Trans. { Delight in extremes of light & cold. }

went dredging again into the creeks with good success - The dredge  
 generally brings up a few shells of 2 or 3 species, 2 univalves & 1 bivalve  
 not abundant. Also I have procured 2 fine specimens of the Voluta  
Magellanicum which is of a pale pink color & no other shells of any  
 importance. On the beaches however 3 species of Patella & a Lipurella  
 are not uncommon with a few other univalves & a large Lucidaria  
 called the Chlam here & said to be good eating also very large masses  
 of these kinds all good eating. Of Chiton there are 2 species, one very  
 large indeed often 2 inches with a hispid border the other much smaller.  
 Of naked molluscs there are a good many Lucidaria, a noble Protentia  
 as large as a Potato sometimes nearly sessile & sometimes pedunculated  
 2 species of Goris. Of Crustacea, a Synscolex, a long legged & short legged  
 Crabs. The Squilla Magellanica, a hermit crab inhabiting various  
 shells. a very large gregarious Squilla very common under the stones  
 with several smaller Gammarus & other sessile Crustacea I have  
 remarked in the South as Amble, Campbell, in King Land & here that  
Thalysia, Myzozoa & other Podophthalmus shrimp are not uncommon in  
 the open sea they are rare or perhaps almost wanting near shore or  
 in the salt water parts. The Camp. hild Zaluthea is an exception. -  
 The lateral tribes of Annulides are in considerable profusion but especially  
 the radiate animals sponges small corals, Flustra, Cellaria, Eschara,  
Sertularia, Crisia, Clytia or genera allied to these. Of Actinia several  
 species which generally grow beneath stones here except one handsome  
 animal (Anemone?) found on a live Voluta - Proclava are rare but  
 one enormous species is often thrown up on the beach (id) which it apparently  
 belongs to the genus. Of Echinodermata one very large & one small Sipunculus  
 one small Ophiura & a Spatangus all obtained by dredging also two  
 or 3 species of Hydrotaria numerous abundant on the muddy bottom of  
 Port Louis in Spatum water. - Of Annulides Serpula & Diambella, Serolis  
Aphrodite & a land Lumbricus should have mentioned before.

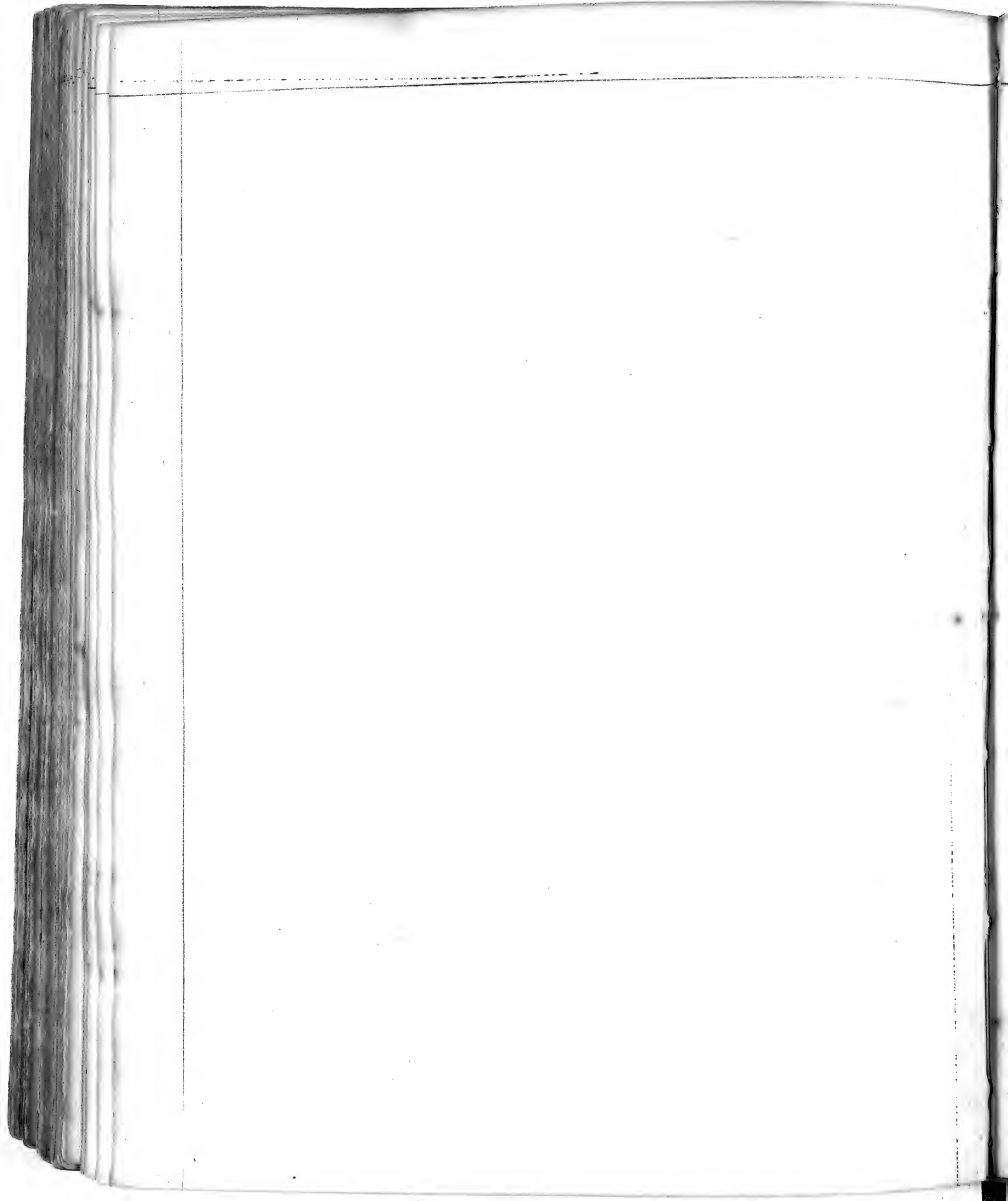
Land shells are very scarce one minute Planorbis? from salt marsh  
is the only one I know. Insects are also scarce. Spiders 1-2. - 2 small  
Carabids & a <sup>small</sup> Ichneumon which I found on the flowers of the Verbena are the only  
~~ones~~ met with - Diptera 2 sp. Circus 1. - Phryganea? (a larva) in a lake.  
The absence of insect life is a remarkable feature in all these Southern  
Islands & is quite out of proportion to the Vegetable Kingdom

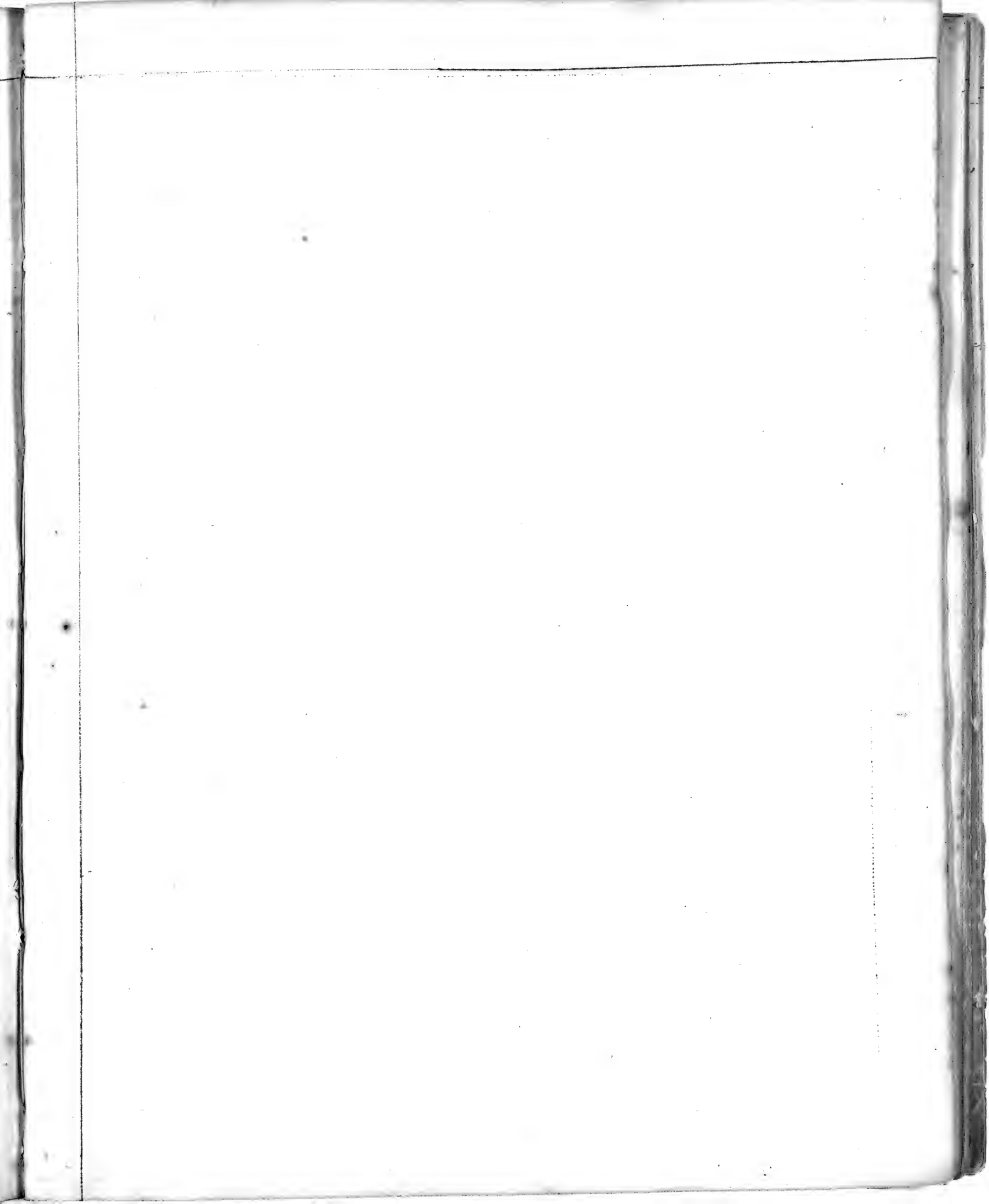
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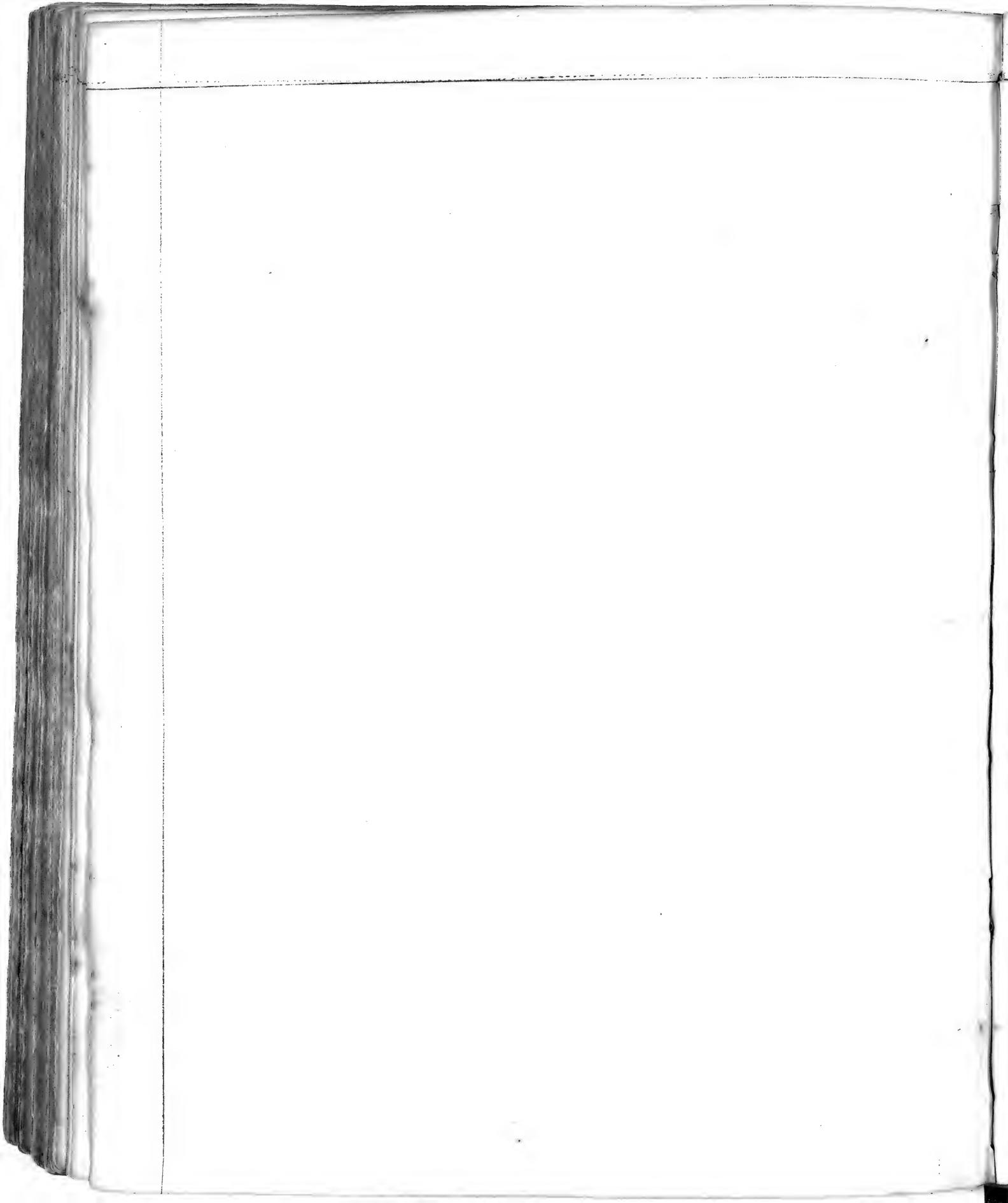


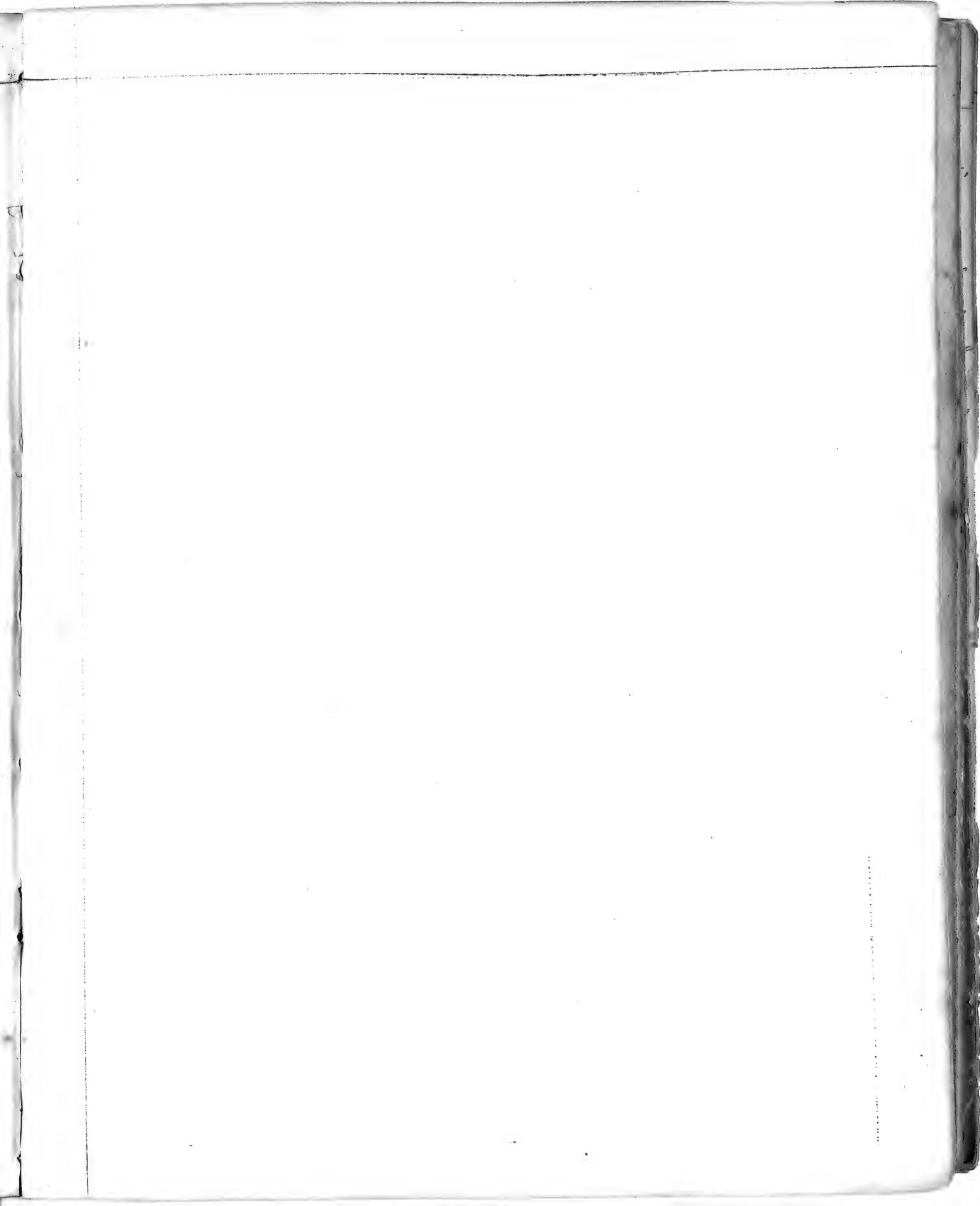


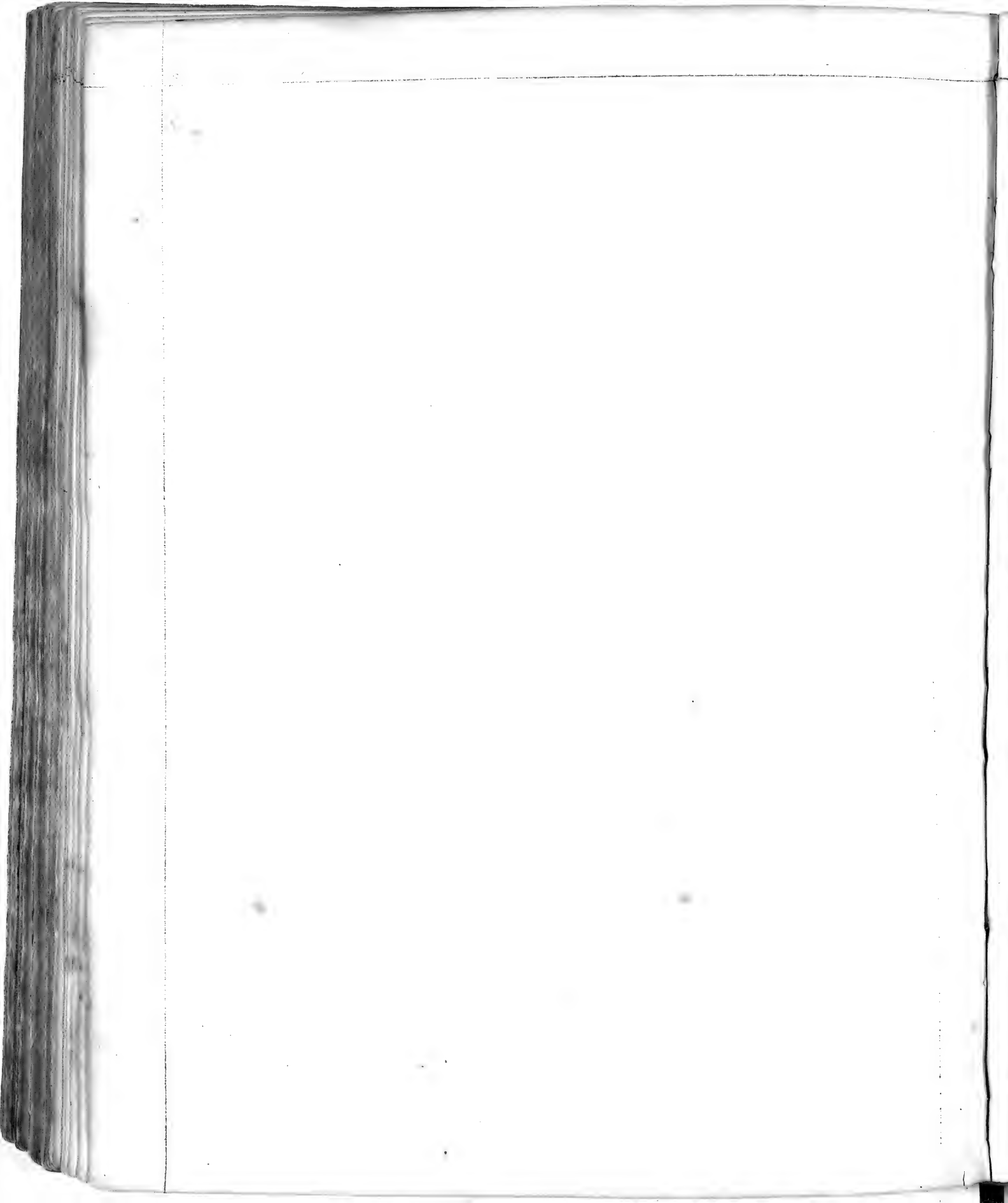


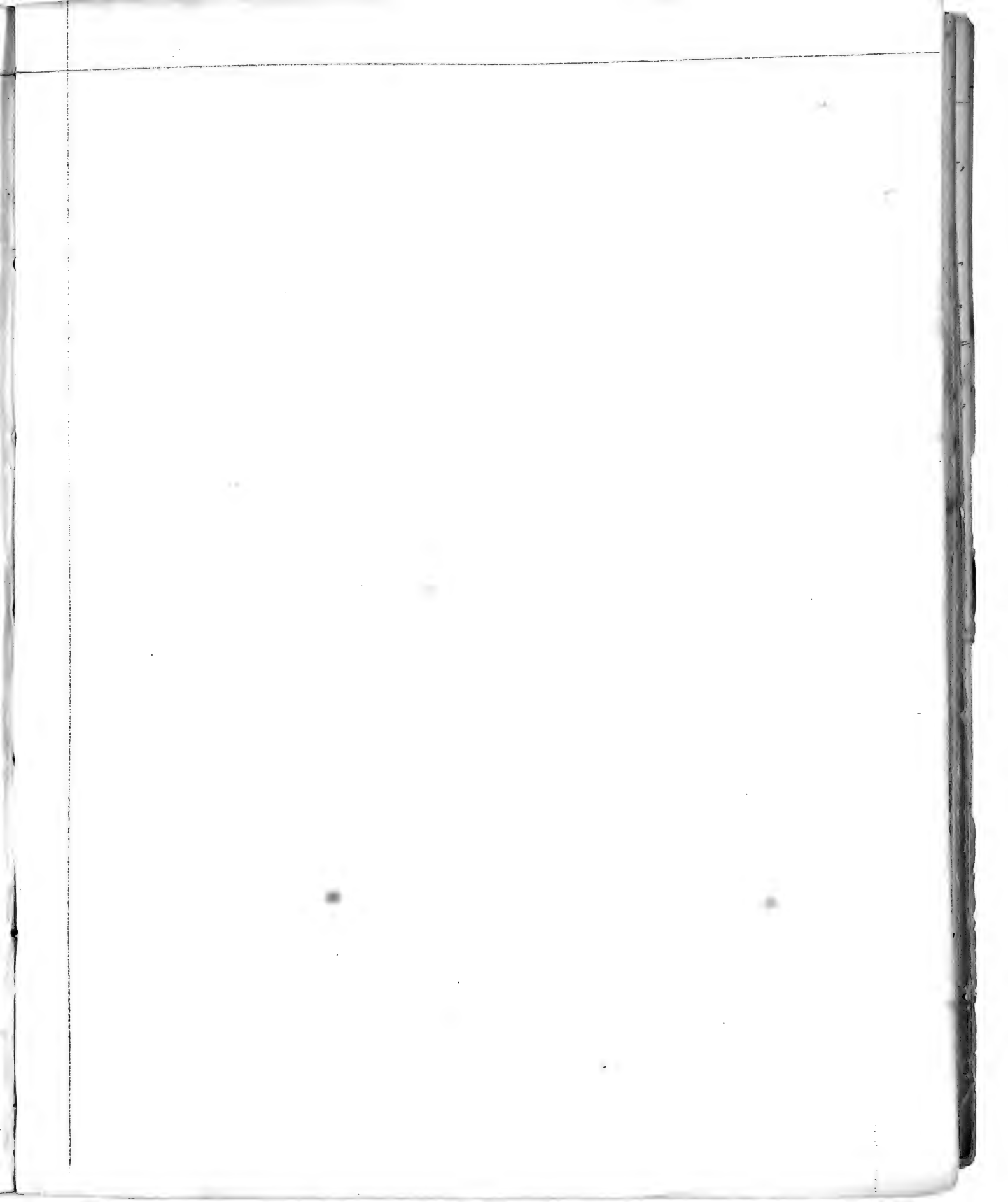




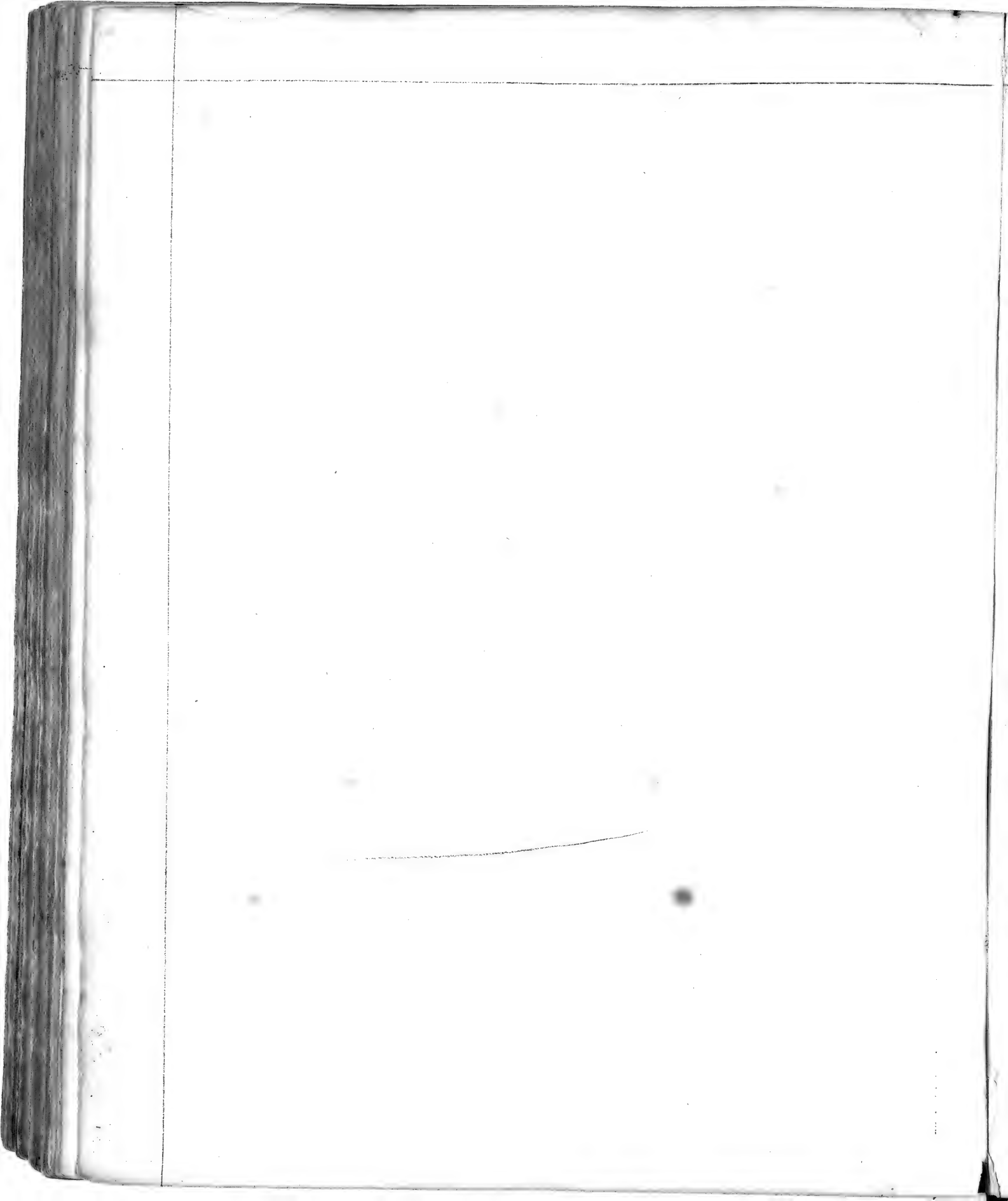














Regulatis laris Laris

*Chionis naximalepsis* 1. Laris Laris

2. Dant

*Procellaria gigantea*

3. Long Island

*Pionodes fuliginosa*

4. Atlantic, 13 months

Laris

5. Black, white, brown, 13 months

6. Black-backed gull

7. Tiro

*Phyllosora*

8. Bay

*Procellaria capensis*

9. Cape Henry

10. Herring Bay, 13 months

*Aphelocyber decurva*

11. Penguin

Magilliana

12. King

*Chrysema (catantus etc)*

13

*Dipton caerulea* ?

14. Blue P. bird

*Dipton* ?

15. P. bird

Journal.

Commenced September 10<sup>th</sup> 1842.



- This day arriving at 9 1/2 AM weighed & made sail down  
 Berkeley Sound with the wind at N.W. cloudy & damp. The Barometer  
 high 29.352 (63) having had fine weather with N.W. winds for an  
 unusually long period we expect a few days of hard S.W. gales which  
 prevail in this Latitude. In the afternoon the wind drew round to S.W.
- 9<sup>th</sup> Lat. 53. 3'. Long 57. 55. Temp Air 37-32 Sea 42-40. Bar.  
 Wind round to the N.W. & N in the morning with a falling Barometer  
 & a S.W. gale (9) with snow squalls in the afternoon here to windward close  
 reefed Topsails & Staysails - Here to.
- 10<sup>th</sup> Lat. 53. 19 Long 56. 49. Air 31.5-39. Sea 39-42. Barom.  
 Blowing a heavy S.W. gale (9-11) with the Bar. rising & moderating & drawing  
 to the Westward towards night with more Rain & hail. In the morning  
 carried away the aft. upright Gaint of Port Cutter. - Here to.
- 11<sup>th</sup> Lat. 54. 11. Long 55. 22. Air 40-36 Sea 41-39.5. Barom.  
 Still blowing very heavily from W & S.W. with much rain & the Barometer  
 falling - Still here to.
- 12<sup>th</sup> Lat. 54. 19 Long 54. 47. - Air 34.5-40 Sea 39.5-41.5. Barom.  
 Blowing very heavily (9, 10) Barom. rising with the wind drawing to the South.  
 Much Snow - Hooped a patch of Seaweed - Here to.
- 13<sup>th</sup> Lat. 54. 6. Long 54. 37. Air 34.5-31. Sea 40.5-38 Barom.  
 Southerly variable light wind in the morning. Freshening up with the  
 Bar. rising from the S.W. again (7, 8) Snow all day. The sea so heavy that  
 we cannot make sail.
- 14<sup>th</sup> Lat. 53. 41 Long 55. 12. Air 33-40.5. Sea 39-42 Barom.  
 Wind shifting from S.W. to W with the Barom. falling strong breeze, overcast  
 with a little rain & snow. Hooped several patches of Seaweed, still unable  
 to make sail for the heavy seas.
- 15<sup>th</sup> Lat. 54. 44. Long 55. 20. Air 39.5-31. Sea 42-49. Barom.  
 Blowing heavy (7-9) between N.W. & S. with the Barom. rising rapidly & a  
 little rain - Standing to the S.E. with a heavy sea on. Hooped some seaweed.
- 16<sup>th</sup> Lat. 54. 41. Long 55. 12. Air 30-44.5 Sea 39-41. Barom.  
 Barom. rising in the morning nearly calm - falling towards night with E wind &  
 snow - going ahead at last. 8 knots, at midnight after having been blown  
 20 miles to leeward - Hooped much seaweed.



Sept.  
1842.

St. Sea.

Bay of St. Francis.

17<sup>th</sup> Lat. 55. S Long 16 W. Air 33.5 - 28.5. Sea 42-39 Barom  
S.E. wind & Barom rising fast. Overcast & Equally, raining or drizzling.  
Piped some seaweed. The birds seen every day are the 3 Albatrosses, the  
Cape Pigeon & ash backed Petrel sometimes the Mutton bird & Finnes Whale  
or shoal of Porpoises.

18<sup>th</sup> Lat. Long. Air 29-34.5. Sea 37-41.5. Barom.  
S.E. wind drawing round by E & N to N.W. & high Barom. - Piped some  
seaweed.

19<sup>th</sup> Lat. Long.  
A beautiful day with N.W. winds & a clear sky. At 8 1/2 AM. saw the  
land bearing S consisting of a range of snow peaks which were  
the highlands of Dutch Id. Procter Id. & Herschell Id. - soon after  
saw the celebrated Horn a little to the South. The low hills of  
Parnie Id. to windward as we steered for Cape De Witt. Some time  
the morning standing S.W. By noon we were close in shore passing  
to the S. of the curious string of little rocky islets off Cape De Witt  
the Horn right ahead. The latter is certainly a very fine object being 1000  
ft above the sea from which it rises abruptly in a shelving precipice, but  
it is very far superior to some descriptions printed of it. Cape De Witt  
mistake if I remember aright - a little snow was on its summit, its  
sides clothed with a brown vegetation. The day was too fine to appreciate  
it as the horrible Cape described by many older navigators & we saw  
had too many N.W. winds to have left any snow which must be  
terrible - when made in a gale of wind that shrouded in which the officers  
is about this grand old harbor were busy sketching it. On entering the  
Bay of St. Francis the scenery was very wild & grand from the abruptness  
of the hills & their shores the high peaks of Mount & the rugged snow  
clad pinnacles of Herschell Id. The whole weather shore of Horn Id  
is remarkably bold & stern presenting black escarpments to the sea  
with the curious cliff rock at its N. extremity. Dutch Id too is black  
steep & abrupt on all sides in the position of the entrance to St. Martin's bay

more bluff & forbidding than any part of the coast with water just  
 seen - it is a symmetrical cone of snow. The whole group is  
 indeed composed of the tops of the submerged benches there is no plain  
 surface any where. We had a dead beat to get up to the cone & as it  
 darkened a dense moist mist clothed the hills down to the water edge  
 rendering the scene very desolate & dreary - we however hit the mouth  
 of the cove & anchored in the most wild & desolate spot between two lofty  
 black cliffs. Not 1/2 a mile around covered with patches of snow where  
 the were enveloped in mist & which hung between the ship & rocks adding  
 mystery to the gloom. Soon after the mist fell in the form of heavy snow  
 drops of sleet & then cleared up. The night is calm & the sound of the surf  
 beating on the windward parts of the led very distinct.

20th. Early this morning the Captain went to the head of the cove to see whether  
 it was a fit place for the ships & observations. The natives of whom there  
 were 5, all male, the women were probably sent into the bush, came down &  
 were very friendly - warped the ship up & anchored her close to the head. The  
 day was fine. The scenery of the cove is the most romantic I ever saw & at  
 the same time the most impracticable for walking. The mountains rise  
 abruptly out of the water in a succession of steep precipitous benches & cliffs  
 to the height of 1000 ft presenting a grand amphitheatre of jagged cones & peaks  
 covered with snow up the top & for 1/2 way up clothed with the densest matting  
 of flat topped stag headed beech trees of a lively green color with here & there  
 masses of the purple leaved deciduous beech forming a vivid contrast to  
 the other. A wilder spot I never saw closely resembling the Trappes & many  
 of the usages of the Chyde, Lush Long & the Duke of Angles bushing green for instance  
 The upward air currents of which there are many entering the sea by narrow  
 clefts - the rock are only visible on the hill sides by the dripping of  
 the sand & the white trunks of the exposed trees. The beach consists of a  
 narrow belt of rocks too narrow & steep for a continuous path. Covered  
 with Lichen & green & yellow tufts of moss & mushroom plants. Snow

showers or sleet & mist are common & come rolling down from the peaks above whilst the cloud of black overhead contrast strongly with the blue sky & brightness in the bay outside - The Fuegians have been watching us all day & one fellow has been on the rocks opposite to us hollering & signalling for us to come ashore with a plaintive voice. Gannerschoner (said Darwin) was the only word they used when Perosall brought me a piece of a bush which I at once recognized to be the Geranium decaisnati. This Cove is more still than any I have ever seen, nothing of animal life is to be seen but a solitary steamer duck shag or gull & sometimes a Caracara hawk overhead. The kelp along shore is not abundant & more yellow than the Perosall generally is.

21<sup>st</sup>

The natives of course attracted our attention before any thing else. They appear a very singular people & probably are confined to the shores of these Islands as the Fuegians are said to live in separate tribes at variance with one another. Their appearance quite conforms to the recorded description of the land & latitude they inhabit visited by few ships & cut off from any communication with the other land & apparently driven to the most remote & unpropitious part of the large American continent. The women of whom there are two are hardly to be seen but the men are all day swimming about the beach sometimes up to their middle in water knocking seaweed from the rocks & casting them ashore some are entirely naked & others wear at most a short skin thorn across the shoulders. The men are broad shouldered with long spare muscular arms & legs, the latter almost without valves like the nation of Antarctica. Their chests are flat as are their faces with high square cheek bones flat thick lips & nostrils large mouths & small eyes - The hair is long & dishevelled cut only over the eyes on the forehead often powdered with wet or dry shell or wood ashes as are their bodies some times. They smile & look pleasant on us pointing to any article they want & uttering their tire some Gannerschoner or "give me" as Darwin says. Their carriage is erect but they walk over the creased beaches with more

difficulty than I should have expected after using a stick. Their houses  
 or wigwags are of the most wretched description circular or hemispherical  
 about 5 ft high & as much in diameter formed of sticks stuck in the  
 ground brought together at the top & covered with branches of the  
 evergreen which from their position with the purpose well. Their  
 domestic articles are very few & confined to a small drinking cup made  
 of the flat root of a species of Laminaria - baskets woven out of a  
 species of Juncus or rather Spears of two kinds, one short  
 formed out of some red wood elastic & filled with a bone head & one  
 barbed out with the head which is rather blunt. Others are much larger  
 12 ft long taper at both ends & with the head loosely fitted to the shaft  
 to which it is further fastened by a long thong of seal skin so that on the  
 animals being struck the head is left in the body & the floating of so  
 large a piece of wood doubtless hinders the escape of their prey by  
 encumbering its motions in the water - one had a necklace formed of  
 a few small shells & except clay on our arrival they had no other ornament  
 Their canoes are singular & very clumsy. The one we saw was flat bottomed  
 about 15 ft long & 3 of beam formed of long pulled branches tied to an  
 immense quantity of closely set timbers of the same sort of wood but more  
 slender outside of all pieces of bark are sewn to the wooden frame work  
 the bottom is strengthened by many layers of bark & clay - It was a  
 perfect contrast to a little cockle shell of the Indians formed of cow hides  
 lying on the beach which they examined apparently without at all  
 appreciating its superiority - Their language is guttural & their utterance  
 is inexpressible in the least degree but their powers of imitation both  
 of sound & action proportionally good - They repeat with accuracy our  
 English phrases & one of them imitated one of our party singing & jumping  
 "Jim Crow" most admirably - The men are not very dirty except about the  
 hair which is oiled with their mud & by reason of this climate it is diffi-  
 cult to conceive how they could be dirty - The women are much shorter



I more plastered with clay &c. but they leave all the cooking & other work to do. The children are little pot bellied creatures of a similar color to their parents which is of a light coppery black, rather lighter than the New Zealanders. - The disease was seen among them. Both Buddell & Darwin give excellent accounts of these people though I prefer the plain statement of the former to the eloquent picture of humiliating slavery which the latter paints. As we they did not appear so very miserable or rather it was evident that they could neither know their own inferiority nor appreciate our superior mode of life. - Hanger must be anxious to find them in the winter season when fish are scarce. - Shell fish are probably a staple article of food & their hardy habits enable the poor women to remain in the water at 30 quite naked & up to their middles & wading about in snow equals to collect small limpets & other shell fish for their husbands as I the other day saw. - A curious Puffin with a laterally compressed bill was picked up dead floating to day with a spear hole through its sternum.

Another party of natives in a canoe 3 men, 2 women & 2 children arrived they were similar to the others & at noon all the natives left. Very fine weather all day with light winds - Went ashore the first thing in the morning found the *Macrocystis* in some places very dense but not abundant. Stalks are broader & more heart shaped at the base than in the *persea* the blades too a different shape - A very large *Laminaria* was seen, very abundant with the *Derrillia*? It is of the leaf broad sort of the *Laminaria* that the natives make their drinking cups. - The beach is very rocky at the head of the harbor is a beach of large rounded pebbles of greenstone. The woods of the *Fagus sylvatica* descend close to the water side often with fine yellow tufts of the *Microcladus punctulata* *Picea* growing on them now with flowers. - The woods are composed of a narrow strip of a red & stunted *Myrica* bush with here & there a much larger *Salix* bushes on which leaves are not yet developed. - Remnant than the beautiful

*Winters aromatica* with large green glaucous underside leaves & the *Leucis glaucifolia* are very common. Close to the sea the *Spinus celleri* is very common & with very much more succulent than in the Falklands. Several other maritime plants I left for a future occasion & after visiting the site of Capt. Forster's observatories & numerous excursions made through the bush where the whole of the common *Juniperus communis* grows & plunged into the wood which is not much so dense as it appears especially along the watercourses where the trees are larger. The *Arbutus unio* grows in a very old & respectable underwood every where but very pretty to look at. *Prospis pinguicula* & *Wolffia lichen* abound & in particular handsome especially the *Leptostemon Chenzieri* & some *Phle* which form large & conspicuous features in the woods. All these transition & contact regions where the climate is uniformly damp & not subject to extremes of heat & cold seem very rich in aquatic forms of species of lichens *Prospis* & algae. I suspect however that species are more abundant in the zones which experience especially of temperature differ more from the mean. Ferns were much more common than I expected a *Hypnum phlegmarium* & the *Saxifraga* had the common species & a little *Asplenium*. Perhaps the *Myriophyllum* were the most abundant with the former especially - they however hold here certainly an inferior place in comparison to other orders than in the Falkland Isles. *Juniper* also are scarce & scarcely from the sea for I saw no *Juniperus* at all but a solitary *Androsida* amongst the *Juniper*. Ascended Katus Peak by a ravine to the Southward amongst some very large trees of the *Saxifraga* bush about 30-40 ft high with trunks 1 1/2 ft in diameter amongst them the deciduous bush attained rather a greater height & a stem of 3-4 ft. though such trees in general were particularly scarce. This *Saxifraga* bush ascends on the S. side of the cone to the height of 1000 ft. & forms from the level of the sea to that height a broad belt of dark but vivid green & containing a very similar vegetation throughout above it is a belt of the deciduous *Saxifraga* bush around a tree of some size for 2-300 ft more & as an



under shrub for 50 or 600 - It branches more from the base & has more  
spread for its limbs than the evergreen & with it a lower more  
open country with a remarkable quantity of small hardy <sup>terrestrial</sup>  
alpine plants, some such as are not found amongst the <sup>ever</sup> green  
forests. The snow lay around until, all under the branches, the  
occasional herb in one continued patch out of which the trees appeared  
to spring. & one which the walking was easy though there were  
many insidious holes & round the roots or trunks of the trees was  
a narrow clear melted space - There was however a rare sight to see  
the limbs of these trees covered with such sheets & masses such as  
large broad tufts of the *Lepta* mosses & *Luzula* *Japonesica* growing  
over snow of several feet deep - a growth answering to our *Moss*  
in the middle of Scotland. As the woods gradually diminished in size  
the *Adiantum* mosses etc. disappeared & nothing but rocks & *Heaven*  
step covered with snow appeared yielding a new flora especially  
of *Mosses* & *Lichens* the beautiful *Usnea* *melanocentra* & *various*  
*Dicranum* *Trichostema* *Lepta* etc. etc. well known forms of *Cryptogams*  
were common under a cold & exposed climate - a few tufts of yellow  
grass & such few hardy perennial plants & cold succulent in winter  
snow were the only Phanerogamic plants except hard tufts of *Heaven*  
& *Viola* & *Calluna* which appeared new forms of the well known *Viola*  
especially made for uniformly cold & low trees than *Calluna*  
at the wood the top of *Heaven* Peak rises a regular cone with  
a cliff on the S.W. side all was covered with snow but the *Heaven*  
from where first the sun had just reached it - where still the *Usnea*  
*melanocentra* was the boldest plant - all the summit is composed of  
a beautiful close grained trap with here & there obscure patches of a  
*Columnaria* form - King calls the rock.  
At the top I made a collection of all the plants found within a few hundred  
feet of the actual summit - It seems there was probably saved by the *Moss*



sheltered as tropical amount & variety of species, it appears vastly superior to the various Pine wood & Birch groves of Europe & Asia, but does not contain the *Trientalis*, <sup>*Pyrola*</sup> the *Linnaea*, *Silene* of various species *Prunella*, & the beautiful *Berberis* - Nor is there the variety of foliage of the Alder, Salix, Poplar, oak, ash, Mountain ash. Still less do the plains contain the Saxifrage *Primula* nor any thing to be compared with them, or the sea coast the *Trifolium* *Compositae* & *Lettingia* *perennans* & least of all the alpine rocks, present the beauties of the *Veronica*, *Dra. ca.*, *Erigeron*, *Myosotis* or *Saxifrage* - The beauty of these woods is deceptive from being truly disappointing to a lover of flowers, it is however most singular, peculiarly adapted to a uniformly cold & wet climate which has no analogy in the northern regions although the mean annual temperature is . . . & that of Siberia. The *Teal* wood here can only be compared to the Birch of that climate, this is beyond the limits of the *Arctic* of N. America, or that of the Pines of Asia or as the *Bankland* *Bell* are of the *Polynesian* of New Zealand, they are eminently northern climates especially with regard to vegetation though considering the methods to which some of the plants belong it is difficult to assign to them so harsh a name.

- 23<sup>d</sup>. Employed arranging my collection & was gratified with the number of *Erythronium* especially of *roseum*. Received a *Hesperis*.
- 24<sup>d</sup>. This afternoon went ashore to walk along the S. beach opposite the ship but found the travelling very difficult along the woods & more so on the rocky beach which was frequently interrupted by deep pools with water currents descending from *Kater's* peak. Found the *Falsh. Bell. Negamia* growing in the woods the *Cacalia* *serotina* & some *Asplenium* on the rocks. Went on board the *Ferris*. A launch with 6 men 4 women & 4 children arrived in the morning & left the Cove in the afternoon proceeding to the hills at the head of the cove & then towards the open bay with a rushing sound & accompanying motion to intimate as if of towards *proceed*

that blowy weather was expected

29th Thursday. - I moved with Smith on the N. side of the harbor to  
 around Mt Foster a curious jagged peak with a bluff face facing to the  
 South. a low range of hills runs parallel to the Cove between it & the  
 high peak they are densely covered with the European bush which from  
 its South aspect is very small & stunted; at the height of 5-600 ft.  
 there is a broad valley amongst the hills with some Lakes & or rather  
 Mountain Tarns & a great deal of hard grey soil densely covered  
 with alpine plants such as *Cliffortia*. In water with the *Arctia Juncea*  
 & the beautiful *Donatia Magellanica*, *Myrica maritima*, *Geranium*  
*and* *Androsace* the *Junca* *magellanica* & similar plants. Some of the  
 European bush here here on the slender trees another species of *Junca*:  
 I found the *Arctia mucronata* with last year's flowers  
 under some snow with many *Junca* & Lichens on the boggy rocks  
 this part of Mt Foster is formed of a loosely crystallized but hard Wharfedale  
 rock whilst the summit perhaps 1600 ft high is composed of a very  
 compact close grained fine hard greenstone very magnetic but soon  
 losing that property, had a noble view all around from the top  
 where I spent some hours making a complete flora of the position -  
 Petermann gathered a little *Arctostaphylos* on the mountain rocks.

30th Friday. Botany in amongst the wood at the head of the Cove &  
 few could many new *Junca* especially the rock *Polytrichum*  
~~*clendrioides*~~ & a singular *Arctostaphylos* of a new form - On the deciduous bush  
 found a singular *Fungus* allied to *Chroocolla* (a *Dawson's* Edible *Fungus*)  
 which I have not seen, it was scarce - Many Lichens & *Fungi* *Junca*  
*and* *Androsace*. *Fungi* are not common nor have I seen any *perennial* ones -  
 On the rocks of the beach a little *Androsace* grows with a *Trichostema*, small  
 or *Androsace* & *Junca*

31st Saturday a very bad day with heavy billows & squalls of rain & fog.



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6th

Landed at the head of the cove & walked up the hill to the right which appears to rival Katus' Peak in height in the woods found the *Polytrichum* *deciduosum* sparingly in fruit & with 5 flowers by the side of a water course also the *Splachnum magellanicum* a very splendid moss growing on the fork of an old tree. There was much snow at the top of the hill where the rocks were covered with *Lind. sax.* & other mosses & all the other vegetation very backward. In some places the frost had detached large masses of the granite rock of many tons weight over the snow. This hill presents a narrow ridge at the top running N.E. & S.W. precipitous to the E. & sloping to the N.W. The horizon was very clear & the view good. descending the N.W. side found the whole hill side very barren formed of loose stones supporting very little vegetation & arranged in parallel ripples from the force of the gales. - a broad valley which I entered lead down to St. Joachim Bay, but the wood in it was so exceptionally dense that it took a long time to get down first through a belt of the deciduous beech & then through the ever green with an underwood of *Berberis* & *Pernettya*. Put up two wood cocks, of which a couple had lately been shot. Birds are however very scarce on the island especially the wood cocks & a Linn. a sp. of *Ceryle* of large size. Returned by the ridge at the head of the cove.

7th

A very bad day with rain & squalls. went ashore for earth & trees for Mr. Ward's case. The (comparatively) great many fine clays which we had had lately are causing the spring to advance. The lower twigs of the deciduous beech are turning green from the beautifully delicate plants leaves bursting through their bractea stipules & clippers a delightfully fragrant resinous odor. The evergreen beech begins to bud & the *Berberis ilicifolia* & *Wintera* to flower. The *Escallonia* leaves & the *Accense* & other small plants sprout. The grapes are very backward as are all the Procentria plants. One of the natives arrived with a small fur seal skin brought by Capt. Peck for a knife.

Saturday - A fine morning started with L. Smith & Abernethy for St. Joachim's cove. Ascend in the valley & crossing a large snow patch arrived at the ridge at the back of this cove which ridge looks towards Cape Spenser & St. Paulin Bay, but instead of descending at once through the wood we kept along the ridges to the S.W. where the walking was good over the snow & rocks which were almost bare of any vegetation but lichens wherever. Snow ever & really afforded the best shelter & soil the deciduous beech established itself & sent its prostrate branches far & wide. On the ridge picked up a good deal of rock ascending with an iron ore probably an arsenious sulphuret of iron from the fumes of garlic & Sulphur it gave off before the blow pipe leaving a red oxide of iron. The rock was an exceptionally hard trash of felspar with long crystals of hornblende which looked quite variegous from the metal whence the place was christened *il-dorado*. This rock did not attract the compass but some hard common tools made us clear a great deal of the close grained basalt of the mountains & Cape. Rep says the specimens have all a distinct Polarity. Descending towards a flat about 1/2 mile broad separating St. Paulin Bay from one entering from the S.W. & connecting Cape Spenser with the S.W. saw some natives near a hut who commenced firing. & came to meet us at a granite rock by which we set down. The flat sandy beach is covered with a Tritium some other grapes & the Celeri the rocks with a little Colobanthus, Plantago & the *Agave* filamentosa a *Procella* & some *Prosp.* on the cliffs the *Pteronia oblongata* formed a handsome shrub & below it the granite rocks which are of a dark red color were traversed by veins of a much closer grained granite. The natives were very inferior to those we saw & 2 boys one of the men was the same we had left at the cove this morning so that he had beaten us hollow in walking over. They readily smelt the traces which led to them & any thing said. We tried whether they would get along which they put in their mouths & like the *Leguminosae*



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until our backs were turned & then spat it out. Capt. Peep however  
thinks that they cultivate it for its abundance round their habi-  
tations it is however a plant always found of roots & the potatoes of man.  
Some of the bones of a whale were cast ashore on the beach but there  
were no seaweed & shells but the Macrocytis, Ballia & a large  
sphaerococcus. some good mops & a Pratia? grew on the sand  
On returning saw the natives go back towards their wigwams & were  
joined by 20 or 10 others amongst whom were two women with children  
on their backs. Found a small exalis probably the S. magellanica  
with smooth convex leaflets green even underneath it was very small  
& scarce & the taste most agreeably acid & sweet like a good currant tart.

12<sup>th</sup>. Saw the deciduous bush Fagus entoniata in full flower for the first  
time the flowers are small but pretty from the yellow & red anthers  
& burst out from the axles of the leaves before the latter are fully  
expanded. the odor is resinous but too strong to be agreeable. The  
inner bark of the Berberis chilensis yields an excellent golden yellow  
dye when rasped & a decoction made of it is strong clear bright &  
taken up at once by linen or cotton after being steeped in alum water  
The wood is very hard & handsome but splits in drying. the decoction  
smells strongly of roasting apples. The wood of the Wintonia is very  
white soft & brittle with a full pith it is something like deal & would  
probably do for turning wheels the microscope the woody tissue is  
glandular like the Drims of Hobart town & the Coniferae.

13<sup>th</sup>. Thursday. A very bad blowing & squally day. Went ashore in the afternoon  
when it began to snow & blow violently. Found a Prunum on some rocks

14. Friday. Landed on the S. side of the Cove & ascended the ridges at the side &  
back of Mt. Foster. collected many mops, a curious Leuca with an intricate  
calyptra a Scleroglia near Artemisia. At the back of Mt. Foster observed the  
trap to contain small horned lizards in skins who would not come out of a trap

color, descended to Deep Water Bay, which stands for Maxwell's harbor, found  
 the *Callitriche appendiculata* & another species in full flower, also a new *Acacia*  
 a *Dromera* & little *Pinguicula* very like the *Lusitanica* - a narrow neck  
 of land covered with huge masses of granite & trap divides Deep Water Bay  
 from the great N. bay. The country from exposure is quite bare of trees & the  
 rocks covered with Lichens - Large veins of white & pink colored Quartz are  
 very abundant traversing the trap & granite in all directions - I descended  
 through a scrub to the Bay where the rocks are steep & the beach rocks  
 covered with *Tussock grass* & the little Antarctic & alpine plant & *Psyllis*  
 the? ascended & when picking masses of a rock a rock eagle which I did  
 not see before took wing from a shelf rock 15 ft above my head - Capt. Cook  
 had seen one a few days before; he was of a dark color with a little grey on  
 the head & scapulars of the wings? - On these barren rocks found the alpine  
 plants to ascend much nearer the sea than they do in the sheltered  
 sides of St. Martin's cove - On a mass of rock about 50 ft above the sea on  
 the rock above mentioned found a *Psocella* which is strictly maritime  
 at the Falklands & at St. Paul's Bay. Shrubs grow on the larger rocks  
 does this argue for the elevation of the land, it was slightly altered in form  
 crested over the N. bay over a flat ground covered with a dense matting of  
 the brilliant green *Donatia* & the yellow *Callitriche* & *Arctostaphylos* with other  
 marsh plants found all this, the E. part of the bay formed of granite of  
 a fine close grain very white speckled black with mica & especially  
 hard & durable, besides the vast area of the rock in situ there were many  
 huge boulders of it scattered about or piled on one another like druidical  
 stones - The beach was formed of large round pebbles of granite & numerous  
 veins of Quartz some 1-2 ft. broad traversed the rock in all directions  
 lead calery was common but small with the *Tussock grass*. - Occasionally  
 situated bushes of the honey-suckle bush. A smaller entire leaved *Perberis* is  
 common on the N. side of the Island. - Obtained by the cargo of Capt. Foster.

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15<sup>th</sup>

Saturday - Started by the same route as yesterday for Maxwell's harbour at the N.E. extremity of the Island. That part of the hills consists of a broad neck of granite of various kinds dipping into or meeting the trap of Out-Foster & also that of the Hill. The land is flat very barren dry & seems arkably like the flanks of Ben Mac Duich, the appearance of the land covered with boulders of granite is no less peculiar than characteristic of that formation. Found a beautiful Carabus on the ground something like intermedius insects are however very scarce consisting of most Carabidae one or two Staphylin. several Curculionid. & Heteromera. - The Carabus & a large Curculio are the only ones of any size - Maxwell's harbour which we did not reach under a good 4 hours walk consists of an indentation of the land about of a semi-circle of 3 hills. Maxwell hill, Saddle hill & Jordan hill. The latter large with a mountain on it. All are composed of a Syenitic granite more or less full of mica. There is a narrow beach passage between Jordan hill & the main running N.W. the principal entrance is between Saddle & Maxwell hills open to the E. & about 1/2 mile to Wellaston hill where the high mountains of Out-Hill & Mendall's Peak are very conspicuous. From their rugged forms they probably are traps. - There are some huts at this harbour with a track running over to the N.W. Hill but we did not see them - Snowed hard on our return which rendered the walk over the hills & through the snow very especially disagreeable. -

12<sup>th</sup>

19<sup>th</sup>

Sunday (Even. day). Exceptionally bad weather with furious winds & storms of snow & hail. I hardly think these equals equal the King William land one certainly not in duration. The barometer lower than ever it has done in harbor with us at 11 AM. 20.252. The squall lasted with violence until the

13<sup>th</sup>

20<sup>th</sup>

moderating about seven after the most violent storm we have ever witnessed here.

14<sup>th</sup>

19<sup>th</sup>

Barom at 11 AM. 20.252. Low. The lowest we have seen in harbor.

19<sup>th</sup>

Even day commenced at 5 PM. very bad weather (vid. ante)

20<sup>th</sup>

or broad backing Barometric day is especially stormy.

Friday, went ashore early, & went on side of the harbor & entered many coves on the banks of a deep gully descending from Kater's Peak. Got my hand & got back with some difficulty.

The latter part of this month has been very different from the first from the very bad weather which has covered the hills so completely with snow as they were on our first arrival. The trees even show it off but on the stunted evergreens above & all the summits above 900-1000 ft are entirely covered. As yet however the grass & other delicate plants have hardly shown any signs of life - the deciduous bush is covered with small blossoms & beautiful leaves - which burst forth first before this bad weather with a sudden & unexpected energy. The proper seem here to be the earliest harbinger of Spring with the Evergreen bush, Barberry & Winter bark. The *Acacia* & various composite plants begin to develop their leaves fully & the *Caltha* are in full flower. The *Monostylis* ones have yet appeared. The winter's bark appears to flower very rarely & very few flowers in the most exposed places. *Escallonia* buds & leaves. Some of the *Persea* or *Permittia* set forth more early of the Umbelliferae - but the *Celeri* which is perennially green & growing. The little *Haloragis* *Callitriche* like plants with young stems the *Barberry* *parvifolia* buds both leaf & flower.

All the sheltered parts of the island are covered with an abundant & dense vegetation of the Evergreen bush from 1-1000 ft. mixed with the Deciduous bush, Barberry & Winter bark none so abundant as the first - which forms the mass of the vegetation & the feature of the country, in flat places the Deciduous bush which is of exposure always pre dominates. The vegetation is always scanty on the weather parts of the hills & particularly on the granite formation above the Evergreen bush the deciduous forms a brown (in winter) belt of wood running round the harbors ascending about 200 ft as a tree of 6-8 in dbh & from that ascending as a bush shrub or straggling creeper to an alt. 1500 ft descending again over the weather side of the hills is a dense & impenetrable thicket of flat topped stay headed trees 2-6 feet high. All the weather side of Cape Spencer is coated with such a vegetation which from a dark red brown in winter turns to a kindly green in summer. In Hermit Island I can only define 3 regions of plants which from the nature of the land are almost necessarily analogous to parallel zones of elevation. The geological structure no further influences the vegetation than as I have above stated that all the



trap formation is naturally very fertile that the granite is so abundant  
 & the granite between the two. In no locality have I seen the geology so  
 intimately connected with the Palmyra than in this delicious tract of vegetation  
 I believe that here as in the Western Islands the trap really passes through  
 granite into granite basins intruding itself in veins through the latter  
 the hills about Bay wells & the harbors are numerous granite & very  
 bare of trees the ground being covered with *Junci* *callicia* *Dematiis* & other  
 The tract of land joining Cape Spencer with the main is composed of a very  
 soft granite full of *Quartz* & a flat sandy beach & except in certain  
 maritime plants (some succulent leaves are as active as their roots in  
 imbibing the moist sea air) the place is very barren. The West part  
 of Cape Spencer an granite & exposed to the full violence of the S.W. winds  
 & are only covered with a mat for I can compare it to nothing else  
 of the deciduous herb. Its top is covered with huge <sup>masses</sup> ~~trunks~~ of trap  
 granite with trap & granite & a colder or more barren spot I never  
 beheld. its altitude is about 1300 ft & it is hoary with the *Usnea* ~~algae~~  
 In all parts of the island as the chart shows the sea is always present  
 up into bays & from it the mountains spruce arise except on the granite  
 S.W. end at Maxwell harbor where features Botanical & Geological are  
 truly granitic none of the peaks which are generally of trap or very fine  
 closely grained granite or gneiss (except Cape Spencer) rise higher than Mt.  
 Water alt. 1750 ft. & ascending from the sea three regions present themselves  
 the Maritime, the wooded & the Alpine. All these regions are Antarctic  
 I mean by this that they present so many plants & forms found only at  
 the extremes of Southern vegetation though many plants of the transition  
 temperate regions of Patagonia & the straits of Magellan are also found  
 The test of the goodness of this division must lie in the comparison of it  
 with the similar regions in other & remote islands situated under the  
 same circumstances, as Auckland, Regent's Is. where I think a strong  
 analogy will be found besides an identity of genera & even species.  
 The maritime region consists chiefly of low rocky shores so steep & so densely wooded  
 down to the water that walking along is very difficult & often impossible from  
 the deep ravines & water courses for the mountains. There are many plants  
 peculiar to such situations & others common to the low sandy beaches which are

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extremely rare). The wild *Clematis*, *Acacia*, *Myrica*... *Halimolobos* - some *Groenlandia* various *Caryophyllaceae*, *Plantago*, *Ranunculus decussatus* & *Leptocarpus*? & other plants are strictly maritime in their habitats. Also the *Agave filamentosa* & *Procellaria* & other *Lichens*; *Orchidaceae* - *Grimmia* esp. & other *Mosses*. The *Viola* only, besides the most common coast plants even in the harbours, the flat & sandy only occur on the granite formation at St. Mary & St. John. They various *grasses* & a *Juniper* seen characteristic features.

The woody region is the most extensive & striking in all sheltered places it extend for the sea in dense forest to an altitude of 1000-1200 ft covering the faces of the steep hills with a dark green mantle only varied by jutting rocks or the brown winter leafless bushes of the *Deciduous* bush. The most common tree is the *Larix laricina* next the *F. antarctica*, next the *Wintergreen* *aromatica* & then the *Myrica* with an undershrub of *Pernetzia* & carpeting of *Mosses* & a tapestry of <sup>thin</sup> *Lichens* on the rocks banks & trunks of the trees with several beautiful species of *Ferns* in great abundance. The change of the season is here marked by the bare *Decid* bush bearing leaves in October & flowers in Nov. & by the golden yellow of large flowering bunches of the *Myrica* *peruviana* on the *Myrica* bush. The *Myrica* itself a very ugly bush is in full flower now & its petals are of a deep chrome yellow. The fragrance of the young leaves of the *D. bush* is very delightful & reminds one of the *Myrica* & *Likiep*. The real beauties of an *Arctic* forest lie in the lower orders of plants which cover a larger space of ground than the *Phanerogama* *Foliaceous Lichens* such as their maximum of dimensions especially the *Stictis* *aromatica*. The same may be said of the *Mosses* *Leptocarpus* - *Polytrichum* *sp. dendroideum* & various others. These produce a healthy & vigorous vegetation abundantly protecting several *Agrostophylla* which more covered by delicate *plants* *strigata* over the *Mosses* than grow amongst them. Other *Mosses* as the *Acrocladia* *sp.* have a glistening lustre on their dark green leaves strongly contrasting with the pale yellow of the *peruviana* *lamellata* often growing with it. Other plants peculiar to this region are the *Eschscholzia* *sp.* a small creeping & climbing *Crucifera*. *Asplenium* *fragillimum* *Lomaria* *sp.* &c. I have seen no *grasses* but the *Hieracium* but at this season it is impossible to determine. There are several *Compositae*, one



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pubescent or subarborescent precisely analogous to the *Polypodium*  
 in the Auckland, it is the *Chelidonium amelloides*. - it grows  
 from the sea to abt 600 ft. most abundantly in open wood wood.  
 The smaller herbaceous Composites are probably well known species  
 of Ferns one the *Stepania magellanica* (Pate's one of Gaud.) appears  
 a caulescent appearance in various shady places near the sea, the  
 other the *L. polytrichoides* grows but very sparingly both in wood of  
 the wood assuming a very different appearance according to the  
 habitat. A little *Polypodium* probably the Auckland one here as  
 there grows to a considerable size on the trunks of trees in the wood  
 & ascend the hills to their tops as a very juicy plant 4 species of  
*Symphyllum* are found most of them abundant especially  
 the *S. caespitosum* on the trunks of trees. Some of the trees in the  
 wood attain a greater diam. than 14 inches except in the deep  
 valleys where especially the *Prick. beech* assumes a large size as  
 much as 10-12 ft. girth such trees are generally rotten at the  
 heart & the wood is seldom straight or long enough for plank.  
 The *Winterana* is a handsome tree very unlike the *Guamania*  
 but much resembling the *Drisings* in its conical form. The leaves  
 are very handsome the fl. in conspicuous, the bark red inside  
 whitish outside very aromatic & soft. much attached by lichens  
 the wood white soft tough & flexible of no strength however, the natives  
 from its straightness use it for handles to their spears. The *Barbary*  
 is a straggling sparingly branching soft leafy evergreen, where fl.  
 are the prettiest on the Island & whose leaves sometimes turn of a  
 brilliant scarlet the wood is yellow, the bark much more so soft  
 & spongy & gives a good yellow color to sweet or bitter washed & eaten  
 its taste is like sour crab apples the other particularly so

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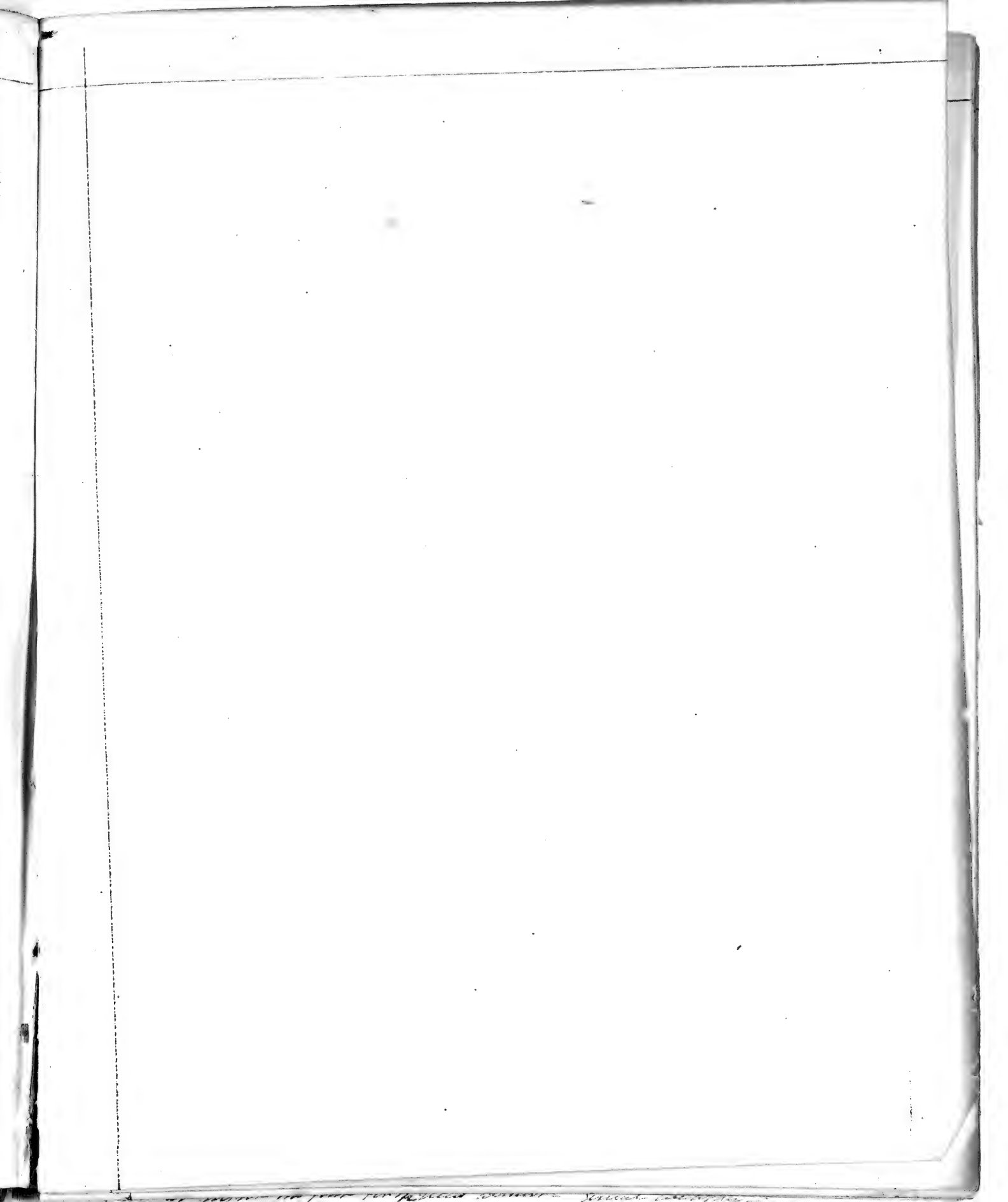
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from at present the first for the second element. Several are other



Dec 1842

7th  
Monday

At 4 AM unmoored & at 6 AM. Made sail down the Cove with a breeze from NW - SW. Stood camp at Francis Bay & by 10 AM the Horn was bearing N.W. 4 miles off. Saw the cairn erected on the top by the officers of the Peagle. Its surface looked greener than when we passed a month ago from the steep undulous beach ascending - Noon Lat. 55. 42. Long 66. 53.

8th

Lat. 55. 30 Long 64. 00. Air 39-42 1/2 Sea 45.5-42. Bar 29.543-203 Falling NW & N. breezes with rain all afternoon & night.

9th

Lat. 55. 58. Long 60. 40. Air 41-39. Sea 42. Bar. 29.104-464 rising North & N.W. breezes with rain all day, (making a bad passage) - Papered some scummed spotted fur pieces

10th

Lat. 55. 32. Long. 60. 52. Air 39-46 Sea 42-44. Bar. 29.404-857. Calms & variable wind with fine weather hardly making any way.

11th

Lat. 54. 24. Long 59. 55. Air 38-43.5. Sea 42-43.5. Bar. 29.860-30.077. Southerly & westerly breezes & fine weather. In afternoon & night soundings struck over a bank in 40-50 fathoms near Lieut Pennock rocks of the charts. All stones shells & coral. & with a nasty sea over it & cold with the S. wind.

12th

Lat. 52. 39. Long 58. 43. Air 40-46 Sea 43. 44. Bar. 30.113-29.906. SW wind & fine weather almost calm, sharp bank jells & other ice here sea foul. At 15 saw Peawhine. In the evening had a fine view of the Wickham Inlets from Port William to Port Lowe. At night bore to off the mouth of Berkeley Sound.

13th

Boatling up Berkeley Sound with foul winds freshening in the day time but fine. A Schooner off Bird Island signalled to us that 2 men of war had been in the harbor. Between Long head & Hog the Lark Island Whaler landed us in the Duff & told us that the Philonul had been there & gone down the coast surveying many bottles had arrived per Philonul. Princip Royal. Whitington's Schooner & Mr. Ashe. Princip's boat. Two Port's Boats & letters on new bottles & new salt Sausages. Blue looks consistently flat



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17<sup>th</sup>

At 4.30. Awe shot. weighed made sail - Fired a salute  
3 Guns in return to a salute from Mr Whittington's store, house. -  
Mr Cook Master of the Marianne came on board for surgical advice  
having the palm of his hand blown off by the bursting of a powder flask  
in firing a gun. - 8.30 bore up made all sail down the found.  
Smoke of our fire & others at Port William very remarkable  
obscuring the land. Strong haze lying low over the sea from the  
Evaporation of the sea water through the dry air brought from shore.  
The Dead Point - S. point of the Id. 61. 49. 12. at 3PM still off the  
land dist 20. 59. 49. W. Vahg. 59. 47. 3. - Steering for Clarence  
Is. to the East of the South Shetland

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10<sup>th</sup>

Lat. 52-54 Long 56-45. Air 60-46 Sea 48-45. Bar 29.447-298  
Wind variable & light all day. Wash night. Paper seaweed

19<sup>th</sup>

Lat. 54. 33 Long 56-1. Air 46-42 Sea 46-44. Bar 29.233-490  
S.W. wind (4-7) Fine weather but a heavy sea on Paper seaweed.

20<sup>th</sup>

Lat. 55-51. Long 54-42. Air 41-57. Sea 44-42. Bar 29.469-560.  
W. wind with mist in morning N.W. with rain all  
afternoon bright.

21<sup>st</sup>

Lat. 57. 4. Long 53. 22. Air ~~44-5~~<sup>43-36</sup> 41. Sea 41.5-30 Bar 29.572-213.  
N. wind drawing wind to W. in morning a heavy westerly gale in aft.  
Fading with thick weather & a high sea on

22<sup>nd</sup>

Lat. 58. 16 Long 52. 00. Air 39-34 Sea 38-34.5. Bar 29.303-699.  
Heavy gale continued in morning moderating during day with  
foggy weather & snow. Saw a Tern.

23<sup>rd</sup>

Lat. 59. 53 Long 51. 50. Air 38-34.5 Sea 35.5-33 Bar 29.798-500  
West wind clear in morning blowing fresh & thick in afternoon.

24<sup>th</sup>

Lat. 61. 23 Long 52. 19. Air 36.5-34. Sea 34-33 Bar 29.544-194.  
Westerly gale with fog. Off Clarence Id (Curville). Saw the first Berg &

a Chironis apparently the same as the Falkland. old species  
 Several Bergs not heavy nor square topped & some pieces of Bergs  
 very rotten were passed today - These Fog are very annoying.

25<sup>th</sup> Lat. 62° 14' Long 52° 5' - Air 35.5 - 20. Sea 34 - 30.5 Bar 29.430 - 290.

Winds SW & S. a hard gale in the morning misty with snow squalls.  
 Clearer but fiercer in the evening & night. Many Bergs & saw the  
 first white Petrel soon after passed through a stream of loose ice &  
 made a heavy pack to the S. The pack though very heavy is  
 formed of large rotten pieces of ice - The Bergs sometimes upset &  
 appear disappearing fast from the warmth of the water & the damp-  
 ness of the thick N.W. winds which have prevailed lately, they  
 assume as we proceed a more tabular form in all respects like  
 those of the Barrier.

27<sup>th</sup> Lat. 62. 10 Long 51. 57 - Air 32 - 37.5 Sea 33 - 34. Bar. 29.256 - 200.

N.W. westerly light winds & calms with very dense fogs, the air  
 saturated with the moisture condensed by the cold atmosphere  
 to the N. of the pack - Early this morning heard the surf beating  
 on the ice close to the ship but could see nothing of the Bergs.  
 At first I thought that the melting ice was the cause of much  
 of these fogs which we have always found more or less to prevail  
 about a degree or two to the North of the Parks & this may be  
 a part cause. The condensation of the vapor brought by the N. winds  
 which are incessantly charged with damp must be the chief agent.  
 The average temp. of the air for about 2° to N. of the pack during the  
 time the West & N.W. winds prevailed with the top was 33° 6' &  
 that of the sea 32° 2'. Hence not only does the sea give vapor itself  
 but the temp. of the air condenses the vapor brought south to its  
 influence. The temp. of the vapor here is about 32. Two degrees further  
 north 36 & 2 further still 40° - & not only does the temperature of

a lot of misty



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That the vapor decrease but the degree of moisture in the  
surrounding Atm. scale also rises - These Fogs lie very low  
& often fall instead of rising leaving the Zenith clear thus  
clinging to the cold water the upper part of the air is probably  
warmer regions having a greater tension.

(27th)

Lat 62. 31. Long 52. 36. Air 29. 33. 5. Sea 30-33. Bar 29. 330. 258.  
Westerly & NW winds with dense Fogs all day. Many birds & birds  
but none was to be seen in the morning tracked off & on it standing  
to the West all day to get in shore between Jack & Land

28th

Lat 62. 44. Long 53. 43. Air 37-32 Sea 34-32. Bar  
North & NW winds with snow & Fogs in the morning - In the  
evening more heavily & as it blew over the cold hills of Palment  
Louis Philippe Land being clearer weather. Birds & were in  
very numerous the former very large carrier birds - Many birds  
& Whales especially 2 small species with long dorsal fins, one  
rather larger than the other with fin also longer in proportion  
sticking high out of the water their color is dark with a broad  
white shoulder mark & another behind the head the blow hole  
is on the top of the head transverse like this the spout short  
thick steamy & upward. These species are very similar but are  
easily distinguishable by the length of the fin & they go in  
separate shoals. - The large finned whales are also very common  
but do not tumble so much like Dolphins as these smaller  
species do not go in more than couples. - between 2 & 3 PM  
Japed sawed twice apparently the common *Macrorhynchus* but  
in a remarkably high latitude especially with so many birds  
the fins were small & rather faded. At 6. 20 made the  
land the 4 tremes coast round by South to 586 S. with several birds  
off it. It terminated to the N. in a bluff cape nearly covered with

with snow many grants however & especially the outlying led were bare. The land is low rounded & not at all imposing though from the clearness of the evening we had an excellent view of it. A small led to the NW detached & high appears to be Hope led of the old charts rejected by the French charts though not far from Cape Fremoine. None of us ever saw so many large bays as there are here together, tabular chiefly, many 1-3 miles long perfectly blowing up the horizon. - Drifting at night to the East with 50 or 6 small led off the land on the starboard beam. The extent of coast seen tonight is from Lat. to

Many pieces of bay & pack ice had rocks periglacial & a few seals on them. Some of the pack pieces covered with reddish silt or earth apparently mixed with gravel. All day the washed pieces of pack ice have been stained with yellow caused doubtless by the Infusoria in the stomachs of the Salpa which are washed up against the ice & leave this stain (the same as last year). When the wind was light & the fog thins in the morning I recognize the animal smell very strong from the pack precisely similar to that of wash ice with the sulphur remains emitted last year by me in the Cabin. - Watched Hope led in evening -

29<sup>th</sup> Lat. 67. 40 Long 53. 42 - Dir 35.5 - 30.5 Sea 31.5 - 32. Mar.  
A steady wind in morning with Fog's Point SE & South in afternoon & night stronger generally with snow. Popping by & through much ice to the SE & coming to the pack was along it with a fine bay. Bays very numerous & large.

30<sup>th</sup> Lat. 63. 36 Long 54. 33 - Dir 32. 29.5 Sea 32. 31. Mar.  
Southerly strong breeze with a little snow in morning & clear cloudy weather. At 2.30 AM seeing that there was no hope of getting to the Southward by the East. we about ship about best lower cable



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1842.

& stood on for the land - which we made at 4 PM bearing  
from N.W. to S.W. It was to the S. & W. part of what we  
made before & consisted of a range of higher mountains in places  
perhaps 3000 ft. high covered with snow. The peaks had all the  
appearance of being of volcanic formation but we saw no jets  
a huge glacier perhaps 10-20 miles long stretched along one part  
of the range from 2/3 up the hills to the coast & was so uniform  
in level & surface that the hills appeared to rise out of it.  
At other places deep bights or straits bluff points black cliffs &c  
intervened but the scenery was an entire ground or striking  
one of several outlying islands was almost none of snow's had  
the most perfectly crater shaped form as have many of the peaks  
on the coast. Generally the hills are very bare of snow - we ran  
on to the South & W. along the park in our forward hand passing  
much ice more like the Southern than any thing our Arctic  
travellers had seen being more rotten & higher out of the water  
The bergs still steepen down sometimes falling to pieces. Many  
of the two kinds of whales mentioned above & a few Finners  
The birds are Cape, White, Stormy & ash colored Petrel occasion-  
ally a <sup>petrel</sup> giant, & Hawk gull. A small tern & Penguins of the  
kind caught last year small short beaked with a black throat  
& rather long tail & the giant King. - A few Shags of the 2d kind.  
31st. Lat. 65. 54 Long 55. 20. - Riv 20-40. Sea 32-33. Bar.  
Calms & light E & N.E. wind in the morning South & S.W. afternoon  
with very fine weather. Caugins the land on all night running  
& steering through openings in the ice to the South. In the  
morning the ice opening to the East by a tide or current  
as we <sup>stood</sup> ~~came on~~ to the East & S. In the afternoon made an island  
land to the S. & West. - The <sup>island</sup> had a peak of a water from  
exactly similar to that <sup>seen</sup> ~~passed~~ yesterday a little to the South

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Another flat led was to the West of it both covered quite bare  
of snow & the land trended to the East? for them doubtless  
going that we have left to the North - The mountains at the  
back were covered with snow & had a tabular form. There was  
much ice about the coast so that we put about at 4-30 & lay  
S.W. all the rest of the day with light winds many prodigious  
beries very stretched to the West from the western point of the land  
between which & us was much heavy pack ice. Many large  
beries were also about. A strong tide set us toward the South all  
the evening & night. - The S. & S. Southerly winds are cold but  
very dry & with fine clear weather. - The pack & bergs drift to  
the North very fast indeed.

1st

A very fine clear glass day.

Lat. 41. 14 Long 55. 54. Win 29-35 Sea 32-34. Bar

Westerly winds & cloudy in morning S.W. Valms in afternoon clear.

Able of this land which here appears to form a deep high cause or ledge  
full of ice generally packed with heavy bergs. The afternoon is the  
warmest I ever remember to have spent on the ice causing water  
to evaporate in steam visible from the black Gargways. - Through by  
my G.P. Thermometer - barometer & the French centigrade the temp was 32. The Dutch  
therm was 34. probably from radiation the G.P. was 7.5 degrees lower with  
a high air from S.W. Having shortened the bulb of the French centigrade  
it was from 2.00 to 37.2 =. Fair. The weather was pretty clear -  
Capt went on board Tern. The N.E. winds caused the ice to pack ahead  
at night ahead. - Dined in Cabin -

2d

Lat Long Win 29.5-42. Sea 31.5-34. Bar

N.E. winds & clear weather all day at night shifting to N.W. & coming  
on our coast blowing fresh - 27.7. 20.0. The ice closing in on us was  
made fast to a large piece of ice - These pieces are small bergs & heavier  
than those we made use of last year covered with large hummocks of

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& the surface after & is treacherous that one often sinks in up  
to the knees rendering walking very uncomfortable saw a very  
large white Petrel, nearly as large as the <sup>same seen last day in fact -</sup> ~~great~~ Petrel but white  
& precluded with dark wings the back. - Many Sooty terns large  
whales both Finnes & the 2 small kinds Leopard seals small &  
King Penguin white Petrel ash backed do - Herring gulls & ~~great~~ Petrel.  
- no Cape Pigeons. - Dived out a pair of each species of small  
birds very good indeed. Dined on board Tenor at 2.30 PM went off  
from the ice blowing fresh. Whilst waiting for the "Tenor" picked  
up 3 King Penguins one of 1/3 W. another - & 3/4 Long

3<sup>rd</sup> Lat. 64. 22. Long. 55. 26. Air 34.5 - 31.5 Sea 31. Bar  
NW NW gale all day (6.0) moderating at night with the wind  
shifting to SW & snow & misty snow all day. Snow to ice in open  
pool of water. had some present berries served out.

4<sup>th</sup> Lat. 64. 35 / Long 55. 41 - Air 30.5 - 28. Sea 30 - 35. Bar  
SW Wind & cloudy in the morning - SW in afternoon still haze on  
the horizon. A white Petrel flew aboard to night the first that  
has ever shown such confidence for which he was killed. -

5<sup>th</sup> Lat 64. 11. Long 55. 57. Air 30. 30. Sea 34.5 - 32. Bar  
SW NW wind glowing in the morning SW all in afternoon overcast  
rather a fine but gloomy day. - Feasting about in open pools &  
muzzling some way to the wind blowing in with the land at a  
deep light rather clear of ice the coast to the N of us is very  
free from snow both the northern shores are nearly covered  
A curious crater shaped hole seen on the 31<sup>st</sup>. Ice is now  
pretty close to windward of us.

6<sup>th</sup> Lat. Long. Air 31 - 45 Sea. 31 - 34. Bar  
Light NW wind & calm in the morning with beautiful view  
N. NW & NW in evening & night glowing & overcast.

At 9.30. Down cutter & landed on the conical island which has been  
 so long in sight its appearance is that of a truncated cone low  
 round & the slope at an angle of nearly  $90^\circ$  formed of loose stones  
 here & there lined with yellow red but otherwise of a uniform  
 pale brown very scoria ceous looking with few or no rocks cropping  
 out in valleys & only diversified by here & there the stones lying  
 in streams of larger masses the base is about as long as high.  
 on the top of this cone is placed a tabular mass of hard black  
 rock precipitous & of the same height all round resting uniformly  
 on the cone of stones with here & there a narrow gully on its  
 flanks its height is about of the base abruptly meeting it at  
 the base of the precipice but the upper edge  
 rather rounded or worn away the top is  
 perfectly level. The crater now extinct  
 rises from this tabular platform on

its western extremity is even beautifully cone shaped as seen  
 from S.E. round by E to N.E. from which points it appears to  
 rise from the very centre of the table land but from the N.W.  
 N.E. it shows on the side of the table land  
 & has a precipice communicating with  
 that above mentioned. The summit

of the crater is flat & horizontal but slightly jagged from a point  
 of view did we see an outlet if there be any it must be to the  
 S.W. its color is darker than the base but not so black as  
 the table its sides covered with stones & a very few rocks crop out  
 its apparent height 2 miles distant of the west of the island.  
 The computed diameter of the bed is its height. Its position  
 is in a narrow gully? Looking N. its shores on the south side  
 formed of steep cliffs & open valleys more or less covered with  
 numerous beds of sand except on the faces of the steep which





looking of these birds of which there were several things to show  
 as we drew near the cliffs of the hill appeared to decrease in  
 height & instead of being 4 miles off we pulled up in  
 discovering the heights & our traces - not being able to make out  
 with a glass any tinge of green on any part of the surface I  
 doubted whether any plants grew there my only obser-  
 vation being the orange red tint on some of the larger stones & always  
 on their upper surface which I thought was thus more likely  
 to be Lichen than oxide of Iron. The Penguins were all on  
 their nests or rather in crowds on the stony ledges they were of  
 the small Antarctic kind with the black throats & black  
 a brown down down which with the stretch of their strong was  
 almost insupportable a few laid eggs but the most had the  
 young bird covering between their legs as they bent forward  
 with open mouths streaming & creating at their apartments  
 holding their ground & pushing manfully. Many shags  
 also with their young were in small flocks amongst them  
 & would not be driven away. They are beautiful birds of a  
 large kind like the King shag the back beautifully rufous  
 with blue iridescence & a white band between the wings the  
 core round crown colored & golden yellow crest more ring of  
 the eyes prominent & bright blue - Iris yellow brown, Iris red.  
 bill dirty red sides of neck & whole of throat & belly white  
 is flesh colored. Their attitude was most amusing for they  
 showed their huge red mouths showing their black palates &  
 red jaws & with their large prominent eyes kept peeping  
 & wriggling their head in all directions like a woman trying  
 to peep over a child with ugly faces. Though the community  
 seems to amount in discrimination of both shags & Penguins



the latter will not allow their neighbours to walk through  
or park them - one stag when frightened or rather driven  
from its charge amongst the Penguins was killed at once by  
them & so are the young. - Passing through the Penguin  
covey, commenced ascending the hill side which is formed  
of small loose angular volcanic rocks of various sorts hard  
traps & granites, porphyritic & other basalts, slabs & micaceous  
lava all mixed together the latter containing chrysolite &  
muscovite? Thunbergite? & in some cavities of the harder  
trap what appeared to be Praxinite. - As the ascent was  
very steep we found it better to keep amongst the larger  
streams of stones which came down from the gully in the  
escarpment above & on them we saw Lichen's apparently the  
common Sarcocaulis Macleanii green in great abundance  
in dis criminating on all the kinds of rock - a little Ulex  
perhaps the U. crassa was also found in the spring as to  
spring amongst the large rocks also a few species of the  
Lichens. The day was fine the sun clear & very bright but  
the stones hot & very as pebbles so were the Lichens so in  
so much that it was difficult to get specimens as they slipped  
off with the blow of the hammer. Arriving at the cliff about  
300 ft up found it composed of a black slaty lava containing  
masses of all other lavas - differing in composition at every  
few yards - The softer parts were often worn away leaving  
little gullies generally lined with snow or ice or cavities  
occupied by the white petrel each of which has one eye about  
as large & like a Pigeon when approached their bill spit  
a quantity of oily red matter from the stomach 2 or 3 times  
running so neatly that they do not soil their cheeks with it

it being projected forward very clearly by the action of the  
 Pharyngeal muscles at the distance of a yard with tolerable ease,  
 the stuff is offensive (shrimps are their food). - They also work  
 a little. - ascending with members & legs by a short hand  
 or gully among the cliffs found it very difficult the larger  
 stones always going further. This was a loose gravel always  
 giving way under their feet & when it lay over a hard surface  
 it was like walking up a board covered with hard peas there  
 being no hold for the hands but here there the crumbling  
 rock of the cliff in a shaded hole facing the S.W. about  
 250 feet above the sea. where a boat of sea I took the S.W.  
 point & found the tent 40'. the D. 13' the nearer the sea  
 was approached the more the lamp fell but not the S.W.  
 a slight almost imperceptible breeze was blowing from S.W.  
 The stones were cold both very dry. the earth 4 or 2 inches under  
 neath very damp & so cold that I thought at a few more inches  
 it must be permanently frozen but I dared not push the  
 them down the stones were so shifting & the place awkward.  
 Its position when taken was about 3/4 from the sea & as much  
 from the sun (where it heat) on a stone about 2 ft above the others.  
 The difference at 9 AM was                      & at 3 PM.                      both taken on board  
 a little higher up we gained a sort of subterranean or overhanging  
 gully way up the cliffs full of loose stones with narrow precipitous  
 gullies from the cliffs above leading to others in that hollow &  
 forming shoots for stones to the sea below. The rock here was  
 harder & thought not so compact & a gully up which I went  
 a little way with a view to gain the top was formed of a sort  
 of compact perhaps frozen clay & rock. too smooth to afford  
 a good footing with sea in all the sheltered parts I doubt if

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I could have gained the tabular part had the work not  
been so up the side for all hands to go on board. The  
descending is much worse than the ascent - Found a  
*Calothrix* under a rock growing in half frozen water - on  
the beach found a species of *Dicranostelia* thrown up also a  
bleached *Sphaerococcus* & one specimen of the *Sphaerococcus*  
*bellatius*? Some pale greenish matter mixed with Penguins  
may prove to contain some referential matters & a *Protococcus*  
which I take to be the species of the blue. Mr  
Smith found some rock salt sparingly in crevices of the cliff  
far above the sea on the beach found a large *Chelidonium* thrown  
up. apparently the Falkland subspecies. The birds seen  
were the small Penguin, Cormorant, Shear, Herring gull,  
black backed gull, <sup>of Falkland</sup> *Chroicois*, white petrel, gigantic & stormy  
& ash backed do. Tern.

The piece of ice in the neighborhood of the led contained ice  
& there silt gravel & masses of rock from the led or coast  
land our time was so short that I had not time to look  
any further into the geology of the led but I have a piece of  
binary granite forming part of a fragment of a transverse  
block. From the ships the cliffs here & there just beneath  
on the edge of the table summit were apparently irregularly  
columnar as were some masses I met with. The whole led  
is most evidently of the result of some active volcanic agency.  
There is little sign of slow cooling about it except a few  
small rounded masses. It is a doubtful question whether  
the flow of this led be greater or smaller than was to have  
been expected? Scattered in the two hours 18 plants & we saw

suppose 20% to its maximum flow for more seaward we get  
quick & gradually decreases. There is more ice about it than its  
appearance from the sea would lead you to suppose for the gulches of the cliffs  
are lined with snow & ice covered with sand & dust & not to  
be distinguished from the cliffs till approached closely.

The position is such that very cold winds can blow on it  
without coming over a large portion of ice either of land or water  
& he may not always come from the S. below the freezing pt.  
again the S. wind being damp foggy weather, when the sun  
is obscured, & thin fogs eat the snow. if the winds are cold  
they are also clear & the snow power is unobscured - hence in  
high winds & calms the heat of the S. wind is (air temp. & S. wind)  
when strong though the temperature is lowered Evaporation is  
increased in force. Then comes evaporating though slight in the  
regions are the only antipodes to the unlimited number  
of rivers & the speedy formation of St. Rains which - further  
are aided necessarily where the sea is not permanently frozen  
has the advantage of the land whose map is. & the circular  
formation of the hills prevents a great deal of its <sup>uniform</sup> surface to  
the action of the sun during the S. wind & the fog during the  
north. Next to the nature of the rock itself there is a most  
powerful aid to the diffusion of heat the stones are loose &  
shifting & porous by nature these also of a dark color they may  
be supposed to contain a great deal of heat - to allow  
the melted snow above to remain <sup>open</sup> underneath them -  
& to prevent as bad conductors the cold from being radiated  
from below. Hence if the one hand this is an isolated spot  
surrounded on many sides by sea. Hence very unfavorable to  
vegetable life in general the advantage it is capable of having

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16

Every increment of heat the sun sends us as well as  
of retarding the radiation of its own cold offers a situation  
where a certain class of Vegetables can take root  
such the Lichens are known to be & the proper they have a  
life apparently independent of atmospheric changes & to a  
certain extent luxuriant more where the extremes are more  
marked in certain Latitudes they are more luxuriant according  
to the exposure. This is particularly the case in Cape Horn & the  
Falkland held up to a height of 1700 ft in still higher  
Latitudes <sup>or corresponding</sup> & lower temperatures probably this order is recorded  
for the Senecio melanocanthus though found at Decatur Hill  
does not inhabit Cape Popoquin on the main land (via Foster)  
nor do any of the Lichens now gathered become any thing  
materially above the crustaceous. Its abundance in the common  
way for the vitality of cryptogamic plants is supposed to be  
some it is attributed to their coriaceous texture but this  
will hold good with the delicate proper Calothrix Helve Lyman  
probably depends on their <sup>specific</sup> texture retaining & other  
chemical causes. - It must not be overlooked that several of  
the plants found here the Lecanora delata & Calothrix are  
only found near the sea in lower latitudes & do not ascend so  
high there as here. This invasion may depend on the analogous  
invasion of larger & smaller Lichens. The Lecidea delata was most  
luxuriant with the other Lichens at about 100 ft & ascended to  
300 more were seen near the beach of any kind. The number  
of seaweed & botanic bed seen more than that of terrestrial plants  
for the sea is full of sea & their forms are not likely to resist



the consequent battering but it must be remembered that it is always smooth water that their species containing salt water instead of fresh cannot freeze till the land be known that the lower water is warmer than the surface & that as soon as the surface freezes they are protected from any further cold. Still it does appear somewhat curious to me that they should be found in so precarious a situation in a sea of floating ice - where the rise & fall of the tide is not great & where the average of our temp<sup>s</sup> of the water was -

All that we saw of the beach was rocks & here & there sand & the sea black & deep green. It appeared low water as we showed off noon, if so the rise & fall must be trifling as the <sup>stones</sup> ~~rocks~~ a little above us was seen water worn or within tide reach. - The warmth & stillness almost amounting to a calm of the day seemed favorable to the Penguins which were jumping in & out of the water like Pike or salmon, in pursuit of food or for pleasure in some places the water splashed almost alive with them & from the hills the sight of them & the sparkling of the water was very pretty. The pleasant temperature of the day quite compensated for the sea scene all round. The Lab. of this hill is Long.

Several nodules of carbonate of lime? of a yellow color were pushed up who specimens from boulders of a very pretty rock composed of quartz mica & hornblende with no feldspar it very much resembled the rock of N.W. bay Hornet hill.



It was low water at about noon & all the afternoon the tide was setting up so strong that with a light N.W. wind the boats towing ahead we could not get to the East. but held our own abreast of the Sleds. At 4 PM we filled some away for the point of land to the S.E. of us & doubling a sort of cape ran to the S. along & quite close to the land which presents an extraordinary appearance as if formed of a sandy brown cold clay broken up into narrow slits of valleys which descend from an infinite number of craters all along the tops of the ridges. The cliffs on shore were steep & marked with black & narrow <sup>stratified</sup> horizontal lines. The snow lay in very narrow lines in these slits of valleys radiating from the top of each cone. I do not doubt the soil to be composed either of a porous volcanic clay or more probably of indurated scoria. There were no cliffs that appeared like rocks in situ or other than large volcanic boulders. - of the same color as the soil. No trace of vegetation to be seen with the glass when within 1/2 mile of shore. average altitude 400-600 ft? - we ran between the land & an immense chain of bergs between a very heavy pack was on our Port side. - the intervening channel narrow. land trending S.W.

7<sup>th</sup>  
Lat. 44. 34 Long. 57. 10. Air 35. 31. Sea 32. 30.5. Bar. 20. 635 - 829.  
N.W. wind in morning gradually & a little snow. S.W. & gloomy during the day. - Between the land & chains of bergs & ice early in the morning saw the pack running from the land at S.W. round by S. to E hauled to the wind on the Port tack. At 2.30 PM rounded a 10 fathoms small black stones here we were brought up amongst much small ice & many bergs between the pack & land. Tacking to keep the ship in open water all evening & night

8<sup>th</sup> Lat. 64. 35. Long 57. 27. Air 30-33. Sea 30.5-31. Mar. 28. 902-768.  
 E & N.E. light winds with heavy Fog & calms all morning & day  
 Keeping company with the Terror difficult by firing guns &  
 Patenarves' beating gong & bell &c - amongst many large bergs.  
 Tackling us necessary to keep ship in open water - 11 AM rounded  
 in 95 fathoms mud. In sailing drifting towards a large berg  
 close to us. Down boats to tow - a light breeze from W. filled  
 & ran through a very narrow channel between 2 large bergs  
 also towing - Fog all night.

9<sup>th</sup> Lat. 64. 44. Long 56. 53. Air 29-36. Sea 30-32. Mar.  
 Wind S.W. & S.W.W. morning with fog & snow. Calms & S.W. all  
 day gloomy & overcast. - N.E. & cloudy in afternoon & all night.  
 Saw some black backed gulls Early this morning the sea closed  
 in all round us both ships lying along side a floe. One led  
 bearing N. N.W. over the land dist. miles 11 AM rounded in  
 165 fathoms green mud. At noon cast off & endeavored to proceed  
 out of this place made fast again having only shifted our position  
 See moving some head to shift again the Terror fast to same place  
 Floe very numerous full of soft masses of half melted snow &  
 pools of melted ice - Picked some frozen mud & stones from the floe

10<sup>th</sup> Lat. 64. 43. Long 56. 50. Air 31-37. Sea 30.5-32. Mar.  
 E & N.E. & S.S. winds with Fog & snow all morning. Southward during the  
 day overcast. Calms at night. <sup>Ship's head</sup> Fast to a piece of ice drifting to  
 the northward. Over L.H. of land S. 87 W. ~~to~~ S.S.W.

11<sup>th</sup> Lat. 64. 42. Long 57. 6. Air 35-27.5 Sea 31.5-30. Mar.  
 E & S.W. winds overcast with Fog & snow all morning. Bound by  
 S to S.W. with much snow all day. Misty & N.W. at night.  
 11 AM cast off & ran E.N.W. all afternoon working to S.W. between  
 bergs & packs & the land in comparatively open water - The land  
 here is abruptly met by a barrier of ice smaller but very similar

to our Southern one. rising into low undulating hills. It meets the cliffs of the brown land described above abruptly in one place a ridge of the land runs through it. At night taking amongst large bergs along the barrier - These bergs do not belong to the Barrier being much higher than it is & a ground stretching the sea & holding the pack every where as far as the eye can reach

12<sup>th</sup> Lat. 64. 39 Long 57. 56. Air 32.5 - 25. Sea 29.5 - 31. Bar

SW winds (2-4) all day gloomy squally & snowing. Making hasty working or home to in a part all day amongst bergs & broken ice between the barrier & Pack

13<sup>th</sup> Lat. Long. Air 24. 32. Sea. 20 - 30.5. Bar.

SW winds cloudy but fine. all morning taking & working amongst heavy ice & bergs. In afternoon <sup>at 2.30</sup> tide took the ship into the lee sea - cleared by 5.30 by sweeping & a breeze springing up were enabled to keep clear - Down back all night to leeward - got into a fine piece of open water at 9.15 tide changed setting to S.W. It set NW. up along the barrier about base tide mark about 10 ft high to all appearance. Taking all night waiting for "Plover"

14<sup>th</sup> Lat. 64. 33. Long 57. 24. Air 34 - 24.5 Sea 32 - 30. Bar

SW winds gloomy with a little snow all day - Home to in morning then ran down to barrier found the ice close to the N of it & all round to S. & East. Capt. Craigie came on board. Finding it impossible to proceed down up ran to NE. attempting to get out of our confinement for we have seen what is by the sea coming up from South. & pushing against the land - sweeping & boring all afternoon & night both stumps fairly back & drifting either way with the tide - Ice very heavy of flow broken bergs & crushed packs ice.

15th

Lat. Long. An 23.5-33. Sea 30-32. Mon  
 NW. wind in morning NE. in day & afternoon fine & clear NE at  
 night cloudy - washing the NE in morning tide setting strong to  
 the East. got into a hole & drove to - 6 AM ice closing all round -  
 got hold of a flue & made fast - Terror fast to some piece - Ice close  
 all round at 10.45. Cast off & washed through the ice till  
 6 PM. then made fast again Terror fast to some piece at 9.30  
 tide turned & set to SE. The birds seen lately are those mentioned as  
 belonging to the Island with mainly a Cape Pigeon which are not common  
 near the thick every where inside the Parks & Gigantic but which  
 from sometimes having the neck head & shoulders quite white I am inclined  
 to think may not be specifically distinct from the scarce White large Petrel  
 altogether similar in habits but seen very rarely - Very seen drifting  
 from some

16th

Lat. Long. An 28-40 Sea 30-31. Mon. 29. 197-29.303.  
 NE. wind in former part of day crisy with much light snow - Scattered  
 but thick in latter part gloomy & a little snow at night. Ice closely packed  
 all round starting to the NE in the afternoon rounded in 6 PM green sand  
 on board Terror coming across at 10 PM the flue to which both ships  
 were fast split in three pieces & the chips were soon adrift unloosed  
 the hawsers with difficulty - Both ships made fast to the remaining  
 piece - 11.40 carried away on quarter - Ice close & heavy all night.  
 All the pack here is much more lumpy than what we have seen  
 and turned to - gradually approaching the land with the ice.

Lat. 34.22 Long 56.43. An 35-20.5. Sea 30-32. Mar. 29. 301-301+  
 NW & NE wind all day overcast & squally. - 2.30 AM. Ice opening to  
 NE. cast off & proceeded northward for about an hour when ice packed  
 close ahead & we beat about in an open pool between the land &  
 a chain of bergs at 7.50. - Then with Terror made fast to a piece of ice  
 at 8.30. rounded in 2.5 PM green wind ice all previous drifting to NE with  
 T. - 3.30 ice opening to North cast off stood in toward them washed  
 through lead & bore through heavy pack closed it at 7 PM & ran  
 about the end of the NE. The land as mentioned before is all



The color of a pale red brown color rather more snowy than when we  
passed it before the ridge formed of craters innumerable running N.E.  
& S.W. along the land. Some active... 7.30 abreast of Peak Island on  
South Peak when we landed it too is rather more snowy from  
recent falls. - At 11. Wind S.W.S. blew sharp up on starboard. Tack sailing  
amongst much loose heavy ice.

18th. Lat 63. 50. Long 54. 35. Air 30 - 26.5 Sea 32.5 - 31. Mar. 29. 350 - 197.  
Southerly & westerly winds all day generally gloomy but clear & fine  
with a little very light snow. Sailing to the N.W. East. all day amongst  
flat break ice. - Girdlight saw a star. - Many whales about  
South Peak is light all day.

19th. Lat. 64. 22. Long 54. 32. Air 25 - 29. Sea 31. 29.5 Mar. 29. 157 - 075.  
winds more from the South <sup>between</sup> S.E. with much snow but light & dry  
during the forenoon & afternoon - weather clear - always 40-50 fays in  
sight some days many more 80 - 130 & 140. some of immense size.  
Fishing about & hearing to see think all come to the South.  
As 100 miles of the Ice with the wind & current are supposed to pass  
to the South in one day it is to be hoped that it will soon drift  
past & allow us to proceed to the P.

20th. Lat. 64. 10. Long 55. 42. - Air 24 - 30. Sea 30 - 31.5. Mar. 29. 084 - 156.  
Southerly & S.W. winds in morning clear but cloudy. S.W. with a little  
snow in afternoon was clearing up shifting to S.E. South & S.E. Fishing  
& hearing to in readiness to pass in open water. Ice still close to the  
South. Many fays. Land & land nearly covered with snow.

21st. Lat. 64. 14. Long 55. 56. Air 25 - 29. Sea 30 - 32. Mar. 29. 167 - 205.  
winds between S & South & S.W. with gloomy cloudy weather & snow  
still making no progress to the South. Capt. Crozier came  
on board. 10.30 Sun sounded in 100 fathoms fine green mud.

22nd. Lat. 64. 12. Long 56. 10. Air 25 - 32. Sea 30 - 32. Mar.  
S.W. winds in morning fell calm & shifted to N.W. & then North.  
S.W. & N.E. in afternoon cloudy & equally strong wind

- 1<sup>st</sup> The Tide drove ship against the Ice and to lower the cutter & tow her off - How to backing & falling all day keeping the ship in clear water - making no progress.
- 23<sup>rd</sup> Lat. 64. 21. Long. 55. 47. Air 30-33 Sea 32. Barom. 29.071-012 - N & N.E. winds all day with gloomy weather & some snow in the afternoon & mist at night - How to backing & falling in holes of the Ice - Ice heavily packed all along to South & to East.
- 24<sup>th</sup> Lat. 64. 24. Long 55. 11. Air 33.5-29.5 Sea 32-31. Barom. 29.021-28.961. N.E. & E winds with heavy snow & Bar. falling all part of the day. S.W. by fresh breeze & snow with mist in after part. Ice still very close & heavy - Keeping in clear water all day - Now sounded in 105 fms green mud & stones. Current E 1/2 N. Magt. 0.5 per hour (S. 73 E. true) - Went on board the Tender - Lyall gave me a Sargassum picked up in Lat 63. on the South & what is the plant which I took for the Maracypis or Duck 28<sup>th</sup> - it is the plant mentioned by Webster in the appendix to Foster's Voyage as growing at Description Isld., S. Shetland. - Leaves pinnatifid obtuse plane as well as the stems. It was new to the Expedition though we have seen so many Sargassum in different Southern Lat & Long. - 8 P.M. cutter came for us & we returned.
- 25<sup>th</sup> Lat. 64. 15. Long 56. 0. Air 26.5-20. Sea 30-31. Barom. 28.974-070. Strong breeze from S.W. & S.W.W. Bar. cut & gloomy but fine & dry clear weather. Keeping in clear water all day working up to the pack edge.
- 26<sup>th</sup> Lat. 64. 4. Long 55. 41. Air 25.5-30.5 Sea 30-31. Bar. 28.935-29.077. - S.W. strong gale in morning cloudy but clear. Moderating in afternoon with wind shifting round to East by South. - Saw 4 Chironis - Tackling & heaving to all day in a hole of water making no progress - Many stars seen at night.
- 27<sup>th</sup> Lat. 64. 0. Long 55. 51. Air 25-33. Sea 29.5-31. Barom. 29.066. 043. 191. Partly S.W. light breeze all day cloudy & gloomy - Working all day to keep ship clear of Ice Tender heeled. - Keeping in clear water all day.
- 28<sup>th</sup> Lat. 64. 0. Long 55. 52. Air 27.5-33.5 Sea 29.5-31.5 Bar. 29.266-528. Southerly light wind & gloomy weather all day - Weathering about all day keeping ship in clear water. Now sounded on a small ledge & picked Sargassum of black off similar to the one of the land at present.



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29<sup>th</sup> Lat. 64.5. Long 55.54. Air 29.5-39 Sea 30.5-33 Bar. 29.513-684.  
Southerly wind & gloomy in morning shifting round by West to North  
& N.E. with clear weather - At 11 AM. Ice Baron very high <sup>29.616</sup> 29.610. -- Gale & Davis came on board in afternoon - All day  
keeping ship in clear water.

30<sup>th</sup> Lat. 64.9 Long 56.3 Air 29.5-36.5 Sea 32.5-30.5 Bar. 29.563-224  
Northerly & N.W. wind all morning squally - N.W. - N.W. N in afternoon  
misty. haze over the land. - Keeping ship in clear water all day  
Tomorrow we commence running to the land if we can get or trying it  
for 7 days to get in the parallel of 64 - to Weddell's track - If successful  
we bear up after that time & try it by the N.W. S.E. - Killed two  
gigantic Petrel at night both with white heads. One of them has  
the body spotted white. Evidently the large white Petrel mentioned  
above but not its fully white plumage.

31<sup>st</sup> Lat. 64.0 Long 53.10 Air 33.39 Sea 30.5-33 Bar. 29.219-28.955.  
Heavy N.W. gale all day. Misty but fine over head, blowing very hard  
in the squalls. Keeping ship in clear water all day.

Feb

1<sup>st</sup> Lat. 63.50 Long 55.20 Air 34.29.5 Sea 31.5-32 Bar. 28.952-29.310.  
N.W. gale in morning squally but clear. N.W. in day foggy & misty  
moderating with a little snow at night. Amoungst the ice off  
the land.

2<sup>nd</sup> Lat. 64.16 Long 55.22 Air 33.5-28.5 Sea 30.5-32 Bar. 29.321-593.  
N.W. wind with snow in morning clearing up during day with S.W.  
& partly wind gloomy weather. Still amongst the Pack trying to  
get to the land. - At 20 PM. got jammed in the ice a heavy stream  
at 10.30 cleared the ice by boring & crushing.

3<sup>rd</sup> Lat. 64.17 Long 54.40 Air 27.5-29.5 Sea 30-31 Bar. 29.597-508.  
Partly wind squally & misty with more or less snow all day very  
damp & blown fresh. - Still amongst the ice. Boring & hauling  
in a pool of water.

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4<sup>th</sup> Lat. 64. 10. Long 54. 47. Air 26-31. Sea 30-31.5. Bar. 29.495-339.  
SE by strong breezes with gloomy weather all day & a little snow  
Ab. 11.40 commenced running to the NE. through lead in the ice,  
before noon met a swell from the NE. Tacking & boring till 5.30 P.M.  
when we cleared the bore ice off the Pack edge. To Terror S.E.  
Running E. NE during night.

5<sup>th</sup> Lat. 63. 30. Long 52. 46. Air 30-32. Sea 31.5-33. Bar. 29.330-165.  
Easterly strong breezes all day gloomy all morning with snow all the  
rest of the day. In clear water with a heavy swell a few bergs  
about making an Easterly course along the Pack edge.

6<sup>th</sup> Lat. 63. 46. Long 52. 37. Air 32-30. Sea 32-31. Barom. 29. <sup>220</sup> ~~304~~ <sup>304</sup> ~~388~~  
Easterly wind all day overcast misty & foggy with snow all early  
morning - Bergs & heavy pieces of berg ice numerous - working all  
day to the east. At 1 P.M. discovered 400 fm. fine sand.

7<sup>th</sup> Lat. 64. 0. Long 51. 53. Air 30-32.5. Sea 31-32.5. Bar. 29.281-373.  
Easterly light wind all day with mist fog & snow - still beating  
to wind. Tacking off the Pack edge bergs & heavy berg ice about.

8<sup>th</sup> Lat. 63. 49. Long 51. 7. Air 31.5-33.5. Sea 32-33. Bar. 29.356-456.  
NE by light wind. Overcast misty & foggy with a little snow  
rain saw an Albatross besides other more Southern kinds -  
Working to the east off the Pack edge. At 2.30 P.M. tried for sounding  
with 1210 fm. line went on board Terror with Capt. returned  
at 9.45.

9<sup>th</sup> Lat. 64. 19. Long 50. 34. Air 35.5-30.5. Sea 31-32.5. Bar. 29.450-495.  
NE by wind gloomy & misty at times all morning Northwesterly cloudy  
& gloomy all afternoon but no snow all day - working to the east  
all day off & on the Pack.

10<sup>th</sup> Lat. 64. 31. Long 47. 44. Air 30-32.5. Sea 29.5-31. Bar. 29.451-228  
N & N.W. by wind all morning light with overcast gloomy weather  
N.W. to N.E. in afternoon with snow squalls, what may be a Land  
Blink was seen this morning. At noon it bore from SE - S by the S. blink

from SW to SE. -- Drifting along the pack edge - In the morning with  
 the wind at NW. - At 4 PM apparent land blink SW  $\frac{1}{2}$  E to  
 E  $\frac{1}{2}$  N. A cluster apparently of islands seen from mast head E  $\frac{1}{2}$  S.  
 All very doubtful indeed. - The Pack rather trend to the North  
 at 10 PM passed through a stream of ice to North of Pack. at 11 PM  
 ice thickening had to tack off the pack & stand to NW. We have  
 lately had our constant companions in greater or less abundance.  
 Petrel, Stormy, ash backed, blue, white, dusky, gigantic, Brown, & Black  
 Hawk Gulls & Tern occasionally. - Penguins of 2 kinds when among  
 the ice. Cape Pigeons abundant. Whales with Finners & spotted.

11<sup>th</sup> Lat. 64. 37. Long 45. 39. Air 31- 30.5 Sea. 30.5-29.5 Bar. 29.190-20.961.  
 Eastly wind all day gloomy misty or foggy, with snow snow & then  
 several bergs about. Near the Pack & sometimes in the loose ice  
 off it. We are today in the position of the Pack laid down by the  
 Frenchmen during their short attempt to join Weddell's track in  
 this Longitude & at 8 PM miles to the N of their furthest southerly  
 position in this meridian amongst loose ice ourselves. At 9 PM  
 tacked off the Pack. a strong appearance of Land SE  $\frac{1}{2}$  E.

12<sup>th</sup> Lat. 64. 39. Long 43. 56. Air 30-31.5 Sea 29-30.5 Bar. 28.980-29.199.  
 Wind SE all fore part of the day misty gloomy & some snow. - Eastly  
 all afternoon with much snow. Sailing through more or less loose  
 & berg ice all day with the Pack to the South of us at 1.30 PM  
 tried for soundings with 395 fm. At night faint communcations  
 of the Aurora.

13<sup>th</sup> Lat. 64. 56. Long 42. 59. Air 29.5-32.5. Sea. 31-29.5. Bar. 29.217-470.  
 Eastly & NE wind fore part of day gloomy with snow. At 8 PM afternoon  
 clearer but gloomy with but little snow. Bergs about. - Pack  
 trends on the E. S. of East. Keeping near it sometimes amongst  
 the loose ice off its edge. It was headquarters that we should  
 have expected clear water or at least but a very poor path line  
 in the Longitude of Weddell's track or rather between 40 to 50 N.

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- 14<sup>th</sup> Lat 65. 56. Long 41. 14. Air 30-35. E. Sea. 30-31. Bar. 29. 330-339.  
N & NE winds cloudy & gloomy with a little snow at night.  
The Easty winds have continued longer by far than ever we have  
known them in the Southern regions & have retarded our progress to  
the East very much in deed as our ships do not beat well. Ever  
since we bore up from the land we have hardly had a Stemsail  
set. - Pack trending still more to S of East we gained at what  
we thought for the lateness of the season & the due course the  
Pack keeps our further South Latitude all of
- 15<sup>th</sup> Lat. 64. 40. Long 39. 28. Air. 28-30. Sea 30-31. Barom. 29. 371-148.  
Winds Easty & to the S of East strong & equally & gloomy with a little  
snow. A few Bergs as usual about. - 5 AM strong appearance of  
Land S.E. - The Ice still thickening ahead we have to keep away  
to the N. towards where the French were puzzled by the pack  
in attempting Weddells down ward track - Sailing amongst Ice.
- 16<sup>th</sup> Lat. 63. 56. Long 38. 17. Air 28-30 Sea. 30.5-29. Bar 29. 160-283.  
SE winds & gloomy weather all day with a little snow in morning.  
Still off the Pack often among it low sea.
- 17<sup>th</sup> Lat. 63. 36. Long 35. 24. Air 27.5-29.5. Sea 29-30. Bar. 29. 362-268.  
SE & S.E winds with snow all afternoon & night overcast & gloomy  
standing to N.W. East of the pack amongst much heavy low sea  
in streams & pack.
- 18<sup>th</sup> Lat. 62. 39. Long 31-44. Air. 28.5-32. Sea. 30-30.5. Barom. 29. 295.-186.  
SE winds gloomy & cloudy with snow in morning many Bergs. About  
Pack edge. - at 10 PM Paped miles to the Southward of where the  
French made their first attempt at Weddells track & at the same  
have crossed Weddells own track on his North way off from 74-16.  
Are also we as the French have a fine pack which at this season  
with a considerable length of darkness at night cannot enter  
5.30. To Terson S.E.



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- 19<sup>th</sup> Lat. 62. <sup>16</sup> Long 29.0. Air 28-30. Sea 29-30. Barom. 29.225-253.  
 Slightly hazy all day gloomy & cloudy with a little snow.  
 Running along the Pack edge sometimes through streams of ice.
- 20<sup>th</sup> Lat. 61.59. Long 26.17. Air 32-28. Sea. 29-31. Barom. 29.255-377.  
 Wind variable in morning with snow & fog eastly & N. in day &  
 clearer. Still running along the Pack edge.
- 21<sup>st</sup> Lat. 61.51. Long 23.50. Air 29-32. Sea. 30-32. Barom. 29.357-527.  
 Strong S.E. wind equally misty & lowering Mergs & streams of ice  
 off the Pack.
- 22<sup>nd</sup> Lat. 61.37. Long 21.51. Air 29.5-31. Sea 32-30. Barom. 29.545-637.  
 Wind variable shifting from N.E. round by South to N.E. & N. Cloudy  
 weather with 1/2 hour snow in morning. Still off the Pack after  
 running through the streams of ice. At 1.30 P.M. tried the current  
 & found it setting N 60 E. (true) 0.4 per hour. Capt Crozier on board.
- 23<sup>rd</sup> Lat. 61.46. Long 19.58. Air 30.5-27. Sea 33-29.5 Barom 29.406-599.  
 Wind variable in morning misty with much snow & ice in after  
 part of day & night strong breeze with snow again at night.  
 Many Mergs but no fresh ice in sight to day. Running to the S.  
 all afternoon & night.
- 24<sup>th</sup> Lat. 62.26. Long 15.52. Air 27.5-31. Sea. 30-30.5 Bar. 29.702-527.  
 N.W. & Westly wind all day with clear but cloudy weather a  
 little snow the first thing in the morning. No Pack ice in sight  
 many Mergs standing to the South in a clear sea & level parallel  
 to Bellinghousens track in East.
- 25<sup>th</sup> Lat. 64.10. Long 14.19. Air 29.5-32. Sea. 30-31.5. Barom. 29.614  
 A heavy Northwesterly gale especially thick with snow & ice  
 The Bar fallen about 1 inch since last night at 9 P.M. to bring out a  
 11 P.M. As many Mergs are about this thick weather with a  
 heavy sea & gale of wind is very unpleasant hardly being able to  
 stay in the bay & total darkness at night.

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26<sup>th</sup> Lat. 64. 30. Long 12. 0. W. Air 32-35. Sea. 31-32.5. Barom. 29.604-435.  
Northerly winds moderating with much snow fog & mist, rain  
at times. Calm at mid night. A few Pterys seen but too thick  
to see any distance

27<sup>th</sup> Lat. 65. 12. Long 9. 55. W. Air 32-33. Sea. 31.5-32.5. Barom. 29.481-716.  
Calm in the morning SW & SSW winds all day with overcast cloudy  
weather & snow squalls. Many Pterys & dusky albatrosses  
Petrel are seldom seen but Dusky, black backed & sometimes large  
albatross all signs for open sea. Mid night a faint Aurora

28<sup>th</sup> Lat. 66. 1. Long 6. 53. W. Air 32-34. Sea. 32-33. Barom. 29.712-958.  
SW winds in morning with thick fog & snow. Southerly in after  
part of the day with thick weather & fog

March  
1<sup>st</sup> Lat. 67. 6 Long 8. 35. Air 32-33.5. Sea 32.5. 29.5. Barom. 29.957-29.118  
SE & SSE winds all day, cloudy & gloomy except during the forenoon when  
there was some blue sky - a faint Aurora in the morning & evening  
in a SW direction towards Wellington in the south. White Petrel  
are very seldom seen & no signs of pack ice but constant blinks which  
appear to arise from the sun when her being reflected on the banks  
of clouds on the horizon for we see with some fog with any pack.

2<sup>nd</sup> Lat. 68. 14 Long 12. 20. Air 36-38.5. Sea. 30-31.5. Barom. 29.089-217  
SE winds all the day, with fine blue sky & clear weather, variable times  
bright SSW & SW. gloomy & overcast. & white Petrel seen in morning  
a faint Aurora at night. No snow all day

3<sup>rd</sup> Lat. 68. 34. Long 12. 49. Air 38-39.5. Sea 31.5-32.5. Barom. 29.282-353.  
variable winds & Calms all day cloudy & gloomy. At 1.30 P.M. tried for soundings  
with 4000 fms line (no bottom) ran out very fast & for hours before it was  
all of the reel. Expended for the same, 1 mil 250 fms. 3/4 mil 3750 fms  
Ballast & figs. 1 cwt. Found the current running S 45 W (true) 0.3  
for hours. 2.20 made sail again. No snow all day.

4<sup>th</sup> Lat. 69. 26. Long 14. 29. Air 29-31.5. Sea. 30-31.5. Barom. 29.285-220.  
SW & SSW winds all day gloomy with a little snow. One white Petrel seen  
making a SW course.



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5th

Lat 71-10 Long 15-47. Air 31-29. Sea 32-30. Barom. 29.213-20.80.  
NE & NNE. wind all day with much snow & strong breeze all night. Many large pieces of Berg Ice & white Petrel about in the morning, at 0.30 am observed the Pack from NW & rounded by 1. to NW. Can along it to the SE. Large barrier Bergs becoming more numerous & larger as we proceeded at 2.35 Pack still extended to SW & very many Bergs about 3.30. running SSE through streams of ice. Pack becoming too heavy to proceed at 4. extending very close from NW to NE. Failed in our furthest search for this year 71. 30. - To Sever S.E.

6th

Lat 71-9. Long 15-29. Air 30-29. Sea. 30-31. Barom. 29.742-285.  
A heavy NE gale all day with thick fog & snow squalls impossible to see ahead. Heaving to windward to weather the pack which we do with ice but few pieces of ice. Heavy sea getting up, very unpleasant. Dark at 9 PM. & light again at 3.30 am. At 5 am wore off the Pack & stood to the East. carrying all part of sail at 4. to bore again off the pack & stood to North & NNE.

7th

Lat 70-36. Long 16-22. Air 30.5-28.5. Sea. 30.5-30. Barom. 29.790.  
to 29.098. A heavy continued SE gale very thick with snow & fog. cannot see for the thick part of the day. The length of time was suddenly fell nearly to a cabin at midn. a heavy sea. at 2.45 am showed an iceberg to wind. Standing to the N with a heavy part of canvas. The "Tow" much heaved. Picked many heavy pieces of Berg ice.

8th

Lat 70-28. Long 17-21. Air 30.5-27. Sea. 29.5-30.5. Barom. 29.125-271.  
NW & NNW. the first thing in the morning with snow & then fell calm again & we had a respite of our NE wind & strong breeze & 1/2 gale fell day very thick with mist & snow. Standing to the SE all day to make a leg of the pack

- 9<sup>th</sup> Lat. 69. 30. Long 15- 43. Air 25- 27. Sea. 29. 5- 30. Barom. 29. 310 - 134.  
An Easterly & E. by S breeze all day, squally, & thick with snow.  
Under a group of clouds standing to the N.W. <sup>then</sup> ~~summers~~ <sup>clear</sup> through  
3 Bergs at 1.30 Am.
- 10<sup>th</sup> Lat. 68. 6 Long 15- 20. Air 24.5- 20. Sea. 29. 5- 21. Bar. 29. 013- 135.  
S.W. had Gale gloomy squally with some showers moderating  
& clearing toward night - Many Bergs & Berg pieces. A single one  
of the Aurora at night.
- 11<sup>th</sup> Lat. 65. 56. Long. 13. 36. Air 27.5- 29.5. Sea. 30- 31. Barom. 29. 130- 28.  
S.W. strong breeze with a heavy swell. Carrying on to get out of this  
zone in afternoon & night - Squally, & gloomy all day, making -  
N.W. course. many Bergs &. Crossed the circle early, at 6 Am. -
- 12<sup>th</sup> Lat. 63. 57 Long. 15. 36. Air 29.5- 33. Sea. 31- 32. Barom. 28. 441- 29. 113.  
Easterly & N. strong breeze & squally with snow squalls all fore part of  
day. Drawing to the South & S.W. in afternoon clear. Making a  
rapid passage N.W. Bergs very numerous & often large.
- 13<sup>th</sup> Lat. 61. 34. Long 11. 33. Air 28.5- 31. Sea. 33.5- 30.5. Barom 29. 122- 481.  
Strong N.W. breeze squally & gloomy but clear weather with occasi-  
ally snow & hail showers. Bergs very numerous.
- 14<sup>th</sup> Lat. 59. 16 Long 9. 19. W. Air. 30- 28. Sea. 32- 31. Barom - 29. 460- 338.  
N.W. strong breeze overcast gloomy with occasional light snow showers  
Bergs up numerous some however very large & all well worked & a  
smooth & glazy appearance.
- 15<sup>th</sup> Lat. 57. 37. Long 7. 52. Air. 29- 28.5. Sea. 34.5- 34.5. Barom. 29. 653- 473  
N.W. wind in the morning moderating in afternoon round by West &  
then calm. N.E. W. in night - overcast & gloomy a very little snow  
in morning only 3 Bergs seen to day.
- 16<sup>th</sup> Lat. 57. 9. Long 7. 15. Air 29. 33.5. Sea. 32.5- 34. Barom. 29. 449- 268  
N.E. wind with snow all morning clearing up very fine & warm during  
the day. N.W. all afternoon & night. 5 Bergs. A shoal of porpoises. ~~Discovered~~  
Aurora at night the first for several months. Several icebergs.

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17<sup>th</sup> Lat 50. 30. S. Long E. 6. 10. Win 30.5-34. Sea 32.5-33.5. Bar 29. 284 - 287.

N.E. wind with thick weather & Snow in morning shifting to N.W. in the afternoon clearer but gloomy & cloudy, occasionally a little snow. Searching for the position assigned to Perrot Id. in Cape Circars. Lat 54. 12 S Long E. 6. Discovered in 1780 by Mousie's Frigate. Afterwards unsuccessfully sought for by Cook & Furness after their ships had separated. Said to have been seen (said Horsburgh) by the "Plover" & "Plover" two of Endeavour's ships sailing between the Cape of Good Hope, 5 miles long covered with Snow & inaccessible for several miles for fresh Sea in Dec. - Several Whales were washed.

18<sup>th</sup> Lat S. 55. 56. Long W. 14. 15. Win. 31-32. Sea - 34-33 Bar. 29. 265-262.

N.W. breeze gloomy with a little Snow in the morning, SE 4-5 with mist & fog & Snow in afternoon & night. A very few birds seen in the thick mists of the weather - Latets we have seen 2 or 3 of the most beautiful white gizzard Petrel.

19<sup>th</sup> Lat. 31. S. Long W. 2. 25. Win 32-34. Sea. 33.5-32. Bar. 29. 115-116.

Southerly gale with Snow showers nearly all day, gloomy & squally. Several Whales both in day & during the darkness with much loss of the crewing off them.

20<sup>th</sup> Lat S. 34. 7. Long of Greenwich. Win. 31.5-36. Sea 33-33.5. Bar. 29. 107-111.

Light variable wind slowly but clear in morning, (North by E. 11) & after part freshening into a gale. N.W. at night - very squally with Snow Sleet & Rain. A few Whales passed. Very dirty night.

21<sup>st</sup> Lat S. 34. 5. Long E. 3. 50. Win 34-33.5. Sea. 32-33.5. Bar. 29. 099-102.

Heavy N.W. gale misty & squally with Snow all fore part of day. Mostly calm but blowing as strong with a heavy Sea all after part several Whales seen.

22<sup>nd</sup> Lat 34. 11. S. Long E. 6. 1. Win. 35-32. Sea. 33.5 cloudy. Bar. 29. 7. 5. 100.

Very heavy Westerly & N.W. gale with a high sea - strong squalls with Snow Sleet & Rain - cloudy & misty about the supposed position of Perrot Id. but have seen nothing of it - no signs of Land - passed several Whales & species. A number of seals in black & brown Snow Squalls - in the white sea thick fog & a large piece of Snow ice & a brown smothered in part to be a dark grey to black. Snow in side the line of ice - P.S. Several seals seen near the supposed Cape & coming in at the mouth of the bay & passed the cables with the ship breaking over all.

9. Lat S. 52. 31. Long E. 8. 0. Air. 33-36. Sea 39.5-46. Bar. 29.118-699. -  
 Heavy misty gale all morning with snow & equally but clearer the  
 snow though invisible giving some light. Clearing up & after gust still  
 blowing very strong, swept several bergs - making a course for the Cape  
 & melted to the wind all night.
10. Lat S. 50. 10. Long E. 9. 15. Air. 34-38. Sea 36-38.5. Bar. 29.720-30.239.  
 Strong N.W. winds all day till 4 P.M. then more westerly evening to the  
 North rapidly. Picked 2 large patches of seaweed at 5 AM & 10 AM  
 one Laminaria the other supposed Mar crocylis - In the morning  
 picked much loose fragments scattered of sea & several bergs during  
 day cleared again at night & in afternoon.
11. Lat S. 47. 30. Long E. 10. 51. Air. 38-44. Sea 39-42.5. Bar. 30.223-362.  
 N.W. strong breezes all day equally but fine cloudy weather getting  
 more say fast. Picked a few bergs & sea fields - another patch of seaweed  
 this afternoon - more in morning in twilight. Logged 80 kts. at 2 P.M.  
 same to all night.
12. Lat 45-32 S. Long 11. 54 E. Air 42-47 Sea 42.5-46.5. Bar. 30.300-438.  
 N.W. steady & strong winds, overcast & gloomy - No more sea but several  
 patches of seaweed. Sea & air gradually increasing & Temp. for the morn-  
 ing in morning & may increase at midday. Wind falling light at  
 night.
13. Lat S. 43. 52. Long E. 13. 22. Air. 47.5-52.5 Sea 46-48.5. Bar.  
 Northerly guffling winds all day clear overhead but with a sort of  
 haze in the air where which is mostly loaded with moisture found  
 on warm clothing too hot & commenced clearing decks &c. - Capt.  
 & crew came on board a splendid night with most copious clear  
 weather every thing.
14. Lat S. 43. 10 Long E. 14. 44. Air 49.5-57. Sea 48.5-52.5. Bar.  
 Warm & fine with N.W. winds in morning shifting to N.W. in the  
 afternoon - clouds quite heavy & tropical but weather hazy &  
 loaded with moisture very heavy dew at night - A very singular  
 meteor has appeared in the sky with a tail that part was unclouded  
 for since the 21<sup>st</sup> appears like a single narrow beam of several light.  
 commencing a little below the 2 stars of Orion's shoulders & continuing  
 toward the horizon for about 20° in the same line as those stars light  
 rather intermitting but perhaps only from passing haze: beginning

