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Title: Journals of Two Expeditions of Discovery in North-West and Western Australia, Volume 1

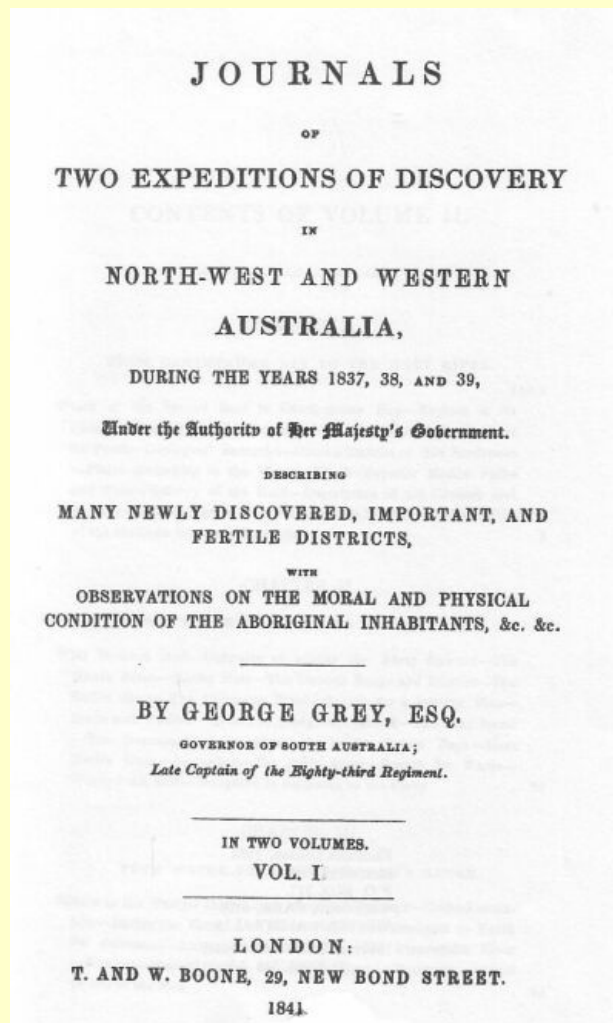
Author: Sir George Grey

Release date: June 9, 2005 [EBook #16027]
Most recently updated: December 14, 2020

Language: English

Credits: Produced by Sue Asscher and Col Choat

*** START OF THE PROJECT GUTENBERG EBOOK JOURNALS OF TWO EXPEDITIONS OF DISCOVERY IN NORTH-WEST AND WESTERN AUSTRALIA, VOLUME 1 ***



JOURNALS OF TWO EXPEDITIONS OF DISCOVERY IN NORTH-WEST AND WESTERN

**AUSTRALIA,
DURING THE YEARS 1837, 1838, AND 1839,**

Under the Authority of Her Majesty's Government.

**DESCRIBING
MANY NEWLY DISCOVERED, IMPORTANT, AND
FERTILE DISTRICTS,
WITH
OBSERVATIONS ON THE MORAL AND PHYSICAL
CONDITION OF THE ABORIGINAL INHABITANTS, ETC. ETC.**

BY GEORGE GREY, ESQUIRE.

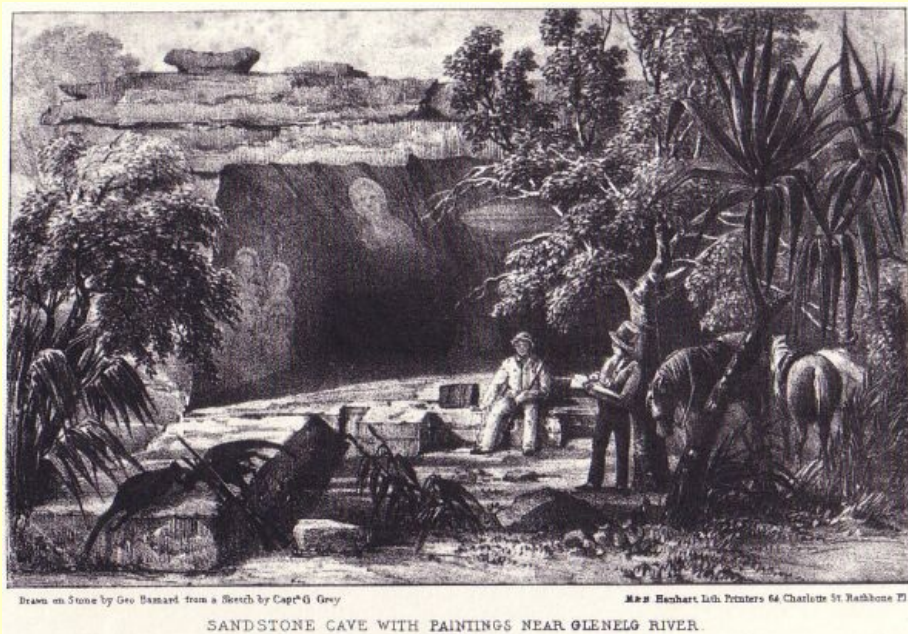
**GOVERNOR OF SOUTH AUSTRALIA;
Late Captain of the Eighty-third Regiment.**

IN TWO VOLUMES.

VOLUME 1.

**LONDON:
T. AND W. BOONE, 29 NEW BOND STREET.**

1841.



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DEDICATION.

TO
THE LORD GLENELG,
UNDER WHOSE AUSPICES,
AS PRINCIPAL SECRETARY OF STATE FOR THE COLONIES,
THE EXPEDITIONS
RECORDED IN THE FOLLOWING PAGES
WERE UNDERTAKEN,
THESE VOLUMES ARE RESPECTFULLY INSCRIBED,
IN GRATEFUL REMEMBRANCE
OF HIS ASSISTANCE, HIS COUNSELS, AND HIS KINDNESS,
IN HIS HIGH PUBLIC STATION,
AND
WITH A PROFOUND RESPECT
FOR
HIS PERSONAL AND DOMESTIC VIRTUES.

PREFACE.

The following pages contain the results of the author's travels and residence in the western parts

of Australia, between the years 1837 and 1840, during which period he traversed extensive regions unknown to the European traveller, and probably never before trodden by the foot of civilized man.

It is not alone with gratification of enlightened curiosity that the countries now first brought to notice are likely to be objects of interest. A knowledge of the districts lying between Swan River and Shark Bay cannot but be of importance to future colonists, whilst the intertropical provinces of the north-west coasts, distinguished as they are by important peculiarities both of character and position, are equally calculated to draw the attention of the literary and enterprising enquirer.

It only remains to state in a few words the circumstances under which this work is given to the public.

The author arrived in England in September, 1840, and was engaged in preparing his notes for publication when he was unexpectedly honoured with an appointment which re-called him to Australia in the month of December following.

Avocations both of a public and private nature arising out of that appointment prevented him from carrying his work through the press during the short period of his residence in this country, and consequently the final arrangement of the impression and the duties of typographical revision devolved on others.

Although no pains have been spared to render these volumes worthy of the public eye, the circumstances under which they appear will naturally occasion them to be marked by defects which, doubtless, would not have escaped the author's notice and correction had he been present.

It would be an act of injustice not to express here the obligations the author is under to Mr. J.E. Gray of the British Museum for his valuable assistance in whatever relates to natural history in the body of the work, as well as for the contributions in the same branch of science which will be found in the Appendix; nor are his thanks less due to Mr. Adam White for an interesting paper on the Entomology of Australia; and to Mr. Gould, who has lately visited that country, for his list of the Birds of the Western Coast.

JOURNALS OF EXPEDITIONS OF DISCOVERY.

CHAPTER 1. COMMENCEMENT OF THE EXPEDITION. TENERIFE.

GENERAL PLAN AND OBJECTS.

The Expeditions of which the results are narrated in the following pages took their origin from a proposition made to Government by myself, in conjunction with Lieutenant Lushington,* in the latter part of the year 1836.

(*Footnote. Now Captain Lushington of the 9th Foot.)

At that time a large portion of the western coast and interior of the great Australian continent had remained unvisited and unknown; whilst the opinions of the celebrated navigators Captains Dampier and King, connected with other circumstances, led to the inference, or at least the hope, that a great river, or water inlet, might be found to open out at some point on its western or north-western side; which had then been only partially surveyed from seaward.

DESIGN OF THE EXPEDITION.

Anxious to solve this interesting geographical problem, we addressed a letter to Lord Glenelg, the Secretary of State for the Colonies, wherein we offered our services to conduct an exploration from the Swan River to the northward, having regard to the direction of the coast, so as to intersect any considerable body of water connecting it with the interior; and, in the event of such being discovered, to extend our examination of it as far as circumstances might admit.

The letter containing this offer also enumerated several secondary objects, to which we proposed to direct our attention, and which were ultimately comprehended in our instructions.

The offer and suggestions were favourably entertained by Lord Glenelg, and further communications invited; and, the project having been favoured by the support of the Royal Geographical Society, our services were finally accepted by the Government.

INSTRUCTIONS.

More mature consideration however led to a material alteration in the first plan; for whilst our

principal object, namely, the search for a great river or interior inlet, remained the same, it was considered, for several reasons, more advisable that the exploration should commence from the vicinity of Prince Regent's River, on the north-west coast, and be directed towards the Swan. I shall pass over the various points of detail which occupied our time and attention until the moment of departure, as they offer no matters of general interest. It will be sufficient to say that everything suggested as likely to be conducive to the success and utility of the expedition was most liberally granted and supplied; and, when all was prepared, a letter of instructions dated the 16th June 1837 was addressed by Lord Glenelg to myself and Lieutenant Lushington conjointly; which embraced the following points:

1. We were to embark in H.M. sloop of war the Beagle, then fitting out for a survey of the coasts and seas of Australia, under the command of Captain Wickham, R.N.; and to proceed in that vessel either to the Cape of Good Hope or to Swan River, as might ultimately appear best suited to forward the objects of the expedition.

2. On our arrival at either of the foregoing places, we were directed to procure a small vessel to convey the party and stores to the most convenient point in the vicinity of Prince Regent's River.

3. After due examination of the country about Prince Regent's River we were instructed to take such a course as would lead us in the direction of the great opening behind Dampier's Land. From the moment of our arrival at this point our subsequent proceedings were left more discretionary; but the instructions continued: "You will use the utmost exertions to penetrate from thence to the Swan River; as, by adopting this course, you will proceed in a direction parallel to the unknown coast, and must necessarily cross every large river that flows from the interior towards that side of the continent."

4. That we might have an opportunity, in the event of any unforeseen difficulties occurring, of falling back upon the vessel conveying the party, she was not to quit the place where she might have been left by it until such a time had elapsed, from the departure of the expedition for the interior, as should be agreed upon; and, to ensure the observance of this condition, we were instructed to act by the advice of the local authorities of the colony where she might be engaged in drawing up the agreement, as well as in procuring guarantees for its fulfilment.

5. The main objects of the expedition were then specified to be: To gain information as to the real state of North-Western Australia, its resources, and the course and direction of its rivers and mountain ranges; to familiarize the natives with the British name and character; to search for and record all information regarding the natural productions of the country, and all details that might bear upon its capabilities for colonization or the reverse; and to collect specimens of its natural history.

6. It was directed that strict discipline should be observed, and the regulations by which our intercourse with the natives was to be governed were laid down; after which the instructions concluded with the following paragraphs:

No further detail has been given you in these instructions, for, as you have been made aware of the motives which have induced his Majesty's Government to send out the expedition, it is supposed each individual will do his utmost in his situation to carry these objects out, either by obtaining all possible information or by such other means as may be in his power.

Although the instructions regarding the expedition are addressed to you conjointly as conductors of it, it is necessary that the principal authority and direction should be vested in one individual, on whom the chief responsibility would rest.

It is to be understood that Lieutenant Grey, the senior military officer, is considered as commanding the party and the person by whose orders and instructions all individuals composing the party will be guided and conform.

1837.

All our preparations being completed, there embarked in the Beagle, besides myself and Mr. Lushington, Mr. Walker, a surgeon and naturalist, and Corporals Coles and Auger, Royal Sappers and Miners, who had volunteered their services; and we sailed from Plymouth on the 5th July 1837.

TENERIFE. AQUEDUCT AT SANTA CRUZ.

The usual incidents of a sea voyage brought us to Santa Cruz in Tenerife, where I landed on Wednesday 19th July 1837, about 2 o'clock in the afternoon. There was a sort of table d'hote at 3 o'clock at an hotel kept by an Englishman, at which I dined, and was fortunate in so doing as I met there a German and several English merchants who were principally engaged in the trade of the country. There was also a gentleman who had been from his earliest years in the African trade for gums, etc.; and he gave me many interesting particulars of the wild life the individuals so occupied are compelled to lead. In the afternoon I made a set of magnetic observations and then walked out to see the aqueduct; which at about three-quarters of a mile to the north-east of the town approaches it by a passage cut through a mountain. The execution of this work must have been attended with immense labour, for, although the design is grand and noble, the actual

plan upon which it has been completed was by no means well conceived. The average depth of this cut is at least one hundred and twenty feet, its length is about one hundred and eighty, whilst its breadth in many parts is not more than four.

Previously to the construction of this aqueduct the town of Santa Cruz was very badly supplied with water, indeed so much so that the inhabitants were, at some periods of the year, compelled to send upwards of three miles for it; but no want of this nature has ever been experienced since its completion. The expenses of its construction as also of keeping it in repair are principally defrayed by a tax upon all wine and spirits actually consumed in the town.

The scenery of the country I walked through was bold and romantic but by no means rich; fig-trees grew wild about the mountains, and it seemed singular that, whenever I approached one, the peasants on the adjacent hills shouted out in loud tones. As far as I could understand the guide, this was done to deter us from eating the fruits now just ripe, and, upon my return to the town and making further enquiries, I found that such was their custom.

EXCURSION TO ORATAVA.

July 20th.

I started at six o'clock with Mr. Lushington for Oratava, distant about 30 miles from Santa Cruz. We were mounted on small ponies, admirably adapted to the wretched roads of the country, and accompanied by two guides who carried our carpet bags.

CAMELS, MATANZAS, THE GUANCHES.

The first town we came to was Laguna, which appeared to be of some importance; it is distant about four miles from Santa Cruz. On this road we passed many camels laden with heavy burdens; a circumstance which rather surprised me for I had always imagined that, owing to the peculiar formation of its foot, the camel was only fitted for travelling over sandy ground, whilst the way from Santa Cruz to Laguna is one continued mass of sharp rocks, utterly unworthy of the name of a road; yet these animals appeared to move over it without the least inconvenience.

After leaving Laguna the country for some miles bore a very uninteresting appearance; for, although apparently fertile, it was quite parched up by the extreme heat of the sun; our guides, who were on foot carrying our carpet bags, kept up with us by running, and, occasionally when tired, catching hold of the horses' tails to assist themselves along.

We halted for breakfast at Matanzas (or the place of slaughter) so called from a dreadful slaughter of the Spaniards which was here made by the Guanches, the aborigines of the island. I examined the spot where this occurred; it is a narrow defile, formed by a precipice on one hand, and perpendicular rocks on the other, and lies on the only route by which you can pass across the island from east to west; it was therefore well adapted for the purposes of savage warfare, and the Guanches here made the Spaniards pay dearly for the cruelties practised on themselves.

All traces of this interesting people, who were eventually extirpated by the Spaniards, have long since vanished, and, although I spared no pains, I could glean but little information about them, but to this subject I will advert again.

Before breakfast I made a set of magnetic observations, and then, swallowing a hasty meal, prepared to start. A difficulty however arose here, for neither Mr. Lushington nor myself spoke a word of Spanish, although we understood tolerably well what others said to us; the paying our bill became therefore rather a matter of embarrassment. One of the guides saw our distress and made signs that he would arrange matters for us; we accordingly gave him a dollar. With this he paid the bill and I saw him receive some change, which he coolly pocketed; I afterwards asked him for it, but he pretended with the utmost nonchalance not to understand me; so we saw no more of it.

SCENERY NEAR ORATAVA.

In the ride from Matanzas to Oratava the road is wretched but the scenery compensates for this. Upon arriving at the brow of the hill above Oratava, a beautiful prospect bursts upon the sight; directly in front rises the lordly Peak, whilst in the foreground are vineyards, cottages, and palm-trees; in the centre stands La Villa, the upper town of Oratava, encircled with gardens; on the right lies a rich slope running down to the sea which bounds the prospect on that side; and on the left rise rocky mountains, for the greater part clothed with wood.

We now spurred our horses on and, leaving the guides behind, soon reached La Villa, accompanied by a countryman who had joined us upon a pony; but, on getting into the town, the melancholy truth rushed upon my recollection that we could not speak Spanish: had we remained with our guides this would not much have signified, for they had been told at Santa Cruz to take us to a hotel.

EMBARRASSMENTS ON ARRIVAL THERE.

Nothing remained now but to do our best to open a communication; we accordingly accosted a variety of individuals in English, French, Italian, German--but in vain. Spanish alone was

understood or spoken here; our friend, the countryman, stuck to us most nobly, he understood us not a bit better than the rest but saw that we were in distress and would not desert us.

We at last deliberately halted under a house where we could get a little shade, for the sun was intensely hot and, a crowd having soon collected, we harangued them alternately and received long answers in reply; but, although able to make out a great deal of what they said, we could not get them to understand a single word on our part. At length kind fate sent the guides to our rescue and they led us off direct to the hotel.

This however brought only partial relief to our wants; we opened our mouths, and pointed down our throats. So much was understood and a chicken instantly killed. We laid our heads upon a table, feigning sleep, and were shown to a wretched room; but here all converse terminated. Mr. Lushington desired to ascend the Peak therefore it became necessary that we should hit upon some means of making them comprehend this; but all efforts were in vain. At length they proposed to send for an interpreter, which was accordingly done; but he was at dinner, and could not then come.

At last the interpreter arrived, a Spanish Don who had been for some years resident in a mercantile house in New York; he was very dirty, but good-natured, and soon made the necessary arrangements for Mr. Lushington; who for eight dollars was to be provided with a pony, a sumpter mule, provisions and guides, taken safely to the top of the Peak and brought back again; which I thought reasonable enough.

After these arrangements I managed to scrape some acquaintance with this Spanish gentleman, who told me to my great edification that I was in a notorious gambling house. I had been informed at Santa Cruz that the inhabitants of those islands were dreadfully addicted to that vice, and I now, from personal observation, found this was too true.

After dinner I started to walk to the Port of Oratava, distant about three miles; there was beautiful scenery the whole way, and a tolerable road for the island. I called on Mr. Carpenter, the British Consul, to whom I had a letter, and he made arrangements for my being admitted to the botanical gardens at six o'clock the next morning.

On my return to La Villa all the roués of the town were assembled at our hotel to eat ices and gamble: I joined them in the former but not in the latter amusement.

SPANISH INTERPRETER. MANNERS.

The gentleman who had acted as interpreter for us was also there, but I could gain very little further information from him. He told me that they had just heard George the Eighth, the King of England, was dead (William the Fourth had just died) and his knowledge of the other European countries was much upon the same scale. I found that gambling was here carried on to an extent which was really deplorable.

July 21.

I started at half-past five for the botanic gardens, diligently inspected them, and afterwards made a set of magnetic observations; this occupied a large portion of the morning. I however still had time to geologise for about three hours, and then rode back to Santa Cruz, where I did not arrive till late at night.

STATISTICS OF THE CANARY ISLANDS. TABLES.

July 22.

In the morning I renewed my magnetic observations and, having dined at the table d'hôte, I passed the afternoon in calling upon several persons, and collecting such information regarding the group of islands as I could pick up. Two statistical tables then given to me I have here inserted.

The first shows the extent of the seven larger islands and the average number of inhabitants in each. On these numbers I think dependence may be placed, as they nearly agree, in the total, with that given by Tarrente in the Geografia Universal (1828) who makes it 196,517, being about 12,000 above the number given by Humboldt for the gross population at the end of the last century.

The second table gives the quantity of the most important products raised annually in each island.

Iales. (Islands.)	Leguas. (Leagues.)				Latitud.						Longitud.†		Conventos. (Convents.)					Habitantes.
	De Largo. (In Length.)	De Ancho. (In Breadth.)	De Circunferencia (In Circumference.)	De Superficie. (In Superficie.)	G.		M.		G.	M.	Paredulas. (Parishes.)	Ermitas. (Hermitages.)	De Frailes (of Monks.)		Catedrales (Cathedrals.)	Hospitales. (Hospitals.)	Castillos. (Castles.)	
					G.	M.	G.	M.					De Frailes (of Monks.)	De Monjas (of Nuns.)				
Tenerife . . .	17	9	48	89,355	28	28	1	45	37	140	25	10	1	9	20	71,000		
Canaria . . .	12	11	48	68,385	28	00	2	35	17	67	7	3	1	4	17	63,000		
Palma . . .	10	9	27	32,125	28	43	0	15	13	31	3	2	..	1	11	29,000		
Gomera . . .	8	6	22	9,435	28	7	0	52	6	20	2	..	..	..	4	9,000
Hierro* . . .	7	5	24	6,155	27	45	0	00	1	6	1	..	..	..	..	4,000
Lanzarote . . .	10	5	24	34,335	29	00	4	33	7	22	2	..	..	..	4	11,000
Fuerteventura . .	25	7	57	60,335	28	15	4	8	7	24	1	..	..	..	4	13,000
Totales .	90	52	250	295	..	..	..	..	88	310	41	15	2	14	60	200,000

* Ferro.

† From Ferro.

TABLE OF EXTENT AND NUMBER OF INHABITANTS OF THE SEVEN LARGER ISLANDS.

Productos principales un año con otro.—(Principal productions one year with another.)	Teneriffe.	Canaria.	Palma.	Gomera.	Hierro.	Lanzarote.	Fuerteventura.	Total.
Vino (Wine) . . pipas	25,000	9,000	8,000	4,000	3,000	4,000	200	53,200
Frigo (Wheat) . fans	90,000	60,000	20,000	10,000	500	80,000	100,000	360,500
Millo (Millet) . . id.	35,000	140,000	8,000	5,000	400	20,000	4,000	212,400
Cébada (Barley) . id.	25,000	55,000	18,000	10,000	6,000	140,000	100,000	354,000
Centeno (Rye) . . id.	10,000	5,000	12,000	2,000	1,000	10,000	1,000	41,000
Legumbres . . . id.	18,000	12,000	8,000	4,000	500	6,000	2,000	50,000
Papas (Potatoes) qq ^s †	400,000	200,000	80,000	20,000	10,000	60,000	12,000	782,000
Barrilla id	30,000	.....	.....	.....	.....	100,000	200,000	330,000
Orchilla id.	500	300	200	200	200	200	300	1,900

* Fanega—about a bushel.

† Quintal—a hundred weight.

TABLE OF THE MOST IMPORTANT PRODUCTS OF EACH ISLAND.

To these I have added a short table showing the mean heat of every month at Tenerife, as deduced from a continued series of daily observations by Dr. Savignon and Mr. Richardson, at Laguna between the years 1811 and 1818, to which is annexed another of the quantity of rain which fell during some months of the years 1812 and 1813.

The two gentlemen who had made these observations having since died, I was not able to obtain any of the actual thermometrical observations, but to the son of Mr. Richardson I am obliged for having allowed me to copy the results contained in these tables.

SUMMARY OF OBSERVATIONS MADE BY DR. SAVIGNON* AND MR. RICHARDSON, AT LAGUNA.

(*Footnote. Monsieur Savignon, Medecin du Gouvernement, se distingue par un caractere honorable et des connoissances etendues dans la profession. Voyage aux Terres Australes Tome 1 page 21.)

La temperatura media de la Laguna puede considerarse de 63 de Fahrenheit, dentro las casas del centro de la Ciudad, en sombra y al ayre libre; segun resulta de 8 Anos de observaciones, no interrumpidas ni un solo dia desde 1811 a 1818.*

POR MESES COMO SIGUE.				
		o	a	o
Emero,	. .	55	a	55½
Febrero,	. .	56	a	56
Marzo,	. .	58	a	58¼
Abril,	. .	59	a	59¼
Mayo,	. .	62	a	62
Junio,	. .	65	a	65
Julio,	. .	69	a	68¾
Agosto,	. .	71	a	71¼
Septiembre,	. .	70	a	70¼
Octubre,	. .	66	a	66¾
Noviembre,	. .	62	a	62
Diciembre,	. .	58	a	58

62¾, media
De lo 8 Años.

METEOROLOGICAL OBSERVATIONS AT ORATAVA AND SANTA CRUZ.

(*Footnote. The mean temperature of Laguna may be estimated at 63 degrees of Fahrenheit, within doors, in the middle of the town; the thermometer being placed in the shade, and exposed to the air. Result of eight years' uninterrupted daily observations from 1811 to 1818.)

Rain which fell in two years, 1812 and 1813, in inches :—			
		1812.	1813.
Emero,	- -	10.79	3.34
Febrero,	- -	2.22	2.46
Marzo,	- -	0.15	4.17
Abril,	- -	0.09	2.39
Mayo,	- -	—	—
Junio,	- -	—	—
Julio,	- -	—	—
Agosto,	- -	—	—
Septiembre,	- -	—	0.15
Octubre,	- -	1.76	7.34
Noviembre,	- -	2.12	4.24
Diciembre,	- -	2.20	1.13
		19.33	25.22

In twenty-four hours in January, fell 5.24 in.

METEOROLOGICAL OBSERVATIONS AT ORATAVA AND SANTA CRUZ.

A few observations taken on board the Beagle during the five days it lay at Santa Cruz seemed to give a mean heat of about 76 degrees; but it must be remembered that these observations were made in a vessel lying only about a quarter of a mile from the shore and exposed to the constant rays of the sun during six days of a season considered by the inhabitants to be a very warm one. I do not therefore think that the observations of Dr. Savignon and Mr. Richardson, taken under such very different circumstances at Laguna, which Von Buch estimates at 264 toises above the sea, could be far from the truth.

The annual mean temperature of Santa Cruz according to Von Buch is 71 degrees 8' Fahrenheit, or 21 degrees 8' of the centigrade scale.

OCCASIONAL VIOLENT STORMS.

From Mr. Cochrane, a very intelligent English merchant whom I met there, I obtained much information on various points, and he brought to my notice the violent storms of wind and rain which occur on the island occasionally during the rainy season, and cause great destruction and damage.

DAMAGE BY STORM OF 1826.

One had passed over in the month of March of the year I was there (1837) and I was fortunate enough to obtain an official account of the damage occasioned by another in November 1826, which is here annexed. A similar one was experienced, as will be seen by the table, in January 1812, when 5.24 inches of rain fell in twenty-four hours.

En la noche del 7 al 8 de Noviembre 1826, se experimento un temporal de Viento y Agua, que causo on todas les Yslas muchos estragos. En 8 pueblos de la de Tenerife, se sufrion las desgracias que manifiesta el siguiente Estado.

[In the night between the 7th and 8th of November 1826 was experienced a storm of wind and rain which caused great ravages in all the islands. In 8 districts of Tenerife were sustained the losses enumerated below.]

COLUMN 1: PUEBLOS. Towns.

COLUMN 2: PERSONAS. Persons.
COLUMN 3: CUSAE DESTRUIDAS. Houses Destroyed.
COLUMN 4: ANIMALES. Animals.
COLUMN 5: CASAS ARRUINADAS. Houses Ruined.

Villa de la Oratava 104 144 591 75.
Puerto de la Cruz 32 31 23 6.
Realejo de Arriba 25 41 - -.
Realejo de Abajo 14 9 - 2.
Guancha 52 72 344 31.
Rambla 10 14 13 -.
Ycod 5 - - -.
Santa Ursula 1 - 38 -.

VOCABULARY OF THE CANARIAN DIALECTS.

Sunday July 23.

I procured a few words of the original languages of the Guanches from in old government manuscript, and as from this circumstance no doubt can exist as to its authenticity, I have inserted them.

Several of these will be found already published in the History of the Canary Islands by Glas (page 174) with occasional slight differences of spelling, whilst the rest, though few in number, are, as far as I am aware, now first given.

VOCABULARY OF TENERIFE, OF CANARY AND PALMA.

Such scanty vocabularies and some mummies from Tenerife, scattered through the cabinets of the curious in various parts of Europe, are the only existing records of the race which held possession of these islands on the descent of John de Betancourt, about the year 1400, and who were nearly exterminated within little more than a century after.

ALGUNAS DICCIONES DE LA LENGUA GUANCHINESA O DE TENERIFE.

(Some words of the language of the Guanches, or of Tenerife.)

COLUMN 1: GUANCHEAN.
COLUMN 2: SPANISH.
COLUMN 3: ENGLISH.

Achamam : Dios : God.
Achano : Ano : A year.
Achicaxna (Achicarna, Glas.) : Villano : A peasant.
Achimencey : Hidalgo : A nobleman.
Ataman : - : Heaven.
Axa (Ara, Glas.) : Cabra : A Goat.
Banot : Vara Endurecida : A Pole hardened (by fire).
Cancha : Perro : A Dog.
Achicuca : Hijo : A son.
Cichiquizo : Escudero : A Squire.
Guan (Coran, Glas.) : Hombre : A man.
Guanigo : Cazuela de Barro : An Earthen vessel.
Hara (Ana, Glas.) : Oveja : A Sheep.
Mencey : El Rey : The King.
Oche (Ahico, Glas.) : Mantera : A mantle.
Sigone : Capitan : A Captain.
Tano : Cebada : Barley.
Xerios : Zapatos : Shoes.

ALGUNAS DICCIONES DE LA LENGUA DE CANARIA.

(Some words of the language of Canary.)

COLUMN 1: CANARY.
COLUMN 2: SPANISH.
COLUMN 3: ENGLISH.

Ahorac : Dios : God.
Almogaron : Adoratorio : A Temple or place of worship.
Amodagas : Varos-tostados : Poles hardened (by fire).
Aramotanoque : Cebada : Barley.
Aridaman : Cabra: A Goat.
Carianas : Espuerta : A Rush or Palm-basket.
Doramas : Narices : Nostrils.
Gofio : Farina de cebada tostada : Flour of baked Barley.
Guanarteme : El Rey : The King.

Guaire : El Consejero : The Councillor.
Magado : Garrote de Guerra : Poles or sticks used as weapons.
Tahagan (Taharan, Glas.) : Oveja : A Sheep.
Tamaranona : Carne Frita : Roasted or broiled meat.
Tamarco : Camisa de pieles : A Garment or shirt of hides or skins.

ALGUNAS DICCIONES DE LA LENGUA PALMESA.

(Some words of the language of Palma.)

COLUMN 1: PALMA.
COLUMN 2: SPANISH.
COLUMN 3: ENGLISH.

Abora : Deos : God.
Adjirja : Arroyo : A Rivulet.
Asero : Lugar Fuerte : A Stronghold.
Atinariva : Puerco : A Hog.
Aguayan : Perro : A Dog.
Mayantigo : Pedazo de Cielo : Heavenly.
Tidote : Monte : A Hill.
Tiguevite : Cabra : A Goat.
Tigotan : Cielos : The Heavens.
Yruene : El Diablo : The Devil.

OF THE OTHER ISLANDS.

ALGUNAS DICCIONES DE LA LENGUA DE FUERTEVENTURA Y LANZEROTA.

(Some words of the language of Fortaventura and Lanzerota.)

COLUMN 1: FUERTEVENTURA AND LANZEROTA.
COLUMN 2: SPANISH.
COLUMN 3: ENGLISH.

Aho : Leche : Milk.
Attaha : Hombre de Valor : A Valiant Man.
Elecuenes : Adoratorio : A Place of devotion.
Guanigo : Cazuela de Barro : An earthen vessel.
Guapil : Sombrero : A Hat.
Horbuy : Cuero : A Skin or Hide.
Maxo (Ma, Glas.) : Zapatos : Shoes.
Tabite : Tarro pequeno : A small earthen pan.
Tamocen : Cebada : Barley.
Tezezes : Varas de Acebuchas : Poles of the wild olive tree.

ALGUNAS DICCIONES DE LA LENGUA DEL HIERRO Y GOMERA.

(Some words of the language of Ferro and Gomera.)

COLUMN 1: FERRO AND GOMERA.
COLUMN 2: SPANISH.
COLUMN 3: ENGLISH.

Aculan : Manteca : Butter.
Achemen : Leche : Milk.
Aemon : Agua : Water.
Banot : Garrote de Guerra : War Clubs.
Ganigo : Cazuela de Barro : An earthen vessel.
Haran : Helocho : Furze.
Fubaque : Reses gordas : Fat cattle.
Guatativoa : Un convita : A gathering to a Banquet.
Tahuyan : Bas quinas : A Petticoat of Skins.
Tamasagues : Veras largas : Long Poles.

GUANCHE BONE CAVE. AND REMARKS. MARINE BLOWING STONE. It was in the course of my enquiries for words of the Guanche language that I accidentally heard yesterday, from an old inhabitant, of the existence of a cave in the rocks, about 3 miles to the north-east of Santa Cruz, which it was impossible to enter, but which, when examined from the sea, could be observed to be full of bones. This cave, he said, was known to the old inhabitants by the name of La Cueva de los Guanches; and according to traditionary report it had been the burying-place of the original inhabitants of this island. Several English merchants of whom I made enquiries knew nothing of it, even by report, but the master of the hotel was aware of its existence and promised to procure me guides to it. Although this day was Sunday, yet, as I was to sail in the afternoon, the inducement was too strong to resist, and I started in a boat at 6 o'clock with Mr. Walker our surgeon, taking my geological hammer as I intended to return overland.

When we had proceeded about a mile and a half from Santa Cruz I was astonished to hear, from the rocks on the shore, a loud roaring noise, and to see large clouds apparently of ascending smoke. I landed to ascertain the cause of this, and found it arose from one of those hollow rocks which are sometimes seen on our own coast and are known by various names, such as blowing stones, boiling kettles, etc. etc. I had however never seen one at all to be compared to this in size. It was formed by a hole in the rocks through which the water is first poured as the waves rush in; and then is partly driven out with a loud noise through a hole far up, and partly returns, in the form of spray, by the opening through which it was at first impelled. By assuming a proper position with regard to the sun a most beautiful rainbow is seen in this spray as it is dashed high into the air, and the whole is well worthy of a visit. Having collected some shells and geological specimens we again embarked for the cave.

On reaching the spot we distinctly observed, from the shore, the mouths of two caves full of bones. As the Guanches were in the habit of embalming their dead I entertained hopes of obtaining from them a mummy, of which there are several preserved in the Canary Islands. Upon landing however I found that they were utterly inaccessible, being situated in a perpendicular rock about 150 feet above the level of high water mark, and a considerable distance beneath the summit of the cliff. I had indulged a hope of being able to swing into one of the caves by means of a rope suspended from the top, but, owing to a large rock which projects from above quite over their mouths, this would be very difficult. Several bones had been blown out of the apertures, which I collected and found them to have belonged to man, but otherwise displaying nothing remarkable.

I can scarcely entertain a doubt but these caves really were the burying-places of the ancient Guanches, yet how they were approached I cannot conceive; probably there might have been an entrance to them from the interior of the country. I searched but my time was short and I could find no traces of such. An interesting question here remains to be solved and I trust some future traveller may be induced to attempt it.

There is only one other supposition I could frame on this subject, and to this I am led from the fact of the bones lying so immediately in the caves' mouths. Could a party of the Guanches, when so oppressed and so cruelly treated by the Spaniards, have taken refuge by some means in these caverns, and afterwards, from their retreat being cut off, have found themselves unable to escape and have here perished miserably; looking out of the cavern to the last for that assistance they were never doomed to receive? If they had managed to enter these caves by a narrow pathway running along the face of the cliffs, which the Spaniards afterwards destroyed, such an occurrence might readily have taken place.

Having completed my examination I dismissed the boat and walked back to Santa Cruz, from whence we sailed at five o'clock this evening.

CHAPTER 2. TO BAHIA AND THE CAPE OF GOOD HOPE.

ATMOSPHERICAL PHENOMENON AT SEA.

Nothing important occurred during the voyage from Tenerife to Bahia; but one atmospherical phenomenon I think is worthy at a future day of further enquiry.

I remarked constantly, just at sunset, in these latitudes, that the eastern horizon was brilliantly illuminated with a kind of mock sunset. This in a short time disappeared, to be soon succeeded by another similar in character, but more faint. I observed at the same time, in the western horizon, the regular sunset, and then two appearances, like those seen in the east; perhaps this may be fully accounted for by a triple reflection, as in the common theory of the rainbow.

LAND AT BAHIA.

August 17.

We came in sight of the coast of South America about noon, and dropped anchor in the harbour of Bahia at four P.M.; and about half an hour after I went on shore with Mr. Lushington, a person of the name of Wilson taking us in his boat: there was a slave in the boat, and, not knowing that he understood English, I asked Mr. Wilson several questions about slaves in general, and he gave me a good deal of information on this subject, mentioning among other things that the price of a good slave here varied from 90 to 100 pounds, he happened to state that the slaves were wretched in their own country, and that frequently large numbers were sacrificed to their gods. I never saw so fine a burst of natural indignation as the slave in the boat evinced at this statement; his lip curled up with scorn, his dark eye grew vividly bright, and his frame quivered as he made an impassioned reply in Portuguese; I could not understand all that he said, but caught enough to know the tenor of it, that "this was not the case; Englishmen or foreigners never visited his country, so how could they know." It was not so much what he said but the scornful bitterness of his manner that made an impression on me, not easily to be effaced.

NIGHT WALK.

I took a night walk in the country this evening and experienced those wild and undescribable feelings which accompany the first entrance into a rich tropical country. I had arrived just

towards the close of the rainy season, when everything was in full verdure, and new to me. The luxuriant foliage expanding in magnificent variety, the brightness of the stars above, the dazzling brilliancy of the fireflies around me, the breeze laden with balmy smells, and the busy hum of insect life making the deep woods vocal, at first oppress the senses with a feeling of novelty and strangeness till the mind appears to hover between the realms of truth and falsehood.

THE TOWN OF BAHIA.

The town of Bahia looks very beautiful from the sea; but on entering you find it dreadfully filthy. The stench of the lower town is horrible. Even the President's palace is a dirty and wretched-looking building: his salary, I understand, is 600 pounds a year. By the last returns the population of the town was 120,000, 100,000 of whom were blacks. All the burdens here are carried by slaves as there are no carts and the breed of horses is small, being perfect ponies.

The exports are cotton and sugar--the cotton chiefly to Liverpool, the sugar to all European countries but England. Their imports are English cotton goods and hardware, also various manufactured goods from Germany. The nuns are famed for the manufacture of artificial feathers and flowers.

The fruit here is excellent, the oranges are particularly fine.

The merchants in the town are principally English and German. There is no American house. Several have started but all who made the attempt have failed.

You cannot penetrate any great distance into the interior as there are no roads but only little pathways through the woods. The Indians are frequently seen very near the town.

STATE OF SOCIETY.

This part of Brazil offered the curious spectacle of a great evil, which has been long suffered to exist and is now advancing, gradually yet surely, to that state which must entail inevitable destruction on the existing Government of the country. I allude to the immense slave population which, owing to a short-sighted policy, has been allowed to increase so rapidly from the frequent and numerous importations that at the present moment they are in the ratio of 10 to 1 to the white population, to whom they are also, individually, immensely superior in physical strength; the Brazilians being the most insignificant and feeble race of men I have ever yet seen.

DANGERS FROM SLAVE POPULATION.

The blacks are perfectly aware of their own power, and about two years ago had arranged a plan for seizing the town and murdering all the whites with the exception of foreigners; which miscarried only by the affair being discovered a few hours before it broke out. This plan was however so wisely and boldly conceived, both as a whole and in detail, that it alone affords the most conclusive evidence that the slave population in this country are by no means deficient either in mental powers or personal courage.

The Brazilians themselves are aware of the danger which threatens them, and yet evince an extraordinary degree of supineness with regard to it. They have indeed framed certain regulations as to the slaves being all within their houses at an early hour of the evening, etc. etc., and these they deem sufficient for their protection; yet to an unprejudiced observer it would appear that, unless some much more effective measures are adopted, within a few years from the present time the whole of this fine country will be in the hands of the blacks: and indeed I think one would be justified in concluding that the moment which produces a person sufficiently intriguing again to stir up the slaves, and endowed with the firmness and talent necessary to conduct an emeute of this nature, will be the last of the Brazilian Empire.

POLITICAL CONDITION OF THE STATE.

It is evident from what I have before stated that the only hope the white population can reasonably entertain of retaining their present position must be in the most perfect union and concord amongst themselves, and that, when a unity of design and action ceases to exist between the different provinces, their fate is sealed. Yet this circumstance never appears to enter into their calculations; and at this instant each state is plotting its separation from the Empire. The inhabitants here openly state their intention of revolting and declaring their independence, and Sunday next is even mentioned as the day for the commencement of the rising.*

(*Footnote. The revolt broke out on the 7th November 1837 but was suppressed the following month. Great alarm existed lest the Negro slaves should be induced to take their part likewise in the conflict between the contending factions. Annual Register for 1837.)

It is really strange to one who stands by, a calm unconcerned spectator, to observe men hurried on by the violence of faction to their own certain destruction, and to behold them so entirely blinded by party spirit as not to see that danger which stares them so openly in the face, that a child could scarcely fail to detect it.

The Slave Trade, though nominally abolished, is actively pursued here, eighty-three slaves having been landed just before my arrival, and another cargo during my stay.

The slaves are not only a very superior race of men in point of physical powers, but, as far as my experience of their habits went, I found them very moral and honest. Their notions of religion were however curious. Several were Christians nominally, but their Christianity consisted in wearing a string of beads round the neck; and they seriously assured me that those who wore beads went up to heaven after death, and that those who did not went down under the waters.

I talked to many of them about their own land. None had forgotten it, but they all expressed the most ardent desire to see it again. They call themselves captives, not slaves, and are very punctilious upon this point. They labour very hard here, generally in the town, paying their masters eighteen-pence a day, and keeping the rest of their earnings for themselves. The rate of labour must therefore be high; but they wear scarcely any clothes, and their subsistence, which is jerked beef and beans, costs but little. The slaves in the country are however all obliged to work on their owners' plantations.

All the principal people in the town are concerned in the slave trade, and their chief wealth consists in the number of slaves they possess; therefore there is little chance of the trade being, for many years, totally abolished.

With regard to the execution of the laws this country is much in the same state as certain parts of Ireland. Homicide, and attempts at homicide, by shooting, are frequent; but it is difficult, if not impossible, to convict the offenders, for he who renders himself conspicuous in prosecuting parties concerned in a murder assuredly gets shot at in his turn.

IMPRESSIONS AND OBSERVATIONS AT SEA. REMARKS ON VOYAGE FROM BAHIA TO THE CAPE.

August 25.

Re-embarked in the Beagle and sailed for the Cape of Good Hope.

September 10.

We had yesterday and all last night a gale of wind, succeeded this day by a heavy fall of rain. The wind had raised a very high sea, but when the rain began to fall I heard the captain and several of the officers remark that the rain would lay the sea; for the result of their experience was, "that a fall of rain always beats the sea down." What they had stated would occur took place in this instance within two or three hours. This shows forcibly what great results a slight force, continued for a long time, will produce.

September 15.

Whilst standing on the deck of the Beagle this evening we remarked large luminous spots in the water. They appeared to be about 12 inches in circumference, were very numerous, and perfectly stationary. The light they emitted was phosphorescent, but far brighter than I had ever before witnessed; it was so vivid as to be distinctly visible for nearly a quarter of a mile.

September 16.

We saw this morning an immense number of fin-backed whales, some of which were quite close to the vessel. In the course of half an hour I counted thirty of them. Could they have been feeding on the phosphorescent animals we saw last night?

We are today about 600 miles from the Cape, and there is a strange discordance amongst the elements. From the south-west comes a long and heavy swell; a strong breeze is blowing from the east, and threatening clouds spring upwards from the north. These omens have a meaning. Down to the southward, somewhere off Cape Horn, there blows a furious gale. The wind will draw round shortly to the northward. That is the interpretation and the reading.

A swell like this one can only witness off the Cape of Good Hope. It was to me a novel and magnificent sight. Uniform and lofty ridges of waves advancing in rapid succession, and yet with so regular and undisturbed a motion that one might easily fancy these great walls of water to be stationary: yet onward they moved in uniform and martial order; whilst as the ship rose upon their crests she seemed to hover for a moment over the ocean in mid air. And now the wind drew round to the northward and it blew almost a gale. The vessel felt its power and bent before it. It was beautiful to watch the process of hand-reefing topsails and making the vessel snug--the ready obedience to the word of command and the noiseless discipline with which each duty was fulfilled. First had the men clustered on the rigging like bees; then at the word to lay out they fearlessly extended themselves along the yard-arm, and whilst they took in the reefs the ship pitched and rolled so heavily that one felt anxious for their safety: but there they swung securely between high heaven and the sea.

SEA-BIRDS.

The sea-birds held their holiday in the stormy gale. The lordly and graceful Albatross, whose motion is a very melody, swept screaming by upon the blast. The smaller Cape pigeons followed us fast, passing and repassing across the vessel's track. At last one of them spies a fragment on the waters, which has been thrown overboard: a moment it hovers above, then plunges down. But

the other birds have seen it too; and all, pouncing on the spot, move their wings confusedly and seem to run along the waters with a rapid and eager motion. Now is there discord wild amongst them. A screaming and diving, swimming and running, mingled with a chattering noise. No sooner does one gain the morsel than another tears it from him. Who will be the victor here? The Albatross; for he sweeps triumphantly over all, swoops down, and with a scream scares off the timid little multitude; whilst high above his head he holds his arching wings; and now in pride and beauty he sits upon the waters and, drifting fast astern, gradually fades in the twilight.

What wonder that a sailor is superstitious! Separated in early youth from his home ere he has forgotten the ghost stories of childhood, and whilst the young and simple heart still loves to dwell upon the marvellous, he is placed in such scenes as these: in the dark night, amidst the din of waves and storms, he hears wild shrieks upon the air, and by him float huge forms, dim and mysterious, from which fancy is prone to build strange phantoms; and oft from aged sailors he gathers legends and wondrous tales suited to his calling; whilst the narrator's mysterious tone and earnest voice and manner attest how firmly he himself believes the story.

ARRIVAL AT THE CAPE. HIRE THE LYNHER.

September 21.

We came in sight of land yesterday evening, and spent the greater part of the day in beating up False Bay to Simonstown, where we arrived about half-past six P.M. I instantly landed in a shore-boat with Lieutenant Lushington and Mr. Walker; and, having first hurried to Admiral Sir P. Campbell with some letters I had to him, we forthwith started to ride to Cape Town. Finding that a vessel for our expedition could be procured here more readily and economically than at Swan River I determined on making this my point of departure, and after diligent enquiry I finally hired the Lynher, a schooner of about 140 tons, Henry Browse master, and subsequently found every reason to be satisfied, both with the little vessel and her commander.

EQUIPMENT AND PLANS. SAIL FOR HANOVER BAY.

My time was now wholly occupied in completing the preparations for our future proceedings. I increased my party by a few additional hands of good character, and thought myself fortunate in engaging amongst them Thomas Ruston, a seaman who had already served on the Australian coast under Captain King. On the 12th October I with great difficulty got my affairs at Cape Town so arranged as to be able to embark in the evening, and on the morning of the 13th we hove anchor and made sail.

The party now embarked consisted of:

Lieutenant Grey.

Lieutenant Lushington.

Mr. Walker, our Surgeon.

Mr. Powell, Surgeon.

Corporal R. Auger, Corporal John Coles, and Private Mustard of the Corps of Sappers and Miners.

J.C. Cox, a Stock-Keeper.

Thomas Ruston, a Sailor who had been on the coast of Australia in the Mermaid with Captain King.

Evan Edwards, a Sailor.

Henry Williams and R. Inglesby, Shoemakers.

There were besides on board a captain, a mate, seven men, and a boy.

The livestock I took from the Cape consisted altogether of thirty-one sheep, nineteen goats, and six dogs. The dogs were as follows: one greyhound; one dog bred between a greyhound and a foxhound; one between a greyhound and a sheepdog; a bull-terrier; a Cape wolf-dog; and a useful nondescript mongrel.

RE-EMBARKATION FOR HANOVER BAY.

The plan that I had finally resolved on adopting was:

To proceed in the first instance to Hanover Bay, there to select a good spot on which to form a temporary encampment; and, having landed the stock, to despatch Lieutenant Lushington with Cox and Williams in the vessel to Timor for ponies.

PLANS ON LANDING.

I selected Cox and Williams for this service because the former was used to the management of horses on board vessels, and the latter understanding Dutch was well calculated to act as interpreter at Timor. During their absence I intended to practise the party in making short explorations in different directions.

Upon the return of the vessel I intended to move the whole party to some convenient spot to be chosen during their absence, then to advance, attended only by Coles, and to fix upon the next spot on our route which I designed to halt at. This plan I intended to adhere to as much as

possible throughout the whole expedition, namely, never to move the party from one place of halt until I had chosen the next one. We bore with us tools and instruments of every description; so that we not only were fully capable of maintaining ourselves but could literally, if occasion had required it, have founded the nucleus of a colony.

Great then was my joy when all my preparations were completed and I felt the vessel gliding swiftly from Table Bay into that vast ocean at the other extremity of which lay the land I so longed to see, and to which I was now bound with the ardent hope of opening the way for the conversion of a barren wilderness into a fertile garden.

Part of my plan was not only to introduce all useful animals that I possibly could into this part of Australia, but also the most valuable plants of every description. For this purpose, a collection had been made at Tenerife by Mr. Walker, under my direction, and another in South America,* including the seeds of the cotton plant. From the Cape and from England I had also procured other useful plants, and had planned that the vessel, on quitting Timor with the horses, should be filled in every vacant space with young cocoa-nut trees and other fruits, together with useful animals such as goats and sheep, in addition to the stock we conveyed from the Cape.

(*Footnote. We had been able to introduce several useful plants into the Cape; amongst others the South American Yam, which, owing to the quality of the potatoes and their great fluctuations in price, will eventually be very serviceable to the colonists, more especially for the use of whalers.)

CHAPTER 3. FROM THE CAPE OF GOOD HOPE TO HANOVER BAY.

NATURAL HISTORY.

FORSTER'S PACHYPTILA (*Pachyptila vittata*.)

October 16.

I shot a female petrel; it had a nail planted in the heel, but no thumb; the bill was hooked at the end, the extremity of which seemed to consist of a distinct piece, articulated with the remainder; the nostrils were united, and formed a tube laid on the back of the upper mandible, hence it belonged to the family of Petrels (*Procellariae*.)

Its temperature was 94 degrees.
Length from tip to tip of wing, 2 feet 3 inches.
Length from tip of beak to tip of tail, 1 foot 2.4 inches.
Length from root to tip of tail, 4 inches.
Length of beak, 1.45 inches.
Length of foot, 1.55 inches.
Breadth across body, 2.3 inches.

Colour of beak and legs black; body white underneath; general colour above, a light bluish slate, which grows darker in the head and wing covers; tail tipped with black; the four first wing feathers tinged with black.

CAPE PIGEONS.

I also shot this afternoon three Cape pigeons (*Procellaria capensis*) white underneath, spotted black and white above.

FIRST SPECIMEN--Female.

Temperature, 98 1/2 degrees.
Length from tip to tip of wing, 2 feet 11.3 inches.
Length from tip of tail to tip of beak, 1 foot 6 inches.
Length from tip of beak, 1.5 inches.
Length from root to tip of tail, 4.1 inches.
Length of foot, 2.3 inches.
Breadth across body, 3.2 inches.

SECOND SPECIMEN.

Length from tip to tip of wing, 2 feet 5 inches.
Length from tip of tail to tip of beak, 1 foot 5 inches.
Length from tip of beak, 1.5 inches.
Length from root to tip of tail, 4 inches.
Length of foot, 2.3 inches.
Breadth across body, 3 inches.

THIRD SPECIMEN--Female.

Length from tip to tip of wing, 2 feet 5.5 inches.
Length from tip of tail to tip of beak, 1 foot 4.6 inches.

Length from tip of beak, 1.3 inches.
Length from root to tip of tail, 4.6 inches.
Length of foot, 2.2 inches.
Breadth across body, 3.4 inches.

Two species of insects were found in these Cape pigeons.

The only difference I have been able to observe between the male and female of these birds is, that the male has the black spots of rather a deeper hue.

October 21. Latitude 38 degrees 15 south; longitude 35 degrees 53 minutes east.

From a variety of observations I am able to bear testimony to the correctness of a fact that has been before noticed, namely, that the Medusae invariably live in families. This single circumstance is remarkable in connection with other points of natural history since it will tend to explain the reason of certain classes of Petrels (Procellariae) only visiting particular parts of the ocean.

Sunday October 22. Latitude 37 degrees 44 minutes south; longitude 38 degrees 00 east.

Caught two small animals, one closely resembling a small shrimp (*Penaeus*) but having the head covered with a most beautiful purple shield. I kept this alive in a jug. The other in size and appearance exactly like a purple grape (*Hyalea*) with a greenish tinge at one extremity surrounding an aperture, and a distinct aperture at the other extremity. It was 0.4 inches in diameter, and had the power of emitting a phosphorescent light. I have since this period found several varieties of this animal; which, when it expands itself, closely resembles an insect, and has little wings. Further on will be found a sketch of these animals in their expanded state. (See illustration, *Hyalea* figure 1.)

THE ALBATROSS (*Diomedea exulans*).

We caught four of these birds yesterday, from which I made the following measurements:

FIRST SPECIMEN. Weight, 19 1/2 pounds.

Length from tip of wing to tip of wing, 10 feet 2 inches.
Length from tip of beak to tip of tail, 4 feet 0.5 inches.
Length of beak, 6.8 inches.
Length from root to tip of tail, 10.0 inches.
Length of foot, 7.6 inches.
Length of wing, 4 feet 8 inches.
Height from ground, 2 feet 10 inches.
Temperature 98 degrees, the thermometer placed under the tongue during life. These measurements were all made during the lifetime of the bird.

SECOND SPECIMEN. Weight, 15 1/2 pounds.

Length from tip of wing to tip of wing, 10 feet.
Length from tip of beak to tip of tail, 3 feet 11 inches.
Length of beak, 6.6 inches.
Height from ground to top of head, 2 feet 4 inches.
Temperature 98 degrees.

THIRD SPECIMEN. The largest bird of the kind I have hitherto seen.

Length from tip of wing to tip of wing, 10 feet 8 inches.
Length from tip of beak to tip of tail, 4 feet 6 inches.
Breadth across the body, 8 inches.
Length of bill, 6.7 inches.
Length of foot, 7.5 inches.

FOURTH SPECIMEN. The same size as the second.

Length of beak, 6.3 inches.
Length of foot, 6.9 inches.

The beak of each of these birds during lifetime was of a beautiful light rose colour; their voice was something like that of a goose, but rather louder, deeper, and hoarser. If during life the beak was pressed with the finger it became quite white, and it was not until the pressure had for some time been removed that the colour returned. The specimens I have described above (all males) were quite white underneath; the white above being speckled with black spots and streaks, sometimes changing to a brownish hue; the wings were black. We obtained also a female bird with the following measurements, which has been described as a distinct species: Length from tip to tip of wing, 7 feet 2 inches.
Length from tip of tail to tip of beak, 3 feet 5.5 inches.
Length from root to tip of tail, 9 inches.
Length of beak, 4.5 inches.

Length of foot, 5 inches.

Legs pale flesh colour; beak, black, with a brown-coloured streak on each side of the lower mandible; the whole body of a dirty black colour, acquiring a lighter tinge underneath.

October 30.

I shot two male specimens of this last bird: the only distinction between them and the female was that they were rather smaller, and had a white streak instead of a light brown one on each side of the lower mandible.

FIRST SPECIMEN--Male. Weight, 5 1/2 pounds. Length from tip of wing to tip of wing 6 feet 6 inches.

Length from tip of beak to tip of tail, 2 feet 6 inches.

Length from root to tip of tail, 11 inches.

Length from root to tip of beak, 4 inches.

Length from root to tip of foot, 5 inches.

Length from root to tip of wing, 2 feet 10 inches.

SECOND SPECIMEN--Male. Weight 7 pounds.

Length from tip to tip of wing, 6 feet 9 inches.

Length from tip of beak to tip of tail, 2 feet 10 inches.

Length of tail, 10.6 inches.

Length of beak, 4.7 inches.

Length of foot, 5 inches.

Length of wing, 3 feet.

All the three specimens of this species had a distinct although minute claw, representing a thumb, upon one leg, thus apparently forming a link between the genus *Procellaria* and the genus *Diomedea*.

PACHYPTILA VITTATA.

Ash-grey above; white in the under parts; quills, tail-feathers at the tip, and band on the wings when expanded, brownish-black.

Length from tip to tip of wing, 2 feet.

Length from tip of beak to tip of tail, 10 inches.

Length from root to tip of tail, 4.3 inches.

Length of beak, 1 inch.

Length of foot, 1.5 inches.

Length of wing, 10.5 inches.

This bird is of the same species as the one I procured on the 16th of October. I shot it about nine A.M. They are very numerous in these latitudes; their flight resembles much that of a snipe. The name by which they are known to the sailors is the whale-bird; they appear to take their food upon the wing, for I have never yet seen them sit upon the waters even for a single second, although I have observed them frequently, and at all hours; but night and day they hurry on with the same restless, rapid flight, sometimes going in large flocks; and I have never upon shore seen so many birds assembled upon a few square miles as I have sometimes here observed in the open ocean. I never heard them utter any cry or sound.

I saw but few Cape pigeons (*Procellaria capensis*) after passing the 40th degree of longitude, and neither Cape pigeons nor albatrosses after passing the 95th degree of longitude, and 32nd parallel of latitude. I have never seen a petrel or bird of the family *Longipennes* discharge its oily fluid at anyone who worried or attacked it; but have almost invariably seen it involuntarily eject it, when hurt or frightened.

THE ALBATROSS.

November 9.

I caught four albatrosses with a fishing-line; one of them was a female, the first I had seen. I observed no marked difference between her and males of the same species, for I have found them vary much in the dark shades upon their feathers.

I have yet found no bird of this family whose foot was not longer than its beak.

DIOMEDEA EXULANS--Female.

Length from tip of wing to tip of wing, 10 feet 10 inches.

Length from tip of wing, 4 feet 10 inches.

From tip of beak to tip of tail, 4 feet 9 inches.

Length of beak, 7.2 inches.

Length of tail, 9 inches.

Length of foot, 7.5 inches.

The black and brown marks on this bird were darker than the corresponding ones on the males.

I am inclined to think that the chief characteristic that distinguishes the females from the males in the family Longipennes is their greater size: my opinion is grounded upon the following tables, drawn up from careful measurements, made by myself.

(TABLE OF FAMILY LONGIPENNES)

In each of these three instances the female is larger than the males; they are the only ones I am able to adduce which bear upon this point.

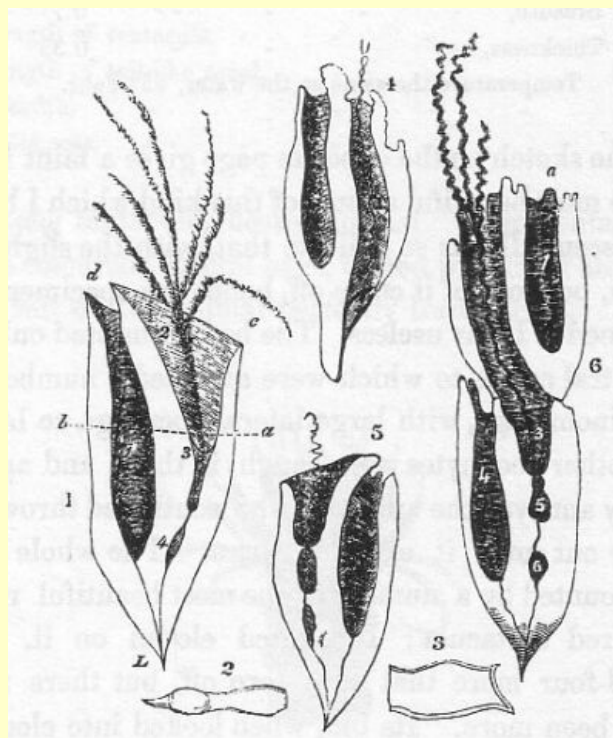
November 11. South latitude 30 degrees 47 minutes; east longitude 100 degrees 21 minutes 15 seconds.

Being a calm, I gave the men leave to bathe this afternoon, and was one of the first overboard myself. Within an hour and a half after we had done bathing, a cry of a shark was raised, and in truth there was the monster (the first we had seen). I mention this fact as tending to support what I have often heard stated, namely, that a shark's sense of smell is so keen that, if men ever bathe in seas where they are found, a shark is almost sure to appear directly afterwards. This really occurred in the present instance.

We repeatedly caught many little animals which I believe are the VELELLA of Lamarck. They consist of a flat oval cartilage, on which they float; there is a mouth in the inferior surface of this surrounded with many tentacula; on its superior surface is a crest which remains above water, and the wind blowing against it turns the animal round; they thus swim with a rotatory motion; the crest is placed obliquely to the length of the oval cartilage, and this position of it perhaps assists in producing the motion; the crest is perfectly transparent, but marked with little striae; the oval cartilage is marked with concentric striae, which indicate the lines of its growth; in some this cartilage is transparent, in others quite blue.

November 12. South latitude 30 degrees 11; east longitude 100 degrees 31 minutes 30 seconds.

We caught several beautiful animals this day, of the Medusae kind (Diphya). (See Illustration 3, Diphya, Sp.)



Diphya, Sp.

Figure 1 represents a section through one of them, the size of life: the bag (1) is of a delicate bright amber colour. The long tentacula issuing out are upwards of a foot in length and of a bright flesh colour.

Figure 2 is a section across the animal.

Figure 3 represents the mouth of the large opening at c, d, as if one was looking down into it.

Figure 4 upper part; Figure 5 lower; and Figure 6 the perfect animal.

Between c d apparently lay the entrance to its mouth; in the little bag marked (3) its long tentacula were concealed, and below these lay a little gut marked (4) which communicated with the point (L) by a small canal: (1) was its swimming apparatus, and by alternate contractions and expansions of this, it took in and expelled water, and thus acquired a rapid motion, the pointed

end (L) moving forwards.

Its length was 1.7 inches.

Breadth, 0.7 inches.

Thickness, 0.35 inches.

Temperature the same as the water, 65 degrees Fahrenheit.

The sketch Illustration 4, *Diphya*, Sp. gives a faint idea of the most beautiful animal of this kind which I have ever seen. It was so delicate that, with the slightest touch, portions of it came off, hence the specimen we obtained is I fear useless. The body consisted only of a central canal, to which were attached a number of gelatinous bags, with large lateral openings, so large that other zoophytes were caught in them, and apparently annoyed the animal; who continued throwing water out until it expelled them. The whole was surmounted by a number of the most beautiful rose-coloured tentacula: I counted eleven on it, and found four more that were torn off, but there may have been more. Its top, when looked into closely, resembled some of the sea anemones; and inside of the large bright orange-coloured tentacula were placed circular rows of smaller ones. Its body was quite transparent, with the exception of the central canal, which was of a milk-white colour, and terminated in a small sac of the same hue.

It moved in a direction opposite to the tentacula, by taking in water at the lateral openings of the bags, in the position in which it is represented; then bending these towards the tentacula, and expelling it with great violence.

Temperature the same as the water, 65 degrees Fahrenheit.

Length of body (to tentacula from root of tail-like canal) 1.8 inches.

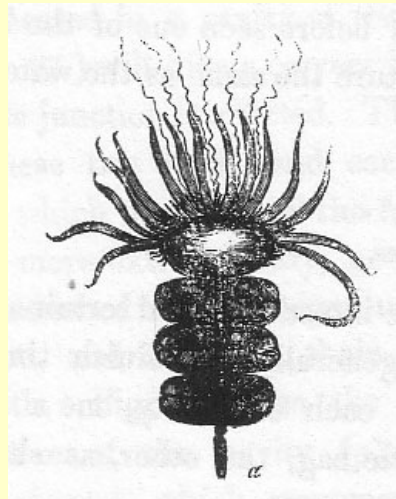
Length of tentacula, 1.2 inches.

Length of tail-like canal, 0.45 inches.

Breadth, 1.1 inches.

Thickness, 0.8 inches.

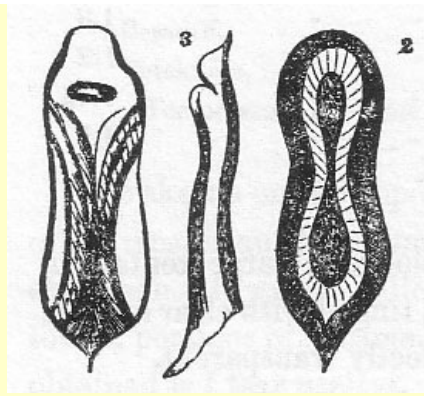
Long tentacula, flesh-coloured; large tentacula, rose-coloured; lateral bags, tinged with clear amber; the rest of the animal perfectly transparent.



4. *Diphya*, Sp. (Acalepha.)

We this evening caught several curious little animals (*Clio* ?) which when taken out of the water appeared like small balls of the same matter as that of which a slug is composed. Presently a little head peered out, then the body expanded itself, and finally two little things like wings were spread forth, formed of a fine membrane; they moved these very rapidly, and swam with great velocity.

We caught several small crabs, and two kinds of shells, of a beautiful purple colour. (*Janthina exigua*.) These were very small; I have preserved several of them.



5. Salpa, Sp.

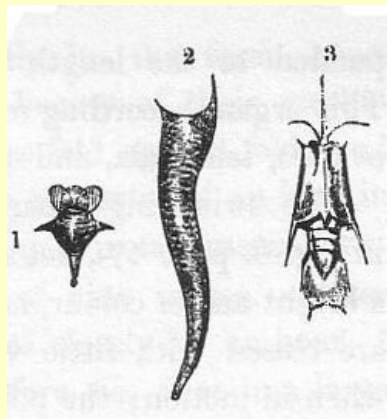
Figures 1, 2, and 3 represent different views of an animal (Salpa) slightly electrical, that we caught this evening. Figure 1 is its appearance, one side being up; Figure 2 when the other side is turned up; Figure 3 is the side view of it.

I have never before seen one of the kind electrical. Temperature the same as the water, 65 degrees Fahrenheit.

Length, 1.5 inches.
 Breadth, 0.6 inches.
 Thickness, 0.3 inches.

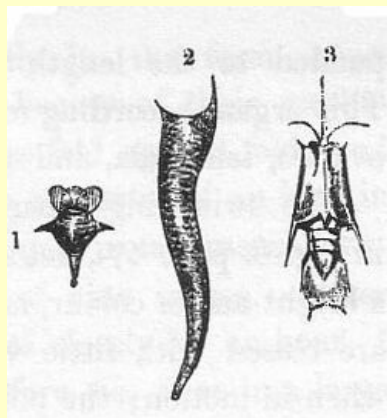
Figure 1. The intestinal canal terminates in a little coloured bag, generally of a bluish tinge; there is an opening at each extremity, one a little to the left of the little bag, the other, as shown in Figures 3 and 1.

November 13. Latitude 30 degrees 7 minutes south; longitude 100 degrees 50 minutes 10 seconds east.



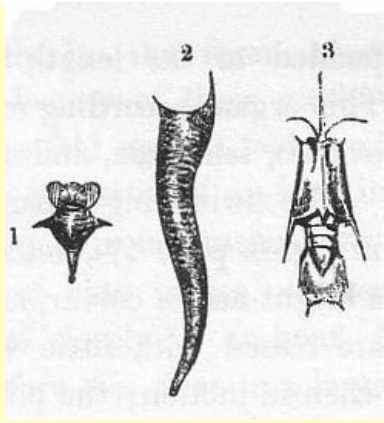
6. Hyalea, Sp.

Figure 1. Represents a little shell (Hyalea) which was caught this day.



7. Physiphora rosacea.

Figure 2. One of the tentacula of the animal I imagine to be the Physiphora rosacea. The point which is seen obtruding at the base resembles a little nerve; it runs the whole way down the tentacula.



8. *Erichthus vitreus*.

Figure 3. A little shrimp-like animal (*Erichthus vitreus*) caught on the 14th November, latitude 29 degrees 26 minutes south; longitude 101 degrees 32 minutes east. Its head was protected by a shield, such as is shown in the figure.

We caught this day several other Acalepha, two of which were of the wonderful genus *DIPHYA*. I yesterday drew a coloured figure of the lower part of one of these animals.

This animal in its perfect state (such as we found it in today) consists of two individuals, the part of one being encased in a cavity of the other. Figures 4 and 5 Illustration 4 will give a correct idea of the way in which this junction is effected. The least motion separates these two parts, and each forms a perfect animal, which performs all the functions of life. This is the more extraordinary, as the containing animal is furnished with an organ not possessed by the contained, and which in their united state is used by both. Figure 5. From the little bag (f) at the bottom of the cavity (g) the receiver produces a chaplet, which traverses the canal in the receiver marked (2) in Figure 6, and which is here drawn the size of life, was sometimes expanded to the length of one foot eight inches. This organ, according to M. Cuvier, is composed of ovaries, tentacula, and suckers.

The swimming apparatus, marked (1) and (4) in Figure 6, act simultaneously; they are of a bright amber colour, and their mouth (a) and (h) are closed with little valves, nearly invisible even when in motion; the points round their upper aperture seem to form the hinges for these. In twenty seconds I counted seventy expansions and dilatations of this apparatus. The chaplet and the bag that holds it are flesh-coloured; the rest of the body is gelatinous and diaphanous. They live in families, and swim with great rapidity in the same manner as the other Acalepha.

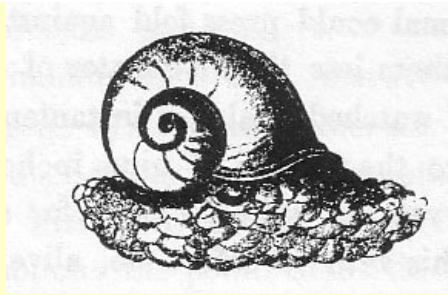
Caught also shells and crabs of the same kind as yesterday.

November 14. Latitude 29 degrees 26 minutes south; longitude 101 degrees 2 minutes east.

Physophora rosacea, Cuvier, see below. We caught another animal of the same kind as the one taken on the 12th of November, and figured in Illustration 7. It was so delicate that I did not measure it for fear of its falling to pieces, but it appeared to be exactly the same size as the former one.

Its circle of large tentacula were of a bright pink, and were fifteen in number; inside this circle was a smaller one of the same number of shorter tentacula, which were not quite so bright a pink colour; in the centre of these were placed organs of a very extraordinary nature, apparently quite round, and not thicker than the very finest silk; they were arranged exactly in the form of a corkscrew, and from the beauty of their mechanism, the animal could press fold against fold, and thus render them less than a quarter of an inch in length, and I watched it almost instantaneously expand them to the length of nine inches. After having observed the animal closely for an hour I am writing this with it before me, alive in a large glass bottle of salt water, and measuring what I put down. The manner in which it expands these organs is by first uncoiling those folds nearest the body, and afterwards those most remote; so that when folded up it looks like a corkscrew with the folds pressed close together, and when expanded, like a long straight thin bit of flesh-coloured silk, with a little corkscrew of the same material at the end. The larger tentacula are shaped like the trunk of an elephant, and their extremity is furnished with a very delicate organ with which they can catch anything, and, if touched, they instantly turn some of these tentacula, which they have the power of moving in any direction, to the point so touched. They are not electrical: the lateral bags have a slight tinge of a bright amber colour. These animals sustain themselves in the water by means of the little bag marked (a) in the figure, which floats on the surface full of air, they there swim in the manner before described. I afterwards observed very minute globules, or lumps, in the long silk-like tentacula. When expanded these were very distinct.

Latitude 29 degrees 26 minutes south; longitude 101 degrees 32 minutes east.

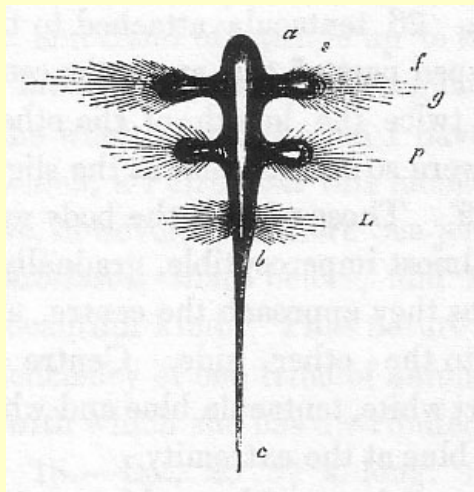


9. *Janthina exigua*.

We caught several small shells (*Janthina exigua*) this afternoon: Illustration 9 represents one of them, with the string of air bubbles attached, by means of which they swim on the water. They appear not to be able to free themselves from this mass of bubbles: every shell I have yet found floating in the Indian Ocean possesses these bubbles in a greater or less degree; they were of a purple colour. I have seen the common garden snail in England emit a nearly similar consistency: they also emit a blue or purple liquid, which colours anything it touches.

The animals of the barnacles (*Pentalasmis*) attached to these shells assume their purple colours, while the shell remains nearly pure white.

This afternoon we caught an animal (*Glaucus*, Illustration 10) I had not before seen. It seemed to represent the order reptilia in the Mollusca, being sluggish in movement, its eyes distinct, sensitive to the touch, its head much resembling a lizard in appearance, and having a very strong unpleasant smell when taken out of the water. During the hour I observed it in a bucket it remained sluggishly floating on the top, and occasionally swimming by moving its arms slowly along the surface. The first three that I saw pass the vessel I imagined to be feathers floating on the water.



10. *Glaucus*, Sp.

Its description is as follows:

Length from head to tail, a c 1.8 inches.

Length from head to root of tail, a b 0.85 inches.

Length from head to first arm 0.2 inches.

Length from head to second arm 0.45 inches.

Length from head to third arm 0.7 inches.

1st arm.

From centre of back to end of round part, d e 0.3 inches.

From e to the end of short tentacula, e f 0.3 inches.

Ditto to long ditto, e g 0.75 inches.

Diameter of round part and attached tentacula 0.4 inches.

2nd arm.

From centre of back to end of tentacula. 0.4 inches.

3rd arm, do. do. 0.25 inches.

Breadth of body between the two first arms 0.13 inches.

Thickness 0.25 inches.

General colour of body, indigo blue, of a darkish tinge; down the centre of the back a white streak, terminating at the root of the tail; sides blue, tail blue, quite white underneath, its belly altogether resembling that of a frog; tail tapering to a point.

1st arm. 26 tentacula attached to the rounded paddle-shaped part of this arm, the centre tentacle more than twice the length of the others. These tentacula were so delicate that at the slightest touch they fell off. Those nearest the body were so small as to be almost imperceptible, gradually increasing in length as they approach the centre, and then decreasing to the other side. Centre of paddle-shaped part white, tentacula blue and white, fringed with dark blue at the extremity.

2nd arm. 18 tentacula to this, centre ones the largest. Same colour as first arm.

3rd arm. 12 tentacula, not forming such a regular circle as on the two first arms, and apparently issuing directly from a very short limb attached to the body.

The general appearance of the skin was that of a frog. It had the power of contracting itself considerably.

Caught a slug-like animal (Holothuria) this evening, or rather more closely resembling a caterpillar.

Length from head to root of tail 0.7 inches. Length of tail (or rather gelatinous protuberance) 0.25 inches. Breadth (broadest part at root of tail) 0.22 inches. Narrowest part (near head) 0.15 inches. Length of head 0.12 inches.

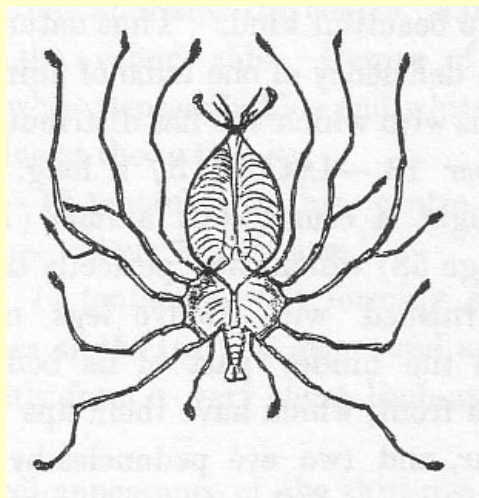
Head of light red colour, mouth apparent, motion of head like a caterpillar's when touched, shape cylindrical, body gelatinous, intestines apparent and full.

November 16. Longitude 102 degrees 40 minutes east; latitude 28 degrees 5 to 6 minutes south.

Since we have passed the 95th parallel of longitude, and 32nd of latitude up to the present moment we have been out of the region of birds, for during the whole of this period I have seen but two, one of which, a Petrel, has this moment visited us. We have however seen more Seajellies, Acalepha and Mollusca than before, and those of a much more beautiful kind. Thus nature has made up for the deficiency of one tribe of animals by the profuseness with which she has distributed another.

November 18. Latitude 26 degrees 57 minutes south; longitude 105 degrees 22 minutes east.

We caught a crustaceous animal (Phyllosoma, see Illustration 11) which was perfectly transparent; it was furnished with twelve legs on what I considered the hinder part of its body, and four antennae in front, which have their tips of a bright pink colour, and two eye peduncles by their side, which terminate in little bags containing some blue matter (their eyes). It was furnished also with two legs underneath. These are just shown in the figure near the centre of the body, and between those underneath the insect there was a slight projection, with two little lumps on each side. In this projecting part there appeared to be an opening. When it was taken out of the water it stood upright on its legs and crawled a little like a large beetle, but soon died. In the water it swam with the legs, and the last joint appeared to be feathered. It will be seen that there is a great irregularity in the position of the legs of this insect. The specimen appeared to me to be in some respects imperfect; but I figured it exactly as it was, without blindly guessing at its perfect state. It was not thicker than the thinnest wafer. The back was marked with curved lines, exactly in the manner I have represented. It shrank instantly when touched. The two last joints of the long legs were furnished with thorn-like spikes.



11. Phyllosoma, Sp.

Length of tail 0.37 inches.
of the body 0.2 inches.
of the thorax and head 0.3 inches.
of the entire animal 1.4 inches.
Breadth of body 0.62 inches.
Ditto of thorax 0.51 inches.

Length of third leg 1.9 inches.
Length of second leg 1.7 inches.
Length of hindermost leg 0.6 inches.
Length of eyes, peduncles 0.4 inches.

We caught a second animal of exactly the same size as the one figured, but apparently much more perfect. Each of its tentacula terminates in a small feathering tip when it is in the water, like the little figures at the side, and by the help of which they swim; these have a horny feel to the touch, are destitute of smell, and look like a transparent scale when they lie in your hand.

We also caught this day some little transparent shells (Cuvieria) of a cylindrical form, and blunt at the end; they put out two little fins with which they swam.

I was unfortunately too unwell this day to describe all the other specimens we caught, which were numerous. The sea was full of small acalepha, and in the midst of a shoal of these a whale was seen.

November 19. Latitude 25 degrees 50 minutes south; longitude 106 degrees 22 minutes east.

Birds first re-appeared again. I saw a large flock of two kinds, but was not near enough to ascertain what they were. I have before noted the fact that almost at the exact point where the southern birds of the family Longipennes disappeared those sea-jellies (acalepha) which have the power of stinging, began to show themselves; previously to our passing this point I had not seen one: I saw several however today at no great distance from this flock of birds.

We saw float by this afternoon one of the acalepha, apparently about two feet long and shaped generally like a water snake; its tail had fins like that of an eel, of a purplish tinge; I could distinctly see its head and various vessels in its interior for it was quite transparent. We had no net ready but threw a stick with a piece of string attached to it, the string passed under it but in pulling up cut through it as though it had been jelly.

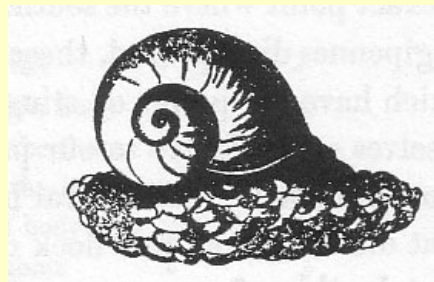
Caught an animal (Cymothoa) shaped exactly like a woodlouse:

Length 0.4 inches.
Length of antennae 0.15 inches.
Breadth of body 0.12 inches.

It had six legs, and a tail-like fin behind on each side, and nine rings on its back so that it could roll itself almost into a ball, these rings extended no farther than from its head to within 0.12 inches of its hinder extremity; colour very pale blue down the back, bright prussian blue on each side; it crawled about when taken out of the water, and lived for some time; its fins, or fin-like legs, when it thus crawled about, were folded under its tail; eyes distinct.

MOLLUSCA.

November 20. Latitude 25 degrees 14 minutes south; longitude 106 degrees 49 minutes east.



9. *Janthina exigua*.

A shell, *Janthina exigua*, was caught this evening, 8 hours 30 minutes P.M.; when brought directly out of the water into a room the temperature of the animal was 80 degrees 5'; of room 76 degrees; colour, dark violet purple over half the opening and lower part of the shell, so that it gives the animal the appearance of having been upon a purple-coloured place; this colour then dies gradually away, and in the smallest whorl of the shell becomes almost white. They had the power of emitting drops of a violet colour, and when put into spirits a great quantity of this issued from the mouth of the shells. We had one evening before caught a pair of shells of the same species, but much smaller, at exactly the same hour; in both instances each pair were caught at the same haul of the net.

November 23. Latitude 21 degrees 43 minutes south; longitude 109 degrees 43 east. 8 1/2 P.M.

FLYING FISH.

A flying-fish (*Exocetus*) flew on board. Its temperature was 74 degrees. The colour of its iris was black.

Length from mouth to end of curve between forks of tail 10 inches.

From mouth to commencement of wing-like fin 2.7 inches.
Length of wing fin 6.7 inches.
of dorsal fin 2.0 inches.
of pectoral fin 2.2 inches.
of anal fin 1.3 inches.
of upper fork of tail 2.2 inches.
of lower ditto 3.2 inches.
Length from mouth to end of gill 2.2 inches.
Breadth of wing fin 6 inches.
13 spines in each of these wings.
Breadth between eyes 0.11 inches.
Depth of fish 1.6 inches.
Breadth of thickness 1.6 inches.
Diameter of the eye 0.65 inches.

Under-jaw projecting; sides, pale green; back, blackish-green; belly, white; five first spines in wing fin, greenish; others white; wing-fin dark green with a transparent band running nearly up the centre from the back; pectoral fin, transparent, with a dark green spot, nearly an inch square, about the centre of its lowest extremity; tail, dark green, edges light.

November 26. Latitude 16 degrees 32 south; longitude 117 degrees east.

After crossing about the 22nd parallel of south latitude we fairly entered into the region of flying fish, and dolphins as they are commonly called; tropic birds were now also frequently seen, which had not up to this moment been the case; we often also met hereabouts with a dark-coloured bird with bronzed wings, having a cry precisely like a Snipe. I know not the name of this bird. The more beautiful and largest Sea-jellies (acalepha) had now disappeared, although the more minute ones were as numerous as ever.

REMARKS.

It therefore appears to me that we have, in coming from the southward to this point, passed through three great regions, or zones, of animal life, one extending from as far to the southward as I have yet been, namely 36 degrees south latitude to 31 degrees south latitude; this zone was inhabited by numerous Sea-jellies (acalepha) of the smaller kind, by porpoises and whales, as well as by immense varieties of the Petrels or Procellariae.

The second zone extending from 31 degrees south to 22 degrees south latitude was inhabited by immense numbers of the larger and more beautiful kind of Sea-jellies (acalepha) particularly by those that have the power of stinging. Within this zone I saw but one whale, one shoal of porpoises, and not a single one of the long-winged water birds or Petrels; in fact I but once in the whole of this distance saw any birds; there were also here a great variety and numbers of Sea-jellies (acalepha) of the smaller kinds. Do then the larger acalepha in this zone perform the office of the birds in the more southern one, and prey upon the smaller species of their own kind?

The third zone is the one with which I have commenced the journal of this day.

WATER SNAKES.

November 29. Latitude 15 degrees 26 minutes 32 seconds south; longitude 122 degrees 3 minutes east.

We saw six or seven water snakes (Hydrus) this day, all about three feet long, of a dirty yellow colour, with black stripes, the head black, they were furnished with fins like an eel, were of a very graceful form, and moved on the water exactly like a snake, with the head a little elevated; when they dived they turned up on their backs before they sank: we caught one of these snakes, also a moth and butterfly. A large bat (Pteropus ?) flew about the vessel this evening and pitched several times on the boat astern. I once struck it as it passed me, it appeared much fatigued; we were 150 miles from the main and thirty from the nearest small sandy island.

SHARKS.

We caught two sharks today; the sailors said that they saw fourteen or fifteen little sharks swimming round one of these, and that when the bait was thrown into the water and made a noise some of these swam into her mouth: directly after they had told me this the shark was caught. I had it opened and four young ones were found inside, two had never left the uterus, for they were attached to it at the time, the other two were not so attached, and were larger than the former, and swam well and strongly when put into the water: whether or not they had ever left the mother I cannot of course say. I have preserved two in spirits, one that was attached and one that was not; two intestinal worms were found in the stomach of one of the sharks.

CHAPTER 4. HANOVER BAY.

NEW AND DANGEROUS SHOAL.

November 29.

This morning at twenty minutes after nine, when in latitude 15 degrees 26 minutes 32 seconds and longitude 121 degrees 55 east, we suddenly made the very unpleasant discovery that we were in the midst of shoals, owing to some negligence in our lookout. This was not found out until we were hemmed in between two, one lying not more than fifty fathoms from our larboard quarter, and the other about three times the distance on the starboard beam. I went up to the mast-head, and distinctly saw the rocks, not more than two or three feet under water on the larboard side. We fortunately passed through this danger without accident; and, directly we cleared it, found bottom at twenty-five fathoms, coarse sand and shells.

RED ISLAND.

December 2.

I was called at four A.M. to keep my watch, and, as soon as I had ascertained that the men composing it were all present and at their stations, I went up aloft, and as I anticipated a speck of land soon appeared above the horizon. This was Red Island. Other points shortly rose behind it: hill after hill came up into view, at a distance looking like islands, which indeed many of them were; but, on a nearer approach, the parts connecting the others became visible, and the mainland of this vast insular continent gradually revealed itself to our anxious eyes.

MAKING THE LAND.

We stood on until eleven A.M.; but in making land there always rests a certain degree of anxiety upon the mind of the seaman and traveller, more especially when that land is imperfectly known. As there appeared to be every chance of our losing the sea-horizon, and consequently our noon observation, if we stood on and the breeze continued, our course was changed to the other tack until that hour; and then having correctly ascertained our position, Red Island bearing south-east by east, distance 8 miles, we once more stood in for the land.

Red Island is small, rocky, and of no great elevation; its colour is a very dark red; the sides are precipitous, and in its centre is a clump of trees which cannot be seen until you have run by the island, as it falls gradually from the south-west to the north-east, so that the north-east side is the least elevated. We sounded when about seven miles to the north-west of it, and found bottom at twenty-five fathoms, of green sandy mud.

The sandbank laid down on the Admiralty charts to the north-east of Red Island is small and barren; it is very low, and at some distance looks like a white rock in the water; being apparently an island formed of the same rock as the former, and topped with quartz or white sand. In entering Hanover Bay, or Port George the Fourth, a good course is to run nearly midway between this and Red Island. At sunset we anchored off Entrance Island (Port George the Fourth) in twenty-five fathoms water.

ARRIVAL OFF THE COAST OF AUSTRALIA. ASPECT OF THE COUNTRY FROM SHIP-BOARD.

At the first streak of dawn I leant over the vessel's side to gaze upon those shores I had so longed to see. I had not anticipated that they would present any appearance of inviting fertility; but I was not altogether prepared to behold so arid and barren a surface as that which now met my view. In front of me stood a line of lofty cliffs, occasionally broken by sandy beaches; on the summits of these cliffs and behind the beaches rose rocky sandstone hills, very thinly wooded. Whilst I mused on this prospect, all hands were busied in getting the vessel under weigh, which was soon accomplished; but there was little or no wind, and the ship lay almost motionless upon the waters.

LAND AT HIGH BLUFF POINT. WALK TO HANOVER BAY.

By ten o'clock however we were abreast of High Bluff Point and, as there appeared to be little chance of our having even a gentle breeze for some time, I determined to land with a party at the Point, and to walk from thence to Hanover Bay, where on our arrival we could make a signal to the vessel for a boat to reconvey us on board. By the adoption of this course I hoped to be able at once to select a spot affording water and forage, in the neighbourhood of which the sheep and stores might be landed; the vessel could then proceed without delay to the Island of Timor to procure the requisite number of ponies for our expedition, and, if she made a quick passage there and back, I trusted, notwithstanding the numerous unforeseen delays that had arisen, we might yet be able to start for the interior before the rainy season set in.

LANDING AND DISTRESS FOR WANT OF WATER ON THE ROUTE.

The necessary orders were soon given: the boat was lowered and, whilst the party prepared themselves, I went below to arrange with the master the precise spot at which the vessel was to anchor in order that no mistake might occur upon so vital a point. This done, I returned once more on deck, and found all ready for departure.

The party to land consisted of Mr. Lushington, Mr. Walker, and three men who were selected to accompany us. I also brought away three of the dogs, to whom I was anxious to give a run after their long confinement on board.

The shore for which we pulled was not more than half a mile distant, and we soon gained the

edge of a sandy beach, on which I sprang, eagerly followed by the rest; every eye beaming with delight and hope, unconscious as we were how soon our trials were to commence.

DISTRESSING MARCH.

I soon found that we had landed under very unfavourable circumstances. The sun was intensely hot. The long and close confinement on board a small vessel had unfitted us all for taking any violent or continued exercise without some previous training, and the country in which we had landed was of a more rocky and precipitous character than any I had ever before seen; indeed I could not more accurately describe the hills than by saying that they appeared to be the ruins of hills; composed as they were of huge blocks of red sandstone, confusedly piled together in loose disorder, and so overgrown with spinifex and scrub that the interstices were completely hidden, and into these one or other of the party was continually slipping and falling.

The trees were small, and their foliage so scant and slight that they afforded no shelter whatever from the burning rays of the sun; which appeared to strike up again from the sandstone with redoubled heat, so that it was really painful to touch or to stand upon a bare rock: we therefore kept moving onwards in the hope of meeting with some spot favourable for a halting place; but the difficult nature of the ground which we had to cross rendered our progress slow and oppressively laborious.

A feeling of thirst and lassitude such as I had never before experienced soon began to overcome all of us; for such a state of things we had unfortunately landed quite unprepared, having only two pints of water with us, a portion of which it was necessary to give to the dogs; who apparently suffered from the heat in an equal degree with ourselves. These distressing symptoms I can only ascribe to the extreme heat of the sun reflected from the sandstone rocks, and our previous long confinement on board.

LOSS OF OUR THREE DOGS.

Our small supply of water, although but sparingly used, was soon exhausted; and the symptoms of lassitude, before so excessive, now became far worse. As usual, the endurance of the animals gave way before that of the men. We had not completed more than a mile of our route (although it was far more if the ascents and descents were taken into account) when Ranger, a very fine young dog, dropped behind some rocks, and although we turned back to look for him directly he was missed he could not be found.

The next to give way was Ringhalz, a fine Cape buck-hound; he fell amongst the rocks, and died almost instantly. The only dog now left was a greyhound, who manifested his extreme distress by constantly lying down. For some time we dragged him along, but he was at last from necessity abandoned. The cry of water was at length raised by one of the party, and immediately afterwards we found ourselves on the edge of a deep ravine, the precipitous sides of which were composed of nearly horizontal layers of red sandstone. Down these some of us contrived to scramble, although not without difficulty; but on reaching the bottom we had the mortification to find the water salt; and as it would have been very laborious to follow its course along the bottom of the ravine over the mud, mangroves, and rocks which filled it, we had the pleasure of scrambling up again as we best could.

For some short time we remained seated on the edge of the cliffs above the ravine; but as there was no shelter here from the sun's rays, and the pangs of thirst were pressing, I roused the men at last, and moved on again, following the course of the ravine upwards. We had not walked more than half a mile when the salt water inlet terminated and the bed of the ravine became thickly wooded. At the moment we gained this point some white cockatoos came soaring upwards from beneath our feet; and, as we knew that this was an infallible sign of the presence of water, we descended again to renew our search for it.

WATER DISCOVERED.

Our efforts this time were successful: in a few minutes we found a pool of brackish water which appeared, under the present circumstances, to afford the most delicious draughts, and, having drunk, we lay down by the pool to rest ourselves. Being however doubtful as to which was the best route to lead us out of the ravine we were now in, I walked up its course, accompanied by Corporal Coles, leaving the others to rest themselves, and soon reached its head; when we found ourselves in a small but fertile valley, surrounded on all sides by rocky hills. Here were many tracks of natives, and we came upon one of their regular haunts, where they had arranged a circle of large flat stones round a fireplace occupying the centre; on each of these stones was laid a smaller one, evidently used for the purpose of breaking small shellfish, for the remains of the shells were lying scattered about in all directions;* kangaroo bones were also plentifully strewn about, and beside each pair of stones was laid a large shell, probably used as a drinking cup.

(*Footnote. We found the marks of an encampment of a tribe of natives. Eight or nine spots were cleared away amongst the grass, and in the centre of each were the ashes of a small fire, close to which we noticed some loose flattened stones with a smaller one lying upon them, which the natives probably used for the purpose of bruising or grinding the seeds of plants and breaking shellfish. King's Survey of Australia volume 1 page 302.)

TRACES OF NATIVES. THEIR HUTS.

Natives had been at this spot within the last day or two, and we followed their traces, which were quite recent, across a dry watercourse till they led to a hut built of a framework of logs of wood, and in shape like a beehive, about four feet high and nine in diameter. This hut was of a very superior description to those I found afterwards to be generally in use in South-Western Australia, and differed from them altogether in that its low and narrow entrance rendered access impossible without stooping; and with the exception of this aperture the hut was entirely closed.

PROGRESS TOWARDS HANOVER BAY. ALARMING INCREASING DEBILITY OF THE MEN. EFFORTS TO REACH THE VESSEL.

Considering that the best route out of these ravines would be by this valley, I returned with Coles to the party, whom we found much refreshed and, having consulted with Mr. Lushington as to the route we should follow to the vessel after reaching the valley, we once more moved on; but the same symptoms of lassitude and thirst began very soon again to afflict us in an aggravated form; probably from the brackish water we had all swallowed. In less than two hours more these symptoms became so distressing that I could scarcely induce the men to move, and we therefore halted under the shade of some high rocks.

It was now growing late, and the nature of the country was so rocky and difficult that I thought it would be impossible for us to attempt to march in the night-time; whilst on the other hand the men seemed so completely worn out that I feared another day without fresh water would be more than they could bear. I therefore became anxious to make the sea coast before nightfall, considering that we could easily walk along the shore after dark and fire a gun as a signal to the schooner to send a boat for us. With this view therefore I moved on towards the sea, requesting Mr. Lushington, when I fired, to follow my course with the men.

As I walked ahead I found the country very rocky, with lofty bare pinnacles standing up every here and there in the forest, one or two of which I climbed, but could see nothing of the vessel. I now fired a signal shot which, being answered by another from the party, I knew that they were on my traces, and again moved on towards the sea. I presently fired again, as I thought that they might augur favourably from the report, and continued occasionally to do so until I had reached the shore.

The cliffs were so steep that I found some difficulty in descending, but directly I had gained the sea beach I pulled off my clothes and plunged into the water: the quantity of moisture taken into the system by absorption as I lay in the sea soon relieved my burning thirst, and by the time that the first of the party (Corporal Coles) came up I was quite recovered. He followed my example and soon began to revive also. The remainder of the party now arrived with Mr. Lushington, who had found much difficulty in getting them along. Of his exertions under these trying circumstances I cannot speak too highly. But for his persuasion and example I think two of the men were so exhausted that they would before this have given up in despair.

Corporal Coles being now nearly recovered I left the rest of the party under Mr. Lushington to follow the plan of refreshing themselves by immersion in the sea and, as two men appeared to me to be very ill, I arranged with him that he should keep the whole together and, as soon as he considered them sufficiently recovered, they should follow myself and Coles; whilst we preceded them along the beach for the purpose of sending a boat back from the Lynher to pick them up.

FURTHER COURSE OBSTRUCTED.

I accordingly started with Coles and had not proceeded more than a mile when we found two huts (one in ruins and the other complete) of exactly the same size and form as that which we had seen in the morning; the recent track of a native along the beach close to these was also visible. In another half mile our progress was arrested by an arm of the sea, about four or five hundred yards across, from which the tide was running out with fearful rapidity; and on the opposite cliffs we observed a native watching our movements.

As night was coming rapidly on it was necessary for me to decide at once what I should do. Coles was unable to swim. If therefore I crossed the stream it must be alone: to do so with natives on the opposite bank, of whose intentions towards us we were entirely ignorant, was not without considerable danger; yet I was very unwilling to leave the men in such a state of suffering from thirst when I was so near the schooner, from whence their wants could be supplied. Whilst I was debating what to do Coles kept firing his gun in hopes that they might hear the report on board and send a boat to our relief; in vain however we strained our ears, the report of Coles's gun was reverberated from cliff to cliff and from hill to hill, but no answering sound came back across the tranquil water.

In the meantime I felt more and more anxious about the portion of the party who were with Mr. Lushington, having left with them certain orders and promised to send a boat up to them; on which promise all their further movements would be regulated. The beach near us afforded no wood wherewith to make a fire as a signal to the schooner; the cliffs hereabouts were too precipitous to climb; and it was evident that but very few of the party could swim so broad a space of water; granting that they ever reached so far as the point where Coles and myself now were.

SWIM AN INLET OF THE SEA. DANGER IN THE PASSAGE ACROSS AND AFTER LANDING.

I therefore determined to run all risks, and swim the arm of the sea which stopped our way.

I directed Coles to wait until the others came up and then to remain with them until I returned in a boat. From the rugged nature of the shore I could not have walked a yard without shoes, so I kept them on, as well as my shirt and military cap, and I took a pistol in one hand as a means of defence against the natives, or else to fire it when I reached a spot where it could be seen or heard from the vessel.

I plunged in and very soon found myself caught in a tideway so violent that resistance to its force, so as either to get on or return, appeared at the moment hopeless.* My left hand, in which I held the pistol, was called into requisition to save my life; for the stream washed the cap from my head and, the cap then filling with water, and being carried down by the strong current, the chin-strap caught round my neck and nearly throttled me as I dragged it after me through the water; whilst the loose folds of my shirt, being washed out to seawards by the tide, kept getting entangled with my arm. I grew weak and faint but still swam my best, and at last I providentially reached a reef of rocks which projected from the opposite shore, and to which I clung until I had somewhat regained my strength.

(*Footnote. I should state that the rise and fall of tide here is thirty-eight feet.)

DANGER FROM NATIVES.

I then clambered up on the rocks, and from thence made my way to the beach; but no sooner had I gained it than I heard a native call from the top of the cliffs, and the answering cries of his comrades rang through the wood as they followed me along; my pistol was so thoroughly soaked in my passage across the inlet that it was quite useless except as a club. To attempt to swim back again after the narrow escape I had just had would have been madness; besides which if I had succeeded I should have lost the object for which I had put my life at hazard. Nothing therefore was left but to walk along shore to the schooner, trusting, in my defenceless state, that I might not fall in with any natives. It was now dark and the shore was so broken and rocky that I got terribly cut and bruised, and was, moreover, so weak from my exertions in swimming that when I arrived opposite the vessel I could scarcely hail. Some of those on board however heard me (as I found afterwards) and shouted in reply; but their voices never reached my ears, and I imagined they were too far for I could not now see the vessel.

I made one or two more efforts to hail the Lynher, but the noise I made had now attracted the notice of the natives and I heard their cries in several directions round me; this rendered my situation an unpleasant one for I was worn out, naked, and defenceless: at first I thought to return and rejoin my party, and even turned back for a short distance with this intention, but I found myself too weak for such an undertaking and changed my plans; resolving to remain nearly opposite to the vessel until the morning, and resting my chance of safety upon being discovered from it before the natives found me.

TAKEN UP BY THE LYNHER'S BOAT.

With this intent I returned to the position from which I had lately hailed, and crept into a hole in the rocks whence I could still occasionally hear the calls of the natives; but, being thoroughly worn out, I soon forgot my toils and dangers in a very sound and comfortable sleep. I might have slept for some two hours when I was roused by hearing a voice shout "Mr. Grey;" still however feeling rather distrustful of the truth of my mental impressions, and unwilling to betray my whereabouts to the natives, I returned no answer, but, putting out my head from my secret place of rest, I waited patiently for a solution of my doubts. But again I certainly heard the same voice shout "Mr. Grey," and I moreover now distinctly recognised the noise of oars working in the rowlocks; I therefore hailed "Lynher, ahoy," and all my doubts were completely put at rest by the hearty cheers which greeted my ear as Mr. Smith, the mate of the schooner, called out, "Where shall we pull in, Sir?"

FORTUNATE DELIVERY AND THE PARTY REGAIN THE LYNHER.

In a few minutes more I was in the boat, and rejoiced to find all the party safely there before me. My next question was, "Have you a little water here?" "Plenty, Sir," answered Corporal Cole as he handed me a little, which I greedily swallowed.

Their adventures were soon related to me. The party under Mr. Lushington, being on an exposed part of the coast, the flash of their guns had been seen after dark, and the Captain despatched a boat from the schooner to pull along shore. This boat first of all found Coles near where I had quitted him, and he directed them to the others; the boat, having picked them up, then returned for Coles, and heard from him the intentions with which I had attempted to swim the arm of the sea; but as he had never seen me reach the opposite bank, and the inlet was of very considerable width, they had, up to the moment of finding me, felt very serious misgivings as to my fate.

I did not know till afterwards that the water Corporal Coles had handed to me on entering the boat was all they had on board when he was picked up, and that, although suffering severely from thirst, Coles would not touch a drop as long as he retained any hope that I might be found and be in want of it.

RETURN OF ALL ON BOARD.

We were now however safe again, and as all had borne themselves well under the difficulties to which they had been exposed, more particularly Mr. Lushington, to whom the credit is due of having, by his personal example and influence, successfully brought on the party to the point of their embarkation, it was now pleasant to revert to the trials we had passed, and to recall to one another's recollection each minute circumstance of our day's adventures; and when we were again on board and had turned in for the night I could not help feeling a deep sense of gratitude to that Providence who, in so brief a space, had preserved me through so many perils.

CHAPTER 5. AT HANOVER BAY.

PLAGUE OF FLIES.

December 4.

To sleep after sunrise was impossible on account of the number of flies which kept buzzing about the face. To open our mouths was dangerous. In they flew, and mysteriously disappeared, to be rapidly ejected again in a violent fit of coughing; and into the eyes, when unclosed, they soon found their way and, by inserting the proboscis and sucking, speedily made them sore; neither were the nostrils safe from their attacks, which were made simultaneously on all points, and in multitudes. This was a very troublesome annoyance, but I afterwards found it to be a very general one throughout all the unoccupied portions of Australia; although in general the further north you go in this continent the more intolerable does the fly nuisance become.

Sunrise offered a very beautiful spectacle; the water was quite unruffled, but the motion communicated by the tides was so great that, although there was not a breath of air stirring, the sea heaved slowly with a grand and majestic motion. On two sides the view was bounded by lofty cliffs, from three to four hundred feet high, lightly wooded at their summits, and broken by wide openings, into which ran arms of the sea, forming gloomy channels of communication with the interior country; whilst on each side of their entrances the huge cliffs rose, like the pillars of some gigantic portal.

In front of us lay a smooth sandy beach, beyond which rose gradually a high wooded country, and behind us was the sea, studded with numerous islands of every variety of form.

ENTRANCE TO PRINCE REGENT'S RIVER.

I was too much tired by the fatigues of the night before to enjoy the scene with the full delight I should otherwise have done; the bruises I had received made me feel so stiff and sore that the slightest movement was painful; the rainy season was however now so near that it would not do to lose a single day of preparation. Directly after breakfast therefore, whilst one boat went off to search for fresh water and a convenient spot to land the stores at, I accompanied the Captain of the vessel in another up Prince Regent's River.

EFFECT OF TIDES.

In general the openings to these rivers from the sea are very narrow, forming gorges which terminate in extensive basins, some fifteen or twenty miles inland; the levels of these reservoirs are subject to be raised thirty-seven feet by every tide through their funnel-like entrances, along which the waters consequently pour with a velocity of which it is difficult to form any adequate idea. By such a tide were we swept along as we entered this river by its southern mouth.

On each side of us rose lofty red sandstone cliffs; sometimes quite precipitous, sometimes, from ancient landslips, shelving gradually down to the water, and at these points covered with a dense tropical vegetation.

GREEN ANTS.

At several such places we landed, but always found the ascent to the interior so covered with large loose rocks that it would have been impossible to have disembarked stores or stock on any. The thickness of the vegetation made it difficult to force a way through, and whenever, in attempting so to do, a tree was shaken, numbers of a large green sort of ant fell from the boughs on the unhappy trespasser and, making the best of their way to the back of his neck, gave warning by a series of most painful bites that he was encroaching on their domain. Yet it was sometimes ludicrous to see one of the party momentarily stamping and roaring with pain, as he cried out to a companion to hasten and assist him in getting rid of an enemy at once so diminutive and so troublesome.

PARRAKEETS.

We saw a great number of beautiful parakeets, as well as a remarkable hawk of a bright cinnamon colour, with a milk-white head and neck. As there was no apparent probability of our finding hereabouts a spot suited to land our stock and stores at we returned in the afternoon to the schooner, and found that the party in the other boat had been as unsuccessful as ourselves.

DESCRIPTION OF LANDING-PLACE, AND ENCAMPMENT AT HANOVER BAY.

December 5.

The long-boat was this morning despatched to the ravine where we had procured water on the first day of our landing to bring a few casks for immediate use, and to examine the country again in that direction; whilst I accompanied the Captain to examine the inlet at which Captain King had watered in his visit to these parts, in 1821.

WATERING PLACE AT HANOVER BAY.

The approach to this watering-place was through a deep narrow channel, bounded on each side by high cliffs, against which our voices echoed and sounded strangely; whilst from the quantity of light which the cliffs excluded a solemn sombre hue was imparted to the scene. Channels similar to the main one branched off on each side; they were however so narrow that the dense vegetation which grew on their sides nearly met in the centre, giving them an appearance of dark and refreshing coolness; most of these terminated in cascades, now dry, but down which the water in the rainy seasons pours in torrents: at the foot of some of these cascades were deep cavities, or natural basins, worn in the solid rock by the falling of the water, and these were still full of the clearest cool water, in which sported small insects and animals of kinds quite unknown to me.

As we were swept up the main opening by the tide and sea-breeze its width gradually contracted, till at last we came to a small island bearing a single large mangrove tree, which we named One Tree Island. The shores now became thickly wooded with mangroves, from the boughs of which depended in clusters small but well-flavoured oysters, and soon after passing the island we found our farther progress arrested by large rounded blocks of sandstone, from amongst which fresh water came pouring in a hundred little cascades.

BEAUTIFUL RAVINE.

We here quitted the boat to enter a deep and picturesque ravine, of which the mean breadth was only one hundred and forty-seven feet, bounded on each side by perpendicular cliffs from one hundred and fifty to two hundred feet high; in the centre ran a clear stream, sometimes forming deep and extensive pools, sometimes divided into innumerable little rills which gurgled along through a dense and matted vegetation; and bordered on each side of the main bed by a lofty species of Eucalyptus, with a bark resembling layers of coarse white paper, and a foliage pendant and graceful; whilst the great height of these trees for they raised their heads above the cliffs, contrasted strangely with the narrowness of the ravine in which they grew. The space between these trees and the cliffs was filled by a dense forest, principally composed of the Pandanus and wild nutmeg trees. Rich grasses and climbing plants occupied the interval and twined around the trees, whilst parakeets of the most vivid colours filled the wood with their cries. Nothing could be more striking than this singular and novel scene; and we were all delighted as we wound our way up the beautiful ravine.

The same character continued for the next mile or two, whilst occasionally branch valleys of similar character ran off from a main one, giving it at these points a much greater width. The summit of the cliffs was found to be generally a rocky sandy tableland, thinly wooded; and from what I had seen it appeared to me that I was not likely to find a place better adapted for landing the stores than the main ravine.

On embarking to return we could perceive no sign of One Tree Island; and as we swept down towards the sea the leafy top of a tree seen in the clear water under the boat was the only evidence of its existence; though a few hours ago it had formed so prominent an object.

FATE OF TWO OF THE DOGS.

The long-boat returned to the vessel half an hour after us and brought eighty gallons of water; but the spot whence it was obtained had been found very inconvenient for the purpose. At the waterhole they had met Ranger, the dog we lost the first day; but he appeared quite mad, and without recognising any of them ran wildly away into the woods. The body of poor Ringhalz was also found, who had died on the spot where he fell.

LABOUR OF DISEMBARKING STORES.

December 6.

A party landed with me soon after dawn at the same point as yesterday, for the purpose of selecting the spot at which to fix our temporary encampment. We traced the valley for about four miles through scenery precisely similar to that which we had found before; many branch valleys ran off from the main one and differed from it in no other respect but that they were much narrower. The most favourable spot I could find for our purpose was distant about half a mile from the landing-place and situated at the junction of two valleys, upon a neck of land which ran out from the base of the cliffs. This was the nearest point to the sea at which we should have been safe from any sudden inundation; it combined, moreover, the advantages of affording a good supply of food and water for the stock, of not being within reach of missiles thrown from the cliffs, and at the same time of being situated close to an easy ascent to their summit. I should have preferred pitching the encampment on the tableland at the top, but the labour of carrying the stores up so precipitous an ascent would have been too great for the men, and would have

delayed our movements for a longer time than I thought prudent.

PREPARATIONS FOR ENCAMPING.

Having selected the point for our encampment the next task was to form a pathway to and from the landing-place; and this, on account of the rocky, broken nature of the ground, was one of no slight difficulty. We first set fire to the bush, and being thus enabled to see our way a little we commenced moving the rocks and stones, and continued this operation until near sunset, when we returned on board.

NATIVES SEEN.

December 7.

We landed again early this morning and went on working at the pathway. The men dined on shore at noon, about which time it was nearly low-water. We had repeatedly seen footmarks of the natives in the mud, and this probably was a favourite fishing resort of theirs, for this day they came upon the cliffs over our heads and shouted at us, as if to try and frighten us away. Finding however that this produced no effect, they threw down some large stones at us and then decamped.

In the course of the night (2 A.M.) we had one of those sudden heavy squalls from off the land which are so common on this coast. I slept on deck and was called to hear a loud roaring on the shore: this was evidently the noise of a rushing wind, which gradually drew nearer and nearer and at last reached us, accompanied by lightning, thunder, and heavy rain; it did not however last for more than twenty minutes, and we received no damage from it.

December 8.

Whilst the party continued the pathway I landed on the sandy beach and explored the interior of the country for several miles. We found but very little fresh water and the country was dreadfully burnt up; the heavy rain which had fallen last night however gave signs of the approach of the wet season. We passed several dry watercourses, in many of which we dug for it, but all that we obtained was brackish. We had another squall this afternoon, similar to last night's.

LANDING STOCK. LABOUR IN LANDING STORES.

December 9.

This day we pitched the tents, disembarked the sheep and goats, and some of the stores. It was no slight pleasure to see for the first time those animals landed on a new country, and they appeared themselves to rejoice in their escape from the close confinement on shipboard.

We here first hoisted the British flag, and went through the ceremony of taking possession of the territory in the name of Her Majesty and her heirs for ever.

The next few days were passed in moving the stores from the landing-place to the tent; as it was necessary that before I allowed the schooner to start we should be amply provided with all necessaries so as to be able to maintain ourselves for some time, in the event of anything happening to the vessel: this was very fatiguing work for the whole party but they all exerted themselves with the most strenuous energy, especially Mr. Lushington; and our labours were varied by several amusing novelties which relieved the monotony of the employment.

REMARKABLE FISHES.

Sometimes as we sat at our dinner near the landing-place we watched a strange species of fish (genus *Chironectes*, Cuvier). These little animals are provided with arms, at least with members shaped like such as far as the elbow, but the lower part resembles a fin; they are amphibious, living equally well on the mud or in the water; in moving in the mud they walk, as it were, on their elbows, and the lower arm or fin then projects like a great splay foot; but in swimming the whole of this apparatus is used as a fin. They have also the property of being able to bury themselves almost instantaneously in the soft mud when disturbed. The uncouth gambols and leaps of these anomalous creatures were very singular.

Another remarkable fish was a species of mullet which, being left by the retreat of the high tides in the pools beyond the rounded rocks at the head of the landing-place, was obliged to change its element from salt to fresh water, which by a very remarkable habit it appeared to do without suffering any inconvenience. The natural hue of this fish was a very pale red, but when they had been for some time in the fresh water this reddish tinge became much deeper, and when of this colour I have found them in streams a considerable distance from the sea, as if, like our salmon, they had quitted it for the purpose of spawning. Indeed birds, insects, and all things we saw, were so new and singular that our attention was kept constantly excited by the varied objects which passed before us.

December 11.

I went on board in the morning for the purpose of preparing my letters, and about 10 A.M. it was

reported to me that a party of natives had come down to one of the sandy beaches and were fishing there. I immediately went upon deck and saw four natives in the sea opposite to the beach, running about and fishing. Captain Browne went on shore at once with me to try and parley with them, but as we approached the land they ran away; we remained for some time on the beach and tried to follow their tracks up into the country, but could see nothing more of them.

This night at 8 P.M. we had another sudden squall from off the land, accompanied with thunder, lightning, and heavy rain; it blew so hard that we were obliged to let go the best bower anchor, but as usual it only lasted twenty minutes.

PREPARATIONS FOR SENDING THE VESSEL TO TIMOR.

As Mr. Lushington was to accompany the schooner to Timor, and I was anxious to ascertain which would be the best direction for us to move off in on his return, I determined to commence my exploring trips as soon as possible. All hands still continued busily engaged in landing the stores and conveying them to the tents; but though the men worked hard our progress was slow. Everything had to be carried on the men's shoulders, for the path, after the great trouble and labour we had bestowed on it, was still so intricate and rocky that it was impossible to use even a hand-barrow. The intense heat of the sun, too, incommoded the men very much at first; but by the 16th of December all the stores were landed, and a considerable supply of water was taken off to the vessel. I determined therefore now to start in my first exploring excursion, leaving to Mr. Lushington the task of seeing the watering of the schooner completed before he left for Timor.

CHAPTER 6. HANOVER BAY AND ITS VICINITY.

NATIVES SEEN.

Sunday December 17.

This morning directly after breakfast I read prayers to the men, and then commenced my preparations for the excursion on which I intended to start in the evening. Whilst I was occupied in arranging my papers Mr. Lushington observed two natives sitting on the rocks on the top of the cliffs which overlooked the valley, and gazing down intently on us. The instant that he made friendly signs to them they rose from their seats and began to retreat. Some of the party then called to them and one of the natives answered; but they still moved rapidly away. I would not allow them to be followed for fear of increasing their alarm, and in the hope that they would return, but was disappointed. It must have awakened strange feelings in the breast of these two savages, who could never before have seen civilized man, thus to have sat spectators and overlookers of the every action of such incomprehensible beings as we must have appeared; and the relation to their comrades of the wonders they had witnessed could not have been to them a whit less marvellous than the tales of the grey-headed Irish peasant, when he recounts the freaks of the fairies, "whose midnight revels by the forest side or fountain" he has watched intently from some shrub-clad hill.

COMMENCEMENT OF FIRST EXCURSION.

I started in the evening, accompanied by Corporal John Coles and Private R. Mustard, both of the corps of Royal Sappers and Miners, and for a short distance by two or three others of the party from the camp. We moved up the ravine in which we were encamped in a nearly due south direction, and after following this course about a mile turned up a branch ravine to the left, bearing 87 degrees from the north.

CHARACTER OF THE SCENERY. GEOLOGICAL PHENOMENA.

The romantic scenery of this narrow glen could not be surpassed. Its width at bottom was not more than forty or fifty feet, on each side rose cliffs of sandstone between three and four hundred feet high and nearly perpendicular; lofty paper-bark trees grew here and there, and down the middle ran a beautiful stream of clear, cool water, which now gushed along, a murmuring mountain torrent, and anon formed a series of small cascades. As we ascended higher the width contracted; the paper-bark trees disappeared; and the bottom of the valley became thickly wooded with wild nutmeg and other fragrant trees. Cockatoos soared, with hoarse screams, above us, many-coloured parakeets darted away, filling the woods with their playful cries, and the large white pigeons which feed on the wild nutmegs cooed loudly to their mates, and battered the boughs with their wings as they flew away.

The spot I chose to halt at for the night was at the foot of a lofty precipice of rocks, from which a spring gushed forth. Those who had accompanied us from the camp now returned, leaving me and the two soldiers alone and about to penetrate some distance into an utterly unknown country. We were each provided with ten days' provisions and, confident in the steadiness and courage of my men, I had not the slightest anxiety--feeling that as long as we maintained a cool and determined bearing the natives would make no attacks upon us that we could not repel.

We soon erected a little hut of bark, then kindled a fire and cooked our supper, consisting of tea and two white pigeons which we had shot; and by the time our repast was finished it was nearly

dark. My companions laid down to sleep: I remained up for a short time to think alone in the wilderness, and then followed their example.

ASCENT OF A GLEN.

December 18.

At break of day we were again upon our route, which lay up the valley we had slept in; but, as each of us carried ten days' provisions and a day's water, besides our arms, the progress we made in a tropical climate, when thus laden, was necessarily slow and laborious; but the beauty of the landscape and the solicitude we all felt to see more of this unexplored land cheered us on.

TABLELAND AT THE SUMMIT.

Having at length reached the tableland which this valley drained we found ourselves in the midst of a forest, differing widely from anything we had before seen. The soil beneath our feet was sandy and thickly clothed with spinifex (a prickly grass) which in spite of our thick trousers slightly but continually wounded our legs. The trees were lofty and some of them of considerable circumference; but the trunks of all were charred and blackened by constant fires: this circumstance, and their slight and thin, yet strikingly graceful foliage, gave them a most picturesque appearance.

Every here and there in the wood rose lofty and isolated pinnacles of sandstone rock, fantastic in form, and frequently overgrown with graceful creeping and climbing plants which imparted to them a somewhat of mystery and elegance. In other parts rose the gigantic ant-hills so much spoken of by former visitors of these shores; and in the distance we saw occasionally the forms of the timid kangaroos, who stole fearfully away from the unknown disturbers of their solitude.

ANOTHER VALLEY.

But when we arrived at the extremity of the tableland I felt somewhat disappointed at beholding a deep narrow ravine at my feet, precisely resembling in character the one we had left, and beyond this a second sandstone range, wooded as that on which we stood; in about half an hour we gained the bottom of the ravine and found that a rapid stream ran through it, which, being the first we had discovered, I named the Lushington, after the father of my associate in this expedition, and in accordance with a determination I had made before starting.

Mustard (one of the men with me) being ill, I determined to halt here for breakfast and, having completed this meal, I was sorry to find that he was still too unwell to proceed; such however being the case I was compelled to halt for the day: leaving Coles therefore to take care of him, I strolled off to explore the valley alone. Except in being much larger it differed in no respect from the first in which we encamped, and I found that within about half a mile below the spot where I had left the men it terminated in a salt-water inlet, nearly choked up with mangroves. On returning to them I found Mustard somewhat better; to our annoyance however heavy rain set in, accompanied by thunder and lightning; and as we had no shelter but what some overhanging rocks afforded us we passed a very uncomfortable night.

December 19.

Mustard was still not quite well; we therefore started late and travelled slowly, keeping nearly in a south-east direction. We thus gradually ascended the second sandstone range, the summit of which was a tableland, at this point about half a mile wide.

GEOLOGICAL PHENOMENA.

We here remarked a very curious circumstance. Several acres of land on this elevated position were nearly covered with lofty isolated sandstone pillars of the most grotesque and fantastic shapes, from which the imagination might easily have pictured to itself forms equally singular and amusing. In one place was a regular unroofed aisle, with a row of massive pillars on each side; and in another there stood upon a pedestal what appeared to be the legs of an ancient statue, from which the body had been knocked away.

Some of these time-worn columns were covered with sweet-smelling creepers, while their bases were concealed by a dense vegetation, which added much to their very singular appearance. The height of two or three which I measured was upwards of forty feet; and, as the tops of all of them were nearly upon the same level, that of the surrounding country must at one period have been as high as their present summits, probably much higher.

From the top of one of these pillars I surveyed the surrounding country and saw on every side proofs of the same extensive degradation--so extensive, indeed, that I found it very difficult to account for; but the gurgling of water, which I heard beneath me, soon put an end to the state of perplexity in which I was involved, for I ascertained that streams were running in the earth beneath my feet; and, on descending and creeping into a fissure in the rocks, I found beneath the surface a cavern precisely resembling the remains that existed above ground, only that this was roofed, whilst through it ran a small stream which in the rainy season must become a perfect torrent. It was now evident to me that ere many years had elapsed the roof would give way, and what now were the buttresses of dark and gloomy caverns would emerge into day and become

columns clad in green, and resplendent in the bright sunshine.

GRADUAL DEGRADATION OF THE LAND.

In this state they would gradually waste away beneath the ever-during influence of atmospheric causes, and the material being then carried down by the streams, through a series of caverns resembling those of which they once formed a portion, would be swept out into the ocean and deposited on sandbanks, to be raised again, at some remote epoch, a new continent, built up with the ruins of an ancient world.

I subsequently, during the season of the heavy rains, remarked the usual character of the mountain streams to be that they rose at the foot of some little elevation which stood upon a lofty tableland composed of sandstone, then flowed in a sandy bed for a short distance and afterwards mysteriously sank in the cracks and crevices made in the rocks from atmospheric influences, and did not again reappear until they had reached the foot of the precipice which terminated the tableland whence they sprang; here they came foaming out in a rapid stream which had undoubtedly worked strange havoc in the porous sandstone rocks among which it held its subterraneous course.

What the amount of sand annually carried down from the north-western portion of Australia into the ocean may be we have no means whatever of ascertaining; that it is sufficient to form beds of sand of very great magnitude is attested by the existence of numerous and extensive sandbanks all along the coast. One single heavy tropical shower of only a few hours' duration washed down, over a plot of ground which was planted with barley, a bed of sand nearly five inches deep, which the succeeding showers again swept off, carrying it further upon its way towards the sea.

The space of ground covered with these columns gradually contracted its dimensions as we proceeded; the columns themselves became nearer and nearer to each other until they at length formed walls of cliffs on each side of us, and we finally reached a point where a single lofty pillar, standing in front of a dry cascade, formed the centre of an amphitheatre of sandstone. There was some water in a little natural basin at the base of the cliffs. I determined therefore to halt here for breakfast and, leaving the men at the foot of the cascade to prepare some tea, I clambered to its summit, and found myself on another tableland similar to that which I had just left, and covered in the same manner with natural columns.

SANDSTONE CAVERNS.

Some distance from the top of the cascade I discovered a cavern, or rather huge hole in the water-course, into which, thinking it might contain fossil bones, I descended as far as the first ledge, and I then perceived that the water pouring through this cavern in the rainy season was cutting off another rock of sandstone similar to the remarkable pillar in front of the cascade. The water in the basin below must have filtered out from this cavern. On a further examination I found that a precisely similar series of operations was going on throughout the whole amphitheatre of cliffs which bounded the tableland we had been traversing during the morning.

In the rainy season (March 7th) I again passed this spot and found the watercourse full of water, which was also falling abundantly from the cascade. From this circumstance I inferred that the subterraneous outlets for the water were all filled, consequently the large body which these caverns would contain must have been then endeavouring to force its way through the fissures in the porous sandstone rocks.

CONTINUATION OF ROUTE. HALT IN A VALLEY.

After breakfast we continued on our route through a sandstone country precisely resembling the one which I have now described, and in the course of the day, having completed fifteen miles in a straight line, we halted for the night in a fertile valley affording plenty of fresh water, and so densely wooded with the dwarf pandanus and other prickly trees that we could scarcely make our way through the underwood. In this valley we saw several sorts of cranes, principally *Ardea antigone*, and *Ardea scolopacia*, and I shot one of the former kind and laid it by, intending to eat it in the morning. We could not find any holes in the rocks large enough to protect us from the rain, which fell throughout the night, accompanied by thunder and lightning.

December 20.

Just as we turned out this morning a large kangaroo came close to us to drink at a waterhole; the effect as it stole along through the thick bushes in the morning twilight was very striking. I could not succeed in getting a shot at it; but, as I was determined to have a meat breakfast, I desired Mustard to cook the crane, the rats however had eaten the greater part of it; we therefore at once moved on and, after travelling four miles in a south-east direction over good land, we reached a valley, the largest and best I had yet seen, containing trees and birds such as we had not before met with; kangaroos were more plentiful, and, for the first time, we saw the opossum. The valley was more than a mile in width at the point where we first made it, and we had but just time to cross it and to gain the partial shelter of some rocks when heavy rain again set in. We could keep no fire and, being soon wet through, passed a wretched night.

December 21.

We all today began to feel the want of food; since Sunday night we had subsisted on nothing but rice and tea, and only in very small quantities at a time, as the heavy rain had materially interrupted our cooking. As there was plenty of game in this valley I determined to halt for a day previously to my return to the party, for the double purpose of exploring the valley and of shooting game.

CUCKOO-PHEASANT.

The large bird which was the most abundant here was the *Cuculus phasianus* or pheasant cuckoo. This bird in colour, in length of tail, in its size, and general appearance so closely resembles the hen pheasant of England that, when it is on the wing, it is almost impossible to tell the difference; its habits and food are also identical with that of the English pheasant. The chief point of distinction is that its toes point two before and two behind, in the same manner as those of a parrot; but what is very remarkable about this bird is that, although, like the other Scansores, it delights in climbing and running up trees, it is equally fond of running along the ground in the manner a pheasant does.

SPORTING.

This day I found plenty of these birds in a cover of long dry grass and bushes about half my height. From this kind of ground I descended to deep lagoons in the bottoms, with rushes, reeds, and dense tropical vegetation around them, amongst which the bamboo and pandanus bore a conspicuous figure; as I beat this cover the pheasants, with their whirring noise, rose on all sides of me, and my Westley Richards was kept in constant operation. I never enjoyed a better day's pheasant shooting in any preserve in England; and I may here remark that North-Western Australia is as good a country for sport in the shooting way as I am acquainted with; whilst for every kind of sport except wild-fowl shooting the southern part of Australia is the worst country in the world. My bag being full, and my companions very hungry, I had no excuse for staying longer away from them, and therefore returned, although very loth to leave such beautiful scenery and such excellent sport.

FERTILE COUNTRY DESCRIBED.

In the interval between the showers, and whilst the men were trying to kindle a fire, I ascended a sandstone range under the shelter of some rocks near the summit of which we were encamped; from this elevated position I saw a far better country to the south of us than any we had yet traversed; and the prospect was so cheering in this direction that I felt assured, when it was once gained with the horses, we should be able to travel on with comparative rapidity and facility.

NATIVE HAUNTS.

Having emptied my bag I started again to commence the exploration of the valley we were in. It sloped first in a north-easterly and then in a nearly easterly direction; the river that ran through it was in some places almost dry, or was rather a chain of large ponds than a river, several of these ponds being more than a hundred yards across. I followed the valley down for about five miles in the direction of Prince Regent's River and found to my surprise that this part was by no means thinly inhabited by natives; still, as none of the traces I had yet seen were very recent, I trusted that we should not fall in with any considerable body.

TRACES OF NATIVES.

At length however I came upon a spot which a number of them appeared to have quitted only an hour or two before, and where they had been sitting under a large tree at the edge of one of these ponds; their recent fire had been first slaked with water and sand then thrown over it. I knew therefore that they had been disturbed, and most probably by my gun; but not before they had made a hearty meal of roasted fresh-water mussels (*unios*) and nuts of a kind which grew on a large shady tree in pods, like a tamarind pod, the kernel being contained in a shell, of which each pod held several, and the fruit tasting exactly like filberts. The spot was admirably suited for their purpose; their bark beds were placed under the shelter of this tree and only a few yards distant from the pond, which contained abundance of large *unios*.

ATTACK OF NATIVES.

I sat down under the nut tree to consider what was my best plan to adopt. From the signs around us the natives were evidently much more numerous than I had expected: in the event of anything happening to one of the three our return to the main party might be considerably impeded, if not altogether prevented; and although, from the superiority of our weapons over theirs, I entertained but little doubt as to the issue of any contest we might be forced into, the calls of humanity as well as of personal interest warned me to do my utmost to avoid an affray.

RETURN TOWARDS HANOVER BAY.

I returned therefore to the party and, having made our dinner from pheasant soup and birds which had been first split in two and then nicely roasted on the ashes, we commenced our journey homewards, cautiously and circumspectly, that we might run no risk of being surprised. Until the evening began to close upon us we pursued our route through scenery similar to that we had passed the day before, our course laying several miles to the northward of our former

track; and when we halted for the night I carefully chose a good position and, mentioning my apprehensions concerning the natives to the men in such a way as to put them on their guard without exciting their alarm, we bivouacked for the night. Soon after sunset the thunderstorms of the previous evening were renewed, accompanied by tremendous rain. This was unfortunate as it rendered it nearly impossible for us to keep our arms in an efficient state.

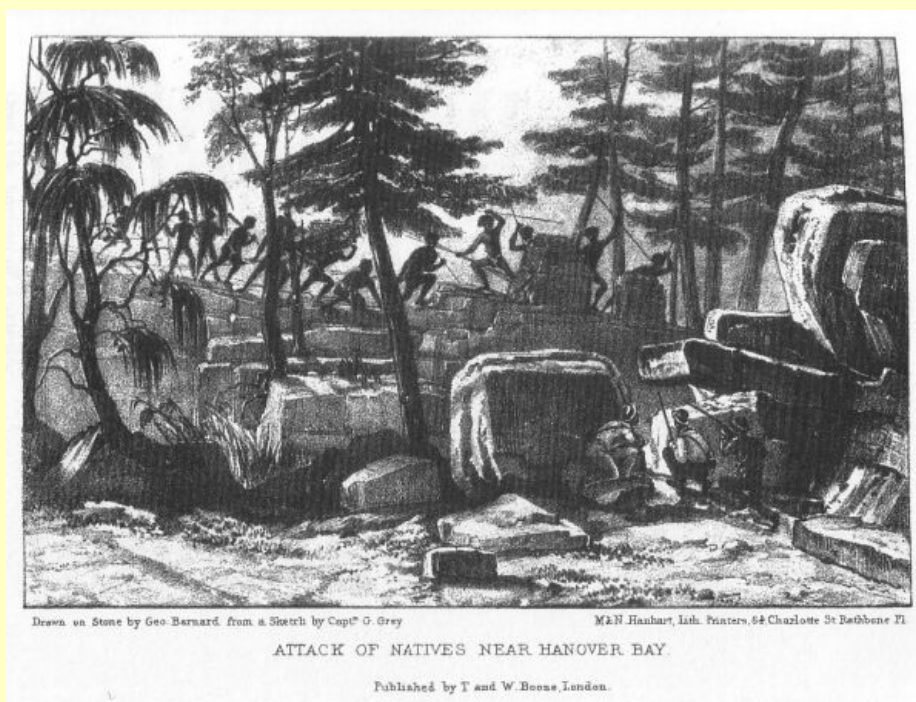
December 22.

After passing a wretched and uncomfortable night we started before dawn, pursuing a direction about west by north, and passed one of the openings from Prince Regent's River laid down in Captain King's chart, and there left without a termination, which I had thus an opportunity of fixing. Having completed about six miles I halted for breakfast. No signs whatever of the natives had been again seen; this restored my confidence and, as the sun was intensely hot and we were much fatigued, we lay about in rather a careless and imprudent way. Fortunately the gathering clouds prognosticated that we should soon have rain; and, as we could get no good shelter where we were, I ordered the men to move on: we had just gained the top of the range when a violent storm of rain overtook us, I therefore doubled back about a hundred yards to the left of our former track to gain some rocks forming a portion of a detached group upon a tableland, and which I had observed as we passed them.

ATTACKED BY NATIVES.

Scarcely had we reached these rocks, and sheltered ourselves under the overhanging projections, when I saw a savage advancing with a spear in his right hand, and a bundle of similar weapons in his left; he was followed by a party of thirteen others, and with them was a small dog not of the kind common to this country. The men were curiously painted for war, red being the predominant colour, and each man carried several spears, a rowing stick, and a club. Their chief was in front, and distinguished by his hair being of a dark red colour from some composition with which it was smeared; the others followed him close, noiselessly, and with stealthy pace, one by one, whilst he, crouching almost to the earth, pricked off our trail.

We remained concealed and motionless until they had all passed, but the moment they came to where we had turned off they discovered our retreat, and raised loud shouts of triumph, as, forming themselves into a semicircle, they advanced upon us, brandishing their spears and bounding from rock to rock. It was in vain that I made friendly signs and gestures, they still closed upon us, and to my surprise I heard their war-cry answered by a party who were coming over the high rocks in our rear, which I had flattered myself protected us in that direction.



12. Attack of Natives near Hanover Bay. Drawn on stone by George Barnard from a sketch by Captain George Grey. M. and N. Hanhart, Lithographic Printers, 64 Charlotte Street, Rathbone Place.

Our situation was now so critical that I was compelled to assume a hostile attitude. I therefore shouted in answer to their cries and, desiring the men to fire one at a time if I gave the word, I advanced rapidly, at the same time firing one barrel over their heads. This had the desired effect. With the exception of one more resolute than the rest they fled on all sides, and he, finding his efforts unavailing, soon followed their example.

RETURN TO THE ENCAMPMENT. HANOVER BAY.

Feeling however that the neighbourhood we were in was a dangerous one, and being anxious to

know whether the party I had left at the encampment--only six in number--had seen these natives, I hurried our march, although the rain fell in torrents all day; and we that night made the camp.

PROCEEDINGS THERE DURING MY ABSENCE.

I found the party all in good health and spirits: they had seen nothing whatever of the natives during my absence. The sailing of the *Lynher* had been unfortunately delayed until the 21st of December. On the 18th and 19th the tides had been so low that, although Mr. Lushington had done his utmost, the schooner made little or no progress in her watering. On the 20th the crew and whole party were employed; yet they only succeeded in getting off 280 gallons for they were obliged to carry the water in small baricos to the boat, over slippery rocks and deep mud: and on the 21st, thinking it better to complete their water at Timor, they set sail. This difficulty of watering only arose from the lowness of the tides (neap) and our ignorance of the country. Subsequently we found no difficulty in procuring it; indeed no country in the world is better watered than this portion of Australia.

Since the sailing of the *Lynher* the party had been actively engaged in building a shed for the stores. This labour was still continued, after my arrival, and completed on Christmas eve.

CHRISTMAS DINNER.

On Christmas Day we all dined together in a little booth made of boughs, which we dressed up as gaily as we could. I could not but feel considerable pleasure in seeing the happy countenances of the men ranged round the rough plank that formed our table. We sat down, a little band of nine, bound upon an adventure of which the issue to any and all of us was very uncertain: yet no forebodings appeared to damp the pleasure of the present moment; and as I anxiously looked round I could not detect the slightest trace of a gloomy thought in any of the cheerful faces that surrounded me. After dinner we drank the Queen's health, the first time such a toast had been given in these regions; and then, Mr. Walker and myself retiring to talk alone, left the rest to their own amusements.

1838.

PLANTING USEFUL SEEDS.

The interval between that and New Year's Day found and left us full of occupation. On this latter day I had resolved to do homage to the country by a seasonable gift; and therefore, rising with the earliest dawn, spent the whole day in planting, in various positions, seeds of the most useful fruits and vegetables. Those we had already planted were doing well, and I hoped that this benefaction might prove one of no small value, perhaps to civilized man, or at least to the natives of the vicinity.

WALK TO MUNSTER WATER.

January 4.

A party of us this day walked to Hanover Bay for the purpose of making some observations on the sandy beach there, after which we went over to Prince Regent's River, near Munster Water. The country until near the bank of the river at this point was of the same sandy nature as that about the beach: there however it improves; and from the circumstance of my finding a regular haunt of the natives I feel sure that there is plenty of fresh water in the neighbourhood. This place of their sojourn resembled one before described, and many others I had seen. An extensive circle was formed by laying a large flat stone upon the ground, and on each of these a smaller one; between the two they evidently crushed the shellfish and nuts which formed their food. Near some of the stones were laid huge shells for the purpose of drinking from; and in the centre of the circle were the marks of frequent fires. We heard the natives calling to one another in the woods, but saw none of them; and in the evening returned to our encampment.

ISTHMUS NEAR HANOVER BAY.

January 6.

I made an excursion this day for the purpose of examining the land lying between Port George the Fourth and Hanover Bay: it consists of a low neck which connects the peninsula terminating in High Bluff Point with the main. Thus it is bounded on two sides by the sea, and on the other two by rocky hills which are perfectly precipitous, both towards the main and the peninsula; but a natural terrace runs along under the cliff in the direction of Camden Sound, which I believe would form a good road to that harbour. The tract thus enclosed appears to be very fertile. Porphyry and basalt are the common rocks. The soil is rich vegetable mould, mixed with gravel and covered with the most luxuriant grass. The trees were in general small. We only found three springs here; these however were sufficient to prove that it was well supplied in this respect. A species of plant was observed here, which in appearance and smell exactly resembled the jasmine of England: and it would be difficult to give any adequate impression of the singular sensation of pleasure derived from the sight of this simple emblem of home. Here were regular beaten tracks of the natives, as completely pathways as those we find in England leading from a village to a farmhouse.

HILL OF SHELLS.

Near the sea we also came upon a complete hill of broken shells, which it must have taken some centuries to form, for it covered nearly, if not quite, half an acre of ground, and in some places was ten feet high: it was situated just over a bed of cockles, and was evidently formed from the remains of native feasts, as their fireplaces, and the last small heaps of shells were visible on the summit of the hill.* This neck of land is undoubtedly of the first importance; for, lying as it does between Port George the Fourth and Hanover Bay, it commands two excellent harbours, and its soil is moreover highly fertile. I conceive that a point nearer Camden Bay would be of greater consequence to the mother country; but, after such a spot, this neck of land is the most important position on the North-west coast of Australia.

(*Footnote. A similar mass of shells, though of smaller dimensions, is spoken of by Captain King, at Port Essington: A curious mound, constructed entirely of shells, rudely heaped together, measuring thirty feet in diameter, and fourteen feet high, was also noticed near the beach, and was supposed to be a burying-place of the Indians. King's Australia volume 1 page 87.)

For some days after our return from this excursion all hands were occupied in drying the stores, which had suffered a little from the late rains; in planting barley and potatoes; and in a variety of occupations of the same nature.

EXCURSION TO COUNTRY ABOUT PRINCE REGENT'S RIVER.

As all the necessary magnetic and astronomical observations were now completed I seized the opportunity offered by the first favourable day and started with a party of three in the direction of Prince Regent's River.

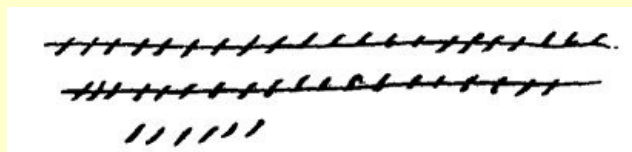
We made the river about Halfway Bay, and then followed its course, keeping about a mile or two inland. A considerable portion of the land in the neighbourhood of the river was most excellent, consisting of rich meadow plains. The general proportion of good country compared with the bad was still however but small.

GOUTY-STEMMED TREES.

There was a very remarkable feature in the appearance of this part of the country, caused by the number of gouty stemmed trees (a species of *Capparis* ?) These trees grow to a considerable height, and had the appearance of suffering from some disease, but, from the circumstance of all of them being affected in the same way, this was undoubtedly their natural state. I measured one of the largest I here saw, and found that at eighteen inches above the ground its circumference was about twenty-eight feet six inches.

The foliage of this tree was slight but graceful, and it was loaded with a fruit of an elliptical form, as large as a coconut. This fruit was enclosed in a rind, closely resembling that of the almond, and inside the rind was a shell containing a soft white pulp, in which were placed a species of almond, very palatable to the taste, and arranged in this pulp much in the manner in which the seeds are placed in the pomegranate. Upon the bark of these trees being cut they yielded in small quantities a nutritious white gum, which both in taste and appearance resembles macaroni; and upon this bark being soaked in hot water an agreeable mucilaginous drink was produced.

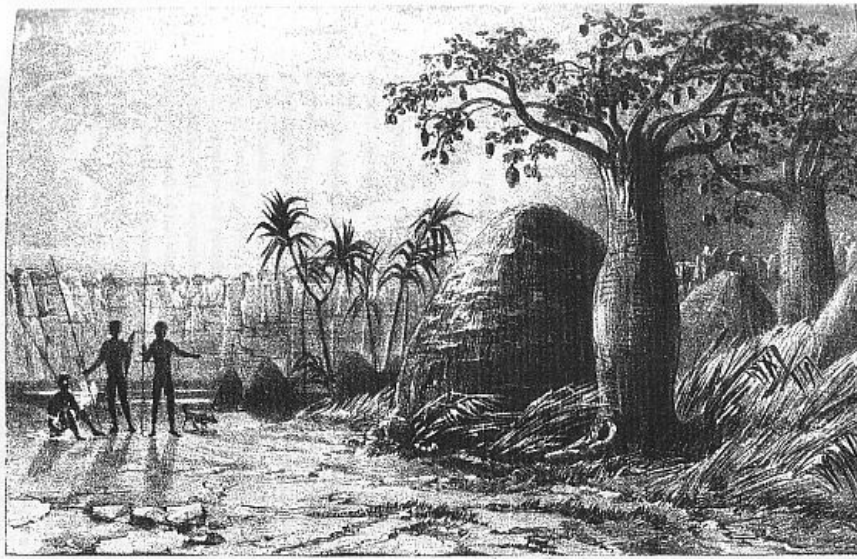
This tree is, from this combination of useful qualities, a vegetable production of no slight value, and probably comes near the cocoa-nut tree in value. Its worth is well known to the natives for its vicinity is one of their favourite haunts. Around nearly all of them I have found marks of their fires, and on many of these trees were several successive rows of notches, formed in this manner:



13. Three rows of notches made by people on the Gouty-Stem Tree.

All but the last row being invariably scratched out. These rows of notches were evidently of different ages, and I imagine must indicate the number of nuts taken each year from the tree.* I often also found rude drawings scratched upon the trees, but none of these sketches indicated anything but a very ordinary degree of talent, even for a savage: some were so imperfect that it was impossible to tell what they were meant to represent.

(*Footnote. This tree was also observed on this part of the continent by Captain King, who met with it both at Cambridge Gulf and Careening Bay, and describes it as follows: Mr. Cunningham was fortunate in finding the fruit of the tree that was first seen by us at Cambridge Gulf, and had for some time puzzled us from its immense size and peculiar appearance. It proved to be a tree of the Natural Order *Capparides*, and was thought to be a *Capparis*; the gouty habit of the stem, which was soft and spongy, gave it an appearance of disease; but as all the specimens, from the youngest plant to the full-grown tree, possessed the same deformed appearance, it was evidently the peculiarity of its habit. The stem of the largest of these trees measured twenty-nine feet in girth, whilst its height did not exceed twenty-five feet. It bore some resemblance to the *Adansonia* figured in the account of Captain Tuckey's expedition to Congo. King's Australia volume 1 page 423.)



Drawn on Stone by Geo. Barnard, from a Sketch by Capt. G. Grey.

M. & N. Hanhart, Lith. Printers, Charlotte St. Rathbone Pl.

GIGANTIC ANTS NEST & GOUTY STEM TREE

Published by T. and W. Boone, London.

14. Gigantic Ants' Nest and Gouty-Stem Tree. Drawn on stone by George Barnard from a sketch by Captain George Grey. M. and N. Hanhart, Lithographic Printers, 64 Charlotte Street, Rathbone Place.

SINGULAR PIECES OF SANDSTONE.

I this day again remarked a circumstance which had before this period elicited my attention; which was that we occasionally found fixed in the boughs of trees, at a considerable height from the ground, pieces of sandstone, nearly circular in form, about an inch and a half in thickness, and from four to five in diameter, so that they resembled small millstones. What was the object in thus fashioning and placing these stones I never could conceive, for they were generally in the least remarkable spots: they cannot point out burial places, for I have made such minute searches that in such a case I must have found some of the bones; neither can they indicate any peculiar route through the country, for two never occur near one another.

PREPARATION TO BUILD A BOAT.

On my return to the camp I found that the schooner had not yet arrived; I now began to fear that some accident had occurred, and made my preparations accordingly. The party was fully prepared to meet such a misfortune and, as we had the means of constructing a boat large enough to take us to Swan River, I felt more anxious for the safety of those in the vessel than for our own. That no time however might be lost I examined the neighbourhood of the encampment and found that within our immediate vicinity were plenty of trees well adapted for the purpose, which I marked, and had some of them felled.

CHAPTER 7. HANOVER BAY AND ITS VICINITY.

OCCUPATION AT THE CAMP.

During the absence of the schooner we had our attention fully engaged in forming a garden, collecting specimens, and building sheds for the stores. So difficult and rocky was the country we were in that I was employed for several days in finding a route by which unloaded horses could travel from the beach in Hanover Bay to the point where we were encamped, for the landing-place at the end of the ravine was so rocky as to be impracticable for that purpose. Mr. Walker at length discovered a pass in the cliffs, and by constructing a winding path in this he thought that we should be able to get loaded horses out of the valley. I feared that he was too sanguine, and therefore daily renewed my search in all directions. I travelled up the entire length of the ravine that we were encamped in but found that, even granting it was not flooded, we should find great difficulty in emerging by this route.

These circumstances made me resolve upon the return of the schooner to re-embark the stores, and land them again either upon a point I had fixed upon on the south bank of Prince Regent's River, or upon the neck of land I have before mentioned, which lay between Port George the Fourth and Hanover Bay; but I could not finally decide upon either of the points until the return of the vessel should enable me to examine the coast between Port George the Fourth and Camden Sound; for my party only consisted of nine men, of whom with the exception of three or four I knew nothing, and after what I had seen of the treacherous disposition of the natives I did not think, in my position, it would be prudent to absent myself from them for any length of time.

RETURN OF THE LYNHER.

Amidst such exciting and busy scenes, the time flew rapidly away until the 17th of January, when about 11 A.M. the report of a carronade came echoing up the valley. This was the preconcerted signal which was to announce to us that the vessel was safely at anchor in Hanover Bay. We were of course all anxiety to hear an account of their adventures, and to ascertain whether the horses were safe. I hastened directly to the landing-place, where I met Mr. Lushington and a party coming ashore from the schooner.

RELATION OF PROCEEDINGS AT KUPANG TIMOR AND ROTI.

The following outline of their transactions was soon given:

They had quitted Hanover Bay on the 21st December at 9 A.M., and reached Kupang in the Island of Timor on the 1st of January. For the first three days until they got clear of the land they had every evening, soon after sunset, heavy squalls from the north-east, accompanied with thunder, lightning, and rain; the prevalent wind was however from the north-west. The Lynher remained at Kupang until the 7th, during which time they completed their water and collected coconuts, bread-fruit trees, etc., to be planted in Australia; but as Mr. Lushington found that he should be able more easily to obtain ponies at the island of Roti than at Kupang, they sailed on the morning of the 7th for that place, and at 7 P.M. came to in the harbour of Rougun in eleven fathoms water, with muddy bottom.

They were enabled to procure at Roti the requisite number of horses by the evening of the 11th of January. The people of this island appeared to be excessively ignorant, knew but little of the nature and value of money, and were much astonished when they were shown a watch. Their favourite mode of disposing of their property was by barter; the articles they prized most were muskets and coarse gunpowder, but they preferred having the gunpowder in a claret bottle, as if this was considered by them to be some definite measure which bore a certain value. They were not very particular about the quality of the muskets provided their outward form and appearance were tolerably good. I have since ascertained that the natives of the little-frequented islands of the Archipelago invariably prefer an old musket to a new one, as they conceive a totally new one may be unsafe, from having been made merely for the purpose of sale; whilst one which has seen service has been indisputably manufactured for use. If they entertain any doubt about the goodness of a musket they generally insist upon the seller's firing it off.

MODE OF BARTER AT ROTI.

The people of Roti are not allowed to fix themselves what is to be the price of their horses; all the details of the sale are settled by an assemblage of chiefs: their constant cry in bartering (if anything else is offered to them) is "schnapper, schnapper" (a musket, a musket). They refused at first to take percussion guns in exchange, but when they saw Captain Browse cock one of these, pour a quantity of water over the lock, and fire it off, their astonishment knew no bounds, and they then eagerly bartered for them. When they found that all the muskets were exhausted they were content to take money and other articles in lieu: an old dress waistcoat of mine and a regulation breastplate procured eight small sheep; and Captain Browse got fourteen goats for a pair of old pistols. The authorities give every encouragement to the trader; but the duties exacted are high, for at Kupang and Roti they demand six rupees duty for every horse exported, or musket imported. Arms and gunpowder are no longer considered contraband.

The inhabitants of Roti were described as being so indolent that it was almost impossible to induce them to do anything; although every means were used to tempt them to cut a sufficient quantity of fodder for the ponies on their passage they constantly delayed doing so and, Mr. Lushington's patience being at last worn out, the vessel put to sea on the 12th of January 1838.

NEW ISLAND DISCOVERED.

On the 13th they sighted the Hibernian shoal which they made in 11 degrees 57 minutes south latitude and 123 degrees 22 minutes 30 seconds east longitude. On Monday 15th of January at 10 P.M. they discovered an island, thus described in the log of the Lynher:

At 10 hours 30 minutes P.M. saw land about a quarter of a mile ahead; hauled our wind to west by south; sounded in 12 fathoms water, rocky bottom; it appeared to be about one mile in extent, and about twenty feet above the water. After running west by south one mile, got no bottom with 40 fathoms of line. Kept our course south by east: it (the island) appeared to be quite level with rocks extending to north-west, with heavy breakers. Made it by observation south latitude 14 degrees 4 minutes; east longitude 123 degrees 31 minutes by good chronometer rated at Roti.

TROUBLE WITH THE HORSES.

At 6 A.M. on the morning of the 16th they experienced heavy squalls of wind off Red Island, and this prevented them from getting into Hanover Bay on that day; but on the morning of the 17th they anchored safely, without having lost a single pony, or without having experienced any serious misfortune, having made the passage from Roti in five days.

UNFORESEEN EMBARRASMENTS.

Some short time was occupied in narrating the adventures we had respectively encountered since we had last seen one another, and in giving way to the pleasure arising from meeting again

in so distant a land, and under such circumstances: at last came the unpleasant announcement that there was not an atom of forage on board, so that the ponies must of necessity be landed tomorrow; and my plans of disembarking them at a more eligible site were thus at once overthrown. Being the only person who knew the route to Hanover Bay from the encampment, I was obliged to remain on shore to guide the party over there the next morning. Mr. Lushington and the Captain however returned on board to make preparations for landing the horses at daybreak.

LANDING THE HORSES.

I lay down to sleep this night oppressed with very uneasy thoughts. I was thoroughly convinced that the position we occupied was a bad one to make a start from; but we had already approached too near the season of the heaviest rains (the beginning of February) to allow of longer delay, so that to have landed the horses, then to cut grass for them, and afterwards to have re-embarked them and the stores, would, in my opinion, have been a tedious and wrong course to adopt. Unforeseen difficulties, and against which we could not have guarded, had already completely encompassed us, so that, considering the scanty means at our disposal, the remote and unknown region in which we were situated, and the impossibility of our receiving further aid from any quarter, I saw no way of overcoming them. All therefore that was now left us was to make the most of our actual means, to acquit ourselves like men, and do our utmost.

EXCURSION BY WATER TO PRINCE REGENT'S RIVER.

January 18.

Fortune smiled on us this morning in as far as she gave us a fine daybreak, and at dawn we started for Hanover Bay, leaving a small party at the encampment. After all the trouble I had taken to find a good route for the horses, we still had a great deal to do to render it at all practicable; we however all worked cheerfully and sturdily away at burning the grass, moving rocks and fallen trees, etc., and thus, as it were, fought our way through opposing obstacles to Hanover Bay, over a distance of about four miles.

TROUBLE IN GETTING THE HORSES TO THE CAMP.

On arriving there I found Mr. Lushington already on shore and some of the horses disembarked. They were not only well selected for the purpose, but were generally in good condition. They had however two faults which could not have been avoided, and these were that they were very small and perfectly wild. By about two o'clock in the afternoon the whole twenty-six had been swum ashore, and we started for the huts.

Our progress was however slow; for, as there were only a few of us, each person was obliged to take charge of three or four of these untamed, unbroken brutes. The mode we adopted was to fasten them together by long ropes so that the number each man led could follow in a line; but, being wholly unused to this kind of discipline, they strenuously resisted it, biting and kicking at one another with the greatest ferocity; and as they were chiefly very courageous little entire horses, a variety of spirited contests took place, much to their own satisfaction, but to my infinite chagrin. Some of the men who were not much accustomed to horses regarded these wild ponies as being but little better than savage monsters, with whom it was dangerous to have anything to do; and, being thus rather afraid of them, treated them very cruelly, kicking them often with great violence whenever I for a moment looked away, and thus naturally rendering the ponies still more wild.

But even when we did induce these brutes to move along pacifically they would not follow one another in a line, but all strove to go in different directions, and, as our road lay through a rocky forest, the consequence of this pulling was that the connecting ropes kept on getting entangled in rocks and trees; indeed there was scarcely an instance of two of them passing on the same side of a tree or rock at the first attempt, so that we were continually halting to clear their tether ropes; again, one of the beasts would now and then become obstinate, refuse to move, and this delayed us all; for I would not allow the party to separate for fear of the natives. In consequence of all these adverse circumstances at sunset we had scarcely got half-way to the encampment; and just at this period one pony became and remained so obstinate that, in despair, I had it tied up to a tree alone. We now moved on again as fast as we could, but night soon surprised us, and, when it became too dark to see our course, we tethered our horses and laid down in the forest by them; but as it rained, and we had neither warm clothes nor covering, and many of the party had tasted nothing since dawn, our situation was not very pleasant; indeed, the combined circumstances of cold, hunger, and obstinate ponies had rendered some of the men more crabbed than I had ever before seen them.

January 19.

As soon as it was light enough to find the ponies we recommenced our march; and, all our annoyances of yesterday being repeated, did not succeed in arriving at the ravine until noon—it took us much care and a great deal of time to reach the bottom of this in safety; when however we had done so, we knee-halted the ponies and let them loose amidst very good feed, of which they now stood much in need, for there was no grass whatever between the encampment and Hanover Bay; the whole of the intervening country being a mass of rock, scrub, and spinifex. I

now sent a party back to bring on the refractory pony, which I had yesterday been obliged to tie up to a tree, and the long fast it had been subjected to appeared to have produced a very beneficial effect on its temper, for it now was perfectly docile.

EXCURSION UP PRINCE REGENT'S RIVER. PREPARATIONS FOR MOVING.

For the next few days all was bustle and preparation. The ponies being so much smaller than I had expected, all our packsaddles had to be altered, and fourteen of them, which the party had made during the absence of the schooner, still had to be put together. Mr. Walker undertook the task of constructing a pathway up the cliffs, by means of which the loaded ponies could ascend; he laboured personally at making this path, occasionally assisted by two or three others; and it would be impossible for anyone who had not seen it at all to comprehend the obstacles he met with, and the perseverance with which he contended against and finally overcame them. We were obliged to complete everything in a hurried and unsatisfactory manner, for our departure had been so long delayed that we were every day in expectation of the setting in of the heavy rains and the consequent flooding of the ravine in which we were encamped; and in the event of this taking place before we made a start it was impossible to foresee for how long a period our movements might be delayed.

CHARACTER OF ITS SHORES.

On Monday the 22nd Captain Browse and Mr. Walker accompanied me in the jolly-boat up Prince Regent's River; we went up with the flood-tide, entering the river by its northern mouth; I had thus an opportunity of examining the island which lies at the entrance to this great arm of the sea, and landed upon it in several places, but found only bad sandy land, occasionally covered with rocks; it was however well wooded and abounded with birds. After we had passed the mouth of Rothsay Water the tide swept us along with great rapidity, and we soon found ourselves in St. George's Basin. I kept close along the northern shore, where we saw but little good land after entering the basin; but there was one fertile island, of a small conical shape, bearing nearly due east as you enter. From the appearance of this island there can be no doubt whatever that it is of volcanic origin; as it in all respects resembles Mount Lyell and the other basaltic conical hills which we afterwards found in the fertile district of Glenelg; we did not however land on it, but merely ran close by, and then continued our route up the river.

St. George's Basin is a noble sheet of water some ten or twelve miles across. On its southern side deep inlets run up into a low and marshy country, leading to fertile districts, and the main object of my present excursion was to endeavour to identify these inlets with some I had seen on my first trip to the southward.

SCENERY AND THUNDERSTORM.

On the northern bank lofty mountains, crowned with castellated summits, rear their sterile heads over the broad waters, and fling their giant shadows on the bosom of the basin, forming a scene of surpassing beauty.

We had entered the more contracted channel of the river, when there came on a tremendous squall of wind, rain, thunder, and most vivid lightning. The pealing echoes of the thunder as they bounded from height to height and from cliff to cliff was awfully magnificent; whilst the rugged mountains which had just before looked golden in the bright light of the setting sun were now shrouded in gloomy mists, and capped with dark clouds from which issued incessant and dazzling flashes of lightning.

During this grand and terrific elemental convulsion our little boat was driven powerless before the blast. The impenetrable forests of mangroves which clothed the riverbanks obliging us to run far up the stream until at last a convenient opening enabled us to land upon the southern shore.

DELUSIVE APPEARANCE ON THE ROCKS.

We had not long landed when the rain ceased and, as we found several natural caverns in the rock and plenty of dead mangrove trees, we proceeded to make ourselves comfortable for the night; but the men soon reported that they saw the smoke of a native fire close to us, and Captain Browse and myself, under the conviction that such was the case, darted with Mr. Walker to endeavour to gain an interview. But, as we proceeded over the rocks, the smoke appeared gradually to retire, always keeping about the same distance from us: and we at last ascertained that what had appeared to us to be smoke was nothing but the rising vapour occasioned by the cold rain falling on sandstone rocks, which had during the whole day been exposed to the burning rays of a tropical sun.

We had now become so much accustomed to sleeping without any covering, and upon hard rocks, that we should not have minded our exposure had it not been for the rain which fell during the night and beat in under the rocks, beneath which we had crept for shelter. The cold air of the morning awoke us long before daylight; and Mr. Walker and myself, having explored the country to the southward and climbed a high hill from which we had an extensive view, we started on our return to the schooner. In proceeding down the river we landed on an island, situate at the south-eastern extremity of St. George's Basin, just where the river runs into it. The presence of large dead trees on this island, which had evidently been swept down the river in the time of floods and

washed up far above the usual water-mark, showed that Prince Regent's River is subject to the same sudden inundations as all other rivers in Australia which I have seen. During our passage down the river we saw no extent of good land in any one place.

STATE OF THE STOCK.

For the next few days we had almost uninterrupted bad weather. The party were all occupied in preparing the saddles, etc. The ponies having eaten off the grass in the ravine, we were compelled, about the 28th, to move them to the higher grounds. These at our first arrival on this coast were perfectly dry and burnt up; but since the heavy rains had set in they teemed with running springs, along the margins of which grew a scanty coating of grass. Being obliged to send the horses to a distance to graze delayed us a great deal for one portion of our party was occupied in attending upon them. Our sheep also now began to die off: they had up to this time improved rapidly and were doing very well, having, during the absence of the vessel, been regularly tended and driven to the high dry ground to feed; but now the pressure of business was so great that we were compelled in some degree to neglect them, and from this they suffered. The goats had from some cause never succeeded well.

From the period of their being landed many of the horses had declined very much, and several of them were by this time reduced to a very weakly state. This originated from the heavy rains and the excessive cold which accompanied them, as well as from some food they had eaten which had not agreed with them. On the 28th and 29th the rains increased in violence and duration; but we still continued our occupations of completing the packsaddles and arranging the stores in such small packages that they could easily in case of necessity be transported on men's shoulders.

FINAL ARRANGEMENTS FOR THE MARCH.

Having provided every requisite for the party, such as food, working utensils, soap, tobacco, etc., all of which were arranged in their respective packages, I issued an order that nothing but certain articles of clothing for each individual were to be put upon the ponies. This step was rendered the more necessary from their weakness and their diminutive size having greatly abridged our intended means of transport. Numerous requests were now made to me to be allowed to put various articles upon the horses, all of which I felt myself obliged to meet by a steady refusal; but this refusal, dictated entirely by the necessity of the case, raised angry and discontented feelings, tending to diminish materially the individual zeal and energy which were so much required at this juncture to ensure our success.

DEPARTURE FOR THE INTERIOR. DIFFICULTIES OF THE ROUTE.

On the 29th we began in the afternoon to load our horses. Mr. Walker's pathway was completed by means of a number of circuitous and sharp turnings: it led directly up the face of cliffs which were almost precipitous and 180 feet in height. To commemorate the completion of this really laborious undertaking I named the valley Walker's Valley.

TROUBLESOME ASCENT FROM THE VALLEY. SICKNESS AND MORTALITY AMONG THE HORSES AND STOCK.

The ponies, though weak, bore their burdens and submitted to the packsaddles better than I had hoped. The first horse was led up by the stock-keeper in safety, with its saddle and load on it; I followed with the second, but was not so fortunate. I had accomplished about three-fourths of the ascent when, turning one of the sharp corners round a rock, the load struck against it and knocked the horse over on its side. I thought for a moment that the poor beast would have fallen down the precipice, but luckily its roll was checked in time to prevent this. There it lay however on a flat rock, four or five feet wide, a precipice of 150 feet on one side of it, and the projecting rock against which it had struck on the other, whilst I sat upon its head to prevent it from moving. Its long tail streamed in the wind over the precipice; its wild and fiery eye gleamed from its shaggy mane and forelock; and, ignorant of its impending danger, it kicked and struggled violently, whilst it appeared to hang in mid-air over the gloomy depth of this tropical ravine. Anxious as I felt for the safety of my pony I could not be unconscious of the singular beauty of the scene during the few minutes that elapsed whilst I was repressing its struggles on a narrow ledge of rock, of which the dark brow projected threateningly above me, whilst the noise of a rushing torrent was audible far below. I cut the girths of the saddle, which then with its load rolled over the precipice, and pitched with a heavy crash on a rock far down. Even then, if the brute had not been a denizen of a wild and mountainous country, it must have been lost; but now it no sooner felt itself freed from its encumbrance than, looking sagaciously around and then raising itself cautiously up, it stood trembling by my side upon the narrow terrace.

Warned by this misfortune we managed to make another turn in the path, by which this awkward rock was avoided, and the remainder of the horses, with their loads, reached the tableland in safety. But so rocky was this country that, even after having mastered the ascent, we found great difficulty in getting the loaded ponies half a mile further to a point I had fixed on for our camp. We had this night a continued succession of heavy showers, accompanied with thunder and lightning.

January 30.

This morning it was reported to me that several sheep were dead, and that the horses were beginning to suffer much from constant exposure to the heavy cold rains, for the trees were so small, and their foliage so slight, that they afforded no shelter whatever from tropical showers. On repairing to the ravine I found that the stream which even yesterday was much swollen had now become an impetuous torrent, so much so that even to swim across it was not an easy matter. A tree was soon felled and a temporary foot-bridge thus formed; and as the rain cleared off a little towards the afternoon we managed, in this interval of fine weather, to load the ponies and carry some stores up the cliffs, but the poor beasts were so much weakened since yesterday that we were obliged to diminish their loads considerably. They all appeared to be gradually declining in health, strength, and condition, but from what cause except exposure I could not tell.

IMPEDIMENTS FROM BAD WEATHER.

January 31.

During last night we had heavy storms, the torrent was still more swollen and, although we laboured hard all day, we accomplished very little; several sheep died during the day, and the ponies appeared to be worse. I became now very anxious as to the result of the expedition; my worst apprehensions as to the rainy season setting in before we had got clear of the sandstone ranges had already been fully realized; every endeavour to hasten our preparations and to prevent this occurrence had been used, though unsuccessfully; it appeared now the better course to bear up against evils that could not be avoided than to lose time in murmuring; I therefore kept all hands constantly employed in doing something which might tend to accelerate our departure.

HEAVY RAINS.

February 1.

We again had heavy and incessant rain throughout Wednesday night, accompanied by thunder and lightning. At daylight the stock-keeper came to report to me that two horses, three sheep, and one goat were dead, and that several other horses appeared to be in a very dangerous state. All our stores with the exception of a few articles had now been removed from the valley in which we had first encamped; some of our goats were still left there, but the torrent had become so rapid and impetuous that it had swept away the bridge and was now impassable. Heavy rains fell throughout the greater portion of the day, and produced a beautiful effect in the ravines, for cascades were pouring over the cliffs on each side, sweeping every now and then before them massive pieces of rock, the crash of which in their fall echoed loudly through the valleys.

FURTHER LOSS OF STOCK.

February 2.

Bad news came again this morning--the stock-keeper met me with a very rueful countenance to report that another horse and two sheep had just been found dead, and that several more sheep were missing. It still rained so heavily that we could not attempt to move, for already a considerable portion of our stores was damaged by the water which had filled the ditch, and regularly flooded the tent in which they were placed.

Mr. Walker started with me for the purpose of marking off a road to the place we next intended to halt at, for the country was so rocky that it was necessary to choose a path with the greatest caution, or we should soon have become embarrassed in precipitous places which the horses could not have traversed. Whilst I was thus engaged Mr. Lushington and two men made another unsuccessful attempt to get the goats and remaining stores across the stream.

WEAKNESS AND OBSTINACY OF THE PONIES.

February 3.

This morning the rain had somewhat abated: the remaining stores were brought from the ravine, and the goats were swum across; in the meantime the ponies were brought up and loaded, and all preparations were at last made for a start: but a host of new difficulties arose; many of the ponies were found to be in such a weakly state that they could with great difficulty carry any weight at all. We were obliged to make a totally new division of the stores, and to select and put aside what articles we could best leave behind. These preparations occupied a considerable time, but we at last moved off in a south-east direction. Our progress was however very slow and tedious; the ponies, though lightly loaded, were so reduced that the slightest obstacle made many fall from weakness, whilst others laid down from obstinacy, and the men being inexperienced in re-fixing the loads, each horse that fell delayed us considerably. At last so many were down at one time that I advanced with such as were able to move to a point distant not more than half a mile, where I halted for the night; and, having unloaded and tethered these horses, we returned to assist the others, and after a great deal of difficulty got the remainder of the weak ponies safe to the encampment.

I slept but little this night for I doubted whether, with our cattle so enfeebled and so out of condition, we should ever succeed in penetrating any distance into the country. We were still a considerable way from the fertile plains I had seen to the southward, whilst the intervening

ground was very difficult to travel across and afforded no good feed for the ponies. All my meditations however only terminated in the conviction that it was my duty to continue to use my best exertions under such adverse circumstances.

February 4.

There being no good grass for the horses where we were, I was obliged to move the party and commenced by using every method I could to lighten the loads and to rid the expedition of all encumbrances. I left here a male and female goat who, by their obstinacy, delayed our movements; thinking also that, if they escaped the natives, their offspring might become a valuable acquisition to this land.

We also left here 28 pounds of gunpowder, 10 pounds of ball cartridges, 70 pounds of shot, 200 pounds of preserved meat, some carpenters' tools, and many other useful articles; yet, notwithstanding this decrease in the loads of the ponies, the country we had to travel through was so bad that we only completed two miles in the course of the day; and yet to find the track by which we did succeed in crossing the range had cost me many successive hours' walking under a burning sun. The character of the country we passed through was the same as these sandstone ranges always present; namely, sandy scrubby plains, and low ranges of ruinous, rocky hills, in trying to scramble over which the ponies received numerous and severe falls. We however had a very beautiful halting-place, shaded by lofty pines and affording fair feed for the animals.

NEW PLAN OF MOVEMENTS.

February 5.

On this morning it was reported to me that several of the ponies were in a dying state, and that none of them would be again able to carry even such light loads as they had hitherto done; the quantity of stores they could now convey was quite inadequate to supply a party of the strength we were obliged to move with for any great length of time. A new plan of operations was thus forced upon me, and I now resolved to proceed as follows:

To advance with half our stores to a convenient place for encamping at, and then, on the succeeding day, to send back some of the party with the ponies for the remaining portion of the provisions; whilst, accompanied by two men, I marked off the road by which we were to move on the following day. This mode of proceeding would not very much delay our movements; for the country we were at present in was of so intricate a nature that it was impossible to move loaded horses without previously marking a road for them; and by its adoption I trusted to be able to establish a depot of provisions at some point distant from the coast and whence we could yet make a good start in a southerly direction.

LABOUR OF TRACING ROUTE.

In pursuance of this plan Mr. Lushington returned this day to our last camp to bring up the provisions we had abandoned; whilst I went off with two men to endeavour to pick out a route by which the ponies could travel. A more toilsome day's work than we had could not be imagined. For eleven hours I was incessantly walking, exposed during the greater part of the time to the burning rays of a tropical sun; and we found nothing but rocky, almost impassable sandstone ranges and precipitous ravines. I however at last succeeded in discovering a path along which it was just possible we might be able, by using great care, to lead loaded horses; and on my return to the camp I found that all the remaining stores had been brought up.

DESCENT INTO A VALLEY.

February 6.

We began our descent this morning from the tableland into a deep valley, following the track we had yesterday marked off, which was still however so rugged and rocky as to be very difficult to get along. Heavy rains set in, and these were always so cold that the large drops falling upon us occasioned quite a painful sensation. The valleys being all flooded there was no feed in them for the horses and sheep; I therefore was obliged to send them back under charge of Mr. Lushington to the camp, which we had this morning quitted.

I retained three men with me; and after the remainder of the party had moved off I left two of them in charge of the stores, and started with Corporal Coles, again to explore the country in front of us.

CHARACTER OF THE COUNTRY. FLOODED RAVINE.

About half a mile to the south there was a deep ravine, bounded on each side by lofty cliffs. This ravine resembled in many respects the one we had first encamped in, but it was larger; and it was now impossible to travel either up or down in it on account of the great body of water which occupied its bed. Just opposite to where we were this ravine separated into three smaller ones, running up into the sandstone ranges along which I had previously sought for a route whereby to turn and travel round their heads; but I had found the country so rocky, so impracticable, and devoid of forage that I felt sure it was useless to attempt to traverse it.

My next object was to find a passage out of the main ravine, between the points where the subsidiary ravines ran into it, and where it joined the sea. If I could succeed in doing this our difficulties would, in a great measure, have terminated, for no other main ravine lay between us and the fertile plains which I had seen to the southward; and I knew that we should find no difficulty in traversing the intervening sandstone range, which consisted of a series of elevated plains or terraces, rising one behind the other.

With this view Coles and myself searched until after sunset, but without success. We found the ravine bounded throughout its southern side by inaccessible cliffs. Occasionally little branch ravines ran into it; but on penetrating for some distance up these they invariably terminated in precipitous cascades. A great portion of this afternoon was spent up to our middles in water as we waded about the flooded valley; and the only thing we had to compensate us for the fatigue and suffering we underwent was the wild beauty of the scenery, which was as lovely and picturesque as impetuous torrents, foaming cascades, lofty rocks, and a rich tropical vegetation could render it.

NATIVES.

On our return homewards, wearied and disappointed, we came close upon a large party of natives before they were aware of our presence. Coles had followed me up the northern bank of the ravine, and we thus occupied a good position; the natives had, I suppose, wished to avoid us, for we saw no more of them, but merely heard the sound of their retiring voices as they moved up the centre of the valley. We now returned to the men we had left in charge of the stores, and reached the tent soon after dark.

LABOUR OF TRACING AND FORMING A PATH.

February 7.

This day was passed in constructing the pathway which was to lead us down into the deep ravine in our front. Whilst the men were thus engaged I traversed the country I had yesterday visited in the hope that I might yet find some outlet into the good country which would take us clear of the others; but my searches were in vain. Only one man accompanied me, and I completely knocked him up ere the evening closed in upon us. We then were obliged to retrace our steps to the camp, and I now found myself perfectly worn out by the fatigue consequent on such continued and violent walking exercise under a tropical sun.

It was however cheering to me to see how constantly some of the men had laboured at forming the road down the valleys which led into the ravine. The horses had been brought down thus far; but three more of them had died, so that our twenty-six ponies were reduced to nineteen, many of whom were in wretched condition.

CONTINUED DIFFICULTIES OF ROUTE.

February 8.

We again resumed our journey towards the interior; but the pathway, which ran through the valleys leading to the summit of the ravine, was still so broken and difficult that the ponies could only carry half loads along it; and the descent down the cliffs was so steep that they were obliged to be unladen and led into the ravine without their burdens, which were carried down upon the men's shoulders. Men could not have behaved better than they all did on this occasion, particularly Corporal Auger who, possessing the power of carrying on his back very heavy burdens, took every occasion of exercising it in such a way as to stimulate the others, and very much to accelerate our movements.

But even when we had with so much labour got ponies, stores, etc. to the bottom of the ravine, our troubles had, as it were, only commenced, for we now had to get out of it on the other side. In the course of the afternoon however a path had been made, and most of the stores were safely stowed upon an elevated tableland where we had pitched the tents. The place I had chosen for our camp was a pretty spot; a sweet, short herbage had been raised by the heavy rains from the sandy soil, and amongst this the beautiful flowers, for which Australia is deservedly celebrated, were so scattered and intermixed that they gave the country an enamelled appearance. A lofty species of Casuarina was intermingled with trees of a denser foliage, and on each side we looked down into two deep ravines; through the dense dark foliage of which could be seen the white foaming waters brawling on their way far below.

The next day was occupied in bringing up the remainder of the stores from the ravine and repairing the damages which had resulted from the bursting of bags and other mischief in their transit over such rough ground. Early in the morning we all had a good bathe, and only those who have been so constantly engaged under a burning sun, and for upwards of a week without regularly washing or undressing, can at all estimate the pleasure with which I plunged into the clear and rapid stream.

ASCENT FROM THE RAVINE.

After thus performing our ablutions we breakfasted, and then, whilst the stores were being conveyed to the tableland, I started, accompanied by one man, to explore a route for our line of

march next day. After continuing on the tableland for about a mile I traced a good route both into and out of another ravine; the stream which occupied the bed of this was so swollen that I had some difficulty in finding a ford across it; but after a few rather ludicrous plunges and falls upon the green slippery rocks I succeeded in detecting a tolerably good one. Our line of route now lay across some elevated open plains, clothed with spinifex, and thinly wooded with a large species of Eucalyptus. We saw here numerous signs of the natives, who had been cutting steps in the trees for the purpose of hunting opossums. These open plains extended for about two miles, and we then reached another small ravine, with a rapid stream running through it. A very good route brought us across this slight descent and stream; and from this point no further impediment of any consequence appeared to lie in our way. The direction in which I now wished to travel presented a series of rocky, sandy plains, thinly wooded, and affording a scanty sufficiency of food for the ponies.

EXHAUSTION FROM FATIGUE. COLD RAINS.

During the time I was searching for this route the rain had fallen in torrents, and the quantity of ground I had walked over was so considerable that I was exhausted; riding was quite impossible in these excursions as, in many places where the ground was covered with loose rocks overgrown with a vegetation which concealed treacherous cavities, it was necessary to pass across it two or three times before I could determine whether a horse could move over it or not. Today I found myself completely knocked up, and felt certain that I could not for many days longer bear up against such continued fatigues. On my return to the camp I found all prepared for a start tomorrow; but many of the horses were so ill as to be incapable of carrying more than half a load.

February 10.

We moved off at daybreak and, having reached the ravine, set to work to form a pathway down the descent, and up the ascent on the other side, under the additional disadvantage of heavy rain. The sudden transition from the rays of a burning sun to this cold bath made my teeth chatter as if I had a tertian ague. When half our work was completed we breakfasted in the beautiful ravine amidst the dark luxuriant vegetation of the tropics, formed by the pandanus, bamboo, and palm.

After breakfast the men recommenced their labour on the road. About two P.M. it was completed, and we then loaded the ponies and set out. The poor animals were however so weak that it was almost impossible to get them to move; they stumbled and fell repeatedly, and thus thereby not only injured themselves but so delayed our movements that we only made three miles and a half during the day, and then halted for the night on very elevated land, and in a good position, for we were on a little sandy rise, along the base of which ran a stream, distant about one hundred yards.

WORST DIFFICULTIES SURMOUNTED.

Having thus gained the elevated plains I laid down to sleep, satisfied that the worst of our labours were over; yet I could not but recollect that it had taken us ten days to reach a spot which by the proper route was only a short day's journey from the valley we were first encamped in, and that in our march through the country we had been compelled to traverse we had lost seven ponies, and injured many of those remaining; all these difficulties arose from our departure having been delayed so long that the rains had set in and so flooded the country that we could not proceed by the proper route.

CHAPTER 8. TO THE GLENELG RIVER.

MEETING AND ENCOUNTER WITH THE NATIVES.

February 11.

The stores we had left behind yesterday were so necessary to us that I was fearful they might be injured or destroyed if left exposed in the bush beyond today, and therefore despatched a party under Mr. Lushington for them.

Some time after they were gone I started from the encampment on foot, with the intention of choosing a track for our route next day, as well as of endeavouring to fall in with my former track in this direction; for by so doing I should be enabled to get the party on the good land without further impediment, and at the same time to complete my map of this part of the country.

GATHERING OF NATIVES ABOUT THE CAMP.

I was accompanied by Corporal Coles and a fine-looking young man about twenty years of age, from the Cape of Good Hope, leaving three men at the camp. Soon after my departure these men heard the voices of natives in the woods, and presently they appeared themselves in numbers which rapidly increased until there were collected together about two hundred men, women, and children. The party at the tents instantly got under arms, and posted themselves on the brow of the hill on which our tents stood; whilst at some distance from its base, and on the opposite side of the stream, the natives were assembled.

The advance of a large armed body from the woods seemed now to indicate that a hostile

movement was about to be made; one of my party therefore shouted out to them in a threatening tone, motioning to them at the same time to go away. The natives immediately answered the shout, then halted, and, after apparently consulting together for some time, retired a little. The party at the tents simultaneously took counsel together and, agreeing that it would be imprudent in their small number to hold intercourse, under the existing circumstances, with so large a body of natives, it was resolved not to allow them to approach beyond a certain point, and, in the event of any armed portion passing the stream towards the tents in disregard of their signals, then to fire on them one by one.

PROCEEDINGS AT THE CAMP.

In the meantime the women and little children moved round the hill, examining everything with the most intense delight: a pony which was in front of the camp more particularly excited their attention; the little children laughed loudly at it, and appeared also to laugh at the party themselves, regarding them much the same way that little boys do a stranger in foreign costume when he appears in the streets of a country village in England. The native men regarded the pony more seriously; they walked round and round, examining it carefully, and when the little stallion, becoming playful from these marks of attention, neighed, put down his head, and prepared to fight and kick vigorously, they all beat a precipitate retreat.

The party at the tents overlooked all their movements and heard every word that was uttered. They describe the language this people spoke as clear, distinct, and agreeable to the ear; the men they observed to be a fine race, tall and athletic: two were remarked in particular, one of whom was very tall, and had his forehead and face painted with white (their sign of mourning, and that there is a death to avenge) whilst the other was of a far lighter shade of colour than the rest, and these two appeared to direct the general movements.

After some time distant shouts were heard from other natives in the direction in which my party had seen me go; and a large body of the native men instantly hurried off in that quarter, headed by the tall man and the light-coloured one I have just mentioned. Then ensued a pause of about two hours, during which the native women and children wandered about in the distance, conversing in groups: suddenly was heard shouts, as of distress, from the same quarter, which were answered by the natives in front of the camp, when all moved off in a hurried manner and were seen there no more. But in the interim another scene connected with this had been passing at a distance.

EVENTS IN TRACING A ROAD.

On quitting the camp in the morning I and my two companions traversed for some time portions of the elevated sandstone plains which I had passed on a former occasion; and, after an hour's walking through the gloomy stringy-bark forest which covered them, we reached a stream of water running in a shallow valley; and as there was a bad route down to this I halted to make a road which the ponies could traverse. There was plenty of water and forage hereabouts, and a fine level country for our proceedings, so that we were all in high hopes and spirits, and, as I then believed, our principal difficulties were at an end.

Whilst at work at the road we all thought that we heard a native call, and that others answered him; having listened for a repetition of these sounds we again heard them, but they were so indistinct in character that none of us this time agreed as to what they were. I imagined that it was the call of a bird and, when I again heard the same sound very faintly in the distance, I felt convinced it was not a human voice, and proceeded on my way perfectly at ease.

My attention was soon occupied by other objects. I saw from a hill I ascended some remarkable blue peaks to the south: this gave us fresh hopes; and nothing occurred till about three-quarters of an hour after we had first heard the native call, when we arrived at a short descent covered with rocks, from which started a large kangaroo; I got a fair shot at, and knocked it over, but it sprang up again and hopped away; we then tried to track it but soon lost its footsteps in the scrubby vegetation of the gloomy forest,

It was the duty of the Cape man who accompanied me to mark a tree every here and there by chipping the bark, so that the party might the next day easily recognise the route which they had to pursue; upon looking back I now perceived that he had neglected a very remarkable tree about twenty or thirty yards behind us, and which stood close to the spot where I had fired at the kangaroo. I desired him to go back and chip it, and then to rejoin us; in the meantime I stood musing as to the best means of avoiding the little rocky ravine in our front.

SUDDEN SURPRISE BY NATIVES.

Finding that the man remained absent longer than I had expected I called loudly to him, but received no answer, and therefore passed round some rocks which hid the tree from my view to look after him. Suddenly I saw him close to me breathless and speechless with terror, and a native with his spear fixed in a throwing-stick in full pursuit of him; immediately numbers of other natives burst upon my sight; each tree, each rock, seemed to give forth its black denizen, as if by enchantment.

A moment before, the most solemn silence pervaded these woods. We deemed that not a human

being moved within miles of us, and now they rang with savage and ferocious yells, and fierce armed men crowded round us on every side, bent on our destruction.

CONTEST WITH THEM. UNFORTUNATE RESULTS.

There was something very terrible in so complete and sudden a surprise. Certain death appeared to stare us in the face: and, from the determined and resolute air of our opponents, I immediately guessed that the man who had first seen them, instead of boldly standing his ground, and calling to Coles and myself for assistance, had at once, like a coward, run away; thus giving the natives confidence in themselves, and a contempt for us: and this conjecture I afterwards ascertained was perfectly true.

We were now fairly engaged for our lives; escape was impossible, and surrender to such enemies out of the question.

As soon as I saw the natives around me I fired one barrel of my gun over the head of him who was pursuing my dismayed attendant, hoping the report would have checked his further career. He proved to be the tall man seen at the camp, painted with white. My shot stopped him not: he still closed on us and his spear whistled by my head; but, whilst he was fixing another in his throwing stick, a ball from my second barrel struck him in the arm and it fell powerless by his side. He now retired behind a rock, but the others still pressed on.

IMMINENT DANGER.

I now made the two men retire behind some neighbouring rocks, which formed a kind of protecting parapet along our front and right flank, whilst I took post on the left. Both my barrels were now exhausted; and I desired the other two to fire separately, whilst I was reloading; but to my horror, Coles, who was armed with my rifle, reported hurriedly that the cloth case with which he had covered it for protection against rain had become entangled. His services were thus lost at a most critical moment whilst trying to tear off the lock cover; and the other man was so paralysed with fear that he could do nothing but cry out, "Oh, God! Sir, look at them; look at them!"

In the meantime our opponents pressed more closely round; their spears kept whistling by us, and our fate seemed inevitable. The light coloured man, spoken of at the camp, now appeared to direct their movements. He sprang forward to a rock not more than thirty yards from us and, posting himself behind it, threw a spear with such deadly force and aim that, had I not drawn myself forward by a sudden jerk, it must have gone through my body, and as it was it touched my back in flying by. Another well-directed spear, from a different hand, would have pierced me in the breast, but, in the motion I made to avoid it, it struck upon the stock of my gun, of which it carried away a portion by its force.

All this took place in a few seconds of time, and no shot had been fired but by me. I now recognized in the light-coloured man an old enemy who had led on the former attack against me on the 22nd of December. By his cries and gestures he now appeared to be urging the others to surround and press on us, which they were rapidly doing.

FALL OF THE NATIVE CHIEF.

I saw now that but one thing could be done to save our lives, so I gave Coles my gun to complete the reloading, and took the rifle which he had not yet disengaged from the cover. I tore it off and, stepping out from behind our parapet, advanced to the rock which covered my light-coloured opponent. I had not made two steps in advance when three spears struck me nearly at the same moment, one of which was thrown by him. I felt severely wounded in the hip, but knew not exactly where the others had struck me. The force of all knocked me down, and made me very giddy and faint, but as I fell I heard the savage yells of the natives' delight and triumph; these recalled me to myself, and, roused by momentary rage and indignation, I made a strong effort, rallied, and in a moment was on my legs; the spear was wrenched from my wound, and my haversack drawn closely over it, that neither my own party nor the natives might see it, and I advanced again steadily to the rock. The man became alarmed and threatened me with his club, yelling most furiously; but as I neared the rock behind which all but his head and arm was covered he fled towards an adjoining one, dodging dexterously, according to the native manner of confusing an assailant and avoiding the cast of his spear; but he was scarcely uncovered in his flight when my rifle ball pierced him through the back between the shoulders, and he fell heavily on his face with a deep groan.

DISPERSION OF HIS FOLLOWERS.

The effect was electrical. The tumult of the combat had ceased: not another spear was thrown, not another yell was uttered. Native after native dropped away and noiselessly disappeared. I stood alone with the wretched savage dying before me, and my two men close to me behind the rocks, in the attitude of deep attention; and as I looked round upon the dark rocks and forests, now suddenly silent and lifeless but for the sight of the unhappy being who lay on the ground before me, I could have thought that the whole affair had been a horrid dream.

For a second or two I gazed on the scene and then returned to my former position. I took my gun from Coles, which he had not yet finished loading, and gave him the rifle. I then went up to the

other man, and gave him two balls to hold, but when I placed them in his hands they rolled upon the earth--he could not hold them, for he was completely paralysed with terror, and they fell through his fingers; the perspiration streamed from every pore; he was ghastly pale and trembled from head to foot; his limbs refused their functions; his eyes were so fixed in the direction in which the natives had disappeared that I could draw his attention to nothing else; and he still continued repeating, "Good God, sir! look at them, look at them."

The natives had all now concealed themselves, but they were not far off. Presently the wounded man made an effort to raise himself slowly from the ground: some of them instantly came from behind the rocks and trees, without their spears, crowding round him with the greatest tenderness and solicitude; two passed their arms round him, his head drooped senselessly upon his chest, and with hurried steps the whole party wound their way through the forest, their black forms being scarcely distinguishable from the charred trunks of the trees as they receded in the distance.

To have fired upon the other natives when they returned for the wounded man would, in my belief, have been an unnecessary piece of barbarity. I already felt deeply the death of him I had been compelled to shoot: and I believe that when a fellow-creature falls by one's hand, even in a single combat rendered unavoidable in self-defence, it is impossible not sincerely to regret the force of so cruel a necessity.

RETURN WOUNDED.

I had now time to attend to my own state and that of my men, and found that they were uninjured. I had been severely wounded in the hip; another spear had just cut my right arm, and a third had deeply indented my powder-flask, whilst lying in a haversack, immediately over my stomach. The men were not, up to this moment, aware of my being wounded, as I had thought it better to conceal this circumstance from them as long as I could. The natives had gone off in the direction of the tents; and as I felt doubtful whether they might seize upon a favourable opportunity to surprise the party there, and thus revenge their defeat, I was anxious to reach the encampment as soon as possible. We therefore bound up my wound as well as we could, picked up the spear which I had drawn out from my hip, and started homewards.

We did not take with us any of the other spears or native weapons which were lying about in abundance; for I still wished to show this people that I was actuated by no ill will towards them. They did not however deal so generously with us; for Coles unfortunately forgot a notebook which he was carrying for me, containing many observations of great value; and I sent back a party to look for it, but the natives had returned to the place and carried off all their own spears, and other weapons, and my notebook likewise.

The first part of our march homewards was managed tolerably well. We saw the tracks of the natives, as if they were still retiring in the direction of the tents; and at one place, close to a group of detached rocks, were several tame native dogs, near which I have no doubt a party of men or women were concealed, as these animals seldom wander far from their masters. We did not however see any natives, and continued our route unmolested.

My wound began by degrees to get very stiff and painful, and I was moreover excessively weak and faint from loss of blood; indeed I grew so dizzy that I could scarcely see, and neither of the others were capable of leading the party back to the tents; yet I was afraid to halt and rest for I imagined that if I allowed my wound to grow cold and benumbed I should then be unable to move; leaning therefore on Coles's arm, I walked on as rapidly as I could, directing the men which way to go.

MISTAKE OF THE ROUTE.

Unfortunately however we lost our track and, after walking for nearly two hours, I found that we were far from the encampment, whilst my sight and strength were momentarily failing. Under these circumstances I told Coles to walk in a direction which I gave him, and which led directly across the beaten track of the party; having reached which he could easily make out the encampment, and, leaning on his arm more heavily than before, we again moved on.

INABILITY TO PROCEED.

Having reached the track of the party and turned southward to follow it I still pushed on until we were within two miles of the tent, when, as I tried to cross a stream, I strained my wounded hip severely, just reached the opposite shore, and fell utterly unable to rise again. Coles, with his usual courage and devotion to me, volunteered to go on alone to the party and send assistance; the other man was to remain with me and keep a lookout for the natives, and, had they again attacked us, I should still have had strength enough to have shot two of them, and thus have sold my life dearly. I desired Coles to say that a tent, stores, the surgeon, and two men were to be sent to me, for that I was not well enough to be moved.

REFLECTIONS.

The water of the stream revived me considerably. My wound however was very painful, and the interim between Corporal Coles leaving me, and assistance arriving from the tent was spent in meditations, arising naturally from my present circumstances. I sat upon the rocky edge of a cool

clear brook, supported by a small tree. The sun shone out brightly, the dark forest was alive with birds and insects. On such scenery I had loved to meditate when a boy, but now how changed I was; wounded, fatigued, and wandering in an unknown land. In momentary expectation of being attacked my finger was on the trigger, my gun ready to be raised, my eyes and ears busily engaged in detecting the slightest sounds, that I might defend a life which I at that moment believed was ebbing with my blood away; the loveliness of nature was around me, the sun rejoicing in his cloudless career, the birds were filling the woods with their songs, and my friends far away and unapprehensive of my condition, whilst I felt that I was dying there.

And in this way very many explorers yearly die. One poor youth (Mr. Frederick Smith) my own friend and companion, has thus fallen since the circumstances above described took place; others have, to my knowledge, lately perished in a similar way. A strange sun shines upon their lonely graves; the foot of the wild man yet roams over them: but let us hope when civilization has spread so far that their graves will be sacred spots that the future settlers will sometimes shed a tear over the remains of the first explorer, and tell their children how much they are indebted to the enthusiasm, perseverance, and courage of him who lies buried there.

Mr. Walker was by my side within an hour after the time that Coles had left me; he had come on alone ahead of the others, not knowing but that I might be in immediate danger, and therefore running a risk on my account that I can never forget.

He dressed my wound and told me that assistance was at hand to convey me to the tents. Mr. Lushington soon arrived with a pony. It was now growing very late in the day. I therefore did not like to remonstrate against being moved on horseback although, from the position of my wound, I feared that it was an injudicious mode of conveyance in my state. I was placed upon the pony and, supported by my comrades, moved onwards to the tent.

REACH THE CAMP. CONSEQUENCES OF THE WOUND.

I cared but little for the want of comforts I must now be subject to. Therein I only shared the lot of many a worthy soldier; but one thing made the night very wretched, for then through the woods came the piercing shrieks of wailing women and the mournful cries of native men, sorrowing over him who had that day fallen by my hand. These cries rang on my ears all night, startling me at every moment from my feverish and fitful slumbers.

Early next morning the natives moved off in a westerly direction without having again attempted in any way whatever to molest us. My wound was not today so painful as I had anticipated. Mr. Walker, at my request, attempted to heal it by union by the first intention, as I hoped to be thus only compelled to delay the party for a few days.

My pain and suffering were, after the first day, so great, owing to an abscess having formed in my hip, that I was unable to keep a regular journal, and will therefore give a short narrative of the events which occurred, recommencing my journal on the 27th of February, the day on which I was sufficiently recovered to enable me to proceed with the party.

CAPE MAN SENT BACK TO THE VESSEL.

Two or three days after I had been wounded the man from the Cape, who had been with me at the time, came to request that he might be allowed to leave the party and return to the vessel. He stated very fairly that his horror and dread of the natives were so great he should never be able to face them; that he had never been before placed in circumstances of danger; and felt himself quite unable to cope with them; that if his own father had been with him when they attacked us he could not have helped him; and that he was sure he should die of fright if ever he saw them again.

I thought it would be cruel to compel him to remain with the party, and it was moreover impossible to tell what evil effect his cowardice might produce upon the others; when already he had, by running away from the natives, induced them to attack us. The only account he gave of this transaction was that he saw a native sitting on a rock with a spear and, feeling alarmed, immediately ran away. No one after this could feel in the least surprised at the consequences. The peculiar characteristic of this savage race appears to be that they in all cases act upon first impulses and impressions. I have repeatedly remarked this trait in their character; and undoubtedly when they found an unknown being in their native wilds, who fled from them in evident fear, it was to be expected that they would, in the first instance, feel very much inclined to run after, and throw a spear at him.

On the 21st of February I sent a party under Mr. Walker back to the schooner for the purpose of escorting this man, as well as to direct the Captain to delay her departure from the bay until the 2nd day of May; which delay would allow time for us to complete the exploration of this part of the country, and I could then decide upon what course I had better adopt.

EVENTS DURING PERIOD OF HALT.

Mr. Walker returned on the 22nd, having executed both these commissions; and his party brought back for me a little sugar, arrowroot, and wine. All of these were articles of which, in my present state, I stood much in need.

My recovery was a good deal delayed by the circumstances in which I was placed. The heat in the store-tent, a portion of which I occupied, was sometimes as high as 136 degrees of Fahrenheit, and until the return of Mr. Walker I had been able to obtain nothing to eat or drink but damper and tea without sugar; I also reclined upon the ground, until sores broke out from lying on so hard a surface in one position. Corporal Auger latterly however made a sort of low stretcher, which gave me a little more ease. Added to these bodily ills were many mental ones--but I will not dwell longer on times so replete with painful recollections.

ANECDOTE OF RUSTON.

During the time I was lying in my tent, in great pain and very low spirits, I was attended with every care and kindness by Ruston, the sailor I had brought from the Cape, who occasionally suggested such odd topics of comfort as his philosophy could supply; and one day, either from some expressions I had dropped, or other circumstance, he conceived that the death of the native I had shot was preying most upon my mind; under this impression he came into the tent, seated himself on a flour-bag near me, and made his usual inquiries as to my wants and desires; then, glancing at recent events, proceeded to say: "Well, Sir, I'm sure if I were you, I shouldn't think nothing at all of having shot that there black fellow; why, Sir, they're very thick and plentiful up the country." I did not exactly see the consolation to be derived from this argument of Ruston's, but I could not forbear smiling at its quaintness, and feeling grateful for the kindness with which it was intended.

TRACK FOUND.

During my illness Mr. Lushington explored a track to the westward of the one I had formerly taken, and of which he reported so favourably that I determined to pursue it. According to his account, by following it for seven or eight miles, we should get altogether clear of the sandstone ranges, and enter a tract of country of great fertility. On the 26th Mr. Walker reported me to be so much better that he thought I might with safety move on the next day on horseback, and preparations were accordingly made for a start.

A very serious change had taken place in our resources in one respect, for only fourteen ponies now remained alive out of twenty-six, and many of these were so weak and in such bad condition as to be almost useless. On opening one of those which had died about a hat-full of sand was found in its inside, and it therefore appeared very probable that the ponies, having been landed in the first instance on loose sandy soil producing only a short and scanty vegetation, had taken up so much sand with their food as to interfere with the functions of the stomach, and hence had arisen their gradual wasting away and ultimate death. I indeed entertain no doubt that the great loss of ponies we sustained arose from this cause.

CHANGE OF PLANS.

This reduction in the number of our beasts of burden prevented me from entertaining further hope of being able to proceed for any great distance parallel to the coast in a southerly direction. I therefore formed a depot at our present encampment, burying all such stores as the remaining ponies were unable to carry on. My intentions being merely to proceed as far as the supply of provisions we could carry with us would last, then to return to our position, and from thence to the schooner.

DESCRIPTION OF A NEW VOLCANIC COUNTRY.

On the morning of the 27th of February I was, in pursuance of this plan of operations, lifted on my horse, and we moved on in a south-west direction, across sandy plains covered with scrub and a species of stringy-bark; but on travelling for about a mile and a half the character of the country became more rocky and difficult. After moving down a slight descent, we came to a rapid stream, the same one on the banks of which I had heard the natives' calls on the day I was wounded; the banks afforded good food for the horses and trees which offered some shelter to the men from the burning heat of the sun. I determined therefore to halt here for breakfast; indeed the horses were so completely knocked up that they were incapable of travelling any further. We had already been compelled to abandon one of them in a dying state since we had started in the morning.

We halted for about an hour and a half and then recommenced our journey, but were unfortunate enough to miss the marked trees, and therefore wandered a good deal in our attempts to find the right track. Whilst thus roaming in the wood we passed two spots about one hundred yards distant from each other, which I imagined to be native burying-places: they consisted of piles of small loose stones so heaped together as to form a large mound; these mounds were placed on flat bare rocks, one of them, the smaller, had been recently made, the other was larger and much older, for it was partly overgrown with plants.

VIEW FROM THE SANDSTONE RANGE.

About 2 P.M. we reached the extremity of the sandstone ridges and a magnificent view burst upon us. From the summit of the hills on which we stood an almost precipitous descent led into a fertile plain below; and from this part, away to the southward, for thirty to forty miles, stretched a low luxuriant country, broken by conical peaks and rounded hills which were richly grassed to

their very summits. The plains and hills were both thinly wooded, and curving lines of shady trees marked out the courses of numerous streams. Since I have visited this spot I have traversed large portions of Australia but have seen no land, no scenery to equal it. We were upon the confines of a great volcanic district, clothed with tropical vegetation, to which the Isle of France bears a greater resemblance than any other portion of the world which I am acquainted with. The rocks in both places are identical; many of the trees are also the same; and there are several other close and striking points of similarity.

DESCENT FROM THE SANDSTONE RANGE INTO THE LOW COUNTRY.

The descent into the lowlands, being very difficult, occupied us nearly two hours; we then gained the bed of a ravine, in which ran a clear stream: the ravine gradually widening out as we reached the plains. I proceeded directly down it in the direction of a lofty peaked hill which bore to the westward of south; and, having gained a shoulder of this hill, we halted for the night.

Immediately above us a perfectly conical peak raised its head to the height of at least five hundred feet;* this hill was covered with rich grass, and there could be no doubt that it was of volcanic origin, for the rock of which it was composed was a vitrified lava resembling that of Ascension. It is from this lava that the natives form their most deadly spears, for which purpose it answers well, as it fractures easily, and the fracture resembles that of the coarse green glass of England; indeed a lump of this rock might readily be taken for a part of a glass bottle.

(*Footnote. This hill may be easily recognized by a precipitous cavity near the summit on its southern side, which may be seen at some distance.)

The horses and sheep revelled in the luxuriant pasture. The hill we had encamped on formed a sort of plateau; behind us stood dark mountains, and in our front lay fertile plains, from which green hills rose one behind the other until they were lost in the distance, without any perceptible change in the character of the country. To the eastward the prospect was similar, as well as to the westward, except that in this direction the hills were more lofty, and behind these the tropical sun was hurrying down with a rapidity of movement never witnessed by those who live in the gloomy climes of the north. The men all looked healthy and full of hope; the cool sea-breeze refreshed my feverish frame: I painted in fancy the rapid progress that this country would ere long make in commerce and civilization, and my weakness and fatigues were all forgotten.

DISTANT EXPANSE OF WATER.

February 28.

At dawn this morning the sheep could not be found; tempted by the goodness of the feed they had broken out from the little enclosure we had made for them and had wandered off. The stock-keeper and two of the men, having ascended the conical hill behind us to try if they could see them from it, reported on their return that they could descry a large lake or expanse of water, which bore about south by west from us.

VEXATIOUS DELAYS.

Whilst the search for the sheep was continued I sent another party up the hill to observe more particularly this sheet of water, who returned with a report similar to that of the stock-keeper, and I therefore determined, as soon as everything had been prepared for starting, to move off in the direction pointed out; unfortunately the sheep were not found till near noon but, as I was afraid we should consequently lose a whole day, I started directly after they were brought in. We had not proceeded more than half a mile ere I had cause to repent this measure, for two or three of the men suffered severely from exposure to the sun, and one of them became so unwell that I was obliged to halt the party.

The spot I chose was the bank of a stream, shaded over by dense trees and, if anything could have atoned for the mortification of being compelled to halt when so anxious to get on, the cool beauty of this spot would have done so.

When the sun began to fall we again moved on, following the course of the stream, which ran through a fertile valley about two miles wide and bounded on either side by gently sloping hills, extending through a country thinly wooded. We did not halt until after sunset.

March 1.

This morning we resumed our route along the banks of the stream, which continued gradually to increase in size. The marshy ground now extended further from its banks and, in order to free ourselves from this, I ascended some rising ground to the eastward, along which we pursued our route until we fell in with another rapid stream running from the eastward, and were again involved in marshy land, which delayed us for some time ere we found a point where loaded ponies could pass. At length however, having succeeded in getting clear of these obstructions, we continued our southerly course till we came to a deep stream running from south-south-east; but, not being able to cross it there, we travelled along its banks until a ford was found; and as soon as we had passed over I halted for breakfast.

BEAUTIFUL BASALTIC COUNTRY.

We had traversed a most beautiful country this morning, composed of basaltic rocks and fine alluvial soil, whilst, from the size and number of the streams, it must be as well watered as any region in the world. Before we had completed our breakfast violent tropical rains set in; these were so cold that some of the men got into the stream, the waters of which were comparatively warm, and they thus saved themselves from the painful feeling caused by very cold water falling on the pores, which had been previously opened by profuse perspiration. The heavy rains continued without intermission for the remainder of the day and night, and two of the men were, on this occasion, attacked with dysentery, caused, I believe, by cold and exposure.

DISCOVERY AND CHARACTER OF THE GLENELG RIVER.

March 2.

We started at dawn, crossing a series of low ridges which ran out from a chain of hills to the eastward of us, and increased in elevation as we proceeded to the south. We passed numerous streams, and the country generally continued of a very rich and fertile character: at last, from the top of one of these ridges, there burst upon the sight a noble river, running through a beautiful country, and, where we saw it, at least three or four miles across, and studded with numerous verdant islands. I have since seen many Australian rivers, but none to equal this either in magnitude or beauty.

I at once named it the Glenelg in compliment to the Right Honourable Lord Glenelg, to whom we were all under great obligations.

IMPEDIMENTS FROM MARSHES AND STREAMS. INEFFECTUAL ATTEMPT TO REACH IT.

My anxiety to reach this stream was too great to allow me to pass much time in looking at it, so, after I had taken a few bearings to the most remarkable points in the neighbourhood, we wound down the steep descent in front, and continued our advance towards the river, but were still at least five miles from it when we became involved in low marshy ground, traversed by deep sluggish streams, the banks of which were encumbered by a dense vegetation. Such a country, though admirably adapted both for commerce and agriculture, offered almost insurmountable difficulties to first explorers, at least to such as were compelled to move rapidly. We at last became so completely entangled in a marsh that further progress was hopeless, and we halted to prepare breakfast whilst a party searched for a path by which we might be enabled to proceed.

My wound was still open and my sufferings from it were great; whenever we moved on I was lifted on the pony, and when we halted I was lifted off again and laid on the ground, where weakness compelled me to remain during the whole period of our halt; and on occasions like the present, when most anxious myself to search for a route, I was obliged to lie still like a helpless child. My mind was as active and as ready for exertion as ever, yet the weak frame, of which it felt perfectly independent, was incapable of seconding my most moderate wishes; and the annoyance I experienced at finding myself in this state long retarded my recovery and rendered me weaker every day.

At length a route was found, and until sunset we continued our journey over a very difficult but fertile country, and then halted for the night on a small elevation, embosomed amidst conical hills which rose from verdant meadows, watered by several streams. The country was thinly timbered.

The spot we had halted at was so thickly tenanted with mosquitoes that it was impossible to sleep. I therefore laid awake, listening to the cries of the sea-birds and watching the brilliant fire-flies moving about in the dark foliage of the trees.

PROGRESS TOWARDS THE UPPER PART OF THE GLENELG.

March 3.

Before the first dawn I called some of the party and we started off to visit the banks of the river. The first part of our journey lay across rich grassy flats, thinly wooded with large shady trees, or over gently rising grounds, on which grew an abundance of young grass which appeared to be a species of oat. These rising grounds were thinly wooded with a small sort of gum tree, called in the Isle of France the Bois noir.

We soon reached low marshy land intersected with large dry mud flats and, as it was impossible, from the nature of the country, to get the pony further, I tethered it, and we tried to make the river on foot. The position which we had selected was however so unfavourable that we did not succeed in reaching the river, and my wound became so painful that I was scarcely able to crawl back to the pony.

We then returned to the tents, which we reached in the afternoon, and I sent another party out to examine the country and to see if they could find a more favourable position for the tent where we might be less exposed to the mosquitoes. The remainder of the men were employed in repairing the packsaddles and in mending our shoes, which were in a very dilapidated condition. The detached party, on their return, reported that they could not find a more favourable position for the tents; and that we appeared to be on a low marshy tongue of land which the river nearly flowed round. We this day saw the tracks of an emu, and of several large dogs, and kangaroos.

ASCEND A HILL.

March 4.

By sunrise I had gained the foot of the highest hill near our encampment. It is a very remarkable rocky eminence; in height above the immediate base it was only 250 feet, but it rose by a regular steep slope from the river, which was distant about four miles. I do not think therefore that its height above the level of the sea was less than 800 feet. I was unable to ride up this hill, from the rocky nature of the ground, which was composed of a basalt resembling that of the Isle of France; its sides were slightly wooded and clothed with a fine grass nearly as high as myself. From the heaviness of the dew, walking through a river would have been about as agreeable as walking through this grass; but when I had reached the summit the view amply repaid me for the trouble of the ascent.

VIEW OF THE GLENELG FROM IT.

The river flowed through a rich and fertile country at the base of the hill, having in some places hereabouts a triple channel formed by large and apparently fertile islands, and its width must have been at least three or four miles; it however ran away so much to the north-eastward that I began to fear it might be a great salt-water inlet, communicating in some manner with Prince Regent's River, and that we might thus find ourselves upon a large island. I had a good view of the valley for 10 or 12 miles in an easterly direction over a country still very fertile, but all that I saw tended to make me believe that the river had some communication with the sea, somewhere towards the north-east.

We reached the camp before breakfast; and, as this was Sunday and our ponies were rapidly improving from the goodness of their feed, I determined to halt here for a day or two whilst a detachment examined the country to ascertain, if possible, whether we were on an island or not, and whether it was possible to cross the river near our present position.

March 5.

This morning accordingly an exploring party started; and, as it was necessary that they should traverse the country on foot so as to be able to cross the low marshy grounds near the river, I was, on account of my wound, unable to accompany them, and therefore occupied myself in making a set of magnetic observations.

March 6.

This afternoon Mr. Lushington and the party returned, having found the northern bank of the river to consist of low marshy ground covered with a luxuriant vegetation, and in some places with such forests of mangrove trees that it was impossible to approach the stream. They however succeeded in reaching one of the channels of the river, which was upwards of 400 yards wide; the rise and fall of tide was here about twenty feet, and the current, of course, extremely rapid. They reported the river as being, to all appearance, navigable, and that the tide only set in from the westward.

THE RIVER.

As the southern bank of the river was bordered by high rocky hills they saw nothing of the country in that direction. Their report was on the whole satisfactory, for it appeared that the good country still extended along the northern bank, and that we were upon the mainland.

PORPOISES SEEN.

A good idea may be formed of the size of the river where the party made it from the circumstance of their seeing a large shoal of porpoises.

IGUANA. DENSENESS OF VEGETATION.

March 7.

This morning we started early in a north-easterly direction and travelled all day through a very fertile and picturesque country. On our left lay hills covered with grass, and on our right extensive plains, through which ran the Glenelg. The vegetation in these was so luxuriant that it choked the fresh water up; and whole plains were sometimes thus inundated ankle deep. The country was thinly timbered, but in general the trees were of a very great size: one particularly took my fancy, having very large leaves about the colour of those of the horse-chestnut, and which cast more shade around them than any other which I have seen in Australia.

In the afternoon, as we were passing through a densely vegetated bottom, we saw a very large iguana run up a tree. This brute was of a beautiful green colour and five or six feet long; it sat on the tree, making a noise somewhat like a snake, and was the largest and ugliest of the lizard tribe which I have ever seen on land. As we could make no use of it I thought it would be wanton to kill it; so, after examining it as well as we could, we moved on, leaving it undisturbed.

The black flies on this day changed their character, and became much smaller than those I had

hitherto seen.

March 8.

We made but little progress today on account of the denseness of the vegetation, which was so luxuriant that we found great difficulty in forcing our way through it; in several instances indeed it was wholly impassable; and, after making an attempt to penetrate through a jungle, we were obliged to turn about and coast round it. The numerous streams we met with were also a serious impediment, for many of these were so muddy and deep that we had great difficulty in finding a place where we could cross.

SIGNS OF NATIVES.

We halted for breakfast near a stream of this kind, under the shade of a large group of the pandanus. This was evidently a favourite haunt of the natives, who had been feeding upon the almonds which this tree contains in its large complex fruit, and to give a relish to their repast had mingled with it roasted unios, or fresh-water mussels, which the stream produced in abundance. The remains of some old spears were also lying about, but the natives themselves were not visible.

Immediately after breakfast I ascended a hill to see if we could in any way get clear of the deep stream on the banks of which we had breakfasted. The Glenelg was distant about three miles to the south, and I found that, in order to disengage ourselves from the waters which almost encompassed us, we must turn off to the north-west, and thus almost double back on our former track, as there was no other resource. I returned at once to the party, and we spent the rest of the day in crossing two deep streams, and then proceeded about a mile to the eastward, where we halted for the night on the bank of a rocky watercourse, but not containing a drop of water. The timber today was larger than I had yet seen it, affording many new kinds, and one in particular, resembling in appearance and quality the English ash.

March 9.

We moved through a low country, densely vegetated, and still abounding in deep sluggish streams, almost unapproachable, on account of a dwarf bamboo and other tropical plants which clothed their margins. Some of these streams were twenty feet deep and upwards, and looked more like canals than natural watercourses.

CASCADE OF THE RIVER.

The point where we halted for the night was not very distant from the river, for its roaring, as it forced itself over a rapid, could be distinctly heard. As it was important to ascertain if it ceased to be navigable at this point, as well as whether it could be here forded or not, I ordered a party to proceed at daylight and examine it, and in the interim we laid down to enjoy such repose as myriads of mosquitoes would allow us.

March 10.

The party started at dawn and did not return until the afternoon. They arrived at low-water at a point where the river formed a series of rapids and was apparently broken into several channels; the one which they reached was not more than fifty or sixty yards wide, the tide at low water being full seven or eight feet below the level of the rocks which formed the rapids, but at high-water it rose, judging from the marks on the rocks, as many feet above them. This channel would therefore cease to be navigable for vessels at this point, but large boats could proceed up it at high-water. There was no apparent possibility of our being able to pass it hereabouts on account of the great rapidity of the current. The river continued fresh below the rapids, and their account of the character of the country they saw was most satisfactory.

INCONVENIENT HALTING PLACE.

Almost immediately after they had entered the camp the rain began to fall in such torrents that it was impossible for us to move; this was unfortunate for where we were halted was unfit for a day's resting-place, and we should consequently be compelled to move on Sunday morning instead of making it a day of perfect rest. The point where the party made the river today was about south latitude 15 degrees 41 minutes; east longitude 124 degrees 53 minutes.

CHAPTER 9. TO THE UPPER GLENELG.

WORKS OF NATIVE INDUSTRY.

March 11.

The country we traversed this morning was still marshy, and intersected by deep streams. The party had yesterday fixed upon a point for us to encamp at; but, a sudden inundation having taken place, we could not cross a stream which lay between us and the spot selected, so that we were compelled about noon to halt at a position very ill adapted for our purpose.

VARIOUS TRACES OF NATIVES.

Close to our camp was a large mass of basaltic rocks, on which the natives had lately been, and had left behind them a few old spears: some drawings were also scratched upon the rocks, representing heads, hands, and other parts of the human frame: they were however indifferently executed.

Another branch of industry which had engaged their attention was the manufacture of stone spearheads, the chips and remnants of which were lying about on every side. As this looked very like a preparation to give us a warm reception I kept upon the alert. From constantly sleeping on the wet ground, and the exposure I was obliged to undergo, such an attack of rheumatism had been produced in my left hip and knee that I was not only crippled but suffered such dreadful agony from my wounded limb that I was able to pay but little attention to passing events.

I crept about however as well as I could, and found that we were in a very populous neighbourhood. At one place a large party of natives appeared to have lived for some time, twelve bark beds having been left in a circle round a fire. In this respect they differ in custom from the natives of the southern parts of Australia, who generally sleep all of a heap, or, at least, four or five persons together, whereas each individual here appeared to occupy his own little bark bed. In the course of the morning's march we had passed a very neat native oven, or fireplace, much more carefully constructed than anything of the kind I have since seen; it consisted of a hole sunk eight inches deep in the earth, which was quite circular, three feet in diameter, and very neatly paved and lined with flat stones; the last article cooked here had been a large quantity of turtles' eggs, the remnants of which were lying scattered all around. This is a dish by no means to be despised; and the discovery was rather interesting to me as it proved that turtle came so far up the river. It rained hard during the greater part of the day.

March 12.

As we were preparing to start this morning one of the ponies was found to be so knocked up as to be unable to proceed; I therefore abandoned it, though, I fear, in a state too far gone to recover; but if perfect rest and abundance of good feed and water could effect a restoration it had still a fair chance.

DIFFICULTIES OF THE ROUTE.

A ford over the stream had yesterday been found between the Glenelg and our encampment, which we now succeeded in getting the ponies over, and, in order to avoid another stream, which had been seen to the eastward, we turned north-east, but in about three miles were again at fault, on the banks of a deep brook. I now turned due north and, after tracing the stream for about a mile, discovered a ford across which, after a due proportion of sticking in the mud and falling with their loads in the deep water, we led all the ponies, and found ourselves happily established in a jungle on the other side of it. The vegetation here consisted of grass and reeds which rose so high and thick that I could see nothing over them, although there was rising land within a mile of us.

We first endeavoured to push through this jungle in an easterly direction; but, after having very resolutely made our way onwards for about an hour, I saw some very high land to the south-east of us, distant four or five miles, and therefore changed the direction of our march to make for these hills; as soon as we had gained a clear place in the jungle I halted for breakfast, and, after resting for an hour, we continued, notwithstanding the dreadful heat of the day, to move on, but soon again came to a deep, sluggish stream which obliged us to turn off to the north-east; and it was not until near nightfall that we found a place where we could cross it.

MOUNT LYELL.

Having traversed the stream we proceeded to the foot of a very lofty peak, the most remarkable hill in this part of the country, and which I named Mount Lyell, after C. Lyell, Esquire. We here pitched the tents, and scarcely was this operation performed ere the rain fell in such torrents that the water stood even under them to the depth of two or three inches, and yet the tents were fixed in the best position that could be found. The night was dark and stormy so that, even had a better place offered, it would now have been useless to move; we therefore resigned ourselves to our fate and lay down on our watery beds, which possessed at least one merit, that they were free from mosquitoes.

March 13.

Before the mists of morning had cleared away from the lofty hills to the north-east of our encampment I had commenced their ascent with a party of three men. To my great vexation, on taking out the barometer at the bottom of the hill, it was broken, and I could therefore no longer hope to be able to obtain the height of remarkable elevations. I managed to ride the pony up the hill for some time, but the broken and rocky nature of the ground obliged me at last to walk, and I left the animal tethered in rich grass higher than itself.

VIEW FROM IT. MAGNIFICENT PROSPECT.

When we gained the summit of the hill I found that in the mists of the morning we had ascended

the wrong peak. The one we stood on was composed of basalt and at least twelve hundred feet high; but Mount Lyell, another peak springing from the same range, and not more than a mile to the eastward, must have been four or five hundred feet higher. It was moreover distinguished by a very remarkable feature, namely, a regular circle, as it were, drawn round the peak, some two hundred feet below the summit, and above this ring no trees grew; the conical peak which reared its head above the region of trees being only clothed with the greenest grass, whilst that on which I stood and all the others I could see were thinly wooded to their very summits.

The peak we had ascended afforded us a very beautiful view: to the north lay Prince Regent's River, and the good country we were now upon extended as far as the inlets which communicated with this great navigable stream; to the south and south-westward ran the Glenelg, meandering through as verdant and fertile a district as the eye of man ever rested on. The luxuriance of tropical vegetation was now seen to the greatest advantage, in the height of the rainy season. The smoke of native fires rose in various directions from the country, which lay like a map at our feet; and when I recollected that all these natural riches of soil and climate lay between two navigable rivers, and that its sea-coast frontage, not much exceeding fifty miles in latitude, contained three of the finest harbours in the world, in each of which the tide rose and fell thirty-seven and a half feet, I could not but feel we were in a land singularly favoured by nature.

CONTINUATION OF ROUTE. TORRENTS OF RAIN.

I remained for some time on the summit of this hill, enjoying the prospect, and taking bearings. When this operation was completed we returned to the camp and prepared once more to proceed upon our route; but, to our misfortune, had not made more than two or three miles through a fertile country when the rain again fell in such torrents that we were compelled to halt. Indeed none but those who have been in tropical countries can at all conceive with what suddenness and force these storms burst upon us.

March 14.

We this morning made an attempt to get clear of the marshes by following a south-easterly course, and were thus forced up into a range of lofty basaltic mountains, the slopes of which were of the richest description. Had our ponies been provided with shoes we could have travelled here with great speed and facility, but the higher land was invariably covered with sharp pebbles over which the unshod ponies could only move with pain and difficulty. When however we had gained the summit of the range the view from it was similar to that which I have just described. Mount Wellington and Mount Trafalgar formed splendid objects, rearing their bold rocky heads over St. George's Basin, which now bore the appearance of being a vast lake. The pleasure of the prospect was however in my eyes somewhat diminished from seeing on the other side of the range so considerable a stream that I anticipated great difficulty in crossing it; I therefore steered a course somewhat more southerly than our former route and, having reached the extremity of the range, we once more descended into the fertile lowlands.

GLENELG RIVER.

Along these our course continued through an uninterrupted succession of rich flats, thinly wooded but luxuriantly grassed, until near sunset, when, as we were about descending the brow of a low hill, I found that the Glenelg, having made a sudden turn, was close to us, whilst in our front, and completely blocking up our passage, there was a very large tributary which joined the river from the north-east; I therefore halted the party here for the night, and at once proceeded down to the river.

It was quite fresh and running at the rate of more than five knots an hour; the bed was composed of fine white sand, and even close to the margin it was 2 1/2 fathoms in depth. The trees which bordered it were of a gigantic height and size, I think the largest that I have seen in Australia; whilst it was almost impossible to get down to the stream, from the denseness of the vegetation on its banks. Before we reached the main channel of the river we had several smaller ones to cross, but of very insignificant depth.

I stood for some time watching this dark turbid stream sweeping rapidly along, and could not but wonder where so great a body of water could have its source. I had then seen no other Australian rivers, but judging from description this differed widely from them all.

I have since visited many of the most noted Australian streams and found this distinguished by many peculiar characteristics; nor would I hesitate to say that, with exception perhaps of the Murray, it will be found the most important on that continent; and, taking into consideration its geographical position, the fertility of the country on its banks, as far as it is yet known, and the rise and fall of tide, it may perhaps not yield in consideration even to the Murray.

TORRENTS OF RAIN.

I now examined the tributary stream which here joined the Glenelg, and to my chagrin found that it was so much swollen by the late rains as to be utterly impassable. To attempt to construct a bridge over it would have been useless for the adjacent ground was now so swampy the horses were bogged before we got them near it. I wandered up its banks as far as I could before nightfall, but could not succeed in finding any place in our vicinity at which we might hope to

effect our passage. Just as it got dark the rain again began to pour in torrents; thus, if possible, rendering our position worse than before, and I returned late to the tents much dispirited at the unfavourable weather we had encountered.

RISE OF THE WATERS. MARKS OF INUNDATIONS.

On going down to the Glenelg the next morning I found it so swollen by the heavy rain of the preceding night as to render it impossible to get near the main bed. The river was now far beyond its banks, and in the forks of the trees above our heads we saw driftwood, reeds, dead grass, etc., lodged at least fifteen feet higher than the present level; and which could only have been left there during some great flood. Whether these had frequently recurred we had of course no means of judging, but during such floods the whole of the very low country which we here saw to the south-west of us must be inundated. I need scarcely add that in a tropical country no ground could be conceived better adapted to the growth of rice than the extensive levels which border the Glenelg.

A detached party now went off to search for a route by which we could proceed. The stock-keeper came and reported that the sheep were suffering greatly from the continued rain and exposure to wet, several of them having died during the night; only five were thus left alive out of the number we started with, and, one of these being in a drooping state, I had it killed that we might not lose the advantage of it altogether.

NATIVES.

Immediately on the other side of the tributary stream which lay to the south of us there rose a high precipitous sandy range, similar to those we had fallen in with on first landing. This range completely overlooked our encampment from a distance, and on it a party of natives had posted themselves. We saw the smoke of their fires and heard their own cries and the yelling of their dogs; and with the help of my telescope I once distinguished their dusky forms moving about in the bush.

COCKATOOS.

A large flight of cockatoos which lay between us and them were kept in a constant state of screaming anxiety from the movements of one or the other party, and at last found their position so unpleasant that they evacuated it and flew off to some more quiet roosting-place. Their departure however was a serious loss to us, as they played somewhat the same part that the geese once did in the Capitol; for whenever our sable neighbours made the slightest movement the watchful sentinels of the cockatoos instantly detected it and, by stretching out their crests, screaming, standing on their toes on the highest trees, with their wings spread abroad to support them, and peering eagerly in the direction where the movement was made, they gave us faithful intimation of every motion.

When therefore this advanced guard took unto themselves wings and flew away I was obliged to keep all hands on the alert to prevent a surprise. Whilst we were thus occupied our detachment returned and reported the country to be utterly impracticable. I determined however to examine it myself the next morning in order to be quite satisfied upon so important a point.

March 16.

I moved off at dawn this morning with a party, but after following the direction of the stream for several miles I found that the whole of the land between it and the foot of the hills had been rendered by the heavy rains a marsh quite impassable for horses, which was rendered the more annoying as the swamp was not more than a mile in width, so that this slight space alone prevented us from pursuing our desired route. Nothing however was now left us but to turn once more to the north-west, and thus to endeavour to head the marsh.

DANGER FROM NATIVES.

Just as we had prepared to return home the cries of the natives arose close to us; their fire was about half a mile away, and their calls had already several times been heard. Now that they were so near us I thought it better to load my second barrel with ball, for I did not like their hanging about us in the way they had done for several days. On putting my hand into my haversack in order to prepare some ammunition I found, to my great dismay, that I had taken in mistake one which belonged to another man and which contained no ammunition; nor was there a ball in possession of any person with me which would fit my gun and, as I knew that the aim of those with me was not much to be depended on, even under the coolest and most favourable circumstances, I thought that in the moment of a desperate attack it might be still less sure; this, added to the want of confidence incident on finding oneself unarmed and dependent on the protection of others, made me feel very uncomfortable until we once more reached the tents.

RAINS CONTINUE. TORRENTS OF RAIN.

During the early part of the day the rain fell in torrents; but, as it cleared off a little soon after our arrival, we started in a north-westerly direction. Such violent storms of thunder, lightning, and rain set in when we had made about two or three miles that I was again obliged to halt; and as it continued to rain heavily throughout the night, our situation, which was already bad, might

now be said to be hourly growing worse; and it can readily be conceived that, between rheumatism in my wounded limb, lying in water, and vexation at the constant difficulties we experienced, I was too much harassed to be able to sleep.

SWAMPS.

The continued rain during the night had necessarily rendered the marsh far more impracticable than before; but, as no other route to the southward could be found on account of the river which lay upon either hand, I was compelled to wait until the ground again in some measure dried. But it would have been equally as impossible to beat a retreat as it was to get forward, for we were in a manner surrounded by swampy land, and when the loads were placed upon the ponies they sank nearly up to the shoulders in a bog in whichever direction we attempted to move; but as our present position would have been unsafe in the event of an extensive inundation taking place I judged it necessary at all events to reach a somewhat elevated outlying hill of sandstone which was distant about two miles. This point we succeeded at last in gaining, although not without severely injuring and straining some of the ponies in effecting it. This rising ground was however well situated for our camp under present circumstances: it was composed of porous sandstone, which in these climates dries almost immediately after rain. There was plenty of dead wood upon it and it was surrounded by richly-grassed flats, whilst from the base gushed forth a clear spring, which then murmured along a purling brook, traversing the flat on which the ponies were tethered.

SNAKE AND KANGAROO.

Close to this spot the attention of Mr. Lushington was drawn to a curious misshapen mass which came advancing from some bushes with a novel and uncouth motion. He fired and it fell, and on going up to it he found that it was a small kangaroo enveloped in the folds of a large snake, a species of Boa. The kangaroo was now quite dead, and flattened from the pressure of the folds of the snake which, being surprised at the disturbance it met with, was beginning to uncoil itself, when Mr. Lushington drew out a pistol and shot it through the head. It was of a brownish yellow colour and eight feet six inches long. The kangaroo we found very good eating; and Mr. Walker, who ate a portion of the snake, considered it to be as great a delicacy as an eel, but rather tougher.

There fortunately was an elevated pinnacle of rocks on the rising ground upon which we were encamped; and from the top of these I was able in the course of the day to get bearings and angles to many important objects; I could also see many fixed points in my survey, so that the day could not be considered as altogether a lost one.

CONDITION OF THE PONIES.

March 18.

Throughout the whole of this day the rain poured in torrents so that the ponies, notwithstanding the goodness of the feed, began again to suffer from cold and exposure to the weather. They were so wild that we could not venture to let them run loose, and, as it was impossible to tether all of them under trees, the majority were left exposed to the pitiless pelting of the storms; and they certainly made a very wretched appearance as they stood with their sterns presented to the blast, and the water pouring from their sides in perfect streams. I do not know whether this was a very extraordinary season, but it is certain that if all rainy periods in North-West Australia resemble it, to attempt to explore the country at this time of the year would be fruitless. Such a good supply of rain is a great advantage to an occupied country through which regular lines of communication exist; as it then raises but slight impediments to travellers; but the case is very different to first explorers who have to find a ford over every stream and a passage across every swamp, and who constantly run the risk of involving themselves in a perfectly impassable region.

NATIVES NEAR THE CAMP.

March 19.

This morning was also ushered in with torrents of rain, chequered by occasional intervals of fine weather of perhaps half an hour's duration. Another sheep died and several of the ponies were very unwell. The men who had been shifting the tethers of the horses at noon returned with the intelligence that, during the period of their absence from the encampment, a party of natives must have been close to us, watching our movements, for that when they went out there were no traces of them near the camp, which were now discernible in nearly every direction around us.

I selected the best bushman of my party and went off to see whether anything was to be apprehended from these natives, but I soon found that the report was in some degree exaggerated. Some natives had crept up to within about a hundred yards of us, probably with the intention of making a reconnaissance, and of then framing their future plans; they had however been disturbed by the return of the men from the horses, and then made off. It appears that they had approached us by walking up a stream of water so as to conceal their trail, and then turned out of the stream up its right bank; and although they had carefully trod in one another's foot-marks, so as to conceal their number, we could make out the traces of at least six or seven different men, which we followed to the spot where, whilst creeping about to watch us, they had

been disturbed. From this point these children of the bush had disappeared, as it were by magic: not a twig was broken, not a stone was turned, and we could not perceive that the heavy drops of rain had been shaken from a single blade of grass. We made wide casts in different directions but, not being able to hit on their trail, I returned to the tents, more than ever convinced of the necessity of being constantly on the watch against beings who were often near us when we least dreamt of their presence, and, in an unguarded moment, might so easily surprise and spear some of the party.

APPEARANCE OF THE COUNTRY.

The rain continued to fall throughout the 20th, rendering our condition every hour worse. Towards noon however the weather cleared a little, and in a fine interval I mounted a high range of basaltic hills which lay about a mile and a half to the westward. These hills were the highest which I had yet ascended; and from them I gained a very extensive view. The farthest extremity of the sandstone range which lay to the southward and eastward did not appear to be more than ten or twelve miles distant. Behind this barren range there again rose the conical tops of basaltic hills, clothed in the greenest grass; and beyond these, in the far south-east, I made out with the telescope a range of very lofty hills, which, stretching their heads high into the clouds, left me without means of forming any idea of their elevation: but even the portion of them which met my view must have had a very considerable altitude. I took a set of angles from this point but the mistiness of the day rendered it very unfit for my purpose. Whilst I was thus occupied, we heard the cries and calls of a party of natives between us and the tents. From the loudness and proximity of these I augured badly and therefore hurried my return; but we neither saw the natives themselves nor their tracks, and were quite in ignorance as to what had been their intentions. Soon after sunset the weather cleared up a little, and the stars, which came peeping out, promised well for the next day.

NATIVES NEAR THE CAMP AGAIN.

March 21.

Although it had rained during the night and the sun this morning rose bright and clear the country was still impassable owing to the late continued torrents. I therefore went out with a detachment for the purpose of exploring a route by which we could proceed the next day, as well as to define some more points in the country we were about to enter. In the course of our walk we crossed the track of the natives we had heard yesterday. Their party must have been large, for they approached to within about three hundred yards of the tents, leaving a trail as broad and large as was made by our ponies and party together. I did not much like their hanging about us for so many days as I rather mistrusted their intentions; their object however appeared to have been to examine the ponies, for they had only come as far as the tethering ground and, after wandering about there a little, had again retired. We were unfortunate in our search for a good line of country by which to proceed, but I made some important additions to my map.

MARSH AND SANDSTONE RANGE.

March 22.

As fine weather had apparently set in again we this morning resumed our journey. The poor ponies looked very weak and wretched when they were brought up to start, and we were all ragged, dirty, and worn out from the constant exposure to wind and rain; indeed our appearance was altogether very miserable on moving off, and our progress, too, very slow and fatiguing, both to ourselves and the horses, on account of the swampy nature of the ground; but we strenuously persevered until near noon, when I halted for breakfast at the foot of some lofty hills, at the base of which ran the stream which was giving us so much trouble. As soon as we had despatched our scanty breakfast I tried with a party to find a passage across the marsh, but our search was in vain and, on examining the sandstone range on the other side of the stream, I found it so precipitous that our weak ponies could not possibly have clambered up it.

NATIVE BRIDGE.

Whilst on our return we found a native bridge, formed of a fallen tree, which rested against two others and was secured in its position by forked boughs.

PRECIPITOUS PASS.

I was thus obliged to continue to travel in a north-east direction for the remainder of the afternoon, when we found, at last, a passage over the marsh, but made vain attempts to cross the sandstone range in no less than four different places; the ponies were so weak and the route so precipitous that each time we were obliged to return. At length we reached the watershed, from one side of which the streams ran down to Prince Regent's River, and from the other to the Glenelg; the rocks on the south side were ancient sandstone resting on basalt, and on the opposite the basalt crept out, forming elevated hills. This position was remarkable both in a geological and geographical point of view; and, the sandstone range over against us looking rather more accessible than it had previously done, I determined to halt here for the night and examine the country; but my resolution was scarcely formed ere such heavy storms of rain, accompanied by thunder and lightning, came on as totally to prevent me from seeing to any

distance or taking any bearings.

On entering the old red sandstone district again the parakeets became once more common, and the green ants reappeared. These last seem to be solely confined to the sandstone, for I did not see one without its limits.

ASCENT OF THE SANDSTONE RANGE.

March 23.

This morning we made a more fortunate effort to ascend the sandstone range which had yesterday so baffled our efforts; and having commenced the ascent at 6 A.M. reached the summit at 10, but the poor little ponies were dreadfully exhausted. Having now established ourselves upon this narrow elevated tableland the next thing was to descend on the other side. The prospect to the southward and eastward was not very cheering, for before we could make any further progress in either of those directions we had a perfect precipice to get down, at the foot of which lay a beautiful and verdant valley about three miles wide, diversified with wood and water; whilst a large cascade which could be seen falling in a dark forest on the other side added much to the scenery. Beyond the valley rose again rocky sandstone ranges, but I knew that the width of these was inconsiderable.

DESCENT ON THE OPPOSITE SIDE.

After a very tedious search we discovered a sort of pass leading diagonally down the face of the precipice; but before attempting to take the ponies over this it was necessary to move many large rocks and stones, to cut down trees, and otherwise make it practicable for them. All hands however set cheerfully to work, and by 1 P.M. the whole party had safely reached the bottom of the precipice. The valley that we were in was very fertile but, from the incessant rain which had lately fallen, the centre part of it had become an impassable swamp, and we were thus once more obliged to turn to the northward in order to travel round it: but as rest and food were necessary both for horses and men we halted at the foot of the sandstone range for breakfast.

REMARKABLE FRILLED LIZARD. BEAUTIFUL COUNTRY.

As we were pursuing our route in the afternoon we fell in with a specimen of the remarkable frilled lizard (*Chlamydosaurus kingii*); this animal measures about twenty-four inches from the tip of the nose to the point of its tail, and lives principally in trees, although it can run very swiftly along the ground: when not provoked or disturbed it moves quietly about, with its frill lying back in plaits upon the body: but it is very irascible and, directly it is frightened, elevates the frill or ruff and makes for a tree; where if overtaken it throws itself upon its stern, raising its head and chest as high as it can upon the forelegs, then doubling its tail underneath the body and displaying a very formidable set of teeth. From the concavity of its large frill it boldly faces any opponent, biting fiercely whatever is presented to it, and even venturing so far in its rage as to fairly make a fierce charge at its enemy. We repeatedly tried the courage of this lizard, and it certainly fought bravely whenever attacked. From the animal making so much use of this frill as a covering and means of defence for its body this is most probably one of the uses to which nature intended the appendage should be applied.

We at length reached the watershed connecting the country we had left with that we were entering upon, and were now again enabled to turn to the eastward and thus to travel round the swamp. This watershed consisted principally of a range of elevated hills from which streams were thrown off to the Glenelg and to Prince Regent's River. The scenery here was very fine, but I have so often before described the same character of landscape that it will be sufficient to say we again looked down from high land on a very fertile country, covered with a tropical vegetation and lying between two navigable rivers. I can compare this to no other Australian scenery, for I have met with nothing in the other portions of the continent which at all resembles it. When we had nearly headed the valley the night closed in so rapidly on us that I was obliged to halt the party; and by the time the arrangements for security and rest were completed it was quite dark.

CURIOUS NEST.

March 24.

This morning we started as soon as it was light and, continuing our route round the valley, passed the beautiful cascade seen yesterday and, after fording a clear running brook like an English trout stream, we began to ascend the next sandstone range. On gaining the summit we fell in with a very remarkable nest, or what appeared to me to be such, and which I shall describe more particularly when I advert to the natural history of this part of the country. We had previously seen several of them, and they had always afforded us food for conjecture as to the agent and purpose of such singular structures.

DEEP VALLEY.

Soon after quitting this nest we found a very convenient pass through a deep and fertile valley, which led directly up into the heart of the sandstone range; a fine stream ran through it in which were several large reservoirs of fresh water; the hills on each side were lofty, being at times of a rounded character, and at others broken into precipitous and fantastic cliffs; the country was

thinly wooded with large timber, and the varied scenery, the facility which the country afforded for travelling, and the pleasure incident on finding ourselves clear of the marshy ground which had so long encumbered our movements, combined to make me push along as fast as possible; the only check was the heat of the sun; and it should always be borne in mind that no parallel whatever can be instituted between travels in tropical and extra-tropical Australia, for in the former the more exhausting nature of the climate unfits both men and horses for making long journeys, and indeed renders it almost impossible to travel during the heat of the day, whilst the difficult nature of the ground caused by the dense vegetation, the jungles, the ravines, and marshes, render it altogether impracticable to move at night through an unknown country.

WILD OATS.

We crossed during the day several recent tracks of natives but did not fall in with the natives themselves; we also saw many kangaroos, and halted for the night on an elevated basaltic ridge, at a point close to which there was a large crop of the grain which we called wild oats. This is a remarkable vegetable production, growing to the height of from five to six feet; in the stalk, the shape, and mode of insertion of the leaves it is similar to the oat of Europe; the manner in which the seeds grow in the two plants is also the same, and the seeds are nearly of the same size, but the Australian oat is furnished with a beard like the barley. When hungry I have repeatedly eaten these oats, which in some parts grow in such abundance that several acres of them might be mown at once; and I have little doubt that this plant would with cultivation turn out to be a very great addition to our tropical grains.*

(*Footnote. I am informed that the seeds of it which I introduced into the Isle of France in 1838 have greatly multiplied and that the plants are in a very flourishing state.)

March 25.

This morning we resumed our journey, crossing a succession of basaltic valleys. The vegetation was luxuriant beyond description; and it was ludicrous to see the heavy-tailed kangaroos leaping and floundering about in the long grass when they had quitted their beaten pathways and were suddenly disturbed by our approach.

CURIOUS BIRDS.

In crossing the second of these large valleys we saw two large white and black birds, more like pelicans than any other kind I am acquainted with; they had webbed feet, and the colour and form of their body resembled that of the pelican, but the head and beak were very different; after flying two or three times round our heads, well out of shot, so as to have a good peep at us, they flew away, and for the first and last time I saw this curious bird.

We now ascended a ridge of sandstone tableland which crossed our route: this was about three miles in width, and at its southern extremity were two lofty basaltic hills, from between which a small valley led down into another very large one that was the general receptacle of the streams which came pouring in from all directions. This last might be considered as a good type of the valleys in this portion of the country: at its northern extremity it was about four miles wide, being bounded on all sides by rocky wooded ranges with dark gullies from which numerous streams and springs poured forth their watery contributions to the main one. This last ran nearly down the centre of the principal valley, the width of which gradually contracted towards the south, where it terminated almost in a point, having a narrow lateral opening at the south-west end of not more than a quarter of a mile wide, and bounded by steep cliffs on each side, so as to form a perfect gorge, the direction of which was due west. In about a mile and a half this gorge met a cross valley, running from the south to the north, down which the waters were poured, so as to run back as it were upon their former course.

BASALTIC VALLEY.

We halted for the day in the main valley, which from the run of the waters above described must necessarily have been very elevated; it was, moreover, nearly level, forming indeed a sort of enclosed plateau, so that the streams, which both on entering and quitting it ran bubbling merrily along, preserved whilst in it a sluggish and scarcely perceptible course. When to this I add that it was composed of basaltic rocks and received the deposit of such an extent of elevated basaltic land I need scarcely add that it was highly fertile. I believe that these valleys, which are very common in North-Western Australia and contain from four to five thousand acres each, are as rich as any other spots upon the globe, and moreover possess the great advantage of being situated close to navigable rivers.

March 26.

This morning we moved down the valley in which we had been encamped yesterday and, as it was thinly wooded, we experienced no difficulty whatever until the main stream suddenly turned off from south to due west; this was a sufficient proof that the gorge of the valley was on its western side, but I was not anxious to follow the course of the water, from the apprehension of being led into low and marshy land; I thought also that a low ridge which I saw to the south could easily be crossed, and that we should thus gain access to a valley similar to that we were in. I therefore resolved to cross the stream at the first ford we could find, and after a little trouble we discovered one suited to our purpose through which the ponies passed in safety.

IMPASSABLE SANDSTONE RANGE.

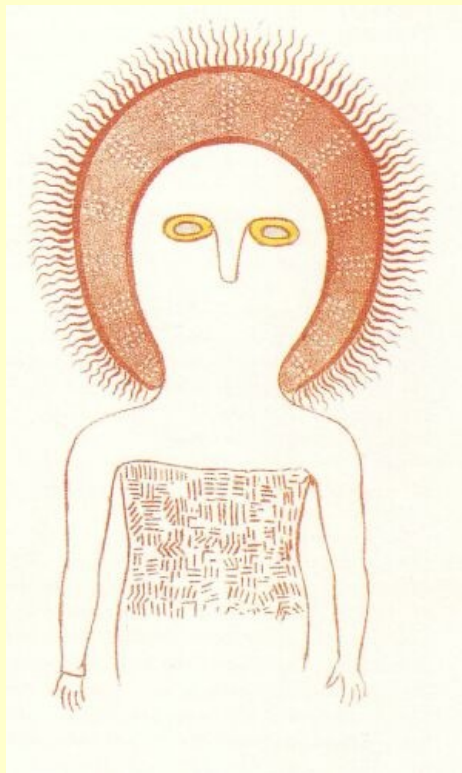
We then continued our route in a due southerly direction until we reached the low range which I had before seen; this range turned out to be composed of sandstone, and where we made it it was so rocky and precipitous as to be quite impracticable. We therefore travelled along it in an easterly direction for about three miles, but throughout this distance it presented no single pass through which I could hope to penetrate. The sun having now become very powerful we halted for breakfast; and whilst this meal was preparing, I sent out a detached party to search for a road, which soon returned to report that they were able to find no path by which we could proceed.

I did not however like to retrace our footsteps without having made a careful search; and although my wound was still open and very painful I rapidly swallowed a portion of my allowance of damper and started with another detachment on foot to examine the country. The sandstone range, which ran nearly east and west, was terminated everywhere throughout its southern side by perfectly precipitous rocks, at the foot of which lay a fertile valley, resembling the one in which we had encamped yesterday except that it was on a much lower level. The position that we were in appeared to be the pass by which the natives communicated with the country to the south of us, for marks of them were visible everywhere about, but they could easily clamber about these precipitous rocks, though it was quite impossible to get the ponies down, even by forming a path, as we had often previously done.

PAINTED CAVE. DRAWING ON ROOF OF A CAVE.

Finding that it would be useless to lose more time in searching for a route through this country I proceeded to rejoin the party once more; but whilst returning to them my attention was drawn to the numerous remains of native fires and encampments which we met with, till at last, on looking over some bushes at the sandstone rocks which were above us, I suddenly saw from one of them a most extraordinary large figure peering down upon me. Upon examination this proved to be a drawing at the entrance to a cave, which on entering I found to contain, besides, many remarkable paintings.

The cave appeared to be a natural hollow in the sandstone rocks; its floor was elevated about five feet from the ground, and numerous flat broken pieces of the same rock, which were scattered about, looked at a distance like steps leading up to the cave, which was thirty-five feet wide at the entrance and sixteen feet deep; but beyond this several small branches ran further back. Its height in front was rather more than eight feet, the roof being formed by a solid slab of sandstone about nine feet thick and which rapidly inclined towards the back of the cave, which was there not more than five feet high.



15.1. Figure drawn on the roof of Cave, discovered March 26th.

On this sloping roof the principal figure (Number 1) which I have just alluded to, was drawn; in order to produce the greater effect the rock about it was painted black and the figure itself coloured with the most vivid red and white. It thus appeared to stand out from the rock; and I was certainly rather surprised at the moment that I first saw this gigantic head and upper part of a body bending over and staring grimly down at me.

DESCRIPTION OF THE FIGURES.

It would be impossible to convey in words an adequate idea of this uncouth and savage figure; I shall therefore only give such a succinct account of this and the other paintings as will serve as a sort of description to accompany the annexed plates. The dimensions of the figure were:

Length of head and face 2 feet.

Width of face 17 inches.

Length from bottom of face to navel 2 feet 6 inches.

Its head was encircled by bright red rays, something like the rays which one sees proceeding from the sun when depicted on the sign-board of a public house; inside of this came a broad stripe of very brilliant red, which was copied by lines of white, but both inside and outside of this red space were narrow stripes of a still deeper red, intended probably to mark its boundaries; the face was painted vividly white, and the eyes black, being however surrounded by red and yellow lines; the body, hands, and arms were outlined in red, the body being curiously painted with red stripes and bars.

DRAWING OF FOUR HEADS.



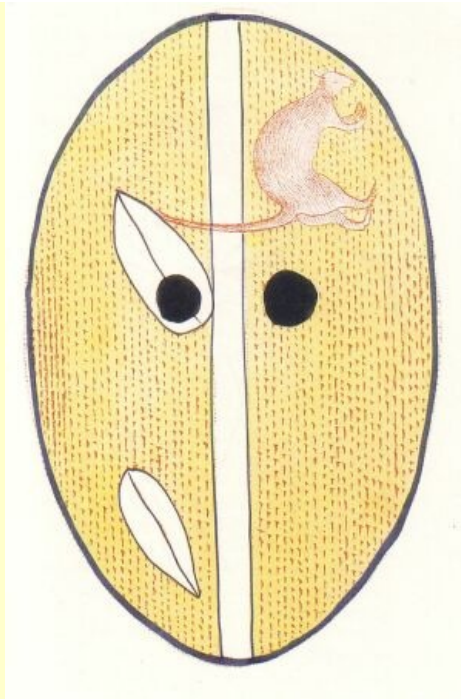
15.2. Figure drawn on side of Cave, discovered March 26th.

Upon the rock which formed the left hand wall of this cave, and which partly faced you on entering, was a very singular painting (Number 2) vividly coloured, representing four heads joined together. From the mild expression of the countenances I imagined them to represent females, and they appeared to be drawn in such a manner and in such a position as to look up at the principal figure which I have before described; each had a very remarkable head-dress, coloured with a deep bright blue, and one had a necklace on. Both of the lower figures had a sort of dress painted with red in the same manner as that of the principal figure, and one of them had a band round her waist. Each of the four faces was marked by a totally distinct expression of countenance, and, although none of them had mouths, two, I thought, were otherwise rather good looking. The whole painting was executed on a white ground, and its dimensions were:

Total length of painting 3 feet 6 $\frac{3}{4}$ inches.

Breadth across two upper heads 2 feet 6 inches.

Ditto across the two lower ones 3 feet 1 $\frac{1}{2}$ inches.



15.3. Oval drawing in Cave, discovered March 26th.

The next most remarkable drawing in the cave (Number 3) was an ellipse, three feet in length and one foot ten inches in breadth: the outside line of this painting was of a deep blue colour, the body of the ellipse being of a bright yellow dotted over with red lines and spots, whilst across it ran two transverse lines of blue. The portion of the painting above described formed the ground, or main part of the picture, and upon this ground was painted a kangaroo in the act of feeding, two stone spearheads, and two black balls; one of the spearheads was flying to the kangaroo, and one away from it; so that the whole subject probably constituted a sort of charm by which the luck of an enquirer in killing game could be ascertained.

TWO OTHER DRAWINGS.



15.4. Figure drawn in Cave, discovered March 26th.

There was another rather humorous sketch (Number 4) which represented a native in the act of carrying a kangaroo; the height of the man being three feet. The number of drawings in the cave could not altogether have been less than from fifty to sixty, but the majority of them consisted of men, kangaroos, etc.; the figures being carelessly and badly executed and having evidently a very different origin to those which I have first described. Another very striking piece of art was exhibited in the little gloomy cavities situated at the back of the main cavern. In these instances some rock at the sides of the cavity had been selected, and the stamp of a hand and arm by some means transferred to it; this outline of the hand and arm was then painted black, and the rock about it white, so that on entering that part of the cave it appeared as if a human hand and arm were projecting through a crevice admitting light.

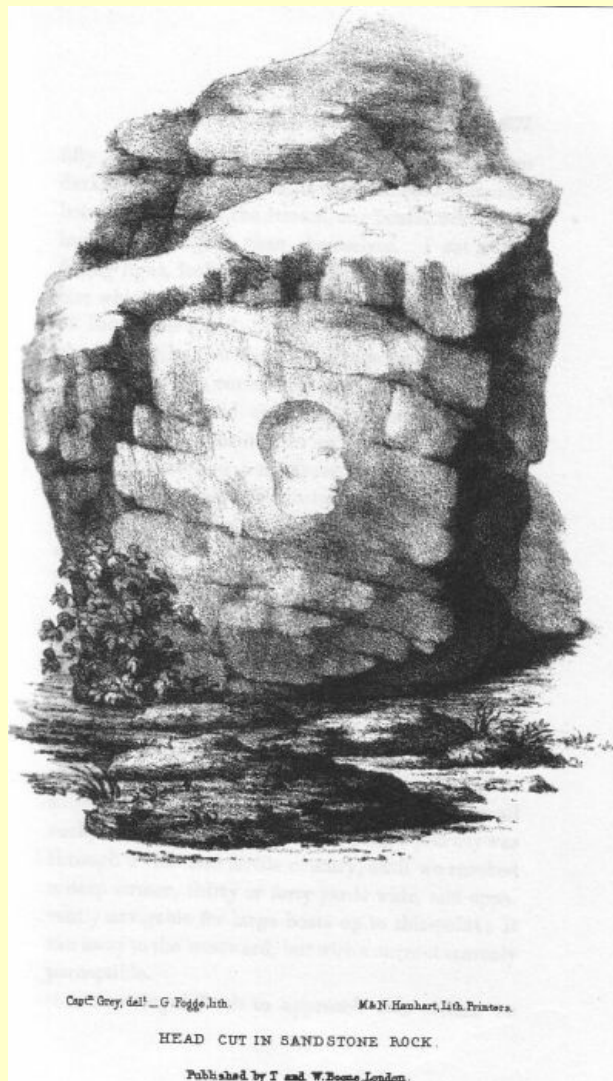
After having discovered this cave I returned to the party and, directing them to prepare for

moving on, I ordered that as soon as all was ready they should proceed past the cave, so that all would have an opportunity of examining it, and in the meantime I returned in order to make sketches of the principal paintings. The party soon arrived and, when my sketches and notes were completed, we retraced a portion of our route of this morning, moving round the sandstone ridge through one portion of which I saw a sort of pass which I thought might perhaps afford us a means of egress. I therefore halted the party and moved up with Corporal Auger to examine it. After proceeding some distance we found a cave larger than the one seen this morning; of its actual size however I have no idea, for being pressed for time I did not attempt to explore it, having merely ascertained that it contained no paintings.

INTAGLIO CUT IN A ROCK.

I was moving on when we observed the profile of a human face and head cut out in a sandstone rock which fronted the cave; this rock was so hard that to have removed such a large portion of it with no better tool than a knife and hatchet made of stone, such as the Australian natives generally possess, would have been a work of very great labour. The head was two feet in length, and sixteen inches in breadth in the broadest part; the depth of the profile increased gradually from the edges where it was nothing, to the centre where it was an inch and a half; the ear was rather badly placed, but otherwise the whole of the work was good, and far superior to what a savage race could be supposed capable of executing. The only proof of antiquity that it bore about it was that all the edges of the cutting were rounded and perfectly smooth, much more so than they could have been from any other cause than long exposure to atmospheric influences.

ROUTE CONTINUED. HIGH GRASS.



16. Head cut in Sandstone Rock. Captain Grey, delt. G. Foggo, Lithographer. M. and N. Hanhart, Lithographic Printers.

After having made a sketch of this head (see the accompanying plate) I returned to the party and, as I had not been able to find a path which would lead us across the sandstone ridge, we continued our course round it, retracing our steps until we reached the stream which had been crossed this morning, and then moved westward, keeping along its southern bank until we had turned the sandstone range and reached another stream running from the south, which we traced up in the direction of its source, travelling through a series of basaltic valleys of so luxuriant a character that those of the party who were not very tall travelled, as they themselves expressed it, between two high green walls, over which they could not see; and these green walls were composed of rich grass which the ponies ate with avidity. On a subsequent occasion when

we visited this valley we had to call to one another in order to ascertain our relative positions when only a few yards apart; and yet the vegetation was neither rank nor coarse, but as fine a grass as I have ever seen.

REFLECTIONS.

We halted for the night in one of these lovely valleys; a clear stream bubbled along within about fifty yards of us and, about a mile beyond, two darkly-wooded basaltic hills raised their heads, and between these and the stream our ponies were feeding in grass higher than themselves. I sat in the fading light, looking at the beautiful scenery around me, which now for the first time gladdened the eyes of Europeans; and I wondered that so fair a land should only be the abode of savage men; and then I thought of the curious paintings we had this day seen, of the timid character of the natives, of their anomalous position in so fertile a country, and wondered how long these things were to be. With so wide a field of conjecture before me, thought naturally thronged on thought, and the night was far advanced ere I laid down to seek repose from the fatigues of the day.

DEEP STREAM.

March 27.

The ponies having been routed out of their long and excellent feed, amongst which indeed it was no easy matter to find them, we moved on. I could not but reflect how different our position and the condition of the ponies would have been had we known as much of the country at first starting as we did at present; but these reflections were now useless. With the exception of one small rocky valley, the whole of our morning's journey was through a rich and fertile country until we reached a deep stream, thirty or forty yards wide and apparently navigable for large boats up to this point; it ran away to the westward, but with a current scarcely perceptible.

DIFFICULT APPROACH TO IT.

It was very difficult to approach this stream on account of the marshy nature of its banks, which were overgrown with bamboo and, even if we could have got the ponies to it, it was not fordable here. We therefore turned up it in an easterly direction to look for a passage over it; and in so doing were necessarily compelled to cross many smaller streams and a great deal of swampy ground in which some of the most weakly of the ponies got bogged and were only extricated with great difficulty. However annoying this was I could not but smile at the distress of some of the men, who had contracted a friendship for the animals they had so long led, when one of their favourites got into a difficulty. The exclamations of Ruston the old sailor were particularly amusing, as, according to the position in which the animal got bogged, he used to roar out for someone "to come and give his pony a heave upon the starboard or larboard quarters;" and once, when violently alarmed at the danger he imagined his pet pony to be in, he shouted amain, "By G--, Sir, she'll go down by the stern." At last however we got clear of the marsh, and reached a rocky gorge where this stream issued from the hills, and here we stopped for breakfast

This spot was very picturesque. The river as it issued from the gorge in the high wooded hills first formed a series of cascades, and then at the mouth of the gorge expanded into a large pool. It was at this point, although only a secondary stream in this country, far larger than any of the rivers of South-Western Australia. At the gorges, where they issue from the hills, its banks were clothed with the pandanus, lofty gum trees, and a very luxuriant vegetation. We first sought for a ford up the river in the direction of the rapids, but our search was fruitless. On returning to breakfast I found that the men had caught three fish and one of the long-necked fresh-water turtle which are common over the whole of this continent. Mr. Lushington had also shot several black cockatoos so that we were supplied with a meal of meat, a luxury we had not enjoyed for a long time.

CROSS A LARGE RIVER.

After breakfast Corporal Auger started alone and returned in about an hour to report that he had found a ford across the river close to us. I therefore ordered the ponies to be brought up and we at once moved on. The river where we crossed it in south latitude 15 degrees 49 minutes, east longitude 125 degrees 6 minutes, was about a hundred yards wide. It was however nowhere more than knee deep as we wound through it, following a circuitous course; but we passed very deep parts on each side, and I could not but admire the perseverance of Auger in having discovered so very intricate a ford as this was. There were several minor channels to the stream not much wider than an English ditch; they were however very deep and went winding along through groves of the pandanus and lofty reeds, which formed leafy tunnels above them. It was some time before we got rid of the main stream, and we then found ourselves on a narrow terrace of land which was bounded on the left by rocky cliffs, and on the right by a large tributary of the stream we had just crossed. This tributary was not fordable here so we were compelled to travel up the terrace where our way was much impeded by the luxuriant vegetation and by fallen trees of great magnitude; indeed of a size which those alone who have traversed tropical virgin forests can conceive.

That we could not get off this terrace was the more provoking from seeing, immediately on the other side of the stream, one of those wide open basaltic valleys which I have so often mentioned.

We at length reached the point where the stream issued from the high land and, having here forded it, entered the large valley, but in its centre we found another impassable stream and, in order to turn this, were obliged to travel round the valley; but before we could gain the head of it we had to cross two streams which ran into it on the eastern side. These however gave us but little trouble.

NATIVE HUT.

On the tongue of land between them we found a native hut which differed from any before seen, in having a sloping roof. After passing this hut we began to wind up a rocky ascent, and just at sunset reached the watershed, which threw off streams to the north and south: the valley which lay immediately to the south of us appearing as fertile as that which we had been travelling through for the whole day.

March 28.

The first part of our journey was through a fertile valley, about four miles in length, through which wound a rapid stream. It was clothed with the richest grass, abounded in kangaroos, and was marked at its southern extremity by a very remarkable precipitous hill. The heights to the westward were all composed of basalt, whilst those to the eastward were sandstone. On passing the ridge of hills which bounded this valley to the south we entered on a sandstone district, although the hills to the westward were still basaltic.

NATURAL GRAPERY. GRAPE-LIKE FRUIT.

I here halted the party for breakfast by the side of a stream and, on casting my eyes upwards, I found that I was in a sort of natural grapery, for the tree under which I lay was covered with a plant which bears a sort of grape and I believe is a species of cissus.

We met altogether with three varieties of this plant, all of which were creepers but differing from each other in their habits and in the size of their fruit. Two of them generally ran along the ground or amongst low shrubs and the third climbed high trees; this latter kind bore the finest fruit, and it was a plant of this description which I today found. Its fruit in size, appearance, and flavour resembled a small black grape, but the stones were different, being larger, and shaped like a coffee berry. All three produced their fruit in bunches, like the vine, and, the day being very sultry, I do not know that we could have fallen upon anything more acceptable than this fruit was to us.

FORD THE GLENELG. ANOTHER RIVER.

After breakfast we continued our route through a barren, sandy district, heavily timbered; and in the course of the afternoon met either the Glenelg or a very considerable branch of that stream in south latitude 15 degrees 56 minutes, east longitude 125 degrees 8 minutes: it was 250 yards across and formed a series of rapids at this point, where it emerged from a rocky gorge. Just above the rapids we found a good ford, the average depth of which was not more than three feet. After crossing, the banks on the other side were clothed with a species of Casuarina which I did not observe elsewhere. The country on that side of the stream was sandy and, as I found by the time we had proceeded two or three miles that we were getting embarrassed in a sandstone range, I halted the party for the night and went on to try if I could find a pass across it. My exertions were not however very successful: I came upon a path which I thought might be rendered practicable for the ponies over the first part of the range, but found no line by which we could proceed without making a road.

WEAKNESS OF THE MEN.

March 29.

At dawn this morning the men were at work forming the road; the poor fellows were however so much enfeebled from constant fatigue and very inefficient nutriment, whilst exposed to the great heat of a tropical climate, that they were unable to exert the same energy as formerly, and I could not but be struck with the great difference in their strength as evinced in their incapacity to move stones and other obstacles, which a few weeks ago they would have had little difficulty in lifting. The path was however soon made as passable as our abilities permitted, and we started along it with the ponies; some of them were however no less reduced than the men and, in endeavouring to lead one of them up a rocky hill, it fell, and from weakness sank under its light load without making an effort to save itself; the spine was thus so severely injured as to render it unable to move the hinder extremities; we therefore killed the poor creature and moved on.

SANDSTONE CAVE.

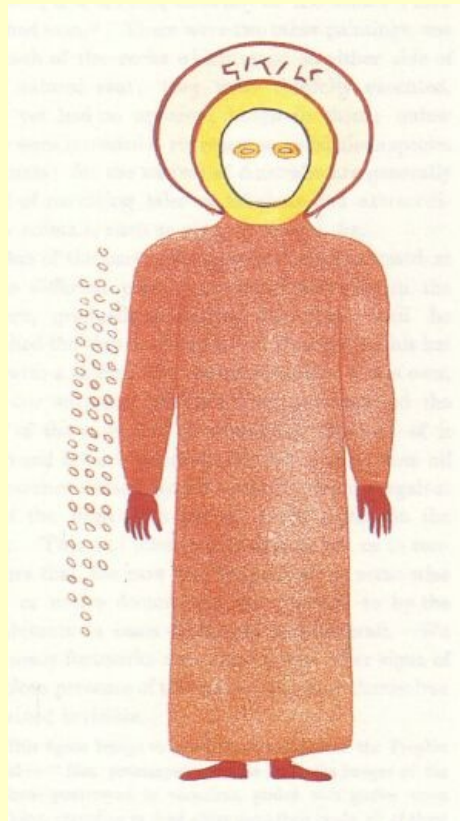
Throughout the day we continued gradually the ascent of the range which we had yesterday commenced. The large valley we were in led us by a gentle slope winding higher and higher amongst the rocky hills; at first it had been so wide as to appear like a plain, but by degrees it contracted its dimensions, until, towards the afternoon, it suddenly assumed almost the character of a gorge. Just at this point we saw in the cliffs on our left hand a cave, which I entered in the hope of finding native paintings.

Nor was I disappointed for it contained several of a very curious character. This cave was a natural chasm in the sandstone rocks, elevated at its entrance several feet above the level of the ground, from which the ascent to it was by a natural flight of sandstone steps, irregular, of course, but formed of successive thin strata, resting one upon another, and thus constituting an easy ascent; these successive layers continued into the body of the cave, quite to the end, where was a central slab, more elevated than the others, and on each side of this two other larger ones which reached the top of the cave and partly served to support the immense sandstone slab that formed the roof.

ANOTHER PAINTED CAVE.

The cave was twenty feet deep and at the entrance seven feet high and about forty feet wide. As before stated the floor gradually approached the roof in the direction of the bottom of the cavern, and its width also contracted, so that at the extremity it was not broader than the slab of rock, which formed a natural seat.

FIGURE DRAWN ON THE ROOF.



17. Figure drawn on roof of Cave, discovered March 29th.

The principal painting in it was the figure of a man, ten feet six inches in length, clothed from the chin downwards in a red garment which reached to the wrists and ankles; beyond this red dress the feet and hands protruded and were badly executed.

The face and head of the figure were enveloped in a succession of circular bandages or rollers, or what appeared to be painted to represent such. These were coloured red, yellow, and white; and the eyes were the only features represented on the face. Upon the highest bandage or roller a series of lines were painted in red, but, although so regularly done as to indicate that they have some meaning, it was impossible to tell whether they were intended to depict written characters or some ornament for the head. This figure was so drawn on the roof that its feet were just in front of the natural seat, whilst its head and face looked directly down on anyone who stood in the entrance of the cave, but it was totally invisible from the outside. The painting was more injured by the damp and atmosphere, and had the appearance of being much more defaced and ancient, than any of the others which we had seen.*

(*Footnote. This figure brings to mind the description of the Prophet Ezekiel: Men portrayed upon the wall, the images of the Chaldeans portrayed in vermillion, girded with girdles upon their loins, exceeding in dyed attire upon their heads, all of them princes to look to, after the manner of the Babylonians of Chaldea, the land of their nativity. Chapter 23:14, 15.)

OTHER PAINTINGS.

There were two other paintings, one on each of the rocks which stood on either side of the natural seat; they were carefully executed and yet had no apparent design in them; unless they were intended to represent some fabulous species of turtle; for the natives of Australia are generally fond of narrating tales of fabulous and extraordinary animals such as gigantic snakes, etc.

One of the party who appeared much amused at these different paintings walked straight up the cavern, gradually ascending the steps until he reached the slab at the end, and then, taking his hat off with a solemn air, seated himself; to his own, and our surprise, his bare head just touched the roof of the cave, and on examining this part of it we found it fairly polished, and very greasy, from all appearance caused by the constant rubbing against it of the head of a person whilst seated on the rock. This and other circumstances led us to conjecture that the cave was frequented by some wise man or native doctor who was resorted to by the inhabitants in cases of disease or witchcraft. We saw many footmarks about, and found other signs of the close presence of the natives, but they themselves remained invisible.

BEAUTIFUL SCENERY.

The cave was situated in an exceedingly picturesque position, it occupied the corner leading from a wide valley to a narrow ravine, down which came bubbling along a clear deep stream, which passed within a few yards of the cave's mouth. After making sketches of the paintings and for a few minutes admiring this romantic spot we moved up the ravine, which appeared to lead by a gradual ascent to the summit of the mountain range that now completely hemmed us in both to the southward and eastward.

This ravine, in the luxuriance of its vegetation and the great size of the trees, as well as in its rapid stream, at times leaping in cascades or foaming in rapids, resembled those we had before seen in the sandstone ranges, but it differed from them in the greater height of the surrounding hills and cliffs which, being overshadowed with hanging trees and climbing plants, presented as rich a painting as the eye could behold: and, as these grew golden with the rays of the setting sun or were thrown into deep and massive shadows, I could not but regret that no Claude of the tropics had arisen to transfer to canvas scenes which words cannot express.

But however beautiful the scenery was the road we had to travel was so extremely inconvenient that the view scarcely made amends for it; we were continually compelled from old land-slips to cross from one side of the stream to the other, and this, from the depth of the ford and the slipperiness of the rocky bottom, was sometimes no easy task; moreover the ravine continued rapidly to contract in width and to become more rugged and precipitous; I therefore turned off to the right into a rocky amphitheatre which seemed well suited for encamping, and halted the party for the night; then, taking one of my men with me, I ascended the cliffs to see if I could make out any line by which to get clear of the precipices which embarrassed us, but on all sides I could descry nothing but lofty hills and frowning crags, except in the direction of the ravine which appeared to run directly into the heart of the mountain chain; I therefore turned about to rejoin the party, with the intention of continuing the same course the ensuing morning as we had done this evening.

NARROW ESCAPE.

Both myself and the man who was with me had however a narrow escape of being shot, for, as we were returning he let his rifle fall and it exploded, the ball striking the rocks close to us before it glanced into the air.

OTHER CAVES.

March 30.

At the earliest dawn we continued our course up the valley, which rapidly became narrower and more inclined so that it formed, as it were, a series of elevated terraces, at the edge of each of which was a little cascade. We found two caves in the cliffs on the right hand, both of which were painted all over but with no regularity of pattern: the only colours used were red, yellow, and white. The largest of the caves exceeded in breadth and depth any others I had seen, but it was only three feet high; in this one there were several drawings of fish, one of which was four feet in length; these I copied, although they were badly executed. The caves themselves cannot be considered as at all analogous to those I have before described.

INCREASING DIFFICULTIES OF ROUTE. IMPASSABLE SANDSTONE RANGES.

The difficulties of the road continued to increase rapidly, and the dimensions of the ravine became so contracted that I hesitated whether I should not turn up another which branched off to the right; previously however to taking this step I sent a man forward to examine the one we were in; he soon returned and reported that it terminated in a high cascade a few hundred yards further on. This intelligence confirming my previous opinion, I now moved up the ravine which came from the westward, but we had not proceeded for more than half a mile when the rugged nature of the country brought us to a complete stand; we found ourselves in a rocky area, bounded on all sides by cliffs, the only outlet from which was the path by which we had entered. I therefore halted the party for breakfast whilst I prepared to ascend some lofty pinnacles which lay to the south of us.

The state of my wound rendered this exertion one of great pain and difficulty; I however accomplished it, and found myself on the top of a high rocky eminence which bore the appearance of having fallen into ruins; the prospect from it was cheerless in the extreme; to the north lay the rich valley country far below us, and to the south and east nothing could be seen

but barren sandstone rocks and ranges rising one above the other until they met the horizon at no great distance from the eye; the only outlet, except the ravine by which we had approached, appeared to be by the westward, and I descended to the party in this direction to see if I could find a route from where they were to the terrace leading to that point. I struck on a place up the cliffs where I imagined it possible to construct a road by which the ponies could ascend, and then returned to breakfast.

COUNTRY INACCESSIBLE FOR HORSES.

As soon as our scanty meal had been concluded all hands were employed in making this road; and sincerely did I pity the feeble men, whom I saw in the burning heat of a tropical sun, which was reflected with redoubled intensity from the bare sandstone rocks, toiling to displace large stones and obstacles which they had hardly sufficient strength to move; not a murmur however escaped them; they saw the necessity of the case and exerted their failing energies as readily as they had done when these were in full strength and vigour. The road was at last made and we moved on to the westward, toiling for the remainder of the day amongst steep precipices of barren sandstone rocks and hills, utterly inaccessible to horses, till, finding our efforts to proceed useless, I at last turned the party about and halted them for the night just above where we had breakfasted; intending with the earliest dawn to renew my search for a pass by which we might cross this mountain range.

CHAPTER 10. RETURN TO HANOVER BAY.

UNSUCCESSFUL SEARCH FOR A PASS.

March 31.

This day at dawn I sent out a party under Mr. Lushington and Mr. Walker to try if any pass through the mountains could be found, but they returned in four or five hours to report that it was utterly impossible for horses to proceed further in the direction we desired. During their absence I had made a careful examination of the stores and found that, even at our reduced allowance, we had only provisions left for twenty days; our horses were also reduced in number to twelve, but these, excepting that their feet were sore, were rather improved in condition than otherwise since the commencement of the journey.

CAUSES FOR RETURNING.

My intention had always been, when I found myself reduced to such an extremity as the present, to proceed for a few days by forced marches towards the interior, accompanied by four men, and then, returning to the remainder of the party, to have taken all together back to the vessel; when there I knew I could have got four volunteers to accompany me and, having loaded the horses with ammunition and provisions, I had it in contemplation to have started with them again for Swan River. But these projects became now impracticable from the declining state of my health, consequent on having started too soon after having received my wound, to the exertions I was obliged daily to make whilst labouring under its effects, and to the want of those comforts which contribute so materially to restore an invalid to health. Our allowance of food too had been but scanty, and, whilst I fared as my men, who, unshattered in health, had yet grown thin and weak under privation, I, in proportion, had suffered far more.

PREPARATIONS TO RETURN.

Mr. Walker, who was aware of my design, came to me today and said he felt it his duty to recommend me without delay to return to the vessel; that as long as he thought the risk I ran was no more than he considered a man who had undertaken such a service should be prepared to incur, he had refrained from pressing this advice upon me, but in my present debilitated state exposure even for a single night might very probably cost me my life. To this opinion I felt constrained to yield, and Mr. Walker, having at my desire repeated it in a letter this afternoon, I arranged my plans accordingly.

LIGHT EXPLORING PARTY SENT FORWARD UNDER LIEUTENANT LUSHINGTON.

The march in advance, which, had my health permitted, I had intended to make myself, was now deputed to Mr. Lushington: four of those men who remained the strongest of our enfeebled band were selected for an excursion of three days under him; after which we were to return to the vessel.

April 1 and 2.

At dawn on Sunday the 1st the party started; and these two days I occupied myself in making magnetic and astronomical observations. Our latitude I found by two meridian altitudes of the moon to be 16 degrees 0 minutes 45 seconds south, and our longitude by chronometer 125 degrees 11 minutes east.

REPORT OF ADVANCED PARTY.

April 3.

Mr. Lushington's party came in at 12 o'clock this day, reporting as follows: That they proceeded about eighteen miles from the camp upon a course of 195 degrees from the north, and the remaining half upon a course of 155 1/2 degrees; that the whole of their route lay over a country utterly impassable for horses owing to the steepness of the hills; that they crossed a great number of under-features at right angles to their route, between which lay small streams flowing away to the westward, and which under-features were so steep in their descent to the southward that, in going down, the men repeatedly fell: both grass and water were however everywhere abundant; and they saw, in the spots where the grass was most luxuriant, the root which I found on the hill at our first encampment on the good land. The last point they attained was a lofty hill which ran out from a range to the eastward, from which range sprang also all the under-features that they had crossed. From this hill they had an extensive view to the northward, eastward, and westward. The land they saw to the northward is laid down upon my map.

THEIR DESCRIPTION OF THE COUNTRY.

To the eastward they saw nothing but ranges of hills, precisely resembling those that we had crossed since entering this mountainous district; and to the westward others of the same nature, but gradually falling in that direction, whilst on the other hand the land seemed to rise gently to the eastward, though they saw no very high hills in an easterly direction. To the southward their view was impeded by a very high bluff point, distant six or seven miles, and a line of cliffs under which they conceived that a river or an opening of the sea may run, but if so, it could not be a stream of great magnitude. Their view of the base of the cliff was however impeded by the under-features of the hill on which they stood. They also noticed, as a very remarkable circumstance, that there were no signs of these mountains having been visited by the natives. The first part of their route lay over an extensive plain, four miles in width, which bore no appearance of the great native conflagrations having ever reached it. This was so generally the case that, when they halted, they were unable to obtain a sufficiency of firewood. They saw a native dog of the regular Australian breed; kangaroos were abundant, but these as well as all other game were much less wild than any of the party had before observed.

The foregoing summary of the information brought back rests not on the report of any one individual but expresses the opinions of the party with regard to those points on which they were all agreed; and the only one as to which I have any distrust is that of the distance they went, which I believe to be overrated; having always found the estimates of every one of the party as to the daily distance travelled very erroneous, and sometimes more than doubled. This indeed is a mistake well known to be of common occurrence, and very difficult to guard against in a new and wild country, and when I consider the diminished strength of the men's pedestrian powers, and the weights they had to carry, I am disposed to calculate that the total direct distance they made did not exceed, if it equalled, twelve miles.

WANT OF FIREWOOD.

Their report of want of firewood is singular as, in all other parts which we passed over, even upon plains of a similar character though not so highly elevated or so difficult of access, we had always found the ground thickly covered with trees which had fallen from the effects of the native fires.

The only remarkable circumstances about the spot we were encamped in were the great coldness of the nights and mornings; and moreover that exactly at nine o'clock every morning a cold breeze, in character precisely resembling a sea-breeze, set in from the south-east and lasted until about half-past three in the afternoon.

RETURN. COMMENCEMENT OF MARCH BACK.

April 4.

We this day started on our march homewards. I was afraid, from the appearance of the weather, that we might soon have rain, and, as a continuance of it for even three or four days might have prevented our passing the rivers for several weeks, it became necessary that this part of our march should be accomplished with the utmost celerity. I therefore made the first river before I allowed a halt for breakfast. On our route we passed the spot where, on the 29th ultimo, we had been compelled to kill the horse; the native dogs had already made it a perfect skeleton and scattered its bones about.

NATIVE AND HIS DOG.

I committed unintentionally this day what must have appeared to the natives a very wanton act of aggression: as we were passing the river, a dog, not of the Australian breed, came from a pass in the rocks on the opposite side, moving quietly towards us over some flat rocks; when he had advanced a few yards from the pass he stopped and looked back, so that from his manner I might have known that his master was near, but without reflection I fired and struck the ground close to him; he became alarmed and ran back in the same line he had come; I now took up my own rifle and just as he turned a point in the rocks I fired, and, although a very long shot, I struck him far forward in the shoulder. For a moment he staggered, then turned round and limped up a glen in the hills in quite a different direction. I had neither time nor strength to follow him, but on passing the river I found from the tracks that minute made that a single native had been coming

down to the river with the dog, and had (probably from hearing the shots) turned sharp off to the right and made his escape into some bushes. This day the weakness of our last sheep obliged us to kill it.

CONTINUATION OF ROUTE BACK. CHANGE OF TRACK.

April 5.

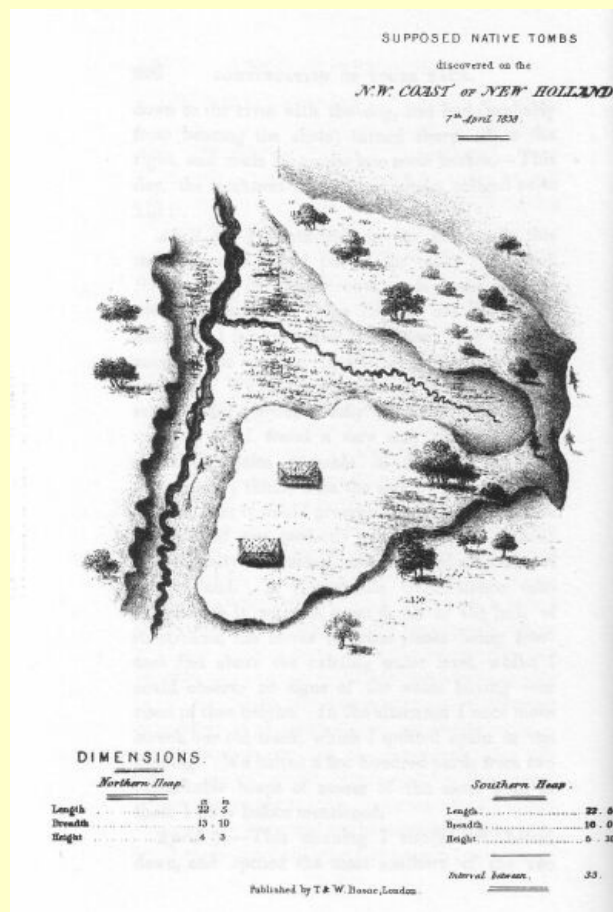
I continued on our old track this morning until I had passed the other river, and then, quitting our former route, made a push straight over the sandstone ridge for our old enemy the marsh, as I felt sure after the present long continuance of fine weather that it would be now quite passable. We encamped this night on the sandstone range under a group of lofty firs, or rather pines.

April 6.

I found a very easy route over the sandstone, quite passable in fine weather, but after rains, I think, from the marshy nature of the ground, that it would present some difficulty. The marsh itself was perfectly passable, could without any difficulty be drained, and consisted of good and fertile land. A remarkable circumstance connected with it was the great depth of the beds of its streams, the banks in some places being fourteen feet above the existing water level, whilst I could observe no signs of the water having ever risen to that height. In the afternoon I once more struck our old track, which I quitted again in the evening. We halted a few hundred yards from two remarkable heaps of stones of the same kind as those I have before mentioned.

CURIOUS NATIVE MOUNDS OR TOMBS OF STONES.

April 7.



18. Supposed Native Tombs. Discovered on the North-Western Coast of New Holland, 7 April 1838. Published by T. & W. Boone, London.

This morning I started off before dawn and opened the most southern of the two mounds of stones which presented the following curious facts:

1. They were both placed due east and west and, as will be seen by the annexed plates, with great regularity.
2. They were both exactly of the same length but differed in breadth and height.
3. They were not formed altogether of small stones from the rock on which they stood, but many were portions of very distant rocks, which must have been brought by human labour, for their angles were as sharp as the day they were broken off; there were also the remains of many and different kinds of seashells in the heap we opened.

My own opinion concerning these heaps of stones had been that they were tombs; and this opinion remains unaltered, though we found no bones in the mound, only a great deal of fine mould having a damp dank smell. The antiquity of the central part of the one we opened appeared to be very great, I should say two or three hundred years; but the stones above were much more modern, the outer ones having been very recently placed; this was also the case with the other heap: can this be regarded by the natives as a holy spot?

We explored the heap by making an opening in the side, working on to the centre, and thence downwards to the middle, filling up the former opening as the men went on; yet five men provided with tools were occupied two hours in completing this opening and closing it again, for I left everything precisely as I had found it. The stones were of all sizes, from one as weighty as a strong man could lift, to the smallest pebble. The base of each heap was covered with a rank vegetation, but the top was clear, from the stones there having been recently deposited.

PASS IN MOUNTAIN RANGE.

In the afternoon we proceeded on our route, travelling nearly north. After marching some distance we traversed at right angles a variety of under-features terminating in sandstone cliffs, but the hills on our right were composed of the same black rock as the chain in which Mount Lyell lies. Private Mustard being ill, I gave him my horse and tried to walk, but injured myself materially by so doing. We were obliged to encamp at the head of a large mangrove inlet.

April 8.

It being Sunday I halted all the morning and only started late in the afternoon. Our route lay through a mountainous country and consequently our progress was slow. Quartz was here largely developed in rocks. We halted this evening in a valley surrounded by mountains.

PASS MOUNT LYELL.

April 9.

We started at dawn and soon found that the valley we had encamped in was the true pass across the range of mountains. It ran in nearly a south-west direction to the foot of Mount Lyell. Here I halted for breakfast; and, on finding my position by cross bearings, which I was now able to do, and comparing it with my position by dead reckoning, was glad to find that the error only amounted to 150 yards. The valley we travelled up in the morning was fertile, connected with several other large ones of similar character, and contained two small lakes, or large ponds of water, the least of which was elevated considerably above the low ground in the neighbourhood. In the afternoon we crossed the mountains by a narrow neck, which is the best pass over this range of hills for anyone travelling to the south and east. We crossed our old track twice in the afternoon and encamped in the evening under a conical hill.

April 10.

Started at dawn, travelling nearly north-west, and crossed the heads of all the streams which I had before seen emptying themselves into the river Glenelg in the opening lying between Mount Sturt and Mount Eyre. Just under the point where we encamped for the night was a large marsh in which my horse got bogged and I had a severe fall.

CONTINUATION OF ROUTE.

April 11.

On starting this morning all the party insisted that they saw a hill, under which our old track had passed. I felt convinced that such could not be the case; and, had it been so, an error of four miles must have existed in my map: yet all were so positive of their correctness that I felt it would appear like obstinacy in me not to yield to the general opinion. I therefore quitted our direct course to make for the foot of this hill, and there convinced myself that I was right; yet, even when we had now passed it, proceeding on our route, I heard several remark, "We shall soon march back here again." But this evening I had the pleasure of halting under the sandstone range, and the very hill we had wished to gain.

RECOVERY OF BURIED STORES.

April 12.

We marched early, and on the way passed more native tombs; when we came to the place where the horse had been left I found that, through inadvertence on the part of the man who led him, he had been starved to death, having been left tethered. This discovery shocked me much. Some of the stores which had been left where he fell and covered with a tarpaulin remained uninjured. We proceeded onwards to the camp where I had lain so long wounded, and, on arriving found all our provisions in good order, the natives apparently not having since visited the spot. We were not a little glad to find our preserved meats which had been left buried here. Halted for the night, and enjoyed our repast.

PRECAUTIONS ON REACHING HANOVER BAY.

April 13.

After digging up our supply of preserved meats yesterday we had made rather more free with them than was prudent in men who had been for so long a time compelled to subsist upon very scanty fare, and in consequence had been nearly all affected with violent sickness; and, as six of the party, including Mr. Lushington and myself, were now ill, we did not start very early; the remaining ponies were also so weak that they could scarcely carry themselves, and we therefore were only able to place very light loads upon them.

I have already described the very difficult nature of the country we had to traverse; but the roads we had previously constructed through it proved extremely serviceable. So little had they been injured that they formed a very fair and passable line of communication. Early in the evening we crossed the Lushington and halted at the summit of the cliffs which formed its northern bank.

April 14.

I sent the most efficient of the party back with the horses for the remaining stores whilst with four men I remained in charge of the tents.

ANXIETY ON APPROACHING HANOVER BAY.

Sunday April 15.

Our anxiety to ascertain if any accident had happened to the schooner now became very great: since such a circumstance was of course by no means impossible. As our position would then have been very precarious, and our only chance of ultimate safety have rested on the most exact discipline and cautious rules of conduct being observed from the very first, I thought it would be most prudent not to allow such a calamity (had it occurred) to burst too suddenly upon the men when they were quite unprepared for it.

Two of them were therefore selected and, accompanied by these, I started before daylight for the sandy beach in Hanover Bay; leaving the party to make the best of their way to the heights above the valley where we had first encamped, and where plenty of food and water could be found for the ponies; these, in the event of anything having happened to the schooner, would become the mainstay of our hopes.

These arrangements having been made we moved off through the rocky difficult country we had first encountered: every step we took was over well-known ground, in which no change had taken place save that there were evident marks of bodies of natives having been in the neighbourhood since our departure.

As I proceeded nearly in a direct line to Hanover Bay we encountered some difficulty from the broken character of the ground, but about eleven o'clock had gained the hilly country at the back of the beach, from whence however we could not obtain a view of the spot where the vessel lay. On emerging from the mangroves upon the beach we saw painted upon the sandstone cliffs, in very large letters, "Beagle Observatory, letters south-east 52 paces."

REJOIN THE LYNHER. MEETING WITH THE BEAGLE.

No one who has not been similarly situated can at all conceive the thrill which went through me when these letters first met my eye; even had anything happened to the schooner, friends were upon the coast, and I knew that Captain Wickham, who had passed a great portion of his life in adventures of this kind, would leave nothing undone which was in his power to ensure our safety. We now hurried across the beach, and on gaining the highest part of it saw the little schooner riding safely at anchor. A gun being fired all became life and expectation on board the vessel; and whilst the boat pulled ashore we searched for our letters. These had however not yet been deposited at the spot indicated, and I therefore conjectured that we should find them on board.

On reaching the vessel we learnt that the mate was gone to the Beagle, now lying in Port George the Fourth but expected to sail this very day. It appeared that at 7 o'clock on the morning of the 8th the report of four carronades was heard on board the schooner; this was conjectured by all to denote the presence of the Beagle on the coast, but the echo ran from cliff to cliff with so many reverberations that none could tell from what direction the sound had originally proceeded. The silence of the night was not again disturbed; and those on board the schooner felt no small solicitude to know if their conjectures were correct, and if so in what direction the Beagle lay.

ARRIVAL OF THE BEAGLE.

The next morning the mystery was cleared up. Before noon a yawl was seen to round the headland and to stand across the bay in the direction of the mouth of Prince Regent's River. As soon as the schooner was recognised the yawl altered her course, and Captain Wickham was soon on board the Lynher, making anxious enquiries for us and ascertaining what steps could be taken to assist us and promote our views.

From that time up to the present date the Beagle had lain in Port George the Fourth to take in wood, water, etc., and to await the return of Mr. Stokes, who was absent exploring the coast between Collier's Bay and Port George the Fourth.

As there was no time to lose I at once started in a boat for the Beagle, and it was late in the evening when we drew near it. I could see anxious groups looking eagerly at the little boat as it drew near, and when at length we were recognised the hearty cheers that greeted us as we came up alongside plainly showed that the pleasure of meeting was not confined to ourselves.

RESULTS OF HER SURVEY.

As Mr. Stokes was hourly expected to return, and I was very anxious to know if he had discovered the mouth of the Glenelg, I remained on board the Beagle and, as all had much to hear and much to communicate, the evening wore rapidly away. The next day Mr. Stokes arrived, having seen nothing of the mouth of the river; this however in my apprehension arose from the greater portion of the time they were absent having been spent in the examination of Collier's Bay, which was the point of by far the greatest interest and promise; and that consequently they were compelled, from want of time and supplies, to examine the intervening coastline less narrowly than its irregular character rendered necessary. What rather confirms this opinion is, that Captain King, in his survey of this part, states his belief, drawn from observation, that it is indented with inlets similar to Prince Regent's River, now this is exactly the character of the Glenelg.

Mr. Stokes described Camden Sound as being one of the finest harbours he had seen; and, such being the case, it must undoubtedly be the most important position on this part of the coast. It lies close to the Glenelg and Prince Regent's River, two large navigable streams; and I have already declared my opinion that I have never seen a richer tract of country than the extensive alluvial and basaltic districts in the neighbourhood of the Glenelg, and under the rare circumstance of lying between two navigable rivers which are separated from each other by so short an interval.

PREPARATIONS FOR REEMBARKING.

Soon after Mr. Stokes's arrival I started for the Lynher, and the next morning repaired on shore. During my absence on board the Beagle fourteen natives had made their appearance near the encampment on the cliffs above the valley; they appeared however to have been solely attracted from motives of curiosity and a desire to visit our former huts. From the fearful disposition which had hitherto been evinced by the natives of these parts it was necessary however that every precaution should be observed. This was most carefully done by Mr. Lushington; and as soon as the natives saw that they were watched they moved off and were not again observed, although the smokes of their fires were visible in several points.

On the 17th we commenced our preparations for leaving this part of the coast. The stores remaining were all carried on board. We had but eleven ponies left, the greater number of which were so marked and scarred from falls amongst the rocks that they would have been valueless if brought to sale; besides which, to have cut and dried a quantity of grass sufficient for them until we reached the Isle of France would, in the burnt up state of the country, have delayed us many days, had we even succeeded at last. On the other hand, if left free in the bush, two good mares which were amongst them might possibly be the means of giving a very valuable race of horses to this country. These considerations determined me; and the companions of our weary wanderings were turned loose--a new race upon the land; and, as we trusted, to become the progenitors of a numerous herd.

STATE OF THE PLANTS AND SEEDS LEFT AT THE ENCAMPMENT.

Our whole residence in this country had been marked by toils and sufferings. Heat, wounds, hunger, thirst, and many other things had combined to harass us. Under these circumstances it might have been imagined that we left these shores without a single regret; but such was far from being the case: when the ponies had wandered off, when all the remaining stores had been removed, and the only marks of our residence in this valley were a few shattered bark huts, young coconut plants, a bread-fruit, and some other useful trees and plants, I felt very loth to leave the spot. I considered what a blessing to the country these plants must eventually prove if they should continue to thrive as they had yet done and, as I called to mind how much forethought and care their transport to their present position had occasioned, I would very gladly have passed a year or two of my life in watching over them and seeing them attain to a useful maturity. One large pumpkin plant in particular claimed my notice. The tropical warmth and rains, and the virgin soil in which it grew, had imparted to it a rich luxuriance: it did not creep along the ground, but its long shoots were spreading upwards amongst the trees. The young coconuts grew humbly amidst the wild plants and reeds, their worth unknown. Most of these plants I had placed in the ground myself, and had watched their early progress: now they must be left to their fate.

REEMBARKATION.

Amidst such thoughts we resumed our course down the valley and embarked in the boats; but had not proceeded far when a dog belonging to one of the men was missed and, as we could not abandon so faithful a companion, a party returned to search for it, and the dog was brought safely on board.

SAIL FOR THE MAURITIUS.

We then weighed and sailed for the Isle of France, where we arrived on the 17th May without having met with any circumstance on our voyage worthy of record.

CHAPTER 11. NATURAL HISTORY. CLIMATE. ABORIGINES.

NATURAL HISTORY.

North-Western Australia seems to be peculiarly prolific in birds, reptiles, and insects, who dwell here nearly unmolested, mutually preying upon each other, and thus, by a wise provision, setting the necessary check to their own multiplication.

DISTRIBUTION OF ANIMALS.

Of quadrupeds there are but few species, and of these the individuals, considered in proportion to the surface they roam over, are rare. The only species I observed during a residence of five months were four of kangaroos, namely the large *Macropus giganteus* ? of Shaw, two smaller kinds, one of which is the *Petrogale brachyotis* of Gould, and a kangaroo rat, which last is always seen amongst the rocks on the sea coast. One species of opossum, a flying squirrel (*Petaurista*) two kinds of dog, of which one is new, rats, and a fieldmouse. Of these the kangaroos are alone numerous, and only in particular spots.

NEW KANGAROO.

I shot a female kangaroo of the *Petrogale brachyotis* near Hanover Bay, and by the preservation of the skin and other parts enabled Mr. Gould to identify it as a new species.

This graceful little animal is excessively wild and shy in its habits, frequenting, in the daytime, the highest and most inaccessible rocks, and only descending into the valleys to feed early in the morning and late in the evening. When disturbed in the daytime amongst the roughest and most precipitous rocks, it bounds along from one to the other with the greatest apparent facility, and is so watchful and wary in its habits that it is by no means easy to get a shot at it. One very surprising thing is, how it can support the temperature to which it is exposed in the situations it always frequents amongst the burning sandstone rocks, the mercury there during the heat of the day being frequently at 136 degrees. I have never seen these animals in the plains or lowlands, and believe that they frequent mountains alone.

NEW DOMESTIC DOG.

The new species of dog differs totally from the Dingo or *Canis australiensis*. I never saw one nearer than from twenty to thirty yards, and was unable to procure a specimen. Its colour is the same as that of the Australian dog, in parts however having a blackish tinge. The muzzle is narrow, long, thin, and tapers much, resembling that of a greyhound, whilst in general form it approaches the English lurcher. Some of the party who went to Timor stated it to resemble precisely the Malay dog common to that island, and considered it to be of the same breed; which I think not improbable, as I cannot state that I ever saw one wild, or unless in the vicinity of natives; in company with whom they were generally observed in a domesticated state. On the other hand the *Canis australiensis* was common in some parts in a state of nature: of these I saw several myself and, from the descriptions given by other individuals of the party of dogs they had observed, I recognised their identity with the same species. We heard them also repeatedly howling during the night and, although they never attacked our sheep or goats, many portions of dead animals were carried off by them. I saw but two flying squirrels and know not to which species of *Petaurista* they are to be referred.

OTHER ANIMALS.

Both mice and rats are common, the former precisely resembling in appearance the English fieldmouse. The rats on one occasion ate up a live pet parakeet, leaving the bones gnawed and strewed about; and on another, when I had shot a crane (*Ardea scolopacea*) intending it for breakfast, they in the night devoured nearly the whole of it.

CHECKS ON INCREASE OF ANIMALS.

The multiplication of kangaroos, opossums, rats, etc. may be checked by various causes; but man, I imagine, is the most deadly enemy they have to contend with. The numerous remains of these animals that I have seen about the native fires attest the number destroyed. In all those caves in which I found native paintings were representations either of kangaroo hunts, or of men bringing down these animals dead on their shoulders; and many a hollow tree bore witness of its having been smoked in order to drive forth to certain death the trembling opossum or bandicoot rat which had taken refuge in it.

INFLUENCE OF MAN ON THEIR HABITS.

A convincing proof of the dread in which man is held by the various kinds of kangaroos is given by their extreme shyness. I never but on two or three occasions got within shot of the larger kangaroos as they were always so wary; and, although I at different times wounded two, I never

could succeed in actually capturing either. Now, when the detached party sent forward just before we commenced our return to Hanover Bay crossed a range of mountains on which were neither traces of the natives or their fires, they found the direct reverse of this to be the case, and were all surprised at the tameness of the kangaroos compared with those they had previously seen.

In the same way, when I entered a new district, the birds merely flew up into a lofty tree without attempting to go farther away, and it was not until I had shot for a day or two in the neighbourhood of a place that the birds there became at all wild.

The native dog, doubtless being dependent for subsistence upon the game he can procure, must contribute to thin the numbers of the lesser animals, who also, together perhaps with the rapacious dog himself, frequently fall a prey to the various snakes that inhabit the country; as was evinced in the event narrated on the 16th of March of the destruction, by Mr. Lushington, of the boa with a small kangaroo compressed in its folds.

The manner, too, in which I have seen the rapacious birds of prey soar over plains where the small kangaroos abound, convinces me that they also bear their part in the destruction of this harmless race.

TRACES OF AN ANIMAL WITH A DIVIDED HOOF.

I have already alluded to the paucity of quadrupeds, both in species and in number, but I have still to record the remarkable fact of the existence in these parts of a large quadruped with a divided hoof: this animal I have never seen, but twice came upon its traces. On one occasion I followed its track for above a mile and a half, and at last altogether lost it in rocky ground. The footmarks exceeded in size those of a buffalo, and it was apparently much larger, for, where it had passed through brushwood, shrubs of considerable size in its way had been broken down and, from the openings there left, I could form some comparative estimate of its bulk. These tracks were first seen by a man of the name of Mustard, who had joined me at the Cape, and who had there been on the frontier during the Kaffir war; he told me that he had seen the spoor of a buffalo, imagining that they were here as plentiful as in Africa. I conceived at the time that he had made some mistake, and paid no attention to him until I afterwards twice saw the same traces myself.

BIRDS.

To describe the birds common to these parts requires more time than to detail the names of the few quadrupeds to be found; indeed in no other country that I have yet visited do birds so abound. Even the virgin forests of South America cannot, in my belief, boast of such numerous feathered denizens; yet I cannot, after all, assert that the number of genera and species is at all proportionate to that of individual birds. The contrary is probably the real case.

BEAUTY OF THE BIRDS.

The birds of this country possess in many instances an excessively beautiful plumage; and he alone who has traversed these wild and romantic regions, who has beheld a flock of many-coloured parakeets sweeping like a moving rainbow through the air whilst the rocks and dells resounded with their playful cries, can form any adequate idea of the scenes that there burst on the eyes of the wondering naturalist.

The beginning of the month of February, or the end of January, is the season in which the birds in these parts pair. In the beginning of March I found many nests with eggs in them; and in the end of that month eggs nearly hatched were observed in most of the nests, as well as young birds occasionally.

RAPACIOUS BIRDS.

Of rapacious birds I saw but four kinds, but these are by no means common:

The first species was a very large bird, of a dark colour (*Aquila fucosa*, Cuvier) in size, appearance, and flight closely resembling the golden eagle which I have often seen, and have once shot on the north-west coast of Ireland. I have approached these birds closely--so closely indeed that I have on two occasions shot them, but each time they fell into a thick mangrove inlet and I was not fortunate enough to procure either of them; they appeared to me always to frequent the shores, for I never saw them further inland than a mile from the sea. The large nests Captain King mentions as having been found upon the coast I imagine must have belonged to this species.

The second species was a sort of hawk (*Haliaeetus leucosternus*, Gould) rather larger than the sparrow-hawk, of a light cinnamon colour, with a perfectly white head. They also frequent the shores, but I never shot one.

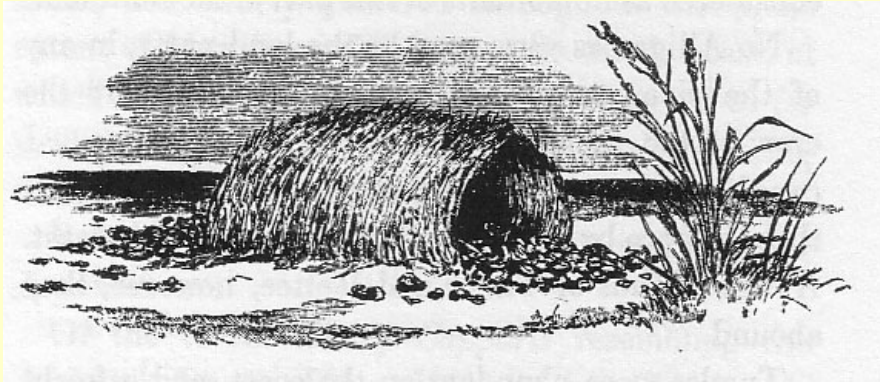
The third species was a Peregrine falcon (*Falco melanogenys*, Gould) which is nearly allied to that of Europe. I was not fortunate enough to procure a specimen of this bird.

The fourth was the Athene Boobook. Belly brown and white; wings brown, with white spots; third

quill-feather, longest; legs feathered, lightish brown colour; tail brownish white, marked with transverse bars of a darker brown; eye prominent; iris blue. The only difference I could observe between the male and female is that the female is rather larger than the male, and her colours somewhat lighter. These birds inhabit the whole of that part of North-western Australia lying between the Prince Regent and Glenelg Rivers, and probably may be distributed over the greater portion of the Continent. They feed on insects, reptiles, and birds of the smaller kind. I have always found them seated in holes in the rocks, or in shady dells, and have never seen them fly in the daytime unless compelled by fear; they are very stupid when disturbed, and in flight and manner closely resemble the common English owl. I cannot however recollect having ever seen one on the wing during the night.

Upon describing the two singular birds mentioned above in Chapter 9 to Mr. Gould he informed me that they were most probably of the rare species *Anas semipalmata*.

REMARKABLE NEST.



19. Nest or Bower of the *Chalmydera nuchalis*.

I have already spoken in the 9th chapter of a very curious sort of nest which was frequently found by myself and other individuals of the party, not only along the seashore, but in some instances at a distance of six or seven miles from it. This nest, which is figured in Illustration 19, I once conceived must have belonged to the kangaroo rat I have above mentioned, until Mr. Gould, who has lately returned from Australia, informed me that it is the run or playing ground of the bird he has named *Chalmydera nuchalis*.

These nests were formed of dead grass, and parts of bushes, sunk a slight depth into two parallel furrows, in sandy soil, and then nicely arched above. But the most remarkable fact connected with them was that they were always full of broken shells, large heaps of which protruded from each extremity of the nest. These were invariably seashells. In one instance, in the nest most remote from the sea that we discovered, one of the men of the party found and brought to me the stone of some fruit which had evidently been rolled in the sea; these stones he found lying in a heap in the nest, and they are now in my possession.

EMUS.

I have seen no Emus in North-western Australia, but on two occasions their tracks were impressed in the mud on some plains lying on the banks of Glenelg River; and Mr. Dring, of H.M.S. Beagle, informed me that, whilst that vessel was employed in the survey of Fitzroy River, about seventy miles to the southward of the former, he not only several times saw traces of them but that, on one occasion when he was in the bush, two of them passed within a few yards of him. They may, I conceive, therefore be considered as inhabitants of this part of the continent.

ALLIGATORS.

No alligators were seen by the land party in any of the rivers of North-western Australia, but the crew of the schooner saw one in Hanover Bay. I can however safely assert from my own experience that they are by no means numerous upon this coast. At the islands of Timor and Roti however they abound.

TURTLES.

Turtles were abundant on the coast, and a freshwater tortoise was found inland.

PLANTS.

Amongst the vegetable kingdom I shall only observe generally that the *Calamus*, or rattan, which in King's voyage* is considered to be peculiar to the primary granitic formation on the east coast, is abundant in the interior of the north-west between latitude 15 and 17 degrees south.

(*Footnote. Appendix, volume 2.)

I found a dwarf cabbage-palm between 15 and 16 degrees south latitude, always in moist situations in the neighbourhood of streams, although not immediately on the banks.

Of the family of Urticeae many species of Ficus were observed.

The Banksia, common to Swan River, and bearing a yellow flower, is to be found in many of the valleys on the north-west coast; thus appearing to form an exception to Mr. Cunningham's observation inserted in Captain King's voyage,* wherein he says:

Viewing the general distribution of Banksia, it is a singular fact in the geographical distribution of this genus that its species, which have been traced through almost every meridian of the south coast, upon the islands in Bass Strait, in Van Diemen's Land, and widely scattered throughout the whole extent of New South Wales to the north coast, at which extreme Banksia dentata has been observed as far west as longitude 136 degrees south, should be wholly wanting on the line of the north-west coast.

(*Footnote. Ibid.)

I observed a great variety of plants of the order Leguminosae.

Of the extraordinary Capparis resembling the African Adansonia I have already spoken in Chapter 6.

A species of Callitris (Pine) was common, as was the Pandanus; and the Araucaria excelsa was found on the heights, both near the sea coast and further inland.

CLIMATE. ITS HEALTHINESS.

I conceive the climate of North-western Australia to be one of the finest in the world, and my reasons for thus thinking are grounded upon the following circumstances.

PROOFS OF ITS SALUBRITY.

I was resident there from the beginning of the month of December 1837 to the middle of the month of April 1838; a period of four months and a half: and during the whole of this time the men under my command were exposed to great hardships and privations. On one occasion three of us slept in the open air without any covering or warm clothes for five successive nights, during three of which we had constant showers of heavy rain, and yet did not in any way suffer from this exposure.

Other detached parties were on various occasions subjected for a shorter period to exposure of a similar nature, and no instance occurred of any individual suffering in the least from it. One or two cases of slight diarrhoea occurred, but they could be always traced to some food that had been eaten the day before, and never were sufficiently violent to delay us for a single hour.

Whilst this perfect freedom from disease existed amongst the party they had not only to bear exposure of the nature above stated, but the provisions with which I was enabled to supply them were sometimes very insufficient for their wants. During the whole month of March and part of April their daily full allowance of food was about 1 3/4 pounds of flour, first made into dough and then baked in the form of a flat cake upon a large stone.

This low diet, at the same time that they were compelled to work very hard, naturally rendered some of them extremely weak, and several were, on our return to the coast, in a very reduced state.

I should here state that we were (perhaps fortunately) unable to carry more than one pint of brandy with us, hence no spirits were issued to the men, and the non-appearance of diseases of an inflammatory nature may perhaps in some measure be attributed to this circumstance.

The opinion of Captain Wickham, R.N. commanding H.M. ship Beagle, is perfectly in accordance with my own. He was upon the coast at the same time that we were, and in a letter to me writes thus: "Our cruise has been altogether a fortunate one, as we have been enabled to examine the whole coast from Cape Villaret to this place (Port George the Fourth) without any accident, and the climate is so good that we have had no sick."

THERMOMETRICAL OBSERVATIONS. RAIN AND TEMPERATURE.

I have annexed a short statement of the weather and range of the thermometer during some parts of the months of December, January, and February. It will be seen from this that the heat was on some occasions great, even as high as to 136 degrees of Fahrenheit in the sun; yet, by not exposing ourselves to its influence in the heat of the day more than we could help, we suffered no inconvenience from this circumstance: indeed in other tropical countries where the heat has not been so great I have suffered much more than I did in North-western Australia.

NUMBER OF DAYS IN WHICH RAIN FELL:

December: 6 days.

January: 19 days, namely, 12, to January 19th, 4 between 19th and 28th, 3 to end of month.

February: 7 days.

March: 12 days.

To 12th April: 2 days.

In January the greatest quantity of rain fell between the 15th and 30th, accompanied by storms of thunder and lightning.

In February the greatest quantity of rain fell in the commencement of the month. For several nights in the middle of February we had thunder, lightning, and strong gusts of wind, seldom accompanied by rain.

In March the greatest quantity of rain fell from the 17th to the 23rd.

The mean temperature of the different periods of the day for the month of December 1838 at Hanover Bay, determined by observations for only six successive days from the 26th to the 31st inclusive (thermometer in the shade) are as follows:

6 A.M. 82.2.
9 A.M. 85.3.
12 m. 91.3.
3 P.M. 90.2.
6 P.M. 85.8.
9 P.M. 83.5.

The same for the month of January 1838, determined by observations made from the 1st to the 19th inclusive, was:

6 A.M. 78.2.
9 A.M. 84.3.
12 M. 83.1.
3 P.M. 85.7.
6 P.M. 80.7.
9 P.M. 83.4.

I should observe that the mean temperature for 9 P.M. for this month is deduced from only seven days observation.

The same as the above for the month of February, taken twelve miles to the south of Hanover Bay, from the 19th to the 26th February inclusive, is as follows:

6 A.M. 77.0.
9 A.M. 86.0.
12 A.M. 92.7.
3 P.M. 94.0.
6 P.M. 83.3.

ABORIGINES, THEIR HABITS AND MANNERS.

I was never fortunate enough to succeed in obtaining a friendly interview with the natives of these parts; but I have repeatedly seen them closely, was twice forced into dispute with them and, in one of these instances, into deadly conflict. My knowledge of them is chiefly drawn from what I have observed of their haunts, their painted caves, and drawings. I have moreover become acquainted with several of their weapons, some of their ordinary implements, and I took some pains to study their disposition and habits as far as I could.

In their manner of life, their roving habits, their weapons, and mode of hunting, they closely resemble the other Australian tribes with which I have since become pretty intimately acquainted; whilst in their form and appearance there is a striking difference. They are in general very tall and robust, and exhibit in their legs and arms a fine full development of muscle which is unknown to the southern races.

They wear no clothes, and their bodies are marked by scars and wales. They seem to have no regular mode of dressing their hair, this appearing to depend entirely on individual taste or caprice.

They appear to live in tribes subject, perhaps, to some individual authority; and each tribe has a sort of capital, or headquarters, where the women and children remain whilst the men, divided into small parties, hunt and shoot in different directions. The largest number we saw together amounted to nearly two hundred, women and children included.

THEIR WEAPONS AND IMPLEMENTS.

Their arms consist of stone-headed spears (which they throw with great strength and precision) of throwing sticks, boomerangs or kileys, clubs, and stone hatchets. The dogs they use in hunting I have already stated to be of a kind unknown in other parts of Australia, and they were never seen wild by us.

The natives manufacture their water-buckets and weapons very neatly; and make from the bark of a tree a light but strong cord. Their huts, of which I only saw those on the sea-coast, are constructed in an oval form of the boughs of trees, and are roofed with dry reeds. The diameter of one which I measured was about fourteen feet at the base.

LANGUAGE.

Their language is soft and melodious, so much so as to lead to the inference that it differs very materially, if not radically, from the more southern Australian dialects which I have since had an opportunity of enquiring into. Their gesticulation is expressive, and their bearing manly and noble. They never speared a horse or sheep belonging to us and, judging by the degree of industry shown in the execution of some of their paintings, the absence of anything offensive in the subjects delineated, and the careful finish of some articles of common use, I should infer that under proper treatment they might easily be raised very considerably in the scale of civilization.

INDIVIDUALS OF AN ALIEN WHITE RACE.

A remarkable circumstance is the presence amongst them of a race, to appearance, totally different, and almost white, who seem to exercise no small influence over the rest. I am forced to believe that the distrust evinced towards strangers arose from these persons, as in both instances, when we were attacked, the hostile party was led by one of these light-coloured men.

SIMILARITY OF CUSTOMS WITH OTHER AUSTRALIAN TRIBES.

Captain King, who had previously experienced the same feelings of ill-will in the natives of Vansittart Bay, attributed them to the periodical visits of the Malays during the season of the trepang fishery. He says (volume 1 page 320):

On this beach (of Vansittart Bay) we found a broken earthen pot, which decidedly proved the fact of the Malays visiting this part of the coast, and explained the mischievous disposition of the natives.

I saw but three men of this fair race myself, and thought they closely resembled Malays; some of my men observed a fourth.

NATIVES AT ROEBUCK BAY.

An individual differing in appearance and colour from his aboriginal associates was also seen amongst a native tribe whilst the boats of the Beagle were surveying in Roebuck Bay, and is thus ably described by Mr. Usberne, the master of the vessel; who was in command of the boat at the time he was observed, and who thus narrates the interview:*

(*Footnote. Nautical Magazine for 1840 page 576.)

To prevent interruption during dinner the things were removed to the boat, and she was then shoved a few yards off the beach, and we commenced our repast.

As we took to the water they (the natives) rose and followed us close; but in the act of shoving off, the boat-hook being pointed over the bow, they one and all involuntarily stepped back a couple of paces, thinking no doubt that it was one of our spears, which to them must have appeared a formidable weapon; but, seeing no harm was intended, they remained at the water's edge, watching us whilst at dinner.

At this time I had a good opportunity of examining them. They were about the middle age, about five feet six inches to five feet nine in height, broad shoulders, with large heads and overhanging brows; but it was not remarked that any of their teeth were wanting (as we afterwards observed in others); their legs were long and very slight, and their only covering a bit of grass suspended round the loins. There was an exception in the youngest, who appeared of an entirely different race: his skin was a copper colour, whilst the others were black; his head was not so large, and more rounded; the overhanging brow was lost; the shoulders more of a European turn, and the body and legs much better proportioned; in fact he might be considered a well-made man at our standard of figure. They were each armed with one, and some with two, spears, and pieces of stick about eight feet long and pointed at both ends. It was used after the manner of the Pacific Islanders, and the throwing-stick so much in use by the natives of the south did not appear known to them.

After talking loud, and using very extravagant gestures, without any of our party replying, the youngest threw a stone, which fell close to the boat.

COINCIDENCE OF CUSTOMS.

It appears to me very probable that the same dark-coloured race inhabit the whole of Northern Australia, and perhaps extend over the islands in Torres Strait.

In order to support this opinion I shall first give an extract from the journal of Dr. Duncan, from Wilson's Voyage round the World, page 148, which contains a detail of the customs of Flinders Islands and part of Northern Australia, and displays two or three remarkable customs coinciding with those observed by myself and others to exist in Northwest Australia:

At 8 hours 40 minutes P.M. the colonial brig Mary arrived, bringing along with her a native of India, whom she picked up on one of Flinders Islands.

On the 18th July the Lascar came on board the Success, and from him I learned the following particulars: That he belonged to the ship Fame, which was wrecked in the Straits; that he and a few others escaped in a leaky boat after rowing for forty-eight hours. On landing the natives stripped them of their clothes, etc., but otherwise behaved very kindly to them. His companions in misfortune died the first year of his residence amongst the natives, which in all amounted, he said, to six or seven years.

The men in that part of Australia have from five to ten wives, of whom they are rather jealous at times. The tribes are continually at war with one another, and have regular pitched battles; but the moment that one is killed on either side, the battle ceases, until they carry off their dead, and mourn for certain days, according to their custom; bedaubing themselves over with black earth, and on another day the fight begins and ends in a similar way.

DISPOSAL OF THEIR DEAD.

This is singularly analogous to what occurred on our encounter with them on the 11th February. Dr. Duncan continues:

When one dies or is killed they bury the body in the earth, but at the end of five days dig it up again and wrap up the bones, etc., in bark of trees, and carry them along with them. When the women fight, which is very often, they use a short kind of club. The natives paint their bodies over with red clay to prevent the mosquitoes from biting them. When they paint their bodies white it is a sign of war with some other tribe.

A very remarkable instance of coincidence in this custom with regard to the dead will be found in a subjoined extract from a letter sent to me by an officer of the Beagle, together with a skeleton which he had found at Cygnet Bay. The skeleton has been presented to the Royal College of Surgeons:

The skeleton was found enveloped in three pieces of papyrus bark, on a small sandy point in Cygnet Bay. All the bones were closely packed together, and the head surmounted the whole. It did not appear to have been long interred. They had evidently been packed with care. All the long bones were undermost, and the small ones were strewed in among them. The head was resting on its base, face across.

Three natives were close to the place when we first landed: the eldest of the party went up to the spot immediately after I had removed the bones; he turned up the bark with his foot, and did not appear to show the slightest symptom of uneasiness. They were for some days among the watering party on very friendly terms.

CAVES. DRAWINGS. TOMBS.

As I never, during my subsequent travels in Australia, saw anything at all resembling the painted caves which I have described in the ninth chapter, I shall here add some observations on the subject, which I could not have there detailed without too great an interruption to the narrative.

Two other instances of Australian caves which contain paintings have been recorded. The first is by Captain Flinders and the second by Mr. Cunningham in King's voyage.

PAINTINGS AT CHASM ISLAND.

The caves found by Flinders were in Chasm Island, in the Gulf of Carpentaria, and are thus described:*

In the steep sides of the chasms were deep holes or caverns undermining the cliffs; upon the walls of which I found rude drawings, made with charcoal, and something like red paint, upon the white ground of the rock. These drawings represented porpoises, turtles, kangaroos, and a human hand; and Mr. Westall, who went afterwards to see them, found the representation of a kangaroo, with a file of thirty-two persons following after it. The third person of the band was twice the height of the others, and held in his hand something resembling the waddy or wooden sword of the natives of Port Jackson.

(*Footnote. Flinders' Voyages volume 2 page 158.)

PAINTINGS AT CLACK'S ISLAND.*

(*Footnote. North-east coast of Australia.)

The second instance is taken from Mr. Cunningham's manuscripts and is contained in the following extract:*

The south and south-eastern extremes of Clack's Island presented a steep, rocky bluff, thinly covered with small trees. I ascended the steep head, which rose to an elevation of a hundred and eighty feet above the sea.

The remarkable structure of the geological features of this islet led me to examine the south-east part, which was the most exposed to the weather, and where the disposition of the strata was of course more plainly developed. The base is a coarse, granular, siliceous sandstone, in which large pebbles of quartz and jasper are imbedded: this stratum continues for sixteen to twenty feet above the water: for the next ten feet there is a horizontal stratum of black schistose rock which was of so soft a consistence that the weather had excavated several tiers of galleries; upon the roof and sides of which some curious drawings were observed, which deserve to be particularly described. They were executed on a ground of red ochre (rubbed on the black schistus) and were delineated by dots of a white argillaceous earth, which had been worked up into a paste. They represented tolerable figures of sharks, porpoises, turtles, lizards (of which I saw several small ones among the rocks) trepang, starfish, clubs, canoes, water gourds, and some quadrupeds, which were probably intended to represent kangaroos and dogs. The figures, besides being outlined by the dots, were decorated all over with the same pigment in dotted transverse belts. Tracing a gallery round to windward, it brought me to a commodious cave or recess, overhung by a portion of the schistus, sufficiently large to shelter twenty natives whose recent fire places appeared on the projecting area of the cave.

Many turtles' heads were placed on the shelves or niches of the excavation, amply demonstrative of the luxurious and profuse mode of life these outcasts of society had, at a period rather recently, followed. The roof and sides of this snug retreat were also entirely covered with the uncouth figures I have already described.

As this is the first specimen of Australian taste in the fine arts that we have detected in these voyages it became me to make a particular observation thereon: Captain Flinders had discovered figures on Chasm Island, in the Gulf of Carpentaria, formed with a burnt stick; but this performance, exceeding a hundred and fifty figures, which must have occupied much time, appears at least to be one step nearer refinement than those simply executed with a piece of charred wood. Immediately above this schistose is a superincumbent mass of sandstone which appeared to form the upper structure of the island.

(*Footnote. King's Australia volume 2 page 25.)

PAINTINGS IN THE YORK DISTRICT.

There is a third instance of a cave with a figure in it in the district of York, in the settlement of Swan River; but in this case the species of circle which is drawn on the cave, or rather scraped into it with a piece of stone, may represent anything or nothing; in fact it is no more than any idle or thoughtless savage might have executed, without any fixed design whatever. The only other vestige of drawing contained in the cave is evidently the mere impression of a hand, which has been rubbed over with the red paint with which the natives are in the constant habit of bedaubing themselves, and has then been pressed in on the wall.

NATIVE TRADITIONS.

I had been told that the natives had some very curious traditions current amongst them with regard to this last cave and, after having visited it and satisfied myself that there was no analogy between it and the caves on the north-west continent of Australia, I set about collecting some of the native stories that related to it. These legends nearly all agreed in one point, that originally the moon, who was a man, had lived there; but beyond this there was nothing common to them all, for every narrator indulged his own powers of invention to the greatest possible degree, scarcely ever relating the same story twice, but on each occasion inventing a new tradition; and the amount of marvels and wonders which he unfolded in this revelation were exactly proportioned to the quantity of food which I promised to give him. I once or twice charged them with attempting to impose upon my credulity and, far from denying the charge, they only laughed and said, "that was a very good thing which they told me, and that the Djanga (white men) liked it very much."

COLOURS USED IN PAINTING.

In the painted caves on the north-western coasts five colours were used: red, several shades; yellow; blue; black, and white. With the exception of blue these colours are all known to the natives of the whole continent. The red they either dig up from the earth, fit for use, in the form of red earthy pebbles, or they find it in the form of a brilliant yellow clay, which they beat, clean, and dry, leaving it exposed to the air for several days, when they bake it in a bark basket, and then, if the clay is good and it has been well prepared and burnt, it is nearly as bright as vermilion. In some parts of the continent however no good clay can be found; and in this case, at their annual fair, where they meet to exchange certain commodities only locally produced, this brilliant red ochre is considered a very valuable article of traffic.

Yellow they obtain from several sources: the most common is the yellow clay from which the red is afterwards produced, but they also procure it from a stone which is traversed by veins of yellow earth; from the interior of the nest of a species of ant which collects a yellow dust; and from a sort of fungus from which a similar dust is also obtained.

The black is nothing but finely pounded charcoal.

The white is a very fine greasy species of pipe-clay, common all over Australia, and which they use either wet or dry.

How the blue colour used in the caves on the north-west was obtained I do not know; it is very dark and brilliant, and closely resembles the colour obtained from the seed-vessel of a plant very common there, and which, on being broken, yields a few drops of a brilliant blue liquid. I therefore imagined that it was procured from this source.

AGE AND MOTIVE OF DRAWINGS.

With regard to the age of these paintings we had no clue whatever to guide us. It is certain that they may have been very ancient, for, although the colours were composed of such perishable materials, they were all mixed with a resinous gum, insoluble in water, and, no doubt, when thus prepared, they would be capable of resisting, for a long period, the usual atmospheric causes of decay. The painting which appeared to me to have been the longest executed was the one clothed in the long red dress, but I came to this conclusion solely from its state of decay and dilapidation, and these may possibly have misled me very much; but, whatever may have been the age of these paintings, it is scarcely probable that they could have been executed by a self-taught savage. Their origin therefore I think must still be open to conjecture.

But the art and skill with which some of the figures are drawn, and the great effect which has been produced by such simple means, renders it most probable that these paintings must have been executed with the intention of exercising an influence upon the fears and superstitious feelings of the ignorant and barbarous natives: for such a purpose they are indeed well calculated; and I think that an attentive examination of the arrangement of the figures we first discovered, more particularly of that one over the entrance of the cave, will tend considerably to bear out the conclusion I have here advanced.

SINGULARITY REGARDING THEM.

It is a singularity worthy of remark that the drawings we found in the vicinity of the coast were nothing but the rudest scratches; that they gradually improved until we reached the farthest point we attained from the sea; and that it was in the vicinity of this point that some of the best productions were found.

CHAPTER 12. PHYSICAL GEOGRAPHY. COMMERCIAL PROSPECTS.

PHYSICAL GEOGRAPHY. MOUNTAIN RANGES.

The most remarkable geographical feature in North-Western Australia is a high range of mountains running north-north-east and south-south-west, named by me Stephen's Range after James Stephen, Esquire, Under-Secretary of State for the Colonies. From this primary range several branches are thrown off: 1. One between Roe's River on the north and Prince Regent's River on the south. 2. Macdonald's Range that throws off streams to Prince Regent's River on the north and to Glenelg River on the south. 3. Whateley's Range which gives forth streams to Glenelg River on the north, and to the low country behind Collier's Bay and Dampier's Land on the south.

These branch ranges as well as the principal one are all composed of ancient sandstone, deposited in nearly horizontal strata, or of basaltic rocks which are only visible in certain places, and are most fully developed in that part of Stephen's Range which lies behind Collier's Bay, and in the low ground near Glenelg River.

With the extent of Stephen's Range I am unacquainted; but I have no doubt that the high land whence the Fitzroy River takes its rise is merely an under-feature again thrown off from it, and which I propose to call Wickham's Range after Captain Wickham, R.N., the discoverer of the Fitzroy.

We may form some idea of the limits of Stephen's Range in a north and east direction from the following passage extracted from Captain King's survey of these coasts:*

Lacrosse Island is situated in the entrance of a deep opening trending to the south-south-west towards some steep, rugged hills. The character of the country is here entirely changed. Irregular ranges of detached rocky hills of sandstone formation, very slightly clothed with small shrubs and rising abruptly from extensive plains of low, level land, seem to have superseded the low wooded coasts that almost uninterruptedly prevails between this and Cape Wessel, a distance of more than six hundred miles!

(*Footnote. King's Australia volume 1 page 291.)

It appears therefore that this main range contains within it the sources of Roe's River, Prince Regent's and Glenelg Rivers, most probably the Fitzroy, and those that run into Cambridge Gulf and perhaps others that have their embouchures between this last and Admiralty Gulf.

From an accident having occurred to the only barometer we could carry with us I am unable to state the elevation of the highest land we reached above the level of the sea; but the appearance of the country on the coast does not give the impression of any very elevated ground existing near it. This however is owing to the great height of the shore cliffs and the gradual rise of the land towards the interior. The following observations, made with the barometer before it was broken, will show however that the altitude of the country at no great distance from the coast is considerable.

MACDONALD'S RANGE.

Our first encampment was on the banks of a small river at a spot 2,640 feet from the sea. This river ran through a deep and narrow valley, descending with a nearly regular slope from a tableland of sandstone, in which it took its rise about seven miles inland. At this encampment the height of the bed of the river above the level of the sea was 188.76 feet, as found by the mean of several very accordant observations, which, at the same average slope, gives an elevation of about 377 feet for the height of a spot on its banks distant only one mile from the sea; and if we conceive the average increase of elevation to the sandstone tableland to be only 200 feet in every mile (and I believe it to have been more) we shall have 1400 feet for the elevation of the tableland which formed one of the highest parts of Macdonald's Range.

ELEVATION OF HILLS.

After passing across this range we again descended rapidly into the low country, the face of which is much broken by conical hills composed of basalt. The heights of some of these hills above their base, which had a considerable elevation above the sea level, were in three instances as follows:

February 28.

The measured height of a hill above its base was 331 feet.

March 4.

Measured the altitude of a hill above its base and found it to be 222 feet.

March 8.

Measured the altitude of a hill above its base and found it to be 229.5 feet.

None of these hills had apparently near so great an elevation as the sandstone range of which they were under-features. At this period our barometer was unfortunately broken. We now proceeded up the banks of the Glenelg and arrived at many hills and conical peaks, apparently much higher than those I had measured; yet on afterwards passing the river and attaining the summit of the opposite sandstone range, we looked down upon them as hills of far inferior elevation to those on which we stood. From this circumstance, and from the very perceptible change of temperature we experienced, I should think the altitude of the farthest point of Stephen's Range which we reached must have been 2,500 or 3,000 feet above the sea.

CHARACTER OF THE RIVERS.

The rivers in North-western Australia much resemble in character those of the south-eastern parts of the continent. They rise at no very great distance from the sea. Near their sources they are mountain torrents, but in the lowlands they become generally streams with slow currents, winding through fertile and extensive valleys or plains which are liable to sudden and terrific inundations, caused, I conceive, by the rain which falls in that part of the mountains where the rivers take their rise; for at one period, when we had our encampment on the bank of the small stream near the sea at Hanover Bay, I was myself distant about fourteen miles in the interior in the direction of its source, where we had heavy rain; and on my return I found that the party at the station had been surprised by a sudden rising of the water for which there was no apparent cause as there had been no rain where they were.

The Glenelg River, in like manner, is subject to sweeping inundations, rising sometimes to the height of fourteen to fifteen feet above its usual level, as was evinced by the weeds and other substances we saw in the trees on its banks.

To show that these are characteristics of the Fitzroy River I shall quote the authority of Captain Wickham from a letter addressed to me just before our meeting at Hanover Bay:

It (the Fitzroy) appears to be very similar to the rivers on the south-east side of New Holland, subject to dreadful inundations, caused by heavy floods in the interior, and in no way connected with the rainy season on the coast. Our visit to it being in February and March, immediately after the rainy season on the coast, without our seeing any indication of a recent flooding, although there were large trunks of trees and quantities of grass and weeds lying on the bank and suspended from the branches of trees from ten to twelve feet above the level of the river. The bed is entirely of sand.

INUNDATIONS.

It will be clearly seen how nearly this corresponds with what we observed about the same season on the banks of the Glenelg. I have therefore little doubt that the Fitzroy takes its origin from the same mountain chain, and that the inundations described by Captain Wickham originate in the causes which I have here assigned.

To demonstrate more clearly the similarity of character of these rivers with those of New South Wales I shall quote two passages from the British Colonies of Mr. Montgomery Martin, regarding the Hawkesbury and Hunter Rivers of that colony:

The Hawkesbury, which is a continuation of the Nepean River, after the junction of the latter with a considerable stream, called the Grose, issues from a remarkable cleft in the Blue Mountains in the vicinity of the beautiful town of Richmond, about forty miles from Sydney. Along the base of these mountains the Hawkesbury flows in a northerly direction, fed by numerous tributary mountain torrents, descending from narrow gorges, which, after heavy rains, cause the Hawkesbury to rise and overflow its banks as it approaches the sea. In one instance it rose near the town of Windsor ninety-seven feet above its ordinary level. Volume 4 page 257.

Again he says, page 258:

Hunter's River, about seventy miles to the northward of Port Jackson, disembogues into the sea at the harbour of Newcastle.

There are three branches to the Hunter, called the upper, the lower, and the middle: the two former are navigable for boats for about 120 miles, and the latter for about 200 miles; but the branches are all subject to sudden and terrific inundations owing to the rapid descent of torrents from the Blue Mountains.

MOUTH OF THE GLENELG.

In concluding my remarks on the rivers of the north-west I should state that Mr. Stokes, the surveyor of the Beagle, after a careful examination of the coast did not succeed in finding the mouth of the Glenelg; and he imagines that it has several openings, consisting of large mangrove creeks, which fall into Stokes Bay; whilst it is my impression that it will be found to run out somewhere between Camden Sound and Collier's Bay, and that by some accidental circumstance its mouth was missed. That it joins the sea in a considerable body I should infer from a shoal of porpoises having been seen high up the river, and from the rise and fall of tide, which was twenty feet at the direct distance of thirty miles from the coast.

VALLEYS.

The valleys in this country are of two kinds: those which are almost ravines, bordered on each side by nearly inaccessible cliffs; and valleys of great width, bordered by fertile plains, often extensive, and which occur where the basaltic rocks are developed; although ravines of this formation are also of frequent occurrence in the mountainous parts.

CHARACTER OF THE VALLEYS. SOIL.

The soil found in the valleys of the former kind is extremely rich, but they are all subject to very heavy inundations. As an example of this kind of valley I may cite the one in which we first encamped. Its mean width was only 147 feet, and the rocky precipitous cliffs at half a mile from the sea rose above their base 138 feet. These deep valleys undoubtedly afford water at all seasons of the year.

The sandstone formation is intersected in all directions by valleys of this kind, which are seldom more than from two to three miles apart, while the top of the range between them is a tableland, divided by lateral valleys and gently rising towards the interior. Seawards they all terminate in saltwater creeks, having the same narrow, rocky, and precipitous character as they present themselves.

These tablelands afford good timber, particularly pine. Sheep thrive upon the food there produced, but we found goats did not answer so well.

The richest land in this part of the country is found in the valleys of the second class. The streams flowing through these valleys have generally almost imperceptible currents and often form wide reaches. The land upon their margins is thinly wooded; and I have often seen exposed fine vegetable mould of ten or twelve feet in thickness, through which these streams had worn their way. Good examples of this kind of valley are those through which run the Fitzroy and Glenelg rivers.

The northern banks of Prince Regent's River I conceive to offer no inducement whatever for the formation of a settlement, the whole of the country in that direction, as far as I have seen, consisting entirely of sandstone ridges. These ridges are continually intersected by valleys, or rather ravines of great fertility, but they are so narrow, and the good land contained in them is so very limited in extent, that from the first moment of the establishment of a colony here the

individuals composing it must necessarily be scattered over a large space of country. They would thus be separated from one another by considerable intervals, which separation would not only render them more liable to disagreements with the natives, but would for many other reasons be highly detrimental to the interests of an infant colony.

The same objection holds good with regard to the south bank of this river, as far as the longitude of 125 degrees 3 minutes east, and even after passing this point the land immediately bordering the river is of the same sterile character; however a creek which trends nearly south runs up from thence into one of the most fertile countries I have ever seen.

HARBOURS.

The coastline to the south of Prince Regent's River is indented, as shown upon Captain King's chart, by numerous deep bays, many of which afford excellent anchorage; indeed I believe that there is no other part of the world in which an example occurs of three such fine harbours as Port George the Fourth, Hanover Bay, and Camden Sound, lying so close to one another.

These harbours alone render this a point of considerable consequence to Great Britain; but when viewed in connexion with the fine tract of country lying behind them its importance is very materially increased.

COMMERCIAL ADVANTAGES.

Should this part of Australia be found eligible for colonization its commercial importance is well worthy of consideration.

PRODUCTIONS SUITED FOR CULTIVATION. COTTON TRADE.

The cultivated productions for the growth of which the country and climate seem best adapted are cotton, sugar, indigo, and rice.

A species of cotton plant grows wild in the greatest abundance, and if a colony was established and the proper cotton-plant introduced the following advantages would be obtained:

Great Britain would possess in Northern Australia a colony standing in the same relation to her manufacturies for cotton that her colonies in the south do to her wool-market.

This colony would also form a sort of entrepot to which the manufactured cotton would again be exported for the purpose of sale in the islands of the Indian Archipelago or its vicinity, and other parts where we have at present no trade, and where printed cottons now are, and from the nature of these countries must constantly be, in great demand.

Thus a fresh supply of cotton for our markets would be obtained, which, coming from an English colony, would give employment to British vessels alone, and the industry of our manufacturers would be called into operation by an entirely new market for cotton goods being thrown open to them, in which the demand for these articles is far greater than the supply could be for many years.

ARTICLES OF EXPORT.

The natural productions that are at present found in North-west Australia and might be available for exportation consist chiefly of timber, gum, lichens, and mimosa bark; all of which are abundant, and might be collected with a trifling degree of labour.

There are many varieties of useful timber. Among others, pine, fit for the purposes either of building or making spars for vessels, is abundant and good, and could be readily and cheaply exported if they were cut in the vicinity of the streams and floated down to the sea in the rainy season, whereby all land carriage would be avoided.

I sent to England specimens of five different gums in order that they might be examined. These consist of an elastic gum, closely resembling Indian rubber, gum tragacynth, another gum yielded by a sort of capparid and which I believe to be hitherto unknown, and two kinds of gum resin.

The mosses are of various kinds, many of which would afford useful dyes; and these, together with the gums, would probably be found valuable articles of export; for the collecting of them is a species of labour in which the native tribes would more willingly engage than any other I am acquainted with.

Immediately off North-West Cape is good whaling ground. The schooner employed on the expedition fell in with two vessels--the Favourite, Captain White, and the Diana, Captain Hamott, whalers belonging to Messrs. Bennett & Co., of London, and then fishing between North-West Cape and the position usually assigned to the Tryal Rocks. Both these vessels had been very successful.

COMMERCIAL PROSPECTS. TRADE WITH THE ASIATIC ARCHIPELAGO.

With regard to the commerce that might be carried on by Northern Australia with the islands of the Indian Archipelago I have made many enquiries, and have gained from the most authentic

sources some important facts.

The points upon which I first endeavoured to obtain information were:

1. What desire was evinced by the inhabitants of the islands of the Indian Archipelago and the China Sea to become possessed of articles of British manufacture; and,
2. If they were able to pay a fair price, either in money, or by giving goods for which there would be a demand in European markets, in exchange for such articles of British manufacture as might be introduced amongst them.

Upon both of these points I received very satisfactory information. In some instances most respectable merchants detailed to me the result of speculations of this kind in which they had been engaged; in others mercantile letters were placed in my hands, fully corroborating what had been told me; but the information I thus obtained bore reference also to the following points:

1. The degree of labour necessarily required to transport articles of British manufacture to such a distant mart as the one here contemplated for their consumption.
2. The length of time during which wages must be paid to and food provided for the individuals engaged in this labour.
3. The duties to which the articles will become liable in the various ports; and,
4. The danger of loss or injury that may be incurred in their transport thither.

With regard to the two first of the above heads it appears that the profit that may be realized by the trader is so considerable as not only to cover the expenses that they would necessarily entail upon him; but after these expenses have been defrayed the residue of profit that would remain in his hands would be so large as to render this commerce one of the most lucrative in which capital could be embarked.

METHOD OF BARTER.

This will be readily conceived when it is considered that the mode of barter is that which is most usual amongst the inhabitants, and that the trader puts his own valuation upon the articles he exchanges with them. One of the oldest and most respectable merchants at the Cape made a voyage through these islands for the purpose of procuring gold dust, and he detailed to me the mode in which he conducted the traffic. A Spanish doubloon was placed in one of the scales, and gold dust in the other; when the quantity of gold dust was equal in weight to the doubloon, he gave a doubloon's worth of goods they required, at his own valuation; the profit realized was large.

One great drawback to this commerce at present is the necessity of coasting from place to place in order to obtain a full cargo. The same inconvenience was felt along the coasts of Africa and Madagascar until some enterprising London and Liverpool mercantile houses established the system of receiving vessels, which remained stationary at one point whilst smaller vessels collected cargoes for them. Now a colony in some northern part of Australia would in the same manner totally obviate this inconvenience by affording a place in which cargoes could be collected from small vessels, and to which the British manufactures to be exchanged could be brought. Kupang in Timor at the present moment is used for this purpose by the Dutch.

DUTIES LEVIED AT THE ISLANDS.

With regard to the third point I find that at the native ports, in general, no duty is required; but where there is a Rajah it is politic to make him a present in goods. The duties levied by the Portuguese at Dili in the month of June 1838 was 10 per cent. With regard to the duties levied by the Dutch on British merchant vessels I know but little; but the duty demanded at Kupang and Roti on each horse exported, or each musket imported, was six rupees, being almost equal to their original value. Arms or ammunition are no longer contraband either in the Dutch or Portuguese possessions.

In considering the danger of loss or injury that may be incurred in the transport of merchandise to these parts it is unnecessary to compute the ordinary dangers to which the merchant is more or less liable in all quarters of the world; but two distinct drawbacks to commercial enterprise at present exist in these countries, which are peculiar to them, these are the prevalence of piracy, and the constant occurrence of political commotions in the native states. The establishment of a settlement on the north or north-west coast of New Holland would have however the effect of diminishing both these evils in so great a degree that a very few years would probably suffice for their complete annihilation.

SUCCESS OF AMERICAN VESSELS. CAUSES OF IT.

Notwithstanding the drawbacks occasioned to commercial enterprise by the circumstances above detailed, there at this moment exists a very considerable trade in the Indian Archipelago, which is, with the exception of the few vessels that sometimes bring ponies to the Isle of France and the British settlements, almost wholly in the hands of the Americans. Indeed no fact which I have met

with has so much surprised me as the extraordinary diffusion of the American commerce, and the great spirit of enterprise exhibited by them. For in many places where the British merchants can find no commerce apparently worth their attention the Americans carry on a lucrative and prosperous trade, and in half-civilized countries, where the largest profits are always realized, the Americans are so eminently successful that the British merchant cannot attempt to compete with them.

This appears to arise from the following circumstance. The masters of the American vessels engaged in this kind of trade are, in many instances, whole, and in all other instances, part owners of the vessel and cargo; whereas masters of English vessels have frequently little or no interest in the vessel and cargo, and are moreover frequently tied down by directions issued from the firm for which they act.

The difference between these two cases is very great; the American can turn every circumstance that occurs to account: he can instantly enter into any speculation that holds out a prospect of success; and can act with rapidity and decision on his own responsibility. The English master, on the contrary, has usually a certain prescribed line of duty to fulfil, from which he cannot vary.

Hence it is that we often see the American whalers with arms, ammunition, and other articles for barter on board. They whale off Madagascar, and, whenever an opportunity offers, carry on a lucrative trade with the natives. From thence their course is directed to St. Paul's and Amsterdam, and afterwards along the coast of New Holland; and when it again becomes necessary for them to refresh they touch at some island in the Archipelago, and the scene of barter is once more renewed. Their cargo eventually consists of sperm oil, gum copal and other gums, ebony, tortoiseshell, gold dust, seal-skins, shells, and curiosities; yet they originally started upon a whaling voyage.

INSTANCES.

During the years 1824 and 1825, when the port of Mombas upon the East Coast of Africa was temporarily ceded to the British Government, Lieutenant Emery, R.N., who was stationed there as commander, was witness to a curious instance of this nature.

Whilst this port was in the possession of the English but one British merchant vessel arrived there, yet three American vessels entered the harbour. The master of the English vessel was not a part owner; the American masters were all part owners and carried on a very lucrative trade, shipping a large quantity of ivory, whereas the English master was placed in a very unpleasant position, for, owing to the orders he had received from his owners (Messrs Tobin and Co. of Liverpool) he had not been able to ship a cargo suited to the market of Mombas, and if Lieutenant Emery had not kindly cashed a bill for him the speculation would have been a total failure.

The cargo these American vessels brought to Mombas was principally muskets and ammunition, which they bartered with the natives for ivory; and this is the cargo they always ship for trade with the inhabitants of the Indian Archipelago, and, as muskets and ammunition are there of great value, the profit they realize is enormous.

As an instance of the kind of persons these American masters often are I may state the following circumstance.

Captain Wickham, R.N., was at Valparaiso in South America in the year 1836, where he met a purser in the American navy who had realized about 3000 pounds sterling; this person here quitted the American service and laid out his capital in the purchase of a small vessel in which, having embarked a cargo suited to the trade of the country, he started for the coast of California; in a short period he returned to Valparaiso, having in this single trip more than doubled his capital; this Captain Wickham also stated was by no means a rare instance.

TRADING PRODUCTS OF THE SEVERAL ISLANDS.

Having bestowed some attention on the state of trade in the Indian Archipelago, and collected considerable information from various individuals who had been engaged in it, I shall here subjoin a summary of such of the principal facts as I think may be depended on.

TRADE WITH TIMOR.

In all the ports of the natives, as well as those under the Dutch and Portuguese authorities, the produce is much the same. It consists chiefly of goats, pigs, poultry, maize, paddy, yams, plantains, fruit, sandalwood, beeswax, and tortoiseshell in small quantities.

At Dili duties of 10 per cent are exacted and produce is rather dear. Sandalwood is to be had at from 2 to 4 dollars the picul of 125 catties; wax is generally from 30 to 35 dollars (Spanish) the picul of 110 catties.

The ports of Timor furnish a little gold dust at times. Good water and firewood are to be had at most of them; that of Dili is a good and safe one.

Gold dust, I understand, is also procurable at Sandalwood Island and New Hebrides.

For vessels the good season on the coast is from about the 10th of April to the 15th of October.

Cootababa affords horses and all the produce of the other places. No duties are levied here, the place not being subject to the Portuguese. It is a small port and should be entered with caution.

The best ports of Timor for wax are Dili, Cootababa, Ocussi, Sitranny, Nilow, and Manatronto. It is gathered in June, cleaned in July, and sold principally in that and the two following months; but a vessel should be active, as enterprising people go along the coast and buy it up for the Kupang merchants, who send it to Batavia where it is said to sell for 120 rupees the picul; the price at Cootababa, being lately about 80 rupees at 2 1/2 to the Spanish dollar.

Sandalwood can be had from March to October, the usual trading season; but from March to May is the best time as vessels from Kupang and Macao are on the coast early, buying it up in time to return to Macao and China in the favourable monsoon. The best ports for sandalwood are, Cootababa, Ocussi, and Sitranny, but it is to be had most abundantly at Ata-poopa.

ARTICLES IN REQUEST.

Spanish dollars, muskets, and gunpowder are the essentials for procuring wax or sandalwood, but if you wish to have a greater assortment, small quantities may be added of any articles from the following list.

Doubloons (Spanish).

Sovereigns (English).

blue cloth of Pondicherry of good quality.

ditto English (if cheap) of dark colour for officers.

white shirting or good calico for men and women.

handkerchiefs of colours and sorts.

white cotton stockings.

men and women's gown pieces of sorts and colours.

silk stockings, plain and ribbed.

shoes for men and women.

brandy, rum, gin, lead and flints.

quart-glass decanters, cruet stands, dress swords, wine glasses and rummers, knives and forks, razors, needles, scissors, earrings, bracelets, shawls of sorts, mock jewellery, sugar, soap, biscuits.

Bally and Surabaya are good places for rice, but more especially the former, as it is to be had cheap, especially if bartered for opium. The rice can be carried to Macao where a good price can always be obtained for it.

Puloo, Batao, and Ocussi on the coast of Timor are good places for obtaining tortoiseshell at all times, as well as the islands in front of Timor, from October to December. The price is about 800 Spanish dollars per picul in cash; but in exchange for blue or white cloth, powder, arms, flint, etc., it would be obtained for much less.

Roti and Bally are both good places for ponies in exchange for cash or goods.

The following is an account of our purchase and barter at the island of Roti in January 1838:

10 horses for 10 muskets (old).

4 horses for 2 fowling-pieces (old).

9 horses for 27 1/2 rupees each.

3 mares for 22 rupees each.

8 sheep for an old regimental breastplate.

14 goats for a pair of pistols (old).

The duty on each horse was six rupees.

In Mr. Earle's translation of the account of the voyage of the Dutch colonial brig Dourga, which, it is stated, left Amboyna May 26th 1825 and visited the islands of Kissa, Lettee, Mon, Damma, Lakor, and Luan,* it is said, in speaking of them:

The clothing of those who cannot obtain European or Indian cotton cloth is pieces of prepared bark fastened round their waists.

The productions of these islands are sandalwood, beeswax, pearls, tortoiseshell, trepang, edible birds' nests, Indian corn, rice, vegetables, with abundance of livestock. As the use of money is scarcely known these are only to be obtained by barter in exchange for cotton cloths, brass wire, iron chopping knives, and coarse cutlery. The first article, cotton cloth, is most in demand and M. Kolff suggests that a European merchant might carry on an advantageous trade here. The value of an ox is from 8 shillings and 4 pence to 10 shillings; of a sheep from 3 shillings and 4 pence to 5 shillings. Beeswax can be obtained in abundance at Roma at the rate of 2 pounds 7 shillings per hundredweight. The trade with the islands is carried on solely by natives, those of Macassar, Amboyna, and the Arru Islands being the chief purchasers; and Chinese brigs from Java occasionally visit Kissa.

(*Footnote. The Serwatty Islands to the east of Timor see the map of the Asiatic Archipelago by Mr.

Geby, an island in the Gellola passage, has a fine harbour; a large quantity of tortoiseshell can be obtained there for trade with the natives. The Asia's Islands, lying a short distance to the northward, are not inhabited but abound in turtle.

TRADE WITH THE ISLANDS OF THE ASIATIC ARCHIPELAGO.

The following points of information concerning the Indian Archipelago were furnished by Captain Brodie, formerly in command of a Dutch vessel of 326 tons:

In case of a necessity for repairing or coppering a vessel Surabaya is the best place as it can be done well and cheap. Wood for ship-building is abundant; and good carpenters can be had at the rate of 20 copper doits per diem, that is to say, three men for a rupee a day.

The Malaccas are under Dutch government, of which Ternate forms a part. It is said to be a good place to dispose of odds and ends,* and for getting a little shell. It is also a good place for refreshments.

Banda is not so good a place to go to, if another is at hand, as it is for a merchant vessel a strictly prohibited port. In fact the Spice islands, or Malaccas, can be entered for water and refreshments.

At Timor (Kupang) you can get sandalwood, wax, and a little shell, but dear.

At the north-east end of Celebes there are two other places, Monado and Keema, where the best gormootip or black coir rope can be obtained at about 7 rupees per picul. These two places are under the Dutch government. Some little business might be done there: stock in particular is cheap.

At the island of Ceram the inhabitants are said to be favourable to the English, but Dutch vessels of war cruise often about there, and are very jealous.

Bouton, a small island with a Rajah under Dutch protection, situate at the south-east end of Celebes, and off the bay of Boni, is a place where prows assemble and get vast quantities of shells and beche-de-mer. Nearly all these prows proceed with their cargoes to Singapore for a Chinese market.

Fine cattle are to be had at about four dollars a head at the town of Bally, in the Straits of Allas, between Lombok and Sumbawa.

New Guinea produces good beeswax, pearls, tortoise-shell, trepang, birds-of-paradise, etc.

(*Footnote. Another authority says: Tidore near Ternate is a good friendly place. Articles for trade are looking-glasses of a better kind, knives and forks, beads, watches, printed calicos, blue Pondicherry cloth, Salimpores, arms, powder, flints, lead or shot, razors, scissors, handkerchiefs; in return for which you may get pearls, pearl-shell, tortoiseshell, birds-of-paradise, nutmegs, etc.)

FIELD FOR ENTERPRISE.

I shall conclude this subject with some remarks of Mr. John Sullivan. R.N., a gentleman who possesses a vast fund of information regarding the Indian Archipelago, and to whom I am indebted for many details regarding its commerce. He says:

To suppose that the almost countless islands in the ocean before-named (the Pacific) do not give many valuable articles, and particularly tortoiseshell and pearl, would be no less an error than to doubt the existence of the islands altogether.

No, the case is otherwise; and it is needless to say that in the quarter alluded to there are already a few American merchants, who have discovered by their China, whaling, and sealing voyages many sources of wealth, and who are at this moment reaping rich rewards for their toil, while 999 out of every thousand of the European world know nothing at all about it. Nevertheless there is yet a vast field open to the speculator, which must ever promise ample recompense for his confidence and outlay.

CHAPTER 13. AT SWAN RIVER.

PLAN FOR RETURNING TO THE NORTH-WEST COAST. WHY ABANDONED.

On arriving at the Mauritius I found that my stay would be unavoidably protracted from the state of my wound, which the want of rest and attention had prevented from healing during the expedition, whilst my men were still suffering under the effects of the hardships and privations they had recently been subjected to; my first step therefore was to discharge the Lynher, and the next to consider a plan for future operations.

The rivers Fitzroy and Glenelg, simultaneously discovered by Captain Wickham and myself,

although of considerable magnitude, were only sufficient to account for the drainage of a small portion of the vast continent of Australia, and this interesting question, far from being placed in a clearer point of view by our expeditions, was if possible involved in deeper obscurity than ever. I was therefore anxious to return to the north-west coast and solve the mystery that still hung over those regions; but, after considering various plans and suggestions, in which I was kindly assisted by the advice and opinions of Sir William Nicolay, then Governor of the Mauritius, I was induced to forego the intention of proceeding again direct to the north-west, and to bend my course in the first instance to Swan River. There I could consult Sir James Stirling, the Governor, who had been instructed on our departure from England to afford us every assistance; and, according to the means which could then be obtained, I might either proceed again by sea to the vicinity of the Glenelg or the Fitzroy; or, if a proper vessel and equipments could not be had, I might endeavour to pass the range to the north-east of that colony, ascertain the direction of the streams which must be thrown off by it to the interior, and trace the main river into which they fell (if such there was) to its outlet.

PROCEED TO SWAN RIVER.

I accordingly embarked my party and the stores in my possession at Port Louis on the 21st August 1838, and arrived on the 18th September at Swan River, where I lost no time in communicating my views to Sir James Stirling, who concurred in the plan for returning to the north-west; and it was arranged that as soon as the colonial vessel *Champion*, then absent on a voyage to St. George's Sound, should come back to the Swan, it should be prepared for the conveyance to Camden Bay of myself and party, reinforced by such additional persons as might feel disposed to proceed there at their own cost for speculative purposes.

RETURN TO THE NORTH-WEST FRUSTRATED.

It was not however until the month of December following that the Colonial schooner became disposable, and then new impediments arose from her being found so much in want of repair as to be, in Sir James Stirling's opinion, scarcely in a condition to proceed on such a voyage as we contemplated, whilst the repairs required were of a nature which could not be effected in the Colony. From these and other considerations, more especially the danger and disappointment likely to be experienced for want of proper equipment, which it was found very difficult to supply at the Swan in an effective and satisfactory manner, the expedition to the North-west was deemed unadvisable and for the present given up.

It is unnecessary here to dwell on the mortification I felt at being obliged thus to abandon my long-cherished projects. The delays I had already experienced were sufficiently vexatious, but I had endeavoured to turn the time thus lost to some profit by endeavouring to acquaint myself with the resources of the country, as well as in acquiring information of a scientific nature, and I had attained such a knowledge of the language of the natives as enabled me to form a vocabulary of the different dialects spoken in these parts, which was printed and forwarded to England at the close of the year.

My excursions into the country from Perth whilst awaiting the arrival and fitting out of the *Champion* were necessarily short, but the journal of one to the northward, made in company with my young friend Mr. Frederick Smith, who afterwards fell a sacrifice in the expedition to Shark Bay, will I think be interesting enough to be inserted here.

EXCURSION TO THE NORTH OF PERTH.

November 30.

Mr. Smith and myself started at noon this day, accompanied by Corporal Auger and two natives, upon a trip in a northerly direction; about 5 P.M. we reached a lake distant about fifteen miles from Perth, and called by the natives Mooloore: we halted here for the night.

The horses were scarcely tethered and our fire made when four more natives joined the party; their names were Noogongoo, Kurral, Jeebar, and Dudemurry; they brought us a present of twenty-seven freshwater tortoises, the average weight of each of which was half a pound. They said that, although the lake was called Mooloore, the name of the land we were sitting on was Doondalup.

STORY-TELLING.

As soon as supper was finished they became very talkative, and, in a sort of recitative, recounted various adventures; and, when they conceived that they had sufficiently entertained me, they requested me to give them an account of my adventures in the northern part of the country, where they had heard from other natives that I had been for some time.

Having now acquired some knowledge of their language, I was able to make myself tolerably intelligible to them, and they listened with the greatest anxiety and interest to the various misfortunes that befel me. When they heard that I had been wounded by the natives to the north no persuasions or protestations upon my part could convince them that my object in now proceeding in that direction again was merely to gratify curiosity, and not from motives of revenge; but they kept continually requesting me not to attempt to kill anybody until I had passed a spot named Yalgarrin, about ten days journey to the north, and they then advised me

indiscriminately to shoot everybody I saw; and were the more urgent in pressing the adoption of this course upon me from the fact of a quarrel existing between some of their relatives and the tribe dwelling there.

After I had exhausted the theme of my northern journey they desired me to give them some information with regard to England; I therefore related various circumstances which I thought would amuse them. Amongst other things I described the track of the sun in the heavens in those northern latitudes; this they fully understood, and it excited their most unqualified admiration. I now spoke to them of still more northern latitudes; and went so far as to describe those countries in which the sun never sets at a certain period of the year.

ITS IMPRESSION ON THE NATIVES.

Their astonishment now knew no bounds: "Ah I that must be another sun; not the same as the one we see here," said an old man; and in spite of all my arguments to the contrary, the others adopted this opinion. I wound up the night's conversation by an account of the diminutive Laplanders, clothed in skins of the seal instead of kangaroo; and amidst the shouts of applause that this account excited I laid down to rest. I this night observed a circumstance which had often before struck me, namely, that savages care but little for narratives concerning civilized man, but that anything connected with other races in the same state is most greedily received by them.

December 1.

Before sunrise this morning the two natives Yenmar and Nganmar, who had accompanied us from Perth, came to me and said that, from what I had told them last night, it appeared that some cause of quarrel existed between myself and the natives to the north; and that, however pacifically I might now express myself, they felt convinced that, if a fair opportunity offered, I should revenge myself upon some northern native. Now they, being southern men, had nothing whatever to do with these quarrels and disputes, and therefore they should at once return to Perth.

I did my utmost by means of protestations and promises to induce them to forego this resolution, but in vain; and the only boon I could gain from them was that they would accompany me to another tribe, distant about five miles, some of whom would probably go on with me; they, at the same time, assured me that they would preserve the most profound secrecy as to the fact of my having any cause of quarrel to the northward; and advised me to hold my tongue upon this point and quietly shoot the first man I saw there.

MEETING WITH OTHER NATIVES.

Finding that the arrangement pointed out by these natives was the only one I could adopt I was obliged to follow their advice, and we accordingly moved off in a north-east, and then north-east by east direction. After travelling over about four miles of country we heard the distant cries of natives, and soon after came up with and found them engaged in the pleasant occupation of carrying two wounded men on their shoulders into Perth. These men had quarrelled and had settled the dispute to their mutual satisfaction, as well as to that of their friends, by spearing each other through their respective thighs. One of the poor fellows was very ill and told me that his intention was to sit down at my house in Perth until he was well--and he kept his promise.

I had many friends amongst these natives and soon selected four to accompany me, their names were Warrup, Jenna, Dwer, and Ugat. There were five northern natives with the tribe who had never seen white men; they seemed to view us with great suspicion at first, but the present of a little bread soon placed us on the most friendly terms; and, after about half an hour's halt, we separated, they proceeding to Perth whilst we pursued a northerly course. After having made about four miles in this direction we halted for the day at the head of the Lake Moolore.

LAKE COUNTRY.

December 2.

We started before dawn, travelling in nearly a straight line across the country, our compass course being 329 degrees from the north. After we had made about three miles we reached a swampy lake, called Nirrooba, covered with wild-fowl. We here halted and prepared our breakfast whilst the natives went out to hunt. I soon shot a brace of wild ducks, and they speared nine; I now gave little Ugat my gun, and he brought in four more ducks, making a total of fifteen. Part of these we cooked, and kept the remainder for our dinner. I forgot to mention that we yesterday shot twelve parakeets.

I wandered for some distance about the eastern side of this lake and saw some very good land, I should say at least fifty acres; and, in addition to this land of the best quality, there was plenty of good feed for cattle all round the lake.

DELAY, AND BIVOUACK.

At 2 P.M. we started again in a due north direction and, having proceeded about four miles, reached a lake called Nowoorgoop. We now changed our course to north and by west, and, after travelling six miles more, came to a lake called, by the natives, Beeulengurryup; the water was

however so thick and muddy that I determined, although it was getting late, to proceed further; we therefore changed our course to north and by east, and after travelling for about four miles more reached another lake, called Maubeebee. This lake was about three-quarters of a mile long. Mr. Smith's feet had latterly become so sore that he had been compelled to tie pieces of kangaroo skin over them, and thus equipped to walk without his half-boots; and, on coming in to our bivouac, I had the mortification to hear that, having been put carelessly on the horses, one of these boots had fallen down; I saw therefore that it would be necessary to let him and a native go back the next day upon the two horses we had with us for the purpose of finding it. To Europeans it would seem rather a visionary task to travel twelve or fourteen miles in a trackless forest in the hope of recovering a boot, but the natives' eyes are so keen that their finding it amounted to a matter of certainty.

LOVELY BIVOUACK.

Our bivouac this night had a beauty about it which would have made anyone possessed with the least enthusiasm fall in love with a bush life. We were sitting on a gently-rising ground which sloped away gradually to a picturesque lake surrounded by wooded hills, whilst the moon shone so brightly on the lake that the distance was perfectly clear, and we could distinctly see the large flocks of wildfowl as they passed over our heads and then splashed into the water, darkening and agitating its silvery surface; in front of us blazed a cheerful fire, round which were the dark forms of the natives, busily engaged in roasting ducks for us; the foreground was covered with graceful grass trees and, at the moment we commenced supper, I made the natives set fire to the dried tops of two of these, and by the light of these splendid chandeliers, which threw a red glare over the whole forest in our vicinity, we ate our evening meal; then, closing round the fire, rolled ourselves up in our blankets and laid down to sleep.

December 3.

At dawn this morning Mr. Smith and Warrup started on the horses in search of his boot; and I spent the day in shooting wildfowl and various kind of game, as well as in collecting words from the natives for my vocabulary. About 4 P.M. Mr. Smith returned with his boot and we all retired early to rest.

December 4.

We started at sunrise and travelled about six miles in the direction of 17 degrees, and then halted for breakfast at a lake called Boongarrup. The whole of the country we passed over this morning was sandy and bad, being thinly clothed with Banksia trees; but immediately about the lake there was, as usual, good land. We started immediately after breakfast as the natives told us we had a long journey to make. Our course now lay in the direction of 13 degrees. The country we passed over was still of the same sandy nature; and after travelling about ten miles we made another lake.

STRANGER TRIBE. NATIVE TOILETTE.

The natives here saw the recent signs of strange blacks and insisted upon my coming to a halt whilst they painted themselves and made sundry additions to their toilette. I urged my remonstrances upon this head, but it was in vain. They said that we should soon see some very pretty girls; that I might go on if I liked, but that they would not move until they had completed their preparations for meeting their fair friends. I therefore made the best of it and sat myself down whilst they continued adorning themselves. This being done to their satisfaction, they came and requested my opinion as to their appearance; and as I intimated my most unqualified approval they became in high spirits, and gave a very animated description of the conquests they expected to make.

This weighty affair having been completed we again moved on, the natives keeping a careful lookout for the friends they expected to see. They at length espied one sitting in the rushes looking for small fish; but no sooner did he see the approaching party than he took to his heels as hard as he could, and two others whom we had not before observed followed his example.

MEETING WITH A NEW TRIBE.

Our native comrades now commenced hallooing to the fugitives, stating that I had come from the white people to bring them a present of rice and flour. Moreover Jenna shouted out to his uncle, "Am not I your nephew--why then should you run away?" This and similar speeches had, at length, the desired effect. First one of them advanced, trembling from head to foot, and when I went forward to meet him and shook hands with him it reassured the others, and they also joined our party, yet still not without evident signs of fear. An old man now came up who could not be induced to allow me to approach him, appearing to regard me with a sort of stupid amazement; neither horses or any other of those things which powerfully excited the curiosity of the others had the least charm for him, but his eyes were always fixed on me with a look of eagerness and anxiety which I was unable to account for.

We explained to the strange natives that we intended to halt for the night in this neighbourhood, and asked them to show us a good spot with plenty of water and grass. At the same time those I had with me stated to the others that unless the women and children came in I would give no rice

or flour. This declaration was however wholly unauthorised by my sanction, and arose from their desire of exhibiting their personal attractions to the ladies of these parts; but, feeling rather disposed to see a little savage flirtation, I raised no objection to it.

The oldest of the natives, who appeared to regard me with so much curiosity, went off for the purpose of collecting the women whilst we proceeded to our place of halt. After going about three miles in a due north direction we made a river coming from an east and by south direction, and here called by the natives Goonmarrarup; it lies in rather a deep valley, and at this point consisted of large pools connected by a running stream about 20 yards wide. There was plenty of wildfowl upon these pools and Ugat soon shot some for us.

SCENERY.

The scenery here was very picturesque: high wooded hills were upon each side of us, and the valley was open and rather thinly timbered; but the few trees it contained were of considerable size and beauty. Beneath one of these we prepared our bivouac, the strange natives doing their utmost to render themselves useful. They had never before seen white people, and the quickness with which they understood our wants and hastened to gratify them was very satisfactory.

MEETING WITH NATIVE WOMEN.

After we had tethered the horses and made ourselves tolerably comfortable we heard loud voices from the hills above us: the effect was fine for they really almost appeared to float in the air; and as the wild cries of the women, who knew not our exact position, came by upon the wind, I thought it was well worth a little trouble to hear these savage sounds under such circumstances. Our guides shouted in return, and gradually the approaching cries came nearer and nearer.

CURIOUS SUPERSTITION. CEREMONIES.

I was however wholly unprepared for the scene that was about to take place. A sort of procession came up, headed by two women down whose cheeks tears were streaming. The eldest of these came up to me and, looking for a moment at me, said, "Gwa, gwa, bundo bal," "Yes, yes, in truth it is him;" and then, throwing her arms round me, cried bitterly, her head resting on my breast; and, although I was totally ignorant of what their meaning was, from mere motives of compassion I offered no resistance to her caresses, however disagreeable they might be, for she was old, ugly, and filthily dirty; the other younger one knelt at my feet, also crying.

At last the old lady, emboldened by my submission, deliberately kissed me on each cheek, just in the manner a French woman would have done; she then cried a little more and, at length relieving me, assured me that I was the ghost of her son who had some time before been killed by a spear-wound in his breast. The younger female was my sister; but she, whether from motives of delicacy or from any imagined backwardness on my part, did not think proper to kiss me.

My new mother expressed almost as much delight at my return to my family as my real mother would have done had I been unexpectedly restored to her. As soon as she left me my brothers and father (the old man who had previously been so frightened) came up and embraced me after their manner, that is, they threw their arms round my waist, placed their right knee against my right knee, and their breast against my breast, holding me in this way for several minutes. During the time that the ceremony lasted I, according to the native custom, preserved a grave and mournful expression of countenance.

This belief, that white people are the souls of departed blacks, is by no means an uncommon superstition amongst them; they themselves, never having an idea of quitting their own land, cannot imagine others doing it; and thus, when they see white people suddenly appear in their country, and settling themselves down in particular spots, they imagine that they must have formed an attachment for this land in some other state of existence; and hence conclude the settlers were at one period black men, and their own relations. Likenesses either real or imagined complete the delusion; and from the manner of the old woman I have just alluded to, from her many tears, and from her warm caresses, I feel firmly convinced that she really believed I was her son, whose first thought upon his return to earth had been to re-visit his old mother, and bring her a present. I will go still farther and say that, although I did not encourage this illusion, I had not the heart to try to undeceive the old creature and to dispel her dream of happiness. Could I have remained long enough to have replaced this vain impression by a consoling faith I would gladly have done it; but I did not like to destroy this belief and leave her no other in the place of it.

The men next proceeded to embrace their relation Jenna in the same manner they had before done me; and this part of the ceremony was now concluded.

The women, who had retired after having welcomed me, again came in from behind some bushes, where the children all yet remained and, bringing several of them up to me, insisted on my hugging them. The little things screamed and kicked most lustily, being evidently frightened out of their wits; but the men seized on and dragged them up. I took the youngest ones in my arms, and by caresses soon calmed their fears; so that those who were brought afterwards cried to reach me first, instead of crying to be taken away.

A POINT OF HONOUR.

A considerable time had been occupied by these various occurrences, which to me had been most interesting; but one of a more painful character was now to follow. It appears that a sister of the native Jenna had been speared and killed by a man who at present was resident with this tribe; and, although most of them were on friendly terms with this native, they conceived that Jenna was bound to revenge her death in fair and open fight. The old lady (my mother) went up to him and, seizing his merro, or throwing-stick, told him that the man who had killed his sister was at a little distance; "and if," said she, "you are not a man, and know not how to use this, let a woman's hand try what it can do," at the same time trying to force it from him. All the time that she was thus pretending to wrench his merro away she indulged in a most eloquent speech to endeavour to rouse his courage. I do not know enough of the language to translate it with proper spirit or effect, as I only caught the general meaning: it had however a great effect on Jenna; and some young ladies coming in at the conclusion, his mind was instantly made up; indeed the certainty that bright eyes were to look upon his deeds appeared to have much the same effect upon him that it had upon the knights of old and, jumping up, he selected three good spears (all the men being willing to lend him theirs) and hurried off to an open space where his antagonist was waiting for him.

NATIVE MODE OF COMBAT.

The combats, one of which was now about to take place, much resemble the ancient tournaments. They are conducted with perfect fairness. The combatants fight in an open space, their friends all standing by to see fair play, and all the preliminaries as to what blows are to be considered foul or fair are arranged beforehand, sometimes with much ceremony.

Taking into account the fantastic ornaments and paintings of the natives, the graceful attitudes they throw themselves into either when trying to avoid the spears of their enemy, or about to throw their own; and the loud cries and wild motions with which they attempt to confuse and terrify their adversaries, I must confess that if any exhibition of this nature can be considered showy or attractive, this has no ordinary claims to admiration.

NATIVE DUEL. REVENGEFUL COMBAT AND MURDER PREVENTED.

I am however not fond of shows in which the safety of my fellow-creatures is concerned, and on the present occasion was very anxious that nothing of the kind should take place; for before I could induce Jenna to come with me, I had passed my word for his safety, and I could not bear the thought of his being now either killed or wounded. When therefore the natives came to request our attendance at this spectacle, which they evidently expected would afford us great amusement, I intimated my decided disapproval of it: at first they imagined that this reluctance arose from some apprehension of a quarrel upon our parts, and to remove this the greater part of the men, who now amounted to sixteen, laid down their spears by our stores. I still however would not sanction the combat and, taking up my gun, intimated my intention of seeing that nothing was done to injure Jenna; upon this my brothers proceeded in a friendly way to hold me: which is exactly what one sees in England when two men, who have not the least intention in the world of hurting one another, declare in a loud tone their fixed determination of proceeding to the most desperate extremities; whilst mutual friends stand by and appear with the utmost difficulty to prevent them from putting their threats in execution. It was just in this manner that my soi-disant brothers held me, apparently not entertaining the least doubt but that I would easily allow myself to be persuaded not to interfere. I had now recourse to another expedient, and this was to declare to those about me that, if either of the combatants was wounded, I should instantly pack up the flour and rice and proceed to the white men's fires. This had the desired effect: those around me started off and put the holding system so effectually in force that the other natives and the two combatants soon came in.

Some of the natives who now approached told Mr. Smith that a cannon had been heard that morning in the direction of Fremantle; we therefore knew that a vessel had arrived, and this made me anxious to return to Perth; for, in the event of our obtaining canvas for the Champion's sails, I expected that vessel would be ready to take us in a few days to the north-west coast.

RETURN TO PERTH.

My anxiety to return was also increased by other reasons. Mr. Smith had, with the exception of the first few miles, walked the whole distance from Perth in pieces of kangaroo skin, and his feet were now in a dreadful state from the joint effect of thorns and bruises; he however never complained, and so much did I admire the quietness and perseverance with which he had borne up against so serious an inconvenience, that I was the more anxious to put an end to it as soon as possible. Besides it was evident that very deadly feelings existed between Jenna and the murderer of his sister, for he (Jenna) came and requested me to call this native my friend, at the same time to give him plenty of flour and rice, "And," added he, "by-and-bye, ask him to sleep at your fire; then, in the night, whilst he is asleep, I can easily spear him; and I will off, and walk to Perth." I however cooled Jenna's ardour by whispering to him that, if any quarrel was brought about by his attempting to spear this native, I should instantly shoot him; as I had no idea of running a risk of losing all our lives through his imprudence. This declaration had a very salutary effect, and my now giving the promised present of rice and flour entirely put a stop to all further differences.

The natives I had with me employed themselves in teaching the others, to whom flour was an

unknown commodity, the art of making dampers; whilst Mr. Smith and myself, having arranged to start for Perth early the next morning, mixed with the groups and visited their fires; the little children now crawled to our feet and, all fear being laid aside, regarded our movements with the greatest curiosity. After various amusing conversations and recountals of former deeds the natives gradually, one by one, dropped off to sleep; and we in turn, one always remaining on the watch, followed their example.

INVITATION TO A NATIVE FEAST.

December 5.

I should have stated, in justice to the natives, that they last night brought me the head and forequarters of a kangaroo, being the only game they had with them; and of this they offered to make me a present, which however I did not accept. They were again this morning very anxious that we should delay our journey for a day or two, promising upon their part, if we acceded to the request, to give us a grand entertainment at which all their young men would dance, and that we should have abundance of kangaroos if we would give flour in return. I deemed it however most prudent to hasten my return to Perth to see what vessel had arrived; therefore, after taking a cordial farewell of our friends, we moved off on our homeward route and reached Boongarrup about the middle of the day following, by a route rather to the westward of that by which we had come out.

December 6.

This morning we started at daybreak and breakfasted at Manbeebee, and immediately after breakfast resumed our route. I left the main party with two natives and travelled up a swampy valley running nearly in the same line as the chain of lakes we had followed in going. The natives insisted on it that these lakes were all one and the same water; and when, to prove to the contrary, I pointed to a hill running across the valley, they took me to a spot in it, called Yundelup, where there was a limestone cave, on entering which I saw, about ten feet below the level of the bottom of the valley, a stream of water running strong from south to north in a channel worn through the limestone. There were several other remarkable caves about here, one of which was called the Doorda Mya, or the Dog's House. Probably therefore the drainage of this part of the country is affected by the chain of lakes, which must afterwards fall into the river I saw to the northward. We slept at Nowoorgoop.

RETURN TO PERTH.

December 7.

We slept at Mooloore, and on the morning of the 8th we entered Perth and found that the native's information was true, for the Britomart had arrived from England.

I have already stated that on the arrival of the Champion her condition did not enable us to proceed in her, and all prospect of being able to conduct another expedition to the north-west coast being, for the present, abandoned, I could only await further instructions from the Government at home, and in the meantime resolved to employ the interval in some scheme of exploration from the Swan which did not present the same obstacles. Having again consulted Sir James Stirling, it was first arranged that I should endeavour to explore overland in the direction of Shark Bay; but this was soon abandoned on account of the difficulty of procuring horses; and, to enable me to attempt this scheme with any hope of success, I should consequently be obliged to incur a much greater expense than I felt warranted in doing.

The same objection did not however exist to the plan of exploring the coast towards Shark Bay in boats; and I imagined, if I could obtain two good ones qualified for the purpose, that I might at a small expense have some chance of making a successful trip. But there still existed a difficulty in getting boats which occasioned a further delay.

Sir James Stirling had now (January 1839) quitted the colony, having been succeeded in the government by John Hutt, Esquire, and, as no immediate prospect was apparent of accomplishing my present design, I readily acceded to a request made to me which led to another excursion to the southward of Perth, the principal circumstances of which are narrated in the following short journal.

EXCURSION IN SEARCH OF MR. ELLIOTT. CAUSE OF IT.

In consequence of a conversation I had with his Excellency the Governor on the morning of the 8th of January I received, in the afternoon of that day, a letter from the Colonial Secretary stating that:

From accounts which had been received from the Williams and Leschenault, there appeared every reason to believe that Mr. George Elliott, who left the former place for the latter on the 17th December, had lost his way, as no accounts of his arrival have been received from the Leschenault, the Williams, or any other place.

Under such circumstances His Excellency the Governor is anxious that a party in search of him should be despatched from Perth, and he has instructed me to inform you that, if you could form

such a party from your own establishment, you would be rendering a service to the local government, etc. etc.

As I had at this moment no matter of importance to occupy the party I resolved to follow that course which the calls of humanity pointed out to me, and within an hour from the receipt of this letter Mr. Walker, myself, and the two non-commissioned officers of the Sappers and Miners were ready to proceed. It was found however impossible to procure the necessary horses for us before the next day, and our departure was consequently delayed until the morning of the 9th.

Before entering into the details of this expedition it is requisite to give a short outline of the circumstances under which we started. The Williams River, from which Mr. Elliott had proceeded, is distant about seventy miles from Leschenault in a direct line. The Williams is in the interior, and the Leschenault on the sea-coast, and between the two places lies the Darling Range, a high chain of mountains which had never before been crossed at this point. Now, under ordinary circumstances Mr. Elliott might have been expected to have reached Leschenault in three or four days. He had therefore only carried with him a supply of provisions calculated to last for that period. His party consisted of two men besides himself, and he had with him a mare and filly.

His absence had however now unaccountably extended to a period of twenty days; and the only rational conclusion that could be arrived at was that he had either been murdered by the natives or had lost his way.

The Williams is distant from Perth in a direct line about one hundred and twenty miles, and I had thus a considerable journey to perform before I could get upon Mr. Elliott's tracks; and as this was the bad season of the year there was but little hope that we should be able to follow them for any great distance, if we ever succeeded in finding them.

Notwithstanding these various discouraging circumstances I still however felt warm hopes for his ultimate safety. He was well acquainted with the bush, having been ten years in the colony; and the same articles of food which formed the subsistence of the natives would at least enable him to maintain life for a considerable period. He had moreover with him two horses, which past experience had taught me not only to be a nutritious, but even an agreeable article of food. I imagined therefore that no immediate danger of starvation need be apprehended; and in order that I might have the best possible chance of finding his traces three intelligent natives, Miago, Denmar, and Ninda, were engaged to accompany me.

On the morning of the 9th however, when the party were all ready to start, these natives were not forthcoming. The length of the journey and the danger of falling in with hostile tribes had frightened them, and they therefore kept themselves aloof from us; but Kaiber, one of the most intelligent natives of these parts, volunteered to supply their place. Our three horses were soon swum across the estuary of the Swan; and with no slight anxiety I started on an expedition upon the proper conduct of which would probably depend the lives of three of my fellow-creatures.

ROUTE TO THE MURRAY.

Our proceedings until we had reached Pinjarra on the banks of the Murray offer little or no interesting matter; I shall therefore pass them over in silence. We arrived in Pinjarra on the morning of the 11th, having been somewhat delayed by the weakness of a young horse; as there was however no possibility of obtaining another in its place I was obliged to take it on with us. On the afternoon of the 11th we made little more than four miles in a southerly direction along the banks of the Murray.

THE MURRAY RIVER.

On the 12th we started before dawn and travelled about eight miles in a south by east direction; we then halted for breakfast on the banks of the same river, which here issues out of the Darling Range after having found a passage through that chain of mountains. Whilst breakfast was preparing I walked up into the mouth of the gorge, which was replete with most wild and beautiful scenery at this point. The river comes streaming out from a rocky mountain pass, forming in its course a series of small cataracts. The vale in which it runs offers an interesting specimen of woodland scenery, and the high, bold, and partially bare granite mountains which rear their heads above it differ much in character from the tame mountain scenery that lies between Perth and York: this place is a favourite resort of the wild cattle, and we saw everywhere numerous recent traces of them.

WILD CATTLE.

In the afternoon we again started in a south by east direction. About a mile after leaving the Murray we came suddenly upon four head of wild cattle; two, which were distant from us, made off to the mountains, but a noble white bull and a cow followed a line lying exactly in the course we were pursuing. As we had one saddle-horse, which I was then on, I could not resist having a gallop after them. I soon brought the bull to bay, but when he had taken breath he turned and made off again and, as I had no time to spare, I gave him no further interruption; on however wishing to ascertain the hour I found that my watch had fallen from my pocket during the course of the gallop.

NATIVE TRACKING.

I now waited until the party came up, when I requested Kaiber the native to walk back and find the watch. This he assured me was utterly impossible, and I really at the time agreed in this opinion; however as it was a watch I much valued I determined to make one effort. "Well, Kaiber," I said to him, "your people had told me you could see tracks well, but I find they are mistaken; you have but one eye, something is the matter with the other (this was really the case) no young woman will take you, for if you cannot follow my tracks and find a watch I have just dropped how can you kill game for her." This speech had the desired effect, and the promise of a shilling heightened his diligence, and I returned with him. The ground we had passed over was badly suited for the purpose of tracking and the scrub was thick; nevertheless, to my delight and surprise, within the period of half an hour my watch was restored to my pocket. This feat of Kaiber's surpassed anything of the sort I had previously seen performed by the natives.

We completed about eight miles and then halted for the night on the banks of a running stream issuing from a gorge in the hills. There was a considerable portion of good land in its neighbourhood and the horses appeared not a little pleased with the excellence of the feed.

The 13th we spent in passing a portion of the Darling Range. After travelling for eleven miles over a hilly country we came upon a beautiful valley between two steep and high hills. Two streams poured down into this valley and there formed a small freshwater lake. The scenery here was so green and verdant, the tranquil little lake was so covered with broad-leaved waterlilies, and the whole wore such an air of highland mountain scenery that I could readily have imagined I was once more in Scotland. About this lake there was also much good feed.

CROSS THE DARLING RANGE.

In the course of the afternoon we travelled eight miles further in an easterly direction, and were then obliged to halt without water, which we did not again succeed in finding after we left the lake.

TO THE HOTHAM RIVER.

On the morning of the 14th we had only travelled six miles in a due easterly direction when I found we had crossed the Darling Range; our course now lay along a level fertile plain, well fitted for pastoral purposes. We travelled across this a distance of about five miles when we came upon the river Bannister, which here was nothing but a series of large pools with good feed for cattle about them. We halted for breakfast and afterwards continued in an easterly direction, when, after travelling for another six miles, we reached the Hotham. The land we passed over between the Bannister and Hotham was equal in goodness to any I have seen in Western Australia.

The circumstance of both water and feed abounding at the Hotham induced me to halt here for the night, and on the morning of the 15th we commenced our toilsome march from the Hotham to the Williams; the distance is about twenty-eight miles in a direct line; the country consisting of rocky hills, difficult to cross; and throughout the whole of this distance we could find no water: we were thus for eleven hours exposed to the sun in one of the hottest days I have ever felt, and we were not a little glad when just at sunset we found ourselves on the banks of the Williams.

CONDITION OF DISTANT SETTLERS.

We here found the establishment of an out-settler, of which it would be difficult to convey an adequate idea: the house consisted of a few upright poles, one end of each resting on the ground, whilst the other met a transverse pole, to which they were tied; cross-poles then ran along these, and to complete the building a sort of rude thatch was tied on it. It was open at both ends and exposed to the land wind, which, as the situation was high, I found a very unpleasant visitor during the night. Here we found a very large flock of sheep in fair condition, also a well-supplied stockyard, and cattle in beautiful order; upwards of twenty kangaroo dogs completed the establishment.

These settlers were, at the time I visited the Williams, four in number; consisting of one young man, two youths, and a little boy. Four soldiers were quartered about sixteen miles from them, and there was no other European within fifty miles of the spot. The distance they had to send for all stores and necessaries was one hundred and twenty miles, and this through a country untraversed by roads and where they were exposed to the hostility of the natives in the event of any ill-feeling arising on their part.

Nothing can give a more lively notion of the difficulties and privations undergone by first settlers than the fact that, when I left this hut, they had no flour, tea, sugar, meat, or any provision whatever except their livestock and the milk of the cattle, their sole dependence for any other article of food being the kangaroo dogs, and the only thing I was able to do in order to better their situation was to leave them some shot.

All other circumstances connected with their position were on the same scale. They had but one knife, an old clasp one; there was but one small bed for one person, the others sleeping on the ground every night, with little or no covering; they had no soap to wash themselves or their clothes, yet they submitted cheerfully to all these privations, considering them as necessary

attendants upon their situation. Two of these out-settlers were gentlemen, not only by birth but also in thought and manner, and, to tell the truth, I believe they were far happier than many an idle young man I have seen lounging about in England, a burden to himself and his friends; for it must be borne in mind that they were realizing a future independence for themselves.

THEIR PRIVATIONS.

Many of the ills and privations which they endured were however unnecessary, and were entailed upon them by the mistaken system that has been pursued at Swan River of spreading to the utmost their limited population. I trust however that a wiser line of policy will now be pursued, and that settling will consequently become an easier, less dangerous, and far more agreeable task.

ROUTE ALONG MR. ELLIOTT'S TRACKS. TRACKING MR. ELLIOTT.

On the morning of the 16th Mr. Walker went to the Upper Williams, where the soldiers were quartered, for a further supply of provisions, whilst the native and myself tried to make off Mr. Elliott's tracks, in doing which we were not however successful. The next morning, previously to Mr. Walker's return, I renewed my search with Kaiber for the tracks with a little more success, as amidst the numerous traces of cattle and horses along the bed of the river the native was able by his acute eye to discover the footsteps of a colt. When Mr. Walker returned the little boy belonging to the establishment came back with him. He had seen Mr. Elliott start and assured me that he had heard him express his determination of keeping the bed of the river for eighteen miles. With this piece of information we moved on down the river on the tracks which we were able to distinguish for about two miles and a half, when they quitted it in a south-south-west direction; and from the hard nature of the ground the tracking from thence became excessively difficult. If the colt had traversed this route, its little foot had made no impression on the soil; and when we got on the ironstone hills, we altogether lost the traces of the horse. Both the native and myself imagined, from our seeing no tracks of the colt, from the indistinctness of those of the horse, and from the circumstance of the boy's telling us that Mr. Elliott intended to proceed eighteen miles down the river, that we had followed the wrong marks; just therefore as night began to fall I moved back to the river.

January 18.

We started at dawn, following down the river, but could see nothing of Mr. Elliott's tracks: and our evening journey was equally unsuccessful. I now became very anxious and indeed rather alarmed for the safety of the missing party, but resolved, as the best plan I could pursue, to strike across the mountains to Leschenault, making a due west course my true line of route, but constantly diverging two or three miles to the south of this, and again returning to it by another route. I should thus have every chance of falling in with the track I wished to find; and in the event of my not succeeding I should be certain, if on my arrival at Leschenault no tidings had been received of Mr. Elliott, that his party must be somewhere to the southward and eastward of the course I had taken, and that I might still, by the assistance of the Leschenault natives to whom this country was known, succeed in finding him before such a period had elapsed as would render assistance useless.

KILLING A KANGAROO.

On the 19th, in pursuance of this determination, we made a rapid push of nearly twenty miles in a westerly direction without reckoning our divergencies to the southward. Nothing however but toil and disappointment rewarded our exertions. We killed a large Boomer, or old male kangaroo, the largest indeed I had ever seen; the dogs were unable to master him he fought so desperately, and it was not until after he had wounded two of them that I succeeded in dispatching it by a sort of personal encounter in which a club was the weapon I used. The native who was carrying my gun had dropped it the instant the kangaroo was started, and I was thus unable to shoot it. We cut off as much of the flesh as the dogs and ourselves required for two days and left the rest in the forest. We halted for the night on a small stream, the only one I had seen since we quitted the Williams.

COUNTRY UPON THE HARVEY RIVER.

Our departure was delayed on the morning of the 20th for about an hour from being unable to find one of the horses which had strayed away in the night, but, the fugitive being at length discovered and brought back, we started and made nine miles before breakfast. We then travelled nine and a half miles more, when we came upon the river Harvey near its source. The character of the country we had travelled over since entering the mountains was monotonous in the extreme. It consisted of an elevated tableland composed of ironstone and granite occasionally traversed by veins of whinstone. On this tableland there was little or no herbage; the lower vegetation consisting principally of a short prickly scrub, in some places completely destroyed by the native fires; but the whole country was thickly clothed with mahogany trees, so that in many parts it might be called a dense forest. These mahogany trees ascended, without a bend or without throwing off a branch, to the height of from forty to fifty feet, occasionally much more, and the ground was so encumbered by the fallen trunks of these forest trees that it was sometimes difficult to pick a passage between them. Even at midday the forest wore a sombre aspect, and a stillness and solitude reigned throughout it that was very striking. Occasionally a

timid kangaroo might be seen stealing off in the distance, or a kangaroo-rat might dart out from a tuft beneath your feet; but these were rare circumstances. The most usual disturber of these wooded solitudes were the black cockatoos; but I have never in any part of the world seen so great a want of animal life as in these mountains.

Upon our gaining the Harvey however the scene somewhat changed; the river here bore the appearance of a mountain trout-stream, sometimes gurgling along with a rapid current, and sometimes forming large pools. The tableland could no longer be distinguished as it here changed to a broken chain of hills traversed by deep valleys; the scrub was higher and entwined by a variety of climbing plants, which rendered it very difficult to traverse; the mahogany trees became less frequent, and various others were mingled with them, whilst on the banks of the river good forage abounded. We made about five miles more through a country of this description and then halted for the night.

LOSE THE TRACKS. NATIVE GRAVE.

January 21.

We did not make more than seven miles before breakfast this morning, being embarrassed both by high and tangled underwood and rocky hills. We then halted on the banks of the Harvey, where there was some beautiful grass. We had still been able to find nothing of Mr. Elliott's tracks, and had in vain looked for natives: but this evening, soon after starting again, for the first time signs of them appeared, for we found a newly-made grave, carefully constructed, with a hut built over it to protect the now senseless slumberer beneath from the rains of winter. All that friendship could do to render his future state happy had been done. His throwing stick was stuck in the ground at his head; his broken spears rested against the entrance of the hut, the grave was thickly strewn with wilgey or red earth; and three trees in front of the hut, chopped with a variety of notches and uncouth figures and then daubed over with wilgey, bore testimony that his death had been bloodily avenged.

KAIBER'S FEARS.

The native Kaiber gazed with a degree of concern and uneasiness on this scene. "A man has been slain here," he said. "And what, Kaiber," I asked him, "is the reason that these spears are broken, that the trees are notched, and that wilgey is strewn on the grave?" His answer was, "Neither you nor I know: our people have always done so, and we do so now." I then said to him, "Kaiber, I intend to stop here for the night, and sleep." "You are deceiving me," he said: "I cannot rest here, for there are many spirits in this place." I laughed at his fears, and we again moved on.

WANT OF WATER.

We now soon got clear of the hills and came out upon a plain of good land, thickly covered with grass-trees. This plain was about three miles in width and, having traversed it, we found ourselves in a sandy country abounding with Banksia trees. We crossed several swamps, now completely dried up, and having made ten miles halted for the night without water. Mr. Walker scraped a hole in one of these swamps and obtained a little putrid and muddy water which, not being very thirsty, I did not drink, more especially as we had now, or indeed for several days, had no tea or anything else to mix with it.

January 22.

We started again at dawn this morning and travelled rapidly, for we were anxious to obtain water. In six miles we came out upon the sea. If my reckoning was right we ought now to have been about ten miles to the north of Leschenault; I therefore turned due south. Kaiber however now came up and remonstrated against this, assuring me that I was wrong and that we were, at this moment, two or three miles to the south of Leschenault, and that if I persisted in going on in this direction we should all die for want of water. As I put great faith in his knowledge of the country I halted and ascended a hill to try and get a view along the coast; I could not however succeed on account of the haze; and believing then that I must be in error I turned north. We trudged on, hour after hour; the sun got higher and more intensely hot, whilst, having been four-and-twenty hours without water, the greater part of which time had been spent in violent exercise under a burning sun, the pangs of thirst became very annoying. A short period more convinced me that I was right, and that Kaiber was in error; and, as we soon after fell in with two native wells now dried up, we dug another in a promising-looking spot near them, and obtained a little water, very muddy and stinking; but I never enjoyed a draught more in my life. We here halted for breakfast and by degrees obtained water enough for the horses as well as ourselves.

ESTUARY OF THE LESCHENAULT.

The evening was consumed in retracing our steps of the morning, and at night we halted near the head of the Leschenault estuary, being again without water.

January 23.

Our route this morning was along the estuary of the Leschenault. About five miles from this place we fell in with a party of natives, who informed us that a few days before Mr. Elliott and those with him had arrived there in perfect safety, and my anxiety on this point was therefore set at

rest. We passed the mouth of the river Collie at the bar, which was almost dry, and halted for breakfast on the banks of the Preston, about one mile from the house where I expected to find Mr. Elliott.

MEET WITH MR. ELLIOTT. MR. ELLIOTT'S ADVENTURES.

No sooner was breakfast despatched than I set off to see Mr. Elliott in order to hear the history of his adventures, which were not a little surprising. He had, as I before related, started on the 17th of December from the Williams, with only three days' provisions and, owing to some mistake, had taken a south-south-west course and gone off in the direction where we first saw his tracks, and had pursued this route for three days, when, seeing nothing of the coast, he suspected he must be wrong, and endeavoured to make a due west course; but from the impassable nature of the mountain range at this point was unable to do so. About this period also, owing to his powder-horn having been placed too near the fire, it was accidentally blown away, and he was thus left totally without protection in the event of any attack being made on them by the natives. His own courage and resolution however never failed, and he still made the best of his way to the southward, seizing every opportunity of making westing. For twelve days he pursued this course, subsisting on native roots and boiled tops of grass trees. About the sixth day he fell in with some natives; but they ran away, being frightened at the appearance of white men, and he thus could obtain no assistance from them. At this period the filly strayed away from the mare and was lost. His men behaved admirably; and on the fourteenth day the party succeeded in reaching Augusta, having previously made the coast at the remarkable white-sand patch about fifty miles to the eastward of it.

Notwithstanding the hardships and sufferings they had undergone this party were but very little reduced in strength and, after recruiting for a few days at Augusta, returned along the coast to Leschenault, where I had the pleasure of seeing them all in good health and spirits.

THE VASSE DISTRICT.

January 21.

Whilst the party reposed themselves this day at Leschenault I hired a horse and rode along the shores of Geographe Bay for the purpose of seeing the Vasse district. The country between Leschenault and the Vasse differs from those other parts of Western Australia that I have yet seen in the circumstance that in several parts, between the sea and the recent limestone formation, basaltic rocks are developed. A long chain of marshy lakes lie between the usual coast sandhills and the ordinary sand formations, about which there is some good land and good feed. About the river Capel also there is a great deal of good land. The mouths of two estuaries that occur between the inlet of Leschenault and the bottom of Geographe Bay are both fordable. The district near the bottom of Geographe Bay contains much good land, consisting of level plains thickly covered with wattle trees; there are also at this season of the year extensive plains of dry sand, which bear exactly the appearance of a desert.

I passed the night at the house of Mr. Bussel, a settler who has the best and most comfortable establishment I have seen in the colony, and returned the next day to Leschenault with the intention of starting the following one for Perth.

RETURN TO PERTH. RIVER ABSORBED IN SANDY PLAINS.

January 26.

Mr. Elliott this day joined us on our route to Perth, which was attended with no circumstance worthy of notice until our arrival at Pinjarra. We travelled over extensive plains which in the rainy season of the year must be completely flooded, but in vain looked for the Harvey River and the other stream which flowed from the hills to the sea. I could find no watercourse in which they might probably flow, yet we had left them both running strongly at not more than ten miles from the point where we then stood. The truth was that they were absorbed in these marshy plains before they came within several miles of the sea; and what threw a still further light upon the subject was that, although these marshes were perfectly dried up and had a hard-baked appearance at the surface, yet if a hole about two or three feet deep was scraped in them water directly came pouring into it.

On the morning of the 29th we reached Pinjarra; on the 30th Mr. Elliott and myself rode as far as the Canning; and early on the 31st we had the pleasure of entering Perth together. [20. Map and Chart of the West Coast of Australia, from Swan River to Shark Bay, including Houtman's Abrolhos and Port Grey, from the Surveys of Captains Grey, Wickham, and King, and from other official Documents, compiled by John Arrowsmith.]

CHAPTER 14. FROM SWAN RIVER TO THE SHORES OF SHARK BAY.

PLAN OF EXPEDITION.

At length, in the middle of February, after a mortifying delay of nearly five months, an

opportunity occurred which held out every prospect of enabling me to complete the examination of the most interesting portion of the north coast, together with the country lying behind it.

Three whale-boats having been procured, an engagement was made with Captain Long of the American whaler Russel, of New Bedford, to convey my party and the boats to some point to the northward of Shark Bay, and there land us, together with a supply of provisions sufficient for five months. My intention was to form a provision depot in some island, and from that point to commence operations by the examination of the undiscovered portions of the bay; and, should circumstances occasionally render it desirable, I proposed to explore more minutely parts of the country as we coasted along, or to make excursions to such a distance inland as we might be able to penetrate.

Having completed the examination of the bay as far as we could with the provisions we carried from the depot, I intended to return to it and, after recruiting our stock, to make my way along the coast in the direction of North-West Cape; making excursions inland as before at such points as might seem to merit attention, and thus to continue to go northward until our provisions were so far exhausted as to compel us to return again to the depot; whence I finally proposed to continue my examination to the portion of the coast left unvisited to the southward of the depot, as far as Gantheaume Bay.

Several of the individuals who were to compose my party being now much experienced in the difficulties that attend explorations both on the coast and in the interior of the country, I felt that our enterprise was not so hazardous as at first it might appear to be, especially as Mr. Hutt had arranged with me as to a spot, to which, in the event of our not returning to Swan River within a certain period the Colonial schooner would be sent to look for us; and moreover the captain of another American whaler had promised to visit North-West Cape at the end of July, as it was his intention to remain in Exmouth Gulf during the season of the bay fishing. We had thus two chances of being discovered in case of any accident preventing us from effecting our previous return to the Swan River.

The unfortunate occurrence which frustrated my expectations of completing this design, and which threatened the eventual destruction of the whole party, will be narrated in its place.

FROM SWAN RIVER FOR SHARK BAY.

I had taken three whale-boats in order to have a spare one should any accident reduce the number; and everything being arranged I sailed in the Russel from Fremantle on Sunday February the 17th 1839 at 3 P.M. with the following party:

Mr. Walker, the Surgeon of the former expedition.

Mr. Frederick Smith, the young gentleman who had accompanied me on a former tour.

Corporal Auger and Corporal Coles, Sappers and Miners.

Thomas Ruston, Sailor.

The last three, together with Mr. Walker, had been with me on the first expedition, and to these were added:

H. Wood and C. Wood, Seamen.

Clotworthy, Stiles, and Hackney, taken as volunteers at Swan River.

And lastly, Kaiber, an intelligent native of the Swan.

Making in all twelve persons.

Our time during the voyage was occupied principally in getting the three whale-boats in order and making other similar preparations. Poor Kaiber the native was dreadfully sick from the first.

Sunday February 24 1839.

This evening we sighted the centre of Dorre Island, and stood in to within about two miles of the shore, which we found steep and rocky with a heavy surf breaking on it; we then tacked and stood off for the night.

LAND AT BERNIER ISLAND.

February 25.

Soon after daybreak we made the north-western part of Bernier Island and, doubling the point at Kok's Island, stood in to Shark Bay. Kok's Island is very remarkable: it is nearly a tableland, about a quarter of a mile in length, terminating in low cliffs at each extremity; and on the summit of this tableland are several large rocks which look like the remains of pillars. The land is low. By noon we were all disembarked on Bernier Island. The point I had selected for landing on was a sandy beach in a little bay, the southern extremity of which was sheltered from the south-east by a reef running off the point. Captain Long of the Russel made the shore rather to the northward

of the point I had chosen and, owing to his boat getting broadside on whilst they were landing the goods, he was knocked down under it and nearly drowned.

He had scarcely left us (though the Russel was then more than six miles off) when we found that our keg of tobacco had been left on board; the vessel was soon out of sight, and this article, so necessary in hardships where men are deprived of every other luxury, was lost to us. Everything else was however found correct. Whilst the men under Mr. Walker's direction were arranging the stores Mr. Smith, Kaiber, and myself started to search for water but were unsuccessful. Whilst on our return we saw three large turtles among some seaweeds in shoal water; and, after a good deal of floundering about and some tumbles amongst the breakers, we succeeded in turning them, and then brought a party armed with axes, etc. and cut them up. One part we immediately converted into soup, and the remainder was immersed in a cask of pickle as a store against unforeseen misfortunes. When these portions of the turtle were put into the brine long after the death of the animals, they quivered for several minutes, as if still endowed with the sense of feeling.

DESCRIPTION OF IT.

Bernier Island consists of recent limestone of a reddish tinge, containing many recent fossil shells, and having a coating of sand and sandy dunes which are arranged in right lines, lying south-east and north-west, the direction of the prevailing winds. The island does not afford a tree or a blade of grass, but only wretched scrubby bushes. Between the dunes regular beds of shells are forming which, when dried and light, are drifted up by the wind. The only animals we saw were kangaroo-rats, one pigeon, one small land- and many seabirds, a few lizards, mosquitoes, ants, crabs, oysters and turtle.

BURY THE STORES. INEFFECTUAL SEARCH FOR WATER.

February 26.

Early this morning we had finished burying our stores. The wind had freshened considerably about daylight, and throughout the day it blew nearly a gale from the south-east; it now looked so foul that I feared a long period of bad weather was about to commence. My own party, as well as the crews of the boats which came off from the whaler, had during the hurry and confusion incident on landing made very free with our supply of water, and as, from the appearance of the island, I felt very doubtful whether we should find any more, I put all hands on an allowance of two pints and a half a day, and then employed the men thus: one party under the direction of Mr. Walker worked at constructing a still, by means of which we might obtain fresh water from salt; another made various attempts to sink a well; whilst the native, another man, and myself traversed the island in search of a supply from the surface.

At night the result of our efforts were recounted, when it appeared that Mr. Walker had, by an ingenious contrivance, managed to have such a still constructed that we might hope, by means of it, if kept constantly working, to obtain just water enough to keep us alive. The party who had tried to sink a well had invariably been stopped by hard limestone rock in every place they had tried, and all their attempts to penetrate it by means of a cold chisel and pickaxe had proved abortive. The party which had been out with me searching for water had not seen the slightest sign which indicated its presence on the island: we had taken a spade with us, but wherever we dug had come down upon the solid rock. Under these circumstances I reduced the allowance to two pints a day.

February 27.

This morning it still blew nearly a gale of wind from the south-east. The men were occupied in the same manner as yesterday; but towards noon the wind moderated a little, and as we could find no water I resolved to make an effort to creep along shore to the southward.

LOSS OF A BOAT IN REEMBARKING.

My boat was soon launched in safety, but the Paul Pry, Mr. Walker's boat, was not so fortunate; the water in the bay deepened rapidly from the steepness of the bank, and the steersman, who was keeping her bow on whilst the crew were launching, got frightened from the depth of water and the violence of the surf, and let go his hold; when the next surf threw the boat broadside on to the sea and, there being nearly half a ton weight of stores in her, and the wind at this juncture unfortunately freshening, she was in the course of two or three minutes knocked completely to pieces. By this mischance all the stores in the boat were lost, and nothing but a few planks and some articles of clothing were recovered. I placed my own boat at anchor in a little cove for the night and, leaving two men in her as keepers, the rest of us swam ashore through the surf to render what assistance we could.

The loss of this boat was a very heavy misfortune to commence with; but as I had taken the precaution in case of such an accident to provide a spare one it was by no means irremediable; the other boat was all ready for launching within half an hour, for by not allowing the men to remain in a state of inactivity, and by treating the matter lightly, I hoped to prevent their being dispirited by this unlucky circumstance.

The wind however continued freshening rapidly, and during the evening and night we had heavy

squalls accompanied by rain from all quarters, and much thunder and lightning. During the night we collected a few quarts of water in the sails.

February 28.

About ten A.M. the wind moderated so much that we ventured to launch our remaining boat, now become the second, and in a few minutes both were riding alongside one another in the little cove. We then commenced pulling along the shore of the island, making about a south by east course. Having the wind very nearly right ahead, and a heavy head-sea, and about half a ton of stores in each of the boats, it was no very enviable position that we were in; but anything appeared preferable to dying of thirst on Bernier Island; my dislike to which was much increased from the fact of Mr. Smith and myself, who slept side by side, having been nearly tormented to death in the night by myriads of minute ants crawling over us, by mosquitoes stinging us, and by an odious land-crab every now and then running over us and feeling with his nippers for a delicate morsel.

PULL FOR DORRE ISLAND.

It was nearly three P.M. when we reached the north-eastern extremity of Dorre Island and found a most convenient little boat harbour, sheltered by a reef from all winds. We therefore stepped out from the boats upon the reef and left them lying comfortably at anchor: a search for water was instantly commenced; Mr. Walker's party brought some in and we were not a little glad to get it, although we heard that it had been collected by suction from small holes in the rock and then spitting it into the keg. I laid up in store this precious draught, and those who had been otherwise employed now accompanied me, in order that each might suck from the holes in the rock his own supply of water. The point on which we had landed was a flat piece of land covered with sandy dunes which appeared to have been recently gained from the sea, and on all the landward sides of the flat rose steep rocky cliffs, which is the character of the shores of this island. After climbing these cliffs you arrive at a flat tableland which forms the general level of the surface. It was evident that at no very distant time the sea had washed the foot of these cliffs.

DORRE ISLAND. ITS CHARACTER.

This island is exactly of the same nature as Bernier Island, the only difference being that the land here was rather higher than on the former. From the top of the cliffs the prospect was not at all inviting; to the westward lay the level and almost desert land of Dorre Island, which we were on; we had the same prospect to the southward; to the northward we looked over a narrow channel which separated us from the barren isle of Bernier and was blocked up by fearful-looking reefs, on which broke a nasty surf; to the north-eastward lofty bare sandhills were indistinctly visible on the main; whilst to the eastward we could see nothing but the waters of the bay, which were tossed wildly to and fro as if by a coming storm; yet the wind had fallen perceptibly, and the only alarming sign was the peculiar look of the sky. After having made these observations, and sucked up as much bitter dirty water as I could contrive to do, I returned with the others to the boats.

WANT OF WATER.

The holes we found the water in were so small that we could only dip a spoon into a few of them; the men however got plenty to drink and then commenced hunting a small species of kangaroo-rat which is found on these islands, and searching for turtle's eggs, in both of which pursuits they were very successful. We then made blazing fires from driftwood which we found about, and retired early to rest.

A HURRICANE.

About eleven o'clock I heard a cry of one in great distress, "Mr. Grey, Mr. Grey!" I instantly sprung up and answered the call, when Ruston, the boatkeeper in my boat, said, "I must heave all overboard, Sir, or the boat will be swamped." "Hold on for a minute or two," was my answer, whilst I stripped my clothes off. I found that it was blowing a terrific gale of wind which increased every moment in a most extraordinary manner; the wind was from the south-east, and the breakers came pouring over the reef as if the bay was going to empty bodily all its waters into the little cove in which the boats were anchored. I now called Mr. Walker and Mr. Smith and desired them to follow me off to the boats with two or three hands, and then swam out to my own, which I found nearly full of water, and it was all that the boat-keeper could do to keep her head on to the sea. In a minute or two Mr. Walker and Mr. Smith, who were ever foremost in difficulties and dangers, swam off to assist me, but they could not induce any of the men to face the sea and storm, which was now so terrible that they were all quite bewildered. Mr. Walker swam to his own boat; Mr. Smith came to mine. We made fast a line to all the stores, etc. and Mr. Smith boldly plunged in again amongst the breakers and returned ashore with it, a service of no ordinary danger, for the shore was fronted with a sharp coral reef, against which he was certain to be dashed by the waves, and, after having got on it, the breakers would keep knocking him down and thus cutting his legs to pieces against the rocks. Mr. Smith however reached the shore with the line, receiving sundry severe cuts and bruises; and, to my great surprise, in a few minutes more he was again by my side in the boat, baling away: it was still however all we could do to keep the boat afloat.

BOATS DRIVEN ASHORE.

Mr. Walker now called out to me that his boat was drifting, and in a moment more she went ashore. For one second we saw her dancing wildly in over the breakers, and then she disappeared from us, and we were left in uncertainty as to her fate; for, although we were close to the beach, it was impossible, amidst the din of elements, to hear what was taking place there. An occasional vivid flash of lightning showed us dark figures hauling about some huge object, and then again all was wrapped in roar and darkness. Mr. Smith and myself in the meanwhile were baling away, and Ruston was striving with the steer oar to keep her head to sea, for the instant she got the least broadside on the waves broke over her and she filled again.

SERIOUS DANGER OF LOSING THE BOATS.

Mr. Walker, nothing daunted by the conduct of the men, having had his own boat hauled up, again swam off to us, and for the next hour or two we kept the other one not more than half full; but the gale, which had been gradually increasing, now became a perfect hurricane, and it was evident that this boat must also go ashore. We imagined that Mr. Walker's must be stove in several places; and, as to have been left without a boat would have been certain destruction to us, I swam ashore to have the party ready to try and save mine by hauling her over the reef the instant she grounded.

I arrived there with a few cuts and bruises, and found the men on shore in a most miserable state; many of them were perfectly appalled by the hurricane, never having seen anything of the kind before, and were lying under the lee of the bow of Mr. Walker's boat, which, although he had drawn it up high and dry upon the sandhills, far above the usual high-water mark, was again more than half full of water and seaweed from the waves every now and then breaking over her stern. It was with great difficulty I roused the men and got them to clear out the seaweed, which lightened her somewhat; we then hauled her up a little at a favourable opportunity, and advanced her so far that we rather gained upon the water by baling, and thus, by degrees, got her quite on land. But as the storm continued the waves still continued to encroach upon the shore, and we were obliged to repeat this operation of hauling up three successive times in the night, which was one of the most fearful I have ever passed. I lay drenched through, my wet shirt sticking close to me and my blanket soaked with water, for I could not find my clothes again after I came ashore. Whenever a flash of lightning broke I looked if the boat was drifting in, and there I saw it still dancing about upon the waves, whilst the elements were so mighty in their power that I felt shrunk up to nothing, and tremulous in my own insignificance.

The grey dawn stole on and the boat gradually became visible; she had drifted somewhat nearer shore, but there still were the three figures discernible in her, Ruston working away at the steer-oar, and Mr. Smith and Mr. Walker alternately baling. The storm now appeared to lull a little and in a few minutes (about half-past five A.M.) it suddenly dropped. The men now looked out again and I could hear Ruston saying, "I believe we are now safe, Sir;" and I immediately ordered that two men should go off and relieve Mr. Smith and Mr. Walker. They evidently feared to make the attempt and said they could not swim, which was true as far as some of them were concerned. I then ordered successively three men who I knew could swim to take advantage of the lull and gain the boat: they all attempted it, but before they got clear of the reef their hearts failed them, and they declared they could not contend with the waves.

RENEWAL OF THE STORM.

Just as the last man had failed, the wind, which had hitherto been from the south-east, shifted instantaneously to the north-west. We all quailed or fell before it, for it came with sudden and indescribable violence; the boat appeared to hesitate for one moment, in the next she came dancing wildly in on the shore. The men reached her as well as they could and we dragged her up. The storm now became so violent that even Mr. Walker, who was a heavy man, was blown about by it like a child; there was not a tree on the island, but the bushes were stripped from the ground, and I found it impossible to keep my legs.

The sea all this time kept rising, being heaped up by the wind against the shore, but whenever a momentary lull came we took advantage of it to drag the boat a little further up; indeed the sea gained on us so much that I had made up my mind it would sweep away the intervening sandhills and once more wash the face of the cliffs. In this case we should to a certainty have all perished.

DISTRESS FOR WATER.

At two P.M. the storm lulled considerably, and I immediately despatched men in all directions to collect water from holes in the rocks, and made the native and an old bushman try to light a fire; for those of us who had been all the night and morning in the pelting rain, with nothing but our shirts on, were benumbed and miserable from cold.

March 1.

The men who had gone out for water soon returned and reported that they had been able to find very little which was not brackish from the spray having dashed over the island; I therefore again reduced the allowance to one pint a day and proceeded to inspect damages. Yesterday we had started in good boats, with strong men, plenty of provisions, everything in the best order; today I found myself in a very different position, all the stores we had with us, with the exception of the salt provisions, were spoilt; our ammunition damaged; the chronometers down; and both boats so

stowed and strained as to be quite beyond our powers of repairing them effectually. Moreover from want of water we were compelled to make for the main before we could return back to Bernier Island to recruit from our ample stores there.

REPAIR OF THE BOATS.

Nothing however could be done but to have the boats rendered as seaworthy as possible and, having given this order, the want the men experienced for water was the best guarantee that they would execute this task with the utmost diligence. As soon as I saw them at their work I started with a party in search of water whilst another party under Mr. Smith dug for it; and Mr. Walker superintended the rearrangement of the stores and the digging up the seaweed for the purpose of recovering lost articles. I returned just before nightfall from a vain search; Mr. Smith had been equally unsuccessful in his digging operations, and we thus had to lie down upon the sand parched with thirst, our only chance of forgetting our misfortunes being a few minutes sleep.

THE BOATS NEARLY READY.

March 2.

The men continued working hard at the boats, and it appeared that their task would be concluded this day. I once more started to look for water and to examine the island; but our search was again unsuccessful. On measuring the distance that the sea had risen I found that it had spread up in the direction of our boats fifty-three yards above high water mark; but what will give a better idea of the hurricane is the circumstance of my catching a cormorant on the beach, about seven o'clock on the morning of the 1st, and during the height of the storm, the bird not even attempting to fly, being in appearance completely appalled at the violence of the wind. It was reported to me at night that another hour's work in the morning would render the boats fit for sea.

Sunday March 3.

The men had slept but little during the night for they were oppressed with thirst; and when I rose in the morning I saw evident symptoms of the coming of another roasting day. They were busy at the boats as soon as they could see to work, whilst Mr. Smith and myself ascended the cliffs to get a view towards the main. When I looked down upon the calm and glassy sea I could scarcely believe it was the same element which within so short a period had worked us such serious damage. To the north-east we could see the lofty white sandhills in Lyell's Range; to the eastward nothing was visible; yet this was the point to which I had determined to steer, for several reasons. In the first place, the land in that direction had never been visited; and secondly, I had found the shores of Dorre Island covered with great forest trees, which must have been washed across the bay, and which from their size could only have been brought out from the continent by some large and rapid stream, which we at this moment would gladly have seen as there was only about a pint and half of water per man left.

SAIL FOR THE MAIN.

When we returned to breakfast I found the boats nearly ready for sea, and about eleven o'clock they had been all hauled down, the stores stowed away, and everything made ready for launching, and off we went, not a little rejoiced at the prospect of soon having an abundant supply of that liquid on which our lives depended. There was scarcely any wind but that little was right aft so that between sailing and pulling we made about five knots an hour. The boats were however so heavily laden that the men found it very laborious work, for they were exposed to the rays of a burning sun and had nothing to drink but half a pint of water, which was all I could allow them.

We however persevered from soon after eleven A.M. until five P.M., when the men began to get disheartened from seeing no signs whatever of land, and I ordered my boat's crew to knock off pulling for a little, and in Mr. Walker's boat, which was about a mile astern, they did the same. In twenty minutes time I made my crew again take to their oars, but the other boat did not in this instance follow our example, so that we kept dropping her rapidly astern. This was very annoying; but as I was anxious at all events to get a glimpse of the land before sundown we still pulled away, trusting that the other boat would soon follow in our wake.

GROUND ON A SANDBANK.

About half an hour before sunset we sighted the land: several low rounded hills were the first things seen; then what I conceived to be very lofty trees rose in sight, and almost at the same moment the boat grounded on a sandbank.

EXTENSIVE SHALLOWS.

I had observed this shoal several miles before we came to it and it appeared to extend as far as I could see both north and south, but, as I had no doubt that we should find sufficient water on it to enable us to cross, I had given it no attention. I now however on looking more carefully could perceive no limit to its extent in those directions and, as I thought I saw deep water immediately to the eastward of us, I ordered the men to jump out and track the boat over. This they did; but

on coming to what appeared to be deep water we found it was only a continuation of the same sandbank, covered with seaweed, which gave the water a darker appearance. The men now alternately tracked or pulled the boat for about five miles over a continuation of the sandbank; a work very fatiguing to those who were already exhausted by several days' continuous exertion on a very short allowance of water in a tropical climate. It had now been for some time night, and we had taken a star for our guide which just before sunset I had seen rising over the main. I thought we had at last gained the shore, at least the boat was close to a dark line rising above the water which appeared like a wooded bank; two of the men now waded onwards to find out the best place for landing and to light a fire that the crew of the other boat might know where we were. I saw them to my surprise not ascend a wooded bank but disappear amongst the trees; and still through the silence of the night I heard the splash of men walking through water, and in a minute or two afterwards the cries and screams of innumerable startled waterfowl and curlews, who came flying in flocks from amongst the mangrove trees.

FAIL IN MAKING THE LAND.

The men returned and reported that there was no land or any sign of land hereabouts; that the mangroves were a belt of trees upon a sandbank and that the water deepened inside; that the tide evidently rose very high, from the tufts of seaweeds in the bushes; that it was then rapidly coming in (which was evident enough, for the boat was afloat) and that the other side of the mangrove bushes was an open sea.

This was unpleasant intelligence. That it was untrue I felt assured; but one man, who certainly could not have seen more than a hundred yards ahead of him on so dark a night, spoke as confidently as if he had seen fifty miles, and this discouraged the others: so by way of keeping their minds occupied I got under weigh again and stood off a little to the southward in the hopes of falling in with the other boat. We cheered at intervals of a few minutes, and fired a gun, whereupon ensued a great screaming, whistling, and flapping of wings amongst the waterfowl, but no human voices were heard in reply.

ANCHOR OFF MANGROVE CREEK FOR THE NIGHT.

When we had gone as far to the southward as I thought prudent I stood out from the shore for about a mile so as to have a good peep in amongst the mangrove bushes in the morning for the other boat, and having dropped our anchor we laid down as we best could for the night; and, speculating upon what explanation the native wise men would give to their fellows of the unknown and novel sounds they had this night heard upon the coast, I soon fell asleep.

CHAPTER 15. THE GASCOYNE RIVER.

REACH AND ENTER A MANGROVE CREEK.

March 4.

Early in the morning I had a good lookout kept for the other boat, which I was very anxious to see in order that I might have a sufficiently numerous party for the purpose of landing and looking for water; as I always held it to be better, upon first appearing amongst natives who had never before seen Europeans, to show such strength as might impress them with a certainty that we were well able to resist any attack which they might naturally feel inclined to make on such strange and incomprehensible intruders as white men must necessarily appear to them. Soon after the sun rose we descried the other boat about three miles to the southward of us; and I despatched two men to wade along the flats and communicate with Mr. Walker: they were to direct him to get under weigh and to make the best of his course, either by tracking, pulling, or sailing, until he reached the point where I might land.

The men whom I sent quickly made his boat, which I perceived moving slowly up the flats; and as soon as the men rejoined me we started. The wind was fair, being from the southward, and I wished to reach some gently elevated hills which I saw about eight miles to the north by east of our present position.

SEARCH FOR AND COMPLETE OUR WATER.

We soon came to a very promising opening which proved to be a creek, with a mouth of about two hundred yards wide, running up in a north-east direction, and having five fathoms of water inside, but with a bar entrance. When we had proceeded up it about two miles it became so narrow that there was not sufficient space left for the men to use their oars; therefore, making fast the two boats, I landed with a party to look for water.

I stepped very gingerly and cautiously on the mud, for shore there was none; and I had the satisfaction of descending at once, mid-leg deep in the odious slime; but this being endured the worst was over, and, at the head of my sticking and floundering party, I waded on, putting to flight whole armies of crabs who had taken up their abode in these umbrageous groves, for such they certainly were. The life of a crab in these undisturbed solitudes must be sweet in the extreme; they have plenty of water, mud, and shade; their abodes are scarcely approachable by the feet of men, and they can have but little to disturb their monotonous existence save the turmoils of love and domestic war.

After about two miles of wading of this description, which we considerably increased by turning and winding about to avoid soft places, we at length fairly stepped on terra firma and found ourselves at the base of some almost imperceptibly-sloping ground which gradually rose into low, red, sandy, loamy hills, thinly covered with grass, bushes, and stunted trees. Across these we bent our steps in a south-east direction, no change whatever taking place in the character of the country as far as we went or as far as we could see. But our travels in this line only extended for about three miles, when we suddenly came upon a lagoon of fresh water lying between two of the hills. All bent the knee at once, at this discovery, to plunge their faces deep in the pool, and, presently raising them up again, a black watery line, extending round the countenance, showed plainly how deeply each one had dipped.

Mr. Smith and myself laughed heartily at our dirty-faced companions, who knelt on their hands and knees round the pool; and whilst they were filling the beakers with water we rested under the shade of the bush for a few minutes, and then walked off towards the interior; but from the undulating low nature of the ground our view was very limited, and as far as we could see there was no sign whatever of any change in the character of the country. On returning again to the party we found the beakers and men equally full of water and ready for a start to the boats.

WADING THROUGH THE MUD.

When we reached again the mangrove flats a most amusing scene commenced; wading through the mud was bad enough before, but now that each man had a heavy keg of water upon his shoulders the movements became truly ludicrous, more especially as both landmen and sailors were equally out of their element. Each desperate plunge elicited from the sufferers oaths and expressions which only those who have seen sailors completely at a nonplus on shore can conceive. They were half humorous, half pathetic, and never did I see men more thoroughly woebegone and bedaubed with mud than the party when we made the boats again.

Those whom I had left behind now greedily drank the water of which they were so much in want, and, as it was necessary to complete our stock of it here, after we had dined I despatched all hands but Mr. Smith and one man back to the lagoon. Mr. Smith was too unwell to go again and I remained with him. This party took their rations with them as they were to remain by the lagoon all night in order, as they termed it, "to have a good bouse out of water, and a good wash," and were to return to the boats as soon after daylight as possible.

We had remarked tracks of natives on shore but, as I saw by their fires that they were now at least eight or ten miles from us, I was under no apprehension of an attack from them. The mosquitoes however threatened to be very troublesome, and when I say that just about sunset we were completely blackened from the numbers that covered us I do not in the least exaggerate; we could not make a fire to keep them away, and I therefore quietly resigned myself to my fate. Poor Smith, who was already very feverish, passed a night of perfect torment, and awoke in the morning seriously ill. We soon heard the voices of the party returning and, having helped them and their loads of water out of the mud, we returned down the creek.

COAST THE LAND TO THE NORTHWARD.

March 5.

On standing out there was a fresh breeze blowing from the south-east, and when we were about half a mile from the shore the water to the northward deepened a great deal, for although it was now nearly low tide we had here two and a half fathoms with sandy bottom. All along the shoals we had met with abundance of shell and other fish, and the pearl oyster was very abundant; indeed the shellfish along these banks were more numerous and varied than I had ever before found them. I saw but few shells which I recognised as belonging to the southern portions of Australia, whilst many were identical with those which occur to the north-west.

EXAMINE ANOTHER MANGROVE CREEK. CHARACTER OF THEIR SCENERY.

There was no high land whatever in sight; but one low hill, which just appeared above the mangrove tops, bore north by east. After running north-east for about two miles with the same depth of water we came to another opening in the mangroves of a more promising character than several small ones which we had previously passed, and as, from the greater depth of the water, the extraordinary low character of the coast, and the circumstance of the driftwood upon Dorre Island, I expected to find a large river hereabouts, I determined to examine even the smallest openings most narrowly; we therefore ran straight for this one, and found that it had a shoal mouth with only four feet water at the entrance. The opening ran east $\frac{1}{2}$ north, and after we had followed it up for about half a mile it became very narrow and shoaled to two feet, so we turned about and again pulled away to sea. This opening, as well as the first we had entered, appeared rather like a canal running through a woody grove than an arm of the sea; the mangrove trees afforded an agreeable shade, and were of the most brilliant green, whilst the blue placid water not only washed their roots but meandered through the sinuosities of the forest like a quiet lake till sight of it was lost in the distance.

We now stood north-north-west parallel to the shore, which was fronted by mangroves; and here we again had only two and a half feet of water. A very low chain of hills extended parallel to the shore and about two miles behind the mangroves. We thus continued running along the coast

until we made a large opening which was about three-quarters of a mile across at the mouth. On either side of the entrance was a sandy point, covered with pelicans and wild-fowl who seemed to view our approach with no slight degree of surprise. As yet we did not know the proper entrance to the river (for such it was) so that where we ran into it we had only two feet of water. Three low hills were immediately in front of us, and I afterwards ascertained that the proper course for entering was to steer so as to keep the centre of the opening and the middle hill in the same line.

DISCOVER ONE MOUTH OF THE GASCOYNE RIVER, AND EXPLORE THE COUNTRY IN ITS VICINITY.

The opening now widened into a very fine reach, out of which the water was running rapidly, and when we had ascended about a mile I saw large trees, or snags (as they are called by the Americans) sticking up in the bed of the river; as these trees were of a very large size, and evidently had come from a different country to the one we saw upon the river banks, I felt assured that we had now discovered a stream of magnitude, and, the eager expectations which these thoughts awoke in our breasts rendering us all impatient, we hauled down our sail and took to the oars. The bed of the river however became choked with shallows and sandbanks, and when we had ascended it about three miles, the water having shoaled to about six inches, I selected a suitable place for our encampment and prepared to start and explore the country on foot.

SURVEY OF MOUTHS OF THIS RIVER AND BABBAGE ISLAND.

As soon as all had been made snug I moved up the river with three men. Its banks were here about five feet high; the bed of white sand, and about half a mile across; the centre of the channel was full of salt water, and in breadth about a quarter of a mile. We had not proceeded more than a few hundred yards when we unexpectedly came upon another mouth of the river as large as that upon which we stood, and which ran off nearly west. The river itself appeared to come from the north-east, and we saw salt water still further up than where we were.

NATIVES AND A SHARK.

Just on the eastern bank of the stream was a clump of small trees and reeds which I walked up to examine with a desire to recognise any trees belonging to known species, but to my horror, on looking into the reeds, I saw what appeared to be a huge alligator fast asleep. The men now peeped at it and all agreed that it was an alligator. I therefore retreated to a respectful and suitable distance and let fly at it with a rifle; it gave, as we thought, a kind of shake, and then took no further notice of us. I therefore took a double-barrelled gun from one of the men and drove two balls through the beast, and now feeling sure it must be dead (for it never moved) I walked up to it, when, upon examination, it turned out to be a huge shark, of a totally new species, which had been left in some hole by the tide where the natives had found and killed it, and, being disturbed by our approach, had run away, first hiding it in this clump of reeds. There were two natives and they had made off right up the bed of the river, taking the precaution to step in one another's tracks so as to conceal if possible their number.

CHARACTER OF THE RIVER.

To those who have never seen a river similar to the one we were now upon it is difficult to convey a true idea of its character. It consisted of several channels or beds divided from each other by long strips of land, which, in times of flood, become islands; the main channel had an average breadth of about two hundred and seventy yards; the average height of the bank at the edge of it was about fifteen feet, and the bed of the river was composed of porous red sand apparently incapable of containing water unless when previously saturated with it. After passing the highest point reached by the sea this huge river bed was perfectly dry, and looked the most mournful, deserted spot imaginable. Occasionally we found in this bare sandy channel waterholes of eighteen or twenty feet in depth, surrounded with tea trees and vegetation, and the driftwood, washed high up into these trees, sufficiently attested what rapid currents sometimes swept along the now dry channel. Even the waterholes were nearly all dried up, and in the bottom of these the natives had scooped their little wells.

The river channel ran up in a due north-east direction for about four miles without in the least altering its character. It was in vain that we walked over the intervening slips of land into the side channels; these in all respects except in being narrower exactly resembled the main one; and, after ranging across from bank to bank in this way, the only general conclusion I could arrive at was that the country upon the northern bank of the river appeared scrubby and covered with samphire swamps, whilst that upon its southern bank seemed rich and promising.

EXPLORE THE COUNTRY INLAND TO THE NORTH OF THE RIVER.

The river now made a sudden turn to the east by north, and we followed it in this direction for three miles and a half without finding the slightest change in its character or appearance. No high land whatever was in sight, and from a low rounded hill, which was the highest point we could see, the rise of the country towards the interior was scarcely perceptible; indeed it presented the appearance of being a vast delta; and such I then and subsequently conjectured it to be.

During our walk up the bed of the river we had seen many cockatoos, some wildfowl, and

numerous tracks of natives; these all appeared to me to be indications of a well watered and fertile tract of country.

I now turned off west by south, quitting the bed of the river, which I named the Gascoyne in compliment to my friend, Captain Gascoyne, and found that we were in a very fertile district, being one of those splendid exceptions to the general sterility of Australia which are only occasionally met with: it apparently was one immense delta of alluvial soil covered with gently sloping grassy rises, for they could scarcely be called hills; and in the valleys between these lay many freshwater lagoons which rested upon a red clay soil that tinged the water of its own colour and gave it an earthy taste.

The country here was but very lightly timbered and well adapted for either agricultural or pastoral purposes, but especially for the growth of cotton and sugar, should the climate be sufficiently warm; and of this I think there can be no doubt whatever. I was so won by the discovery of this rich district that I wandered on unconscious of the fatigue of the party, roaming from rising ground to rising ground, and hoping from each eminence to gain a view of high land to the eastward, but on all sides I could see nothing but the same low fertile country. I however felt conscious that within a few years of the moment at which I stood there a British population, rich in civilization and the means of transforming an unoccupied country to one teeming with inhabitants and produce, would have followed my steps and be eagerly and anxiously examining my charts; and this reflection imparted a high degree of interest and importance to our present position and operations.

RETURN TO THE RIVER.

The darkness of night was now closing round us and Kaiber the native, with his long thin legs, put himself at the head of the party and, taking a star for his guide, led us with rapid and lengthy paces across the plains to the encampment, where we found the party anxiously waiting to hear what success we had met with. Poor Mr. Smith was very unwell tonight with a feverish attack. Mr. Walker had prescribed for him and ordered him to be kept quiet. I got a meridian altitude of Procyon which put us in 24 degrees 56 minutes 57 seconds south latitude.

March 6. Mr. Smith was if anything worse this morning, and I learned from some of the men that he had been wandering about all night, and had bathed several times in the river. I remonstrated with him about having done so, but he excused himself, and I determined to remain stationary at this point for a day or two to give him plenty of rest before we again started on our cruise along the coast.

PLAN OF FUTURE PROCEEDINGS.

After the discovery of the Gascoyne the plan I made up my mind to follow was to examine rapidly the coast as far as Cape Cuvier, to return from that point to Bernier Island and refit; then once more to visit the Gascoyne properly equipped, and thoroughly explore the adjacent district to the distance of fifty or sixty miles inland; and lastly to examine the unknown portion of Shark Bay which lay to the southward of us.

At 6 A.M. the thermometer stood at 76 degrees Fahrenheit in the shade, and this and the temperature during our stay in Shark Bay proves that the climate there is very warm. Before breakfast I had wells sunk in several places at some little distance inland in order to ascertain the nature of the subsoil, for we were abundantly supplied with water from the lagoons. In every instance, after digging down to the depth of from six to seven feet through a rich loam, we reached a regular sandy sea beach and salt water (it must however be recollected that we dug in the deepest hollows) so that it appeared as if the whole of this flat country was a formation left upon the shoals with which the coast is bounded; and it almost seemed as if the sea still flowed in upon its old bed and under this recent freshwater deposit.

Directly after breakfast I got ferried across the river to the island lying between its two mouths, which I called Babbage Island after C. Babbage, Esquire. This island is low and sandy in all parts except where it fronts the sea; but on that side a row of high sandy dunes have been thrown up. There is no very good land on it, it being almost covered with samphire swamps and intersected by deep channels into which the sea runs; these are nearly concealed in some places by the vegetation, which rendered it impossible to avoid sundry falls and wettings in crossing it. It bears a few mangroves but I saw no other trees.

The men throughout the day were occupied in watering and in making canvas cloths for my boats to prevent the water from pouring in over the gunwales, which were very low; and my own time was sufficiently occupied in surveying. On my return in the evening I found Mr. Smith so much wore cheerful and so much better that I determined to start about noon the next day for the northward.

EXCURSION TO THE NORTH OF THE RIVER.

March 7.

I went off with a party before dawn to explore the country to the northward of the Gascoyne. We crossed the river just above the point where it separates into two mouths, and then struck off in a north by east direction. Travelling about a mile after we had crossed the river we came to seven

native huts, built of large-sized logs, much higher and altogether of a very superior description to those made by the natives on the south-western coast. Kaiber examined them very carefully and then proposed that we should go no farther, as he thought that the natives must be very large men from their having such large huts. We however pushed forward and, as I had none but good walkers with me, we made about nine miles in two hours and a half: throughout the whole of this distance we saw nothing that could be called a hill, the whole country being evidently at times flooded up to the foot of a gently-rising land which we distinguished to the eastward. We did not notice a single tree but plenty of low prickly bushes, samphire, and a small plant somewhat resembling the English heath. The weather was very hot, and at the end of the nine miles we reached a saltwater inlet so broad and deep that we could not cross it. We here halted and rested a little and then made our way back to the boats.

APPROACH OF NATIVES.

I found Mr. Smith much better and, there being now nothing to delay us, we started. When we had got about half a mile down the river we saw two natives following us along the shore, jumping about in the most extraordinary way, and, from their gesticulations and manner, evidently ordering us to quit the coast. From the mountebank actions of these fellows I guessed that they were two of the native sorcerers, who were charming us away but, as I was not disposed to be so easily got rid of, we pulled near the shore and lay upon our oars to give them an opportunity of coming up to us.

ATTEMPT AT A CONFERENCE. INTERVIEW WITH NATIVES.

Upon this they mounted a little eminence, blew most furiously at us, and performed other equally efficacious ceremonies. I however felt just as well after we had been subjected to this dire sorcery as I did before; and we continued to pull gently along the shore, still trying to induce them to approach, which they at last did, having nothing but a fishing-spear in their hands. To entice them towards us I had made Kaiber strip himself and stand up in the boat; and now that they were near enough to us I told him to call out to them and say that we were friends. He hereupon shouted out, "Come in, come in; Mr. Grey sulky yu-a-da;" by which he intended to say, "Come here, come here; Mr. Grey is not angry with you." The two sorcerers, utterly confused by this mode of address, committed more overt acts of witchcraft towards us than they had even hitherto done; and Kaiber, turning round to me, said, "Weak ears have they and wooden foreheads; they do not understand the southern language." But as I was dissatisfied with his proof of their knowledge of the southern language I desired him to wade ashore and speak to them.

KAIBER'S DREAD OF THEM.

This order of mine was a perfect thunderbolt to Kaiber. He, in common with all the aboriginal inhabitants of Australia, had an utter aversion to all strange natives; and to this he joined a sort of religious horror of witches, buck-witches, warlocks, and uncanny persons generally. King James the First could never have found a more zealous and participating partner of his fears than Kaiber; he gave me a blank look of horror and assured me that these were actual sorcerers, "northern sorcerers;" and as he repeated these last words there was a mysterious, deep meaning in his tone, as if he expected to see me thrill with terror.

From his earliest infancy he had been accustomed to dread these men; every storm that occurred he had been taught to consider as arising from their incantations: if one of his friends or relatives died a natural death he had attributed that death to the spells and unholy practices of these very people with whom he was now directed to go and hold converse. I thought of all this and pitied him; for even for a native he was excessively superstitious. But I was extremely anxious to establish friendly relations with them; therefore I was positive and repeated to him my former directions that he should wade ashore, coax them up, and speak to them.

In as far as a native can turn white from fear Kaiber did turn white, and then stepping into the water he waded ashore and the two natives cautiously approached him. As soon as they were close to him I joined the party with a large piece of damper in one hand and a piece of pork in the other. The natives were dreadfully frightened; they stood in the presence of unknown and mysterious beings. No persuasions could induce them to take my hand or to touch me; and they trembled from head to foot.

FRIENDLY COMMUNICATION ESTABLISHED.

For a time they were nearly unintelligible to Kaiber and myself, but as they gained confidence I found that they spoke a dialect very closely resembling that of the natives to the north of the Swan River. They addressed many questions to us, such as, Whence we had come? where we were going to? was the boat a dead tree? but they evaded giving any direct answers to our questions. Being anxious to start I now left them to bear to their companions the strange food I had bestowed, and to recount to eager listeners the mysterious tale of their interview with beings from another world, and who were of an unknown form and colour.

SAIL FROM THE GASCOYNE.

Whilst they hurried off with some such thoughts passing through their minds we pulled down the

Gascoyne in search of new lands and new adventures.

AFFINITY OF DIALECTS.

The result of this conference affords an example of the grounds upon which any similarity of the language in different portions of the continent of Australia has been denied. In this instance, had I at first taken the word of Kaiber for it, I should have left the Gascoyne with a firm conviction that the natives of that part of Australia spoke a radically different language from the natives near the Swan River; and this would have been proved by the fact of a native from the south not understanding them: whereas there is a great affinity between the two dialects, to discover which requires however an acquaintance with the general principles of language, some knowledge of the one in question, and due patience. I can only say that wherever I have been in the southern portions of the continent I could soon understand the natives.

CHAPTER 16. TO KOLAINA AND BACK TO THE GASCOYNE.

EXAMINE THE COAST TO THE NORTH OF THE GASCOYNE.

March 7.

When we got outside the mouth of the Gascoyne a fresh breeze was blowing from the south-east. We ran along the shore west by north, keeping about a quarter of a mile from it; and after having made about three miles and a half we reached the southern extremity of the other mouth of the river. The mean depth in our course along Babbage Island had been from two and a half fathoms to three fathoms; and this opening had a bar which we then conceived to run right across the mouth of the river. The northern extremity of Babbage Island is a very remarkable low point of land which I called Mangrove Point. It cannot fail to be recognised for it is the first point from the northward along the eastern shores of Shark Bay where mangroves are found, and from that point they extend almost uninterruptedly down the eastern coast of this bay to the south, as far as I have seen it.

CONTINUE THE COURSE TO THE NORTHWARD.

The coast now trended north by west and we continued to run along it. After passing Mangrove Point the sandy dunes along the shore ceased, and the land appeared to be scarcely elevated above the level of the sea: not a hill or tree could be perceived, and a low black line almost level with the water's edge was the only indication that we had of being near land.

LYELL'S RANGE.

This kind of shore continues for about nine miles, when low sandhills begin to rise parallel to the coast, and these gradually increase in altitude until they form that remarkable range of dunes which I have called Lyell's Range. When it wanted about an hour to sunset we had made about twenty-five miles, and then ran in closer along the coast to look either for a boat harbour or some spot at which we could beach them. But nothing suited to our purpose could we see: the coast was straight, sandy, exposed and lashed by a tremendous surf; the wind now freshened considerably and the sky looked very threatening; we had therefore no resource left but either to run to the northward before the breeze or to beach the boats. I chose the first alternative; and we coasted within about a quarter of a mile of the shore, just outside the surf, looking out for any spot which gave us the least hope of beaching in safety.

BEACH THE BOATS.

As the sun sank so freshened the breeze, until it blew a good half gale of wind, and everything gave indications of approaching foul weather. This was no coast to be on during a stormy night in heavily laden whale-boats; and as it now began to grow dark I determined at all hazards to beach rather than be driven out to sea in a gale of wind. I accordingly ran my boat in through the surf, leaving the other one outside to see what success we had before they made the attempt.

BOAT SWAMPED IN BEACHING.

The surf was very heavy but the men behaved steadily and well; and through it we went, dancing along like a cork in a mill-pond; at last one huge roller caught us, all hands gave way, and we were hurried along on the top of the swelling billow, which then suddenly fell under us and broke; in a moment after we had grounded, and although still upwards of two hundred yards from the shore, we all jumped out to haul the boat up, but ere we could move our heavily laden whaler beyond a few yards breaker after breaker came tumbling in and completely swamped it. We continued to haul away and presently found ourselves swimming. In fact the whole coast hereabouts was fronted by a kind of bar of sand, distant about two hundred yards from the shore, with not more than two feet water on it. Between this and the shore the water was tolerably smooth and two fathoms deep. It was upon this outer bar that we had struck, and the other boat experienced the same fate as ourselves. We of course passed a miserable night in our drenched and wretched state; but it was at all events some comfort, when we heard during the night the boisterous wind blowing outside, to feel that we were safe ashore.

DAMAGE TO OUR PROVISIONS.

March 8.

As soon as we had sufficient light for the purpose I proceeded to examine the stores. The flour was not very good at starting; it had been packed in small bags, that being the most convenient form to have it in both for stowing and transporting it on men's shoulders; and in the hurricane which we had experienced on Dorre Island this flour had got thoroughly soaked: from that period to the present time it had been constantly wet with salt water; last night's adventures completed its disasters and it was now quite spoilt and an unwholesome article of food; but having nothing else to eat we were forced to satisfy ourselves with it, and I directed it to be dried in the sun and then carefully repacked. The wind was from the south-south-west, about half a gale, and there was such a tremendous surf on the shore that to launch the boats was impossible. I therefore started to look for water and to explore the country.

SEARCH FOR WATER.

The point we had landed at was immediately at the base of some bare sandhills, about four hundred feet high. These are the hills which are visible from the high land of Dorre Island on the opposite side of the bay: it struck me that from their great height and their porous nature there was a probability of our finding water by digging, even in this apparently sandy desert; I therefore selected a spot at the foot of the highest hill, in the bare sand, and ordered a well to be opened. Our efforts were crowned with success; the well had not been sunk more than four or five feet when we came to a coarse gravelly sand, saturated with water, which was perfectly sweet and good; and when the well was sunk about two or three feet deeper the water poured in so fast that there would have been no difficulty in watering a ship at this point.

APPEARANCE OF A LAKE. EXAMINATION OF IT.

Whilst the men were engaged in filling the water kegs I ascended the highest sandhill, the summit of which was not distant more than a mile from the well. When I gained this a most splendid sight burst upon my view: to the westward stretched the boundless sea, lashed by the wind into white and curling waves; whilst to the east of me lay a clear calm unruffled lake, studded with little islands. To the north or north-east I could, even with a good telescope, see no limits to this lake, and, with the exception of the numerous beautiful islands with which it was studded, I could, even from the commanding position which I occupied, distinguish nothing like rising land anywhere between north by east and south-east. The lake had a glassy and fairy-like appearance, and I sat down alone on the lofty eminence to contemplate this great water which the eye of European now for the first time rested on. I looked seaward, and it appeared as if nature had heaped up the narrow and lofty sandy barrier on which I stood to shut out from the eyes of man the lovely and fairy-like land which lay beyond it.

At length I rose and returned to the party. The news of my discovery filled all with hope; and, our miserable breakfast having been hurriedly despatched, I selected three men to accompany me in my first examination of the shores of this inland sea. When we had gained the top of the sandhills the surprise of these men was as great as my own, and they begged me to allow them to return and endeavour by the united efforts of the party to carry one of the whale-boats over the intervening range, and at once to launch it on this body of water.

I however deemed it more prudent in the first instance to select the best route along which to move the whale-boat, as well as to choose a spot which afforded facilities for launching it. In pursuance of this determination we descended the eastern side of the sandhills which abruptly fell in that direction with a slope certainly not much exceeding an angle of 45 degrees. I now found that the water did not approach so near the foot of the hills as I had imagined, but that immediately at their base lay extensive plains of mud and sand, at times evidently flooded by the sea; for on them lay dead shells of many kinds and sizes, as well as large travelled blocks of coral. The water here appeared to be about a mile distant; it was also apparently boundless in an east and north-east direction: and was studded with islands.

REMARKABLE PLAINS. DELUSION FROM MIRAGE.

We still all felt convinced that it was water we saw, for the shadows of the low hills near it, as well as those of the trees upon them, could be distinctly traced on the unruffled surface. As we continued to advance, the water however constantly retreated before us and at last surrounded us. I now found that we had been deceived by mirage; the apparent islands being really such only when these plains are covered by the sea. In many places the sandy mud was so moist that we sank deeply into it, and after travelling for fifteen miles on a north-east course I could still see no limit to these plains in that direction, nor could I either then or on any subsequent occasion find the channel which connected them with the sea. The only mode of accounting for their being flooded is to suppose that the sea at times pours in over the low land which lies to the north of the Gascoyne, and flows northward through channels which will be seen in the chart of this part of the country; but I then believed, and still consider, that there is hereabouts a communication with some large internal water.

We saw no tracks of natives and only a few of emus and native dogs. The few portions of rising ground which lay near the edge of these extensive plains were sandy, scrubby, and unpromising;

but what we saw was so little that no opinion of the country could fairly be deduced from it. We dug in several places on the flats and in their vicinity but all the water we could find was salt; whereas in the narrow range of sandhills separating them from the sea we had discovered abundance of fresh water only four or five feet below the surface of the valleys lying between these hills. As this range of more than thirty miles in length offered many geological phenomena I called it Lyell's Range in compliment to the distinguished geologist of that name; the plains themselves I named the Plains of Kolaina (Deceit).

INDISPOSITION OF SEVERAL OF THE PARTY. SICKNESS FROM DELAY AND DISAPPOINTMENT.

On my return to the boats I found that Mr. Smith was still unwell; several other men were also complaining; I myself was wearied from exertion and disappointment that my great discovery had dwindled away: the place where we were was infested by land-crabs who kept running over us continually, and the sand which drifted before the wind got into the pores of the skin, and kept most of us in a constant state of painful irritation. The night was therefore not a pleasant one.

March 9.

Throughout the night the winds had howled loudly and the surf broke hoarsely upon the shore. The grey dawn of morning brought no comfort with it: far out to seaward nothing but broken water could be seen, and half a gale of wind blew from the south by east. The bad and insufficient food I had been compelled to eat had brought on violent sickness and other evil effects, and I found myself very ill. As the daylight advanced report after report came to me that some one of the party had been attacked by the same diseases experienced by Mr. Smith and myself.

EXAMINATION OF THE SHORE TO THE NORTHWARD, AND OF THE COUNTRY TO THE SOUTH-EAST.

I was only well enough to write and survey a little, but I sent off a party to a point which lay about six miles to the north of us, and they on their return reported that there was a continuation of a similar shore for the next fourteen or fifteen miles, bordered in like manner by sandy muddy plains similar to those behind the hills where we were.

This party found one of the yellow and black water-snakes asleep upon a piece of dry seaweed on the beach and killed it. The fact of this animal being found on shore proves its amphibious character. I saw them in one instance, in December 1837, so far out at sea as to be distant 150 miles from land.

Sunday March 10.

I spent a wretched night from illness and foul weather; the roaring of the surf on the shore was so loud and incessant that to one feverish and in want of quiet and rest it was a positive distress, and both Mr. Smith, myself, and half the men were at this time seriously indisposed. We had strong gales of wind all day from south by east, but in the afternoon I walked out for five miles in an east-south-east direction with such of the men as were able to move; nothing however could be seen but a continuation of the same barren, treeless country; we observed no signs of natives except tracks in the mud of a single man who had passed some months ago.

It annoyed me now to find that the silvering of the glasses of my large sextant was so much injured from the constant wettings it had experienced that this day it was almost useless. I had hoped in the course of our walk to have fallen in with some game, but we did not see a single bird with the exception of some small ones, about the size of tomtits, which flew from bush to bush along the sandhills.

SUFFERINGS FROM HEAT AND PRIVATION.

We had a small quantity of portable soup with us, nearly all of which we used, and it in some degree restored us, but another miserable night was passed by us all and in the morning I was grieved to see how ill many of the men looked. Their situation was really deplorable and I had with me neither medicines nor proper food to give them. Abundance of these lay at our depot not more than forty miles from us, yet to reach it was impossible; and dawn this morning had only revealed to us a heavier surf and stronger gale from the southward than we had yet experienced. None of the men were well enough to undergo the fatigue of another day's walking, so I busied myself with making observations and taking bearings, and thus the forenoon wore away. The point of the coast on which we were lay in 24 degrees 30 minutes south latitude, and the mean temperature up to this period had been:

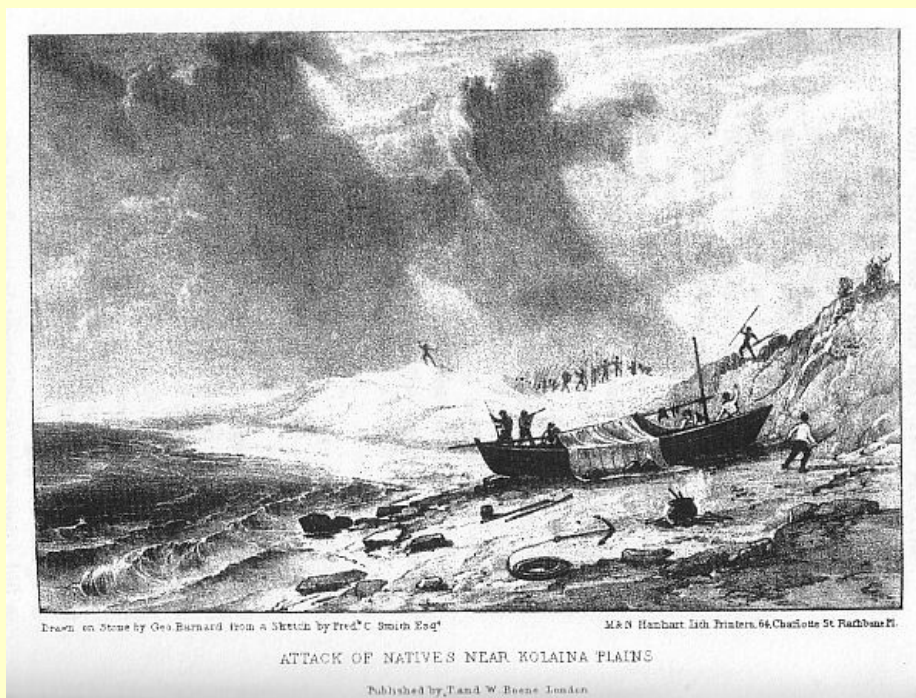
6 A.M. 76.

12 M. 83.

3 P.M. 87.

6 P.M. 78 degrees.

At noon a portion of some disgusting damper and a small piece of pork was served out to each of us and, having soon disposed of this, the men lay down under the side of the boats, seeking some shelter from the burning rays of a tropical sun which, being reflected back from the white sand, were very oppressive.



21. Attack of Natives near Kolaina Plains. Drawn on stone by George Barnard from a sketch by Frederick C. Smith, Esquire. M. and N. Hanhart, Lithographic Printers, 64 Charlotte Street, Rathbone Place.

I was occupied in sketching in a portion of the coastline, and whilst thus engaged I thought I saw the figures of two natives moving upon a hill a few hundred yards to the north of us; they appeared to me to be behind some low bushes which were close to the summit of this hill. I watched the bushes narrowly and felt nearly confident I saw them; but however to be sure beyond a doubt I got up and took my eyes from the spot for a few seconds whilst I walked to get my telescope. I then carefully examined the hill with the glass and could see nothing but the low bushes on it. "A pretty bushman I am," I thought to myself, "to be thus deceived with two old shrubs; I should have known a native better;" and with a feeling almost of annoyance at my mistake I resumed my seat on an inverted water-keg and went on with my drawing. Within a minute's time an alarm of natives was given, and starting up I saw from twenty to thirty on some sandhills to the north of us, distant about two hundred yards; their spears were fixed in their throwing-sticks and they evidently were prepared for a fray. I therefore ran to the boat for my gun, which Ruston tried to get out for me; and at this moment, on casting my eyes upwards, I saw a native start up on the sandbank not more than fifteen yards from Ruston and myself; he poised his spear for one second, and it then came whistling at us. I dodged and the spear flew past without my seeing what became of it. I instantly gave the order to watch the bank and to fire at anything that showed itself above it; and Mr. Walker now had got hold of his gun and very gallantly ran up the bank and occupied it: in the meantime the native who had thrown the spear caught up a bag in each hand and ran off. Several shots which were fired at the distant natives scraped up the sand so near them that they found it prudent to decamp as speedily as they could.

CHASE AFTER STOLEN GOODS.

I found that Ruston was wounded slightly in the knee by the spear which the native had thrown, and we had also sustained a severe loss in the bags which they had carried off as one of them contained fourteen fishing-lines and several other articles of great value to us in our present position. I therefore determined upon a pursuit in the hopes of recovering these, and taking four or five men I gave chase. The long-legged natives had however considerably the advantage of us both in bottom, wind, and cunning; and whenever they found we gained at all upon them they strewed a few articles out of the bags upon the ground, and these it took us some time to collect; and in this manner, alternately running and stopping to pick things up, I continued the pursuit until near sunset. At this time three of us had completely outrun the rest of our party, who were far behind; the natives had also latterly made great headway, so that they were rapidly dropping us astern; we also had recovered everything but the fishing-lines (which however we could but ill spare). I therefore determined to collect my forces and return to the boats. In the ardour of pursuit I found we had come five or six miles, and it had been for some time dark when we again reached the encampment.

The natives in this attack were far too few in number to render it a very formidable affair for from five-and-twenty to thirty savages, armed alone with spears, could have availed very little against eleven resolute Europeans with fire-arms in their hands. The native who had stolen so near us was however most decidedly a noble and daring fellow: their object evidently was to possess themselves of our property; and we had had one man wounded in the fray, and had lost some fishing-lines, without gaining any reparation. I therefore felt well assured that they would

pay us another visit; and thus, to the misfortunes we were already suffering under, we had the new one added of being on hostile terms with the surrounding aborigines. It moreover set in to rain hard and to blow fresher than ever just as we reached the boats. I saw that all that could be done for Ruston had been attended to, and then, lying down, tried to forget my troubles in sleep.

CONTINUED DETENTION FROM FOUL WEATHER. DESOLATE AND GLOOMY SITUATION.

From this period up to Friday the 15th of March the wind blew strong from the southward, accompanied with such a heavy sea and tremendous surf that to move was impossible. Our position was very trying; inactivity, under the circumstances in which we were situated, was most difficult to support; for the mind, ever prone to prey upon itself, does so far more when you are compelled to sit down and patiently submit to misfortunes against which there are no means of resistance. Such was the state to which we were now reduced, on a barren and unknown coast which the foot of civilized man had never before trodden: many of my party were suffering acute bodily pain from the badness of the provisions on which they were compelled to subsist; the weakness of most of them, and myself amongst the number, precluded the possibility of any distant explorations being made, and we were kept in a constant state of watchfulness in order to prevent the natives from again surprising us; for they repeatedly showed themselves in our vicinity, hovering about with no friendly intentions. All that was left therefore for us was to sit upon the lonely beach, watching the winds and the waters until some favourable moment might enable us to get off and once more engage in that task of which so small a portion was as yet accomplished.

Day after day did we sit and wait for this favourable moment until the noise of the hoarse breaking surf had become a familiar sound to our ears; but the longer the men watched the more dispirited did they become; each returning day found them more weak and wan, more gloomy and petulant, than the preceding one; and when the eighth day of constant and fruitless expectation slowly closed upon us I felt a gloomy foreboding creeping over me.

By making observations, drawing, writing up my journal, etc. I had managed hitherto to keep my mind employed. I had also tasked my ability to the utmost to constantly invent some occupation for the men, but my resources of this nature were now all exhausted; and on Friday night I stretched myself on the sand, not to sleep, but to brood, throughout the weary night, on our present position.

CONSOLATIONS OF RELIGION.

It may be asked if, during such a trying period, I did not seek from religion that consolation which it is sure to afford? My answer is, Yes; and I farther feel assured that, but for the support I derived from prayer and frequent perusal and meditation of the Scriptures, I should never have been able to have borne myself in such a manner as to have maintained discipline and confidence amongst the rest of the party: nor in all my sufferings did I ever lose the consolation derived from a firm reliance upon the goodness of Providence. It is only those who go forth into perils and dangers, amidst which human foresight and strength can but little avail, and who find themselves, day after day, protected by an unseen influence, and ever and again snatched from the very jaws of destruction by a power which is not of this world, who can at all estimate the knowledge of one's own weakness and littleness, and the firm reliance and trust upon the goodness of the Creator which the human breast is capable of feeling. Like all other lessons which are of great and lasting benefit to man this one must be learnt amid much sorrowing and woe; but, having learnt it, it is but the sweeter from the pain and toil which are undergone in the acquisition.

PUT TO SEA.

March 16.

A great portion of Friday night was passed by me in walking up and down the beach, anxiously looking out seaward; and it appeared to me about three o'clock that the wind had much abated; from this period until dawn it continued gradually to subside: and as daylight stole in I saw that the surf had somewhat fallen. I resolved at all events to lose no single chance that offered itself in our favour, so I turned all hands out, and in a few minutes the boats rode triumphantly beyond the surf, which was indeed much heavier than I expected to have found it, and my boat was nearly filled in passing the outer bar: but now the surf was behind us, and it is the nature of man to laugh at perils that are past. Our thoughts too were soon called to present difficulties, for a tremendous sea was running outside, the wind directly in our teeth, and every moment freshening again. Throughout the whole of Saturday the men toiled incessantly at their oars, and when it wanted about an hour to sunset we had only made about seven miles and a half of southing.

COMPELLED AGAIN TO BEACH THE BOATS.

The wind had again increased to such a degree as to endanger our safety, and it appeared to freshen as the night came on. I therefore had no resource left but again to beach the boats on this dangerous coast. Once more, then, was the scene repeated of dancing in a boat with maddening speed upon furious rollers, until these break and it is borne in, followed by a mass of foam far higher than the stern, which appears eagerly to pursue for the purpose of engulfing it.

BEACHING BOATS.

There is no scene in nature more exciting or which in a greater degree calls forth one's energy than the beaching of a boat in a dangerous surf. Never did I on such occasions take the steer-oar for the purpose of running the boat in but many contending feelings rushed through my mind, and after a few moments settled down into the calm which springs from the conviction that the general safety in coming dangers depends altogether upon the coolness and resolution with which they are met, and never more so than in beaching a boat when once you are among the foaming waters; in you must go; to retreat is impossible, and nothing is left but that each one silently and steadily do his duty, regardless of the strife and din of raging waves around. The only plan to adopt is for all to give way strongly and steadily, let what will take place, whilst the boat-steerer keeps her head straight for the beach. A huge roller breaks right into the boat and almost swamps it, a man is knocked over and loses his oar, heed not these things; let each man mind his own oar and nought else, and give way give way strongly, until the boat grounds, then in a moment each quits his oar and springs into the water, and ere the wave has retired the boat is partially run up; another wave succeeds, and the operation of running up is repeated until she is high and dry. Had our boats been swamped in the surf, even if we had escaped with our lives, our position would have been fearful; left without food or resources in an unknown and savage country so far beyond the reach of man's assistance. When therefore I again saw the boats safely beached, and my little party drying themselves over a fire, my breast filled with thankfulness to that Providence who had again watched over our safety.

ADJACENT COUNTRY EXPLORED.

Sunday March 17.

It blew half a gale of wind from the southward all night, and next morning such a surf was breaking upon the beach that to have attempted to move would have been madness. Here we were therefore once more kept prisoners upon this dreary coast; the country was exactly similar to that lying immediately to the north of it, with these two exceptions, that the range of sandhills was less elevated, and that we could not here find fresh water. The morning was passed in searching for it; in the middle of the day I read a few appropriate chapters in the Bible to the men, and in the afternoon I explored the country but discovered nothing whatever of an interesting nature.

LAUNCH THE BOATS, AND ENTER NORTHERN MOUTH OF THE GASCOYNE. CHARACTER OF THE COUNTRY.

March 18.

The wind was much lighter this morning and the surf not so heavy; we made a successful attempt to launch the boats just before sunrise. The wind still blew from the southward, and we found a heavy sea running outside. The men however exerted all their energies and just before sunset we reached the northern mouth of the Gascoyne, and found a very good passage into it with twelve feet water at low ebb-tide; but the other boat, not following our track, stuck fast on a sandbank, where she was soon left high and dry, and the tide fell so fast that we had a great deal of trouble in getting her afloat again.

BABBAGE ISLAND.

The bar once passed there are three and three and a half fathoms in this land-locked creek even at low water; the portion of Babbage Island which is between it and the sea appears to be nothing but a shifting bed of sand, and the mainland a delta, covered with mangrove swamps and brackish lagoons, at least for about a mile back.* We lay down upon the sand close to the boats, which were left at anchor with a boat-keeper in each, and found great difficulty in collecting driftwood enough to make our fires.

(*Footnote. In the year 1667 the Dutch Commodore Vlaming appears to have visited these coasts and to have ascended a river which might have been the Gascoyne. The account of his exploration is thus briefly given by Flinders (Terra Australis volume 1 Introduction page 61) After relating the arrival of his two ships off Cape Inscription at the north end of Dirk Hartog's Island he proceeds: No mention is made by Valentyn of the ships entering the road, nor of their departure from it; but it should seem that they anchored on February 4th. On the 5th Commodore Vlaming and the commander of the Nyptang went with three boats to the shore, which proved to be an island. They found also a river, and went up it four or five leagues, amongst rocks and shoals, when they saw much water inland, as if the country were drowned, but no men, nor anything for food, and wherever they dug the ground was salt. They afterwards came to another river, which they ascended about a league, and found it to terminate in a round basin, and to be entirely salt water. No men were seen, nor any animals, except divers, which were very shy; and the country was destitute of grass and trees. Returning downward on the 10th, they saw footsteps of men and children of the common size, and observed the point of entrance into the river to be a very red sand.)

March 19.

The wind still blew pretty fresh from the southward; we however had no surf to impede us and therefore got under weigh soon after dawn. The men pulled away cheerfully and, although this was very hard work on account of the headwind and sea, we experienced no great difficulty until

we had rounded Point Whitmore, at the north of Babbage Island, where we all at once found ourselves in broken water, so very shoal that between each breaker the boat was bumped with great violence against the bottom, and must have been very soon stove in had we not speedily got into deeper soundings.

ANCHOR IN SOUTHERN ENTRANCE OF THE RIVER.

About 2 P.M. we neared the southern mouth of the Gascoyne, pulled two miles up it, and anchored about a mile and a half to the south of our former position. The men, although it was very warm and they had been pulling hard all day, had as yet only had about a wine-glass full of water each, I therefore lost no time in sending off a watering party; and the remainder of us collected samphire which grew abundantly hereabouts and forms a fair article of food for hungry men.

The remainder of the evening was occupied in completing our water and in endeavouring to get a shot at some pelicans, but although numerous they were too wary, and my feet were covered with such dreadful sores from bad diet and being constantly in the salt water that I could not walk to any great distance in search of game.

COMPLETE OUR WATER.

The completion of our supply of water was a very great matter and, as we had now got so far to the southward as to make our fetching the northern extremity of Bernier Island almost a matter of certainty, however strongly it might blow, I determined to effect the passage the next day. Indeed I could not have delayed it for our provisions, bad as they were, were almost exhausted, and the men were already much reduced from the scarcity and bad quality of their food.

CHAPTER 17. FROM THE GASCOYNE TO GANTHEAUME BAY.

SAIL FROM THE GASCOYNE.

March 20.

When we pulled out of the Gascoyne this morning the first streak of dawn had not lit up the eastern horizon, we however managed by creeping along the southern shore to get out to sea, and there anchored until it was light enough to see the compass. I found a very heavy sea running outside and a strong breeze blowing from the southward; at this time however there was nothing which in my opinion rendered it too hazardous to risk the passage, more especially being pressed as we were by the want of food. The distance across to Bernier Island from the point of the main where we were was about ten miles further than it is from Dover to Calais. Our boats were in very bad repair, and the landing on the other side was by no means good. I therefore certainly would not have ventured to make the passage in a gale of wind; but the weather did not seem threatening and it had been for many successive days blowing as hard as it was when we started.

CAUGHT IN A GALE OF WIND.

We might have gone nine or ten miles when the wind suddenly increased, and ere we had made five more it had become a perfect gale and we were obliged to keep the boats close hauled, for had we run ever so little before the wind we should not have fetched Bernier Island, and consequently should have been blown right out to sea. We had nothing therefore now to do but to struggle for it, and to use every energy to save ourselves. Sea after sea broke into the boat but the water was as rapidly baled out: none could have behaved better than the crews of both boats did, and the whole scene was one of such constant, cheerful, and successful exertion that, great as our danger was, I do not recollect ever having a keener perception of the pleasure of excited feelings, or a more thorough revelry of joyous emotions, than I had during this perilous passage.

REACH BERNIER ISLAND.

Bernier Island at last rose in sight and amidst the giant waves we occasionally caught a peep of its rocky shores; but we were so tossed to and fro that it was only now and then that from the summit of some lofty sea we could sight a high shore which was not more than four or five miles from us. We had made the island about five miles from its northern extremity, and I ran along the shore until I found a convenient landing-place about a mile and a half to the south of our old one.

CHANGE IN THE LAND.

It was perfectly sheltered by reefs and an island, but it surprised me that I had not remarked this cove on my previous visit to the island, and I was still further astonished to see now three new small rocky islands, of which I had no recollection whatever. Indeed the men all for a long time stoutly denied that this was Bernier Island and, had we not now sighted Kok's Island, I should have doubted my skill in navigation and made up my mind that I had fallen into some strange error; but as it was forebodings shot across my mind as to what pranks the hurricane might have been playing upon the island, which consisted of nothing but loose sand heaped upon a bed of

limestone rock of very unequal elevation.

I ran in my own boat upon a convenient point of the beach and the other boat followed in safety, for I did not like, in such foul weather, to leave them at anchor on a lee shore, which had previously proved so unsafe a position. A most awkward question now presented itself to my consideration: from the altered appearance of the coast I felt very considerable doubts as to the state in which the depot might be found; supposing anything had occurred to it I felt that it would be unadvisable that such a discovery should be made in the presence of many persons; as future discipline would in a great measure depend upon the first impression that was given. Who, then, had I better select for the purpose of visiting the depot in the first instance? After some deliberation I made choice of Mr. Smith and Corporal Coles, in the courage, disinterestedness, and self-possession of both of whom I placed great confidence. I directed Mr. Walker to see certain little alterations made in the boats before the men were allowed to straggle; these I knew would occupy them for some time and leave me therefore during this interval free to think and act according to circumstances. I now called Mr. Smith and Corporal Coles to accompany me, and told Coles to bring a spade with him.

DESTRUCTION OF THE DEPOT OF PROVISIONS. SYMPTOMS OF CALAMITY.

Before we had gone very far alarming symptoms met my eyes in the form of staves of flour casks scattered about amongst the rocks, and even high up on the sandhills. Coles however persisted that these were so far inland that they could only have come from the flour casks which we had emptied before starting. I knew they were far too numerous for such to be the case, but I suppressed my opinion and made no remarks. We next came to a cask of salt provisions, washed high and dry at least twenty feet above the usual high-water mark: the sea had evidently not been near this for a long period as it was half covered with drift sand which must have taken some time to accumulate. This Coles easily accounted for, it was merely the cask which had been lost from the wreck of the Paul Pry. I still thought otherwise but said nothing.

At length we reached the spot where the depot had been made: so changed was it that both Mr. Smith and Coles persisted it was not the place; but on going to the shore there were some very remarkable rocks, on the top of which lay a flour cask more than half empty, with the head knocked out, but not otherwise injured; this also was washed up at least twenty feet of perpendicular elevation beyond high water mark. The dreadful certainty now flashed upon the minds of Mr. Smith and Coles, and I waited to see what effect it would have upon them. Coles did not bear the surprise so well as I had expected; he dashed the spade upon the ground with almost ferocious violence, and looking up to me he said, "All lost, Sir! we are all lost, Sir!" Mr. Smith stood utterly calm and unmoved; I had not calculated wrongly upon his courage and firmness. His answer to Coles was, "Nonsense, Coles, we shall do very well yet; why, there is a cask of salt provisions and half a cask of flour still left."

I now rallied Coles upon his conduct; compared it with that of Mr. Smith, and told him that when I had taken him on to the depot in preference to the other men it had been in the expectation that, if any disaster had happened, he would, by his coolness and courage, have given such an example as would have exercised a salutary influence upon the others. This had the desired effect upon him; he became perfectly cool and collected and promised to make light of the misfortune to the rest, and to observe the strictest discipline. I then requested Mr. Smith to see the little flour that was left in the barrel and on the rocks carefully collected by Coles, and, leaving them thus engaged, I turned back along the sea shore towards the party; glad of the opportunity of being alone as I could now commune freely with my own thoughts.

ALARMING POSITION AND PROSPECTS. REPAIR DAMAGES, AND RETURN TO THE MAIN.

The safety of the whole party now depended upon my forming a prompt and efficient plan of operations, and seeing it carried out with energy and perseverance. As soon as I was out of sight of Mr. Smith and Coles I sat down upon a rock on the shore to reflect upon our present position. The view seawards was discouraging; the gale blew fiercely in my face and the spray of the breakers was dashed over me; nothing could be more gloomy and drear. I turned inland and could see only a bed of rock, covered with drifting sand, on which grew a stunted vegetation, and former experience had taught me that we could not hope to find water in this island; our position here was therefore untenable, and but three plans presented themselves to me: first, to leave a notice of my intentions on the island, then to make for some known point on the main and there endeavour to subsist ourselves until we should be found and taken off by the Colonial schooner; secondly, to start for Timor or Port Essington; thirdly, to try to make Swan River in the boats.

CONSOLATIONS OF RELIGION.

I determined not to decide hastily between these plans and, in order more fully to compose my mind, I sat down and read a few chapters in the Bible.

By the influence these imparted I became perfectly contented and resigned to our apparently wretched condition and, again rising up, pursued my way along the beach to the party. It may be here remarked by some that these statements of my attending to religious duties are irrelevant to the subject, but in such an opinion I cannot at all coincide. In detailing the sufferings we underwent it is necessary to relate the means by which those sufferings were alleviated; and after having, in the midst of perils and misfortunes, received the greatest consolation from

religion, I should be ungrateful to my Maker not to acknowledge this, and should ill perform my duty to my fellow men did I not bear testimony to the fact that, under all the weightier sorrows and sufferings that our frail nature is liable to, a perfect reliance upon the goodness of God and the merits of our Redeemer will be found a sure refuge and a certain source of consolation.

In pursuing my route along the beach I carefully examined every heap of seaweed which the waves had thrown up, and was fortunate enough to find a bag of flour which had been washed up by the tide and held there by some rocks; though from daily soaking in salt water for several weeks it was quite spoilt and fermented, and smelt like beer; yet this, under present circumstances, was more valuable than its weight in gold. Just after I had found this bag, I met Ruston and another man coming from the boats to the depot; I at once told them exactly how matters stood; they bore the announcement better than I could have hoped for, and when I showed them that their safety altogether depended on their good conduct they promised the most implicit obedience and a ready cheerful demeanour. I must do Ruston the justice to say that under every trial he most scrupulously adhered to the promise he then made, and never infringed upon it in the slightest degree.

CONDUCT OF THE MEN.

When I reached the party and told the tale of the total disappearance of all we had left at the depot blank and dismayed faces met me on all sides. Mr. Walker and Corporal Auger set an excellent example to the others; but two men, of the names of Harry and Charley Woods, seized the first convenient opportunity of walking off to the place where our miserable remnant of damper was deposited with the intention of appropriating it to themselves. I only waited till they actually laid their hands upon it, when I stopped them, placed a sentry over what provisions were left, ordered a survey of all stores to be held, and a report to be made to me; and then went off with a party to search the shore in the hope of finding any other things which might have been washed up: our search however proved quite unsuccessful.

CHOICE OF PLANS.

I had warned the men that at sunset I would inform them what my intentions were with regard to our future movements; and in the meantime all hands were employed in searching for provisions or in preparing the boats for sea. A very gloomy prospect was before us: the men were already much reduced from illness, from using damaged provisions, and from hard work and exposure combined: our boats were in a very leaky unsound state, whilst all means of efficiently repairing them had been swept away in the hurricane. Add to this that the only provisions we had left really fit to eat were about nine days' salt meat, at the rate of a pound a man per diem, and about sixty pounds of tolerably good flour.

It would be useless to detail the different reasons which induced me to adopt the plan of endeavouring to make Swan River in the whale boats; this was however the course I resolved to pursue. Its principal advantages were that we should be constantly approaching home; and that if any accident should happen to the boats we might always hope to reach Perth by walking: the principal objection to it was the prevalence of strong south-east winds. At sunset the party assembled. I detailed to them at considerable length the three most feasible plans which had offered themselves to me, the reasons which had made me reject two of them, as well as those which led me to adopt the third; and as I knew that there were two or three insubordinate characters amongst the men, whom I had picked up at Fremantle, I further told them that, if a sufficient number to man one of the boats objected to follow me, they could go their own way; as the success of my scheme would altogether depend upon the courage and subordination with which it was carried out. No dissentient voice was however raised, but they all promised to follow me wherever I might lead. We now made arrangements for searching for turtle during the night, and then stretched ourselves on the sand to try and sleep.

March 21.

We were unfortunate in not catching a turtle during the night; the season for them had however now passed away, so that we could only hope to cut off a stray one which might have lingered behind its fellows. The next day was occupied in sticking up a steer-oar with a tin canister attached to it, containing a letter in which was detailed the plan I intended to follow, so that in the event of any accident occurring, and our remaining on the coast, we might still have the chance of a vessel being sent to search for us. The men were occupied in looking for shellfish, drying the flour, and preparing the boats. It blew nearly a gale of wind from the south throughout the day.

RETURN TO THE MAIN.

March 22.

This day at two P.M., all our preparations having been completed and the wind somewhat moderated, we stood across the bay, and soon after nightfall made the main about twelve miles to the north of the northern mouth of the Gascoyne. The wind freshened a great deal during the night; but as it was impossible to beach boats on so dangerous a coast in the dark we were obliged to trust to the goodness of our anchors, and they did not disappoint us.

March 23.

Before dawn this morning we were under weigh and pulling dead to windward against a strong breeze and heavy sea; the men rowed almost without intermission until noon when, finding them completely exhausted, I made sail and stood in towards the shore. When we had approached the land about four miles to the north of the Gascoyne a party of natives came down, without their spears, in the most friendly manner, making signs to us to land. We had however but little time to spare, and could not afford to give them any provisions: knowing also the small dependence that can be placed upon them in a first interview, I thought it most prudent to decline their invitation.

COMPLETE OUR WATER.

We accordingly continued our route and in the course of the evening made the river, where we completed our water, and halted for the night. We saw nothing more of the natives here, but I feel convinced that in the event of a settlement being formed at this point no difficulty would be found in establishing and maintaining the most friendly relations with them.

ANCHOR TO THE NORTH OF THE GASCOYNE.

March 24.

The morning did not promise very well, but soon after sunrise the wind shifted so much to the westward that we were able to run along shore, and in the course of the day we made altogether about forty-five miles, tracing the greater part of the remaining unknown portion of the shores of Shark Bay. On leaving the Gascoyne, a low point bore due south of us, distant about twelve miles, which I named Point Greenough after George Bellas Greenough, Esquire, the president of the Royal Geographical Society; and between this point and the river lay a deep bay, the shores of which were low and thickly studded with mangroves, through which many saltwater creeks ran up into the country. Two of these creeks I had examined on a previous occasion, and therefore now paid no attention to them.

EXAMINE THE COAST TO THE SOUTHWARD. ITS CHARACTER.

After passing Point Greenough the shore trended south by east and for the next eight miles preserved its low character, being still thickly wooded with mangroves; but at this point a remarkable change takes place as the mangroves suddenly cease, and the low range of hills which extends southward along the coast parallel to the shore increases a little in height. In about another mile the mangroves again commence, the coast now trending south-east; and about five miles further it runs south-east by east, forming a bay about four miles deep, the bottom of which is tolerably clear of mangroves.

CONTINUE OUR COURSE TO THE SOUTHWARD.

Having crossed this bay we ran south-east by south parallel to the shore; the mangroves now became less continuous and numerous, at least they appeared to us to be so, and the range of hills seemed also to approach much nearer to the sea. We continued on this course until sunset, when I selected a snug little bay in the mangroves, where we anchored at the distance of a few yards from the shore and made ourselves as comfortable as we could for the night.

CHARACTER OF THE COAST AND SEA.

There was great beauty in the scenery which we saw during the day's sail; the waters and the sky had that peculiar brilliancy about them which is only seen in fine weather and in a tropical climate. To the west of us lay an apparently boundless expanse of sea, whilst to the eastward we had a low shore fringed with trees, not only down to the water's edge but forming little green knolls of foliage in the ocean itself; behind these trees lay low wooded hills, and in front of them stalked and swam about pelicans and waterfowl in countless numbers. We had only about three feet depth of clear transparent water, through which we saw that the flats beneath us were covered with vivid coloured shells of many genera, some of which were of a very large size; strange-looking fish of a variety of kinds were also sporting about; more particularly sharks of a new species (of that kind which I shot at in mistake for an alligator) and stingrays. Whenever a lull occurred the men, unable to resist the chance of getting a meal, would jump out of the boat, and give chase to one of these sting-rays, boat-hook in hand, and then loud peals of laughter rose from the others as the pursuer, too anxious to attain his object, missed his stroke or, stumbling, rolled headlong in the water. The fineness of the day, the novelty of the scenery, and the rapid way we were making made the poor fellows forget past dangers, as well as those they had yet to undergo. My own meditations were of a more melancholy character, for I feared that the days of some of the light-hearted group were already numbered and would soon be brought to a close. Amidst such scenes and thoughts we were swept along, whilst this unknown coast, which so many had anxiously yet vainly wished to see, passed before our eyes like a panorama or a dream, and, ere many years have hurried by it is probable that the recollection of this day will be as such to me.

BOAT LEFT AGROUND BY THE TIDE.

March 25.

This morning I was up early in order that we might lose no time in getting under weigh; I was much surprised however to find both boats aground, and when the day had dawned sufficiently to enable me to distinguish surrounding objects I could not make out the sea, but found that we were lodged in a regular mangrove bush. I walked a few yards to get a clear view to the westward and found that we were at least a mile inland, so far does the tide run in over this low level shore. My eyes were so sore that I could scarcely see and I therefore did not attempt to make an excursion into the country, but sent a party for this purpose, who ascended the first low range of hills and reported that the country as far as they could see to the eastward was a succession of low mud flats subject to the overflowings of the sea. There was a promising-looking creek immediately to the south of us.

The tide came very slowly in until ten o'clock, which was about the time of high-water: but here it had only half risen and remained stationary for some time, when it began to ebb again, but soon meeting the second flood, now came pouring rapidly in, and just before sunset there was water enough for us to get off. We pulled to a low point, distant about two miles, and which bore south by east from us; and having anchored off this waited for the morning dawn to pursue our voyage.

CONTINUE A SOUTHERLY COURSE.

March 26.

In the morning I found that the point we were anchored off ran south-east and north-west: it was about two miles long and formed a low spit of land whence the coast trended due south. I debated for a few minutes whether I should explore the creek which lay to the south of us, but decided in the negative. Had I followed my own wishes I should have done so, but the lives of others now depended on my incurring no unjustifiable delay, and it did not therefore appear to be of importance; besides, as we had now traced the unknown portions of this great bay, and had moreover discovered in it a country in every way fitted for immediate occupation, and which indeed appeared from its soil and position to be one of the most valuable portions of the western side of the Continent, I thought that everything worthy of any great risk or danger had been accomplished, and resolved to hurry homewards.

STEER FROM THE MAIN.

After following the coast for a few miles further to the south I considered we were now far enough to windward to fetch somewhere near the centre of Perron's Peninsula; I therefore made sail and steered for that point.

ANOTHER GALE OF WIND.

Our passage across was a long and tedious one, and when at last towards evening we sighted Perron's Peninsula it was very evident that my boat would not do more than fetch the very northern point, but the other boat, which was a much better sailer, was nearly a mile to windward of us. The weather had been for the last hour or two very threatening, and we had reached to within two miles of the shore when the wind suddenly shifted to the south-west and began to blow a terrific gale. We had just time to down sail and take to the oars, and as every one of the crew saw that his life depended on it they gave way strenuously. We were under the lee of the Peninsula and had it not been for this circumstance must undoubtedly have been lost. That gale of wind was a terrible and magnificent sight. I stood at the steer oar; the waves lifted the boat each time nearly broadside on, and it was all I could do to bring her head round in time to meet the next sea, but the men pulled steadily. "Now men, give way for your lives," I called out if they flagged, and renewed energy was instantly infused into all of them. At times we could not hold our own against the wind and waves, and at the most favourable moments seemed merely to stand still. I looked at the shore until my eyes ached; but no nearer did it appear to be than at first, and gradually grew less distinct as the daylight faded. We could only see the other boat now and then; but although she was evidently in imminent peril they were much nearer in shore than we were. The danger we underwent on this occasion was great; but the excitement of so wild and grand a scene was highly pleasurable, and when success at last crowned our exertions, and we went dancing wildly in through the surf and spray upon a rocky unknown shore, and found the other crew on the beach ready to help us in hauling up, I felt that there is a charm attached to scenes like these which can only be fully estimated by those who have experienced it. Having in our turn assisted to haul up the other boat we lighted our fires and laid down for the night.

PERRON'S PENINSULA.

March 27.

This morning I found that all our hands were so fatigued by the exertions of the previous day that a few hours of comparative rest was absolutely necessary. I therefore directed them to stroll about the beach for an hour or two and to collect oysters or shellfish. The part of Perron's Peninsula which we were on consists of abrupt cliffs of the height of about two hundred feet; at the base of these and between them and the sea there is a narrow strip of sandy land and dunes, and at their summit is a barren sandy tableland, gently sloping away to the southward and appearing to extend throughout the whole length of the peninsula.

As soon as I thought the men were sufficiently rested we launched the boats, but on rounding the

northern extremity of the peninsula met a heavy sea running from the southward and were obliged to take to the oars. We had not got more than two miles to the southward of Cape Leseuer when I saw so many indications of an approaching gale that I ran in again and beached the boats; and this operation was hardly accomplished ere it blew with terrific violence from the south-south-west. Both here and at our last night's encampment we saw numerous signs of natives, and now found several native wells in the sandhills, but had no occasion to use them as we had regular tropical rain for the rest of the day. The men here brought me the bones of a very large marine animal which they had found at the natives' fire, but I could not recognise them as belonging to any that I was acquainted with. At this period, from bad food and being constantly wet with salt water, we were all afflicted with sores of the most painful and annoying character, and these much increased the unpleasantness of our situation.

ANOTHER GALE.

March 28.

This morning the weather looked tolerably fine; I therefore ordered the boats to be launched and, after pulling a few miles to windward along Perron's Peninsula, we struck across for Dirk Hartog's Island; our former ill-luck however still attended us, for just as we were making the land another fearful gale from the south-south-west came on, and had we not had the good luck to have got under the lee of the Coin de Mire of the French we must infallibly have been wrecked; as it was we pulled along under this promontory and beached the boats in a little bay at its north-west extremity. Nothing but absolute necessity could however have induced me to take such a step, for the place was rocky and difficult of access, with a heavy surf breaking on the beach. The rain fell in torrents during the greater part of the evening, and the men spent the time in searching for oysters and shellfish with which to appease their hunger. The rain which had fallen during the last two days had a very injurious effect upon some of us, for, our clothes having been lost with the other things which were swept away from the depot during the hurricane of the first of March, we were very insufficiently clad.

DIRK HARTOG'S ISLAND.

March 29.

The weather this morning being very foul I occupied myself in making a survey of a portion of Dirk Hartog's Island, which is of a very barren nature, though rather better than either Bernier or Dorre Islands, but for many years to come it must be utterly useless. It looks exactly like a Scottish heath; and I have no doubt whatever that water would be found by digging on it; but as we could have obtained plenty from large holes in the rocks we did not make the attempt. Whilst I was occupied in this examination of the island the wind shifted suddenly to the north-west and I hurried back to the party in order not to lose so favourable an opportunity.

On arriving at the boats I found that the water had not been completed, nor had three days' provisions (such as they were) been cooked, although I had left orders when I went away that these necessary preparations for our moving should immediately be made; this gave me another reason to suspect that, during my temporary absence from the party, discipline was now altogether neglected, and indeed treated as an unnecessary restraint under existing circumstances. Mr. Smith had warned me that such was the case, and I therefore never separated myself from any portion of the party without great anxiety; for I well knew that the safety of all depended upon preserving the strictest subordination.

In this instance however I merely ordered the boats to be instantly launched; for I knew that to lose a fair wind in our present situation would be rashness; and we were soon bounding before the breeze. The wind now continued fair and at nightfall we landed on the main in such a position as to look out to the open sea, through the passage between Steep Point and Dirk Hartog's Island.

PERILOUS COASTING.

March 30.

This morning we pulled up the opening and found a perfect bubble of a sea running into it and breaking on the various reefs which lie in its mouth. We then made an attempt to pull round Steep Point and succeeded in getting out to sea; but there was a formidable swell setting dead on the shore and drifting us rapidly in towards it, whilst in the event of being stranded nothing could have saved our lives for the surf was so tremendous that the boat must instantly have gone to pieces, and the lofty limestone cliffs were perfectly inaccessible, being hollowed out into deep caverns by the action of the waves. The attempt to get along this coast appeared indeed to be so hazardous that even the old sailors who were with me begged me not to risk it, but rather to allow them to endeavour to walk overland to Perth. I was well aware that had I attempted to do this at least half the party would have been lost; for but few men can support the fatigue of making long and continuous marches in a very warm climate in which a great scarcity of water prevails.

SHELTER UNDER A REEF.

I however humoured them so far as to put back for the mouth of the opening, where, under the

shelter of a reef, we could lie at anchor for a few hours in the hope that the sea would lull a little; we however only just cleared Steep Point, and whilst doing so I felt certain for two or three minutes that we must have gone ashore, for each breaker lifted the boat bodily towards the cliffs; as it was however it pleased Providence to bring us safe to our anchorage.

We were now about to enter on the most perilous part of our journey homewards. For the next one hundred and twenty miles along the coast I could not hope to find a place whereon to beach the boats, in the event of our meeting with those unfavourable winds which we had hitherto found so prevalent. It would, in the present weak state of the party, take us many successive days to make this passage; and, should the weather be really foul, accompanied by strong gales from the south-west, our fate would soon have been decided. Nevertheless our hope of ultimate safety rested altogether upon the accomplishment of the difficult task we were about to commence.

INSUBORDINATION CHECKED.

I soon found that remaining in a state of inactivity would but increase our difficulties; for as the men talked over them to one another, they grew wore and more gloomy, and when at length I gave a particular order to a man of the name of Woods he quietly refused to obey it, saying that he now considered that his life was altogether lost, and that he would therefore knock off work. I was rather puzzled for a minute or two as to how I ought to act under these circumstances, for such an example as he had set necessarily exercised a bad influence over the others; yet there was no use in threatening to punish where I had not the means to do so; I therefore merely turned round to the man who had the charge of sharing out our scanty allowance of provisions and desired him to divide Woods' portion of water and provisions amongst the rest of us today, as I intended for the future that he should have none, at all events not until he did his fair share of work. This had the desired effect; he soon came to his senses and told me that I might as well throw him overboard at once as starve him, to which I replied that unless he overcame his cowardice and bore his proportion of the toil we all had to go through I should in no way whatever interfere with his starving, being thrown overboard, or anything else; but that I would take very good care that he had neither a morsel to eat or a drop of water to drink; whereupon he again resumed his duty and from that time forward proved to be one of the best men I had with me; indeed I never again had occasion to find fault with him.

Seeing however what a pernicious effect this delay was likely to produce I determined at once to cope with those difficulties, which we must either overcome or perish; and accordingly round Steep Point we again went, and for the rest of this evening and night contended with the heavy sea as well as we could, keeping about a mile from the shore, sometimes pulling and sometimes getting a favourable slant of wind.

March 31.

This day we continued our course, tracing out the shore. A small piece of raw pork was served out to each man; and I found this to be a very nice and palatable morsel; it however increased our thirst, which, as we were upon very short allowance of water, was rather a disadvantage; but it was absolutely necessary that we should take some nourishment.

CHARACTER OF THE SHORE.

The country hereabouts is very uninviting, consisting of a high range of barren limestone hills, ascending gradually from steep cliffs which form the coastline. These hills are of such equal elevation that they have a monotonous as well as barren appearance, and are rent in places by deep rocky gullies which run down into the sea. No change whatever took place in the character of the coast throughout our day's run, nor did I see a spot where a boat could land. I did not close my eyes during Sunday night, for we were still in a most perilous position, and I felt that whilst we were on so dangerous a coast with a foul wind it was my duty to keep upon the alert as long as wearied nature would admit of my so doing.

As soon as there was sufficient light for me to distinguish the coastline I found that it was somewhat losing its monotonous character by breaking into more detached hills; and about ten A.M., we reached the northern extremity of Gantheaume Bay.

TO GANTHEAUME BAY.

The men being now completely worn out by want of rest, incessant exertion, and the mental anxiety they had undergone in the last fifty-six hours, during the whole of which time they had been in actual danger, I determined to attempt a landing in Gantheaume Bay, and therefore pulled along shore with the intention of finding a spot where we could easily land and yet be near a place likely to afford us water; for notwithstanding the economy we had practised none now was left. I soon came to an opening in the bay which I thought would suit our purpose, but Ruston, on whose opinion in such matters I placed great reliance, reported it to be utterly impracticable; we still therefore pulled along the shore, and found it lashed throughout its whole extent by a fearful surf. The south end of the bay, although protected by a reef, had just as heavy a surf breaking on it as any other part of the shore and was also very rocky, we therefore turned back to a sandy beach which we had passed in pulling round the bay and, having carefully examined this, it appeared in every way suited to our purpose, so we committed ourselves to the mercy of the breakers and in we went. As I stood at the steer-oar I saw that this was a heavier

surf than we had ever yet been in. We were swept along at a terrific rate, and yet it appeared as if each following wave must engulf us, so lofty were they, and so rapidly did they pour on.

WRECK OF ONE OF THE BOATS.

At length we reached the point where the waves broke; the breaker that we were on curled up in the air, lifting the boat with it, and when we had gained the summit I looked down from a great height, not upon water, but upon a bare, sharp, black rock. For one second the boat hung upon the top of the wave; in the next I felt the sensation of falling rapidly, then a tremendous shock and crash which jerked me away amongst rocks and breakers, and for the few following seconds I heard nothing but the din of waves whilst I was rolling about amongst men, and a torn boat, oars, and water-kegs, in such a manner that I could not collect my senses.

END OF VOLUME 1.

[ILLUSTRATION 1. Map of the District of the River Glenelg, on the North-Western Coast of Australia, from the surveys of George Grey, Esquire, by John Arrowsmith. (Presumably this map appeared at the beginning of the book. In the facsimile the maps are glued to the last blank pages.)]

*** END OF THE PROJECT GUTENBERG EBOOK JOURNALS OF TWO EXPEDITIONS OF
DISCOVERY IN NORTH-WEST AND WESTERN AUSTRALIA, VOLUME 1 ***

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