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Plate I.

Sir T. L. M. del. R. Carmick. lith. Day & Son lith.rs to the Queen

FLOOD COMING DOWN THE MACQUARIE.

Ex. Exp. 1846. page 56

804 24.

JOURNAL

OF AN

EXPEDITION INTO THE INTERIOR

OF

TROPICAL AUSTRALIA,

IN SEARCH OF A ROUTE FROM

SYDNEY TO THE GULF OF CARPENTARIA.

BY

LT. COL. SIR T. L. MITCHELL, K^T. D.C.L.,

SURVEYOR-GENERAL OF NEW SOUTH WALES.

LONDON:

LONGMAN, BROWN, GREEN, AND LONGMANS,

PATERNOSTER-ROW.

1848.

PREFACE.

"ADMIRING Nature in her wildest grace," * it has ever been the most attractive of the author's duties to explore the interior of Australia. There the philosopher may look for facts; the painter and the poet for original studies and ideas; the naturalist for additional knowledge; and the historian might begin at a beginning. The traveller there seeks in vain for the remains of cities, temples, or towers; but he is amply compensated by objects that tell not of decay but of healthful progress and hope;—of a wonderful past, and of a promising future.

Curiosity alone may attract us into the mysterious recesses of regions still unknown; but a still deeper interest attaches to those regions, now that the rapid increase of the most industrious and, may we add most deserving people on earth, suggests that the land there has been reserved by the Almighty for their use.

In Australia, the great family of civilized man seems still at that early period between history and

* Burns.

fable, upon which, even in "the world as known to the ancients," the Roman poet had to look very far back: —

> "Communemque priùs, ceu lumina solis et auras,
> Cautus humum longo signavit limite mensor." *

The Journey narrated in this work was undertaken for the extension of arrangements depending on physical geography. It completes a series of internal surveys, radiating from Sydney towards the west, the south, and the north, which have occupied the author's chief attention during the last twenty years; and, as on former occasions, it has enabled him to bring under the notice of men of science some of the earth's productions hitherto unknown. He cannot sufficiently express his sense of obligation in this respect, to Mr. Bentham, Sir William Hooker, Dr. Lindley, and Professor De Vriese, for supplying the botanical matter and notes contained in this volume, and thus contributing to the general stock of human knowledge. It is also his pleasing duty to state, that during the long journey of upwards of a year, Captain P. P. King, R. N., kept a register of the state of the barometer at the sea side; and, in the midst of his important avocations, determined, by a very elaborate comparison of minute details, all the heights of localities herein mentioned.

The new geographical matter is presented to the public with confidence in its accuracy, derived as it is from careful and frequent observations of latitude; trigonometrical surveying with the theodolite, where-

* Ovid, Met. lib. i.

ever heights were available; and, by actual measurement of the line of route. This route was connected, at its commencement and termination, with the trigonometrical survey of the colony; and, in closing on Mount Riddell, a survey extending two degrees within the tropics, the near coincidence of his intersections with that summit, as fixed by his survey of 1830, could not but be very satisfactory to the author.

The geological specimens collected during this journey have been deposited in the British Museum, and their original locality is shown on the maps by the numbers marked upon the specimens, so that they may be available to geologists; hence, in the progress of geological science, the fossils now brought from these remote regions will be accessible at any future time, and something known of the geology as well as of the geography of the interior. As Professor Forbes most readily undertook to describe the fresh-water shells after the work had passed through the press, that portion of the collection also has thus been brought under the notice of geologists.

CONTENTS.

CHAPTER I.

General Map - - - - - Page 1

Objects of the expedition. — Unexpected delay — by reference to Lord Stanley. — List of the Party. — Departure from Buree. — Sheep stations. — Scattered population. — Passage through Hervey's Range. — Encroachment of sheep on cattle runs. — A tea-totaller. — Meet an old acquaintance. — Sulphureous springs. — Currandong. — Necessity for damming up the Bogan. — Leave Bultje's country. — Ephemeral existence of Aborigines. — Line between the squatters and the wild natives. — Velocity of the Bogan. — Supply of young bullocks. — Richard Cunningham — Young cattle troublesome. — A night without water. — Distress from heat and thirst. — Excessive heat. — Reunion of the party. — Melancholy fate of the Bogan tribe. — Interesting plants discovered. — Encampment at Mudà. — Carry water forward. — Arrive at Daròbal. — Nyingan. — Water at Canbelègo. — Discovery of a lagoon. — Encamp near Canbelègo. — Explore the Bogan in search of water. — Long ride. — Quit the Bogan. — Party attacked with ophthalmia Pages 1—42

CHAP. II.

Map of the Rivers Bogan and Macquarie - Page 43

Move to the ponds of Cannonbà. — Set up our bivouac. — Hot wind. — Piper's intention to quit the party. — Piper sent to Bathurst. — Change of weather. — A day of rain. — Mr. Kennedy returns. — Salt made from the salt plant. — Reconnoitre Duck Creek. — Ophthalmia still troublesome. — Approach of a flood announced. — It arrives in clear moonlight. — (*Frontispiece.*) — Marshes of the Macquarie. — Difficulty of watering cattle. — (*Plate* 2. p. 61.) — A new guide. — Cattle astray. —

Yulliyally. — Docility of the Aborigines. — Water insufficient for cattle. — Want of water. — Small ponds destroyed by cattle. — At last find abundance. — Aboriginal preferable to modern names. — Cattle again astray — and delay the journey. — Junction of the Macquarie and Bàrwan. — The Darling as at present, and formerly. — Admirable distribution of water. — The ford at Wyàbry. — The party crosses the Darling
Pages 43—79.

CHAP. III.

Map of the Rivers Narran, Culgoa, and Balonne to St. George's Bridge, — showing also the route homeward, as described in Chapter X. - - - Page 81

Plains and low hills. — The Caràwy ponds. — Delayed by weak cattle. — The Narran. — Arrived at —— encamp by: — Narran swamp. — A bridge required. — During the delay of drays — take a ride forward. — Rich pastures on the Narran. — New plants. — Arrival of drays. — Bridge laid down for their passage. — The party fords the Narran. — Advances but slowly. — Low hills examined. — Good grassy country. — Food of the natives. — Rising ground west of the river. — Ride up. — Abodes and food of natives. — Rich grass. — Parley with a native. — Gravelly ridges. — Two natives conduct us to the river. — Approach the assembled natives. — Interview with the tribes. — Cordial reception. — Cross the Balonne. — Reach the Culgòa. — Cross that river. — Route beyond. — The Upper Balonne. — Explore its course. — Numerals cut on trees. — A native scamp. — Fine country. — Splendid reaches of the river. — (*Plate* 3. page 119.) — Lagoons near it. — Lake Parachute. — Seek a position — for a depôt camp. — Ride to the north-west. — Character of the country. — Search for water. — Uncommon birds. — Return to the camp. — New Acacia - - - Pages 80—132

CHAP. IV.

Map of the Advance to the Maranòa, — showing also the Route by which the Party returned to St. George's Bridge, as described in Chapter VII. - Page 133

Advance with a light party. — Fine river scenery. — Junction of rivers. — Trace one up, then cross to the other. — Mr. Kennedy instructed to explore it. — Fine country for grazing. — Turanimga lagoon. — Trace up a small tributary. — Mountains

discovered. — Camp visited by three natives. — "Cogoon" the name of tributary. — Charms of the Australian climate. — Mount Minute. — Extreme cold. — Traces of high floods in the Cnogoa. — Mount Inviting. — Mount Abundance. — Ascend that mountain. — Fitzroy Downs. — The Bottle Tree, or *Delabechea*. — Frosty Creek. — Travel due north over open downs. — Advantages of mountains. — Ascend one. — Mount Bingo. — Thenod Tagando tribe. — The party advances to the Amby — followed by the tribe. — How we got rid of them. — Enter the country through the pass. — Find one pond. — A large river discovered. — Position taken up on its banks. — There await Mr. Kennedy's arrival. — Explore to the north-west. — Ascend a hill and tree to take angles from. — Interior country visited. — View of the western interior. — Its character. — Determine to trace the river upwards. — Ascend Mount Kennedy. — Extensive prospect. — Native visit during my absence. — Arrival of Mr. Kennedy's party. — The Tagando tribe again. — Their visit to Mr. Kennedy. — Prepare to advance again with a light party. — Instructions left with Mr. Kennedy - Pages 133—188

CHAP. V.

MAP OF THE COUNTRY AND THE ROUTES BETWEEN THE MARANOA AND MOUNT MUDGE, AND THOSE ALONG THE RIVER VICTORIA AS DESCRIBED IN CHAPTER VII. - - - Page 189

My departure. — A team of bullocks sent back for. — Good grassy country. — Ride north-west during rain. — Hostile natives menace our camp. — The party crosses Possession Creek. — A small river found. — Another ride to the north-west. — Banks of the little river. — Mount Owen seen. — Travel towards it. — Flank movement to the Maranòa for water. — None found in its bed. — View from Mount Owen. — Names of localities on the map. — Scarcity of water impedes our progress. — Water found in rocky gullies. — Excursion northward. — Mount Aquarius. — View from northern summit of Mount Owen. — Progress through a broken country. — Night without water. — Another route explored amongst the gullies. — Plants found near Mount Owen. — Route for the advance of the carts. — View of mountains — from Mount P. P. King. — View from western extremity of Table Land of Hope. — Mount Faraday. — Strange Hakea. — A running stream discovered. — Return towards the camp. — The party with the carts advances. — (*Pyramids, Plate* IV., page 222.) — Course of the new found river. — New plants. — A large lake receives the river. — (*Plate* V., *John*

Martin's Range, page 225.) —The outlet dry. — Enter a scrub. — Return to the Salvator. — Discovery of the Claude. — Rich soil on the 'downs. — The party moves to the Claude. — Cross that river. — Fossil wood. — Again shut up in a rocky country. — Slow progress in a gully. — Balmy Creek. — New plants. — Emerge from the ravines. — Tower Almond. — (*Pl.* 6. page 237.) — View from Mount Kilsyth. — View from Mount Mudge. —Two natives met. — Remarkable tree - Pages 189—241

CHAP. VI.

Map of the River Belyando, - - - Page 243

Head of another river. — Water again scarce. — Abundance found. — Climate and country — under the Tropic Line. — Plants. — Peculiar character of the water-course. — One cause of open spaces in the woods. — New plants. — Causes of the out-spread of channel. — Plains of wild indigo. — Large river channel from the south. — Cross. — Novelties beyond. — The river much increased. — Long journey through scrub. — New plants. — Journey along the river bank. — Character of this river. — Distant prospect. — No water. — Fatiguing journey through scrubs. — Reach the river by moonlight. — Large lagoons. — New tributary — from the S. W. — Excursion to the N. W. — Night without water. — Interview with natives. — Camp visited by natives during my absence. — An affair at the camp. — The party crosses the river. — Conclusions. — The party returns. — Tilled ground of the natives. — The shepherd astray. — Singular phenomenon. — Extraordinary vegetable production — Heavy rain comes on. — Probability of finding a river. — Singular meteor. — Inter-tropical temperature. — Effects of the rain. — Recross the Tropic. — Regain the higher land. — Remarkable tree. — (*Hakea?*) — Dip of the strata. — Character of the Belyando. — How to explore a river in brigalow. — A more direct way homewards. — Successful passage with carts and drays. — Open downs. — Fossil wood. — Recross the Claude. — Mantuan downs. — Natives of the Salvator. — Position taken up for a depôt camp. — Interesting plants. — (*View on the Salvator, Pl.* 8.) - - Pages 242—298

CHAP. VII.

(Having reference to Map V., Page 189.)

Preparations and departure. — Mount Pluto. — Route amongst the three volcanic hills. — Interview with a female native. — Cross a range beyond. — The Nive and the Nivelle. — Burning of

grass by the natives. — Water found, after a night of thirst. — Pastures green, and quiet waters at sunset. — Morning view from a rock. — A new river followed down — over extensive open downs. — Brigalow scrubs away from the river. — River much increased. — Security from natives. — Thoughts in these solitudes. — The downs and the river. — An emu shot there. — A river joins from the east. — Structure of native's huts. — Two separate channels unite. — The river well filled. — Packhorse unserviceable. — Rare pigeon — numerous. — A wild tribe — surprised at a lagoon. — Recross the river — and return homewards. — The savage compared — with the civilized. — Hills in the S. W. — Short cut along the left bank of the river. — Name it the Victoria. — Privations in exploring. — Return to the Nive and Nivelle. — Gallant charge by a snake. — Sources of the Salvator. — View from Mount Pluto. — Arrival at the camp of the pyramids. — Rare and new plants — collected there. — (*View of Lindley's Range, Pl.* 9.) - - Pages 299—343

CHAP. VIII.

(Having reference to Map V., Page 189., and Map IV., Page 133.)

Fossils and plants. — A new genus. — *Linschotenia discolor.* — Ascend Mount Faraday. — Valley of the Warregò. — Meet an old native — Return to the camp over the gullies. — Encamp by the Maranòa. — The river found to be near our former track — with water in abundance. — Loss of a horse. — Cattle tracks. — Arrival at the camp of Mr. Kennedy. — Visits of the natives — during our absence. — (*Pl.* 7. *Aboriginal dance,* page 358). — Plants gathered at the depôt camp. — New plants. — Fossils at Mount Sowerby. — Ascent of Mount Kennedy. — The party leaves the depôt camp — following the course of the Maranòa. — Discovery of a fine open country. — Numbered trees at camps. — The country on the Maranòa. — Singular habits of a fish. — Name of river obtained from good authority. — (*Pl.* 10. *View on the Maranòa,* page 372). — The Acacia varians. — Water scarce again. — Some at length discovered by a dog. — Country between the two routes. — Plants. — Arrive at the Balonne. — Return to St. George's Bridge - Pages 344—381

CHAP. IX.

(Having reference to Map III., Page 81.)

(*View of St. George's Bridge, Pl.* 11.) — Despatches sent forward. — Acquisitions during the delay. — Mr. Kennedy's return and

report. — The party crosses the Balonne. — Arrives at the Mooni. — A white woman. — Cattle stations. — Heavy rain. — The country impassable. — Camp removed to a hill. — Dam thrown up. — The waters subside. — The party proceeds. — Arrival at the Barwan. — A flood. — (*Pl.* 12. *Last use of the boats,* page 395). — Cross the Màal, also in boats. — Country between the rivers. — Mount Riddell recognised. — The Gwydir crossed. — Termination of the journey. — A stockman. — Night on the open plain. — The Nammoy. — First news

Pages 382—404.

CHAP. X.

Instructions to Mr. Kennedy for the survey of the river Victoria. — *Of the Aborigines.* — Simple conditions of human existence. — Grass, fire, kangaroos, and men. — Case of the aboriginal natives. — My native guides. — Experiment worth trying. — *Of the Convicts.* — Character of the men of the party. — Of convicts generally. — *Of the Colony of New South Wales,* — capabilities of soil and climate. — Progress of colonization, — Division and appropriation of the territory. — Capricornia and Australindia - - - - - Pages 405—430

Map of Eastern Australia - - - Page 430

APPENDIX.

The Colonial Secretary to the Surveyor General of New South Wales. — Letter, dated 28th October, 1830 - Page 431

Systematical List of Plants - - - 432

ILLUSTRATIONS.

Flood coming down the Macquarie (pl. I. p. 58) *Frontispiece.*
Map I. The Indian Archipelago - - - - p. 1
Portrait of Bultje - - - - - - 17
Remnant of the Bogan tribe - - - - 30
Map II. The Rivers Bogan and Macquarie - - 43
First use of the boats (pl. 2) - - - - 61
Map III. The Rivers Narran, Culgoa, and Balonne to St. George's Bridge, shewing also the route thence homeward to Snodgrass Lagoon - - - - - 81
Separation of the Balonne into the Culgoa, Narran, &c. - 115
The River Balonne, 7th April (pl. 3) - - - 119
Map IV. Advance to the Maranòa, and route returning to St. George's Bridge - - - - - 133
The Bottle tree, *Delabechea* - - - - 154
The black awaiting the white - - - - 166
Map V. The country and the routes between the Maranòa and Mount Mudge, and those along the River Victoria - 189
Tree without branches - - - - - 219
The Pyramids (pl. 4) - - - - - 222
Martin's Range (pl. 5) - - - - - 225
Tower Almond (pl. 6) - - - - - 237
Map VI. The River Belyando - - - - 243
Missile club of natives of Central Australia - - 269
Remarkable tree (*Hakea ?*) - - - - - 285
The River Salvator, 5th Sept. (pl. 8) - - - 298
Lindley's Range (pl. 9) - - - - - 343
Old native female - - - - - - 357
Aboriginal dance (pl. 7) - - - - - 358
View on the River Maranòa (pl. 10) - - - 372
Acacia *varians* - - - - - - 373
St. George's Bridge (pl. 11) - - - - 382
Last use of the boats (pl. 12) - - - - 395
Map VII. Eastern Australia, with recent discoveries - 430

Longman & Co. 1848.

J. W. Lowry

JOURNEY

INTO

TROPICAL AUSTRALIA,

&c.

CHAPTER I.

Objects of the expedition. — It is delayed by a reference to Lord Stanley. — List of the party. — Departure from Buree. — Scattered population. — Irish amongst the squatters. — A tea-totaller from Sydney. — A shepherdess in Australia. Sheep walk where cattle run. — Meet an old aboriginal acquaintance. — Cattle stations abandoned. — The Bogan river. — Young bullocks troublesome. — Excessive heat. — Great scarcity of water. —The party much distressed by heat and drought. — Melancholy fate of the Bogan tribe. — Interesting plants discovered. — Carry water forward. — Desperate ride down the Bogan. — Find its channel dry. — Dogs die from thirst. — The party attacked with ophthalmia. — Quit the Bogan, by moving to the ponds of Cannonbà. — Encamp there to rest and refresh the party.

The exploration of Northern Australia, which formed the object of my first journey in 1831, has, consistently with the views I have always entertained on the subject*, been found equally essential in 1846 to the full developement of the geographical resources of New South Wales. The same direction indicated on

* See London Geographical Journal, vol. vii. part 2. p. 282.

Mr. Arrowsmith's map, published by the Royal Geographical Society in 1837, was, in 1846, considered, by a committee of the Legislative Council of New South Wales, the most desirable to pursue at a time when every plan likely to relieve the colony from distress found favour with the public.

At no great distance lay India and China, and still nearer, the rich islands of the Indian Archipelago; all well-peopled countries, while the industrious and enterprising colonists of the South were unable to avail themselves of the exuberance of the soil and its productions,

> "Which mock'd their scant manurings, and requir'd
> *More hands than theirs* to prune their wanton growth."

The same attraction which drew the greatest of discoverers westward, "al nacimiento de la especeria*," seemed to invite the Australian explorer northward; impelled by the wayward fortunes of the Anglo-Saxon race already rooted at the southern extremity of the land whose name had previously been "Terra Australis incognita." The character of the interior of that country still remained unknown, the largest portion of earth as yet unexplored. For the mere exploration, the colonists of New South Wales might not have been very anxious just at that time, but when the object of acquiring geographical knowledge could be combined with that of exploring a route towards the nearest part of the Indian Ocean, westward of a dangerous strait, it was easy to awaken the attention of the Australian public to the importance of such an enterprise. A trade in horses required to remount the Indian cavalry had commenced, and the disadvantageous navigation of Torres Straits

* To the region where spices grew.

had been injurious to it: that drawback was to be avoided by any overland route from Sydney to the head of the Gulf of Carpentaria.

But other considerations, not less important to the colonists of New South Wales, made it very desirable that a way should be opened to the shores of the Indian Ocean. That sea was already connected with England by steam navigation, and to render it accessible to Sydney by land, was an object in itself worthy of an exploratory expedition. In short, the commencement of such a journey seemed the first step in the direct road home to England, for it was not to be doubted that on the discovery of a good overland route between Sydney and the head of the Gulf of Carpentaria, a line of steam communication would thereupon be introduced from that point to meet the English line at Singapore.

In this view of the subject, it seemed more desirable to open a way to the head of the Gulf of Carpentaria, the nearest part of the sea, than to the settlement at Port Essington, on a presque-île forming the furthest point of the land; and, that the journey would terminate at the Gulf was therefore most probable. The map of Australia, when compared with that of the world, suggested reasonable grounds for believing that a considerable river would be found to lead to the Gulf of Carpentaria.

My department having been reduced to a state of inactivity in 1843, I submitted a plan of exploration to Sir George Gipps, the Governor, when His Excellency promised, that if the Legislative Council made such reductions as they seemed disposed to make in the public expenditure, he should be able to spare money for such an expedition. The Legislative Council not

only made reductions in the estimates to save much more money than His Excellency had named, but even voted 1000*l.* towards the expense of the journey, and petitioned the Governor to sanction it. His Excellency, however, then thought it necessary to refer the subject to the Secretary for the Colonies. Much time was thus lost, and, what was still worse, the naturalist to whom I had explained my plan, and invited to join my party, Dr. Leichardt. This gentleman, tempted by the general interest taken by the colonists at the time in a journey of discovery, which afforded a cheering prospect amid the general gloom and despondency, raised and equipped a small party by public subscription, and proceeded by water to Moreton Bay. Dr. Leichardt, and the six persons who finally accompanied him thence to the northward, had not been heard of, and were supposed to have either perished or been destroyed by natives.*

The reply of Lord Stanley was, as might have been anticipated, favourable to the undertaking; but the Governor of the colony still declined to allow the journey to be undertaken, without assigning any reason for keeping it back. This was the more regretted by me, when it became known in New South Wales that Captain Sturt was employed, with the express sanction of Lord Stanley, to lead an exploring expedition from Adelaide into the northern interior of Australia, and that he was actually then in New South Wales. Sir George Gipps had expressed, in one of his early despatches to the British Government, his readiness to encourage such an undertaking as

* Dr. Leichhardt returned afterwards to Sydney from Port Essington by sea; and the journal of his journey, recently published, shows what difficulties may be surmounted by energy and perseverance.

that, and stated that "no one came forward to claim the honour of such an enterprise;" yet now that Lord Stanley had sanctioned the plan of the Surveyor General, whose duty it was to survey the country, he refused to allow this officer to proceed. The Legislative Council, however, renewed the petition for this undertaking, to which the Governor at length assented, in 1845; and the sum of 2000*l.* was unanimously voted for the outfit of the party, but with the clear understanding on the part of the Council, that the plan of the Surveyor General should be adopted.

The idea of a river flowing to the northward, was not, however, new. The journey in 1831 was undertaken chiefly in consequence of a report that a large river had been followed down to the coast by a bush-ranger, accompanied by the natives: and the ultimate course of the Condamine, still a question, was a subject of controversy in some of the first papers published in the Journal of the Royal Geographical Society. My suggestions on the subject are detailed at length in the London Geographical Journal, Vol. VII., Part 2., page 282., and accompanied by a map showing the line of exploration then recommended.

In making preparations for this expedition, the means of conveyance by land and water required the earliest consideration. These were strong bullock-drays and portable boats. Horses and light carts had been preferred by me: but the longer column of march, and necessity for a greater number of men, were considered objections; while many experienced persons suggested that the bullocks, though slow, were more enduring than horses.* Eight drays were therefore ordered to be made of the best seasoned wood: four

* The results of this journey proved quite the reverse.

of these by the best maker in the colony, and four by the prisoners in Cockatoo Island. Two iron boats were made by Mr. Struth, each in two parts, on a plan of my own, and on the 17th of November the whole party moved off from Paramatta on their way to the proposed camp at Buree.

I joined the party encamped at Buree on the 13th of December, having rode there from Sydney in four and a half days, and on the following Monday, 15th of December, 1845, I put it in motion towards the interior. The Exploring party now consisted of the following persons:—

Sir T. L. Mitchell, Kt., Surveyor General, - -	Chief of the Expedition.
Edmund B. Kennedy, Esq. Assistant Surveyor, - -	Second in command.
W. Stephenson, M.R.C.S.L.	Surgeon and Collector of objects of Natural History.
Peter M'Avoy, - - -	Mounted Videttes.
Charles Niblett, - - -	
William Graham, - -	
Anthony Brown, - -	Tent-keeper.
William Baldock, - -	In charge of the horses.
John Waugh Drysdale, -	Store-keeper.
Allan Bond, - - -	Bullock-drivers.
Edward Taylor, - -	
William Bond, - - -	
William Mortimer, - -	
George Allcot, - - -	
John Slater, - - -	
Richard Horton, - -	
Felix Maguire, - - -	
James Stephens, - -	Carpenters.
Job Stanley, - - -	
Edward Wilson, - - -	Blacksmith.
George Fowkes, - - -	Shoemaker.
John Douglas, - - -	Barometer carrier.
Isaac Reid, - - -	Sailor and Chainman.
Andrew Higgs, - - -	Chainman.

William Hunter, - - -	} With the horses.
Thomas Smith, - - -	
Patrick Travers, - - -	Carter and Pioneer.
Douglas Arnott, - - -	Shepherd and Butcher.
Arthur Bristol, - - -	Sailmaker and Sailor.

8 drays, drawn by 80 bullocks; 2 boats; 13 horses; 4 private do.; and 3 light carts, comprised the means of conveyance; and the party was provided with provisions for a year:—250 sheep (to travel with the party), constituting the chief part of the animal food. The rest consisted of gelatine, and a small quantity of pork.

With the exception of a few whose names are printed in italics, the party consisted of prisoners of the Crown in different stages of probation, with whom the prospect of additional liberty was an incentive so powerful, that no money payment was asked by them or expected, while, from experience, I knew that for such an enterprise as this I could rely on their zealous services. The patience and resolution of such men in the face of difficulties, I had already witnessed; and I had hired three of the old hands, in order the more readily to introduce my accustomed camp arrangements. Volunteers of all classes had certainly come eagerly forward, offering their gratuitous services on this expedition of discovery; but discipline and implicit obedience were necessary in such a party to ensure the objects in view, as well as its own preservation; and it was not judged expedient, where some prisoners were indispensable as mechanics, to mix with them men of a different class, over whom the same kind of authority could not be exercised.

Following the same road by which I quitted Buree, in 1835, my former line of route across Hervey's Range lay to the left. The party thus arrived at Bramadura, a sheep station occupied by Mr. Boyd. It was on the same chain of ponds crossed by me on the journey of 1835, and then named Dochendoras Creek,

but now known as the Mundadgery chain of ponds. These ponds had been filled by heavy rains which fell on Tuesday the 9th December—the day on which I left Sydney, where the weather had been clear and sultry. A tornado or hurricane had, on the same day, levelled part of the forest near this place, laying prostrate the largest trees, one side of which was completely barked by the hailstones. Many branches of trees along the line of route, showed that the wind had been very violent to a considerable distance.

16*th December*.—Some of the bullocks missing: the party could not, therefore, quit the camp until 11 o'clock. The passage of the bed of the chain of ponds (which we travelled up) was frequently necessary, and difficult for heavily laden drays, which I found ours were, owing, chiefly to a superabundance of flour, above the quantity I intended to have taken, but supplied to my party, and brought forty miles by my drays before my arrival at the camp.

We halted at another sheep station of Mr. Boyd's. Here I perceived that Horehound grew abundantly; and I was assured by Mr. Parkinson, a gentleman in charge of these stations, that this plant springs up at all sheep and cattle stations throughout the colony, a remarkable fact, which may assist to explain another, namely, the appearance of the Couch-grass, or Dog's-tooth-grass, wherever the white man sets his foot, although previously unknown in these regions.

17*th December*.—Set off about 7 A. M. and travelled along a good road, for about 6 miles. Then, at a sheep station, we crossed the chain of ponds, following a road leading to Dr. Ramsay's head station, called Balderudgery. Leaving that road, and, at 7 miles,

taking to the left, we finally encamped on Spring Creek, after a journey of about 9 miles. We had passed over what I should have called a poor sort of country, but everywhere it was taken up for sheep; and these looked fat; yet not a blade of grass could be seen; and, but for the late timely supply of rain, it had been in contemplation to withdraw these flocks to the Macquarie.

Calling at a shepherd's hut to ask the way, an Irish woman appeared with a child at her breast and another by her side: she was hut-keeper. She had been there two years, and only complained that they had never been able to get any potatoes to plant. She and her husband were about to leave the place next day, and they seemed uncertain as to where they should go. Two miles further on, a shoemaker came to the door of a hut, and accompanied me to set me on the right road. I inquired how he found work in these wild parts. He said, he could get plenty of work, but very little money; that it was chiefly contract work he lived by: he supplied sheep-owners with shoes for their men, at so much per pair. His conversation was about the difficulty a poor man had in providing for his family. He had once possessed about forty cows, which he had been obliged to entrust to the care of another man, at 5*s*. per head. This man neglected them: they were impounded and sold as unlicensed cattle under the new regulations.

"So you saw no more of them?"

"Oh, yes, your honour, I saw some of them *after they had been sold at the pound!*—I wanted to have had something provided for a small family of children, and if I had only had a few acres of ground, I could have kept my cows."

This was merely a passing remark made with a laugh as we walked along, for he was one of the race—

"Who march to death with military glee."

But the fate of a poor man's family was a serious subject: such was the hopeless condition of a useful mechanic ready for work even in the desolate forests skirting the haunts of the savage. So fares it with the *disjecta membra* of towns and villages, when such arrangements are left to the people themselves in a new colony.

18*th December*.—The party moved off about 7 A.M., and continued along a tolerable road, crossing what shepherds called Seven Mile Creek, in which there was some water; and a little further on we quitted the good beaten road leading to Balderudgery, and followed one to the left, which brought us to another sheep station on the same chain of ponds, three miles higher up than Balderudgery. Having directed the party to encamp here, I pursued the road south-westward along the chain of ponds, anxious to ascertain whether I could in that direction pass easily to the westward of Hervey's Range, and so fall into my former line of route to the Bogan. At about five miles I found an excellent opening through which the road passed on ground almost level. Having ascended a small eminence on the right, I fell in with some natives with spears, who seemed to recognise me, by pointing to my old line of route, and saying, "Majy Majy" (Major Mitchell). I little thought then that this was already an outlying picquet of the Bogan Blacks, sent forward to observe my party. The day was hot, therm. 97° in the shade. The chain of ponds, there called "the Little River," con-

tained water in abundance, and was said to flow into the Macquarie, in which case the Bogan can have but few sources in Hervey's Range.

The station beside which we had encamped, comprised a stock yard, and had been formerly a cattle station belonging to Mr. Kite. It was now a sheep station of Dr. Ramsay's, and there was another sheep station a mile and a half from it, along the road I had examined. Thus the country suitable for either kind of stock is taken up by the gradual encroachment of sheep on cattle runs, not properly such. This easily takes place — as where sheep feed, cattle will not remain, and sheep will fatten where cattle would lose flesh. Fortunately, however, for the holders of the latter description of stock, there are limits to this kind of encroachment. The plains to the westward of these ranges afford the most nutritive pasturage in the world for cattle, and they are too flat and subject to inundations to be desirable for sheep. A zone of country of this description lies on the interior side of the ranges, as far as I have examined them. It is watered by the sources of the rivers Goulburn, Ovens, Murray, Murrumbidgee, Lachlan, Bogan, Macquarie, Castlereagh, Nammoy, Peel, Gwydir, and Darling; on which rivers the runs will always make cattle fat. There are two shrubs palpably salt, and, perhaps, there is something salsolaceous in the herbage also on which cattle thrive so well; and the open plains and muddy waterholes are their delight. Excessive drought, however, may occasionally reduce the owners of such stock to great extremities, and subject them to serious loss. The Acacia pendula, a tree whose *habitat* is limited and remarkable, is much relished by the cattle. It is found

only in clay soils, on the borders of plains, which are occasionally so saturated with water as to be quite impassable; never on higher ground nor on any lower than that limited sort of locality, in the neighbourhood of rivers which at some seasons overflow. In such situations, even where grass seems very scarce, cattle get fat; and it is a practice of stockmen to cut down the Acacia pendula (or Myall trees, as they call them) for the cattle to feed on.

At this sheep station where we had encamped, I met with an individual who had seen better days, and had lost his property amid the wreck of colonial bankruptcies — a tea-totaller, with Pope's Essay on Man for his consolation, in a bark hut. This "melancholy Jaques" lamented the state of depravity to which the colony was reduced, and assured me that there were shepherdesses in the bush! This startling fact should not be startling, but for the disproportion of sexes, and the squatting system which checks the spread of families. If pastoralisation were not one thing, and colonisation another, the occupation of tending sheep should be as fit and proper for women as for men. The pastoral life, so favourable to love and the enjoyment of nature, has ever been a favourite theme of the poet. Here it appears to be the antidote of all poetry and propriety, only because man's better half is wanting. Under this unfavourable aspect the white man first comes before the aboriginal native; were the intruders accompanied by women and children, they could not be half so unwelcome. One of the most striking differences between squatting and settling in Australia consists in this. Indeed if it were an object to uncivilise the human race, I know of no method more likely to effect it than to isolate a

man from the gentler sex and children; remove afar off all courts of justice and means of redress of grievances, all churches and schools, all shops where he can make use of money, then place him in close contact with savages. "What better off am I than a black native?" was the exclamation of a shepherd to me just before I penned these remarks.

19*th December*.—The party moved along the road I had previously examined. On passing through to the western side, I recognised the trees, plants, and birds of the interior regions. Granitic hills appeared on each side, and the sweet-scented Callitris grew around, with many a curious shrub never seen to the eastward of these ranges. On descending, grassy valleys, with gullies containing little or no water, reminded me of former difficulties in the same vicinity, and it was not until we had travelled upwards of sixteen miles that I could encamp near water. This consisted of some very muddy holes of the Goobang Creek, on which I had formerly been pleasantly encamped with Mr. Cunningham.* Two or three natives soon made their appearance, one of whom I immediately recognised to be my old friend Bultje, who had guided me from thence to the Bené Rocks, on my former journey along the Bogan. He brought an offering of honey. Ten years had elapsed since I formerly met the same native in the same valley, and time had made no alteration in his appearance. With the same readiness to forward my views that he formerly evinced, he informed me where the water was to be found; and how I should travel so as to fall in with my former route, by the least possible *détour*. Mount Laidley bore 23° E. of N.

* See Vol. I. of Three Expeditions, &c., page 171.

20*th December*. — This day I gave the cattle a rest, as the grass seemed good, while I rode to look at my old line of marked trees. A cattle station (of Mr. Kite) was within a mile and a half of our camp, and at about three miles below it, I fell in with the former line. Where it crossed the Goobang, a track still continued by them, but finally diverged, leaving the line of marked trees, without the slightest trace of the wheels or hoofs that had formerly passed by it. Reaching a hill laid down on my former survey, and from which I recognised Mount Laidley, I returned directly to the camp. We had encamped near those very springs mentioned as seen on my former journey, but instead of being limpid and surrounded by verdant grass, as they had been then, they were now trodden by cattle into muddy holes, where the poor natives had been endeavouring to protect a small portion from the cattle's feet, and keep it pure, by laying over it trees they had cut down for the purpose. The change produced in the aspect of this formerly happy secluded valley, by the intrusion of cattle and the white man, was by no means favourable, and I could easily conceive how I, had I been an aboriginal native, should have felt and regretted that change. The springs which issue from the level plains of clay, while the bed of the water-course some twenty feet lower continues dry and dusty, are numerous. One had a strong taste of sulphur, and might probably be as salubrious as other springs more celebrated. They show that, in this country at least, the water-courses are not supplied by springs, but depend wholly on heavy torrents of rain descending from the mountains. Some holes in the bed of the Goobang Creek did however retain some water which had fallen during the last rain. The thermometer stood at 107° in the tent.

21*st December*. — Guided by my old friend Bultje, we pursued a straight line of route through the forest to Currandong, which was half way to the Bogan. We passed over a very open, gently undulating country, just heading a gully called Brotherba — showing how well our guide knew the country — and we reached Currandong at 2 o'clock. Here also were two flocks belonging to Dr. Ramsay; Balderudgery, the head station, being fifteen miles distant, by a mountain road through a gap. While travelling this day, Corporal Graham overtook me with letters from Buree, and a cart had also been sent after us by Mr. Barton with a small supply of corn. That country is considered excellent as a fattening run for sheep; the shepherd told me they there find a salt plant, which keeps them in excellent condition and heart for feeding. The scarcity of water at some seasons occasions a conversion here of cattle runs into sheep runs, and *vice versâ*, a contingency which seems to render these lands of Hervey's range of temporary and uncertain value.

22*d December*. — Guided by Bultje we continued to follow down the little chain of ponds which, as he said, led to the Bogan. The road was good — the Currandong ponds running in a general direction about N.N.W. It was the first of the sources of the Bogan we had reached. Crossing at length to its left bank, near an old lambing station of Dr. Ramsay's, we further on came to a large plain with the Yarra trees of the Bogan upon its western skirts. Some large lagoons on the eastern side of the plains had been filled by the late rains, and cattle lay beside them. We at length arrived in sight of a cattle station of Mr. Templar's, called Ganànaguy, and encamped on

the margin of a plain opposite to it. The cattle here looked very fat, and although the herd comprised about 2000 head, there was abundance of grass. The Bogan thus first appeared on our left hand, and must have its sources in the comparatively low hills, about the country crossed by my former line of route, rather than in Hervey's or Croker's ranges, as formerly supposed. The water in the ponds of the Bogan seemed low.

This fine grazing country had been abandoned more than once from the failure of the water, and yet these ponds seemed capable of holding an almost inexhaustible supply. A single dam would have retained the water for miles, the Bogan always flowing through clay in a bed of uniform width and depth like a canal. No doubt a little art and labour would be sufficient to render the land permanently habitable: but on an uncertain tenure this remedy was not likely to be applied, and therefore the sovereignty of art's dominion remained unasserted there. The incursions of the savage, who is learning to "bide his time" on the Darling, are greatly encouraged by the hardships of the colonists when water is scarce; and I was shown where no less than 800 head of fat bullocks had been run together by them when water was too abundant. Then horses cannot travel, and cattle stick fast in the soft earth and are thus at the mercy of the natives. The stone ovens, such as they prepare for cooking kangaroos, had been used for the consumption of about twenty head of cattle a day, by the wild tribes who had assembled from the Darling and lower Bogan on that occasion. Thermometer in tent 109° at noon, wind W.N.W.

23*d December*. — We crossed the Bogan (flowing

eastward) at Mr. Templar's station at Ganànaguy, and the overseer most hospitably stood by the party as it passed with a bucket of milk, of which he gave a drink to each of the men. Bultje put us on the right road to the next nearest water-holes (Mr. Gilmore's station), and having rendered me the service he promised, I gave him the tomahawk, pipe, and two figs of tobacco promised him, and also took a sketch of his singularly Socratic face. This native

BULTJE.

got a bad name from various stockmen, as having been implicated in the murder of Mr. Cunningham. Nothing could be more unfounded ; and it must indeed require in a man so situated the wisdom of a Socrates to maintain his footing, or indeed his life, between the ignorant stockmen or shepherds on one hand, and the savage tribes on the other. These latter savages natu-

rally regard those who are half civilised, in the same light as we should look on deserters to the enemy, and are extremely hostile to them, while perhaps even his very usefulness to our party had most unjustly connected this native's name with the murder of one of our number. His laconic manner and want of language would not admit of any clear explanation of how much he had done to serve our race — and the difficulties he had to encounter with his own ; while the circumstance of his having been met with at an interval of ten years in the same valley in a domesticated state, if it did not establish any claim to the soil, at least proved his strong attachment to it, and a settled disposition. Much tact must be necessary on his part to avoid those savages coming by stealth to carry off his gins ; and to escape the wrath of white men, when aroused by the aggressions of wild tribes to get up a sort of foray to save or recover their own. How Bultje has survived through all this, without having nine lives like a cat, still to gather honey in his own valley, "surpasseth me to know."

We encamped at two large water-holes of the Bogan near Mr. Gilmore's station, and the overseer sent to the men two buckets of milk. At the station a well had been made to the depth of eighty feet, but a flood had come, and risen so high as to wash in the sides and so fill up the well. The workmen had passed through yellow clay chiefly, and the clay was wet and soft when the further sinking was interrupted. Thermometer in my tent 109°, wind W.N.W.

24*th December*. A lurid haze hung among the trees as the earliest sunbeams shot down amongst them. The party were ready to move off early, but

the progress was slow from various impediments. A hot wind blew like a blast furnace. A bullock dropt down dead at the yoke. We encamped on the Currandong, or Back Creek, near a small plain, after travelling about ten miles. Thermometer in tent, 103.° Hot wind from the west.

25*th December*. Halted to rest the cattle. The wind blew this day more from the northward, and was cooler. Thermometer in tent, 107°.

26*th December*. — Proceeded to Graddle, a cattle station belonging to Mr. Coss, $2\frac{1}{2}$ miles. Thermometer, 109°.

27*th December*. — The bullock-drivers having allowed twenty-two of the bullocks to stray, it was impossible to proceed.

At early morning the sky was overcast, the weather calm, a slight wind from the west carried off these clouds, and at about eleven a very hot wind set in. The thermometer in my tent stood at 117°, and when exposed to the wind rose rapidly to 129°, when I feared the thermometer would break as it only reached to 132°.

28*th December*. — All the cattle having been recovered, we set off early, accompanied by a stockman from Graddle, Mr. Coss's station. The day was excessively warm, a hot wind blowing from the west. We finally encamped on the Bogan, at a very muddy water-hole, after travelling eleven miles. Thermometer in tent, 115°. At half past five, the sky became overcast, and the hot wind increased to a violent gust, and suddenly fell. I found that tartaric acid would precipitate the mud, leaving a jug of the water tolerably clear, but then the acid remained. Towards evening the sky was overcast, and a few drops of rain

fell. The night was uncommonly hot. At ten the thermometer stood at 102°, and at day-break at 90°.

29*th December*. — The remaining water was so muddy that the cattle would no longer drink it. The sky was overcast, with the wind from south. Finding a cart road near our camp, I lost no time in conducting the lighter portion of our equipment to Mr. Kerr's station at Derribong. In the hollows I saw, for the first time on this journey, the *Polygonum junceum*, reminding me of the river Darling, and on the plains a *Solanum* in flower, of which I had only seen the apple formerly. At length, greener grass indicated that the late rains had fallen more heavily there, and at about twelve miles I reached the station situated on a rather clear and elevated part of the right bank of the Bogan. Here the stock of water had been augmented by a small dam, and a channel cut from a hollow part of the clay surface conducted any rain water into the principal pool, where the water was very good. We had now arrived at the lowest station on the Bogan. The line of demarcation between the squatter and the savage had been once much lower down, at Mudà, and even at Nyingan (see *infra*), but the incursions of the blacks had rendered these lower stations untenable, without more support than the Colonial government was able to afford. There, at least, the squatter is not only not the real discoverer of the country, but not even the occupier of what had been discovered. The map will illustrate how it happens that the colonists cannot keep their ground here from the marauding disposition of the savage tribes.* The Darling is peopled more permanently by these natives, than

* See map of Eastern Australia — *infra*.

perhaps any other part of Australia: affording as it does a more certain supply of food. It is only in seasons of very high flood that this food, the fish, cannot be got at, and that they are obliged to resort to the higher country at such seasons, between the Darling, the Lachlan, and the Bogan. It also happens that the cattle of the squatter are most accessible from the soft state of the ground; the stockmen cannot even ride to protect them. The tribes from the Lachlan and Macquarie meet on these higher lands, and when tribes assemble they are generally ready for any mischief. The Bogan is particularly within their reach, and when wet seasons do occur the cattle of squatters must be very much at the mercy of the savages. The tribes from the Darling are extremely hostile, even to the more peaceably disposed hill-tribes near the colony, and several stations have already been abandoned in consequence of the outrages of the aborigines from the Darling and Lachlan. Nothing is so likely to increase these evils as the precarious or temporary occupation of such a country. The supply of water must continue uncertain so long as there is no inducement from actual possession to form dams, and by means of art to secure the full benefit of the natural supply. Hence it is that half a million of acres, covered with the finest grass, have been abandoned, and even savages smile at the want of generalship by which they have been allowed to burn the white man's dairy station and stockyards on the banks of the Bogan. The establishment of a police station near the junction of the Bogan with the Darling, or the formation of an inland township about Fort Bourke, had been sufficient to have secured the stations along the Bogan and Macquarie,

and to have protected the Bogan natives as well as our own countrymen from frequent robbery, murder, and insult. Such are the results where *squatting* has been permitted to supersede settling. With possession, deficiency of water in dry seasons had been remedied, and no such debateable land had remained on the borders of a British colony.

The part of the Bogan where least water can be found, has always been that between our present camp and Mudà, a very large lagoon about 50 miles lower down. I found by the barometer that there is a fall of 206 feet in that distance of 50 miles; whereas the fall in the bed of the Bogan is only 50 feet between Mudà and New Year's Range, in a distance of upwards of 100 miles. The general course of the Bogan changes at Mudà from N.W. to north, the former being nearly in the direction of the general declination of the country, the latter rather across it, of which the overflowings of the parallel river Macquarie into Duck Creek, and other channels to the westward, seemed to afford sufficient proofs. Where the declination is least, the water is most likely to remain in ponds in the channel of the river after floods, the water of which can neither flow with so much velocity, nor bear down any of the obstructions by which ponds are formed. Mr. Dixon found the velocity of the Bogan at this part, during a flood in 1833, to be four miles in an hour; which is about double the average rate of the larger rivers of Australia.

I had an order from Mr. Kerr, the proprietor of this station of Derribong, to his superintendant, for such fat cattle as I might require to take with me as live stock. Finding that the sheep answered very

well, having lost none, and that they rather improved in travelling, whereas the working oxen had been much jaded and impoverished by the long journey, heavy loads, and warm weather; I determined to take as many young bullocks as might suffice to relieve and assist the others, and break them in as we proceeded.

30*th December*.—The wind changed to S.E., and brought a cool morning. Thermometer, 68°. This day we selected from the herds of Mr. Kerr 32 young bullocks, and they were immediately yoked up in the stockyard.

Received letters from Sydney, by Corporal Graham.

31*st December*, 1845.—Thermometer at 5 A. M., 62°: at noon, 109°. Wind S.E. At noon a whirlwind passed over the camp, fortunately avoiding the tents in its course; but it carried a heavy tarpaulin into the air, also some of the men's hats, and broke a half-hour sand-glass, much wanted for the men on watch at night. The sky overcast from the west in the evening.

1*st January*, 1846.—A strong wind from N.E. blew during the day, and was very high at 11 A. M. The party were chiefly employed breaking in the young bullocks. At noon, nimbus, and some rain, tantalised us with the hope of a change; but the sky drew up into clouds of cumulus by the evening. The vegetation of the Bogan now recalled former labours: the *Atriplex semibaccata* of Brown was a common straggling plant.

2*d January*.—The young cattle still occasioned delay. The morning was cloudy and promised rain; but a N.W. wind broke through the clouds, which resolved themselves into cirrostratus, and

we had heat again. Besides the *Salsola Australis*, we found a *Halgania* with lilac flowers, probably distinct from the species hitherto described, which are natives of the south-west coast.

3*d January*.— This morning the young cattle were yoked up with the old; and, after considerable delay, the party proceeded to some ponds in the Bogan about five miles lower down. We were now nearly opposite to the scene of Mr. Cunningham's disasters: I had recognised, amongst the first hills I saw when on the Goobang Creek, the hill which I had named Mount Juson, at his request, after the maiden name of his mother. The little pyramid of bushes was no longer there, but the name of Cunningham was so identified with the botanical history of almost all the shrubs in the very peculiar scenery of that part of the country, that no other monument seemed necessary. Other recollections recalled Cunningham to my mind; his barbarous murder, and the uncertainty which still hung over the actual circumstances attending it. The shrubs told indeed of Cunningham; of both brothers, both now dead; but neither the shrubs named by the one, nor the gloomy *casuarinæ* trees that had witnessed the bloody deed, could tell more. There the *Acacia pendula*, first discovered and described by Allan, could only

> "Like a weeping mourner stooping stand,
> For ever silent, and for ever sad."

4*th January*. — The early cooler part of the morning was taken up with the young cattle. It was now but too obvious that this means of conveyance was likely to retard the journey to an extent that no pecuniary saving would compensate, as compared

with light carts and horses. I proceeded forward in search of a deserted stockyard, called Tabbaratong, where some water was said still to remain. We found some mud and water only; although some that was excellent was found about two miles lower down the Bogan, late in the evening.

We had crossed the neutral ground between the savage and the squatter. The advanced posts of an army are not better kept, and humiliating proofs that the white man had given way, were visible in the remains of dairies burnt down, stockyards in ruins, untrodden roads. We hoped to find within the territory of the native, ponds of clear water, unsoiled by cattle, and a surface on which we might track our own stray animals, without their being confused by the traces of others.

5th January.— Three of the young cattle having escaped during the night, retarded us in the morning until 8 o'clock, at which hour they were brought into the camp, having been tracked by Yuranigh, a most useful native who had come with us from Buree. I proceeded with the light carts, guided by a very young native boy, not more than ten years old, who had come with the party from Kerr's station, and who, being a native of the lower Bogan, could tell us where water was likely to be found. Our route was rather circuitous, chiefly to avoid a thick scrub of *callitris* and other trees, which, having been recently burnt, presented spikes so thickly set together, that any way round them seemed preferable to going through. We reached plains, and came upon an old track of the squatters. The grass in parts was green and rich. I could see no traces of my former route, but we arrived at length at an

open spot which Dicky, the young native, said was "Cadduldury." Leaving Dr. Stephenson with the people driving the light carts there, I proceeded towards the bed of the Bogan, which was near, to see what water was there, and following the channel downwards, I met with none. Still I rode on, accompanied by Piper (also on horseback), and the dryness of the bed had forbidden further search, but that I remembered the large ponds we had formerly seen at Bugabadà and Mudà, which could not be far distant. But it was only after threading the windings of the Bogan, in a ride of at least twelve miles, that we arrived at the most eastern of the Bugabadà ponds. The water was however excellent, purer indeed than any we had seen for many days, and we hastened back to the party at Cadduldury, which place we only arrived at as darkness came on, so that Piper had nearly lost his way. The drays with Mr. Kennedy had not come up, and I sent William Baldock and Yuranigh back in haste to inform him that I was encamped without water, and that I wished him, if still *en route*, immediately to unyoke the cattle, encamp on a grassy spot, and have them watched in their yokes during the night, and to come forward at earliest dawn to the water-holes I had found near Bugabadà. We passed a miserable night without water at Cadduldury.

6*th January*. — William Baldock returned at daybreak, bringing a message from Mr. Kennedy, saying he should do as I had requested. I went forward with the light party, and reached the water-holes by 8 A. M. The morning happened to be extremely hot, which, under the want of water and food the preceding evening, made Drysdale very ill, and John Douglas

and Isaac Reid were scarcely able to walk when we arrived at the first water-hole. But how the jaded bullocks were to draw the heavy loads thus far in the extreme heat, was a subject of anxious thought to me. William Baldock again returned to Mr. Kennedy with two barrels of water on a horse, a horn full of tea, &c. On his way he met six of the drays, the drivers of which were almost frantic and unable to do their work from thirst. He brought me back intelligence that Mr. Kennedy still remained at his encampment, with the two remaining drays, whereof the drivers (Mortimer and Bond) had allowed their teams, with bows, yokes, and chains, to escape, although each driver had been expressly ordered to watch his own team during the night. This was a most serious misfortune to the whole party. The rest of the drays could not be brought as far as my camp, but I ordered the cattle to be released and driven forward to the water, which they reached by the evening, sufficient guards being left with the drays. The shepherd with the sheep could not get so far as the water, and the poor fellow had almost lost his senses, when Mr. Stephenson, who had hastened back with several bottles, relieved his thirst, and, as the man said, "saved his life."

Our position might indeed have been critical, had the natives been hostile, or as numerous as I had formerly seen them at that very part of the Bogan. Separated into three parties, and exhausted with thirst and heat, the men and the drays might have been easily assailed. No natives, however, molested us; and I subsequently found that the tribe, with which I was on very friendly terms there formerly, were still amicably disposed towards us.

7th January. — Early this morning, M'Avoy

brought in the spare bullocks, having been sent forward by Mr. Kennedy to travel on during the night. The shoemaker also brought in one of the lost teams and part of the other. I sent back, by Baldock, this morning, water for the men in charge of the drays, and some tea and bread for Mr. Kennedy. He would also have gone in search of the four bullocks still missing, but Mr. Kennedy sent him again to me to procure something to eat. The drays carrying the provisions had not come up, and my party too was short. The day surpassed in heat any I had ever seen: the thermometer at noon in the shade stood at 109°, a gentle hot wind blowing. The camp of Mr. Kennedy was distant at least 16 miles from mine near Bugabadà.

The six drays came in about 4 P. M.; the sheep not until long after dark. Bread, gelatine, and ten gallons of water were sent back to Mr. Kennedy, and a memorandum from me apprising him of my arrangement for drawing forward the two drays, which he had taken such good care of, and which was as follows: Two teams to leave my camp on the evening of next day, to be attached on their arrival to the two drays with which they were to come forward, travelling by moonlight during the rest of the night, until they should be met by two other fresh teams, destined to meet them early next morning. Also I informed Mr. Kennedy that it was not my intention to send after the four stray bullocks until the drays came in, and the party could be again united. Thermometer again 109° in the shade all day.

The *Calotis cuneifolia* was conspicuous amongst the grass. This was the common *burr*, so detrimental to the Australian wool. Small as are the capitula of this flower, its seeds or achenia are armed with

awns having reflexed hooks scarcely visible to the naked eye ; it is these that are found so troublesome among the wool.

8th January. — The messenger returned from Mr. Kennedy saying he had found him and the men with him, in a state of great distress from want of water, having given great part of what had formerly been sent to a young dying bullock, in hopes thereby to save its life. He also stated that a tribe of natives were on their track about three miles behind. Baldock had seen several bullocks dead on the way.

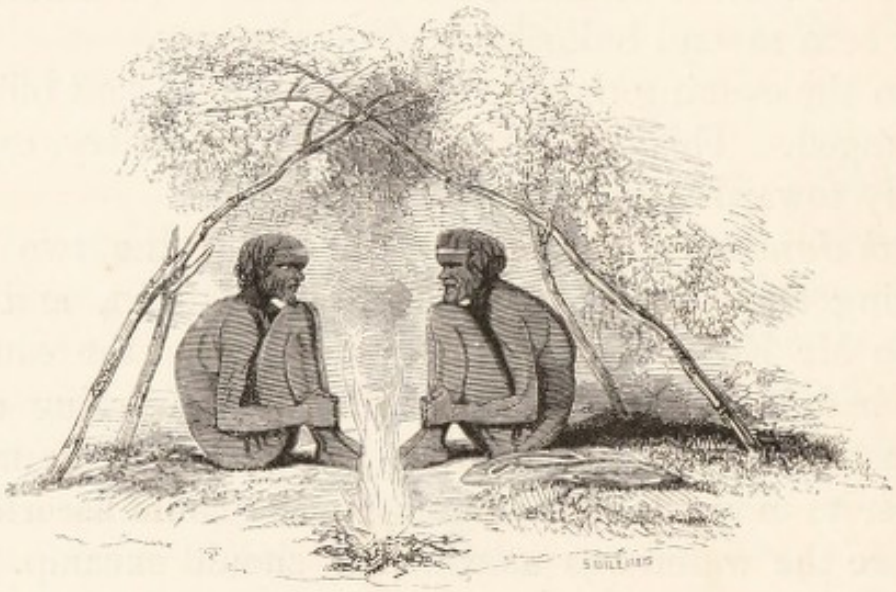
In the evening the two first teams were sent off as arranged. This day had also been very sultry, especially towards evening.

9th January. — Early this morning, the two relieving teams were despatched as arranged, and at noon Mr. Kennedy and the whole entered the camp. We had been very fortunate, under such trying circumstances, to suffer so little loss, and I determined never to move the party again, until I could ascertain where the water was at which it should encamp. I had been previously assured by the young native that water was still to be found at Caddudury, and the disappointment had nearly proved fatal to the whole party.

On the banks of the Bogan, the *Atriplex hagnoides* formed a round white-looking bush.

I rode forward to Mudà, accompanied by Dr. Stephenson and by Piper, and had an interview with some of the heads of the old tribe, who remembered my former visit, and very civilly accompanied me to show me my old track and marked trees, which I found passed a little to the northward of my present encampment. The chief, my old friend, had been

killed in a fight with the natives of the Macquarie, not long before. Two old grey-haired men sitting silent in a gunya behind, were pointed out to me as his brothers, one of whom so very much resembled him, that I had at first imagined he was the man himself. These sat doubled up on their hams opposite to each other, under the withered bushes, naked, and grey, and melancholy — sad and hopeless types of their fading race!



The chief who formerly guided us so kindly had fallen in a hopeless struggle for the existence of his tribe with the natives of the river Macquarie, allied with the border police, on one side; and the wild natives of the Darling on the other. All I could learn about the rest of the tribe was, that the men were almost all dead, and that their wives were chiefly servants at stock stations along the Macquarie.

The natives of Mudà assured me there was no water nearer than Nyingan, a large pond which I knew was $22\frac{1}{5}$ miles distant, in a direct line lower down the Bogan. The ponds of Mudà, their great

store of water, and known to white men as the largest on the Bogan, were alarmingly low, and it became evident that our progress under such a scarcity of water would be attended with difficulty. These natives gave us also a friendly hint that "*gentlemen*" should be careful of the spears of the natives of Nyingan, as many natives of Nyingan had been shot lately by white men from Wellington Valley.

Among the woods we observed the white-flowered *Teucrium racemosum*, the *Justicia media*, a small herbaceous plant with deep pink flowers; also a *Stenochilus* and *Fusanus* (the Quandang), although not in fruit; a new species of *Stipa*, remarkable for its fine silky ears and coarse rough herbage.* This place produced also a fine new species of Chloris in the way of *C. truncata*, but with upright ears, and hard three-ribbed pales†, and we here observed, for the first time, a fine new *Eremophila* with white flowers, forming a tree fifteen feet high.‡ The beautiful *Damasonium ovalifolium*, with white flowers red in the centre, still existed in the water.

In the evening it was discovered that no one had seen the shepherd and the sheep since the morning, and Piper and Yuranigh went in search. It was night ere they returned with the intelligence that they had

* *S. scabra* (Lindl. MS.), aristis nudis, paleis pubescentibus basi villosis, glumis setaceo-acuminatis glabris, foliis scabropilosis involutis culmis brevioribus, geniculis pubescentibus, ligulâ oblongâ subciliatâ.

† *C. sclerantha* (Lindl. MS.), culmo stricto, foliis planis glabris tactu scabris, spicis 4—7-strictis, spiculis bifloris, flore utroque breviaristato cartilagineo truncato 3-nervi glabro supremo sterili vacuo.

‡ *E. Mitchelli* (Benth. MS.), glabra viscidula, foliis alternis linearibus planis, corolla alba extus glabra fauce amplo laciniis 4 superioribus subæqualibus infima majore retusa, staminibus inclusis.

found his track ten miles off to the S. W. when darkness prevented them from following it further.

I ascertained, by observations of the stars Aldebaran and α Orionis, that our present camp near Bugabadà was in latitude 31° 56′, and thus very near the place where Mr. Dixon's journey down the Bogan in 1833 had terminated. Thermometer at noon, 90°; at 9 P. M., 70°; with wet bulb, 63°.

10*th January*. — Early this morning Mr. Kennedy and Piper went to the S. W. in search of the shepherd and sheep, while at the same time I sent William Baldock and Yaranigh back along our track in search of the stray bullocks. Meanwhile I conducted the party along my former track to Mudà, where we met Mr. Kennedy and Piper with the shepherd and sheep, already arrived there. The shepherd stated that the fatigue of having been on watch the previous night had overcome him; that he fell asleep, and that the sheep went astray; that he followed and found them, but lost himself. He had met one or two natives who offered him honey, &c. which he declined.

We encamped beside the old stock-yard and the ruins of a dairy, only visible in the remaining excavation. But a paddock was still in such a state of preservation, that in one day we completed the enclosure. We had passed near Bugabadà similar remains of a cattle station. This position of Mudà was a fine place for such an establishment; a high bank nearly clear of timber, overlooking a noble reach of great capacity, and surrounded by an open forest country, covered with luxuriant grass. The last crop stood up yellow, like a neglected field of oats, in the way of a young crop shooting up amongst it.

11*th January*, 1846. — Sunday. Prayers were read

to the men, and the cattle and party rested. The day was cool and cloudy.

12*th January.*—Still I halted at Mudà for the lost bullocks. To-day I noticed the *Kochia brevifolia*, a little salt-bush, with greenish yellow fruit, edged with pink.

13*th January.*—Baldock and Yuranigh arrived early in the morning (by moonlight) with five of the stray bullocks. Two others (young ones) could not be driven along, and one old bullock was still astray at Mr. Kerr's station (to which they had returned) and could not even then be found. We had now in all 106 bullocks, and, considering the great scarcity of water, heat, and consequent drought, I was most thankful that our loss had been so slight.

I proceeded to reconnoitre the country in a straight line towards Nyingan, which bore 353°—and having found a tolerably open country for about six miles, I returned and took the party on so far, and encamped, sending back all the cattle and horses to the water at Mudà. Enough had been carried forward for the men who were to remain at the camp. To ensure the early return of the cattle, I had repaired, as already stated, the paddock at Mudà, in which during this night, they could be secured, having also sufficient grass,—likewise the horses. In my ride I found a new grass of the genus *Chloris**, something like *Chl. truncata* in habit, some starved specimens of *Trichinium lanatum;* amongst the grasses I also found the *Aristida calycina* of Brown, the curious *Neurachne Mitchelliana* Nees, discovered originally by

* *C. acicularis* (Lindl. MS.); culmo stricto, foliis involutis glabris tactu scabris, spicis 8—9 subacutis, spiculis bifloris, flore

me in 1836, and also a new *Pappophorum* with the aspect of our European Anthoxanthum.* A smart shower fell during the evening.

14*th January*.—The cattle arrived early from Mudà, and were immediately yoked to the drays. I proceeded with the light carts, still on the same bearing, until arriving near Daròbal, where I had formerly been encamped, I turned to the left to ascertain if there really was no water there. I found two excellent ponds, and encamped beside them after a journey of about ten miles. The drays arrived early and I subsequently found I had encamped near my old ground of 9th May, 1835, when I was guided by the friendly chief of the Bogan tribe to the best water holes his country afforded. By the route I had selected from my former surveys, I had cut off the great bend described by the Bogan in changing from a north-westerly to a northerly course, and the track now left by our wheels will probably continue to be used as a road, when the banks of the Bogan may be again occupied by the colonists. At Daròbal were still most substantial stock-yards, and, as usual, the deep dug foundations of a dairy that had been burnt down.

15*th January*.—Eight bullocks were missing, and although the day was fine, not too hot, I could not think of moving until these cattle were found. Accordingly, at earliest dawn, I despatched William

utroque setaceo aristato, supremo sterili angustissimo, paleis dorso scabris.

* *P. flavescens* (Lindl. MS.) ; aristis 9 rigidis pallidis plumosis, spicâ compositâ densissimâ oblongâ, paleis lanatis, glumis ovatis pilosis, foliis vaginisque pubescentibus tactu scabris, geniculis villosis.

Baldock and the native to look for them. In the course of the day six were found by Baldock in one direction, and the remaining two, afterwards, in another.

An inconspicuous blue-flowered Erigeron grew here, also the *Jasminum lineare*, with its sweet-scented white flowers—and, near the water, I saw the *Alternanthera nodiflora*.

16*th January*.—At a good early hour the party moved from Daròbal, crossing the Bogan and falling into my former track and line of marked trees. We lost these, however, on crossing the Bogan at Murgabà, and made a slight détour to the eastward before we found Nyingan, where we encamped, and were joined by the drays by twelve o'clock. During this day's journey Piper and Yuranigh discovered fresh traces of horsemen with those of the feet of a native guide, come from the East to my old track, and returning, apparently, as our natives thought, looking for traces of our party.

At Nyingan we found many recent huts and other indications of the natives, but saw none. Large stock-yards and a paddock remained, but a house and garden fences had been burnt down. The great ponds were sunken very low and covered with aquatic weeds. As soon as the camp had been established with the usual attention to defence, I set out to look for the next water, and after riding twelve miles nearly in the direction of my former route, I reached the dry channel of the Bogan, and tracing it thence upwards, I sought in every hollow at all its turnings for water, but in vain, and I reached the camp only at dusk, without having seen, during the day, any other ponds than those of Nyingan.

17*th January*. — Early this morning, I sent Mr. Kennedy with the native Yuranigh, also on horseback, to run back my track of yesterday to the Bogan where I had commenced its examination upwards, and from that point to examine the channel downwards to the nearest water, provided this did not take Mr. Kennedy too far to admit of his return by sunset. Two old women came to the ponds of Nyingan for water, by whom Piper was told that the nearest permanent water was "*Niminé*," where white men had attempted to form a cattle-station, and been prevented by natives from the Darling, many of whom had since been shot by the white men. They said the place was far beyond Canbelego, the next stage of my former journey, and where these women also said little or no water remained.

Mr. Kennedy returned at eleven A. M., having found water at Canbelego. Yuranigh brought with him a large green specimen of the fruit of the *Capparis Mitchellii*, which he called an apple, being new to him, but which Dicky, the younger native from the Lower Bogan, knew, and said was called "*Moguile*;" he also said that it was eaten by the natives.

18*th January*. — The party moved to Canbelego where one or two small ponds remained, but on the plains adjacent there was better grass than we had hitherto found near those places where, for the sake of water, we had been obliged to encamp. I sent Mr. Kennedy again forward looking for water, but he returned sooner than I expected, and after following the river down twelve miles, without finding any. I was now within the same distance of Duck Creek, in which Mr. Larmer had found abundance of water when I sent him to survey it upwards during my

last return journey up the Bogan. It also seemed, from the direction in which Piper pointed, that the old gins referred to Duck Creek, as containing water; and as the course of that creek, so far as shown on maps, led even more directly to the Darling than did the Bogan, I was willing in such a season of extreme drought, to avail myself of its waters. My eye had been much injured by straining at stars while at the camp near Walwadyer, and I was obliged to send Mr. Kennedy on one of my own horses, followed by Graham, to examine the water in Duck Creek. I instructed him to proceed on a bearing of 35° E. of North, until he should reach the creek, and if he found water in it to return direct to the camp, but that if water was not found on first making the creek, then he was to follow Duck Creek up to its junction with an eastern branch, surveyed also by Mr. Larmer, and to return thence to the camp on a bearing of 240°. I also sent Corporal Macavoy with Yuranigh down the Bogan, to ascertain if the channel contained any pond between our camp and the part previously examined by Mr. Kennedy.

This officer returned from Duck Creek after an absence of twelve hours, and reported that he had found no water in Duck Creek after examining its bed twelve miles; but that he had found a fine lagoon on the plains near the head of the eastern branch, but around which there was no grass, all having been recently burnt.

20*th January*.— Macavoy returned at seven A. M., saying he had been twenty-four miles down the Bogan without finding any water. About the same time Sergeant Niblett, in charge of the bullocks, came to inform me that these animals were looking very

ill, and could not drink the mud remaining in the pond. At the same time intelligence was brought me that four of the horses had broken their tether ropes during the night, and that William Baldock had been absent in search of them on foot, from an early hour in the morning. I immediately sent back the whole of the bullocks to Nyingan, with a dray containing the empty harness casks, also the horses, and a cart carrying all our other empty casks; and the whole of the cattle and horses returned in the evening with all the casks filled.

21*st January*. — Having again despatched the bullocks back to Nyingan, I conducted the light carts forward along my old track (of 1835), having on two of these carts two of the half-boats, and in the carts under them all the water-kegs that had been filled. My object was to use the iron boat as a tank, at which we might water the bullocks at one stage forward; that by so gaining that point and proceeding onwards towards the water I hoped to find next day, we might encamp at least at such a convenient distance from it, as would admit of the cattle being driven forward to return next day and draw the drays to it. This I considered possible, even if it might be found necessary to go as far for water as the fine reach described in my journal as the place of my encampment on the 14th May, 1835, beyond Mount Hopeless, and which I concluded from the gin's description, must have been what she called Nimine, or the disputed station of Lee. I encamped this party on a plain about twelve miles from Canbelego, where I had left Mr. Kennedy, with instructions to bring the drays on with the spare cattle and horses early next morning. I had sent thence

Corporal Macavoy and Yuranigh to follow the track of Baldock and the horses; but it was obvious that we could remain no longer at Canbelego. As soon as we could set up one of the half-boats, the contents of the water-kegs were emptied into it, and the cart was immediately sent back with the empty kegs to Canbelego, where fresh horses had been left, to continue with the same cart and empty kegs to Nyingan during the night, so as to arrive in time to admit of the dray — already there with the harness casks — bringing an additional supply back in the kegs, when the bullocks returned next day.

It was now necessary that I should ascertain as soon as possible the state of the ponds lower down the Bogan, and thereupon determine at once, whether to follow that dry channel further in such a season, or to cross to the pond in Duck Creek, and await more favourable weather. I accordingly set out at 3 P. M., from where the water had been placed in the half-boat, accompanied by Dr. Stephenson, and followed by Corporal Graham and Dicky the native boy. By the advice of the latter, I rode from the camp in the direction of 30° E. of N., and, crossing the Bogan, we reached at about $3\frac{1}{2}$ miles beyond it, a channel like it, which I supposed was Duck Creek; and in it, just where we made it, there was a small pond of water. Having refreshed our horses, we followed this channel downwards, without meeting with more water. To my surprise, I found the general direction was westward, until it *joined the Bogan*. We next followed the course of the Bogan as long as daylight allowed us to do so, without discovering any indication that water had recently lodged in any of the hollows, and we finally tied up our horses and lay

down to sleep, in hopes that next day might enable us to be more successful.

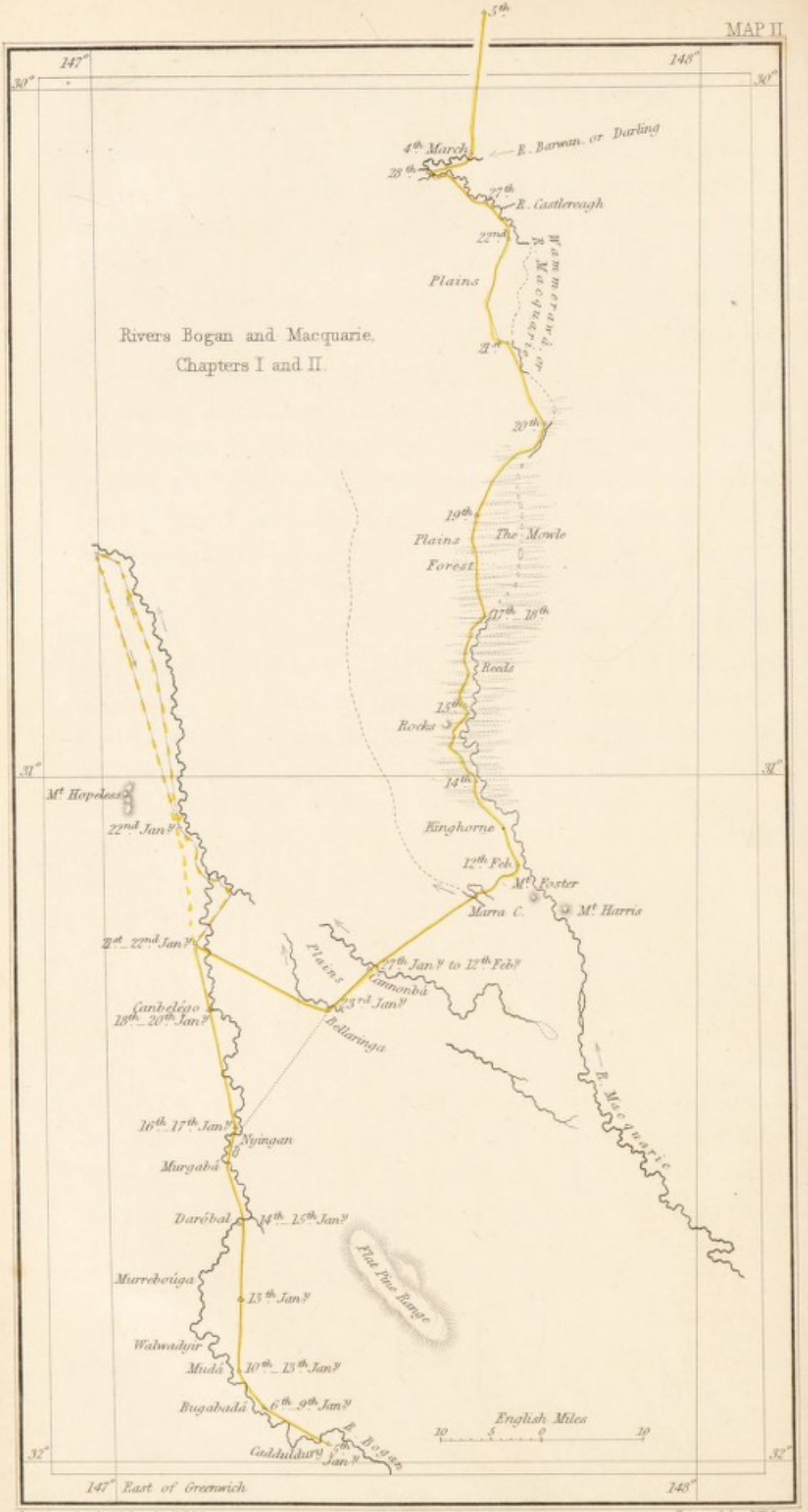
22*d January*.—Having proceeded some miles along the western bends of the Bogan, hastily — being desirous to see that day the great pond beyond Mount Hopeless — I observed that the clay was very shining and compact in a hollow sloping into an angle of the river-bed, that the grass was green as from recent rain, and that there was more chirping of birds; I was tempted once more by these indications, to look for water in the Bogan's almost hopeless channel, and there we found a pond, at sight of which poor Dicky shouted for joy; then drank, and fell asleep almost in the water. It was small, but being sufficient for our immediate wants, we thankfully refreshed our horses and ourselves, and proceeded on our eventful journey. Almost immediately after leaving this pond I discovered my old track, which we continued to follow across those large plains, whence I had formerly discovered Mount Hopeless. These plains I soon again recognized from the old tracks of my dray-wheels, distinctly visible in many places after a lapse of nearly eleven years. Arriving at length near the debateable land of Lee's old station, we resumed our examination of the Bogan. There we perceived old cattle tracks; the ovens in which the natives had roasted whole bullocks, and about their old encampments many heaps of bones; but in none of the deep beds of former ponds or lagoons could we discover any water. The grass was nevertheless excellent and abundant; and its waste, added to the distress the want of water occasioned us, made us doubly lament the absence of civilised inhabitants, by whose industry that rich pasture and fine soil

could have been turned to good account. We saw no natives; nor were even kangaroos or emus to be seen, as formerly, any longer inhabitants of these parts. I turned at length, reluctantly, convinced that it would have been unsafe to venture with cattle and drays into these regions before rain fell. In returning, we at first found it difficult to find our old track, by which alone we could hope that night to reach the small pond of the morning; but Dr. Stephenson very fortunately found it, and we had also the good fortune, for so we considered it, to arrive at the pond before sunset. There we tied up our horses and lay down, glad indeed to have even that water before our eyes. Dicky, the native boy, had repeatedly thrown himself from his horse during the afternoon, quite ill from thirst.

23*d January*.—After our horses had drank, we left no water in the pond; but they had fed on good grass, and we were well refreshed, although with water only, for our ride back to the camp. Setting off from an old marked tree of mine near the Bogan, on a bearing of 160°, I several times during our ride fell in with the old track, and finally reached the camp after a rapid ride of four hours. I found the whole party had arrived the previous evening with the water, as arranged; but that Mr. Kennedy was absent, having set off that morning in search of water to the N. E. with Corporal Macavoy, on two government horses, leaving word that he should return by twelve o'clock. He did not return at that hour, however, and at two I moved the party across the Bogan, and proceeded along open plains towards the ponds at Duck Creek, with the intention of there refreshing the cattle and horses, and awaiting more favourable weather. I previously

watered out of the half-boat, 106 bullocks, and gave a quart to each of the horses. On the way, the heat was so intense that our three best and strongest kangaroo dogs died, and it was not until 10 P. M. that the drays reached the ponds where I had proposed to encamp. About an hour and a half before, Mr. Kennedy also came in, having galloped the two horses 66 miles, and hurt both their backs, Macavoy being a heavy man. At 9 P. M., therm. 80°, wet bulb, 68°.

24*th January*.—This morning I awoke completely blind, from ophthalmia, and was obliged to have poultices laid on my eyes; several of the men were also affected in the same manner. The exciting cause of this malady in an organ presenting a moist surface was, obviously, the warm air wholly devoid of moisture, and likely to produce the same effect until the weather changed. At 9 P. M., therm. 84°, with wet bulb, 68°.


Rivers Bogan and Macquarie.
Chapters I and II.
147°
148°
30°
31°
32°
5th
4th March
R. Barwan or Darling
28th
27th
R. Castlereagh
22nd
R. Macquarie
Plains
21st
20th
19th
Plains
The Mowle
Forest
17th 18th
Reeds
15th
Rocks
14th
Mt Hopeless
22nd Jany
Kinghorne
12th Feb.
Mt Foster
Marra C.
Mt Harris
2d 22nd Jany
Plains
27th Jany to 12th Feby
Cannonbá
23rd Jany
Canbelégo
18th 20th Jany
Bellaringa
R. Macquarie
16th 17th Jany
Nyingan
Murgabá
Daróbal
14th 15th Jany
Flat Pine Range
Murreboúga
13th Jany
Waluadyir
Mudá
10th 13th Jany
Bugabadá
6th 9th Jany
English Miles
10 5 0 10
R. Bogan
Gaddúldury
5th Jany
147° East of Greenwich
148°
Drawn and retouched by Sir T.L.M.
Longman & Co. 1848.
Engraved by J.W. Lowry

CHAP. II.

Send to Nyingan for leeches.—Better ponds found to the north-east. — Move to the ponds of Cannonbà and set up our bivouac. — Hot wind. — Heat greater than my table for expansion of mercury was calculated for.—Piper's intention to quit the party. — His character. — Sent to Bathurst. — Weather changes.— Rain. — Mr. Kennedy returns from the Macquarie. — Salt made from the salt plant. — Reconnoitre "Duck Creek."— The party quits Cannonbà— Crosses plains to Marra Creek — and thence to the river Macquarie. — Ophthalmia still troublesome. — Approach of a flood announced.— Its arrival in clear moonlight. — Mr. Kinghorne guides the party along the reedy banks.—No water found in "Duck Creek."—Difficulty of watering the cattle from softness of the banks of ponds amongst the reeds. — "Yulliyally," a native, guides the party. — New plants discovered. — Description of our native guide. — Condition of his countrymen. — How affected by the intrusion of the white race. — At length emerge from the reeds.—Water scarce.—Necessity for preserving aboriginal names of rivers. — Delayed by stray bullocks several days. — At length arrive at the junction of the river with the Darling. — Cross the Macquarie near its junction — and ford the Darling at Wyàbry.

25*th January*.—Dr. Stephenson having recommended the application of leeches, and having observed them in the ponds at Nyingan, I sent William Baldock and Yuranigh there in search of some, and they brought back enough. Fourteen were applied to my eyes the same afternoon. The ground here was quite naked; it was, in fact, the blue clay of the Darling, with the same sterile looking plants; and no time

was to be lost in seeking some ponds where there might be also good grass for the cattle. Therm. at sunrise, 97° ; at noon, 100° ; at 9 P. M. 90° ; with wet bulb, 71°.

26*th January*.—I sent Corporal Graham with Piper, in a N. E. direction to where we had observed the light of burning woods reflected from a cloudy sky last evening; considering that a sure indication that water was near, as natives are seldom found where there is none. He returned early with the welcome tidings that he had found abundance of water in a creek about five miles off, and excellent grass upon its banks.

My eyes were so far recovered that I could observe the altitude of a star, thus ascertaining the latitude of this camp to be 31° 20′ 20″ S. Therm. at sunrise, 85° ; at noon, 112° ; at 9 P. M. 84° ; with wet bulb, 70°.

27*th January*.—The whole party moved to the ponds called "Cannonbà" by the natives. There we found greater abundance of water and better grass than we had seen near water during the whole journey, and I determined to halt for at least two weeks, as part of the time I had previously intended to devote to the repose and refreshment of the cattle, when we should have reached the Darling. The cattle and their drivers had been much harassed, and both needed and deserved rest. The horses had got out of condition, and I considered that when we arrived at the Darling their services would be more required. I was also to try the experiment here, whether I might prosecute the journey without danger of losing my eyesight; to have abandoned the undertaking at that point, had been almost as painful to me as the other alternative.

There were no hostile natives here, the fire having been set up by some solitary gins; rain was daily to be expected, at least cooler weather would certainly come in a short time; the wheels of the drays had been long represented to me as needing a thorough repair, from the effect of the heat on the wheels; — and, upon the whole, I considered it very fortunate that we could encamp under such circumstances on so favourable a spot. We placed our tents amongst shady bushes — set up the blacksmith's forge, and soon all hands were at work in their various avocations, whilst the cattle and horses enjoyed the fresh grass, leisure to eat it, and abundance of water.

Amongst the bushes here, a *Hakea*, with simple filiform mucronulate leaves without flower, occurred, loaded with oblong hard galls resembling dry plums. Also the *Senecio Cunninghami* (D. C.), found by Allan Cunningham on the shores of Lake George. Mr. Stephenson discovered here a very pretty new *Trichinium*, with heads of hoary pink flowers.*

I learnt from the natives that this creek also joined the Bogan, consequently that the real Duck Creek must either be still to the N. E. of us, or be a branch out of this. At all events, the creek surveyed by Larmer is thus proved to have been a discovery of his, and a most useful one it has thus proved to us on this emergency. That chain of ponds (whence we had just come) was called Bellaringa; this "Cannonbà;" and to what I suppose must be Duck Creek, water to which the natives point northward, they give the name

* *T. semilanatum* (Lindl. MS.); ramosa, pubescens, ramulis, angulatis, foliis linearibus acutis noveillis villosis, capitulis paucifloris hemisphericis, rachi densè bracteis uninerviis acutis sepalisque angustis plumosis parcè lanatis.

of " Marra." Therm. at sunrise, 78° ; at noon, 115° ; at 4 P. M. 96° ; at 9, 88° ; with wet bulb, 73°.

28*th January*. — Several kettles, a good spade, a Roman balance with large chain complete, barrels, and other articles, were found at the bottom of one of the ponds ; and old tracks of cattle were numerous about the banks. Thus it was clear that this favourable spot for a cattle station had not been unheeded by the white man. It was vaguely asserted by some old gins seen by Piper, that three men had been killed here when the place was abandoned. We were about twelve or fourteen miles to the W.N.W. of Mount Harris; and certainly the general bed of this water-course was broader than that of the Bogan, and moreover contained much granitic sand, all but identifying its sources with those of the Macquarie. This day was very hot ; a thunder cloud passed over us, and a shower fell about 3 P. M. Thermometer at sunrise, 78° ; at noon, 115° ; at 4 P. M. 108° ; at 9, 84° ; with wet bulb, 63°.

29*th January*. — A more than usually hot wind raised the thermometer to 115° in the shade; but distant thunder was soon heard, and the horizon became clouded. The day was very sultry, and although no rain fell near us, it was evident that other parts to the north-east were receiving a heavy shower. Thermometer at sunset, 102°.

30*th January*. — An easterly wind brought a refreshing air from the quarter where the thunder-cloud had exhausted itself last evening. This day the doctor found the tree mentioned as bearing a nondescript fruit in my former journal, Vol. I. page 82., but this tree bore neither flower nor fruit. Ther-

mometer at sunrise, 80°; at noon, 103°; at 4 P. M., 108°; at 9, 100½°; with wet bulb, 79°.

31*st January*.—The weather still very sultry. I commenced a series of observations with a syphon barometer (made by Bunten of Paris). The table for expansion of mercury and mean dilatation of glass, sent me by my friend Captain P. P. King, came but to 88° of Fahrenheit, whereas at 4 P. M., the centigrade thermometer stood at 44½°, which is equal to 112° of Fahrenheit.

This day I was apprised of Piper's intention to leave the party, taking with him the two younger and more useful natives. He had recently made some very unreasonable demands. It was now obvious from various sayings and doings thus brought to my recollection, that he had never any serious intention of accompanying this expedition throughout its progress. The services of other more intelligent natives might easily have been obtained, having been proffered by many in the settled districts, but Piper from having been with me before, was preferred as a matter of course. He had not improved in speech or manners during the long interval of ten years that had elapsed since our former acquaintance, although during that time he had visited Adelaide, Sydney, Moreton Bay, the river Hunter, &c., &c. From the day on which he had joined the party on this last occasion, he had been allowed a horse, saddle, double-barrelled gun, clothing, and the same rations as the other men, blankets, place in a tent with the men, &c. Unlike most other natives, he was a very bad shot, and very awkward about a horse; it was impossible to obtain any clear intelligence from his countrymen through him as interpreter; he went very unwillingly about

doing anything. He had drawn his rations and those of the two young natives separately from the men's mess the week before this, on the plea that they did not obtain their fair share; he was thus premeditately preparing for his clandestine departure, foreseeing that on the Saturday, when rations were issued, he could thus obtain a week's provisions in advance, without suspicion. He also had it in his power, like a true savage, to take the lion's share from the other two, in thus drawing rations apart from the men's mess. He had heard of the gins who had made the conflagration having retired towards the cattle-stations on the Macquarie. Here, then, while other men were actively at their work, — blacksmiths, carpenters, bullock-drivers, — this man, who was as well fed and clothed as they, carried on a horse to boot, and doing no work, was the only dissatisfied person. Me, whom he called his "old master," he would heartlessly leave, without a native guide, just at the time when such guides were most required. The only difficulty I felt on this occasion was how to secure the services of the two others, and yet dismiss him. He had just received a week's ration in advance, and he was baking the whole of the flour into bread. I sent to have him instantly seized, and brought with the dough and the other native, Yuranigh, before Mr. Kennedy and myself, as magistrates. He denied the intention to decamp. The other declared he had proposed to him to leave the party and go in search of gins, and that he could not understand him; that he was afraid to accompany Piper in a country so far from his own home (Buree). On this I ordered Piper to be sent to Bathurst, and the rations he was about to carry off, to be given to the other two, and

that he should be kept apart from them during the night. Thermometer at sunrise, 85°; at noon, 111°; at 4 P. M., 112°; at 9, 101°;—with wet bulb, 78°.

1st February. — This morning Piper was sent off with Corporal Graham. Mr. Kennedy rode on also in order to find out the nearest police station, and make arrangements, if possible, there, for forwarding Piper to Bathurst, his own district, which would put it out of his power to molest the party by endeavouring to induce the other natives to leave it. On them this measure appeared to have a salutary effect, Yuranigh calmly observing that Piper had only himself to blame for what had befallen him, and that he had acted like a fool. Mr. Kennedy undertook also to obtain, if he could, some more kangaroo dogs to replace those which had died from excessive heat. By that loss our party was left almost without dogs; and dogs were useful not only to kill kangaroos and emus, but to afford protection from, or to give notice of, nightly attacks by the natives, in which attacks those on that part of the Darling we were approaching, had been rather too successful against various armed parties of whites. Thermometer at sunrise, 88°; at noon, 104°; at 4 P.M., 106°; at 9 P.M., 88°;—with wet bulb, 76°.

2nd February.—The setting sun descended on a blue stratus cloud which appeared along the edge of all other parts of the horizon, and eagerly watching any indication of a change, I drew even from this a presage of rain. Thermometer at sunrise, 88°; at noon, 104°; at 4 P.M., 106; at 9, 88°;—with wet bulb, 72°.

3rd February.—High winds whistled among the trees this morning, and dark clouds of stratus appeared in the sky. A substantial shower fell about

9 A.M., and the horizon was gradually shut in by clouds of nimbus. The high wind had blown steadily from north both yesterday and this morning, and in the same quarter a thunder cloud seemed busy. But when the rain began to fall, the wind shifted to the S.W., from which quarter the rain seemed to come. With it came a very peculiar smell, which I had noticed near Mount Arapiles in 1836, about the time of the commencement of the rainy weather there; and nothing could have been more welcome to us now, than the prospect of rain, and the decided change in the temperature from 115° to 73°. This was almost the first day during a month in which the air had not been warmer than our blood; often had it been greater than fever heat, so that 73° felt to us as cool as 50° would have been to a resident of Sydney. Much rain did not fall at our camp, but it seemed that rain was falling about the sources of the Bogan and other places at which a supply of water was indispensable to enable us to proceed. At sunset, glimpses of a clear sky appeared about the horizon, and during the night the moon and stars came forth, and destroyed all hopes of more rain. We were thankful, however, for the relief afforded by what had fallen, which had lowered the temperature about 40 degrees, and enabled us to enjoy a night of refreshing rest. Thermometer at sunrise, 85°; at noon, 80°; at 4 P.M., 73°; at 9, 68°;—with wet bulb, 67°.

4th February.—The morning dawned in a most serene sky, with refreshing breezes from the south, and the thermometer at 61°. This day we had completed the repair of the wheels of half the drays. Many of the tire-rings had been cut, rewelded, and

again fixed and bolted on the wheels; the wood of these having contracted so much in the intense heat, as to have rendered these repairs indispensable. The same repairs were required by the wheels of the remaining drays and those of the light carts, and the smith and wheelwright continued their work with activity and zeal. Meanwhile the cattle were daily regaining strength and vigour for another effort. Thermometer at sunrise, 61°; at noon, 89°; at 4 P.M., 89°; at 9, 72°;— with wet bulb, 62°.

5th February.—This morning the mercurial column stood higher than I had yet observed it here, and clouds of cirrus lay in long streaks across the sky, ranging from east to west, but these were most abundant towards the northern horizon. The day was comparatively cool and pleasant, the thermometer never having risen above 96°. By 6 P.M., the barometer had fallen nearly four millimetres, and even upon this apparently trivial circumstance, I could build some hope of rain; such was my anxiety for a change of weather at that time, when the earth was so parched as not only to preclude our travelling, but almost to deprive us of sight. Thermometer at sunrise, 60°; at noon, 94°; at 4 P.M., 96°; at 9, 73°; with wet bulb, 64°.

6th February.—Dark stratus-shaped clouds wholly covered the sky, and shut out the sun, to my unspeakable delight. A most decided change seemed to have taken place; still the barometer remained as low as on the previous evening. A slight breeze from south-east changed to north, and at about 7 A.M. the rain began to fall. Clouds of nimbus closed on the woody horizon, and we had a day of rain. In the evening the barometer had fallen still lower, and

it was probable that the rain might continue through the night. Range of thermometer from 74° to 72°.

7th February.—Some heavy showers fell during the night, and the mercurial column stood exactly at the same point as on the last evening. About 10 A.M. a very heavy shower fell, after which the sun broke through, and the mass of vapour separated into vast clouds of nimbus. Much rain seemed to be still falling in the east, where the Macquarie, Bogan, and other rivers had their sources. At noon, the barometer had risen one millimetre. The rain had penetrated the clay soil of the plains about five inches.

Mr. Kennedy returned in the afternoon, having duly provided for Piper's conveyance by the mounted police to Bathurst, and brought back a good bull-dog, and also some useful information respecting the various water-courses, and the river Macquarie, which he had gathered from the natives about the stations along the banks of that river. Thermometer at sunrise, 74°; at noon, 86°; at 4 P.M., 90°; at 9, 80°; —with wet bulb, 75°.

8th February.—The moisture recently imbibed by the earth and air made us much more sensible of the high temperature in which we had been living, although it had been reduced by the late rains. The night air, especially, breathed no refreshing coolness as heretofore during the dry heat. The drier earth below seemed to be steaming the wet soil above it (as Brown, our cook, justly observed). Thermometer at sunrise, 80°; at noon, 96°; at 4 P.M., 95°; at 9, 80°; —with wet bulb, 75°.

9th February.—The leisure we enjoyed at this camp, enabled us to bestow more attention on the vegetable and animal productions of these remarkable

plains, than had been given during my former journey. It appeared that the saltwort plants, which were numerous, were not only efficacious in keeping the cattle that fed on them in the best possible condition; but as wholly preventing cattle and sheep from licking clay, a vicious habit to which they are so prone, that grassy runs in the higher country nearer Sydney are sometimes abandoned only on account of the "licking holes" they contain. It is chiefly to take off that taste for licking the saline clay, that rock-salt is in such request for sheep, lumps of it being laid in their pens for this purpose. At all events, it is certain that by this licking of clay both sheep and cattle are much injured in health and condition, losing their appetite for grass, and finally passing clay only, as may be seen near such places. In the salt plants on these plains, nature has amply provided for this taste of these large herbivora for salt. Our sheep nibbled at the mesembryanthemum, and the cattle ate greedily of various bushes whereof the leaf was sensibly salt to the taste. The colour of the leaves of such bushes is usually a very light bluish green, and there are many species. That with the largest leaves, called salt-bush by stockmen, and by Dr. Brown *Rhagodia parabolica*, was very useful as a vegetable after extracting the salt sufficiently from it. This we accidentally discovered from some experiments made by Mr. Stephenson, for the purpose of ascertaining the proportion of salt contained in the leaves. The leaves contained as much as a twentieth part of salt, nearly two ounces having been obtained from two pounds of the leaves.* We also found that after

* The process of Mr. Stephenson was as follows: — "Two pounds of the green leaf were boiled in eight quarts of water for half an

twice boiling the leaves a few minutes in water to extract the salt, and then an hour in a third water, the leaves formed a tender and palatable vegetable, somewhat resembling spinach. As the superior excellence of these runs for fattening cattle is admitted on all hands, as compared with others more abundant in grass on the eastern side of the great range, would it not be advisable for the colonists to cultivate this salt-supplying bush, and thereby to produce a vegetable substitute for the rock salt, which is not only expensive, but only a very imperfect remedy for the clay-licking propensities of sheep and cattle on many runs? Thermometer at sunrise, 70°; at noon, 94°; at 4 P.M., 98°; at 9, 86°;—with wet bulb, 75°.

10*th February*.—This morning the natives caught, in a hollow tree, an animal apparently of the same genus as the *Dipus Mitchellii*, and which seemed to live solely on vegetables. The barometer had fallen three millimetres last evening, and by noon this day it had declined three more. A fresh breeze blew from N. N. E., and at 2 P. M. a dark thunder cloud came from the S. S. W. and passed over the camp. The thunder was very loud, the lightning close and vivid; the wind for some time high, and rain heavy. The sky was, however, clear by 4 P. M., except in the N. E. where the thunder continued. Thermometer at sunrise, 75°.

11*th February*.—The real "Duck Creek" was

hour, then strained and evaporated nearly to dryness. The mass was then submitted to a red heat for half an hour. The residuum was next digested in one pint of water, filtered, and again evaporated to six ounces. It was then exposed to the sun's rays, which completed the desiccation; crystals of a cubic shape having previously been formed."

still to the north-eastward of our camp, as Mr. Kennedy had ascertained when on the Macquarie. I hoped to find in it water sufficient at least to serve the party halting on it one night, on its way to the Macquarie, by which line alone I was now convinced water enough might be obtained to supply the party until it could arrive at the Darling; I therefore rode this day to examine it, with the elder native. I followed the bearing of N. N. E. from our camp, a direction in which it was likely to be met with, so as equally to divide the journey of the drays to the Macquarie, into two days. I crossed plains covered with luxuriant crops of very rich grass, and at length obtained a sight of Mount Foster bearing east. I reached Duck Creek (that of Sturt), or the "Marra" of the natives, ascertained by the bearing of Mount Foster, the native name of which is Narrabòn. I examined the bed of the Marra downwards for about two miles, without seeing therein the least indication of water, and returned to the camp fully resolved to proceed next day to the Macquarie, so as to reach it a little way below Mount Foster, a distance in that direction rather too great for the cattle to travel over in one day. Thermometer at sunrise, 59°; at noon, 73°; at 4 P. M., 76°; at 9, 61°;—with wet bulb, 57°. From an average of twenty-five observations of the mercurial column, the height of this station has been determined to be 566 English feet above the level of the sea.

12*th February*.—We broke up our encampment on Cannonbà ponds, where we had greatly recruited ourselves, both men and cattle, and crossing the channel of the water-course near our camping ground, we travelled over open grassy plains towards the

river Macquarie. At thirteen miles we reached the western branch of Duck Creek, or "Marra," a name by which it is universally known to natives and stockmen. Of this we crossed several branches, from which it would appear as if the name was derived from that of the hand, which is the same, especially as natives sometimes hold up the hand and extend the fingers, when they would express that a river has various branches or sources. I went on with an advanced party towards the Macquarie, and encamped on the bank of that river at 5 P. M. The thick grass, low forests of yarra trees, and finally the majestic blue gum trees along the river margin, reminded me of the northern rivers seen during my journey of 1831. Still even the bed of this was dry, and I found only two water holes on examining the channel for two miles. One of these was, however, deep, and we encamped near it, surrounded by excellent grass in great abundance. The Macquarie, like other Australian rivers, has a peculiar character, and this was soon apparent in the reeds and lofty yarra trees growing on reedy plats, and not, as usual in other rivers, on the edge of water-worn banks. The channel was here deep and dry. We found this day, in the scrubs by Marra Creek, the *Acacia salicina*, whereof the wood has a strong perfume resembling violets, also a new small-leaved *Kochia* with intricate branches.* Thermometer at sunrise, 47°; at 4 P. M., 77°; at 9, 57°; — with wet bulb, 56°.

13*th February*. — I was again laid up with the *maladie du pays* — sore eyes. Mr. Stephenson took

* *K. thymifolia* (Lindl. MS.); fruticosa, ramosissima, ramulis intricatis pubescentibus, foliis carnosis obtusis teretibus fructibusque glabris.

a ride for me to the summit of Mount Foster, and to various cattle stations about its base, with some questions to which I required answers, about the river and stations on it lower down. But no one could tell what the western side of the marshes was like, as no person had passed that way; the country being more open on the eastern side, where only the stations were situated; Mr. Kinghorne's at Gràway, about five miles from our camp, being the lowest down on the west bank. Mr. Stephenson returned early, having met two of the mounted police. To my most important question—what water was to be found lower down in the river—the reply was very satisfactory; namely, "plenty, and a *flood coming down* from the Turòn mountains." The two policemen said they had travelled twenty miles with it, on the day previous, and that it would still take some time to arrive near our camp. About noon the drays arrived in good order, having been encamped where there was no water about six miles short of our camp, the whole distance travelled, from Cannonbà to the Macquarie, having been about nineteen miles. In the afternoon two of the men taking a walk up the river, reported on their return, that the flood poured in upon them when in the river bed, so suddenly, that they narrowly escaped it. Still the bed of the Macquarie before our camp continued so dry and silent, that I could scarcely believe the flood coming to be real, and so near to us, who had been put to so many shifts for want of water. Towards evening, I stationed a man with a gun a little way up the river, with orders to fire on the flood's appearance, that I might have time to run to the part of the channel nearest to our camp, and witness what I had

so much wished to see, as well from curiosity as urgent need. The shades of evening came, however, but no flood, and the man on the look-out returned to the camp. Some hours later, and after the moon had risen, a murmuring sound like that of a distant waterfall, mingled with occasional cracks as of breaking timber, drew our attention, and I hastened to the river bank. By very slow degrees the sound grew louder, and at length, so audible as to draw various persons besides from the camp to the river-side. Still no flood appeared, although its approach was indicated by the occasional rending of trees with a loud noise. Such a phenomenon in a most serene moonlight night was quite new to us all. At length, the rushing sound of waters and loud cracking of timber, announced that the flood was in the next bend. It rushed into our sight, glittering in the moonbeams, a moving cataract, tossing before it ancient trees, and snapping them against its banks. It was preceded by a point of meandering water, picking its way, like a thing of life, through the deepest parts of the dark, dry, and shady bed, of what thus again became a flowing river. By my party, situated as we were at that time, beating about the country, and impeded in our journey, solely by the almost total absence of water — suffering excessively from thirst and extreme heat, — I am convinced the scene never can be forgotten. Here came at once abundance, the product of storms in the far off mountains, that overlooked our homes. My first impulse was to have welcomed this flood on our knees, for the scene was sublime in itself, while the subject — an abundance of water sent to us in a desert — greatly heightened the effect to our eyes.

Suffice it to say, I had witnessed nothing of such interest in all my Australian travels. Even the heavens presented something new, at least uncommon, and therefore in harmony with this scene; the variable star η *Argus* had increased to the first magnitude, just above the beautiful constellation of the southern cross, which slightly inclined over the river, in the only portion of sky seen through the trees. That very red star, thus rapidly increasing in magnitude, might, as characteristic of her rivers, be recognized as the star of Australia, when Europeans cross the Line. The river gradually filled up the channel nearly bank high, while the living cataract travelled onward, much slower than I had expected to see it; so slowly, indeed, that more than an hour after its first arrival, the sweet music of the head of the flood was distinctly audible from my tent, as the murmur of waters, and the diapason crash of logs, travelled slowly through the tortuous windings of the river bed. I was finally lulled to sleep by that melody of living waters, so grateful to my ear, and evidently so unwonted in the dry bed of the thirsty Macquarie. Thermometer, at sunrise, 47°; at noon, 79°; at 4 P.M., 88°; at 9, 63°; — with wet bulb, 57°.

14*th February*. — The river had risen to within six feet of the top of the banks, and poured its turbid waters along in fulness and strength, but no longer with noise. All night that body of water had been in motion downwards, and seemed to me enough to deluge the whole country to the Darling, and correct at least any saltness in its waters, if stagnant; a probability which had greatly reconciled me to the necessity for changing the line of my intended route,

as the waters above the junction of the Castlereagh had never been known to become salt. We proceeded, falling soon into a cart track which led us to Gràway, Mr. Kinghorne's cattle-station, and we encamped about five miles beyond it, near a bend of the river. We were already in the midst of reeds, but these had been so generally burnt, that we had little difficulty in crossing those parts of the marshes. The *Imperata arundinacea*, with its long head of white silky flowers, was common, and a straggling naked branched species of dock, on the parts unburnt. Thermometer at sunrise, 54°; at noon, 91°; at 4 P. M., 82°; at 9, 72°;—with wet bulb, 60°. Height above the level of the sea, 475 feet.

15*th February*. — Mr. Kinghorne obligingly accompanied me this day, and guided us across arms of the marshy ground. I was very glad to have his assistance, for I saw no line of trees as on other rivers, nor other objects by which I could pursue its course or keep near its waters; trees of the aquatic sort and reeds grew together. At one time nothing was visible to the eastward but a vast sea of reeds extending to the horizon. Where the long reeds remained unburnt, they presented a most formidable impediment, especially to men on foot and sheep, and twenty of these got astray as the party passed through. We encamped on a bank of rather firm ground, in lat. 30° 53′ 55″ S. The grass was very rich on some parts of open plains near the marshes, and the best was the *Panicum lævinode* of Dr. Lindley, mentioned in my former journals * as having been found pulled, and laid up in heaps for some purpose we could not then discover. Mr. Kinghorne now informed me that it was called by

* Vol. i. p. 237.

To face p. 61.

FIRST USE OF THE BOATS.

the natives "coolly," and that the gins gather it in great quantities, and pound the seeds between stones with water, forming a kind of paste or bread; thus was clearly explained the object of those heaps of this grass which we had formerly seen on the banks of the Darling. There they had formed the native's harvest field. There also I observed a brome grass, probably not distinct from the *Bromus australis* of Brown; it called to mind the squarrose brome grass of Europe. Thermometer at sunrise, 59°; at noon, 87°; at 4, 89°; at 9, 73°; — with wet bulb, 66°.

16*th February*. — Mr. Kinghorne set out with a man of our party to examine Duck Creek, a native boy having told him that water was to be found in it lower down. I sent back early this morning, our native, with the store-keeper, some of the men, and the shepherd, to look for the lost sheep in the reeds, and Yuranigh fortunately found them out, still not very far from the spot where they had been separated from the rest of the flock. Our greatest difficulty in these marshes was the watering of the cattle. We had still the Macquarie at hand — deep, muddy, and stagnant — not above thirty feet wide, the banks so very soft that men could scarcely approach the water without sinking to the knees. We could water the horses with buckets, but not the bullocks. The great labour of filling one of the half-boats, and giving the cattle water by that means, was inevitable, and this operation took up three hours of the morning; a wheel required repair, the box having been broken yesterday. I for these reasons found it advisable to halt this day, which I did very reluctantly. At sunset, Mr. Kinghorne returned, having found no water in the "Marra," (Duck Creek).

Among the grasses growing among the reeds, we perceived the *Andropogon sericeus* and an *Erianthus*, which appeared to differ from *E. fulvus* in having no hair upon the knees. The smooth variety of the European *Lythrum Salicaria*, raised its crimson spikes of flowers among the reeds of the Macquarie, as it does in England on the banks of the Thames. We saw also *Morgania floribunda*, *Senecio brachylænus* (D. C.), a variety with toothed leaves, also a *Brachycome* resembling *B. heterodonta*, only the leaves were entire. A new species of *Lotus* appeared among the reeds, very near the narrow-leaved form of *L. australis* on the one hand, and the South European narrow-leaved form of *L. corniculatus* on the other; the flowers were pink, and smaller than in *L. australis*.* Also an *Ethulia*†, which may, on further examination, constitute a new genus; it was found by Allan Cunningham on the Lachlan. Thermometer at sunrise, 54°; at noon, 86°; at 4 P. M., 84°; at 9, 61°; — with wet bulb, 54°.

17*th February*. — The party moved off early, and Mr. Kinghorne having shown me a few miles more of the best ground between the scrubs and reeds, went towards a cattle station beyond the Macquarie, where a belt of open forest separated the reeds and enabled him to pass. He prevailed on a native whom he met

* *L. lævigatus* (Benth. MS.); subglaber glaucescens, foliolis linearibus v. lineari-cuneatis vix acutatis, pedunculis folio longioribus 3—6-floris, calycis subsessilis appresse pubescentis dentibus setaceo-acuminatis tubo suo paullo longioribus, legumine recto tereti glabro.

† *Ethulia Cunninghami* (Hooker MS.); glaberrima, caule dichotomo, foliis oblongis sessilibus dentato-serratis, capitulis paucis corymbosis globosis, involucri squamis oblongis imbricatis viridibus, pappo e setis paucis brevibus.

with there to come with him to me, and to guide me to water until I reached the Bàrwan. This native at first seemed rather afraid of our numerous party, but our own native, Yuranigh, endeavoured by every means to make him at ease, and to induce him to remain with us. He guided us this day by fine open ground westward of the marshes, to a part of the Macquarie where the banks were solid enough to admit of the cattle drinking. The name was Bilgawàngara; I reached the spot early, but at sunset no drays had come up. At length I was informed that such was the softness of the soil, that the drays had sank frequently, that two were fast in one place, four in another, and that two of the bullocks were astray. The marshes were said to be just then occupied by some angry tribes, of whom Mr. Kinghorne had warned me to be on my guard. The patience necessary to any traveller depending on bullocks and bullock drivers, I then thought ought to exceed that of Job. Our native guide was very shy, and Yuranigh feared he meant to "bolt." We depended on him for finding water — on our own native for finding bullocks; but it would not have done then to have sent him away. The weather might change, and these marshes become impassable; indeed, we were as much at the mercy of Providence in this respect as the Israelites were in the bed of the Red Sea. It depended on the weather whether we should deserve to be considered Jews or Egyptians. The teams came in about midnight, after the moon had risen, by which the drivers were enabled to see my track. Lat. 30° 45′ 55″ S. Thermometer at sunrise, 48°; at noon, 85°; at 4 P. M., 88°; at 9, 60°; — with wet bulb, 54°.

18*th February*. — Two bullocks were still astray

some miles behind, and the iron axle of one of the drays having got bent, required repair. The cattle, I was told, were so jaded, as to be unable to make a day's journey without more rest, and I was again obliged to halt. One only of the two lost bullocks was found, and for this one we were indebted to little Dicky, a native only ten years of age, whom the big fool who had lost them was at some trouble to coax to go and assist him in the search, as Yuranigh could not be spared from the more important duty of entertaining our less civilised guide, and preventing him from making his escape. It must, indeed, appear strange to these people of the soil, that the white man who brought such large animals as oxen with them into the country, should be unable to find them without the assistance of a mere child of their own race. Dicky had soon found both, but one of them being young and wild, escaped again amongst the tall reeds.

In the rich soil near the river bed, we saw the yellowish flowers of the native tobacco, *Nicotiana suaveolens*, the *Minuria heterophylla* (D. C.), found by Allan Cunningham near the Lachlan, and a *Fugosia* near *F. digitata* of Senegambia. In the scrub we found a fine new silvery *Atriplex* with broad rounded leaves and strings of circular toothed fruits.* Thermometer at sunrise, 53°; at noon, 93°; at 4 P. M., 96°; at 9, 67°; — with wet bulb 59°.

19*th February*.—We set off early, guided by our native friend. He was a very perfect specimen of the *genus homo*, and such as never is to be seen, except

* *A. nummularia* (Lindl. MS.); caule suffruticoso glabro ramoso, foliis alternis ovato-subrotundis integerrimis petiolatis basi cuneatis utrinque argenteis, floribus monoïcis, spicis longis pendulis, bracteis subrotundis dentatis basi connatis.

in the precincts of savage life, undegraded by any scale of graduated classes, and the countless bars these present to the free enjoyment of existence. His motions in walking were more graceful than can be imagined by any who have only seen those of the draped and shod animal. The deeply set yet flexible spine; the taper form of the limbs; the fulness yet perfect elasticity of the *glutei* muscles. The hollowness of the back, and symmetrical balance of the upper part of the torso, ornamented as it was, like a piece of fine carving, with raised scarifications most tastefully placed; such were some of the characteristics of this perfect "piece of work." Compared with it, the civilised animal, when considered merely in the light of a specimen in natural history, how inferior! In vain might we look amongst thousands of that class, for such teeth; such digestive powers; for such organs of sight, hearing, smelling, tasting, feeling; for such powers of running, climbing, or walking; for such full enjoyment of the limpid water, and of all that nature provides for her children of the woods. Such health and exemption from disease; such intensity of existence, in short, must be far beyond the enjoyments of civilised men, with all that art can do for them; and the proof of this is to be found in the failure of all attempts to persuade these free denizens of uncultivated earth to forsake it for the tilled ground. They prefer the land unbroken and free from the earliest curse pronounced against the first banished and first created man. The only kindness we could do for them, would be to let them and their wide range of territory alone; to act otherwise and profess good-will is but hypocrisy. We cannot occupy the land without producing a change,

fully as great to the aborigines, as that which took place on man's fall and expulsion from Eden. They have hitherto lived utterly ignorant of the necessity for wearing fig leaves, or the utility of ploughs; and in this blissful state of ignorance they would, no doubt, prefer to remain. We bring upon them the punishments due to original sin, even before they know the shame of nakedness. Such were the reflections suggested to my mind by the young savage as he tripped on lightly before me by the side of his two half-civilised brethren of our party, who, muffled up in clothes, presented a contrast by no means in favour of our pretensions to improve and benefit their race. Yet our faithful Yuranigh was all that could be wished. He was assiduously making to the stranger such explanations of our wants and purposes, as induced him to conduct us in the direction these required. He led us, thus admonished, over those parts of the country most favourable for the passage of wheels. The rosewood acacia was abundant, but many parts were covered with most luxuriant grass. We encamped on the edge of a salt-bush plain, where there was a small pond of water left by the last rains on a clay surface. There was certainly enough for ourselves and horses, but it appeared that our guide had greatly underrated the capacity for water, of our hundred bullocks. For these, however, there was superb grass to the westward, and a little dew fell on it during the night. Thermometer at sunrise, 59°; at noon, 102°; at 4 P.M., 104°; at 9, 77°; — with wet bulb, 65°.

20*th February*.—From the necessity for obtaining water as soon as possible for the bullocks, we travelled over ground which was rather soft, otherwise our

guide would have pursued a course more to the westward, and over a firmer surface. We, at length, crossed two narrow belts of reeds not more than twenty feet across, and had the great satisfaction to learn from him that these were the last of the reeds. A shallow creek appeared soon thereafter on our right, in which our guide had expected to find water, but was disappointed; cattle having recently drank up there, what had been a large pond when he was there formerly. He showed us the recent prints of numerous cloven feet, and thus we were made to feel, in common with the aborigines, those privations to which they are exposed by the white man's access to their country. On proceeding some miles further, our guide following down the channel, he at length appeared at a distance making the motions of stooping to bathe, on which Yuranigh immediately said "He has found plenty of water;" and there, in fact, our guide had found two large ponds. They were still in the attenuated channel of the Macquarie, here called by them Wámmerawá, the course of which river is continuous throughout the marshes; and marked by some high reeds greener than the rest, even when the reeds may have been generally burnt. These reeds are distinctly different from the "balyan," growing on the marshy parts of the rivers Lachlan, Murrumbidgee, and Millewà; the former being a cane or bamboo, the latter a bulrush, affording, in its root, much nutritious gluten. We found good grass for the cattle on both sides of the water-course, which was fringed with a few tall reeds, near which the pretty little *kochia brevifolia* observed at Mudá on the Bogan, again occurred. The native name of the spot was "Warranból." The soft earth had

again impeded the drays; the teams of two came in at twilight, an axle of one dray having been damaged; the six others were brought up in the course of the evening. Thermometer at sunrise, 60°; at 4 P.M., 103°; at 9, 78°; — with wet bulb, 68°.

21*st February*.—The first thing done this morning was to send back cattle to draw forward the dray with a bent axle, to the camp, that it might be repaired. This was done so as to enable the party to continue the journey by 1 P.M. The barometer was going down at a rate which was alarming enough, considering what our position must have been there in a flood, or even after a heavy fall of rain. I therefore pressed forward with the light carts, and guided by the native. He brought us at 5 P.M. to "Willery," the place where he had expected to find water; but here again, he had been anticipated by cattle, which had drunk up all, and trodden the ponds as dry as a market-place. He gave us no hopes of finding water that night, nor until we could reach the Bàrwan, then distant, I was quite sure, at least twenty-four miles, according to the latitude observed (30° 19′ 54″ South). We encamped here, and I sent back directions that the drays should at once halt, taking their places beside the leading dray, and that the cattle should be driven back in the morning to be watered at the last camp (Warranbòl), and then to return and follow in my track. Mr. Drysdale, the storekeeper, had also to go back to serve out a week's rations to the party with the drays, and he returned to my camp by 2 A.M., in the moonlight, bringing, on the horse of the former messenger, rations for my party. Here we found the *Keraudrenia integrifolia*. Thermometer

at sunrise, 70° ; at noon, 105° ; at 9, 83° ;—with wet bulb, 57°.

22*d February*. — My guide was now desirous that I should cross the Macquarie, to open plains which he represented to be much more favourable for wheel carriages; but I endeavoured to explain to him, by drawing lines in the clay surface, how the various rivers beyond would cross and impede my journey to the Bàrwan. There were the Castlereagh, Morissett's Ponds, and the Nammoy.*

An instance occurred here of the uselessness of new names, and the necessity for preserving the native names of Rivers. I could refer, in communicating with our guide, to the Nammoy only, and to the hills which partly supplied the Castlereagh, whereof the native name was Wallambangle. I wanted to make them understand the probability that some flood had come down the channel of the Castlereagh, and that we might therefore hope to find water below its junction with the Macquarie. This, with the aid of Yuranigh, our own native, was at length made intelligible to our Bàrwan guide, and he shaped his course accordingly. He took us through scrubs, having in the centre those holes where water usually lodges for some time after rain, where some substratum of clay happens to be retentive enough to impede the common absorption. But the water in these holes had been recently drunk, and the mud trampled into hard clay by the hoofs of cattle. Thus it is, that the aborigines first become sensible of the approach of the white man. These retired spots, where nature

* If Arrowsmith's map had been correct, which it was not, for the Nammoy joins the Darling separately, at least fifty miles higher than the junction of the Castlereagh.

was wont to supply enough for their own little wants, are well known to the denizens of the bush. Each locality has a name, and such places are frequented by helpless females with their children, or by the most peaceably disposed natives with their families. There they can exist apart from belligerent tribes, such as assemble on large rivers. Cattle find these places and come from stations often many miles distant, attracted by the rich verdure usually growing about them, and by thus treading the water into mud, or by drinking it up, they literally destroy the whole country for the aborigines, and thereby also banish from it the kangaroos, emus, and other animals on which they live. I felt much more disgusted than the poor natives, while they were thus exploring in vain every hollow in search of water for our use, that our "cloven foot" should appear everywhere. The day was extremely hot, which usually happened to be the case whenever we were obliged to experience the want of water. The thermometer under a tree stood at 110°. The store-keeper was taken ill with vertigo. Our bull-dog perished in the heat, and the fate of the cattle, still a day's journey behind us, and of the sheep, which had not drunk for two days, were subjects of much anxiety to me at that time. It may, therefore, be imagined with what pleasure I at length saw before me large basins of water in the channel of the Macquarie, when I next approached the banks, after a journey at a good pace for six hours and a half. We had made it below the junction of Morissett's Ponds, and found that a recent flood had filled its channel with water. The natives dived into it to cure their headaches, as they said, and seemed to go completely under water, in order to take a cool drink.

We had reached the united channel of the Macquarie and Morissett's Ponds, and were at an easy day's journey only distant from the junction with the *Bàrwan* or "Darling." The use of the aboriginal name of this river is indispensable amongst the squatters along its banks, who do not appear to know it to be the "Darling." It is most desirable to restore to such rivers their proper names as early as possible after they have been ascertained, were it only to enable strangers thereby to avail themselves of the intelligence and assistance of the natives, in identifying the country by means of the published maps. The river Castlereagh is known to the natives as the Barrón; Morissett's Ponds, as the Wàwill; and the lower part of the Macquarie, as the Wammerawà. The squatting system of occupation requires still more that the native names of rivers should be known to commissioners empowered to parcel out unsurveyed regions of vast extent, whereof the western limits would be, indeed, beyond their reach or control, but for the line of an angry savage population, which line the squatter dares not to cross unsupported by an armed mounted police. Thermometer at sunrise, 59°; at noon, 110°; at 4 P.M., 107°; at 9, 89°; — with wet bulb 72°.

23*rd February*. — The drays did not come up, nor was any intelligence of them received at our camp until late in the afternoon, when a man I had sent back in the morning to tell the drivers to halt in good time to send forward the cattle by daylight along my track to the water, brought me word that he left them on the way ten miles off about eleven in the morning. This man (Smith) also brought

forward the sheep with him. They had not drank for two nights, and ran skipping and baaing to the water, as soon as they saw it. The heat of this day and yesterday was excessive, a hot wind blowing hard all the time. Among the scrub on the banks of the Macquarie, a salt plant belonging to the genus *Sclerolæna* was remarked; it was perhaps not distinct from *S. uniflora*. The *Goodenia geniculata* overran the ground, with its strawberry-like runners, and yellow flowers. Latitude, 30° 12′ 56″ S. Thermometer at sunrise, 75°; at noon, 105°; at 4 P. M., 94°; at 9, 73°; — with wet bulb, 62°.

24*th February*. — Some of the teams came up, having been out all night. The drivers brought me word that they had been detached at twilight to come six miles; the night was very dark; of course they could not see my track, and as a matter equally of course, the spare bullocks had strayed from them. Such were the almost daily recurring causes of delay by the bullock drivers on this journey. Here, within a day's journey (thirteen miles) of the Bàrwan, I was compelled to halt thus several days, and really the prospect of performing so long a journey with such drivers seemed almost hopeless. Thermometer at sunrise, 59°; at noon, 80°; at 4 P.M., 85°; at 9, 64°; — with wet bulb, 59°.

25*th February*. — In the evening, the carpenter brought in ten of the stray bullocks; four were still wanting, and I dispatched Mortimer, a bullock driver, and the carpenter to show him where he had last left the track of the animals still astray; both were mounted. Thermometer at sunrise, 53°; at noon, 90°; at 4 P. M., 94°; at 9, 79°; — with wet bulb, 62°.

26*th February.*—Mortimer came in early, saying he had found only one of the bullocks, that the others had gone back to the last watering-place twenty-two miles distant. His companion did not arrive during the day; he said he had left him bringing on the animal they had fallen in with. I blamed him for leaving him, and ordered him to find him forthwith on foot. I could not afford to lose horses. Here, it seemed, we were doomed to remain. I endeavoured to make the most of the time by carrying on the mapping of our survey, in order to make good our longitude at crossing the Bàrwan. Thermometer at sunrise, 60°; at noon, 94°; at 4 P. M., 101°; at 9, 72°;—with wet bulb, 62.°

27*th February.*—When the teams were about to be put to the drays this morning, I was informed that five bullocks were astray. This delayed the party until 10 A. M., and then we left one lame bullock still missing. I reduced the men's rations by one pound per week, and declared that a proportional reduction should be regularly made to correspond with such unlooked-for delays in the journey. We proceeded over firmer ground, having the river almost always in sight, until, after travelling about six miles, our guide showed me the river, much increased in width, and said they called that the "Bàrwan." As it was still a mere chain of ponds, though these were large, I was sure this was not the main channel; he also said this joined the main channel a good way lower down. I was convinced that it was only the Castlereagh that had thus augmented the channel of the Macquarie, which I found afterwards to be the case, the junction taking place two miles higher. I willingly encamped on it, however,

to afford more time for the lost man, and the man sent after him, to rejoin the party.

I this day gave "Yulliyàlly," our guide, the promised tomahawk, a pipe, tobacco; and, in addition, a shirt; also a few lines to Mr. Kinghorne, certifying that this native had done what he had engaged to do. Thermometer at sunrise, 62°; at noon, 94°; at 4 P. M., 97°; at 9, 70°; — with wet bulb, 57°.

28*th February*.—The wheelwright and Mortimer came into the camp at 6 A. M., bringing back the horse of the former, and one of the lost bullocks. We set out early, and after travelling about six miles I came upon a cart-track, which I followed to the westward until overtaken by a stockman, who informed me that the Wammerawà, on which I had been encamped, joined the Bàrwan, then on my right, within two miles of the spot on which we stood; that he belonged to the cattle station of Mr. Parnell, Jun., which was distant from my last camp about five miles, and on the main river; also that the track I was following led to Mohanna, Mr. Lawson's station, seventy-five miles lower down the Bàrwan. I turned with him towards the junction of the Macquarie and Bàrwan, and encamped thereby, right glad to reach at length, the river beyond which our exploratory tour was to commence. The river looked well, with a good current of muddy water in it, of considerable width, and really like a river. I understood from my guide to this point, that there was a good ford across the river at his station; also that Commissioner Mitchell had been down the river a short time back, making a map to show all the cattle stations on both banks. We had neither seen nor heard anything of Mr. Wright, the commissioner of the Macquarie

district through which we had just passed, except that he "might visit the district when the hot weather was over." Here we found a new species of *Calotis*.* Thermometer at sunrise, 61°; at noon, 101°; at 4 P. M., 100°; at 9, 76°;—with wet bulb, 62°.

1*st March*.—When, fifteen years before, I visited this river at a higher point where it was called the Karaula†, no trace of hoofs of horses or bullocks had been previously imprinted on the clayey banks. Now, we found it to be the last resource of numerous herds in a dry and very hot season, and so thickly studded were the banks of this river with cattle stations, that we felt comparatively at home. The ordinary precautionary arrangements of my camp against surprise by savage natives seemed quite unnecessary, and, to stockmen, almost ridiculous. We had at length arrived at the lowest drain of that vast basin of clay absorbing many rivers, so that they lose themselves as in the ocean. Here the final outlet or channel of the waters of the Macquarie, was but a muddy ditch one might step across, which the magnificent flood we had seen in the same river above the marshes was not at all likely to reach. That flood had gone to fill thousands of lagoons, without which supply, those vast regions had been unfit for animal existence.

* Calotis *scapigera* (Hook. MSS.); stolonifera glaberrima, foliis omnibus radicalibus lineari-spathulatis, scapo nudo monocephalo, achenii aristis robustis subulatis retrorsum pilosis apice rectis vel uncinatis.—A very distinct species. Habit of *Brachystephium scapigerum* D. C.: but that ought to have no aristæ to the achenium: here the awns are very stout in proportion to the size of the capitulum.

† We then understood the natives very imperfectly and might have been wrong about the name, which is the more likely, as *caràwy*, which the name resembles, means any deep water-hole.

Here we discover another instance of that wonderful wisdom which becomes more and more apparent to man, when he either looks as far as he can into space, or attentively examines the arrangement of any matter more accessible to him. The very slight inclination of the surface of these extensive plains seems finely adapted to the extremely dry and warm climate over this part of the earth. If the interior slope of the land from the eastern coast-ranges were as great as that in other countries supplying rivers of sustained current, it is obvious that no water would remain in such inclined channels here; but the slope is so gentle that the waters spread into a net-work of reservoirs, that serve to irrigate vast plains, and fill lagoons with those floods that, when confined in any one continuous channel, would at once run off into the ocean.

In a wet season, the country through which we had traced out a route with our wheels had been impassable. The direction I should have preferred, and in which I had endeavoured to proceed, was along the known limits of this basin, and formed a curved line, or an arc, to which the route necessity had obliged us to follow was the chord; thus we had not lost time; but had, in fact, shortened the distance to be travelled over very considerably. A permanent route had, however, seemed to me more desirable to any country we might discover, than one liable to be interrupted by flooded rivers and soft impassable ground. The track of our drays, along the western side of the Macquarie marshes opened a new and direct route from Sydney to the banks of the river Darling, by way of Bathurst; and afforded access to a vast extent of excellent pasturage on the Mac-

quarie, along the western margin of the marshes, which land would, no doubt, be soon taken up by squatters. In so dry a climate, and where water is so frequently scarce, it may, indeed, be found that the shortest line of route with such advantages would be more frequented than any longer line, possessing only the remote advantage of security from interruption by too much water. Thermometer at sunrise, 64°; at noon, 100°; at 4 P.M., 101°; at 9, 81°; with wet bulb, 61°.

2nd March—Monday. I took a ride to examine the ford at Wyàbry, (Mr. Parnell, Jun.'s station,) which I found practicable for our drays, although, for their descent and ascent, it was necessary to cut better approaches on each side. The Macquarie, although the channel was so attenuated and ditch-like, was likely to prove also an obstacle without some work of the same kind. Accordingly, on my return to the camp, I sent some men to the last-mentioned work.

I learnt from natives whom I met at Mr. Parnell's station, that the rivers Bolloon, Culgoa, and Biree were then flowing, some abundant rains having fallen about their sources. Also, from the stockman, that the Narran was thirty-five miles distant, but that a native could be found to guide me to water only ten miles off. Water was also to be obtained at a distance of only seven miles beyond the Bàrwan there at the "Morella Ridges," to which the natives were in the habit of resorting at certain seasons, by a path of their own, to gather a fruit of which they were very fond, named by them "Moguile," and which I had previously ascertained to be that formerly discovered by me, and named by Dr.

Lindley *Capparis Mitchellii.** We found back from this camp the *Rutidosis helychrysoides* of De Candolle. Thermometer at sunrise, 72°; at noon, 101°; at 4 P. M.; 100°; at 9, 78°; and with wet bulb, 62°.

3d March.—Early this morning a party of men were sent to cut better approaches to the ford across the Bàrwan at Mr. Parnell's station. Ascertained the longitude of the junction of the rivers Macquarie and Darling at our present camp to be 147° 33′ 45″ E., by actual measurements connected with my former surveys of the colony. Mr. Kennedy had chained the whole of the route from Bellaringa, and I had connected his work with latitudes observed at almost every encampment, and after determining at various points the magnetic variation, which appeared to be very steady, I made the latitude of this camp 30° 6′ 11″ south. Thermometer at sunrise, 72°; at noon, 99°; at 4 P. M., 97°; at 9, 72°; and with wet bulb, 65°. The height above the sea level of the bed of the river here, the average result of eight observations, as calculated by Capt. King, was 415 feet.

4th March.—The party moved off towards the ford over the Bàrwan at Wyàbry, crossing the bed of the Macquarie about half a mile above its junction with the Bàrwan; there, although the approaches had been well enough cut, we found the bottom too soft for our heavy vehicles, one of which dipped its wheel to near the axle. We were obliged to pave the soft and muddy bed with logs, and to cover these with branches, on which earth was thrown, ere the rest could be got across. The party arrived about noon at Wyàbry, and by 2 P. M. the whole was safely encamped on the right bank of the Bàrwan.

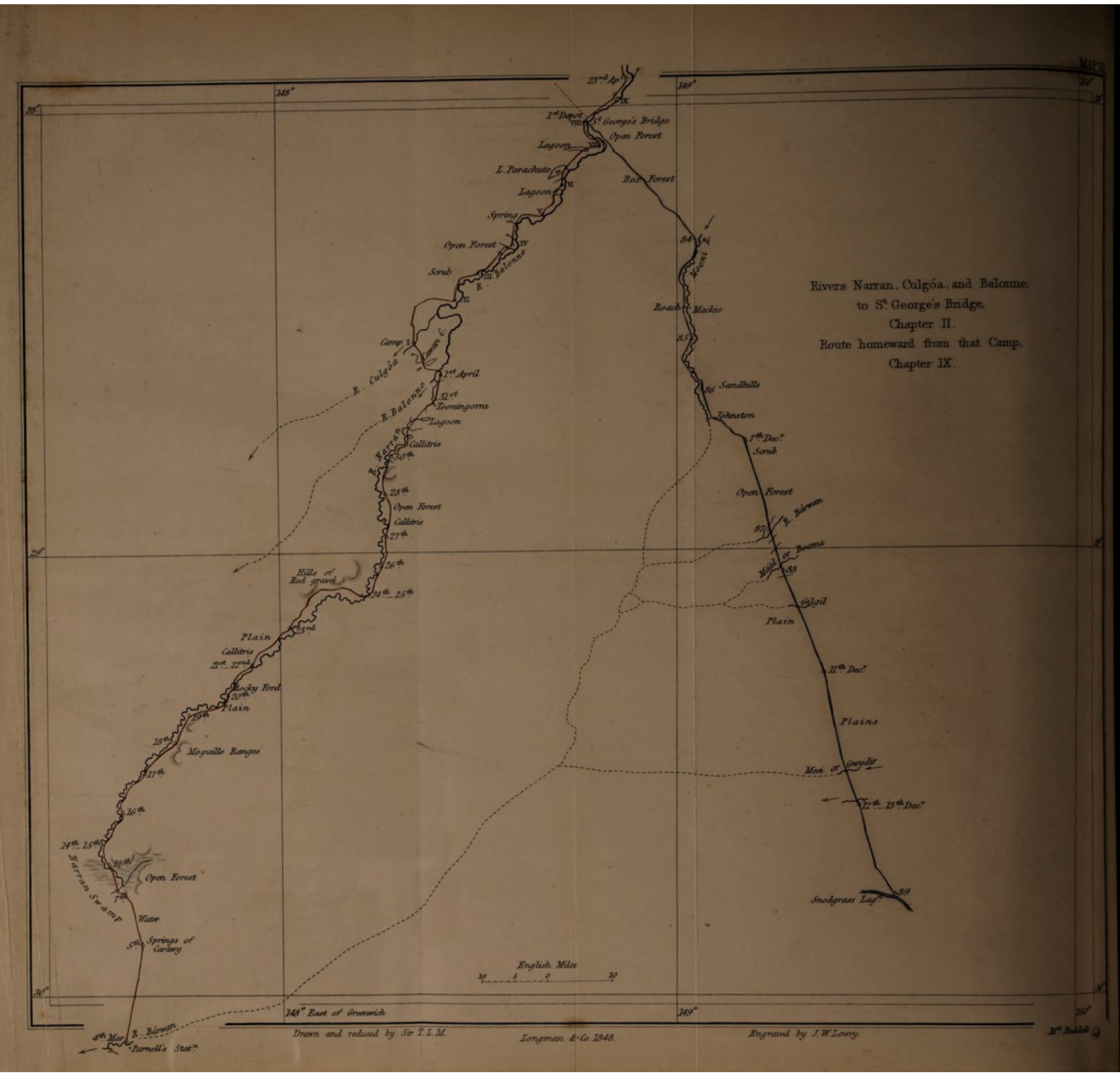
* See "Three Expeditions," &c., vol. i. page 315.

I had received this morning a dispatch from my son, commissioner of this district, in which he gave me a most favourable account of several rivers he had explored in the direction of my proposed route. These dispatches came to me at the last camp by the hands of a native, in forty-four hours after the superintendent of Mr. Lawson, being then on his way down the river, had promised to send them to me, from a station forty-five miles off, towards Fort Bourke, where it had been supposed my party would pass. Lat. of this camp, 30° 5′ 41″ S. On this northern bank of the Darling we looked for novelty in botany, and found some interesting plants, such as a toothed variety of *Senerio brachylænus* D. C., a kind of groundsel; *Morgania floribunda*, loaded with purple blossoms, and a variety of *Helichrysum bracteatum*, somewhat different in the leaves from the usual state of the species. Thermometer at sunrise, 70°; at 4 P. M., 98°; at 9, 72°;—with wet bulb, 61°.

CHAP. III.

The party advances into the unknown region beyond the Darling, — guided by two aboriginal natives. — Plains and low hills. — Arrive at ponds or springs called "Caràwy." — Delayed by the weakness of the cattle. — Reach the Narran swamp sooner than expected. — Bridge made to cross soft part of swamp,—while awaiting the arrival of tired bullocks. —Swamp very extensive to the eastward. — New plants. — Ride across the swamp and reconnoitre the river Narran thirty miles upwards.— The swamp the last receptacle of the river.—Bridge laid down by moonlight.— The whole party crosses it, and afterwards ford the Narran,—crossing to the left bank. — Advance by very short stages from weakness of the cattle. — Rich grass on the Narran. — Elevated stony ground to the Westward. — Again reconnoitre the river in advance while the cattle rest. — Parley with a native. — Two natives of the Balonne guide me to that river.—Approach the assembled population of its banks.—Interview with the tribes. — Cordial reception.— Cross the Balonne,— and reach the Culgòa. — Civility of the natives. — Cross the Culgòa.— Travel up along the right bank of the Balonne.— Grassy plains along its banks. — The old delay, cattle missing. — A native scamp. — Splendid reaches of the river. — Dépôt camp at a natural bridge. — Ride to the north-west. — Receive dispatches from Sydney. — Return to the camp at St. George's Bridge.

5th March. — Early this morning the stockman brought over two natives, brothers, who were to guide us to water ten miles on towards the Narran, which was said to be thirty-five miles off. In the first two miles we passed over some soft ground.


Rivers Narran, Culgóa, and Balonne,
to St. George's Bridge.
Chapter II.
Route homeward from that Camp.
Chapter IX.
23rd Apl
1st Depot
St George's Bridge
Open Forest
Lagoon
L. Parachute
Box Forest
Lagoon
Spring
Open Forest
Scrub
R. Balonne
Camp
Lagoon
R. Culgóa
1st April
R. Balonne
11th
Toorangorra
Lagoon
R. Narran
Callitris
30th
28th
Open Forest
Callitris
27th
26th
Hills of Red gravel
24th 25th
23rd
Plain
Callitris
21st 22nd
Rocky Ford
20th
Plain
19th
18th
Moguille Ranges
17th
16th
14th 15th
12th
Narran Swamp
Open Forest
Water
5th
Springs of Cardery
4th May
R. Barwan
Parnell's Station
84
Moonie R.
Roach
Mackie
85
86 Sandhills
Johnston
7th Decr
Scrub
Open Forest
R. Barwan
87
Mogil or Boomie
88
Culgil
Plain
11th Decr
Plains
Mea or Gwydir
12th 13th Decr
89
Snodgrass Lagn
English Miles
10 5 0 10
148° East of Greenwich
149°
Drawn and reduced by Sir T. L. M.
Longman & Co. 1848.
Engraved by J. W. Lowry.

Further on, hills were visible to the left, which our native guides called Goodeingora. Fragments of conglomerate rocks appeared in the soil of the plains, pebbles and grains of quartz cemented by felspar. These plains appeared to become undulating ground as we proceeded northward, and the surface became firmer. At length the country opened into slight undulations, well clothed with grass, and good for travelling over, the soil being full of the same hard rock found on the rising grounds nearest to the Darling, in the lowest parts of that river explored formerly by me. The red earth seemed to be but the decomposed matrix of that rock, as the water-worn pebbles of quartz so thickly set therein, here covered the ground in some places so thickly as to resemble snow. Much Anthistiria and other good grasses grew on those plains. I was, indeed, most agreeably surprised at the firm undulating stony surface and open character of the country, where I had expected to see soft clay, and holes and scrubs. At six miles, other slight elevations appeared to the N. E. which the natives called Toolowly, a name well calculated to fix in white men's memory elevations *too low* to be called hills. They were quite high enough, however, along a line of route for such heavy drays as those following us. There appeared much novelty in the trees on this side the Darling. The *Angophora lanceolata* was every where; Callitris grew about the base of the hills, and some very singular acacias, a long-leaved grey kind of wattle, the *Acacia stenophylla* of Cunningham. On one tree large pods hung in such profusion as to bend the branches to the ground. From this abundance I supposed it was not good to be eaten; nevertheless, I found in another place

many of the same pods roasted at some fires of the natives, and learnt from our guides that they eat the pea. The pod somewhat resembled that of the Cachou nut of the Brazils, — Mùnumulà is the native name. The grasses comprised a great variety, and amongst the plants a beautiful little *Brunonia*, not more than four inches high, with smaller flower-heads than those of *Br. sericea*, quite simple or scarcely at all lobed, and a hairy indusium.* The tree, still a nondescript, although the fruit had been gathered by me in 1831, and then sent to Mr. Brown, was also here; and I saw one or two trees of a species of *Capparis*. Mr. Stephenson found a great variety of new insects also.

Our guides brought us at length to some water-holes, amongst some verdant grass on a plain, where no stranger would have looked for water; and here we encamped fifteen good miles from the Barwan. The ponds were called "Caràwy," and were vitally important to us, enabling us to pass on towards the Narran, which was still, as we had been informed, twenty-five miles off. As we approached these springs, I saw some natives running off, and I sent one of the guides after them to say we should do them no harm, and beg them to stop, but he could not overtake them. The undulations crossed by us this day seemed to extend east and west in their elongations, and were probably parallel to the general course of the main channel of drainage. The same felspathic rock seen in other parts of this great basin, seems the basis of the clay, although the fragments

* *B. simplex* (Lindl. MSS.); pumila, foliis undique scapisque longitudinaliter sericeis, villis appressis, capitulis subsimplicibus, bracteis majoribus oblongis, indusio extus piloso.

imbedded are very hard. The earth is reddish, and much resembles in this respect the matrix of the conglomerate. Near these springs we found a new *Helichrysum*.* Thermometer at sunrise, 61°; at noon, 100°; at 4 P. M., 102°; at 9, 79°;—with wet bulb, 65°.

6*th March*.—The drays not having come up, in consequence of the excessive length of yesterday's journey, and very hot weather—(16½ miles by latitude alone)—we were obliged to remain inactive here on a beautiful cool morning. I found near the ponds, several huts made of fresh branches of trees and the remains of fires, doubtless the deserted home of the fugitives of yesterday. At these fires I found the roasted pods of the acacia already mentioned (Mùnumulà). The water was surrounded by fresh herbage, and such was the simple fare of those aborigines, such the home whence they fled. As I looked at it in the presence of my sable guides, I could not but reflect that the white man's cattle would soon trample these holes into a quagmire of mud, and destroy the surrounding verdure and pleasant freshness for ever. I feared that my good-natured but acute guides thought as much, and I blushed inwardly† for our pallid race.

All day we sat still in anxious suspense about the non-arrival of our drays—the ground having been so good. With a country so interesting before us, this

* *Helichrysum ramosissimum* (Hook. MSS.); suffruticosum valde ramosum arachnoideo-tomentosum, foliis lineari-spathulatis subflaccidis acutis, capitulis in racemis terminalibus parvis globosis flavis, involucri squamis lineari-subulatis undulatis fimbriato-ciliatis.

† The author of Waverley maintains that one may *laugh* inwardly—conscience may, I suppose, make us also blush inwardly sometimes.

delay was doubly irksome, and as the cattle could only be watered by coming forward, why they did not come was the question; and this was not solved until evening, when a messenger came forward to ask if they might come, and to inform me that they were nearly exhausted. The fatal alternative of endeavouring to make them work in the morning, after passing a night without water, had been adopted, and as, on the day before, they had been worked until dusk in expectation of reaching my camp, they could not draw on the morning after; I instantly directed them to be brought forward; but the consequence of this derangement was the death of one, and much injury to many others. This contre-temps arose wholly from the guides not having been understood at the Barwan as to the real distance, and this we had calculated too surely upon. Latitude 29° 52′ 26″ south. Thermometer at sunrise, 68°; at noon, 96°; at 4 P. M., 102°; at 9, 83°;—with wet bulb, 68°.

7th March, 1846.—The bullocks having been sent back after they had been watered last evening, the drays came up about 9 A. M. I left them in Mr. Kennedy's charge, and proceeded with the light carts followed by all the bullocks yoked up. They had trodden into mud the little water that had been left at that camp, and could not live much longer without more. The guides assured us the Narran was not far off, although we had understood when at the Barwan that the distance was twenty-five miles from these springs. We passed over very good ground, and found the country to improve as we advanced. We were conducted through the most open parts of scrubs by our guides, who were made to comprehend

clearly how desirable that was for our "wheel-barrows;" and after travelling about seven miles, they pointed to a line of trees as the "Narran," beyond an extensive open country, which had a singular appearance from being higher than that we were upon. We crossed one or two slight elevations wholly composed of compact felspar in blocks—forming ridges resembling an outcrop of strata, whereof the strike always pointed N. W. and S. E. Various curious new plants and fruits appeared; amongst others a solanum, the berry of which was a very pleasant-tasted fruit. The plant was a runner and spread over several yards from one root. There was also a fruit shaped like an elongated egg; it appeared to be some Asclepiad, and was called by the natives "Doobàh." They ate it, seeds and all, but said it was best roasted. As we approached the elevated country between us and the distant line of trees, we perceived that the vast level was covered with *Polygonum junceum* in a verdant state. The colour was dark green, such as I had never seen elsewhere in this "leafless bramble," as Sturt called it, which looks ever quite dry and withered along the margins of the Darling. We had good reason to love and admire its verdure now, when we found amongst it pure water in great abundance, into which all our native companions immediately plunged, and rolled about like porpoises. This, they said, was the "Narran," but to the vast swampy plain they gave the name of Keeguròdyin, a name quite useless for white men's memories or maps. They seemed to say it was wholly an emanation from the Narran, and pointed to the nearest part of the trees beyond, saying

the river Narran was there. I still endeavoured to proceed, as they wished, towards the nearest trees beyond, until a winding narrow pond of water, in very soft mud, precluded all hopes of crossing with our drays, without some sort of bridge; I therefore immediately counter-marched the party with me, now far advanced in that sea of dark green polygonum, and conducted it into a position on open stony ground to the westward of our route, with the intention to await there the arrival of the drays, and to prepare materials for a bridge to be laid across the muddy pond, as I had seen a small clump of pines (Callitris) at no great distance back. My guides did not encourage a hope I entertained, that this swamp might be turned by the westward, in which direction the open country extended to the horizon. The man who travels with bullocks must expect to be impeded by wet ground, as well as by the scarcity of water, in many situations where horses could pass without difficulty. I directed the bullocks, that had been driven forward with me, to be allowed to graze beside the water until sunset, and then to be taken slowly back by moonlight to Mr. Kennedy. Five had dropped down on the way, and had not come forward to the water. Those sent back were also ordered to be allowed to feed all the next day at Mr. Kennedy's camp, and only to start with the drays there next evening, to come on by moonlight, thus avoiding the intense heat, so oppressive under extreme thirst. The thermometer during the day, rose to 103° in the shade. Latitude of the camp on Narran swamp, 29° 45′ 51″ S. Thermometer at sunrise, 47°; at noon, 97°; at 4 P. M., 97°; at 9, 69°; ditto with wet bulb, 57°. The height of this camp

above the sea, the average of five registered observations, is 442 feet.

8th March. — The view northward from our present camp was most extensive. Far in the north-east a yellow slope presented the unusual appearance there, of a cultivated country. It was doubtless ripe grass, yet still the earth there had not even been imprinted with any hoof. Between that slope and our camp, lay the element, in abundance, which had been so scarce on the other side of the Darling. To the northward, at no great distance, was the river, where, as our guides informed us, we should no longer be ill off for water in pursuing our journey along its banks. I set the carpenter to cut sleepers and slabbing to enable us to bridge the muddy creek, for I had examined it early in the morning, and had crossed it with my horse; although I found several watercourses almost as soft, beyond. The natives maintained that the water in this extensive swamp came neither from the east nor west, but from the river directly before us, which came from the northward. Just behind our camp, to the southward, was a gentle elevation, almost a hill, consisting of the usual rock, felspar; and it seemed to me that this stony ground alone impeded the further progress of the water towards the Barwan. The ridge trended north-west, as most others did in this extensive basin; and this direction being nearly parallel to that of the coast ranges further northward, seemed to afford additional reason for expecting to find anticlinal and synclinal lines, and, consequently, rivers, much in the same direction. D'Urban's group, distant 150 miles lower down the Darling, consisted of a quartzose rock, exactly similar to this, exhibiting

a tendency, like it, to break into irregular polygons, some of the faces being curved. This rock is most extensively distributed in the interior of New South Wales. It was not until the evening of this day that the approach of the drays was announced, and then prematurely, the teams only having been brought forward to the water without them. So weak were the unfortunate animals, that not even by night, nor by doubling the numbers, could they be made to draw the drays forward, for the short distance of eight miles; a distance which we had been given to understand was so much greater. Forward, all was most promising, and it may be imagined how bitterly I regretted the alteration of my original plan of equipment, which had reference to horses and light carts alone. A new species of *Anthistiria* occurred here, perfectly distinct from the kangaroo grass of the colony, very like *Apluda mutica*, and remarkable for the smooth shining appearance of the thin involucral leaves.* The *Trichinium alopecuroideum*, in great abundance, was conspicuous, with its long silky ears of green flowers. On the stony ground occurred a very curious new woolly *Kochia*†, also a species of *Cyperus;* the *Trichinium lanatum* in great perfection; a grass resembling the close reed (*Calamagrostis* of England), and which proved to be the little-known *Triraphis mollis*. On the margin of the morass the *Dactyloctenium radulans*, spreading over the inter-

* *A. membranacea* (Lindl. MSS.); involucris carinatis margine membranaceis foliis vaginisque glaberrimis, floribus verticillatis pedicellatis (masculis ?), glumis omnibus scabris, aristâ glaberrimâ glumâ 3plo longiore.

† *K. lanosa* (Lindl. MSS.); ramis strictis foliisque linearibus acutis cinereis tomentosis, fructibus lanatis, calycis laciniis elongatis.

stices, reminded the traveller of the grasses of Egypt; and, in stony ground near the morass, we observed the *Justicia media* of Brown. Thermometer at sunrise, 66°; at noon, 98°; at 4 P. M. 102°; at 9, 81°; ditto with wet bulb, 74°.

9th March.—My native guides, tired of the delay, were anxious to return, and as the assistance they could afford me was likely to be extremely useful, and the arrival of the drays was most uncertain, I went forward this morning with one of them, two men, and Youranigh, our interpreter, all mounted. Amongst the trees, beyond the swamp, fine reaches of water appeared in a river channel, apparently continuous to the northward, but which, in the other direction, or towards the swamp, abruptly terminated like a cul-de-sac. On my asking the natives where it went to, they pointed to the various narrow water courses and the swamp as the final depositories of the water. Admirable distribution of the contents of a river in a country where water is so scarce, and the climate so hot and dry! We proceeded along the margin of the "Narran," which led us nearly due north, until we forded it, at the desire of our guides, on a good gravelly bottom, the water reaching to our saddle-flaps. Crossing a slight elevation where the soil was gravelly, and in which grew the shrubs of the ordinary scrubs with several interesting novelties, we again came upon an angle of the Narran, and continued along its banks for about thirty miles, until near sunset, when we tethered our horses, and lay down for the night. The Narran was full of water every where, and with this abundance of water there was also plenty of most excellent grass. The *Panicum lævinode* of Dr. Lindley seemed to predomi-

nate, a grass whereof the seed ("Cooly") is made by the natives into a kind of paste or bread. Dry heaps of this grass, that had been pulled expressly for the purpose of gathering the seed, lay along our path for many miles. I counted nine miles along the river, in which we rode through this grass only, reaching to our saddle-girths, and the same grass seemed to grow back from the river, at least as far as the eye could reach through a very open forest. I had never seen such rich natural pasturage in any other part of New South Wales. Still it was what supplied the bread of the natives; and these children of the soil were doing every thing in their power to assist me, whose wheel tracks would probably bring the white man's cattle into it. We had followed well-beaten paths of natives during the whole of this day's ride, and most anxious were my guides and I to see them; but they avoided us. Our guide was of that country, and not at all unwilling or timid; but evidently very desirous to introduce us to the inhabitants, and procure amongst them other guides to lead us further. The night was very hot, and flies and mosquitos did their utmost to prevent us from sleeping. Thermometer at sunrise, 75°; at noon, 99°; at 4 P.M., 105°; at 9, 83°; ditto with wet bulb, 75°.

10*th March*.—Anxious for an interview with some of the natives, I continued the pursuit of the Narran's course about five miles higher, but with no better success. I then turned, after obtaining from our guide, through Youranigh, what information could be gathered thus, as to the river's further course, the best bank for the passage of our drays, &c. We were still, he said, a long way from the "Culgoa."

There was no perceptible change in the aspect of the "Narran" as far as we had examined it, except that where we turned, there were flood-marks, and the dead logs and river wreck, deposited on the upper side of trees and banks, showing a current and high floods. The last of these, our guide said, had occurred about five moons before. In riding back to the camp we kept the eastern bank, that the track might be available for our drays. This ride along a river where we could, when we pleased, either water our horses, or take a drink ourselves, was quite new and delightful to us, under a temperature of 105° in the shade. Our guide, aged apparently about fifty, walked frequently into the river, while in a state of perspiration; dipped quite under water, or drank a little with his lip on the level of its surface, and then walked on again. He was at last very tired, however, and pointed to the large muscles of the *rectus femoris* as if they pained him. We found at the camp, on our return, five of the drays that had come up, the other three being still behind, and requiring double teams of exhausted cattle to bring them forward. In the vicinity of our camp we found the *Trichinium alopecuroideum*, with heads of flowers nearly five inches long; an eucalyptus near *E. pulverulenta*, but having more slender peduncles; a sort of Iron-bark. We found also a tall glaucous new *Haloragis**, and a curious new shaggy *Kochia* was intermingled with the grass.† Thermometer at sunrise, 77°; at

* *H. glauca* (Lindl. MSS.); annua, stricta, glaberrima, glauca, foliis oppositis lineari-oblongis obtusis petiolatis grossè serratis, racemis apice aphyllis, fructu globoso tuberculato lævi.

† *K. villosa* (Lindl. MSS.); ramis erectis foliisque linearibus villosissimis, fructibus glabris.

noon, 102° ; at 4, 107° ; at 9, 76° ;—with wet bulb, 71°.

11*th March.*— All the drays came in early. I gave to the two natives, the tomahawks, tobacco, and pipes, as promised ; also a note to the stockman on the Barwan, who had provided me with them, saying that they had been very useful. I this morning examined the country to the westward of the swamp, and found a narrow place at which we could pass, and so avoid much soft heavy ground. The ramifications of the watery Narran penetrated into the hollows of the stony ridge, presenting there little hollows full of rich verdure and pools of water, a sight so unwonted amongst rocks characteristic of D'Urban's arid group. In one little hollow, to the westward of our camp, it seemed possible for two men with a pickaxe and shovel to have continued it through, and so to have opened a new channel for the passage of the waters of the Narran swamp, into the dry country between it and the Barwan. Thermometer at sunrise, 55° ; at noon, 105° ; at 4 P. M., 102° ; at 9, 75° ;—with wet bulb, 59°.

12*th March.* — I found it necessary to sit still here and refresh the jaded bullocks; thus days and months passed away, in which with horses I might have continued the journey. The very extensive country before us, which appeared to absorb these waters, was quite clear of timber, and irrigated by little canals winding amongst *Polygonum junceum*. This open country appeared to extend north-eastward about eight miles, thence to turn eastward, as if these waters found some outlet that way to the Barwan. I regretted that this swamp led too far out of our way, to admit of our tracing its limits to the eastward.

This day I received letters from Commissioner Mitchell, in which he strongly recommended to my attention the rivers Biree, Bokhara, and Narran, as waters emanating from, and leading to, the Balonne, a river which he said might supply our party with water, in this very dry season, almost to the tropic. I was able to inform him in reply, that I was already on the Narran, and that I had already availed myself of his account of the rivers formerly sent me, on which I must have been obliged to depend, even if the party had passed by Fort Bourke.

This evening, by moonlight, I conducted a dray, carrying two platforms, to the place where the narrow channel, feeding the swamp, could be passed without our meeting beyond any other impediment to the drays. The sleepers used for this purpose were made of pine (*Callitris pyramidalis*), found half a mile back from our camp. They were fourteen feet long, two feet wide, being composed of cross-pieces, two feet long, fixed at each end between two sleepers, so that they somewhat resembled a wooden railway. These, when laid at the proper distance apart to carry both wheels, were bedded on the soft earth, and the interval between was filled to a level with them, by layers of polygonum and long grass, alternate with earth, forming together a mass of sufficient resistance to support the feet of the draught oxen. The whole formed a compact bridge or gangway. Thermometer at sunrise, 51°; at noon, 95°; at 4 P. M., 107°; at 9, 70°;—with wet bulb, 61°.

13*th March*. — The party once more moved onward, and the drays trundled across the swampy arm by means of our bridge, which, even in the event of an accession of water there, might have proved service-

able on our return. Three miles beyond it we had to ford the Narran, passing over a gravelly bottom to the eastern bank, and encamping there. The drays were slow in arriving at this ford and camp, as the ground was soft and hollow, but by sunset all had crossed, and our camp established on the Narran. Thermometer at sunrise, 71°; at noon, 100°; at 4 P. M., 100°; at 9, 71°; — with wet bulb, 65°. The height of this camp above the sea, according to ten registered observations, is 487 feet.

14*th March*. — We now had before us water and grass in abundance, to a distance as unlimited and indefinite, as our hopes of discovery. I intended to set out early each morning, and travel only four or five miles, that the jaded animals, exhausted by want of water and hard work, might have time to feed and refresh. One old cause of delay, however, again occurred to impede us,—three bullocks were reported missing. Now it was nearly full moon, and two men had been on watch all night. It really seemed that delay and disappointment must attend all who depend on bullocks and bullock-drivers. The stray cattle were not brought up until 9 A. M., when we proceeded, and encamped on an angle of the Narran, after travelling about five miles. In the scrubs passed through, we found the fragrant *Jasminum lineare* in fruit, the flowers being nearly past; a bulb which proved to be the *Anthericum bulbosum* of Brown; a shrub ten feet high, in fruit, the *Canthium oleifolium* of Sir William Hooker; a fine new *Chenopodium*, with long naked spikes of woolly yellow flowers*;

* *C. auricomum* (Lindl. MSS.); totum glaucum farinosum, caule stricto, foliis petiolatis oblongis subhastatis lobisque posticis obtusis supremis lanceolatis, spicis compositis nudis aphyllis glomeratis multifloris tomentosis.

and a hoary variety of *Acacia leptoclada*, or perhaps a distinct species, having a good deal of the aspect of *A. dealbata*, but the leaves and glands nearer those of *A. leptoclada*, according to Mr. Bentham. Thermometer at sunrise, 70°; at noon, 103°; at 4 P. M., 102°; at 9, 81°;—with wet bulb, 75°.

15*th March.*—The sand amongst the scrubs was so soft and yielding, that the draught animals could not draw the drays through it without great difficulty; indeed, it was only possible by double-backing, as the drivers termed their practice of alternately assisting one another, a process to which all had had recourse with one exception. It was not until 1 A. M. of this morning, therefore, that the last dray was brought to the camp. Another bullock died on the way, and thus I felt, when the field of discovery lay open before me, that my means of conveyance were unsuited to the task. Overloading at Boree, unskilful driving, excessive heat, and want of water, had contributed to render the bullocks unserviceable, and I already contemplated the organization of a lighter party and fewer men, with which I might go forward at a better rate, leaving the heavy articles of equipment and tired cattle in a depôt, on some good grassy spot. The latitude of this camp was 29° 38′ 21″ south. Thermometer at sunrise, 73°; at noon, 84°; at 4 P. M., 86°; at 9, 65°;—with wet bulb, 60°.

16*th March.*—I proceeded six miles, and chose a camp beside a bend of the Narran, full of deep water, and in the midst of most luxuriant grass. The drays arrived by 11 A. M. in such good order, that I was induced to try whether, by early starting, good feeding, and short journeys, the party could not be got forward to the Balonne, where I could

leave the whole in one depôt, to rest and refresh, while I took my intended ride forward. Latitude, 29° 34′ 11″ S. Thermometer at sunrise, 43°; at noon, 86°; at 4 P. M., 87°; at 9, 62°;—with wet bulb, 55°.

17*th March.*—I proceeded seven miles, and the drays came forward as well as they did yesterday, so that I again entertained hopes of the progress of the united party, which was very desirable, as these plains were evidently sometimes so saturated with water as to be rendered wholly impassable for wheel-carriages or even horses. Latitude, 29° 29′ 11″ S. Thermometer at sunrise, 47°; at noon, 87°; at 4 P. M., 91°; at 9, 62°;—with wet bulb, 52°.

18*th March.*—Again we made out a short journey over rather soft ground; all the drays coming in, although slowly. I rode to a gently rising ground, a great novelty, which appeared bearing E. N. E. from our camp, at a distance of 2½ miles. I found it consisted of gravel of the usual conglomerate decomposed—of rounded fragments of about a cubic inch in bulk. The grass was good there, and I perceived that the same gravelly ridge extended back from the river in a north and south direction. Graceful groups of trees grew about this stony ground, which looked, upon the whole, better than the red sandy soil of the scrubs and callitris forest. This seemed the dividing ridge between the Narran and Barwan. From this elevation, I saw that the course of the former ran still in a good direction for us, to a great distance northward. On that stony ground I found a new *Pittosporum* five feet high, with long narrow leaves, in the way of *P. Roeanum* and *angustifolium*, but distinct from both in the form

of its fruit.* Latitude of camp 29° 25′ 21″. Thermometer at sunrise, 53°; at noon, 90°; at 4 P. M., 96°; at 9, 69°; — with wet bulb, 61°.

19*th March.*—Pursuing the Narran, keeping its eastern or left bank, our course this day was more to the northward. I encamped after travelling six miles, not only because the ground was soft and heavy for the drays, but because I saw that the Narran turned much to the eastward, and I contemplated the passage across it, intending to look for it again, by travelling northward. Accordingly, as soon as our ground had been marked out, I crossed to reconnoitre the country in that direction. I found a fine, open, grassy country, but no signs of the river at the end of five miles, nor even until I had ridden as far eastward. There, recrossing it, I returned to the camp through some fine open forest country. Latitude observed, 29° 21′ 51″, S. Thermometer at sunrise, 57°; at 4 P. M., 96°; at 9, 71°; —with wet bulb, 62°.

20*th March.*—Retracing my homeward tracks of yesterday, we proceeded in a nearly E. N. E. direction, along much firmer ground than we had recently traversed. The great eastern bend of the river was found amongst much excellent grass, and amidst much fine timber. A species of Anthistiria appeared here, which seemed different from the ordinary sort, although this was no stranger to me, when exploring the waterless plains westward of the Lachlan, where it looked as if stunted for want of moisture. Here, however, this variety presented the same knotty

* P. *salicinum* (Lindl. MS.); foliis lineari-lanceolatis coriaceis acutissimis aveniis, pedunculis unifloris aggregatis axillaribus, fructibus subglobosis vix compressis.

head, where other grasses grew luxuriantly. After getting round the extreme eastern turn of the Narran we encamped. Near the spot large rocks appeared in the bed, as if the river was passing through the stock of the gravelly ridge I had visited on the 18th. The rock consisted of that found about the basin of the Darling; a quartzose conglomerate with much felspar, and having pebbles of quartz imbedded. The large fragments of the conglomerate in the river bed were angular, and not at all rounded at the edges. Here the poor natives had been very industrious, as was evident from heaps of the grass *Panicum lævinode*, and of the same red-stalked coral-like plant, also mentioned as having been observed in similar heaps, on the banks of the Darling, during my journey of 1835 (vol. i. p. 238). I now ascertained that the seed of the latter is also collected by the natives and made into a paste. This seed was black and small, resembling fine gunpowder when shaken out. Nevertheless it was sweet and pleasant to the taste, possessing a nutty flavour.

The human inhabitants were few, and as invisible as other animals in these forests—the prints of whose feet were also plain in the soft smooth surface. As faithless as the snows of the North*, this soil bore the impressions of all animals obliged to go to the water, and amongst them those of the naked feet of men, women, and children, with the prints likewise of other *bipeds*, such as emus and kangaroos,

* "And hungry Maukin's ta'en her way
To kailyards green,
While faithless snaws ilk step betray
Whar she has been."

BURNS.

and also those of the native dog. Here still was our own race amongst other animals all new and strange to Europeans. The prints of the foot of man alone were familiar to us. But here he was living in common with other animals, simply on the bounty of nature; artless, and apparently as much afraid of us, and as shy, as other animals of the forest. It seemed strange, that in a climate the most resembling that of Milton's paradise, the circumstances of man's existence should be the most degrading. Latitude of our camp, 29° 19′ 26″ S. Thermometer, at sunrise, 55°; at noon, 100°; at 4 P.M., 101°; at 9, 70°;—with wet bulb, 65°. The mean elevation above the sea of our camps thus far on the Narran, seven in number, was 477 feet; the bed of the river being about 15 feet lower.

21*st March*.—Proceeded as usual through fine grass, the river coming favourably round towards the north. At about two miles I found some traces of horses, and I looked at the river bank for Commissioner Mitchell's initials, supposing this might be "Congo," where he had forded the Narran. But we had not reached the latitude of Congo according to his map. Nevertheless we found here such an excellent dry ford, with gently sloping banks to a stony bottom, that the two circumstances induced me to cross the Narran with the party. I travelled westward, until meeting with a dense scrub, I turned towards the friendly Narran, where we encamped in latitude 29° 15′ 31″ S. Thermometer, at sunrise, 56°; at noon, 97°; at 4 P.M., 101°; at 9, 72°; ditto with wet bulb, 66°.

22*d March*.—Gave the party a day's rest, prayers being read by the surgeon, as was usual whenever

circumstances admitted of our halting on Sunday. The bed of the Narran presented in several places the denuded rock, which seems the basis of all the soil and gravel of the country. At one place irregular concretions of milk-white quartz, cemented by a ferruginous basis, was predominant; at another, the rough surface of compact felspar weathering white presented merely the cavities in which large rounded pebbles had been imbedded, until the partial decomposition of the felspar, under the river floods, had exposed them once more to the action of water. The force of those waters, however, had not been sufficient to cut a channel through very soft rocks extending right across their course — a circumstance rather characteristic, perhaps, of a river like the Narran, watering a nearly level country, and terminating in a swamp. Thermometer at sunrise, 53°; at noon, 95°; at 4 P. M., 98°; at 9, 72°; — with wet bulb, 66°. Height above the sea, 515 feet, from eight observations.

24*th March.* — All hands were bent on an early start this morning, and, soon after seven, the party moved off. We crossed much grassy land, almost approaching to the character of scrub as to bushes; but we pursued a tolerably straight course to the N.W., until we again made the Narran at 8½ miles. Various new plants attracted my attention this day, especially a beautiful Loranthus on the rosewood Acacia, and a small bush bearing a green pod resembling a small capsicum in shape. Among the sedges by the river we found the *Kyllinga monocephala;* and, on the rich black clayed soil near it, a species of bindweed out of flower, with large sagittate leaves: in the scrubs back from the river,

grew a small bush, about four feet high, which has been considered either a variety of Brown's *Santalum oblongatum*, or a new species distinguished by its narrow sharp-pointed leaves. The *Loranthus lineari. folius* was growing on the rosewood Acacia, and the branches of Eucalypti were inhabited by the parasitical *Orange Loranth.** Lat., 29°1 0′6″ S. Therm. at sunrise, 51°; at noon, 95°; at 4 P.M., 99°; at 9, 70°; — wet bulb, 63°.

24*th March*. — We set off still earlier this morning. I hoped to reach the Bokhara, on the West, a river shown on the map sent me by the Commissioner of the district, but after travelling about seven miles to the northward, I saw rising ground before me, which induced me to turn towards our own friendly river the Narran; but it proved to be very far from us, while in my search for it, to my surprise, I found it necessary to descend several considerable declivities, covered with waterworn pebbles. At length a slight opening in the dense scrubs through which we had forced our way, afforded a view towards the south-east of the low range we were upon, which trended very continuously to the north-west, covered thickly with the "Malga" tree of the natives; to the traveller the most formidable of scrubs. After several other descents, we reached the Narran, but only at half-past three in the afternoon, when we had travelled nearly twenty miles. How the teams were to

* L. *aurantiacus* (All. Cunn. MS.); ramis elongatis laxis gracilibus, foliis oppositis longe petiolatis oblongis obtusis lanceolatisve acuminatis glabris 3—5-nerviis tenui-marginatis, paniculis folio brevioribus di-trichotomis, floribus erectis, calycibus subcylindraceis superne latioribus truncatis, petalis linearibus 6, stylo infra apicem geniculato, stigmate dilatato truncato. — W. J. H.

accomplish this, it was painful to consider. I sent back a messenger to desire that the cattle should be detached and brought forward to the water; content to lose one day, if that indeed would suffice to recover the jaded animals. Casuarinæ now grew amongst the river trees, and reminded me of the banks of the Karaula in 1831. We had also noticed another novelty in the woods we passed through this day; a small clump of trees of iron-bark with a different kind of leaf from that of the tree known by that name in the colony. On the higher stony land, a bush was common, and proved to be a broad-leaved variety of *Eremophila Mitchellii*, if not a distinct species. We there met with a new species of the rare and little-known genus, *Geijera;* forming a strong-scented shrub, about ten feet high, and having long, narrow, drooping leaves. Its fruit had a weak, peppery taste.* The rare *Enchylæna tomentosa* formed a shrub a foot high, loaded with yellow berries: all the specimens were digynous, in which it differed from the description of Brown. The *Capparis lasiantha* was observed amongst the climbing shrubs still in fruit; and a beautiful new *Loranth*, with red flowers tipped with green, was parasitical on trees.† On the bank of the Narran we found the *Amaranthus undulatus* of Brown.

The cattle arrived in the dark, and were watered in the muddy-banked Narran, by the light of burning

* G. *parviflora* (Lindl. MS.); ramis erectis, foliis longis linearibus pendulis in petiolum sensim angustatis 4 unc. longis.

† Loranthus *linearifolius* (Hook. MS.); foliis lineari-filiformibus acutis carnosis glabris teretibus, pedunculis axillaribus brevibus bifloris, calycibus cylindraceis truncatis contractis, petalis 6 linearibus supra basin coalitis.

boughs; then set to feed. Lat. 29° 6′ 33″ S.; therm. at sunrise, 48°; at 4 P.M., 101°; at 9, 74°; ditto with wet bulb, 62°.

25th March. — The cattle had now to return to bring forward the drays. Meanwhile I took a ride up the river, in order to ensure a moderate journey for these exhausted animals. Proceeding along the right bank, I found gravelly slopes almost closing upon the river. The direction of its course for four miles, was nearly southward. Then I saw gravelly ridges on the left, and a line of wood before me, while the river evidently came from the East round the margin of an extensive plain. I continued northward; found a rosewood scrub: then saw the Malga tree; passed through scrubs thereof; found myself on stony ridges, whence descending in a N.E. direction, again passed through rosewood scrubs, and only reached the river after riding $2\frac{1}{2}$ miles in that direction. I saw a continuous ridge, bare and distant, beyond what I considered the river bed, and a similar ridge to the westward. I crossed a native camp where the newly deserted fires still smoked. We saw one man at a distance, who did not mind us much; I could not have obtained any information from him, and therefore did not seek a parley. Crossing the Narran there, by a beaten track, beside a native fishing fence, I returned to the camp, on the bearing of S.S.W., and found a grassy plain the whole way back, until within sight of the tents, and a good rocky ford for the passage of the party next day. On the stony ridge I found a remarkable shrub, a species of Sida (*Abutilon*), allied to *S. graveolens*, Roxb., but distinct. The teams brought the drays in, about 5 P.M.; one animal of all being missing.

Therm. at sunrise, 72°; at noon, 89°; at 4 P.M., 91°; at 9, 60°;—with wet bulb, 53°.

26*th March*.—Early this morning, William Baldock was sent back in search of the stray bullock, while the party crossed the Narran, and proceeded along my horse's track of yesterday. Baldock overtook the party, having found the bullock on the river, four miles below our late encampment. The natives seen yesterday had disappeared, having previously set fire to the grass. We proceeded two miles beyond their fires, and encamped on the river bank in lat. 29° 1′ 57″ S.

A small path along the river margin; marks on trees, where hollow portions of bark had been taken off; some ancient, some recent, huts of withered boughs and dry grass; freshwater muscle shells, beside the ashes of small fires; and, in some places, a small heap of pulled grass (*Panicum lævinode*), or of the coral plant; such were the slight but constant indications of the existence of man on the Narran. Such was the only home of our fellow-beings in these parts, and from it they retired on our approach. Ducks, which were rather numerous, and emus (coming to drink), probably constituted their chief food, as nets to ensnare both these kinds of birds, were found about their huts. Youranigh brought me one of their chisels, a small bit of iron fastened to a stick with gum, and tied with a piece of striped shirting. I directed him to place it carefully where he had found it. Thermometer at sunrise, 47°; at noon, 90°; at 4 P.M., 95°; at 9, 69°;—with wet bulb, 60°. The mean height above the sea of the camps of 23d, 24th, and 26th March, was 461 feet.

27*th March.*—Pursuing, as well as we could, the course of the Narran, which came more from the northward, we again encamped on its banks after a journey of seven miles, without recognising any indication of the vicinity of the larger stream, which, according to our latitude, we ought by this to have reached. The current here had evidently been more decided, and dry trunks and other *fluviatile debris* lay more in masses against whatever had lain in the water's way. Excellent grass clothed the plains over which we had passed during the two last days, and grew abundantly also about the banks of the river; but, in general, a belt of the *Polygonum junceum*, about 400 or 500 yards wide, grew between the immediate margin and the grassy plains. This shrub was found an infallible guide to the vicinity of the river, when, as sometimes happened, other lines of trees, resembling those on its banks, had led me to a distance from it. The day was cool and rather cloudy, a great novelty to us; for every day had been clear and unclouded, since long before we crossed the Barwan. Abundance of the stones of the quandang fruit (*Fusanus acuminatus*) lay at an old fire of the natives, and showed that we were not far from the northern limit of the great clay basin, as the quandang bush grows only upon the lowest slopes of hilly land. Lat. 28° 55′ 13″ S. Thermometer at sunrise, 70°; at noon, 90°; at 4 P. M., 89; at 9, 70°; — with wet bulb, 61°.

28*th March.*—At 2 A. M., loud thunder was heard in the south-west, where a dark cloud arose and passed round to the northward; a few drops of rain fell. The morning was otherwise clear, with a cooling breeze from S. W. Thermometer at sunrise, 56°.

We proceeded, travelling chiefly amongst very luxuriant grass. The river now disappeared as far to the westward of my northerly course on this left bank, as it had left me when on the other bank by unexpected turns to the eastward. I came upon its banks after travelling about eight miles. At the spot where I wished to place the camp I perceived a native, and with Youranigh's assistance, managed to prevent him from running away. He spoke only "Jerwoolleroy," a dialect which my native did not understand at all well. He told us, however, that this was still the Narran, and pointed N. W. to the Balonne. Upon the whole we gathered from him that neither that river nor the Bokhara was far from us. I endeavoured to convince him, by Youranigh's assurances, and our own civility to him, that we meant no harm to any natives, and were only passing through the country. He did not seem afraid, although he had never, until then, seen white men. We encamped near him. The river channel was very narrow, and contained but little water hereabouts. I understood from the native (through Youranigh) that the river here spread into various channels, and that "*Barro*" was the name of a river beyond the Culgòa, which falls into it from the northward; "*Tooringorra*," the lagoon on which we encamped after meeting natives on the 31st March. Near this camp we found a *Phyllanthus*, scarcely different from *P. simplex;* a *Sesbania* near *S. aculeata*, but with smaller flowers; and the *Chenopodium auricomum*, formed a white-leaved shrub, three or four feet high. Thermometer at sunrise, 56°; at noon, 78°; at 4 P. M., 82°; at 9, 61°;—with wet bulb, 56°.

29*th March.*—After prayers (the day being Sun-

day) I sent Mr. Kennedy forward to explore the course of the river, in order to ensure a more direct line for to-morrow's route. Mr. Kennedy was accompanied by one of the men armed, and also by Youranigh, all being mounted. He returned in about four hours, having found the river coming from the northward, and he also reported favourably of the ground. Thermometer at sunrise, 48°; at 4 P. M., 81°; at 9, 51°; — with wet bulb, 47°.

30*th March*. — The night had been cool and pleasant, Thermometer at sunrise only 42°. The cattle were yoked up early, and we travelled on over fine grassy plains, and with open gravelly ridges on our right. At length, about the sixth mile, these ridges closed on the river, where there was one hill almost clear of trees or bushes. I ascended it, but could only see plains to the westward, and a dense line of river-trees running north. We at length encamped on what appeared to be still the Narran, after a journey of about eight miles.

We this day passed a small group of trees of the yellow gum, a species of eucalyptus growing only on the poor sandy soil near Botany Bay, and other parts of the sea-coast near Sydney. Thermometer at sunrise, 42°; at 4 P. M., 83°; at 9, 61°;—with wet bulb, 57°. Mean height of the camps of the 27th, 28th, and 30th, above the level of the sea, 509 feet.

31*st March*. — The various lines of trees were now so much dispersed across the country, that to follow the line of the Narran, it was necessary to see its ponds and channel as frequently as possible. The course, if not of the river, at least of its ana-branches; and there were besides those, branches of another kind, namely, true branches coming from the main

channel, as branches leave the stem of a tree, never to unite with it again. Some of those of this description, so closely resembled in every respect the Narran, that the difference was only to be distinguished by observing the marks of flood on trees, and ascertaining the direction of the current. We had crossed several such, and were rather in a "fix" with some lagoons, when I perceived several native children in one of them. I wished here to intercept some natives who might tell us where was the ford of "Congo," where white men had crossed the Balonne, or where was the river Balonne. The children fled, but two manly voices were heard immediately, and two natives came confidently up to Youranigh and then to me. The eldest seemed about fifty-five years of age; the other was a lad of about twenty. They spoke of "Congo," and the Balonne (*Balongo*) as quite at hand, and undertook to conduct us to both. It was quite evident from their pronunciation, that "Baloon" was not the proper native name, but Balónne, the termination they gave it of "*go*," being an article they very often use, Balón-go being equivalent to *the* Balonne; as in speaking of the Barwan, they say "Barwàngo." I had nearly completed the usual short journey when we fell in with these natives, but I was unwilling to lose the advantage of their assistance, and so travelled on under their guidance, full five miles further, before I fixed on a spot for the camp. This was by a splendid piece of water, named by them Tooningora, nearly on a level with the adjacent plains, and covered with ducks. We had passed other fine sheets of water guided by our native friends, and over a rich grassy country remarkably level and free from scrub. It

was evidently changed by the vicinity of the larger river. I continued to follow our new friends beyond where I had directed the party to encamp, in expectation of seeing the marked tree at Congo, and the river Balonne. After going forward thus about four miles, we saw five gins running off at a great distance across some open plains, apparently near the river. The eldest of our guides ran after them, and I requested him to assure them that the white men would do no harm, and to tell them not to run away. At length he overtook them. Two appeared to carry unseemly loads across their backs, dangling under large opossum-skin cloaks, and it was evident that these were mummied bodies. I had heard of such a custom, but had not before seen it. I had then but a distant view of these females, as they resumed their flight, and continued it until they reached woods bounding the plain on the westward. The line of Yarra trees of the great Balonne river ran parallel to our march westward, and there also, according to my guides, was "Congo," the ford marked out by my son, and which spot I most anxiously desired to see and identify by his initials. Still my guides led westward towards the woods, and as we approached them, the shout or scream of little Dicky, a native child of the Bogan, follower of my camp, first drew my attention to a black phalanx within the forest, of natives presenting a front like a battalion. Youranigh my interpreter halted and remonstrated: our elder guide ran forward, and on his reaching that body, the sound of gruff voices that arose from it strongly reminded me of Milton's description of Satan's army:

> "Their rising all at once was as the sound
> Of thunder heard remote."

Youranigh would not advance another step, although much pressed by the other native remaining with us to do so, but declared that "those fellows were murry coola," (very angry). We therefore retraced our footsteps to the camp, without having seen either the Balongo or Congo. Our guide soon overtook us, accompanied by fourteen of the strange natives, who, all curiosity, passed the night at our camp, and they brought with them a lad named "Jemmy," who spoke a little English, and had visited many of our cattle-stations. He was very intelligible to Youranigh, who but very imperfectly understood the language of the rest. They seemed upon the whole a frank and inoffensive race. Their food consisted of the fish of the river, ducks, and the small indigenous melon, *Cucumis pubescens*, which grew in such abundance, that the whole country seemed strewed with the fruit, then ripe, and of which the natives eat great quantities, and were very fond. It is about the size of a plum only, and in the journal of my first interior journey (in 1831), is mentioned as a cucumber we were afraid to eat. (Vol. I. p. 88.) Latitude of camp, 28° 38′ 47″ S. Thermometer at sunrise, 42°; at 4 P. M., 83°; at 9, 61°; — with wet bulb, 57°.

1*st April.* — The whole party moved off about the usual hour, 7 A. M., still under the guidance of our new acquaintance, towards the Balonne. On our way the natives were very careful to point out how muddy hollows could best be avoided by our drays. I saw seated at a distance, in due form, the tribe to which they belonged; and having directed the party to halt, went up to them. They were seated in three groups; old men on the right, painted red; old women in the centre, painted white; and other women and

children on the left. The few strong men who appeared, formed a circle around me, and told me their names as they came up to me. I desired Youranigh to tell them that we were passing that way across the Balonne to a very far-off country, and did not wish to disturb them, &c. When all was said that could be said, and I was about to return, one of the chiefs, "Yarree," said "good night," words which he must have learnt at some cattle station. Although it was only morning, I returned the compliment with all possible gravity, and took my leave. Soon after, we arrived on the bank of the Balonne, as fine a looking river as I have seen in the colony, excepting only the Murray. There was a slight current, and the waters lay in broad reaches, under banks less elevated above the bed than those of the Darling. In breadth the channel surpassed that of the last named river in any part, I believe, of its course.

We encamped near a shallow place, which the natives at first said was "Congo," but where we found no marks on the trees. The curiosity of the natives having been gratified, they disappeared; but I must mention that, having missed the elder of the two men who had guided us here since the first evening, I learnt, on inquiring what had become of him, that he had gone back to his little boys, whom he had left at the water-holes where he first met us, six miles back, and for whom he had apparently gathered his little net of melons. Nothing could have been finer than this man's conduct. He had at once come on with us to guide us where we wanted to go; took great pains to make us known to his own tribe, and, I believe, to other assembled tribes at some

risk to himself; and then, without claiming my promised gifts, he had returned to his little family, left at such a distance, only that he might do that which was civil, to us strangers. Yet we call these men savages! I fear such disinterested acts of civility on the part of the civilised portion of mankind are rather rare. He had rendered to us, at all events, a very great service; for the danger of sudden collision with the natives was at an end, after our introduction by him to the tribes. In the afternoon, Slater, one of the bullock-drivers, found a good fording-place; and I sent a few men to cut the banks, and fill up a soft part of the river bed with logs, branches, and earth, for the better passage of the drays; a work they completed before night. I rode about five miles beyond the river to the north-west, and met, first with a very broad lagoon full of water, nearly on a level with the plains, and apparently permanent; secondly, I found beyond this, a river or chain of ponds somewhat like the Narran. This I ascertained was called the Càwan by the natives, and that it meandered very much. The country was rather fine. These waters were bordered by well-grown trees, and the plains were covered with good grass. Lat. of our camp, on the Balonne, 28° 25′ 38″ S. Thermometer at sunrise, 44°; at noon, 75°; at 4 P.M., 79°; at 9, 60;—with wet bulb, 54°. Height of the bed of the Balonne above the level of the sea, 494 feet; an average of three observations.

2*d April.*—All the drays and the party crossed the river this morning in good order, and without any accident or much delay, by the little bridge we had made in its bed. While they were crossing, the place seemed to me so favorable for a ford that it

might still be possible to find some of the marked trees said to be at "Congo." I again questioned the natives on this point, and one youth undertook to point out some marks made by white men. Mr. Kennedy ran with him on foot up the left bank of the river, and was shown two trees marked, the one with "J. Towns," the other with "Bagot, 1845." Being thus convinced that this ford was really at or near the place called "Congo," where Commissioner Mitchell had crossed, and found the Culgoa, at a distance of only seven miles north-west, I determined to go forward, in the same direction, to that river, taking my track of yesterday, which enabled me to avoid the broad lagoon.

On arriving at the "Cawan" we saw two natives fishing in a pond with hoop nets, and Yuranigh went to ask them about the "Culgoa." He returned accompanied by a tall athletic man; the other was this man's gin, who had been fishing with him. There he had left her to take care of his nets, and, without once looking at me or the party, proceeded to conduct us to the Culgoa. I never saw a Spanish or Portuguese guide go with a detachment half so willingly. Yuranigh and he scarcely understood a word of what each other said, and yet the former had the address to overcome the usual difficulties to intercourse between strange natives, and their shyness to white men, and to induce this native thus to become our guide. He took us to the Culgoa, which we made at about seven miles from the Balonne, and I was so much pleased with the willing service and true civility of this native, that I presented him with an iron tomahawk, and I heard him twice ask Yuranigh if it really was meant for him to keep. He then hastened

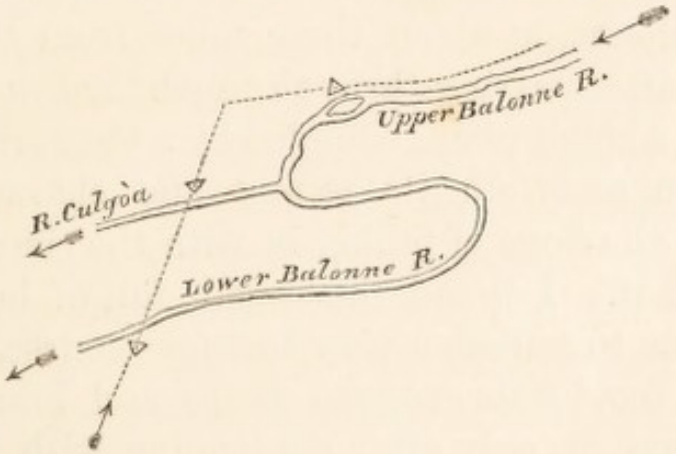
back to his gin, whom he had left five miles off. This river presented as deep a section as, but a narrower bed than, the one we had just left. It had all the characteristics, however, of a principal river, and really looked more important than the Barwan, except that its waters were not then fluent. Gigantic blue gum trees overhang the banks, and the Mimosa grew near the bed of the current. I should say that these and much sand were the chief characteristics of the Culgoa. There were no recent marks of natives' fires, and I was informed that they did not much frequent that part of the river. The grass along the banks was very luxuriant. Latitude 28° 31′ 19″ south. Thermometer at sunrise, 39°; at noon, 75°; at 4 P.M., 76°; at 9, 50°; — with wet bulb, 46°. The height of this camp above the level of the sea, being forty feet above the bed of the river, 543 feet; from the mean of four observations.

3rd April.—The section of this river being forty feet deep, and the banks in general steep, the work necessary to render it passable to our heavy drays could not be accomplished yesterday afternoon. This day, however, our camp was established on the right bank of the Culgoa. Thermometer at sunrise, 35°; at noon, 80°.; at 4 P.M., 77°; at 9, 49°; and with wet bulb, 46°.

4th April.—We were now to proceed along the right bank of the Culgoa upwards to the United Balonne, and thence to continue ascending along the right bank of that river also, as far as the direction was favourable to our progress northward. This remained to be ascertained in exploring that river upwards. In gaining the right bank of the Culgoa, we had crossed the vast basin of clay extending from

the Bogan on the south, to this river on the north, and westward to New Year's Range and Fort Bourke. That country was liable to be rendered quite impassable, had the rains set in. But even in such seasons we could still travel over the dry, firm ground bounding this basin of clay on the northward, as the left bank of the Bogan was also passable, however rainy the season, indeed more conveniently then than during a dry one. Rain, if it had fallen at this time, had greatly facilitated our exploration of the northern interior; but these rivers we had reached would supply us with water for some degrees to the northward, as I had been informed by the Commissioner of the district, and in our progress so far, I hoped we should arrive at a better watered country.

Taking a northerly course, we traversed fine grassy land, on which grew luxuriantly the *Acacia pendula* and other shrubs, that reminded us of the banks of the Bogan, to which country we found here the exact counterpart, only that this was better watered. The course of the Culgoa was more easterly than I had calculated on, for, after going six miles northward, I



had to travel at least as many eastward before I again found the river. We encamped on the acute

north-western angle of an ana-branch biting into the firm soil, and it was evident that we had reached the Balonne Major, or that part above the separation of the Culgoa from the Minor Balonne, both of which we had already crossed, and which ran thus, as from our camp the lines of trees along each of the minor channels were distinctly visible.

The character of these rivers had been described to me by Commissioner Mitchell, the discoverer thereof. It was late before the drays came in, and Mr. Kennedy was led into the camp quite blind, having been suddenly attacked with purulent ophthalmia, when engaged in the survey of our route, about four miles from the camp. The heat had somewhat abated, but still this complaint, which we had attributed to it, had lately affected many of the party suddenly, as in the case of Mr. Kennedy. Latitude, 28° 27′ 11″ S. Thermometer at sunrise, 33°; at noon, 83°; at 4 P.M., 88°; at 9, 53°; with wet bulb, 47°.

5th April.— The party halted, and I took a ride to explore the course of the river, proceeding first northward. In that direction I came upon an angle of the Balonne, at about three miles from the camp. Beyond, after passing through much *Acacia pendula*, I crossed a small plain, bounded by a Casuarina scrub. Partly to ascertain its extent and character, and partly in the hope of falling in with the river beyond, I entered it. I found this scrub full of holes, that obliged me to pursue a very tortuous course, impeded as I was too by the rugged stems and branches. I got through it, only after contending with these impediments for three miles. The country beyond it looked not at all like that back from the river, and I

turned to the N.E., pursuing that course some miles; then eastward two miles, and next two miles to the S.E., still without finding any river; but, on the contrary, scrub in every direction. The sun was declining, and I turned at last to the S.W., and in that direction reached an extensive open forest, beyond which I saw at length the river line of trees. I continued to ride S.S.W., and finally south, until I saw our cattle grazing, and the tents, without having regained first, as I wished, my outward track. On the bank of the Balonne we found an apparently new species of *Andropogon* with loose thin panicles of purplish flowers, and in the scrub I passed through, in my ride, I found a *Casuarina*, indeterminable in the absence of flowers or fruit. It produces a gall as large as a hazel nut. Thermometer at sunrise, 37°; at noon, 90°; at 4 P.M., 94°; at 9, 57°;—with wet bulb, 53°.

6*th April*.— Mr. Kennedy's eyes being still very bad, I could not proceed, as the survey of our route was very important, in order to keep our account of longitude correctly. The necks of the cattle were much galled, and I therefore the more willingly halted another day. It was not without some impatience, however, that I did so, as we were approaching a point whence I could set out with horses to the north-west, and leave the cattle to refresh in a depôt on this fine river, which afforded an excellent base for our exploratory operations, in the wholly unknown regions immediately beyond it. This line of exploration I had anxiously wished to pursue in 1831, when obliged to return from the Karaula or Upper Barwan; and whatever had since been ascertained about that part of the interior, confirmed me the more in my first

opinion as to the eligibility of that direction. It had occurred to me, on crossing the Culgoa, that by marking deeply on a tree, at each camp, a number of reference, our survey might be more practically useful and available to the colonists, as connecting so many particular localities therewith. I therefore marked that No. I. in Roman numerals; this II., and I shall add in this journal, at the end of the narrative of each day's proceedings, whatever number or mark may be made to distinguish the place of encampment described.

In the scrub near this, we observed an Acacia, apparently new, a broad-leaved, white-looking wattle. There was also a branching Composite, which Sir W. Hooker has determined to be a very distinct and undoubted species of *Flaveria* of which all the other species are natives of the New World.* The *Capparis lasiantha* was also found here growing on *Exocarpus aphylla* of Brown; it was found by Allan Cunningham and Frazer on Liverpool Plains, also, at Swan River. Thermometer, at sunrise, 44°; at noon, 95°; at 4 P.M., 96°; at 9, 63°;— with wet bulb, 57°. Height above the sea, 497 feet.

7th April.—When all were preparing to set off early this morning, I was informed that two bullocks were missing, and a third fast in the mud on the river bank. The two stray animals were soon found; but it was impossible to bring on the other in the mud, for he was blown, from having drunk too much water, after over-eating himself with grass. Our

* *Flaveria Australasica* (Hook. MSS.) foliis lineari-lanceolatis integerrimis basi dilatatis, capitulis densissime globoso-fasciculatis, fasciculis subinvolucratis, bracteis exterioribus præcipue fasciculos superantibus omnibus late amplexantibus.

journey was continued round one angle of the river in my horse's track. Afterwards turning to the N. E., we crossed two miles of open forest land, where the grass was good, and having the river in sight. At length, even on an easterly course we could not keep it longer in view, but got involved in a scrub on soft red sand. Emerging from this on a course of E. S. E., we again got upon open ground, and soon saw the majestic trees of the river in a line circling round to the northward. Coming upon it at an angle where scrubs of rosewood and *Acacia pendula* crowned the slopes, we encamped on a beautiful spot. The river was magnificent, presenting a body of water of such breadth, as I had only seen in one other river of Australia, and the banks were grassy to the water's edge.

This day, "Jemmy," a young native whom we had seen on the Minor Balonne, came to our camp with another youth, and the voices of a tribe were heard in the woods. As Jemmy had not kept his word formerly, having left us suddenly, and was evidently a scamp, I peremptorily ordered him away. I had heard of his having brought gins to my camp at night on the former occasion, and he was very likely to be the cause of mischief, and could not, or at least, would not, render us any service. We desired no further intercourse, at that time, with the natives, as those with us did not understand their language. The misfortunes of Mr. Finch arose through that sort of intercourse with his men, and had arrested my journey fifteen years ago, when I had advanced to within forty miles of this camp, intent on those discoveries I hoped at length to make even now. I had good reason, therefore, to keep the

natives at a distance here, at a time, too, when the bodies of six white men were said to be still uninterred in this neighbourhood. A species of *Cyperus* with panicled globular heads of flowers was found here in the sloping bank. Thermometer, at sunrise, 47° ; at noon, 97° ; at 4 P. M. 97° ; at 9, 69° ; — with wet bulb 57°. Height above the sea 634 feet. Latitude 28° 23′ 59″ S. (Camp III.)

8*th April*. — We continued our journey nearly northward, keeping the river woods in sight, as much as the country permitted. An arm or anabranch, at first containing much water, and coming from the north, was on our right for some miles. In following it, our natives found the tracks of three horses, one only having had shoes on, and two foals, as if proceeding first towards our camp, then returning. The branch from the river became dry and sandy, but still we followed its course. We saw about a mile to the eastward, beyond this dry channel, a splendid sheet of water on a level with the general surface, and having extensive tracts of emerald green vegetation about it. The dry channel obliged me to make a longer journey than I had intended. At length, on finding the requisite water in its bed, I encamped. This was near a pond, on whose sandy margin we saw still the tracks of the three horses that had been there to drink. The scrubs came close to the river with intervals of grassy plain. The *Acacia pendula*, and its concomitant shrubs, the *Santalum oblongatum*, and others, gave beauty to the scenery, and with abundance of water about, all hands considered this a very fine country. At sunset, thunder-clouds gathered in the S. W., and at about 7 P. M. the storm reached our camp, ac-

companied by a sudden, very strong gale from the S. E. The lightning was very vivid, and for half an hour it rained heavily. By 8 P. M. it was over, and the serene sky admitted of an observation of Regulus, by which the latitude was found to be 28° 17′ 8″ S. (No. IV.) Thermometer at sunrise, 61°; at noon, 91°; at 4 P. M. 94°; at 9, 66°;—with wet bulb 63°.

9th April. — The branches of the river, and flats of Polygonum, obliged me to follow a N. W. course. I did so most willingly, as we had already got further to the eastward than I wished. The arm of the river spread into a broad swamp, in which two of the drays sank, the drivers having taken no notice of a tree I had laid across the track, to show where the carts had been backed out. I made them unload the drays and carry the loads to firm ground. Keeping afterwards along the margin of this swamp for many miles, I perceived abundance of water in it, and passed the burning fires of natives, where their water kids and net gear hung on trees about. At length, upon turning to the eastward, I came upon the main river, where it formed a noble reach, fully 120 yards wide, and sweeping round majestically from N. E. to S. E. We here encamped, after a long journey. The banks were grassy to the water's edge. We saw large fishes in it; ducks swam on it, and, at some distance, a pair of black swans. This surpassed even the reach at camp III., and I must add, that such an enormous body of permanent water could be seen nowhere else in New South Wales save in the river Murray during its floods. The Anthistiria grew abundantly where we encamped, which was in latitude, 28° 13′ 34″ S. and marked V. Thermometer, at sunrise, 63°; at

noon, 94°; at 4 P. M., 97°; at 9, 63°; — with wet bulb, 62°.

10*th April.* — Pursuing a N. W. course, we crossed small grassy plains, fringed with rosewood and other acacias; but, in order to keep near the river, I was soon obliged to turn more towards the east, as Callitris scrubs were before me. In avoiding these, I again came upon the more open and firm ground adjacent to the river, and saw its course in the line of large Yarra trees, which always point out its banks with their white and gnarled arms. I may here state that the scrubs generally consist of a soft red sandy soil; the land near the river, of clay, which last is by far the best of the two soils for crossing with wheel carriages; the soft red sand being almost as formidable an impediment in some situations as mud. At length, in travelling N. eastward, we came upon a spacious lagoon, extending westward, and covered with ducks. Perceiving, by drift marks, that it came from the West, I kept along its margin, following it as it trended round to N. E., where we arrived at the main channel, about that part whence the waters of the lagoon emanate during high floods. That lagoon presented an excellent place for a cattle-station. Water could never fail, as the main stream was at hand, if even the lagoon dried up, which seemed not at all likely. *Psoralea eriantha* was abundant in the bed of the river, along with *Indigofera hirsuta*, and *Crotalaria Mitchellii*.* Thermometer, at sunrise, 44°;

* C. *Mitchellii* (Benth. MS.) erecta, ramulis flavescenti-tomentosis, stipulis parvis subulatis, foliis ovali-ellipticis obtusis retusisve basi angustatis supra glabris subtus calycibusque subsericeo-pubescenti-tomentosis, bracteolis in pedicello brevissimo minutis setaceis, legumine sessili glabro. Allied to *C. retusa*

at noon, 99°; at 4 P. M., 97°; at 9, 66°;—with wet bulb, 58°.

11*th April.*—Proceeding due north we had the river close on our right hand, when two miles on. After making a slight detour to avoid a gully falling into it, we continued the same course over open forest land, and, at length, saw an immense sheet of water before us, with islands in it. This was also a lagoon supplied by floods in the Balonne. It was covered with ducks, pelicans, &c. I called it Lake Parachute, no natives being near to give me their name for it. I must here add that the true aboriginal name is not Baloon, however, but Balonne, and this I the more readily adopt to avoid the introduction of a name so inappropriate amongst rivers. I was obliged to turn this lagoon, by moving some way about to my right, for it sent forth a deep arm to the S. W. which lay across my intended route. Continuing to travel northward, we arrived upon the banks of a lagoon, where they resembled those of the main channel, having trees of the same kind and fully as large. The breadth was very uniform, and as great as that of the river, so that it seemed this had once been the bed of the Balonne. We crossed it at a dry part of the swamp, the waters extending and increasing in it to the eastward. In the opposite direction it was equally uniform and continuous, but apparently dry. On crossing this old channel, I turned sharply to the N. E., aware that it is usually at acute angles in a river's course that such overflowings

and *sericea*, but flowers much smaller, in short dense spikes. It agrees in most respects with the short character of *C. Novæ Hollandiæ*, &c., but the leaf is not articulated on the foot-stalk, and the stipules exist.

break out. I found it necessary in the present case to turn eastward, and even to the southward of east before I could find the river again. At length we came upon the channel divided amongst ridges of sand, where the waters took a sharp turn and broke thus into separate currents. I was now very desirous to select a camp where the cattle might remain to rest and refresh while I proceeded with a small party to the N. W. This place did not please me, having been too scrubby, the water not well tasted, and the grass dry, therefore liable to be set on fire by the natives, or by accident. A bulbous species of *Cyperus* grew on the bank of the Balonne, and in the river we found the common European reed, *Arundo Phragmites:* a Loranthus allied to *L. linearifolius*, but with broader leaves, grew on some of the trees, and we saw a fine new species of *Adriania.** (No. VII.) Thermometer, at sunrise, 47°; at noon, 102°; at 4 P. M., 104°; at 9, 69°; with wet bulb, 62°. Average height above the sea, of camps V. VI. and VII., 559 feet.

12*th April.* — I accordingly put the party in motion at an early hour, and soon came upon the river, where it formed a noble reach of water and came from the westward, a new direction, which, with the sand that had for some days appeared in shallow parts of its bed, raised my hopes that this river might be found to come from the north-west, a direction it maintained for five miles. The breadth was uniform, and the vast body of water was a most cheering sight. The banks were 120 yards apart,

* *A. heterophylla* (Hooker MSS.) foliis ovato-acuminatis grosse sinuato-serratis integris cordatisve trifidis, utrinque bracteisque glaberrimis.

the course in general very straight, contributing much to the perspective of the scenery upon it. At one turn, denuded rocks appeared in its bed, consisting of ironstone in a whitish cement or matrix, which might have been decomposed felspar. I at length arrived at a natural bridge of the same sort of rock, affording easy and permanent access to the opposite bank, and at once selected the spot for a dépôt camp, which we established on a fine position commanding long vistas both up and down the river. It was, in fact, a tête-de-pont overlooking the rocky passage which connected the grass on both sides. This was No. VIII., and in latitude 28° 1′ 37″. Thermometer, at sunrise, 68°; at noon, 104°; at 4 P. M., 101°; at 9, 74°;—with wet bulb, 64°.

13*th April.*—Here I could leave the jaded cattle to refresh, while, with a small party on horseback, I could ascertain the farther course of the river, and explore the country to the north-west where centred all my hopes of discovery. I set on foot various preparations, such as the stuffing of saddles, shoeing of horses, drying of mutton, and, first of all in importance, though last likely to be accomplished, the making a pair of new wheels for a cart to carry water. Thermometer, at sunrise, 47°; at noon, 100°; at 4 P. M., 101°; at 9, 67°;—with wet bulb, 62°.

15*th April.*—This day I sent Mr. Kennedy to examine the country in the direction of 331½°, my intended route, and he returned about 10 P. M., having seen what he considered indications of the river on his right when about twelve miles from the camp, and plains to the left. Upon the whole, I resolved, from what he said of the scrubs he had met with, to

travel north-west, that direction being perpendicular to the general course of this river, and therefore the most likely to lead the soonest to higher ground. Thermometer, at sunrise, 68°; at noon, 104°; at 4 P. M., 103°; at 9, 72°; — with wet bulb, 67°.

16*th April.* — In order better to contend with the difficulty of wanting water, and be better prepared for it, I formed my party rather of infantry than cavalry, taking only two horses, drawing a cart loaded chiefly with water, and six trusty men, almost all old soldiers. We were thus prepared to pass several nights without requiring other water than that we carried with us. I hoped thus to be enabled to penetrate the scrubs, and reach, and perhaps cross, the higher land bounding this great basin. Our first day's progress, being rather experimental, did not extend above ten miles. I had been obliged to send back the shaft horse, and exchange him for a better, as our load of water was heavy. The day was very sultry. Thermometer 105° Fahrenheit, in the shade. We had passed over ground more open than I expected, but by no means clear of scrubs. Thermometer, at sunrise, 64°; at 4 P. M., 105°; at 9, 71°; — with wet bulb, 67°.

17*th April.* — The messenger returned early with two horses, one being my own second charger, which I put as leader to the cart. We then got forward on foot as fast as the men could walk, or rather as fast as they could clear a way for the cart. We passed through much scrub, but none was of the very worst sort. The natives' marks on trees were numerous, and the ground seemed at first to fall westward as to some water-course; and, after travelling about five miles, there appeared a similar

indication of water to the eastward of our route. At one place even the white-barked gum trees appeared; but, although they had the character of river trees, we found they grew on an elevated piece of clay soil. After completing about ten miles, I halted for two hours to rest the horses, where there was a patch of good grass, and we gave them some water from our stock. The mercurial column afforded no indication that we were at all higher than our camp overlooking the river, and it seemed, therefore, not improbable that we might meet with some other channel or branch of that prolific river. After resting two hours we continued, passing through woods partly of open forest trees, and partly composed of scrub. Towards the end of our day's journey, we crossed land covered with good grass, and having only large trees on it, so thinly strewed as to be of the character of the most open kind of forest land. Saw thereon some very large kangaroos, and throughout the day we had found their tracks numerous. We finally set up our bivouac a little before sunset, on a grassy spot surrounded by scrub. In this scrub I found the *Cleome flava* of Banks, and the strong-smelling *Ambrina carinata*. A very remarkable whiteness appeared on the leaves of the *Eucalyptus populifolius*, which, on very close examination, appeared to be the work of an insect.* On the plains the *Salsola aus-*

* The following letter from Mr. Westwood to Dr. Lindley relates to specimens of this brought to England: —

"I am sorry that the state of the specimens from Sir Thomas Mitchell (or rather, I should say, the time when they were gathered) does not allow me to say much about the insect by which they are formed. It is an extremely beautiful production, quite unlike any thing I have yet seen, and is, I have no doubt, the scale of a coccus. It is of a very peculiar form, resembling a

tralis formed a round bush, which, when loose from its very slight root, was liable to be blown about. Thermometer at sunrise, 71°; at 9 P.M, 68°;—with wet bulb, 64°.

18*th April.*—A pigeon had flown last evening over our camp in a N.N.E. direction, and as the ground sloped that way, and the men believed that water was there, I rode this morning in that direction, leaving the other horses to feed in the meantime. At two miles from our bivouac I found some hollows in a scrub where the surface consisted of clay, and which evidently at some seasons contained water, although they were then dry. Polygonum grew around them, and I doubt not that after a fall of rain water would remain there some time. On riding two miles beyond, in the same direction, I found open forest land only. The country was well covered with good grass, very open, yet finely wooded. We again proceeded north-west over some fine forest land. The soil was, however, only soft red sand, and made it very heavy work for our horses drawing the water-cart.

On passing through a Casuarina scrub, we entered upon a different kind of country as to wood and

very delicate, broad, and flattened valve of a bi-valve shell, such as the genus Iridina, the part where the hinge is being a little produced and raised, and forming the cover of the coccus which secretes the beautiful material just in the same unexplained way as the scale insects form the slender attenuated scales beneath which they are born. I could not discover any insect beneath the specimens of Sir Thomas Mitchell's production in a state sufficient to determine what it really is, as I only found one or two exceedingly minute atoms of shrivelled up insects. It is extremely brittle, and looks more like dried, white, frothed sugar than any thing else."

grass, the soil being much the same, or still more loose and sandy. The surface bore a sterile heathy appearance, and the trees consisted chiefly of a stunted box, growing but thinly. Instead of grass, black, half-burnt roots of a wiry plant appeared, which I afterwards found in flower (*see infrà*), and one small, shrubby, brown bush, very much resembling heath; apparently a Chenopod with heath-like leaves, and globular hairy heads of flowers. The roots of the first-mentioned plant presented much obstruction to our cart-wheels in passing over the soft sand. As I stood awaiting the cart's arrival, some birds drew my attention, as I perceived I had attracted theirs. They descended to the lowest branches of the tree in whose shade I stood, and seemed to regard my horse with curiosity. On my imitating their chirp one fluttered down, and attempted to alight on my horse's ears. On my whistling to them, one whistled some beautifully varied notes, as soft as those of an octave flute, although their common chirp was harsh and dissonant. The male and female seemed to have very different plumage, especially about the head; that on the one having the varying tint of the Rifle bird, the head of the other more resembling in colour, that of the *Dacelo giganteus*. They were about the size of a thrush, and seemed the sole residents of that particular spot, and I had not seen them elsewhere. The carts came slowly forward, the horses being much distressed. I continued to ride some miles ahead, and passed through a scrub in a clay hollow, to which succeeded another open forest country with more of the soft red sand. The people with the cart

could not overtake me, and I returned. Meeting them at a rather bad place, I determined to encamp at some patches of grassy ground somewhat out of our line, in latitude, 27° 43′ S. It is remarkable that, according to the barometer, we had not ascended higher than our depôt camp on the river, at a distance of nearly forty miles from it. I had just quitted my horse's back, and had resolved to return, when two horsemen were seen approaching along our track. They were two of our party come from the depôt to bring me a despatch, which had been forwarded by Commissioner Wright, communicating the news of Dr. Leichardt's return from Port Essington, and enclosing the Gazette with his own account of his journey. Thus it became known to us that we could no longer hope to be the first to reach the shores of the Indian Ocean by land. Thermometer, at sunrise, 62°; at 4 P. M., 93°; at 9, 71°;—with wet bulb, 64°.

19*th April.*—I left the men with the cart, to follow while I rode forward along its track, and sat down to peruse the newspapers sent me, until the cart overtook me in the evening, the horses being quite exhausted by the heat and the heavy sand. Thermometer, at sunrise, 61°; at noon, 86°; at 9, 63°;—with wet bulb, 59°.

20*th April.*—The men who brought the despatches yesterday having been ordered to bring fresh horses this day from the depôt, I sent our tired animals on thither at once, as we could give them but a limited quantity of water. I rode forward also to the camp, and met the fresh horses about half-way. I immediately ordered the repair of the wheels of another light cart, determined to lose no time in exploring a passage towards the head of

Carpentaria. Thermometer, at sunrise, 48°; at noon, 95; at 4 P. M., 93°; at 9, 63°;—with wet bulb, 58°.

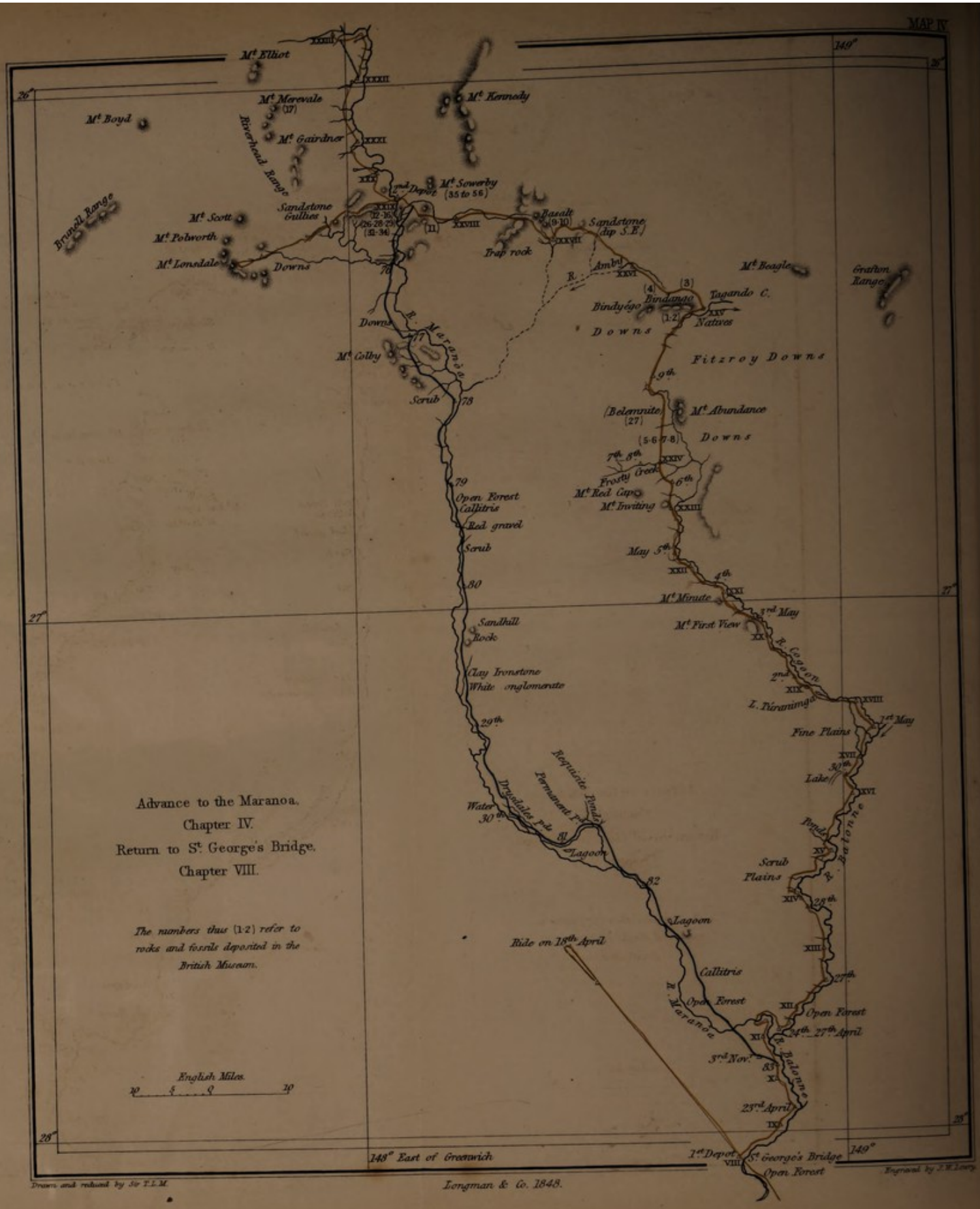
21*st April.*—The cart came in about 9 A. M. The morning was cloudy, for the first time this month, and a slight shower fell. Had three or four days' rain fallen at that time, it would have enabled me to have explored by much less circuitous routes, than along the bank of this great river, the country to the north-west. In this case, the tour from which I had just returned might have been continued, as I wished and intended, had it been possible to find water, to the mountains or higher ground, whatever it might be that formed the limits to this basin on that side. Thermometer, at sunrise, 65°; at noon, 76°; at 4 P. M., 77°; at 9, 60°;—with wet bulb, 53°.

22*d April.*—The clouds continued to lower, and a great change in the temperature accompanied this visible change in the sky, but the mercurial column remained uncommonly steady. Arrangements for a concentrated party engrossed my attention so fully this day, with the insertion also of our late work on the general map, that even the newspapers from the colony lay unread. Mr. Kennedy took a ride across the river in a S.S.E. direction, and found a fine grazing country with open forest, as far as he went, which was about twelve miles. On the banks of the Balonne, during my absence, they had found, besides a small bearded *Cyperus*, a new creeping *Psoralea**, and a new species of Acacia, which Mr. Bentham has

* *P. eriantha* (Benth. MS.) prostrata, canescenti-pubescens, foliis pinnatim trifoliolatis, foliolis ovatis oblongisve dentatis, pedunculis elongatis multifloris, floribus inferioribus remotis superioribus approximatis, calycibus pube molli albida dense tomentosis, legumine molliter villoso.

named *A. varians*.* Thermometer, at sunrise, 41°; at noon, 76°; at 4 P. M., 77°; at 9, 61°;—with wet bulb, 56°. Mean elevation of this camp above the level of the sea, being 50 feet above the river, 623 feet.

* *A. varians* (Benth. MS.) glabra, pallida v. glauca, ramulis subangulatis, phyllodiis oblongo-lanceolatis v. inferioribus late obovatis summisve linearibus, omnibus basi longe angustatis apice obtusis v. oblique mucronatis subimmarginatis vix obscure glanduliferis uninervibus tenuiter reticulato-penniveniis, capitulis sub 20-floris solitariis subracemosis v. in racemos foliatos dispositis, calycibus truncatis, legumine glabro crasso sublignoso. Very near *A. salicina*, and possibly a mere variety; but the phyllodia are generally considerably broader, and the inflorescence different.



Advance to the Maranoa.
Chapter IV.
Return to St. George's Bridge.
Chapter VIII.

The numbers thus (1·2) refer to rocks and fossils deposited in the British Museum.

Drawn and reduced by Sir T.L.M.
Longman & Co. 1848.
Engraved by J.W.Lowry

CHAP. IV.

Advance with a light party — leaving the remainder with the bullocks and drays to rest three weeks at St. George's Bridge. — Discover a river joining the Balonne from the north-west. — Cross it, and still trace the Balonne upwards. — Fine river scenery. — Vast plains extending to the eastern horizon discovered from a tree. — Tributary from the north-west — and rich plains. — Trace this small river upwards. — Excellent country for grazing purposes. — Mountains, seen at length, to the northward. — Natives at our camp. — Ascend Mount First View. — Mount Inviting. — Ascend Mount Red Cap. — Ride to the borders of Fitzroy Downs, and ascend Mount Abundance. — The Bottle Tree. — Ascend Mount Bindàngo. — Discovery of the river "Amby." — Dangerous followers of a camp. — Reconnoissance to the north-west. — Ascend a trapitic range. — A gap or good opening through it found for the carts. — Small river discovered beyond, containing one pond of water. — The channel disappears on open flats. — Discover the river Maranòa. — Select a position for a depôt. — Ride of reconnoissance to the northward. — Ride into the western interior. — Ascend Mount Lonsdale. — Extensive view from the summit. — Water not very plentiful. — Return to the camp. — Ascend a high point to the eastward. — View thence of the summits of a range to the northward. — Camp visited by hostile natives during my absence. — Arrival of Mr. Kennedy with the main body of the party. — His account of the hostility of the chief and tribe at "Tagando." — Various preparations made for again advancing with a light party. — Depôt camp established on the Maranòa.

3rd April. — Our little party started at noon. I took with me eight men, two native boys, twelve

horses, besides my own two, and three light carts with provisions for ten weeks — determined, if possible, to penetrate northward, into the interior country, and ascertain where the division of the waters was likely to be found. I intended, with this view, to trace upwards the course of the Balonne, until I found mountains to the north-westward of it; then, to endeavour to turn them by the west, and thus acquire some knowledge on that most interesting point, the watershed towards the Gulf. I left instructions with Mr. Kennedy to follow my track with the drays and main body of the party, and to set out on Monday, the 4th of May, when the cattle would have had three weeks' rest.

The first few miles of this day's journey were along a clayey flat or hollow, which enabled me to avoid scrubby and sandy ground on each side. I believed its direction (N.E.), to be about parallel to the river. Leaving it at length to make the river, I met with rather a thick scrub; but came upon the river where the banks were very rocky and picturesque. Its course seemed to be from N.E.; but, following another flat of firm clay, I got again into scrub so thick that I turned eastward towards the river, and travelled along its bank until I encamped in lat. 27° 56′ 12″ S. There was but little water in the bed of the river there; but long islands of sand, water-worn banks, with sloping grassy bergs behind. The bed, in most places, consisted of rock, the same ferruginous conglomerate, or clay ironstone, seen in the same river lower down. Grass was excellent and abundant on the bergs and near the river, but thick scrub crowned these bergs on our side. It was too late to admit of my examining the

other. On our way through the scrub this day, we saw the *Enocarpus spartea* of Brown, a leaf-like wing-branched shrub; and the beautiful parasite, *Loranthus aurantiacus*, occupied the branches of Eucalyptus. Thermometer, at sunrise, 49°; at 9 P. M., 47°;—with wet bulb, 41°.*

24*th April.*—Set off early, travelling along the bank. The direction was N.N.W. and N.W. For the first few miles, the scenery was wild and very fine. Masses of rock, lofty trees, shining sands and patches of water, in wild confusion, afforded evidence of the powerful current that sometimes moved there and overwhelmed all. At this time, the outlines were wild, the tints sublimely beautiful. Mighty trees of Casuarinæ, still inclined as they had been made to bend before the waters, contrasted finely with erect Mimosæ, with prostrate masses of driftwood, and with perpendicular rocks. Then the hues of the Anthistiria grass, of a red-brown, contrasted most harmoniously with the light green bushes, grey driftwood, blue water, and verdure by its margin; all these again—grass, verdure, driftwood, and water—were so opposed to the dark hues of the Casuarinæ, Mimosæ, and rifted rocks, that a Ruysdael, or a Gainsborough, might there have found an inexhaustible stock of subjects for their pencil. It was, indeed, one continuous Ruysdael.

> "That artist lov'd the sternly savage air,
> And scarce a human image plac'd he there."

May the object of our journey be successful, thought I then; and we may also hope that these beauties of

* The dates on the map show my camps; the Roman numerals those afterwards taken up by Mr. Kennedy, in following my track with the main body.

nature may no longer "waste their sweetness in the desert air;" and that more of her graces may thus be brought within the reach of art. Noble reaches next extended in fine perspective before us; each for several miles, presenting open grassy margins along which we could travel on firm ground unimpeded by scrub. At length I perceived before me a junction of rivers, and could see along each of them nearly a mile. I had no alternative but to follow up that nearest to me, and found upon its bank many recent encampments of natives; at one of which the fires were still burning. The country was grassy, and so open, as almost to deserve the colonial name of "plain." This channel took me a long way northward, and to the N.N.E.; but finally turned west, and at last south. Its bed was full of sand; and at length we found it quite dry, so that, when I would have encamped, I could find no water. Yet it bore all the character of a large river; marks of high floods, Mimosæ, sand, and river driftwood, like the other. It might, and probably did, finally come out of the main channel; but this seemed too remote a contingency for our wants then, and I crossed it, to look for the other. In riding eastward, I found a wide plain bounded by trees that looked like those along the river. No time could be spared for further reconnoissance: I took the party across, and made for the nearest part. My course was first N.E., then East, finally South, in following the various slopes; and it was only after travelling fifteen miles beyond the point where I met with this river, that I reached the bank of the other, at a spot distant only *four* miles from where I had quitted it. This was only accomplished at forty minutes after 4 P.M., when we had

travelled twenty-six miles. As our circuitous route was likely, if followed by Mr. Kennedy with the heavy drays, to cause delay and inconvenience, I resolved to halt next day, and write to him on the subject, explaining how he could most readily fall into my track by crossing the other channel, quitting first the other track, at a spot to be marked by Graham, who took the letter. Nevertheless, it had been imperative on me to follow it up as I had done; because, whether as a separate tributary or an ana-branch only, the right bank was likely to suit us best, provided only that water could have been found in its bed. Near the new river, the *Indigofera hirsuta* of Linnæus, with its spikes of reflexed hairy pods, was common; and also the *Moschosma polystachyum*. Lat. 27° 47′ 57″ S. Thermometer, at sunrise, 38°; at 9 P.M., 59°;—with wet bulb, 56°.

25th April. —

> "The dawn is overcast, the morning lowers,
> And heavily in clouds brings on the day."

A grateful change in the weather promised rain; but suggested to me a contingency for which I had not provided in my letter to Mr. Kennedy, and Graham was gone. A flood coming down, might fill the channel of the other, and prevent Mr. Kennedy's party from crossing to fall into my track; or, if that should finally prove only an ana-branch, shut me up in an island. On this point I again, therefore, wrote to Mr. Kennedy, and buried my letter at the spot marked by Graham, and according to marks on trees, as I had previously arranged with him. I then instructed him to examine the dry channel far enough upwards (halting his party for the day) to ascertain whether

it was a separate river, or an ana-branch; and, in the latter case, to keep along its banks, and so avoid the possible difficulty of crossing it during rainy weather. Thermometer, at sunrise, 65° ; at noon, 70° ; at 4 P.M., 66° ; at 9, 64° ;—with wet bulb, 63°. Mean height above the sea, 586 feet.

26*th April.* — Sunday. Corporal Graham returned from the depôt camp at 1 P. M. The sky continued cloudy, and the barometer low. High wind from the west arose about 3 P.M. Thermometer, at sunrise, 63° ; at noon, 78° ; at 4 P. M., 78° ; at 9, 56° ; — with wet bulb, 53°.

27*th April.* — The party set off early. We found that a river from the north joined the channel we were about to follow up in its course from the east. The northern river contained water in abundance; and I determined to follow it up so long as the course was favourable, and water remained in it. The general course was much the same as that of the first (about 39 E. of N.). The bed and ponds increased; and after following it up about eleven miles, I encamped the party, and rode northward to ascertain if it was likely to change its course. In ten minutes, I came upon a splendid reach, extending north-west as far as I could see it. Lat. of our camp, 27° 42′ 42″ S. Thermometer, at sunrise, 37° ; at noon, 69° ; at 4 P.M., 72° ; at 9, 57° ;—with wet bulb, 55°.

28*th April.* — Masses of a ferruginous rock extended across the river bed like a dyke, in a N.W. and S.E. direction; and as the river here broke through these rocks, changing, at a sharp angle, its course to the S.W., it seemed probable that the general course from above might be parallel to these

rocks. Continuing along the bank, we found the reaches large, full of water; the country clear of scrub and covered with luxuriant grass. One singular flat sweeping round to the W. S. W. was covered with the rich grass *Panicum lævinode*. The tropical *Perotis rara*, a delicate grass, producing long purple tufts of reflexed bristles, was also here observed. The general direction of the river was towards the N. W., and whenever it took any turn towards the east, I continued to travel northward, and thus, on three occasions, came upon its bank again, cutting off detours I must otherwise have described in following its course. We encamped on a beautiful spot, the sight of which would have rejoiced the heart of a stockholder. A fresh westerly breeze blew during the day, and we were as free from the annoyance of heat, as if we had been in England during the same month. Latitude 27° 32′ 37″ S. The direction of the river's course was uncommonly straight, and its long sweeping reaches, full of water, seemed capable of being rendered available for the purpose of forming water communications. The surface of the adjacent country presented a thin deposit of sand, near the river, attesting the great height to which its waters sometimes rise; and minor features of ground near, showed, in their water-worn sections, that they had been wholly deposited by the river. Thermometer, at sunrise, 39°; at 4 P. M., 69°; at 9, 48°; — with wet bulb, 46°.

29*th April*. — The tendency of the soft earth of the banks to break into gullies, branching back into impervious scrubs, was such as to prevent me from either seeing much of the river during this day's journey, or pursuing a straight course. At one

place I could only follow the grassy margin of the river, by passing between its channel and the berg, all seared as it was with water-worn gullies, and crowned with scrub; but I was soon locked up under these where a bad hole impeded our progress along the river, and I was obliged to back the carts out, the best way I could. While travelling along the margin I perceived a slight current in a gravelly part of the bed. I had previously observed a whitish tinge like that of a fresh in the river water, this day and yesterday, doubtless the product of the late rain, and probably from these clay gullies. After a circuitous journey, we came out on a clear grassy brow overlooking much open country. There I still met with heads of gullies, but could easily avoid them, and after traversing a fine grassy plain, we encamped as near the river as the gullies would allow, in latitude 27° 28′ 27″. One of the party, John Douglas, from the top of a tree, discovered vast plains in the N. E. extending to the horizon, a river line pursuing a northerly course, and in the N. W. a mass of cloud hung over what he supposed to be mountains. Thermometer, at sunrise, 36°; at 4 P. M., 63°; at 9, 47°; — with wet bulb, 44°.

30*th April*.—Obliged to keep at some distance from the river, I came upon open forest land, where gentle undulations took the place of the rugged gullies. Thus we travelled over a beautiful country, due north, with sufficient indications of the river on our right, in the slopes that all fell to that side. There were ponds in some hollows, and we made the river itself at various parts of our route. At length, where it bit on a high scrubby bank, I again proceeded northward. and came upon a large lagoon,

sweeping round to S.W. and S.S.W., further than we could see. It had on its surface numerous ducks, and a large encampment of native huts appeared at one end. We encamped by this lagoon, in latitude 27° 20′ S. Again vast plains and downs to the N.E. were seen by Dicky, our youngest native, from a tree. Thermometer, at sunrise, 27°; at 4 P.M., 65°; at 9, 43°.

1*st May*.—On leaving the lagoon, passing between its head and the river, we were soon enveloped in a thick scrub of Casuarinæ, on ground broken into gullies falling to the river. I tried to pass by the lower margin of this, but gullies in the way obliged me to ascend and seek a passage elsewhere. Forcing our way, therefore, through the scrub and out of it, we found outside of it, in an open forest, the box and Angophora, and could go forward without impediment, first to the N.W., afterwards northward, and N.E. At length the woods opened into fine grassy plains, bounded on the east by trees belonging to the river berg. There I saw still the trees we had so gladly got away from, the Casuarina; also the cheering white arms of the Yarra, or blue gum. The prospect before us improved greatly; fine plains presented a clear way to the northward, with the river apparently coming thence, and even round from the N.W. From a tree, Yuranigh descried hills in the N.E. and the plains extending before us. I also perceived, from the wide plain, a distant low rise to the N.W. We crossed two hollows on these grassy plains, each containing deep ponds, and descended towards what seemed a branch of the river; we encamped near it, in latitude 27° 15′ 4″ S. As we approached this spot, natives were seen first looking

at us, and then running off — Yuranigh said he recognized one of them as a countryman of his own. I endeavoured to make him cooey to them, or call them, but they made off, setting fire to the grass. Any information from natives of these parts might have been very useful to us then, and I hoped they would at length come to us. Thermometer, at sunrise, 26°; at 4 P. M., 67°; at 9, P. M., 48°; — with wet bulb, 46°.

2d May. — There was a decided difference between the river we were now upon, as well as the country along its banks, and the large river by which we had travelled so far. This was undoubtedly but a small tributary, as its direction seen this day showed, being from the westward, while its waters, meandering in various narrow channels amongst plains, reminded us of some of the finest parts of the south. Which was the principal channel, and which to cross, which to travel by, was rather difficult to determine. The country was very fine. These water courses lay between finely rounded grassy slopes, with a few trees about the water's edge, marking their various courses at a distance. A considerable breadth of open grassy plain, intervened between this river and the woods back from it. At length, sloping stony bergs came near the river's bed, but there the smooth naked water-worn clay was the best ground we could have for wheels, and we thus hugged each bend of the river, passing close to the channel. I hoped thus to find plains on the next change of the river's course. And so it turned out for some way, but the receding bergs guided me, even when only seen at a considerable distance, in shaping my course. Keeping my eye on their yellow slopes, I travelled far along a grassy

flat which brought me to a lake containing water like chrystal, and fringed with white lotus flowers. Its western shore consisted of shelving rock. An immense number of ducks floated on its eastern extremity. From this lake, following a grassy flat to the N. W., we at length reached the river, or rather its bed, seared into numerous channels. The lake, and long flat connected with it, appeared to me more like the vestiges of a former channel, than as the mere outlet of surplus waters; nor did it seem that the water is now supplied from the floods of the river. I followed this a few miles further, and then encamped just beyond, where much gravel appeared in the banks. While the men were erecting the tents, I rode some miles to the westward, and found an open iron-bark forest covering it, with much luxuriant grass. This was rather peculiar, as compared with any other part passed through. It was also undulating; and, from a tree ascended by Yuranigh, it was ascertained we were approaching mountains, as he saw one which bore 77°, also a hill to the eastward, in which latter direction (or rather in that of 333°), he saw also an open country. Thermometer, at sunrise, 47°; at 4 P. M., 62°; at 9 P. M 57°; mean height above the sea, 694 feet.

3rd May. — Natives were heard near our camp during the night, and we perceived the smoke of their fires, in the bushes, behind in the morning. Yuranigh went up to them, accompanied by one of the party bearing a green branch, and he prevailed on three of their tribe to come to our tents. One stood amongst the carts and tents, apparently quite absorbed in observation. Intense curiosity in these men had evidently overcome all their fears of such strangers.

They were entirely naked, and without any kind of ornament or weapon, offensive or defensive. With steady fixed looks, eyes wide open, and serious intelligent countenances, what passed in their minds was not disguised, as is usual with savages. On the contrary, there was a manly openness of countenance, and a look of good sense about them, which would have gained my full confidence, could we but have understood each other. They asked for nothing, nor did they show any covetousness, although surrounded by articles, the smallest of which might have been of use to them. There must be an original vein of mind in these aboriginal men of the land. O that philosophy or philanthropy could but find it out and work it! Yuranigh plied them with all my questions, but to little purpose; for although he could understand their language, he complained that they did not answer him in it, but repeated, like parrots, whatever he said to them. In the same manner, they followed me with a very exact repetition of English words. He, however, gathered from them that the lake was called "Turànimga," this river "Cogoon," a hill to the eastward "Toolumbà," &c. They had never before seen white men, and behaved as properly as it was possible for men in their situation to do. At length we set out on our journey, and in mounting my horse, which seemed very much to astonish them, I made signs that we were going to the mountains.

Travelling by the river bank was easy, over grassy forest land. The deep ponds were tolerably well filled, but the quantity of water was small, in comparison with that in the Balonne; which the natives seemed to say we had left to the right, and that this

was "one of its brothers." Malga scrub crowned the bergs of the river, where they bounded one of these forest flats forming its margin, and the mere sight of that impervious sort of scrub was sufficient to banish all thoughts of making straighter cuts to the north-west. Our course, with the river, was, however, now rather to the west of north-west; and that this was but a tributary to the Balonne, was evident. That river line, as traced by us, pursued a tolerably straight direction between the parallels of 29° and 27°, coming round from nearly north-east to about north. For these last three days we had travelled with this minor channel, to the westward of north-west; in which direction I had, therefore, good reason to expect that we should soon find mountains.

As soon as we arrived at an eligible spot for the camp, I proceeded, with Yuranigh, towards a height presenting a rocky face, which I saw through the trees, and seemed distant about two miles. From that crest, I perceived woody ridges on all sides, but all apparently sloping from the south-west; and a misty valley beyond the nearest of them in the north-east, like the line of the Balonne. But the most interesting sight to me then, was that of blue pics at a great distance to the north-west, the object of all my dreams of discovery for years. No white man had before seen these. There we might hope to find the *divisa aquarum*, still undiscovered; the pass to Carpentaria, still unexplored: I called this hill Mount First View, and descended, delighted with what I had seen from its rocky crest. The sides were covered with Malga scrub. The rock was

felspathic, apparently allied to those already seen in the Balonne. Lat. 27° 2′ 57″ S. Thermometer, at sunrise, 45°; at 4 P. M., 68°; at 9 P. M., 45°;—with wet bulb, 43°.

4th May. — An Australian morning is always charming,—amid these scenes of primæval nature it seemed exquisitely so. The *Barita?* or *Gymnorhina*, the organ-magpie, was here represented by a much smaller bird, whose notes, resembling the softest breathings of a flute, were the only sounds that met the ear. What the stillness of even adds to such sounds in other climes, is felt more intensely in the stillness of morning in this. "The rapture of repose that's there" gratifies every sense; the perfume of the shrubs, of those even that have recently been burnt, and the tints and tones of the landscape, accord with the soft sounds. The light red tints of the *Anthistiria*, the brilliant green of the *Mimosa*, the white stems of the *Eucalyptus*, and the deep grey shadows of early morning, still slumbering about the woods, are blended and contrasted in the most pleasing harmony. The forms in the soft landscape are equally fine, from the wild fantastic tufting of the Eucalyptus, and its delicate willow-like ever-drooping leaf, to the prostrate trunks of ancient trees, — the mighty ruins of the vegetable world. Instead of autumnal tints, there is a perpetual blending of the richest hues of autumn with the most brilliant verdure of spring; while the sun's welcome rays in a winter morning, and the cool breath of the woods in a summer morning, are equally grateful concomitants of such scenes. These attach even the savage to his woods, and might well

reclaim the man of crime from thoughts likely to disturb the harmony of human existence.

Following up the little river with more confidence now, since I had seen whence it came, I proceeded more directly north-west. Thus I found myself on a small creek, or chain of ponds, from the west and south-west, so that I crossed it and made for some open ground, between ridges clothed with dense Malga scrub. We thus crossed a low ridge, and descended towards a fine open country, on which pigeons were numerous, and traces of natives. It was also sloping to the northward, and I had no doubt that we had passed into a valley which I had observed yesterday from Mount First View, and had supposed it contained a larger river. In the open ground, I found a small rocky knoll which I named Mount Minute. From its summit, I recognised Mount First-Sight, bearing 128° 30′. We next passed through some scrub, and came to a hollow full of Acacia pendula. Following this down we arrived at a chain of ponds, and these led to an open grassy valley, in which we found our old friend, the river, still pursuing, steadily, a north-west course. Travelling along the bank, for a mile or two, we found that these now consisted of fine open forest flats; and at length encamped on the margin, after a journey of about twelve miles. Near our camp, I saw natives on the opposite bank, first standing in mute astonishment, then running away. I held up a green bough, but they seemed very wild; and, although occasionally seen during the afternoon, none of them would approach us. We found on the banks of this river, a purple-flowered *Calandrinia*, previously un-

known.* Lat. 26° 57′ 39″ S. Thermometer, at sunrise, 25°; at 4 P. M., 70°; at 9, 37°; — with wet bulb, 34°.

5th May. — The three last nights had been cold, each, in succession, colder than the former. This morning the thermometer stood at 19° E., yet the water was not frozen, nor did our natives, sleeping in the open air, seem to feel it. Hence, it was obvious that, in a dry atmosphere, extreme cold can be more easily borne than in one that is moist. So, also, in the opposite extreme of heat and drought, we had been so accustomed to a higher temperature than 100° F., that any degree under that felt refreshing. Our journey this day by the side of the little river was still very straight towards the N. W. We met with rocks at the westerly bends; from which side it was also joined by a small tributary, with ponds and hollows containing marks of flood, and beds of the *Polygonum acre*. Still, however, the main channel could be distinguished from these, and the open forest flats along its banks became more and more extensive and open as we ascended this channel, — leading so directly where we wished to go.

Hills were occasionally seen back from it, chiefly covered with scrub, but some were grassy and seemed fit for sheep. Others were clothed with callitris, and there the woods were open enough to be travelled through. I rode to the summit of one and recognized two of the points seen from Mount First Sight. At one sharp turn of the river rugged rocks had to be removed to make a way for the carts, but this was soon

* *C. balonensis* (Lindl. MS.); foliis angustis obovato-lanceolatis alternis oppositisque, racemis secundis multifloris caulibus multo longioribus, floribus (conspicuis) polyandris.

done. Beyond, there was a noble reach of water in a rocky bed, traversed by a dyke of felspathic rock, which exhibited a tendency to break into irregular polygons, some of the faces of which were curved; its strike was E. and W. We encamped on open forest land in lat. 26° 54′ 16″ S. It was only during the last two days that I could perceive in the barometer, any indication that we were rising to any higher level above the sea than that of the great basin, in which we had journeyed so long, and the difference was still but trifling, as indicated by not more than six or seven millimetres of the Syphon barometer; our actual height above the sea being 737 feet. Thermometer, at sunrise, 19°; at 4 P.M., 67°.

6th May. — The banks of the Cogoon became more open, and the slopes less abrupt as we advanced. They frequently consisted of a mixture of sand, at a height of twenty feet above its bed; where it occupied a section of considerable width, as much, perhaps, as 100 yards between bank and bank. On these rounded off banks or bergs of forest land, Youranigh drew my attention to large, old, waterworn, trunks of trees, which he showed me had been deposited there by floods. As they were of a growth and size quite disproportioned to other trees there, I was convinced that they were the debris of floods; and, consequently, that a vast body of water sometimes came down this channel. This native was taciturn and observant of such natural circumstances, to a degree that made his opinion of value in doubtful cases. Such, for instance, as which of two channels, that might come both in our way, might be the main one; thus my last resource, when almost "in a fix," was to "tomar el parecer," as they say in Spain, of this aboriginal, and

he was seldom wrong. At length, the cheering expanse of an open country appeared before us, and a finely shaped hill, half-covered only, with bushes. On reaching an elevated clear part, I saw extensive downs before me. The river turned amongst woods to the eastward, and I continued on our route to the north, sure of meeting with it again, as some fine forest ridges hemmed in the valley to the eastward. Besides the hill already mentioned (which I named Mount Inviting), there was a curious red cone some miles to the westward, crowned with a bit of rock, on which I longed to plant my theodolite. After crossing the plain, we entered an open scrub of Acacia pendula which gradually changed to an open forest, within which I met with a chain of ponds, and encamped in lat. 26° 46′ S. I immediately set out, with a man carrying my theodolite, for Mount Red Cap, distant from our camp about six miles. This little red cone had a very singular appearance, as we approached it from the east. A dark tinted scrub of flat-topped trees enveloped its base, on the outside of which the light and graceful Acacia pendula also grew on the grassy plain. I found the red rock to be the common one of the country, in a state of decomposition. It was hollowed out by some burrowing animal, whose tracks had opened ways through the thick thorny scrub, enabling us to lead our horses to near the top. From the apex, I obtained an extensive view of the country then before us, in many parts clear of wood to the verge of the horizon, and finely studded with isolated hills of picturesque form, and patches of wood. Looking backward, or in the direction whence we had come, our valley appeared hemmed in by more continuous ridges; and, towards the extremity of them,

I could just recognise Mount First View, this being one of the distant cones I had seen from it. I took as many angles as the descending sun permitted, and then retraced our horses' tracks to the camp. Thermometer, at sunrise, 20°; at 9 P. M., 47°. Height above the sea, 747 feet.

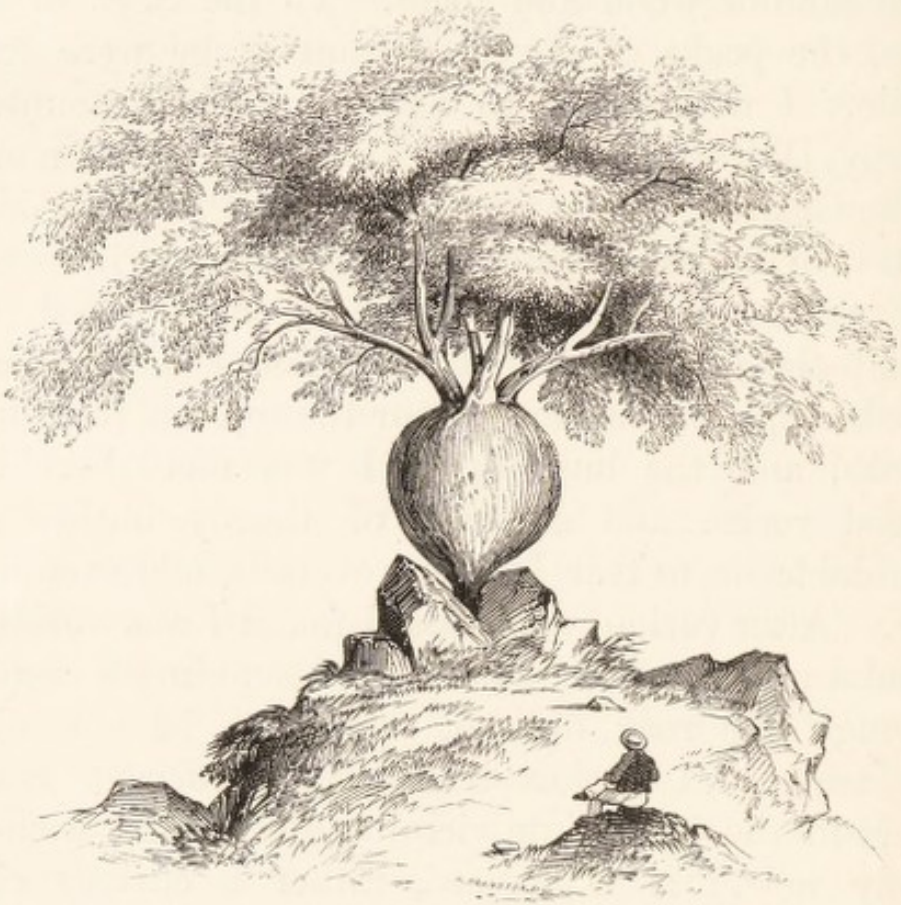
7th May.—Pursuing a N. W. course, we crossed a fine tract of open forest, then a plain, beyond which we entered a scrub of Acacia pendula, in which pigeons and quail were very numerous. Turning northward, now anxious again to see the river, on approaching this open country, we found what we considered the highest branch of it, in a chain of ponds skirting the wood bounding the plains. Halting the party, I continued my ride a mile and a half further northward, to the summit of a clear ridge. From thence I saw an open country to the northward, with some little wood. On my right, or to the eastward, a double topped hill sate in the centre of this fine open country, and from the abundance of good pasturage around it, I named it Mount Abundance. We continued still to follow the now attenuated channel upwards, and found it to come from the west, and even south-west, leaving the extreme corner of the open downs, and leading us into a scrub. There, it formed two branches, in neither of which could we find any water, and had consequently to return to the last of its ponds, situated exactly at the close of the open country towards the S. W. There, we encamped in latitude 26° 42′ 27″ S., thankful that we had been enabled by its means to advance thus far, and to discover so fine a tract of country as that watered by it. Thermometer, at sunrise, 48°; at 4 P. M., 68°; at 9, 30°.

8th May.—This morning Fahrenheit's thermometer stood at 21° in my tent, a degree of cold I should never have expected to have seen indicated from my own sensations, or from the state of the pond, which was not frozen, neither was there any hoar frost. The sun rose in splendour; pigeons cooed, and birds were as merry as usual in the woods. The business of the day was most exciting; I was to ride over the fine open country to the westward of Mount Abundance, and there look still for a higher branch of the river, or *a* river; confident that so fine a region could not be deficient in water, but more confident from what I had seen of the range to which we had approached so near. Riding to the N.N.E. in about two hours we came upon the identical river we had so long followed up. It was accompanied, as usual, by the Acacia pendula; had its rounded bergs; reedy water holes; and an open strip along the left bank. Crossing it I rode over towards an elevated part of the open downs, in hopes to obtain a sight of what the country was beyond, but I found that to be impossible, as it seemed boundless. So, turning, I ascended an elevated north-eastern extremity of Mount Abundance, and from it beheld the finest country I had ever seen in a primæval state. A champaign region, spotted with wood, stretching as far as human vision, or even the telescope, could reach. It was intersected by river lines from the north, distinguishable by columns of smoke. A noble mountain mass arose in the midst of that fine country, and was so elongated in a S.W. and N.E. direction, as to deserve the name of a range.

A three-topped hill appeared far to the north of

the above, and to the S. E. of the first described, another mass, also isolated, overlooking that variegated land of wood and plain. To the S. E. of all these, the peaks of a very distant range were just visible. I determined to name the whole country Fitzroy Downs, and to identify it, I gave the name of the Grafton Range to the fine mass in the midst of it. In hopes of obtaining an elevated view over the country to the westward, I endeavoured to ascend the northern summit of Mount Abundance, but although the surface to near the top was tolerably smooth, and the bush open, I was met there by rugged rocks, and a scrub of thorny bushes so formidable as to tear leathern overalls, and even my nose. After various attempts, I found I was working round a rocky hollow, somewhat resembling a crater, although the rock did not appear to be volcanic. The trees and bushes there were different from others in the immediate vicinity, and, to me, seemed chiefly new. It is, indeed, rather a curious circumstance, but by no means uncommon, that the vegetation on such isolated summits in Australia, is peculiar and different from that of the country around them. Trees of a very droll form chiefly drew my attention here. The trunk bulged out in the middle like a barrel, to nearly twice the diameter at the ground, or of that at the first springing of the branches above. These were small in proportion to their great girth, and the whole tree looked very odd. These trees were all so alike in general form that I was convinced this was their character, and not a *lusus naturæ*. [A still more remarkable specimen of this tree was found by Mr. Kennedy in the apex of a basaltic peak, in the kind of gap of the range through

which we passed on the 15th of May, and of which he made the accompanying drawing.]



These trees grew here only in that almost inaccessible, crater-like hollow, which had impeded me in my attempt to reach the summit.* Leaving the

* This remarkable plant constitutes a new and very curious genus of Sterculiads. It agrees with *Sterculia* in the position of the radicle with respect to the hilum, but it is, otherwise, a *Brachychiton*, with which it more especially corresponds in the singular condition of the seeds. These are placed, six together, in the interior of long-stalked, ovate, mucronate, smooth, deep brown follicles, of a tough papery texture, and lined with a thin fur of stellate hairs. The seeds themselves are also closely covered with starry hairs, which are so entangled that they hold the seeds together firmly; these hairs, however, are absent from the upper half of the seed, whose thin brittle vascular primine is shining, smooth, and marked with a brown nipple, the remains of the foramen. Within the primine lies the bony crustaceous secundine,

horses, however, I scrambled through the briars and up the rocks to the summit, but found it, after all this trouble, too thickly covered with scrub to afford

which is quite loose, and seems as if it were independent of the primine. Eventually the end of the thin brittle primine breaks like an eggshell and the secundine falls out. The seeds themselves, remaining attached to each other and to the follicle, resemble six deep cells, or may be rather compared to half a dozen brown eggshells, placed on the broad end, from which the young have escaped through the point.

Sir Thomas Mitchell has named the genus after Sir Henry T. De la Beche, as president of a Society which has greatly encouraged him in his Australian researches ; and in honour of a science which has occasionally thrown some light on his dark and difficult path.

It may be scientifically described as follows : —

DELABECHEA.

CHAR. GEN. *Calyx* 5-fidus, valvatus. *Antheræ* congestæ. *Styli*. . . . *Stigmata*. . . . *Folliculi* coriaceo-papyracei, 6-spermi, longè stipitati, intus stellato-pubescentes. *Semina* albuminosa, albumine bipartibili cotyledonibus foliaceis parum adhærente, pube stellari basi vestita, inter se et fundo folliculi cohærentia ; *primînâ* laxâ, tenui, fragili, apice foramine incrassato notatâ, *secundinâ* crustaceâ, demum liberâ chalazâ magnâ circulari notatâ. *Embryonis* radicula hilo contraria.

Delabechea rupestris.

Arbor grandis, trunco in dolii speciem tumescente. *Lignum* album, laxum, mucilagine repletum, vasis porosis (bothrenchymate) maximis faciem internam cujusque zonæ occupantibus, radiis medullaribus tenuibus equidistantibus. *Folia* lineari-oblonga, acuminata, integerrima, in petiolum filiformem ipsis duplò breviorem insidentia, subtus pallida et quasi vernice quâdam cinereâ obducta. *Inflorescentia* axillaris, trichotoma, tomentosa, foliis brevior. *Calyx* valvatus, utrinque tomentosus.

The wood of the tree has a remarkably loose texture : it is soft, and brittle, owing to the presence of an enormous quantity of very large tubes of pitted tissue, some of which measure a line and half across ; they form the whole inner face of each woody zone. When boiling water is poured over shavings of this wood a clear jelly, resembling tragacanth, is formed and becomes a thick viscid mass ; iodine stains it brown, but not a trace of starch is indicated in it. No doubt the nutritious quality of the tree is owing to the muci-

me the desired view to the westward, even after I had ascended a tree on the edge of the broad and level plateau, so thickly covered with bushes. On returning and descending eastward towards the open country, I found a much more practicable way down than that by which I had ascended. Returning to the valley of the Cogoon, I passed between the two summits, and found a good open passage to the westward between the brigalow. Thermometer, at sunrise, 20°; at noon, 70°; at 4 P. M., 68°; at 9, 30°. Height above the sea 1043 feet.

9th May.—The thermometer stood at 19° in my tent this morning, yet no ice appeared on the adjacent pool; for this reason, we named that branch of the river Frosty Creek. In order to leave a more direct track for Mr. Kennedy to follow with the drays, I made the carts return about two miles to the spot where we first made these ponds. There I had a trench cut across the track to the camp we had quitted, and also buried a letter for Mr. Kennedy, in which I instructed him to avoid that detour which might have otherwise led him into scrubs. We then prolonged our track from the south, northward across the open downs. I travelled in the direction of the meridian, and most of our route, this morning, marked a due north line. We came, at length, upon

lage, which is apparently of the same nature as that of the nearly allied Tragacanth tree of Sierra Leone (*Sterculia tragacantha*).

It is not a little remarkable that the barrel-like form of the trunk should be almost exactly paralleled by another Sterculiad, the *Chorisia ventricosa* of Nees, called by the Brazilian Portuguese *Pao Barrigudo*. It seems, however, that a tendency to a short lumpish mode of growth is common among the order, as is indicated by the Baobab of Senegal, which is almost as broad as it is long, and the great buttress trees, or Silk-Cottons of tropical America. — J. L.

a watercourse which I took for our river, as the banks were finely rounded, the ponds full of water, and the woods quite open. The scenery was parklike and most inviting. The watercourse, soon, however, dwindled into a mere chain of ponds, and these at last were found to contain no water, when we had completed our day's journey. Open downs surrounded us, and fortunately I could still distinguish my rocky position of yesterday, where I had noted that the general direction of the river channel we had now again left, bore N.W. We were still much to the southward of the line so observed, apprehending, as I did think then, that some tempting plains might take us too far along some western tributary. Riding in search of water, I perceived a column of smoke to the northward; and, taking the party in that direction, we found, in the first valley we fell in with, a chain of ponds, and in one of these water enough for our use, whereupon I gladly encamped. This day we discovered a new *Eucalyptus* which casts its bark in small angular pieces.* Latitude, 26° 33′ 34″ S. Thermometer, at 4 P.M., 74°; at sunset, 63°. Height above the sea, 1299 feet.

10*th May*.—Continued nearly northwards, over fine open forest land. The sprinkling of mountains of peculiar forms here and there, and the open country, which showed a bluey distance, were new features in the scenery, and most pleasing to us, so long accustomed to travel through a level woody country. The visible possibility of overlooking the

* *E. viminalis* (Hook. MS.); foliis alternis glaucis linearilanceolatis breviter tenuiter petiolatis subfalcatis utrinque acuminatis reticulato-venosis, nervis lateralibus marginem prope, racemis paucifloris axillaribus, calyce turbinato in pedicellum brevem attenuato.

country from any eminence, is refreshing at all times, but to an explorer it is every thing; besides he is not half so much in danger of wanting water, when in the neighbourhood of mountains: with these sentiments I went forward this morning, even although rather despairing of seeing more of our friendly river. We crossed two chains of dry ponds, apparently some of its highest sources. Still I travelled steadily towards a fine mountain before us, over open downs, but with scrubs on either side. Reaching a dry bushy hill S. E. of the mountains, about the time we should have encamped, I perceived that the country sloped most to the eastern side of it, which was rather out of my course; for the sake of finding water more readily I got into a water-course falling that way, and followed it down. This, opening soon into grassy flats, enabled us to avoid the scrubs. The welcome white-trunked Eucalyptus next overhung the holes of the water-course, and the valleys spread into beautiful open plains, gracefully fringed with Acacia pendula. Still, the ponds were dry. I crossed a bare grassy eminence, and, where several channels met, I saw luxuriant white trunks; heard and saw many cockatoos of the same colour (*Psittacus galeritus*); and found there an abundant pond of water, beside which we encamped. On some of the Eucalyptus trees grew a beautiful Loranthus, which was new to us; it proved to be one formerly discovered by the indefatigable Allan Cunningham, but only now described by Sir William Hooker.*

* *L. nutans* (All. Cunn. in Hook. Herb.) totus incano-glaucescens, foliis oblongis ellipticis sublanceolatis obtusis coriaceis obscure trinerviis tenui-rubro-marginatis basi in petiolum mediocrem attenuatis, pedunculis axillaribus longitudine petiolorum racemosis compositis, floribus ternis nutantibus, calycibus globoso-campanulatis ore contracto, petalis linearibus.—Two varieties,

Thermometer, at sunrise, 28°; at 4 P. M., 76°; at 9, 38°;—with wet bulb, 34°.

11*th May*.—I ascended the mountain accompanied by two men with axes, and one carrying my theodolite. The summit was covered with thick scrub interlaced with vines, but my horse could push his way almost any where. I fortunately found a rock near the summit, and, on throwing down a few of the trees about it, obtained an extensive view over the country to the northward. Open downs surrounded the mountain. Beyond these, valleys, also clear of trees, or thinly wooded, fell on one side to the S. E., on another side, other valleys fell to the N. W., leaving a rather elevated tract between; which appeared to connect this mountain with a range just dimly visible, bearing nearly north. The valley descending towards the N. W., seemed to me to be the head of a river likely to pass through a remarkable gap in a flat range, beyond which the view did not extend. To the westward a woody, and rather level country appeared, from which I thought I saw ridges, with plains or downs between them, descending towards the N. W. river.

Anxious to discover the division of the waters, I carefully levelled my theodolite and swept the northern horizon, but found, to my surprise, that the country to the westward was lower than the hill on which I stood, and that the ridge northward with the gap in it, was lower still, the only greater elevation visible being the lofty mass bearing about due north. Could this be all the obstruction I was prepared to open a pass through? Could the hidden mystery of the division between the northern and southern

a narrow-leaved and a broad-leaved, were subsequently discovered; that now described was the narrow-leaved form.

waters be here? Far in the east, a river line was evident from columns of smoke, as well as from the termination of various lateral ranges, between my position and the great mountain to the northward. That was, probably, still the Balonne falling southward. Here I had found an interior river that would, at all events, lead north-west, and this I resolved to follow. On this mountain there grew, in several spots, the remarkable trees I had first seen on Mount Abundance; some of them much resembling bottles, but tapering near the root. On descending and returning to the camp, which was about five miles from the hill, I found eight natives, who had come frankly forward to the party during my absence. I was very glad to see them, and gave to an old man, a tomahawk to express my sentiments, and welcome the strangers, for little could be understood by our native, of their speech, or by them, of his. We did, however, make out from them, that the hill I had just returned from, was "Bindango;" its lesser brother to the westward of it, Bindyègo; and the ponds or creek beside which we were then encamped, "Tagàndo;" all very good sonorous names, which I was glad to adopt at once in my notes and map. These natives were coloured with iron-ochre, and had a few feathers of the white cockatoo, in the black hair of their foreheads and beards. These simple decorations gave them a splendid holiday appearance, as savages. The trio who had visited us some days before, were all thoughtful observation; these were merry as larks, and their white teeth, constantly visible, shone whiter than even the cockatoo's feathers on their brows and chins. Contrasted with our woollen-jacketted, straw-hatted, great-coated race, full of work and care, it seemed as if nature was pleased to

join in the laugh, at the expense of the sons of art. Sun never shone upon a merrier group of mortals than these children of nature appeared to be. One amongst them was a fine powerful fellow, whose voice sounded so strongly, that it seemed as if his very whisper might be heard half a mile off. The old man remained by our fire all night; the others who, as I understood, were all his sons, had departed about 11 P. M, having left their gins in the vicinity. Thermometer, at sunrise, 22°; at noon, 76°; at 4 P. M., 59°; at 9, 35°.

12*th May*.—I took a ride in the direction where I hoped to find a river flowing towards the interior, according to my observations at Mount Bindango. I rode over an open plain, or open forest country, soon found the dells marked by water-courses, and, at length, the channel of a river, with the Yarra trees. Following this new channel downwards a short way, I found the beds of the ponds moist, and seven emus, running from one a-head of me, first indicated the situation of a large pond; from which three wood-ducks also waddled away as I approached it. This water was only fifteen miles from where I had left the party encamped, to which I hastened back with the tidings of a discovery that was likely to expedite so much our momentous journey. Thermometer, at sunrise, 30°; at noon, 81°; at 4 P. M., 59°; at 9, 52°;—with wet bulb, 51°. Height above the sea, 1168 feet.

13*th May*.—I buried a letter here for Mr. Kennedy. This day the party crossed the dividing ground, which I found to be elevated only 1563 feet above the sea, and consisting, as already stated, of fine open grassy downs, sprinkled with Acacia pendula and other shrubs. One or two knolls projected, however, and

resembled islands in a sea of grass. I rode to one and found it consisted wholly of trap-rock in nodules. This was the first trap I had seen during the journey beyond the Barwan, and from their aspect I thought that other minor features of the mountains Bindango and Bindyègo, which I had not leisure to examine then, also consisted of this rock. The little knoll I did visit, was about one hundred yards in diameter at its base on the plains, and was covered with trees wholly different from those in the adjacent forest, namely, *Callitris pyramidalis*, *Eucalyptus* (Iron-bark species), &c. We next descended to a separate system of drainage, apparently falling to the north-west. Instead of following rivers upwards, as we had hitherto been doing, and finding them grow less, or taking a tributary for a main channel, we were now to follow one downwards, with the prospect of finding it to increase as we proceeded. The relief from the constant apprehension of not falling in with water was great, as each day's journey was likely to show additional tributaries to our new found river, and, of course, to augment the supply. The old native at Tagàndo, had pointed much to the north-west, frequently repeating the word "*Maranòa;*" whether that was, or what was, the name of this river, remained to be ascertained. A sweet breeze from the N. W. met us as we descended the slopes, and thus it was that white men first passed in that direction, "*Al nacimiento de la especeria.*" Thermometer, at sunrise, 26°; at noon, 75°; at 4 P. M., 64°; at 9, 43°. Height of camp above the sea, 1226 feet.

14*th May.*—The left bank of the river being rather steep and broken, I crossed it, determined to pursue a N. W. course, so long as I found the country

open, thinking I might easily fall in with the river about the time I wished to encamp, believing its course would be towards the gap. We passed through some scrub, but chiefly over good forest land. When we had travelled on about ten miles, I saw hills nearly clear of wood before me, and halted the party while I went forward to look at the country in that direction. I soon overlooked a deep dell, full of the richest grass, and wooded like a park. The fall of the enclosing ranges showed me, however, that our river might be further to the westward than I had thought at all likely. On returning to the party, I found they had been called to by natives in our rear, one of whom was formally seated in advance, prepared for a ceremonious interview; and I accordingly went forward to him with the green bough, and accompanied by Yuranigh. We found him in a profuse perspiration about the chest, (from terror, which was not, however, obvious in his manner,) and that he had nothing at all to say to us after all; indeed his language was wholly unintelligible to my native, who, moreover, apprised me that he was the big bully from the tribe at our former encampment, then distant some twenty-five miles. He handled my hat, asked for my watch, my compass, and was about to examine my pockets, when Yuranigh desired him to desist, in a tone that convinced him we were not quite at his mercy. I thought he said that the river was called the "Amby," and something about the "Culgoa!" It then, for the first time, occurred to me, from a gesture of this man's arm, that this might be only a tributary to the Culgoa after all. We bade him adieu as civilly as we could, but he hung upon our rear for a mile or two, and I

perceived that he had brought with him his whole tribe after us. Nothing more unfortunate can befall an explorer, than to be followed by a wild tribe like this, as I had experienced in former journies. The gift of the tomahawk had done all this mischief, and how it would end, was a thought which caused me some anxiety. The tall savage had set his heart upon our goods and chattels, and it was not in human nature for him to desist from his aggressive purpose, if we could not, in some way, contrive to check the pursuit. I knew instinctively, by the first sound of a loud whisper of his at "Tagando" at night, near our tents, that there was no music in this man's soul We soon arrived at a ridge of ferruginous sandstone, whereof the strike tended S. S. W. and the dip was to the eastward. A gradual ascent brought us to the verge of a low ridge, which was steep towards the N. W., and a rocky knoll (of red sandstone) afforded me a view of the gap I had seen from Bindango, and hills about it. I perceived, with great disappointment, that the structure of the country was not according to my anticipations. The river course seemed marked out by plains far to the south-west, and all the valleys and watercourses fell *from* the gap in that direction, and not *to* the gap. Still the country about that opening looked very inviting. Picturesque hills, clothed with grass and open forest, especially on their summits, and dells between them, yellow or red with rich ripe grass, indicated a spot of the finest description; and through the gap lay my destined line of route, to the north-west, river or no river. Just then, however, we wanted water, but on following a little channel about a mile downwards, we found in it a spacious pond,

and encamped. I rode three miles further down this channel, which there turned *southward*, so that I despaired of my newly discovered river Amby being of any further utility now; but I was almost convinced that it would have brought me into this very country, had I come round by Fort Bourke. Latitude 26° 17′ 8″ S. Thermometer, at sunrise, 35°; at 4 P. M., 80°; at 7 P. M., 71°; at 9, 48°. Height above the sea, 1150 feet.

15*th May*.—My servant Brown drew my attention, early this morning, to natives occasionally peeping at us from a hill overlooking our camp. Some time after, I perceived a figure resembling a large black quadruped, with head erect like a lion, prowling about, amongst the long grass beside my after breakfast tree. Taking my glass, I recognized the identical big savage of yesterday.

Hamlet might here have exclaimed—

"What a piece of work is man!
. . . . . how infinite in faculties!
In form and action how like a *quadruped!*
In apprehension, how like a *devil!*"

There the fate of Mr. Darke * doubtless awaited me; and this was to be the result of my spontaneous gift of a tomahawk to the old man! This savage had evidently been watching us all night, and his party were concealed behind the hill. Our only remaining little dog, Procyon, had been very restless during the night, when these people were, probably, drinking at the pond near us. My rifle (fortunately I now think) was in the case, but I fired a carbine so that the fellow should hear the bullet whistle near him into the long grass; and at the same time shouted, expressive of my disgust at his conduct, making the men join in a loud *jeering* cheer as he galloped off, still on all-fours, towards his camp. My horse was standing saddled for a ride of reconnoissance in a different direction, and, as it was not desirable that these people should know either where I went, or even that I was absent, I took this opportunity of frightening them away from our rear, and covering my ride the other way. With this intention, I immediately mounted, rode first to the tree, with my rifle in hand, and, accompanied by one of the men and Yuranigh, both mounted, I next examined their camp behind the hill, whence I found that a great number had just retired, leaving even their opossums still roasting on the fire; — they having, in a very brief interval, by rapid strides, retired to a considerable distance, where I heard their shouts in the woods, calling their gins together for a precipitate retreat — aware that we were now justly offended. I then set out, passing behind some hills on the

* This gentleman was killed by natives when obeying the calls of nature behind a tree.

opposite side of our camp, and proceeded with the business of the day, through woods in an opposite direction. I found a low flat-topped range, extending nearly W.N.W., and consisting of black ferruginous sandstone. It was broad and of peculiar structure, so that it might well have been considered a dividing feature. Parallel to it on the south, a line of pointed hills of trap or basalt, extended so as to give birth, in the valley intervening, to the watercourse by which we were encamped. On one of these Mr. Kennedy afterwards found the Bottle tree, represented at page 154. I at length reached the gap in this range, and in it discovered a most favourable and curious opening to the country westward. Passing, then, into that region, I eagerly sought a watercourse, soon found one, and followed it down to Yarra trees and dry ponds; its first direction having been, as usually remarked in the commencement of various other channels, to the N.W. Following this downwards, I found the valley to improve, and two retreating emus drew our attention to a particular spot, where we found water, at length, in a pond. But the course of this little river had come round to S.W., and the ridges enclosing its tributaries from the eastward, being apparently in the same direction, I was still rather at a loss, but determined to bring forward my little party to this pond, and then to reconnoitre the country beyond. The *Xerotes leucocephala* was just coming into flower, and the country seemed to contain much good grass. Thermometer, at sunrise, 38°; at noon, 82°; at 4 P. M., 82°; at 9, 43°.

16*th May*.—We pursued a tolerably straight and level route with the carts, from the camp to the Pass. The trap hills appearing successively on the

right hand, rendered the scenery more than ordinarily picturesque, while the probable future utility of this pass, gave them still more importance in my estimation. We found a more direct route than along the creek, to my pond of yesterday, where we encamped, thankful to find water at such a convenient distance, during such a dry season. Lat. 26° 15′ 24″ S. Thermometer, at sunrise, 27°; at 4 P. M., 83°; at 9, 49°. Height above the sea, of the Pass, 1458 feet; — of this camp, 1256 feet.

17*th May*. — Another reconnoissance seemed indispensable, before I could move the carts. Taking the direction of an opening in the sandstone ranges before us, I found that our little creek turned (as I hoped it would), to the W. and N.W., having on all sides broken ranges enveloping valleys of good open forest land. Some of the tops of these ranges were clear of timber, and bore a heavy crop of grass. I ascended one, and found it was capped with trap rock in amygdaloidal nodules. This height afforded me an extensive view northward, where the country appeared to be chiefly flat and thinly wooded. A low range of hills broke the horizon, and presented some favourable points, and I thought I could trace the course of our little river, through an extensive intervening woody flat. I descended from the hill, and followed the little river down, but could find no more water in its ponds. There were the Yarra trees, and fine grassy flats on its banks; and I came to a fine looking piece of rising ground, on the right bank, where the grass was on fire. We sought the inhabitants of the woods, but could discover none. I now found our creek turning towards the south, and that its channel disappeared in a spacious open flat.

While thus perplexed, and under an apprehension that our further progress northward in such a season would be found impossible, I perceived a dense line of trees, skirting a grassy flat, and rode towards it, observing, that any where else I should have said we were approaching a large river. I next perceived steep sloping earthy banks; then, below these, a deep section of rock, and at length, dark green reeds, and the blue surface of extensive reaches of water. I had left my party at a pond that could not have lasted long, — here I saw at once secure, a firm footing thus far into the interior. Whence the river came, or whither it went, was of less importance; thus far we had water. The river was fully as large as the Darling, and I very soon saw that its course was from N. to S.; but in that case, we could, by following it upwards, penetrate far on our way into the interior, and at its sources probably fall in with other streams, flowing where we wished to go. I followed the course downwards about two miles, and passed through native camps just deserted, the water vessels and other gear of the natives having been left suspended on trees near their fires. I found that the river turned sharp under the rocky extremities of sandstone spurs from the S., and that its final course was an enigma not to be solved without much more research. I returned to my camp, glad that I could take the party forward to a permanent supply of water. Thermometer, at sunrise, 29°; at noon, 78°; at 4 P. M. 75°; at 9, 49°.

18*th May*. — Leaving a buried letter for Mr. Kennedy we proceeded to trace, with our cart-wheels, the best route I could find for the heavy drays coming forward with him. The soil was sandy, but in other

respects the country was good: consisting chiefly of open forest, and being well covered with grass. Another gap enabled me to pass very directly on to the newly-discovered river, and it seemed that this, and the other gap behind it, were almost the only openings in the ranges from which we had descended. Both led in the direction of our route, and the pond we had just left was ascertained to be the only one in the little channel. I sought a good position for a depôt camp on the newly-discovered river, and found one extremely favourable, on a curve concave to the N. W., overlooking, from a high bank, a dry ford, on a smooth rocky bed; and having also access to a reach of water, where the bottom was hard and firm. We approached this position with our carts, in the midst of smoke and flame; the natives having availed themselves of a hot wind to burn as much as they could of the old grass, and a prickly weed which, being removed, would admit the growth of a green crop, on which the kangaroos come to feed, and are then more easily got at. Latitude of this camp, 26° 12′ 47″ S. Thermometer, at sunrise, 40°; at 4 P. M., 78°; at 9, 57°.

19*th May*. — I could now venture to halt a day without any apprehensions about leaving sufficient water for the party who were following us; and I had recently obtained many angles I wished to put together, in order to learn the character of the country, which required much study. That I should have overlooked an extensive country, without perceiving any indication of a large river flowing through it, almost at my feet, seemed a singular circumstance, and I was still as little aware of its ultimate course. I found on laying down my work on paper, that the

chief elevations ran, in a continuous line, nearly due north from Mount Red Cap, Bindango, and Bindyègo, to the high ranges nearer the coast. That the nascent stream on the western side of Bindango (the Amby), and flowing first N. W., turned towards the S. W. within a range of basaltic rock, which was a branch from the main stem between Bindango and the northern range. Thus, upon the whole, this seemed but one side, and that the south-eastern, of the basin of the river we had discovered. Where was the other? The marks of flood were not high. The waters were full of fish, but they would not take the bait. Thermometer, at sunrise, 46°; at noon, 73°; at 4 P.M., 76°; at 9, 65°.

20*th May*.—The sky was wholly overcast, and drizzling rain afforded us some grounds for hoping that the great impediment to our exploration during this dry season, was at an end. The temperature underwent a sudden change, and this day was the coldest as yet experienced during the journey; the thermometer at noon being only 48°. F. Yuranigh contrived to catch three fishes, of a kind wholly different from those of the rivers in the south; leaving it doubtful, again, whether this river could belong to the system of the Barwan. Thermometer, at sunrise, 53°; at noon, 48°; at 4 P.M., 45°; at 9, 45°.

21*st May*.—The morning being clear, frosty, and serene, induced me to ride towards an elevated point, about thirteen miles to the north-west, in hopes of obtaining a view of more distant mountains. Crossing the river near our camp I met with no obstruction, but found open forests, and a good grassy country throughout; the soil being, however, rather too loose and sandy, for the easy passage of wheel carriages.

I crossed three channels of water-courses all dry, but evidently receptacles of water in ordinary seasons. They now contained a most luxuriant crop of oat-grass (Anthistiria). The hill was rocky and open on the summit, the chief trees being very remarkable; especially a species of *Ficus*, of a unique kind, but not in fruit, closely resembling the English ash; but growing wholly on rock. Bottle trees (*Delabechea*) grew also in a romantic nook, such as they seem to delight in, in the neighbourhood of minor shrubs, equally strange. The rock consisted of a sandstone with vegetable impressions, such as I had never seen on the sandstone of the ranges. From this summit, the crests of very distant ranges appeared to the northward; the highest bearing nearly north, by compass, and apparently distant 70 or 80 miles. The course of the river, or at least of a river, judging by a line of smoke, came from the north-westward, between that mountain, and others to the westward of it. More to the right, or eastward, the horizon presented flat-topped ranges; increasing in elevation as they receded from that side of the country whence we had come. That sort of level horizon seemed always to bound our view to the southward, the little gap was the only relieving blue break in the whole of that side. The eye ranged over a vast extent of country, however, at its base, extending eastward, where open plains or downs shone bright in the remote distance; in which direction, much smoke arose from fires of the natives. I returned from the hill but little wiser than I went, except that I had observed the strata dipping southward, and that we might, therefore, still look for their synclinal line to the northward; and beyond that, for the heads of other

rivers. These hills, overlooking the valley of the river, resembled rocky bergs, at a distance of ten or twelve miles west of it. They, however, partly formed a small range, and belonged to an extensive tract of sandstone country; which, on the south, was broken into gullies, falling towards the river. Thermometer, at sunrise, 27°; at noon, 54°; at 4 P. M., 55°; at 9, 30°.

22*d May*.—This morning, the thermometer in my tent stood at 20°; and in the open air, at 12°. The river was frozen, and the grass was white with hoar-frost. The soil appearing so sandy in the country before us, I resolved to form a depôt with our drays and heavy equipment here, and to await their arrival before I proceeded further with the carts. The spot was eligible in every respect; and in awaiting the arrival of Mr. Kennedy with the drays, I could have time to investigate more extensively the character of the surrounding country. I was, indeed, rather apprehensive that the drays could not reach without difficulty even this point; and I was resolved, on their arrival, to make some arrangement for continuing the journey, without dragging them any further through the heavy sand. It was most irksome, during the finest of weather, thus to be obliged to remain comparatively inactive, in the middle of such a journey, when horses and light carts might have enabled me to have pursued it to a conclusion, without such delays. Thermometer, at noon, 54°; at 4 P. M., 55°; at 9, 27°.

23*d May*.—The river seemed to cut its way through rocky ranges, and to receive many tributaries; had, in some places, bergs, and margins of ancient gravel and sedimentary strata; in others,

rocky escarps of great height, presented sections of rocks through which it passed. Its further course downwards, seemed accessible for some way from this camp; and, in awaiting the arrival of the drays, I resolved to explore it. With this view, I this day proceeded westward to head the gullies falling to it from the other bank, from the sandstone country already mentioned. I ascended by an extremity of the hill, to the rocky crest without difficulty, or much deviation from my intended course. On reaching the western side of the rough scrubby table of the range, I found the descent gradual, through an open forest: traversed two flats, having in them the Yarra gums, but no water-course, the surface very sandy. Here grew the *Acacia conferta*, a small shrub just coming into flower; the *Xanthorrhœa Mimosa* (with rough bark), yellow gum, black-butted gum, iron-bark, and stringy bark. The woods astonished my native companion Yuranigh; who remarked that they were trees belonging to the sea coast at Sydney. But deep rocky ravines prevented me from exploring the country, in the direction in which I should have expected to find the river. At length, we approached a valley, in which was a deep channel with rocky banks; but quite dry, and very sandy. It ran to the southward; in which direction I turned with it, to follow it to its junction with the main river; but it pursued a very tortuous course, and our time did not admit of my going far enough that day, and I returned to the camp, resolved to extend this interesting search on a greater scale subsequently. I had seen, from the furthest point I reached, that the same table land to the southward, extended west; and it therefore appeared to me probable that the

river would be found at its base. In the evening we heard, at a short distance from our camp, the songs of females or children; as if the overflowing of their animal spirits. I had seen their smoke in a part of the range I passed this day, to which I feared they had fled on our approach, hearing our guns, and in terror of strangers. I was, therefore, glad to find that they had no longer any dread of us, and had returned to *their* home, the river bank. These people had no clothing, — the mercury stood at 19° and 20° F.; the means of subsistence open to them, had been scarcely enough to have kept white men alive, even with the aid of their guns. Yet, under such circumstances, and with such strange visitors so close to them, these human beings were so contented and happy, that the overflowings of their hearts were poured forth in song! Such is human nature in a wild state. Their happiness was not such as we could envy; on the contrary, I was so solicitous that we should not disturb it, that, much as I wished to learn the original name of this interior river, and something about its course, I forbade any of the party from taking any notice of these, its original inhabitants. Our last intercourse with the natives, had also taught me to bear ever in mind Æsop's fable of the camel. Thermometer, at sunrise, 12°; at noon, 52°; at 4 P. M., 56°; at 9, 32°.

24*th May*.—I proceeded, with two men bearing axes, to a hill about two miles S. W. of our camp, one of the extremities of the range already mentioned, (which I call River Head Range). We passed, at no great distance from our camp, those natives whose song we had heard last evening, but without taking any notice of them, except by slightly waving my hand.

One tall female stooped amongst the long grass, and several others, male and female, endeavoured to hide themselves in a similar manner, as they beheld, probably for the first time, a white man on horseback, followed by others bearing a saw and axes. On the summit, grew the Malga tree; which is an acacia of such very hard wood, that I was obliged to be content to cut off the top branches only of a tree on the summit I had endeavoured to cut down, and to erect a sort of platform on the remainder, whence I took my angles. Up the river, there appeared some open plains, and a level horizon, in the direction of its apparent course. Thermometer, at sunrise, 11°; at noon, 65°; at 4 P. M., 67°; and at 9, 30°.

25*th May*. — Protracting the observed angles I endeavoured to fix, if possible, some prominent points, whereby I might obtain some knowledge of the structure of the surrounding country. The result of my work was a conviction that the course of the river was parallel to the projecting extremities of the low range beyond it (River Head Range), and that its basin had extensive ramifications, back amongst the sandstone cliffs on this side. But the course downwards still remained a question, which diminished in its importance, as I discovered the upper course to come from where it was my wish to go. I resolved, nevertheless, while thus awaiting the arrival of the drays, to extend my ride of the 23*rd May*, and ascertain whether it could turn westward under the southern cliffs, the only direction in which it was likely to be available to us, downwards, at this time. Thermometer, at sunrise, 17°; at noon, 70°; at 4 P.M. 68°; and at 9, 38°.

26*th May*. — Taking with me two men and

Yuranigh, mounted, I retraced my former track to the westward, and on proceeding beyond the dry river bed, where I had previously been, I entered amongst sandstone gullies, where one grassy flat extended nearly in the direction I wished to pursue; and this brought me to a sort of table-land, covered with an open forest of iron-bark (with the common leaf). The rock consisted here of the same felspathic sort characterising most of the hills of the Barwan basin; the soil sterile, bearing, in lieu of the ordinary grass, the stiff, hard leaved, glutinous *Triodia pungens*. But this was better than scrub, and, further on, I perceived through a forest on the western slopes, the blue distance and yellow plains of an open country. As plains usually accompany rivers, I believed I was approaching the river I was in search of. We crossed a deep watercourse falling to the S.E.b.S., and entered on a noble flat of firm rich soil, whereon grew luxuriantly, the *Acacia pendula* (not previously seen by us in that region), and the two best kinds of grass, *Anthistiria* and *Panicum lævinode*. Then we came to a good pond of water, with recent footmarks of natives, and, at about a mile beyond, we reached the open downs. They extended eastward as far as we could see between the range on the S., under which I had expected to find the river, and the rocky country over which we had come. Westward, the downs were bounded by several very picturesque isolated conical hills, — the southern sandy ranges on the S., still continuing westward like a limit to all this interior open country. Yet through that barrier the river had found a course, and instead of its overlooking the river, I found that the ground rose towards it, and I hastened four or five miles further

westward, in hopes still to see it beyond the open downs, — but I saw nothing like it. Kangaroos showed their heads occasionally amid the long grass: the air was all astir with pigeons, and traces of native inhabitants were numerous. As the sun was then near setting, we hastened back to the pond, and lay down beside it for the night, which happened to be a mild one. Thermometer, at sunrise, 20°; at noon, 72°; at 4 P. M., 71°; at 9, 44°.

27*th May*. — We rode nearly westward towards a conical hill, which I had seen on the evening before, and named Mount Lonsdale. This peak appeared to me then to promise an extensive view to the W. and S.W., and in that expectation I was not disappointed. I also fortunately recognised two of my fixed points, at distances of thirty-two and forty-two miles respectively, besides an elevated extremity of the continuous range on the S., which I had previously intersected, and here determined to be only five miles off, bearing about S.E.b.S. I could now see not only westward, but to the southward of S.W., for nearly twenty miles over a long flat, containing indeed, a line of *Acacia pendula* scrub, such as accompanies lines of water drainage, but no river. All the country in sight more to the northward seemed to fall that way, or southward, and although it seemed possible that a cross line of valley and blue mist at the far extremity of the flat might be the river, it was much more probable, from the general slope of the country, that it was only another tributary coming from the north.* Such was Yuranigh's opinion too, who alone stood on that peak with me, and who there

* Probably the Nive. See *infra*.

reminded me of the fate of the rivers Macquarie and Narran, and maintained that rivers were not to be found every where. "Where then is our river, Mr. Yuranigh?" "Bel me know," was the reply. I could soon have found this out, however, had it been an object for our journey northward. It was enough to know then that it did not turn into that interior country, which was open, and looked much lower, and how much further the fine valley extended beyond the twenty miles, an adjacent woody hill prevented me from seeing. The land around me was fair to look on; nothing could be finer than the forms of the hills—half clear of wood, the disposition of open grassy downs and vales—or the beauty of the woods. Water was not wanting, at least there seemed to be enough for the present inhabitants, and to an admirer of nature there was all that could be desired. Deeply impressed with its sublime and solitary beauty, I sketched the scene, and descended from that hill, resolved to follow the river upwards, as more favourable, in that direction, to the chief object of my mission. I named the hill overlooking that lonely dale, Mount Lonsdale, in honour of my valuable geological friend. We reached the dépot camp in the evening, and found all well, only that a very tall and powerful native had been reconnoitring our position during the day, from various trees commanding a view of it; probably only from curiosity. These visits, however, always happened to be made, as it would appear, when some portion of the party was absent, as on this occasion. Thermometer, at sunrise, 34°; at noon, 79°; at 4 P. M., 68°; at 9, 59°; with wet bulb, 50°.

28*th and* 29*th May.*—My ride westward had enabled

me to intersect more points to the northward; but this was certainly the most intricate country I had ever either to survey or explore; for neither by laying down points on a map, nor by overlooking it from high summits, could I gain a satisfactory knowledge of its structure. Upon the whole, however, I was convinced that the downward course of the river, above our depôt camp, was in a favourable direction for the continuation of our journey. The arrival of the drays and the rest of the party was now an important desideratum; for I had resolved to establish them in a depót here, and continue the journey with a smaller party and the horses; the sandy soil beyond the river, appearing almost impassable for the absurdly heavy drays, with which the party had been equipped. They had now had nearly time sufficient to come thus far, making due allowance for sand and other obstructions. In the mean while I determined to extend my reconnoissance northward from a commanding height, distant fourteen miles, and bearing 27½° E. of N. from my camp. Thermometer, at sunrise, 47°; at noon, 85°; at 4 P. M., 79°: at 9, 65°.

30*th May*. — I proceeded, accordingly, to the hill, over a tract of excellent open forest land, which extended to its base. The summit consisted of trap-rock in nodules, and, towards the highest point, was much broken. On the most elevated part of the summit, grew one of those remarkable trees, first seen by me on Mount Abundance. I had since seen them in various solitary singular situations; two on the Hogs'-back crest of Bindango; two or three near the summit of various other heights. The girth of this was thirty feet at its greatest circum-

ference, and only sixteen at the ground. There was only one companion of the same kind, a very young one, beside this; which in locality, form, and quality, seems to be as remarkable a tree, amongst trees in general, as the kangaroo is remarkable amongst other animals. Of its quality, much, I am sure, remains to be said, when it becomes better known; the wood being so light, moist, and full of gum, that a man, having a knife or tomahawk, might live by the side of one without other food or water; as if nature in pity for the most distressed of mortals, hiding in solitary places, had planted even there this tree of Abundance. The wood must contain a great portion of mucilage, for, on chewing it, it seems to contain as much nutritious matter, as fibre. The pods contain a great number of seeds which are eaten by the natives, and also by many birds; and, from the circumstance of my having found one pod half-eaten by a bird on a rock, the very apex of a lofty summit, the solitary locality of this tree may, perhaps, be considered at least partly owing to its seeds being the favourite food of some birds inhabiting such places, each seed probably requiring to be picked out of the thick shell, in order that it may grow.* The view the hill afforded me was most gratifying and satisfactory. I saw again Mounts Bindango, Bindyego and Abundance, to the southward; the cone I had lately visited in the west, (Mount Lonsdale): the course of the river downwards, marked by open plains in the S. W.; and, an extensive rather level country lay to the northward, beyond which, at great distances, the summits of lofty mountains were just visible. Through the wide champagne country intervening, the river's

* A new genus, since named *Delabechea*.

course seemed marked by a line of smoke; a hot wind was then blowing, and the natives are in the habit of burning off the old grass on such occasions. The river seemed to come from the mountains, nearly from the N.N.W.; so that the prospect of finding water in that direction, or towards these mountains, was all I could desire. Here I intersected various lofty distant summits seen on the 21st instant, and could thus connect the whole trigonometrically with back angles to Bindango, Mount Abundance, &c. In the eastward, a range of tabular masses, some almost clear of wood, extended apparently to the coast ranges; and seemed to be also connected with those stretching towards Bindango, and separating the basin of the upper Balonne from this interior country. A hill similar to that on which I stood, but of less height, lay on the interior side of it, having a remarkable conic summit clear of bushes. The valley at the base of these two hills contained a fine crop of *anthistiria;* and there was also a chain of ponds, where natives had been encamped not long before, but in which no water then remained.

On returning to the camp in the evening, I learnt that soon after I left it in the morning, two natives came boldly up, painted white, bearing, each, several spears and four or five bommerengs. They were followed by two females bearing loads of spears. The men were got immediately under arms, forming a line before the tents, and Corporal Graham beckoned to the natives to halt. They pointed after me, and by very plain gestures motioned to the party to follow me, or to begone. Finding the men before the tents made the same signs to them, and stood firm, the principal speaker edged off towards a man at a distance, in charge of the horses. Graham got

between, so as to cover the man and the horses, when they advanced more boldly upon him, quivering their poised spears at him, at a distance of only ten or twelve paces. At length the foremost man turned round, and by slapping his posteriors, gave him to understand by that vulgar gesture, his most contemptuous defiance: this induced the old soldier to discharge his carbine over the head of the savage, who first sprung some feet into the air, and then ran off with all the others. Soon after, the same native was seen creeping up the steep bank, so as to approach the camp under the cover of some large trees, the rest following, and he was again met by our party. He then seemed to recite with great volubility a description of the surrounding territory, as he continually pointed in the course of his harangue to various localities, and in this description he was prompted by the female behind, who also, by rapid utterance and motions of the arm, seemed to recite a territorial description. Finding, however, that his speech made no impression on the white strangers, and that they still beckoned them to depart; he stuck a spear into the ground, and, by gestures, seemed to propose that, on the one side, the ground should be occupied by the strangers, and on the other side, by them. Graham apparently assenting to this, they seemed more satisfied and departed. There were two deep reaches; one above, the other below, our camp. The upper one was deepest, largest, and more remote from our party, and most within reach of the natives. I gave strict orders that no man should go there; nor that the cattle should be allowed to feed there; that it should, in fact, be left wholly to the natives; that no ducks

should be shot, that no men should fish there. Nothing could be more reasonable than the proposal of this native, nor more courageous than his appearance before our more numerous party, with his spears and open defiance; and I was determined to take every precaution to avoid a collision with his small tribe, and prevent, during our probably long residence here, our people from doing them any harm. Thermometer, at sunrise, 22°; at noon, 60°; at 4 P.M., 63°; at 9, 31°.

1*st June*.—The sound of a distant shot about noon, which proceeded from the Doctor firing at a bird, gave us the first notice of the approach of the other party. Soon after, Mr. Kennedy came in, measuring the line; and, subsequently, the drays, and the whole of the men in good health. The cattle had got refreshed without delaying me, and I could now again proceed with a good supply of stores, leaving them again in depôt here. Mr. Kennedy had examined the river, about which I had written to him, for twelve miles up, and found that it was a separate river, coming from the N.W., and that in all its bed no water could be found. The tribe of Tagando had been troublesome to him, as I feared they would, after their attempt upon us. The following account of their visit to Mr. Kennedy is from his own notes:—"At 1 P.M., an old native, accompanied by five younger men, approached the camp, each carrying a green bough, and when within forty yards, they sat down in a line, the old man (probably their chief) taking up his position about four yards in advance of the rest. Sir Thomas Mitchell having mentioned, in a communication I received here, that the natives had been friendly to him, I was anxious to preserve that

good feeling, but at the same time to keep them at a distance, according to my instructions. I therefore went up to them with a green bough, and endeavoured by signs to make them leave:—finding that of no avail, I presented the chief with an old hat, and gave to each a piece of bread. After they had eaten it, I raised the old man with my right hand, and taking another in my left, I led them away in the direction whence they had come, broke off a green branch, gave a portion to each, and bid them farewell. As the others still remained in *statu quo*, I went through the same ceremony with them until they were all on their path homewards. Having heard nothing more of them for some time, I flattered myself that I had succeeded in giving them a friendly hint that we did not wish them beside us; but I soon discovered my mistake, for at 4 P. M. a large number of natives, accompanied by two or three gins and children, came boldly up and encamped within a few yards of the tents, and two hundred more were reported to me by Mortimer as being at a short distance in their rear. I gave strict orders that no man should go near them, and I mustered the party myself at 8 P. M. Shortly afterwards, three or four natives came down to our fires, and on the men saying that they would not be made to leave, I put my hand upon their shoulders, and shewed them their own camp. One tall young native in particular, wearing an opossum cloak, exhibited a strong inclination to resist. I continued to watch their movements until half-past eleven, P. M. up to which time they were talking very earnestly, continually repeating the words "white fellow." I had not retired to my tent five minutes when I heard

Baldock (one of the two men on watch) several times desire the natives to go back, who, as it appeared, would insist on coming forward to our fires. Serjeant Niblet then called me, saying he thought "all was not right," that the natives refused to keep away, and that he had seen the fire-sticks of others approaching from several directions. On turning out, I found them making a line of fires within twenty-five yards or less of our tents, and the grass on fire, the old man urging them on in their mischievous work. I called to them in the language of some of the aborigines, to go away quickly, using the words "Yau-a-ca-burri!" but seeing that they still drew nearer with their fires, to the imminent danger of the camp, I desired the men, who by this time had got ready with their arms, to charge them with a shout, but not to fire until they received orders. We succeeded in making them run; when, to add to their alarm, one or two shots were fired in the air. In their haste, they left the old hat I had given them, an iron tomahawk, and a few other implements, behind them, all of which I caused to be left untouched, in order to show them that we had only objected to their intrusion. All being quiet, and the cattle brought close to the camp, I added a third man to the morning watch, and no more was heard of the natives." This was a specimen of the treacherous nature of their mode of warfare, and very characteristic of the aborigines, but by no means so creditable to them, as the conduct of our neighbours at this camp, where the arrival of the other party was likely to convince them still more, that they could not induce us to quit that position, until we thought proper to do so. I had instructed

Mr. Kennedy to continue the numbering of the camps; but as the drays could not keep pace with mine, only some of my camps have been so numbered, the others marked being those where his party had passed the night. This depôt camp was, thus, No. XXIX, and the numbers of such others of mine as have been marked between this and VIII., shall be added to this journal, and the whole marked on the map. A new species of *Callitris* appeared among the trees, the *Acacia stenophylla*, and the large leaved variety of *Acacia decora*, further removed than usual from the common form, and approaching, in some respects, to *A. rubida*. Among the bushes was the beautiful little *A. conferta*, remarkable for its little heath-like leaves, and among the grasses was remarked an abundance of a new annual *Sporobolus* with extremely minute flowers.* Thermometer, at sunrise, 18°; at noon, 64°; at 4 P. M., 64°; at 9, 30°.

2*d June*.—Two half-boats were mounted on frames, and fixed over two of the light carts, and other preparations made for the prosecution of the journey with a small party. My plan was to reduce each man's ration of flower from 7lbs. to 4lbs. per week: to allow a larger quantity of mutton: some gelatine and barley, dried potatoes, &c. With my party, I now proposed to take forward a portion of the sheep, as not requiring carriage, and Mr. Stephenson, a man to assist him, and the shepherd, formed the only addition to the number with which I had advanced to this point. Mr. Kennedy had brought me a dis-

* *S. pallidus* (Lindl. MS.) foliis planis glabris ligulâ nulla nisi squamulâ quâdam, paniculâ effusâ ramis brevibus alternis verticillatisque scabriusculis, paleis truncatis alterâ 3-nervi alterâ binervi.

patch from Commissioner Mitchell, accompanied by some newspapers, in which I read such passages as the following:—"Australia Felix and the discoveries of Sir Thomas Mitchell now dwindle into comparative insignificance." "We understand the intrepid Dr. Leichardt is about to start another expedition to the Gulf, keeping to the westward of the coast ranges," &c., &c. Not very encouraging to us, certainly; but we work for the future. Thermometer, at sunrise, 11°; at noon, 67°; at 4 P.M., 67°; at 9, 30°.

3d June.—This day one of the party caught several fishes in the river, which appeared to be of the same species as the Eelfish, or Plotosus tandanus described in the journal of my first journey (Vol. i. p. 95). It is therein stated to be an Asiatic form of fish, on the authority of Mr. Wm. M'Leay, but in other respects this was identical with one in the Barwan. The course downwards of the new river, which we even now believed to be called the Maranóa, from what we had gathered from the natives, was thus almost proved to be towards the southern rivers. I instructed Mr. Kennedy to employ the party in digging, and fencing in, and daily watering, a garden; also, to make a stockyard wherein to lodge the cattle at night, as this would leave more men disposable for the immediate protection, if necessary, of the camp and stores. I also gave him very particular instructions as to the natives, that no intercourse should be allowed between them and the men; that he should, nevertheless, use them very civilly, and endeavour to obtain some information, if possible, respecting the final course of the Maranóa, &c. Thermometer, at sunrise, 16°; at noon, 69°; at 4 P.M., 66°; at 9, 34°.

The Country and the Routes
between the
Maranoa and Mount Mudge
Chapters V. and VIII.
RIVER VICTORIA
Chapter VII.
English Miles
Lake Salvator
Fine Valley
Plains
Fine Plains
Downs
Open Forest
Mountain Downs
Hope Table
Table Land
Tree Valley
Flat
Deep Broad Reach
Native Camp
Lagoon
Tribe of Natives
Deep Richmond
Douglas Ponds
Open Forest
Downs
Plains
Fine Plains
Lake Salvator
Fine Valley
Mountain Downs
Hope Table
Table Land

CHAP. V.

Cross the Maranoa with a light party. — Send back for one dray and the freshest team. — Junction of a river from N. N. W. — Follow up the minor branch. — A day's rain, and reconnaissance to the N. W. — Hostile tribe. — How dispersed. — Cross Possession Creek. — Arrive at a small river from the west. — Cross it, and reach another. — Again ride to the N. W. — Determine to follow the first river downwards. — Again arrive on the Maranoa. — Cross the second river from the west. — Ascend a small rocky hill. — Mount Owen again recognized. — Travel in that direction. — Through scrubs, and over sandy ground. — Again want water. — Turn to the Maranoa. — Find its channel dry. — Ascend Mount Owen. — Ride of reconnaissance. — Distant mountains. — Advance with the party. — Ascend Mount P. P. King. — The river Warrego discovered. — It turns to the S. W., — the party crosses it. — Mount Faraday. — The Pyramids. — River Salvator. — The Salvator joins the Nogoa. — Course of the Nogoa, N. E. — Cross it and cut through ten miles of scrub, in a N. W. direction. — The river Claude discovered. — Fine open downs. — Balmy Creek, and very difficult country. — Tower Almond. — Mount Mudge. — Line of river seen to the northward.

4*th June*.—Every preparation having been made, I bade Mr. Kennedy adieu, for at least four months, and crossed the Maranóa with my party and light carts. It was not without very much regret that I thus left this zealous assistant, and so large a portion of my men, behind, in departing on a hazardous enterprise, as this was likely to be, where the population might be numerous. Anxiety for the safety of the

party left, predominated with me, for whatever might be the danger of passing and repassing through these barbarous regions, that of a party stationary for a length of time in one place, seemed greater, as they were more likely to be assailed by assembled numbers, and more exposed to their cunning and treachery. I gave to Mr. Kennedy the best advice I could, and we parted in the hope of a happy meeting, at the period of my return — a hope, I must confess, I could not indulge in then, with any degree of pleasure, looking forward to the many difficulties we were prepared to encounter, and considering the state of my own health.

The sandy bed of the river was difficult to cross with the carts, and delayed us an hour. A different adjustment of the loads was necessary; therefore I was obliged to turn out of my intended route for this day, and go into a bight of the river for water, in making a much shorter journey. This was only of six miles from the depôt camp. Amongst the water-worn pebbles in the bed of the river, we found various portions of coal and the rocky sections in parts of the banks resembled its concomitant strata. Thermometer, at sunrise, 16°; at 9 P.M., 40°.

5th June. — The ground was sandy, and several gullies descending to the river occasioned difficulties which tried the mettle of our horses, and convinced me that we now carried too much weight for them. I accordingly sent back Edward Taylor and another man with a note to Mr. Kennedy, and with directions to pick out ten good bullocks, and bring forward one of the drays as soon as possible. We met with various dry channels of tributaries so deep and rocky, that they seemed, at first sight, like the main river.

I wished to reach the bank of this, at a favourable point to encamp at, and await the arrival of the expected dray. But there gullies rendered the access difficult. Sand and callitris covered the intermediate ground, and augmented the impediments the horses had to contend with. After crossing three rather important channels, I turned to the N.E., and fortunately came upon the river, where the ground was very open, and the acclivities gentle. The bed of the river was full of water, forming a long reach covered with a red weed, the course from north to south, straight. Height above the sea, 1190 feet. This we marked XXXI., last camp being XXX. Thermometer, at sunrise, 24°; at 4 P. M., 70°; at 9, 43°.

6th June.—Taylor arrived early with a fine team and strong dray, confident in being able to keep up with the carts, and lightly loaded, of course, that he might cross heavy sand, or deep gullies. I employed the time usefully, in adapting Mr. Kennedy's measurements to my map. I had now measured bases, besides those of latitude for my trigonometrical work, and I should not have regretted even a day longer in camp, to have had more time to protract angles, but time was too precious, as my men were voluntarily on very reduced rations. The *Dodonæa hirtella* of Miquel was the only novelty found here. Latitude 26° 6′ 25″ S. Thermometer, at sunrise, 30°; at noon, 75°; at 4 P. M., 76°; at 9, 50°.

7th June.—We set off at a better pace this morning, and kept it up, as we found the ground firmer, and less broken. Several hollows with water-courses in them, lay in our way, but presented no serious impediment. At length, I saw some of the heads of

River-Head Range, and a long ridge appeared before us. On ascending it obliquely, following up the smooth clay floor of a water-course, I found myself gradually entangled in a bad scrub of brigalow and rosewood. After cutting our way through it, for a mile and a half, I sought on the other side for any hollow leading off water, and found one which brought us into an open forest flat with a fine chain of ponds. The Acacia pendula appeared on its skirts; and, at length, abundance of water, also, in the ponds. The grass was so luxuriant near one of these, that I encamped beside it, without seeking the river, to which these ponds seemed adjacent. Thermometer, at sunrise, 36°; at 4 P. M., 85°; at 9, 70° (XXXII.). Height above the sea, 1309 feet.

8th June.—The country beyond this camp in a northerly direction was very fine. The Acacia pendula, open forests, and gently undulating country intersected by chains of ponds then dry, were its characteristics. At length, we reached the river bank, and could travel along it to the west. Just there, I perceived the junction of a river (perhaps the main channel) from the N. N. W. It seemed full of water, whereas that which I was obliged to follow, being the most westerly, was nearly dry, although its banks were boldly broken, and precipitous. Its course came round even from S. W., and deep ravines and water-courses coming into it, obliged me to travel to the southward of that bearing in order to avoid them. We thus, at length, came into a fine open grassy country, tolerably level, and could resume a north-west course. In that direction, we crossed a water-course from the S. W., and came to another in a deeper valley, where we saw natives, who did not run

away. There was a water-hole nearest to our side, and one from which a native was ascending when I approached. I directed the men (having encamped here) to keep the cattle from that water-hole, if possible, anxious to avoid giving any offence on this delicate point to the natives of these forests. Thermometer, at sunrise, 36°; at 4 P. M., 85°; at 9, 70°. (XXXIII.)

9th June. — The sky being overcast, and rain likely to fall, I considered that the bullocks' necks might be galled by the yokes in wet weather; and, being in some doubt about finding water in the direction in which I wished now to travel, I set out with two men on horseback to explore the country to the N. W., leaving the party to enjoy a day's rest. Little rain fell, and the ride was very pleasant. A perfume like that of hay, but much more fragrant, arose from the moistened vegetation, and I found a beautiful country of open forest with *Acacia pendula* in graceful clumps. A few miles on, we were suddenly hailed from behind a few bushes, by about twenty-five natives, painted red. We halted and endeavoured to talk to them, but not a word was intelligible to Yuranigh, who was with me. In vain he inquired about rivers, or water, in his language, and in vain they bawled to us in theirs: so, after this unintelligible parley at some distance, (for they would not come close up,) we rode on. We came at length on a sandy country with much Callitris, but the whole surface was undulating, and we crossed several chains of deep ponds, all falling to our right, or eastward; some containing water. At length, I perceived on the right, a deeper valley, and found in it a little river with a rocky bed, and coming from the

N.N.W. At two miles further, along my N.W. course, I found it crossed it, coming from W.S.W., and here I turned, well pleased to find an abundant supply of water, and a good country in the best direction for our interior journey. The river ran chiefly on rock, and the water was plentiful. Having returned to the camp, in the evening, after sunset we were called to by a numerous tribe of natives, assembled on the opposite steep bank of the chain of ponds, over which we had encamped. By the particular cooey, I recognised the same party we had seen in the morning. Their language was now loud and angry, and war was evidently their purpose ; from experience I judged it best to nip the evil in the bud, and ordered five men under arms, who were first formed in line before the tents, and with whom, at the bugle's sound, I advanced steadily up the opposite bank, as our only reply to all their loud jeering noise. They set up a furious yell on our approach, and advanced to the brow of the cliff, as if prepared to defend it ; but as we silently ascended, they fell off, and, by the time we gained the height, they had retired to a considerable distance, still shouting vociferously. Two, however, were seen drawing round our left flank, in a little gully, followed by a female carrying spears. I discharged my rifle over their heads, upon which they hastened to their fellows. On firing another shot over the dark noisy mass before us, they became suddenly quite silent, probably persuaded that we were really in earnest. We marched through their camp, made a feint, by descending into a gully, of coming upon them unawares, and continued there, until silence and darkness secured our peaceful occupation of the ground. Thus I

prevented a night of alarms and noise, which might have been kept up until morning, and until they had worked themselves into that sort of frenzy, without which I do not think they have courage to fight Europeans; and having once got their steam up, they were sure to have followed us, and gathered a savage population in our rear. Lat., 25° 54′ 17″ S. Thermometer, at sunrise, 56°; at 4 P.M., 70; at 9, 50°. (XXXIII.)

10*th June*.—We advanced at an early hour, crossing Possession Creek, for so we called it (and which proved rather an impediment, until we filled a hollow with logs), and followed my horse's tracks of yesterday. Thus we reached the little river in good time, notwithstanding much heavy sand in the way of our carts, and encamped at the furthest point I had previously visited. Thermometer, at sunrise, 30°; at 4 P.M., 75°; at 9, 39°. Height above the sea, 1240 feet. (XXXIV.)

11*th June*.—Keeping along the bank of the rocky river, we were obliged to turn southward, and even S.S.E., such was the direction whence the river came. I therefore encamped the party, after a journey of only $3\frac{1}{2}$ miles, and proceeded to explore again, towards the N.W. I thus came upon the rocky river where the rock formed a bridge affording an easy means of crossing it, and this I valued more, as being the only passable place I had seen in it, so deep and rocky was the bed elsewhere. The strata at this bridge dipped N.N.E., a circumstance which induced me to travel westward instead of N.W., in hopes to cross thereby sooner, a synclinal line, and so arrive at the sources of some northern river. We passed through some scrub, and attained, by gradual ascent, considerable

elevation. The country in general consisted of open forest, and contained grass in great abundance. At nine miles, I came upon a chain of ponds falling northward, and in which were two good ponds of water, whereupon I returned to the camp. Thermometer, at sunrise, 38°; at 9 P. M., 38°. Height above the sea, 1287 feet. (XXXV.)

12*th June.*—The rock about the river here was deeply impressed with ripple marks, and also dipped N. N. E. or northward. It consisted of a yellow sandstone in thin strata, covered in some parts with beds of water-worn pebbles. These consisted chiefly of quartz, felspar, and a silicious petrifaction of woody appearance. We proceeded along my horse track of yesterday. In crossing what seemed a principal ridge on which grew brigalow scrub (through which we had, in parts, to cut a way), we came upon a fine specimen of the Bottle Tree (*Delabechea*); near it grew the *Geijera parviflora*, which did not attain a greater height than 10 feet. I found by the syphon barometer that our height above the sea was here 1579 feet. By the same gauge I found that two other ridges further on were still higher (1587 feet). In the afternoon, the sky became overcast with dark, round, heavy clouds, and in the evening, slight showers fell. Thermometer, at sunrise, 20°; at noon, 74°; at 4 P. M., 73°; at 9, 60°. The wind and clouds came from the west.

13*th June.*—The line of ponds we were upon might turn to the northward; nevertheless I was unwilling to follow them down, and again lose westing, until I had made another attempt to penetrate to the N. W. The morning was rainy, and, as in such weather travelling was likely to gall the necks of the

bullocks, I halted the party, and took a ride in that direction. I encountered much soft sand and scrubs of brigalow, rosewood, and Callitris. Scrubs of the latter were most dense and continuous. I fell in with a goodly little river at five miles; its course there was from S. W. to N. E. Beyond it, I found the country still more sandy, although intersected by one or two water-courses falling to the northward. The furthest one, at fifteen miles from our camp, had in it ponds containing no water. It seemed near the source, and that we had almost reached the crest of some dividing feature. A thunder-storm then burst over us, and the time of day did not admit of going further. I therefore returned, convinced that I could not in that direction make much progress.* Thermometer, at sunrise, 49°; at noon, 57°; at 4 P. M., 54°; at 9, 48°.

14*th June.*—A drizzling rain continued, and the barometer indicated a change; hence I hoped the rain would last until the water-holes were filled. The day being Sunday, I gave the party another day of rest, and took that opportunity of laying down on my map, the recently discovered rivers and water-courses. It was only after I had done so, that I began to think the water-course we were encamped upon, was worth following down. The evening was clear, and I ascertained the latitude to be 25° 47′ 28″ S. Thermometer, at sunrise, 52°; at noon, 55°; at 4 P. M., 57°; at 9, 38° (XXXVI.). Height above the sea, 1528 feet.

15*th June.*—In following down this chain of ponds,

* This was unfortunate: it will be seen by the map, that ten miles further would have taken me to the river Warregó in a direct line to the head of the river Victoria, avoiding the mountains.

we found its channel became a well-formed river, with abundance of water in it, a few miles below our camp. The course thus far was northward; and I saw in one part of it rocks dipping to the westward. I was in expectation that it would have continued northward, when it suddenly turned towards the S.S.W. I thereupon crossed it, and resumed my N.W. course. My path was thus again crossed by our river flowing northward: we had then travelled 12½ miles, and I encamped on its banks. The whole of the day's journey, with little exception, had been over heavy sand, and, but for the rain that had fallen, it must have greatly distressed the horses and oxen. As it was, they got over it wondrous well. In a pond of this river, Mr. Stephenson caught a great number of the harlequin fish, a circumstance almost proving that this was a tributary to the Maranòa. We found this day a new narrow-leaved *Tristania**, thirty feet high, with bark thick, soft, and fibrous. A smooth narrow-leaved variety of *Acacia holosericea* was loaded with spikes of crooked sickle-shaped pods. Among the herbage was observed the *Teucrium argutum* of Brown; and the *Xerotes leucocephala* grew in the light dry sand. Novelty in the plants, animals, and fishes, was now to be expected; the weather was cool and pleasant, and our travelling equipment tolerably efficient. Thermometer, at sunrise, 30°; at 4 P. M., 58°; at 9 P. M., 46° (XXXVII.). Height above the sea, 1827 feet.

* *T. angustifolia* (Hook. MS.); foliis angusto-linearibus mucronato-acuminatis supra glabris subtùs subsericeis marginibus arcte revolutis, paniculis terminalibus folio brevioribus calycibusque incano-tomentosis. These specimens were in fruit. It is very distinct from every other species.

16*th June*.—Proceeding nearly north-west, we met with the little river I had discovered a few miles beyond my camp of the 13th and 14th instant. The distance of this point from the camp we had left this morning was about $2\frac{1}{2}$ miles. We crossed it, and turned to the westward, and even south-west, to avoid it. Over its extreme south-western bend there was a little rocky hill, which I ascended, and thence saw a mountain I had intersected from the high station east of the depôt. It now bore 12° west of north, and I directed my course towards it, as well as the country would permit. We crossed several sandy ranges on which the callitris was, as usual, the chief tree, as it was also on the soft heavy sand between them. Occasionally, the lowest parts where water would take its course, consisted of firm clay, and we took advantage of such flats, when their direction was favourable. I was at length under the necessity of encamping on one of these, where there was no water, nor any to be found in it after I had followed it down four miles. In my search for water, I found a curious new *Phebalium*.* Thermometer, at sunrise, 43°; at 9 P. M., 54°. Height above the sea, 1646 feet.

17*th June*.—Pursuing a course in the direction of

* *P. glandulosum* (Hook. MS.); foliis angusto-lineari-cuneatis retusis canaliculatis marginibus revolutis subtus ramulisque argenteo-lepidotis superne (præcipue) grosse glandulosis nudis, corymbis terminalibus parvis sessilibus fusco-lepidotis, calycibus subtruncatis, petalis ovatis concavis. Allied to *P. squamulosum* and *P. elæagnoides*, but very distinct, especially in the presence of the large semipellucid hemispherical glands, seen more or less in various parts of the plant, but very conspicuous on the upper side of the leaves.

the mountain already mentioned, I met with much heavy sand on which grew thick forests of callitris, frequently quite impervious to our carts except at open places amongst which we had to wind, as they permitted. The ground was undulating, and there was clay in the hollows, but the direction of these ran across my intended route, falling all to the eastward. We at length attained what seemed the highest of these ridges, and on the summit I ascertained its elevation to be 1833 feet above the sea. Beyond it, we came to a flat of firmer surface, consisting of clay, and, as we greatly wanted water, I followed it down to the north-east. I found it soon hemmed in by sandstone rocks; but we travelled still on a broad grassy flat which fell into one still broader, through which ran a continuous but dry channel coming from the north-west. After following this downwards about a mile, we crossed towards an opening between the sandstone cliffs beyond it; this opening terminated under shelving rocks. Ascending at another place, with my horse, I found a table-land above, and an open forest country. I succeeded in getting the carts and dray up at a rocky point, and travelled thence E.S.E., anxious now to find the Maranòa, convinced by a deep ravine on our right, that it could not be far off. We descended by a gently inclined part of the sandstone to a dry watercourse lined with brigalow, and which soon guided us to the river. Here, however, the bed was dry and full of sand, of spacious and uniform breadth, and with grassy sloping banks. The course was towards S.W., and I followed it upwards, in hopes soon to meet with a pond. No water, however, was to be seen, when a rocky precipitous bank before us,

and the sun setting in the west, obliged me to encamp the party. I hastened up the dry channel, followed by all the horses and the bullocks. We found some rain water on a level piece of rock, about two miles from the camp, which was scarcely enough for the horses, and afforded a few gallons for our kegs; nor could I find more, although I continued my search upwards until dusk; the bullocks had therefore to pass a second night without drinking. The bed and banks of this river were of very uniform extent throughout; averaging, in width about 100 feet; in height of banks from 30 to 50 feet. The course was straight, and it seemed as if a few dams might have sufficed to render it navigable, or at least to have retained a vast supply of water; for although the bed was sandy, the bottom was rocky, and the banks consisted of stiff clay. These being covered with rich grass, and consisting of good soil, water alone was wanting to make the whole both valuable and useful. Yet this was not so scarce amongst the gullies and tributaries, nor in the channel itself, lower down. I found, growing in the bed, the *Alphitonia excelsa* of Reissek, collected by Allan Cunningham and Frazer along the Brisbane and upper part of Hunter's River; also a remarkable kind of Brome grass I had never seen on the Darling. Thermometer, at sunrise, 36°; at 9 P. M., 61°.

18*th June*. — Drizzling rain had fallen during the night, which greatly refreshed the grass for the cattle. Early this morning, I sent Corporal Graham and another man, up the river, in search of water; and the bullock-driver with his cattle down the river, with orders to go on until he fell in with some. Others of the party were directed to search amongst the rocky crevices nearer to our camp. I set out with

Yuranigh for the summit of the mountain already mentioned, which, according to my survey, lay about seven miles off to the N.W. My ride to it was unimpeded by gullies; and, on ascending it, I obtained a most extensive view, embracing lofty ranges to the eastward and south-east. A line of volcanic cones (of which this was one) extended from these ranges in the direction of about N.E.b.N. But, besides these elevated summits, little could be seen of the adjacent country: nothing of the sandstone gullies, by which the party was then shut in. I could only imagine one bluey tint in a long line of ravines, to be over the bed of the Maranòa, which seemed thus to pass through the line of cones, and to come from high ranges about the 25th parallel. The country to the northward was still hidden from my sight by a portion of the old crater which was higher than that I had ascended. The western interior was visible to a great distance bounded by low ranges; some of which seemed to have precipitous sides, like cliffs, towards the west. Lines of open plains, and columns of smoke, indicated a good country, and inhabitants. I recognised, from this station, that eastward of the depôt camp, to which, from the peculiar interest then attaching to that distant spot, I now named Mount Kennedy after the officer in charge of the party there. I could now intersect many of the summits observed therefrom; thus adding extensively to the general map, and checking my longitude, by back angles into the interior. I was now at a loss for names to the principal summits of the country. No more could be gathered from the natives, and I resolved to name the features, for which names were now requisite,

after such individuals of our own race as had been most distinguished or zealous in the advancement of science, and the pursuit of human knowledge; men sufficiently well-known in the world to preclude all necessity for further explanation why their names were applied to a part of the world's geography, than that it was to do honour to Australia, as well as to them. I called this hill Mount Owen; a bald-forest hill to the N.E of it, Mount Clift; a lofty truncated cone, to the eastward of these, the centre of a group, and one of my zero points, Mount Ogilby; a broad-topped hill far in the north-west, where I wished to continue my route, Mount Faraday; a high table land intervening, Hope's Table Land; the loftiest part of the coast ranges, visible on all sides, Buckland's Table Land, &c. &c. The part of Mount Owen on which I stood, consisted of basalt, which had crystallised cubically so as to form a tottering pile on the summit, not unlike the ruins of a castle, "nodding to its fall," and almost overhanging their base. Curious bushes grew amongst these rocks, unlike those in the lower country; amongst them, a climber, resembling a worm, which wholly enveloped a tree. On returning to the camp, I learnt that the bullock-driver had found a spacious basin in a rocky part of the bed, some miles down the river; having thereat watered his cattle and returned; also, that Corporal Graham had met with a pond ten miles higher up the river than our camp: thus it was evident that many miles intervened between these two ponds in the river. The other men left at the camp had fortunately found in the crevice of a rock beyond the river-channel, enough of water for the horses and themselves.

But, had this river-channel contained much more water, I could not have followed it in its upward course, and so go to the north-east, instead of the north-west; neither had this been possible from the precipitous rocks overhanging it at almost every turning. I had found, in Mount Owen, a nucleus, which was a key to these sandstone gullies radiating about it, and I had also perceived from it that towards Mount Faraday, the north-western interior was tolerably clear of mountainous obstructions; three small or very distant cones, seemed the principal features beyond it. I wished much to have explored a route for our carts in that direction; but it was necessary that I should first establish the party near water. I accordingly determined to conduct it along the range towards Mount Owen next day, as far as might be necessary, in order to turn off to the right, and encamp, overlooking some rocky gully within a convenient distance of Mount Owen; and, again to explore these recesses for water, or send for it to Corporal Graham's pond in the main channel. Mr. Stephenson gathered near this camp two beautiful and delicate ferns, the *Adiantum hispidulum*, and *Adiantum assimile*, the Australian maiden's hair. The *Acacia ixiophylla*, and *Acacia Cunninghamii*, on the rocky cliffs; occurred with an Exocarpus, probably a variety of *E. spartea*, and a new Eucalyptus.* Thermometer

* *E. populifolia* (Hook. MS.); foliis rhombeo-triangularibus obtusissimis longius petiolatis coriaceis minute punctatis (punctis pallidis) reticulato-venosis. This species is remarkable in the size and shape of its petiolated leaves. The branches bear turbinated woody excrescences (galls), each with two or more, generally three, sharp angles, and as many unequal projecting wings, altogether exactly resembling the fruit of some *Begonia*.

at sunrise, 56°; at noon, 69°; at 4 P. M., 63°; at 9, 55°. Height above the sea, 1578 feet; and above river bed 40 feet.

19*th June.*—Another dewy night had providentially refreshed the grass for our thirsty animals. We ascended, at a very favourable point, the sandstone table-land, and travelled for some miles along my horse's track towards Mount Owen, turning round the heads of gullies which broke abruptly in steep rocks both to our right and left. Then, turning to the right, where a branch of the high land projected eastward towards the river, we encamped on its extreme eastern point, overlooking a grassy valley, hemmed in by precipitous cliffs, yet easily accessible to our horses and cattle, from the point on which we had encamped. I had already found a deep hole in a rock on the right, containing water sufficient for the men and horses for several days, and, on riding down the valley while they pitched the tents, I found a large pond only a mile from the camp. The valley contained many still larger, but all, save this one, were dry. Grass grew there in great abundance, and of excellent quality. Pigeons were numerous of that species (*Geophaps scripta*) which is so great a luxury; the most delicate food, perhaps, of all the feathered race. The highest of the sandy table-land crossed this day appeared (by Captain King's subsequent calculations) to be 1863 feet. That of the camp over the cliffs, 1840 feet above the sea, the height of these cliffs above the bed of the river being thus about 300 feet. Thermometer, at sunrise, 50°; at 4 P. M., 65°; at 9, 61°.

20*th June.*—I set out (with two men and Yuranigh) to explore the country beyond Mount Owen.

From its base I observed some open forest land, and a less broken country, in a direction much further to the westward than the course I had previously selected, which was N. N. W. I now proceeded W. N. W. towards that open forest land. We found the country open for some miles, then, entering a flat or valley, I descended gradually between sandstone rocks, to a valley in which a chain of deep ponds led to the north-west. On following this down, I found it turned more and more to the westward, and at length to the south-west, whereupon I quitted its bed and cliffy banks, and, following up a ravine from the other side, again endeavoured to pursue my intended course. We crossed, at the head of the ravine, a sandstone range, and descended by another valley which led first northward, but terminated in joining a spacious grassy flat with dry ponds in it. I endeavoured to trace this downwards for several miles in a rainy evening, and found at last, to my disappointment, that this also turned to the S. W. This flat was broad and hemmed in by low rocky points of ground, of very uniform shape. Many marks of natives appeared on the trees, and, in good seasons, it must be one of their favourite spots. I left it, however, when darkness and heavy rain obliged me to look for shelter in a gloomy forest to the westward. By the time we arrived at this, we could see no grassy spot for our horses, nor any sort of cover for ourselves. Douglas found, at length, a fallen tree, and under this, covered with a few boughs, we lay down on the wet earth for the night, being ourselves as wet, yet wanting withal, water for ourselves and horses. Thermometer, at sunrise, 54°; at noon, 69°; at 4 P. M., 67°; at 9, 57°.

21*st June*.—The rain had abated to my great disappointment, for we should have been amply compensated for wet jackets, by the sight of well filled ponds of water, the want of which was the great impediment to this journey. The sky was still overcast, and the wet bushes were unavoidable. On I travelled north-west, until we approached some fine open forest hills, the bare tops of which, just visible from the foot of Mount Owen, had first drawn me in that direction. One tempting peak induced me to approach it, and to think of an ascent. In a rugged little water-course in its bosom, we found water enough for our horses, the product of last night's rain. The view from the summit, made up for the deviation from my route. A group of the most picturesque hills imaginable lay to the northward, and were connected with this, the whole being branches from the Table Land of Hope. Some appeared of a deep blue colour, where their clothing was evergreen bush. Others were partly of a golden hue, from the rich ripe grass upon them. The sun broke through the heavy clouds and poured rays over them, which perfected the beauty of the landscape. I recognised, from this apex, my station on Mount Owen, and several hills I had intersected from it. Amongst others, the three remarkable cones to the westward of Mount Faraday, apparently a continuation of the line of summits I have already mentioned. This hill consisted of amygdaloidal trap in nodules, the crevices being filled with crystals of sulphate of lime, and there were many round balls of ironstone, like marbles or round shot, strewed about. A red ferruginous crust projected from the highest part, and, on this summit, the magnetic needle

was greatly affected by local attraction, and quite useless. Fortunately, I had also my pocket sextant, and with it took some valuable angles. On descending, I heartily enjoyed a breakfast, and named the hill which gave us the water, Mount Aquarius. Returning towards Mount Owen, by a more direct route, I arrived at the head of a gully which led tolerably direct until we found our track, in the creek I had run down on the preceding day. But night was approaching, and we had water enough in a rocky hollow, and also a cavern before which a large fire gave such warmth, that, in passing the night there in my cloak, I was quite insensible to a frost without, which, at the camp, at 4 P. M., had lowered the mercury in Fahrenheit's thermometer to 22°, or 10° below the freezing point.

22*d June*. — Our provisions being out, I hastened back to the camp, determined to explore in a more northerly direction, according to my original intention. Water was only to be found in so dry a season, in the neighbourhood of mountains, or in rocky gullies likely to retain a passing shower. In our way back, I ascended the north-western shoulder of Mount Owen, and was much more inclined to take a northerly route, from the appearance of the mountains on that side. The view from that summit to the northward, was very grand; I saw more plainly the line of the Maranòa from its upper sources. Two mighty masses of table-land seemed the highest of all. One I had already seen and named Buckland's Table Land. I could here distinguish the apex of Mount Aquarius, and fix it in my map. I perceived a hollow part of the range immediately to the northward, and a sort of hiatus amongst the peaks in the broken country beyond,

through which I hoped to find a way. I hastened to the camp to prepare for a "raid" of a whole week, if necessary, in that direction. Thermometer, at sunrise, 27°; at noon, 52°; at 4 P.M., 55°; at 9, 59°.

23*d June*.—Returning early by the foot of Mount Owen, I travelled nearly northward through a fine open forest, in which we saw a large kangaroo entirely black. Rocky gullies next came in my way, and, in avoiding those on the left, others falling to the right, or to the Maranòa, showed me that this was a dividing feature. I knew it was continuous to Mount Clift from my former observations, and therefore followed it by keeping between the heads of gullies breaking to each side, until I found one favourable for a descent to the left. Below, we found a broad, grassy, valley, extending about W. N. W., and in it, deep ponds, which sometimes evidently held much water, although they were then dry. This soon, however, turned to the south-west, evidently to join the channel I had before explored. Quitting it, therefore, much disappointed, I ascended sandstone cliffs and pushed through scrubs, determined to proceed directly north-ward, until I met with valleys falling north-west. We thus passed just under the most easterly part of Hope's Table Land, and came, about sunset, to a hollow containing ponds, in two of which we found water. Here we gladly bivouacked for the night. *Zamias* grew here, and were numerous higher up the valley. Thermometer, at sunrise, 26°; at noon, 54°; at 4 P.M., 50°; at 9, 40°.

24*th June*.—The hoar-frost had stiffened the grass, and the water was frozen so that the horses cared not to drink. I proceeded N. N. W., in which direction a beautiful cone rose to a great

height, and sharp apex. Stony hills of trap appearing also in that line, I turned northward, and, after crossing a level tract of high ground, much like a dividing feature, (especially as seen from Mount Owen,) I entered a valley descending to the north-west. It fell rapidly, contained large water holes, and in two of these, at length, an abundant supply of water. The course, throughout all its windings, was towards the north-west, and this I, at the time, thought, might be a northern water. I therefore returned, anxious to bring the party thus far, at all events, and resolved to follow this little river down. We arrived, on our way back, in the evening of the same day, in the valley I had quitted in the morning, having followed down a water-course from the end of Hope's Table Land, under which I had passed, in search of a good way for the carts. Although we had seen promising ponds of water in this little channel, we could find none in the lower part, having in the expectation of finding some, rode on until darkness prevented me from going further. We were thus obliged to pass the night (a very cold one) without water, and almost without fuel. I missed the comfortable cavern where I had slept a few nights before, especially when I arose here in the night to mend the fire, and found we had no more wood at hand. I learnt afterwards that at the camp, the thermometer at 4 P. M. had been as low as 17°

* This was 15° degrees below the freezing point, and shows how much more easily cold may be endured in a dry atmosphere than where there is moisture, as instanced in the following extract from a despatch of Captain James C. Ross (in command of the Antarctic Expedition), dated 7th April, 1841, and published in the Tasmanian Journal.

"With a temperature of 20° below the freezing point, we found

of Fahrenheit.* Thermometer, at sunrise, 21°; at noon, 51°; at 4 P. M. 49°; at 9, 29°.

25*th June*. — Continuing our ride as soon as daylight permitted, ten minutes brought us to a pond containing plenty of water under a shelving rock, and here we alighted to breakfast, which was pleasant enough, but not so gratifying as the position of this pond, which would enable me to bring the carts through these valleys, to this convenient intermediate stage in the way to the Northern river. The next question was, whether the route to the eastward, descending into these valleys near Mount Clift, or that by my first route, when I discovered this rocky country, should be preferred; and I returned towards our camp this morning by the eastern gullies, in hopes to find an easy descent nearer to Mount Clift than at the point where I before came down. But I found them much more acclivitous and rocky. We at length, with difficulty, got our horses up a rocky point, on which grew a thick scrub of "blackwood," as Yuranigh called it, an acacia having many tough stems growing thickly together from one root, and obstructing the passage, and covering the ground with its half-fallen and fallen timber. Our passage along the range thence towards Mount Owen, having been too much to the eastward, brought us upon the bend of a gully falling to the Maranòa; a wild and impracticable looking dell as ever was seen. On regaining our track near Mount Owen, and returning

the ice to form so rapidly on the surface, that any further examination of the barrier in so extremely severe a period of the season being impracticable, we stood away to the westward, for the purpose of making another attempt to approach the magnetic pole, and reached its latitude (76° S.) on the 15th February."

along it to the camp, I found that another pond had been discovered in the valley, by Felix Maguire, who on two occasions, had dreamt of water, risen, and walked directly to where he found it! However that might have been, this man had a happy knack in finding water. In the neighbourhood of this camp some interesting plants were collected; viz. *Nothochlæna distans*, *Grammitis rutæfolia*, *Cheilanthes tenuifolia*, *Adiantum hispidulum* and *assimile*, all ferns, together with *Hovea lanceolata*, the weedy *Sphæranthus hirtus*, *Grevillea floribunda*, a low shrub, occupying the ravines. Besides these we observed a small species of *Sida* in the sandy soil of forests, the *Doodia caudata* Br., a verdant fern, and the *Solanum furfuraceum* with lilac flowers, and small red berries. A shrub loaded with succulent drupes, seated in reddish cups, appeared to be a new species of *Vitex*, but its genus was uncertain, there being no flowers. What is here called *Grevillea floribunda* may have been an allied species, for the leaves were more downy, almost tomentose above. In addition to this a new species of the common genus *Dodonæa*, frequently met with afterwards, was now producing its flowers.* Thermometer, at sunrise, 12°; at noon, 50°; at 4 P. M. 51°; at 9, 22°.

26*th June*. The party moved forward, at length, with the certainty of finding water for at least three days' journey, and of a hopeful water-course being before us. Passing by the foot of Mount Owen, I observed the barometer which gave an elevation of 2083 feet: the summit might be 700 feet higher.

* *D. mollis* (Lindl. MS.); molliter pubescens, ramulis subteretibus, foliis obovatis acutis truncatis rotundatis retusis tridentatisque, capsulis tetragonis trigonisque pubescentibus apteris.

My plan of route was, to enter the little river that turned to the south-west (as I had found it did, on the 20th,) and to travel along its valley upwards, until I reached the pond near which I had bivouacked on the 25th. This we accomplished most successfully before sunset, encamping beside the large pond already mentioned, near which were two others. The earth by the margin was so soft that neither the horses nor bullocks could approach the water; they could only be watered out of buckets; but the water was excellent, and water of any quality, in abundance too, was to us rather uncommon good fortune, and quite cheering, even when surrounded by soft mud. Thermometer, at sunrise, 14°; at noon, 48°; at 4 P. M. 47°; at 9, 37°.

27*th June*. We had next to trace up a grassy valley which seemed to come directly from the vicinity of that in which I had found water and bivouacked on the 24th. It formed an excellent line, and we found it possible to keep this fine firm level surface, until we had approached to within two miles of that spot. Leaving a little hill of trap to the left, and some brigalow scrub on the right, we reached the old ground and encamped. The small ponds had evaporated, but, in the frosty night, the cattle were not likely to require water, as they had been watered on the way, about 3 P. M., at a rocky well in the valley. We had now traced with our wheels, a good way through a country much broken and shut up by sandstone gullies; but which contained also many rich valleys, and extensive hilly tracts of trap rock, on which the grass was very luxuriant, apparently available for either sheep or cattle. Immediately to

the westward of this camp (marked XXXVIII.) an extensive valley was bounded by the fine trap range of Hope's Table Land; which range was open along the summit, and contained springs, in various ravines along its sides. In these ravines, we first saw the arborescent Zamia, and various remarkable shrubs; the *Myoporum Cunninghamii* of Swan River, forming a shrub six feet high, with white fragrant flowers. Thermometer, at sunrise, 20°; at 9 P. M., 29°. Height above the sea, 2064 feet.

28*th June.* — Severe frost whenever the sky was clear, seemed the ordinary weather of that country, at that season; showing, as the barometer also indicated, that we were at a great height above the sea. I sent the party forward, guided by Yuranigh, along my former track, to the ponds in the newly discovered channel, falling north-west; and I proceeded myself, accompanied by Mr. Stephenson, to the summit of the fine cone already mentioned. From this, I beheld a splendid and extensive view of the mountains further northward. Most of the summits I had previously intersected, and many others, very remarkable, just appeared over an intermediate woody range, through which I was at a loss to discover where our supposed northern river would pass. Far in the north-west, I could just distinguish the tops of curiously broken hills arising from a much lower country; and therein I hoped to find, whatever might be the final course of our river, a passage to the north-west, and water. The most important feature in that scene seemed to me to be a grey misty tint, as if it marked a valley descending from the highest eastern mountains, towards the curiously broken summits in the north-west. Bare crests

of similar hills, appeared to arise throughout the whole extent of that valley. Under those lofty mountains, at such elevation, in such a clime, with these romantic hills, that valley must be a paradise if watered well, as I hope it is. So flowed the "spring" of hope at least, as it was fed by the scene then before me. The cone we had ascended consisted of trap rock, much resembling that of Mount Aquarius; but, at its base, and on its sides, I found in large masses, the very compact felspathic rock which characterises the valley of the Darling. This has been considered a very fine-grained sandstone; but it is evidently an altered rock. Here, in contact with trap, it possessed the same tendency to break into irregular polygons, some of the faces of which were curved; and I observed one mass which had been so tossed up, that its lower side lay uppermost, inclined at an angle of about 60°. That this is a hypogene rock, sometimes in contact with granite as well as with trap, is evident at Oxley's Table Land, and other places. I was glad to find it here, as affording a prospect of meeting with better soil than the loose sand we had seen so much of. We here found the grey, prickly *Solanum ellipticum*. I named this cone Mount P. P. King; and, I have since ascertained, by that officer's register and calculations, the height of this summit above the sea, to be 2646 feet; and the height of this camp, 2159 feet. Thermometer, at sunrise, 25°; at 4 P. M., 55°; at 9, 25°. (XXXIX.)

29*th June*. — Crossing a small tributary which was full of water (coming from Hope's Table Land), we continued to travel along the left bank of the newly found river. Rocky precipices overhanging it, obliged

me to make some détours, and to pass through some scrubs; but still we regained the banks of the river, although our progress was not considerable. Its general course was still north-west, to the spot selected for my second camp on its banks. The channel was now broad; the banks high, rounded, and grassy; in some places, rocky. Water in the channel was rarely to be seen, but at the junction of tributaries, where recent temporary showers seemed to have fallen. By careful observation, I ascertained the variation of the needle to be 8° 4′ E. here. Thermometer, at sunrise, 25°; at 4 P. M., 68°; at 9, 53°. Height above the sea, 1914 feet. (XL.)

30th June. — The course of the river was now found to turn to the southward of west; and, even in that direction, rugged cliffs covered with scrub greatly impeded our progress. I endeavoured to conduct the carts along the bed of the river, soft and sandy as it was; but we did not proceed far in it, before rocks, fallen trees, and driftwood, obliged us to abandon that course as speedily as we could. Then, ascending a projecting eminence, we plunged into the scrubs; but, even in a south-west direction, we came upon the river. Pursuing its course along the bank, southward, I arrived near the base of a fine open forest hill; and, directing the party to encamp, I hastened to its summit. I there obtained a view of most of the mountains of the eastern range formerly observed, and enough of the fixed points, to enable me to determine the position of this. In the south-west, a line of open forest, and a vast column of smoke seemed too plainly to mark the further course of our river; but, towards the north-west, I saw much to reconcile me to this disappointment. Summits of

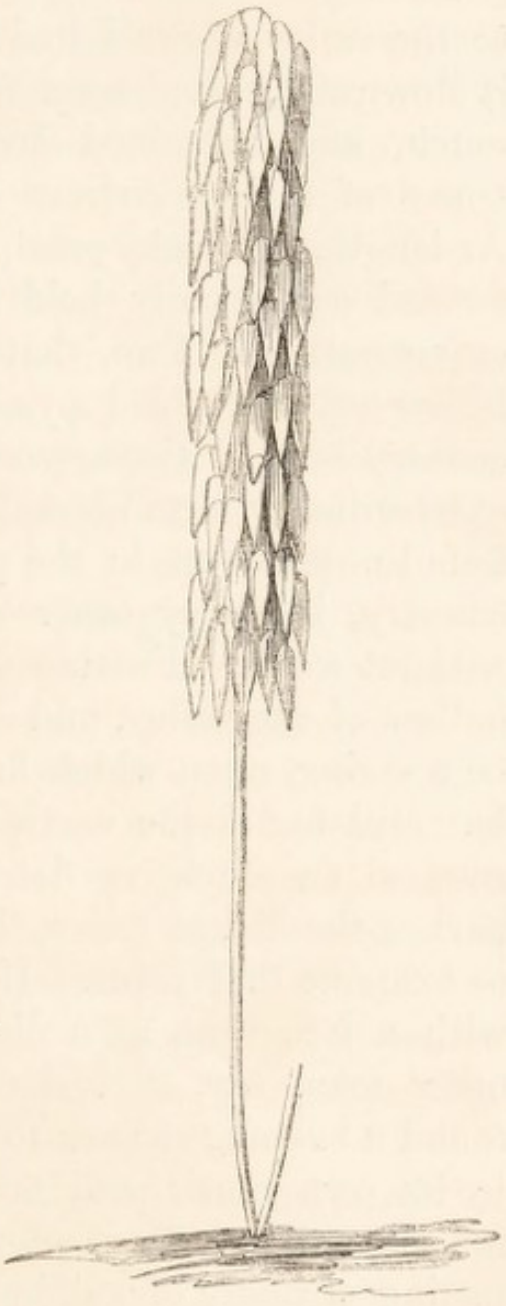
broken and uncommon aspect, beyond an intervening woody range, there indicated a much lower and different kind of country, as if that was, indeed, the basin of a system of northern waters; the woody intervening range appearing to be the division between them. As our last explored river again turned southward, it seemed reasonable to expect, beyond that very continuous range, rivers pursuing a different course. This range was plainly traceable from the high mountains more to the eastward, and was continuous westward to three remarkable conical hills, beyond which, the view did not extend. On the same range, a fine table-shaped mountain appeared nearly north. This I had already intersected from other stations, and named Mount Faraday. The hill on which I stood consisted of trap-rock, and seemed to be almost the western extremity of Hope's Table Land. A copious spring was afterwards found by Mr. Stephenson, in a valley to the eastward of this summit. That ravine was extensive; and in it grew various remarkable trees. The bottle-tree (Delabechea) grew more gregariously than we had ever seen it, in the stony banks of the channel of the torrent from the hills. One thorny tree or shrub (first seen at the base of Mount P. P. King) again appeared here; it was, generally, in a withered state; had a leaf somewhat like the human hand, and a pod containing two peas of a bright scarlet colour, about the shape and size of a French bean. This, sometimes grew to a tree as much as a foot in diameter; and the natives, who, like Nature herself, may be said to do nothing in vain, had cut one down, and carried off the whole of the trunk. The wood was of a leaden colour. This proved to be a new species of *Erythrina*,

or coral tree.* By our last day's journey, we had lost two miles of northing, and had thus recrossed the 25th parallel of south latitude. I therefore determined to cross our friendly little river, and look for another beyond the range to the northward. Thermometer, at sunrise, 44°; at noon, 68°; at 4 P.M., 65°; at 9, 38°. Height above the sea, 1732 feet. (XLI.)

1*st July*.—With that view, I rode towards Mount Faraday, anxious to look into the valley beyond it. After a two hours' ride, I passed under its western summit, and still pressed forward, in hopes of seeing at length into the valleys beyond. I thus entered a very thick scrub, so impervious that I was obliged to turn westward, until I came upon sandstone gullies into one of which I descended. Following this downwards, I found it fell to the westward, and in a hollow part of its rocky bed I came to some clear water. But this was inaccessible, even to my horse, nor could I take him further down that wildly broken gully; therefore we backed out, and ascended as we could. Then riding southward in search of one more accessible, I at length, descended into a grassy valley, which ran north-west, and gave promise of something still better. I could not follow it then without provisions, having none with me, and I therefore hastened back to the camp, resolved to take with me men and provisions sufficient to enable me to explore this further. In the scrub I passed

* *E. vespertilio* (Benth. MS.); glaberrima, caule fruticoso aculeato, foliorum petiolo elongato, foliolis trilobis lobo medio recto acutiusculo lateralibus multo majoribus falcato-divaricatis obtusissimis.—Although no flowers were seen, the genus of this shrub is well indicated by the pod and the general habit. The leaflets are often above four inches broad and not two inches long, not unlike the form of a bat with its wings extended.

through on my way back, I found various very remarkable shrubs new and strange to me. One grew on a large stalk, from which leaves radiated without other or any branches. These leaves, hanging gracefully around the stem, gave to this shrub the resemblance of the plume of a staff-officer. The outer side of each leaf was dark and shining, the inner white and woolly. Rarely these tall stems separated into two. Other branches there were none. Some very beautiful new acacias also grew there. One, in particular, with leaves exactly similar to those of the silver-leaved iron-bark, was very remarkable, a broad rough-leaved *Ficus*, with opposite leaves not unlike those of the New Holland Upas. The white-flowered lead-wort (*Plumbago zeylanica*) and the *Triodia pungens* were abundant among the grasses. A downy Dodonæa, with triangular leaves, was producing its small flowers*, and a scrubby



* *D. triangularis* (Lindl. MS.); molliter pubescens, foliis obtriangularibus tridentatis, pedunculis masculis axillaribus subsolitariis.

bush with hard narrow leaves and globular fruit the size of a rifle-ball, proved to be a new *Capparis*.* Thermometer, at daybreak, 35°; at 9 P. M., 38°.

2*d July*.—Returning with two men and Yuranigh to the valley where I had been yesterday, I followed it downwards, and soon found that it widened very much, and contained large dry ponds, with the traces of a deep current of water at some seasons. At length, the rocky precipices seemed to recede, and formed occasionally bold headlands of most picturesque outline. Two, that towered above the woods before us, resembled pyramids, and I saw an open country beyond them, from which other summits of extraordinary form seemed to emerge. Yet we had found no moisture in the ponds, and lamented that a country, in every other respect so fine, should be without water. Further on, I perceived reeds in the hollow of the valley, and Yuranigh said there must be a spring, upon which he walked in amongst them, but still found the earth dry. The reeds at length covered an extensive flat, and looked, at the lower part of the flat, so green, that I sent Corporal Graham to examine that point. He emerged from the reeds with a face that, at a distance, made Douglas, my other man, say, "He has found water." He had found *a running stream*, to which he had been guided by its own music, and taking a tin pot, he brought me some of it. The water was clear and sparkling, tasting strongly of sulphur, and Yuranigh said that

* *C. loranthifolia* (Lindl. MS.) ramosa, inermis, ramulis tomentosis, foliis lineari-oblongis obtusis coriaceis glabris sesquipollicaribus aveniis, pedunculis solitariis axillaribus tomentosis foliis brevioribus, stipite duplo longiore, fructu sphærico tuberculato glabro.

this was the head of a river that *never dried up*. In this land of picturesque beauty and pastoral abundance, within eighty miles of the tropics, we had discovered the first running stream seen on this journey. I returned, determined to bring the party thus far, and with the intention of passing that night where we had found water in a rock about six miles back, that we might sooner reach the camp next day. At that spot we had also the benefit of a cavern, before which, a good fire being made, we defied the frost of a very cold night, the thermometer having been registered at the camp, at 3 A. M., as low as 7°. In the scrubs we had passed through in the morning, a variety of the *Acacia podalyriifolia*, with grey velvety leaves, was scarcely in flower; and I observed a beautiful new species of *Stenochilus* with large tubular flowers.* The *Acacia falcata* appeared also on the sandstone ground above the gullies, and a broad-leaved form of the *Eremophila Mitchellii*. The moon shone brightly, and the rock being full of silver mica, the splendour of the scene imparted to my eye and mind then a degree of gratification far beyond any associations of the richest furniture of a palace. We found it impossible to get our horses to the water; but we hit upon an expedient which answered even better than a bucket, — my Mackintosh cloak.

3*d July*. — In returning, we looked for a good line of approach, and found an easy way for the carts to

* *S. curvipes* (Benth. MS.) glaber, foliis lanceolatis integerrimis basi in petiolum angustatis pedicellis recurvis, calycis foliolis latis acuminatis, corollæ glabræ ventricosæ laciniis acutis inferiore ultra medium solutâ. — Flowers large and thick on recurved pedicels 4 to 6 lines long. Calycine leaves broader than in all the other species.

descend into the valley. On arriving at the camp, I learnt that a large pond had been discovered in a rocky part of the river, about a mile below our camp. Thermometer, at sunrise, 14°; at noon, 60; at 4 P. M., 61°; at 9, 26°. Height of camp above the sea, 1800 feet. (XLII.)

4th July.—The clouds had gathered, and it rained heavily this morning. Nevertheless, the party moved off, crossing the river where the banks had been cut to facilitate the passage. With Yuranigh's assistance we hit upon an excellent line of route, availing ourselves of a grassy valley descending from Mount Faraday, just so far as to avoid the rocky crooked part, and then crossing and cutting through a piece of scrub directly to the point of easy ascent, we thus made a good road into the valley, and arrived in good time, notwithstanding the rain, at the rock of my bivouac. The night-sky cleared up, and I found our latitude (by Arcturus) to be 24° 54′ 12″ S. Thermometer, at sunrise, 43°; at 4 P. M., 49°; at 9, 38°. Height above the sea, 1437 feet. (XLIII.)

5th July.—Another frosty night succeeded the day of rain, and froze our tents into boards, not easily to be packed up this morning. We proceeded along our horses' track, and the beautiful headland which appeared quite isolated, and just such as painters place in middle distance, I named Mount Salvator. We encamped on a slight elevation of the right bank of the reedy rivulet, near the pyramids. Our prospects had suddenly brightened, when instead of following chains of dry ponds, we had before us a running stream, carrying life and nourishment towards the country we were about to explore. The whole aspect of the country seemed new to us. The

Sir T. L. M. del. (Camera Lucida)

Longman & Co 1848.

Day & Son, Lith.rs to the Queen.

barometer showed we were rapidly descending, and I expected that our living stream would soon join that greater stream, the basin of which I thought I could trace in the line of mist seen from Mount P. P. King on the 28th June. The course of this river, unlike the others, curved round from N.W. towards north, and having its origin in mountains equidistant between Cape York and Wilson's Promontory, it was reasonable to suppose that we had at length crossed the division between northern and southern waters. That between eastern and western waters was still to be discovered, and in a country so intricate, and where water was so scarce then, the course of rivers afforded the readiest means of determining where that division was. If the general course of this river was found to be to the eastward of north, we might safely conclude that the dividing ground was on the west or to the left of our route; if to the westward of north, it might be to the eastward, or on the right of our route, and this seemed the more probable from the line of a river flowing north-westward, which I had seen the valley of, from Mount P. P. King. Latitude 24° 50′ 2″. S. Thermometer, at sunrise, 16°; at noon, 50°; at 4 P. M., 49°; at 9, 38°. Height above the sea, according to sixteen observations, 1421 feet. (XLIV.)

6th July.—A number of small bushes of *Cryptandra propinqua* appeared amongst the rocks; back from the valley, and in the woods below, we found an acacia, apparently, but distinct from, *A. decora* (Reichb.) *var. macrophylla;* it approached *A. amœna*, but the stem was less angular, and the phyllodia bore but one gland. A large tree with long hoary leaves, and flat round capsules, proved to be a fine new

Bursaria, at a later season found in flower. See October 10th.* A Loranthus also was found here, which Sir William Hooker has since described.† Travelling along the bank of this stream, we found it flowing, and full of sparkling water to the margin. The reeds had disappeared, and we could only account for the supply of such a current, in such a country, at such a season, by the support of many springs. We made sure of water now for the rest of our journey; and that we might say of the river "Labitur et labetur in omne volubilis ævum." The hills overhanging it surpassed any I had ever seen in picturesque outline. Some resembled gothic cathedrals in ruins; others forts; other masses were perforated, and being mixed and contrasted with the flowing outlines of evergreen woods, and having a fine stream in the foreground, gave a charming appearance to the whole country. It was a discovery worthy of the toils of a pilgrimage. Those beautiful recesses of unpeopled earth, could no longer remain unknown. The better to mark them out on my map, I gave to the valley the name of Salvator Rosa.‡ The rocks stood out sharply, and sublimely, from the thick woods, just as John Martin's fertile imagination would dash them out in his beautiful sepia landscapes. I never saw

* *B. incana* (Lindl. MS.); arborea, inermis, foliis oblongo-linearibus supra glabris subtus incanis, paniculâ terminali tomentosâ, floribus distantibus.

† *L. subfalcatus* (Hook. MS.); ramis dichotomis patentibus, foliis oppositis linearibus lineari-lanceolatisve obtusis subfalcatis glabris trinerviis, floribus axillaribus binis arcte pendentibus brevissime pedicellatis, calycis contracti cylindracei ore dilatato, petalis 6 linearibus glaberrimis supra medium coalitis.

‡ "His soul naturally delighted in scenes of savage magnificence and ruined grandeur; his spirit loved to stray in lonely glens, and gaze on mouldering castles."— *Allan Cunningham* (*the Poet*).

Plate V

anything in nature come so near these creations of genius and imagination. Where we encamped, the river was very deep, the banks steep and muddy, so that the use of a bucket was necessary in watering the cattle. Notwithstanding every precaution, one animal walked into the river, and could not be got out without great difficulty. The only fish we caught in this river were two enormous eels, beautifully spotted. Large shells of the *unio* genus lay abundantly on the banks, about the old fires of the natives. These were larger than either those found on the Darling, or those of the Maranòa; and although such freshwater mussles seem to have but one shape, a peculiarity in these was pointed out to me by Yuranigh, who said they much resembled the impressions left by a black-fellow's foot, (which is much broader at the toes than at the heel). We here met with a new species of *Boronia*, resembling *B. anethifolia*, of which many varieties afterwards occurred. It grows about two feet high, and had solitary pale purple flowers.* A new species of *Acacia* with straight, oblong, shining leaves, also grew here.† In the valley we found *Erechtites arguta*, a weed resembling European groundsel; on the rocks, a small slender shrub with white flowers; and in the sandy scrub, the *Leucopogon*

* *B. bipinnata* (Lindl. MS.) glabra vel pilosa, foliis bipinnatis pinnatisque, foliolis linearibus subteretibus obtusis, floribus subsolitariis axillaribus foliis brevioribus 8-andris.

† *A. excelsa* (Benth. MS.) glabra, ramulis subangulatis, phyllodiis falcato-oblongis obtusiusculis mucronulatisve basi angustatis subcoriaceis nitidis multinervibus venulosis eglandulosis, pedunculis solitariis geminisve capitulo dense multifloro brevioribus vel brevissimis. Very near *A. venulosa*, Cunn.; but smooth, the phyllodia shining, 2 to 3 inches long, 6–9 lines broad, the flower heads usually almost sessile.

cuspidatus formed a small shrub. Thermometer, at sunrise, 16°; at noon, 50°; at 4 P. M., 49°; at 9, 38°. (XLV.) Height above the sea, 1270 feet.

7th July.—Continuing along the eastern margin of the reeds, we soon found that the river expanded into a lake covered with them, and that in one or two spots there also grew the "Balyan" of the Lachlan, (a bulrush mentioned in my former journals). We listened, and still heard the current of water amongst these reeds. From the margin of this lake the hills, rocks, and woods, on the opposite shore, presented a most charming morceau of picturesque scenery. Our route was through an open forest which skirted the reedy margin, over very firm ground, and in a general direction about north-west. At length we approached the northern limits of the reedy lake, no river being visible flowing out of it, as we had reason to expect. We found there, however, only a dry channel, which bore the marks of a considerable stream at some seasons. Following this dry channel down, I found its course turned to the northward, and even to the north-east. When we were disposed to encamp, I could find no water in the bed, nor were we better off when we had encamped, until Corporal Graham dug between two rocks therein, and, fortunately, found a spring. Thus, in one day vanished the pleasing prospect we had enjoyed in the morning, of a stream flowing in the direction of our intended route. This might be, I then thought, the tributary to a larger river, which I still hoped would be found to flow westward from the coast ranges, and, finally, take the desired north-west direction. Thermometer, at sunrise, 23°; at 4 P. M., 58°; at 9, 25°. (XLVI.) Height above the sea, 1191 feet.

8th July.—Entertaining this opinion, I still should have followed this river down, had I not been impeded by gullies as deep as itself falling into it, and which obliged me to cross to the left bank. There a thick brigalow scrub grew to the very margin, and this was seared by rugged gullies. A deep and continuous channel, entering from the westward, induced me to turn in that direction so far, that I at length determined to penetrate at once, if possible, to the north-west, expecting that there I might intercept our river, if it should turn in that direction, or, if not, cross some range into a more open country. The whole day was lost, however, in toiling through a brigalow scrub. Various water-courses crossed our route, but all descending towards the river we had left. The scrub was so thick that we could only pass where accidental openings admitted us, and by this sort of progress, until within an hour of sunset, I found we had travelled about nine miles, and had gained only half a minute of latitude. Having penetrated, on foot, and with difficulty, about two miles ahead of the party, in pursuing the course of a small water-course, I found that even this turned south-east, evidently to fall into the reedy basin we had previously explored; therefore, I determined on an immediate retreat out of that labyrinth of scrub, back to our friendly river. It was comparatively easy to return through the opening we had made by cutting down much of the brush as we advanced, so that by twilight we reached a good grassy spot about half way to the river, and near it, found some good ponds of water. A pigeon, flying almost in my face, first drew my attention to the hollow where we afterwards found the water. It was in soft mud, however, in which one

of the bullocks got bogged, and could only be taken out by the whole strength of the party dragging him with ropes. Thermometer, at sunrise, 18°; at 4 P. M., 54°; at 9, 25°. Height above the sea, 1241 feet.

9*th July*.— The cattle were so much exhausted by drawing through the scrub, and I had so much to do at my map, that I gave to the cattle and the party, a day's rest. Latitude, 24° 34′ 12″ S. Thermometer, at sunrise, 14°; (in my tent, 18°;) at 9 P.M., 48°.

10*th July*.— Returning, still along our old track, towards a slight eminence, three miles from our camp, I there set the party to work, to cut a way across the gully, which had first obliged me to turn westward. While the men were so employed, I rode about five miles northward, but met with no opening or water-course admitting of a passage in that direction. On the contrary, I returned, on intercepting one running S. E. towards our river. The party had taken all things across when I rejoined them, and we travelled along the left bank of the gully, chiefly through open forest land, until we approached the river. Scrub, and muddy gullies, obliged us to cross the river soon after we reached its banks. Water appeared more abundant in its bed here, and we encamped on the border of a small plain, hemmed in by brigalow scrub, in latitude 24° 33′ 25″ S. Thermometer, at sunrise, 23°; at noon, 58°; at 4 P.M., 62°; at 9, 29°. Height (XLVII.) above the sea, 1192 feet.

11*th July*.— We travelled along the right bank of the river, through a fine open forest, until our route, in a N. E. by N. direction, was again impeded by the river. We had now descended from the upper sources of this river, at least 1000 feet according to the barometer. We had seen, in a large pond, a fish

called mullet, which abounds in the rivers falling to the eastern coast, but which I had never seen in those falling westward. It was also obvious that there was no coast range between us and the coast, and consequently that a very decided break, at least, occurred in it, about the latitude of 25° S. This was more apparent to me on crossing the river, and sending Yuranigh up a tree, about three miles beyond. He could see no mountains to the northward or north-east, but only the high table land already seen to the eastward, in which direction he could trace the course of the river. I hastened back to the party, directed them to encamp, and proceeded with two men and Yuranigh in a N. W. direction, carrying provisions for a long ride. We plunged into the sea of Brigalow —

"—— And we did buffet it,
With lusty sinews throwing it aside,
And stemming it with *jackets all in tatters.*"

After working out our way thus, for about ten miles, our toils were rewarded with a scene of surpassing beauty, that gradually opened to us. That long-lost tree, the graceful Acacia pendula, received us in the foreground, and open plains, blended with waving lines of wood, extended far into bluey distance, beyond which an azure coronet of mountains of romantic forms, terminated the charming landscape.

"Far in the west, the long, long vale withdrawn,"

included columns of smoke, marking out the line of a river, which, with its dark and luxuriant woods, pervaded the whole scene; perhaps the finest I ever had the good fortune to discover. I beheld it from a perfectly clear and grassy hill of rich black soil, on

which we had emerged, through a fringe of Acacia pendula. I could not advance beyond that spot, until I had taken bearings and angles on the peaks and summits before me. To the north-west, an apparent opening, seen between these masses, seemed to indicate the bed of another river. On completing my observations we rode forward across the plain, towards the woody vale, the sun being then near setting. A solitary emu ran towards us, from a great distance, apparently encouraged by the mere appearance of quadrupeds, which, although new to it, seemed to have no terrors for it. I could not allow the men to fire at it, partly, I believe, from a sense of shame that we should thereby appear to take unfair advantage, and prove ourselves more brutal than the quadrupeds, whom nature had indulgently destined to carry us on their backs. The open down we traversed, consisted of rich black mould, in which there was fossil wood in great abundance, presenting silicified fragments so curiously wooden as to be only distinguishable from wood, by their detached and broken character. Such fossils are not uncommon in Australia, on plains of rich black earth, which is a constant concomitant. Their geological history may be simple, and would probably be very interesting, if philosophy could but find it out. We found, further on, a channel full of water, with reeds about the bed of it. There had been a current in it a short time previously, and, indeed, we had seen the remains of recent rain, in some hollows in the Brigalow scrub. The river came from the westward, and thus might have afforded the means of travelling in that direction, had other directions been found impracticable. We made our fire in a hollow near the water, not wishing

either to alarm or attract the natives; and thus we passed the night pleasantly enough, with a large fire before us. Thermometer, at sunrise, 18°; at 4 P. M., 65°; at 9, 30°.

12*th July.*—Returning to the camp, I sought and found, with the assistance of Yuranigh, a more open way through the scrub for our carts, than that by which we had penetrated to the good country. I had directed Mr. Stephenson to examine, during my absence, the western shore of the reedy lake of Salvator, in order to ascertain whether it had any outlet in that direction; but he returned without having reached the base of the remarkable rocky range to the westward; thus leaving it still uncertain, although the direction of the river since discovered, left little reason for supposing that any waters from the valley of the Salvator, could escape to the westward. Thermometer, at sunrise, 11°; in my tent, 15°; at noon, 67° at 4 P. M., 65°; at 9, 35°. Height above the sea, 1107 feet.

13*th July.*—After marking this camp XLVIII., we quitted the river Salvator, and travelled along our track of yesterday, or nearly N. W., but deviating from this track occasionally, where broken ground or thick scrub was to be avoided. The highest part of the scrubby land we crossed, was 1310 feet above the sea. We arrived in good time at the river, where I had previously slept, and there encamped. On the plains adjacent, the *Acacia pendula* grew, as on those near the Bogan; and we saw also various new and curious grasses, and some very singular shrubs in the scrub. The banks of the river were steep, and consisted of soft clay. I employed the party to make a bridge across it, and this was well completed before sunset. Ther-

mometer, at sunrise, 23°; at noon, 65°; at 4 P.M. 68°; at 9, 40°. Height above the sea, 951 feet. (XLIX.)

14*th July*.—Crossing the river, (which I called the Claude), we travelled, first, through an open forest, and then across one of the richest plains I had ever seen, and on which the *Anthistiria australis*, and *Panicum lævinode*, the two best Australian grasses, grew most abundantly. The soil was black; the surface quite level. There might have been about a thousand acres in the first plain we crossed, ere we arrived at another small river, or water-course, which also contained water. We soon reached the borders of other very extensive plains and open downs, apparently extending far to the eastward. On our left, there was a scrub of Acacia pendula. The undulating parts of the clear land, were not so thickly covered with grass as the plains, not because the soil was bad, but because it was so loose, rich, and black, that a sward did not so easily take root and spread upon it, from its great tendency to crack, after imbibing moisture, on its subsequent evaporation. All this rich land was thickly strewed with small fragments of fossil wood, in silex, agate, and chalcedony. Many of the stones, as already observed, most strikingly resembled decayed wood, and in one place the remains of an entire trunk lay together like a heap of ruins, the *dilapidated* remains of a tree! I obtained even a portion of petrified bark; but specimens of this were rare. The elevation of the highest part of these downs, was 1512 feet above the sea.

Crossing an open forest hill, which had hitherto bounded our view to the westward, I perceived a deep grassy valley on our right, sloping towards a much lower country, but I still travelled westward,

in hopes to find an open country, beyond a low woody range on which we had at length arrived. I soon, however, perceived rocky gullies before me, and having halted the party to examine them, I found they were quite impassable. Such an unexpected obstacle, on the horizon of the fine open country, yet *under* that smooth horizon, was certainly as singular as it was unexpected, and I returned to descend into the deep grassy valley I had seen on our right, which seemed open and inviting. We therein also found some large ponds of water, and encamped. While the men were pitching the tents I rode down the valley about two miles, and found that the direction of the water-course was about north-east. Such a direction was not very favourable for us, and I resolved to look at the country beyond the limits of this valley to the westward, before we followed it further. Latitude, 24° 17′ 42″ S. Thermometer, at sunrise, 19°; at 4 P. M., 66°; at 9, 49°. (L.) 1279 feet above the sea.

15*th July*.—Following up a flat which came from the N. W., I proceeded about five miles amid overhanging precipices, until, at length, mighty rocks rendered it quite impossible to push my horse further. Leaving him in a hollow, I ascended a rocky point, which was barely accessible with Yuranigh's assistance, and, on reaching an elevated summit, I saw still worse gullies before us, amongst which I could perceive no feature affording any cue to their final outlet, nor any characteristic of the structure of these labyrinths. I looked in vain for the rugged summits I had seen peeping over the plains when first discovered, and could not then be convinced (as I found long afterwards, on completing my map),

that they were then under my feet. The highest parts seemed to extend south-westward. To cross such a region with our carts, was quite impossible, and I could only return, and, however reluctantly, follow down the valley in which we had encamped, until it should afford access to a more open country. The banks of the water-course were steep, the bottom was sandy. The course was very tortuous, alternately closing on rocky precipices, at each side of the valley. Thus we were obliged to cross at every turning, and the steep banks rendered each crossing a difficult operation, occasioning so much delay, that after crossing ten times, evening obliged us to encamp, although our direct distance from the last camp did not exceed five miles. We had, at each crossing, cut the banks, filled up hollows with logs, &c. The general direction, I ascertained to be N.E. Water was found providentially near the spot, where the approach of night had obliged us to encamp; this having been the first water we had seen during that day's laborious journey. Thermometer, at sunrise, 21°; at 4 P.M., 65°; at 9, 44°.

16*th July*.— After some examination of the valley before us, I considered it best, upon the whole, to travel in the bed of the river itself, and thus avoid the frequent necessity for crossing with so much labour and delay: the sandy bed was heavy for the wheels, and therefore distressing to the animals, and one or two rocky masses obliged us to work out of it, to get round them. The whole day was consumed in proceeding thus about 5½ miles, and in an easterly direction. The closing in of the valley lower down, seemed to shut us from further progress even so, and I encamped, rather at a loss how to proceed. Just

then Mr. Stephenson came to inform me that he had seen, from a rocky point on the left, an opening to the north-west, and level ground beyond it. I therefore determined to accompany him next day, and to reconnoitre the country in that direction. By digging in the bed of the creek, water was again obtained by Corporal Graham. Some extremely fragrant shrubs were discovered in these rocky recesses, especially one, which filled the air with perfume to a great distance around. It seemed to be a *Eucalyptus* without flowers or fruit, but with a powerful odour of balm, and formed a bush five feet high, growing on sandstone rocks, having a narrow leaf, and rather thorny stalk. The lower leaves were also rough.* There was another bush, with leaves of the same shape, and glossy, but having a perfume equally strong of the lime.† We regretted much, that neither the seed, flower, nor fruit of these interesting shrubs could be obtained at that season. In that valley, we saw also the *Daucus brachiatus*, an inconspicuous weed, and *Myoporum Cunninghamii*. The soft leaved *Acacia podalyriæfolia* began to indicate its flowering season, and we found a magnificent new crimson *Callistemon* with its young flowers and leaves wrapped in wool.‡ A new *Dodonæa* with wing-

* *E. melissiodora* (Lindl. MS.); ramis ferrugineo-tomentosis scabris, foliis utrinque papillis rubiginosis scabris ovato-oblongis obtusis supra basim peltatis (floribus fructibusque ignotis).

† *E. citriodora* (Hook. MS.); ramis angulatis fuscis minute tuberculatis, foliis lato-lanceolatis petiolatis pinnulatis patenti-parallelo-venosis viridibus (non glaucis). Sir Wm. Hooker has ventured to name this *Eucalyptus*, though without flower or fruit, from the deliciously fragrant lemon-like odour, which exists in the dry as well as the recent state of the plant.

‡ *C. nervosum* (Lindl. MS.); ramis pallidis, foliis ovato-lanceo-

less, 3-cornered, 3-celled fruit *; a new species of *Aotus*, with narrow hoary leaves †, and one of the forest trees was a splendid new *Geigera*, with broad lance-shaped leaves.‡ The *Platyzoma microphyllum*, a very singular and little known fern, with narrow leaves and small orbicular leaflets, was also there, with the *Acacia falcata*, *Acacia excelsa*, and a shaggy-leaved variety of the *Ajuga australis*, the Australian bugle. The *Brunonia sericea*, with its scabious-like heads of flowers, was common; and the blue flowered *Hardenbergia monophylla* was observed among the grass. Thermometer, at sunrise, 25°; at 9 P. M., 41°.

17*th July*. — Our ride this morning soon led amongst different scenes. By merely turning to the left we came upon a flat, in which another water-course, similar to that we had been tracing (Balmy Creek), came from the west, apparently out of that inaccessible country, across which I had previously looked in vain for a passage. Several other gullies joined this water-course, and seared the flat, which consisted of a deep clay deposit, in almost every

latis quinque-nerviis mucronatis junioribus tomentosis, rachi calycibusque lanatis.

* *D. trigona* (Lindl. MS.); ramulis subpilosis, foliis obovato-lanceolatis parum pilosis integerrimis vel utrinque unidentatis, capsulis 3-locularibus trigonis apteris.

† *A. mollis* (Benth. MS.); undique molliter tomentoso-villosus, ramis erectis-rigidis, foliis sparsis anguste oblongis margine revolutis, calycis vix bilabiati dentibus subæqualibus, ovario breviter stipitato villosissimo. — Near *A. passerinoïdes* Meisn., but differing in the narrow and longer leaves, the calyx and ovary.

‡ *G. latifolia* (Lindl. MS.); foliis ovato-lanceolatis longe petiolatis subtus obscure pubescentibus junioribus convolutis. — This appears to differ from *G. salicifolia* in its long-stalked leaves.

Sir T. L. M. del. T. Picken, lith. Longman & Cº 1843. Day & Son. Lith^rs to the Qu

TOWER ALMOND.

direction. After crossing these, we found a fine broad opening between rocky precipices of most picturesque forms. This gap I called Stephenson's Pass; it led into a spacious glen surrounded on all sides but the N.W. by mountains such as I have described, recalling to my memory the most imaginative efforts of Mr. Martin's sæpia drawing, and showing how far the painter's fancy may anticipate nature. But, at the gorge of this valley, there stood a sort of watch-tower, as if to guard the entrance, so like a work of art, that even here, where men and kangaroos were equally wild and artless, I was obliged to look very attentively, to be quite convinced that the tower was the work of nature only. A turret with a pointed roof, of a colour corresponding, first appeared through the trees, as if it had been built on the summit of a round hill. On a nearer approach the fine tints of the yellowish grey rocks, and the small pines climbing the sides of a hill abruptly rising out of a forest of common trees, presented still a very remarkable object. I named the valley "Glen Turret," and this feature "Tower Almond," after an ancient castle, the scene of many early associations, and now quite as uninhabited as this. Passing through Glen Turret, we ascended the nearest summit on the right, and from it beheld a prospect most cheering, after our toils amid rocky ravines. On the westward, the rocky range seemed to terminate abruptly towards the north, in an elevated point, which seemed to command an extensive view over the unknown W. and N.W. Out of that region two isolated mountain masses arose from an open country, and were clothed with open forests to their summits. Further eastward, masses of mountain

in the extreme distance appeared covered, also, with open forests, and presented finely rounded outlines, not likely to impede our passage, in any direction. But towards the N.W. our view was not so extensive; like the uncertain future, it still lay hid. The retrospect was very extensive, including Mount Faraday in the extreme distance, and which thus afforded me a valuable back angle for the correction of our longitude from any errors of detailed survey. The lofty mass of Buckland's Table Land still overlooked all from the E., and I could here again intersect its three principal points. The view back to the Pass was very fine, for the rocks and wood were so blended on the bold summits, as to present sublime studies for the artist. Far to the westward, an interior line of cliffy range resembled a sea beach, presenting a crescent, concave on that side, apparently the limit to the basin of the Nogoa, and the dividing range between eastern and western waters. Our Pass seemed to be the only outlet through the labyrinths behind us. Even the open plains beyond them were visible in a yellow streak above the precipices. Far beyond these plains, Mount Faraday was distinctly visible, on the horizon of the landscape. Thermometer, at sunrise, 29°; at 9 P. M., 43°. (LI.) 1234 feet above the sea.

18*th July*.—By retracing our horses' footsteps, the carts were soon brought to the base of the same hill; deep gullies in the clay having obliged us to pass close under it, and, indeed, to cross two of its elevated extremities. We found the country beyond, in a N.W. direction, tolerably open, and we encamped in a valley containing abundance of grass, and near to our camp, water was found in a chain of ponds de-

scending to the eastward. A new *Suæda*, with short leaves, and the habit of a dwarf Tamarisk, was found this day.* Latitude, 24° 6′ 47″ S. Thermometer, at sunrise, 31°; at noon, 65°; at 4 P. M., 69°; at 9, 44°. (LII.)

19*th July*.—With the intention to lose no opportunity of getting further to the westward, I travelled on towards the base of the most northern summit of the range in the west; but I was, at length, so shut up by gullies and scrubby extremities near its base and all radiating from it, and becoming very deep, that I took the party aside into a grassy ravine near, where I directed the men to encamp, and hastened myself to the summit. From it, the view westward was not so extensive as I expected. Something like precipitous slopes to some channel or water-course, apparently falling either S. W. or N. E., formed the most promising feature; but, although my object was to have travelled in that direction, the scrub seemed too thick to admit of a passage. Open forest land appeared to the N. E., and there, the gently undulating features, although much lower than the range on whose northern extremity I then stood, seemed nevertheless to form a connection between it and some higher ranges of open forest land, that appeared between me and the coast. Through one wide opening in these, about east, I saw some broken hills, at a very great distance, say seventy or eighty miles. The ridgy-connected undulations formed the heads of some valleys sloping to the south-east, whereof the waters would evidently join those of the Balmy Creek,

* *S. tamariscina* (Lindl. MS.); fruticosa, ramosissima, foliis brevibus cylindraceis imbricatis obtusissimis, axillis lanatis, floribus solitariis sessilibus.

while others, rising on the north-west side, seemed to belong to a separate basin, and to form a river falling to the north-west. This river was indicated only by slopes meeting and interlacing in a valley. To the left or westward of that supposed river channel, a mighty isolated mountain mass shut out any view of the further course of the water of the valley formed between it and these slopes; but, as the very lowest point of the whole horizon, as indicated by the spirit-level of the theodolite, lay in that direction, I determined to pursue that bearing, (10° W. of N.) through the open forest country that intervened. I found that the mountain commanding this view, was elevated 2247 feet above the sea, according to the Syphon barometer, and in using this instrument, I could not forget Colonel Mudge, who had kindly taught me its use; I therefore named that summit Mount Mudge. In the gravel at the base of the hill, were water-worn pebbles of trap and basalt. The rock of which the range itself consisted, seemed to be a calcareous grit, with vegetable impressions, apparently of *Glossopteris Brownii*. On descending to the camp, I was informed that the cattle-watering party came suddenly upon two natives, one of whom was a placid old man, the other middle-aged. Corporal Graham did all he could to allay their fears, and convince them that they were in no danger from such strangers. The elder at length handed his little bundle to the younger and sat down, on seeing the Corporal's green bough; meanwhile the other walked on. When Graham took the old man's hand, and shook it, also patting him on the back, and expressing a friendly disposition only, the poor helpless man of the woods burst into tears, finding himself incapable

of either words or deeds suitable for a meeting so uncommon. They could not relieve him from this state of alarm, so readily as by leaving him sitting, and moving on, which they did. In the scrubs near this camp, Mr. Stephenson discovered a very remarkable tree, apparently a casuarina, having long drooping leaves, hanging like long hair from its upper boughs*; and in the stony gullies a *Dodonæa* allied to *D. salsolifolia A. Cunn.*, from Van Diemen's Land, but the leaves slenderer, and three or four times longer.† Although we were approaching the tropics, the weather was most cool and pleasant. A delicious breeze played amongst the woods, and welcomed us to the Torrid Zone. Until now, during every clear night the air had been frosty. Latitude, 24° 6′ 50″ S. Thermometer, at sunrise, 34°; at noon, 68°; at 4 P.M., 61°; at 9, 47°.

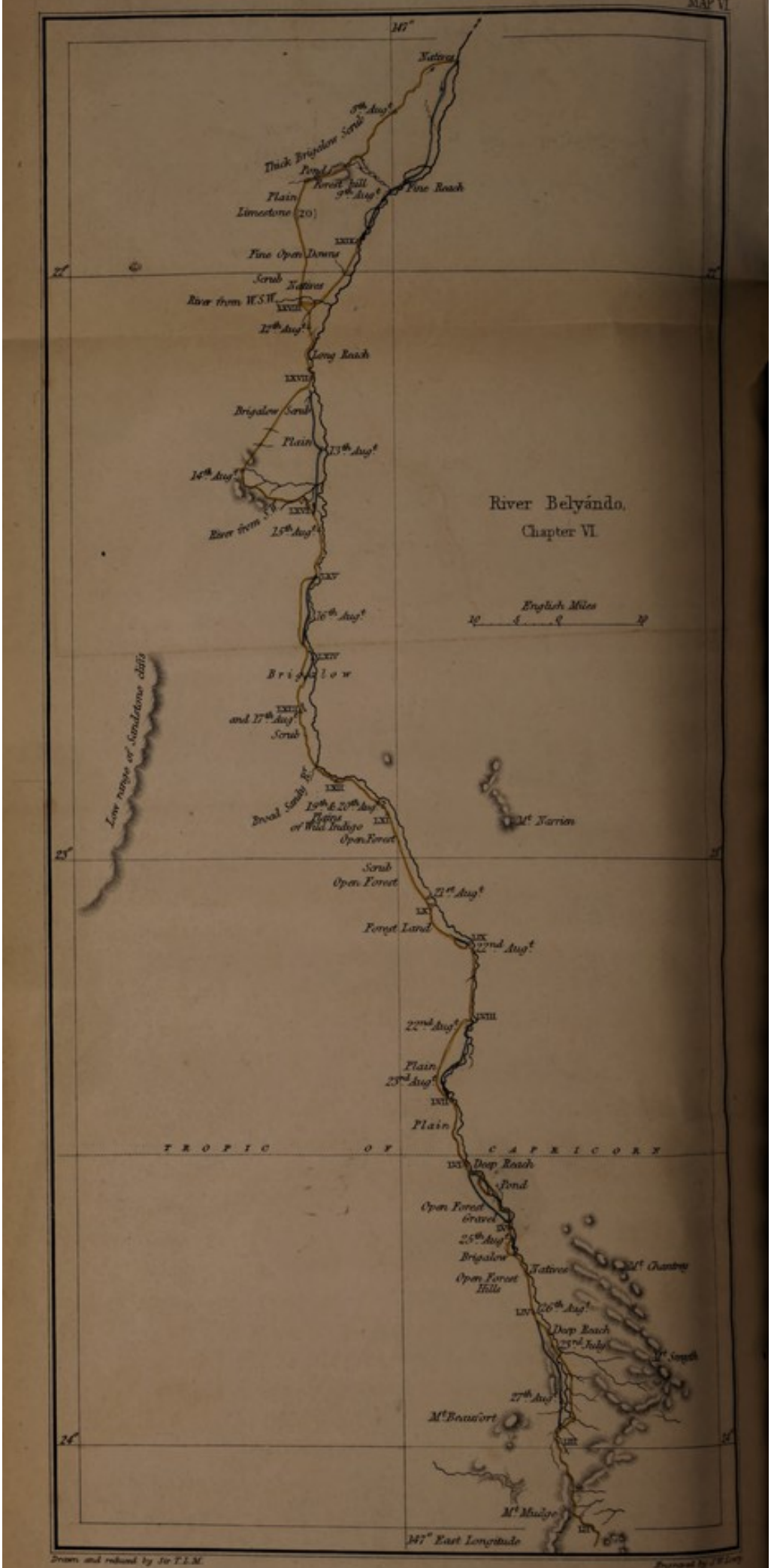
* See page 285.

† *D. filifolia* (Hook. MS.); foliis sparsis ramis binis ternisve lineari-angustissimis elongatis subrugosis viscosis glabris utrinque canaliculatis falcatis, fructibus trialatis.

CHAP. VI.

The party descends into a valley falling northward. — Comes upon a chain of ponds. — The head of the river Belyando. — Follow it down, through much brigalow. — Water scarce at first, in its bed. — Range of hills visible to the eastward. — Cross the Tropic of Capricorn. — Mount Narrien. — Open plains, west of the river. — Water more plentiful. — New plants discovered. — Dry channel of a large river joins from S. W. — Cross it and proceed N. W. — From a height obtain a view of the northern horizon. — Much brigalow scrub traversed. — Reach the river by moonlight. — Follow the channel more closely. — Come upon large reaches of water. — Another dry channel joins from W. S. W. — Ride of reconnaissance beyond it, to the north-west. — Cross fine downs. — Limestone in a thick scrub. — Enter thick brigalow. — Night without water. — Next day meet with the river. — Its course being eastward of north, determine to return. — Natives. — Retrace our track to the Pyramids, in order to explore more to the westward. — Prepare to depart, with two men and Yuranigh. — Write despatch to the Colonial government.

20*th July*. — After a little trouble with the gullies and brigalow scrub, on first setting off, we came upon fine undulating open forest land, and crossed many a gully and small water-course, all declining towards the N. E. A very remarkable flat-topped hill appeared on our right, resembling a wart, on one of these ridges; to the northward it was precipitous, and seemed to consist of a very red rock. At length, after crossing a ridge rather broader than the rest, with some brigalow scrub upon it, and one or two specimens of that tree of solitary places, the bottle



Drawn and reduced by Sir T.L.M.

Engraved by J. W. Lowry

Longman & Co. 1848.

tree, (*Delabechea*) we arrived at valleys and water-courses descending to the southward of west, into a valley turning to the N.W. One, at length, on our right, taking the direction in which I was proceeding, viz., 10° W. of N., I followed it down, and thus entered a broader valley leading N.W. Following this, on a wide flat of open forest, we found at length a fine pond of water in it, and encamped beside it, after a journey of about twelve miles. This valley seemed to continue to the base of the lofty isolated mountain already mentioned, where a lower valley crossed it, falling either to the northward or southward. This I left in pleasing uncertainty until next morning, for I had remarked in that locality, when I stood on Mount Mudge, a long line of grey mist running north and south. I named the large mountain beyond that valley, Mount Beaufort, in honour of my scientific friend at the Admiralty. Thermometer, at sunrise, 40°; at noon, 66°; at 4 P.M., 73°; at 9, 62°. (LIII.)

21*st July*.—On following downwards the chain of ponds and broad valley, we came upon the bed of a river, running to the N.N.E. We gladly turned in that direction, and after it had received various tributaries from the south, I found it took the course I had foreseen it must from Mount Mudge. We saw water in the channel, and now again I believed that we had at length discovered the head of a north-western river. The soil consisted of firm clay, and tributaries occasionally impeded our journey. We got amongst brigalow scrub, and could find no water in looking for the channel of the river, which we knew must still have been on our left. Ponds in the scrub could not easily be identified as channels. I met with no better success on turning to the left, and

encamped amongst the brigalow, where I found some grass. On riding westward I came upon arid stony ground, on which many of the trees were dead, apparently from drought, and so near the Tropic such a scene was by no means encouraging. On turning my horse, he trod on an old heap of fresh water-mussles, at an old fireplace of the natives. This was a cheering proof that water was not distant, which was further indicated by the flight of two native companions, from the N.W. We had encamped on a flat of clay, on which salsolaceous bushes, such as grew on similar plains on the Bogan, had been growing, but were then all withered from drought. The very grass seemed parched and useless. I never saw vegetation so checked by drought. A longer continuance was likely to kill all the trees, and convert the country into open downs. I determined, before I ventured further, to send the cattle to a pond four miles back, next morning, and to examine the country before us. Latitude, 23° 48′ 36″. Thermometer, at sunrise, 57°; at noon, 69°; at 4 P.M., 75°; at 9, 48°.

22*d July*.—Having sent bullocks, horses, and sheep back to the water, I went forward on the bearing of 30° W. of N. I soon fell in with the united channel of the river, and found in it abundant ponds of water, the direction of the course being as favourable as could be wished. From these ponds I perceived a clear hill to the westward, which I hastened to ascend, and from its summit I beheld some fine mountains to the northward, although an easterly wind and sea air brought a haze over them, which soon obscured some of my points. But I saw enough to relieve me of all anxiety at that time about the want of water. A promising valley from the moun-

tains in the eastward, came due west, and from it arose the smoke of many natives' fires. Lines of other rivers, from other ranges, were partly visible beyond, until the haze obscured the outlines of mountains still more remote. The bright prospects of this morning were a pleasing contrast to the temporary difficulties of yesterday. Such is human life in travelling, and so it was in war at Salamanca this day thirty-four years back. We encamped after a short journey on the bank of the river. Latitude, 24° 46′ 46.″ Thermometer, at sunrise, 49°, at noon, 74° ; at 4 P. M., 73° ; at 9, 64°. (LIV.)

23*d July*.—The water in the adjacent pond was trodden into mud, so that none remained for the horses and bullocks this morning. Accordingly, on arriving at a pond about two miles on, we gave water to all, that they might better bear the privation in the afternoon, should we not fortunately find more. The river had a singular tendency to spread into little channels within a belt of brigalow scrub. The little holes formed by these channels were almost all dry, while the withered state of the grass, and even of the forest trees, showed that rain had long been due, and we therefore hoped some would fall before our return. When we had travelled about twelve miles, keeping as close to the river line as the scrub would permit, and crossing one or two fine rising grounds covered with a very open forest, and consisting of large gravel, I found a pond, and encamped near it, on a plain of almost naked clay. Amongst the water-worn pebbles, of which the rising ground consisted, there were, besides the ingredients of the Barwan gravel, many of trap and basalt. Very old and dry grass only, could be had for the cattle. In the pond were small fishes of

a different form from any we had seen, having a large forked tail, only two or three spikes in the dorsal fin, and a large jet-black eye within a broad silvery ring. Mr. Stephenson found three crabs, apparently identical with those about the inlets near Sydney. Latitude, 23° 37′ 51″. S. Thermometer, at sunrise, 46°; at noon, 73°; at 4 P.M. 80; at 9, 55°. (LV.)

24*th July*.—The morning was overcast by heavy clouds, and the air was balmy and mild, reminding us of the spring season near Sydney. Lightning had been seen to the northward during the night. In following the little wayward channel downward, we met with much brigalow scrub, and crossed two apparently important tributaries. In one of them was a good large pond. We had some trouble with an ana-branch, resembling the main channel, which we had twice to cross at a distance of two miles. With the last tributaries, plains and an open forest country became neighbours to the river; and where we encamped beside it, no scrub was to be seen, and the water lay in a deep broad reach, nearly half a mile in length, with ducks upon it. Towards evening, the unwonted sound of thunder was heard in the west, reminding us, at this season of the year, that we were near the Tropic. In the same direction, two distant storms exhausted themselves, and most likely giving birth to young grass where they fell. During the night, much thunder was heard, and also early next morning, to the northward. Latitude, 23° 31′ S. Thermometer, at sunrise, 56°; at noon, 75°; at 4, P. M., 82°; at 9, 66°. (LVI.)

25*th July*. — There was no hill or other geographical feature near our route, whereby it might have been possible to mark there the limit of Tropical

Australia. We were the first to enter the interior beyond that line. Three large kangaroos hopping across a small plain, were visible, just as we entered these regions of the sun. The air was extremely fragrant; the shrubs and grass being still moist with the thunder-shower. The course of the river continued favourable, and the country seemed to improve as we advanced, opening into plains skirted by scrubs of rosewood, and drooping shrubs whose verdure was most refreshing to the eye, after just having passed through dry and withered brigalow. At eight miles a large lagoon appeared on our left, on which we saw many ducks, and at nine miles we encamped where the grass seemed good, finding that water was at hand now, in the river bed, wherever we required it. Latitude, 23° 25′ 26″ S. Thermometer, at sunrise, 45°; at noon, 77°; at 4 P.M., 85°; at 9, 53°. (LVII.)

26*th July*.—The river appearing to pursue a W. N.W. course, I set out in that direction, attracted there, also, by some open plain separated by scrub from the river. We travelled on, a good many miles, when, instead of the firm clay, we found, under foot soft, red sand, and trees of the genus callitris growing in close thickets. I turned to the northward, and travelled many miles to the eastward of north, without seeing any indications of the river, whose general course had been previously straight. Scrubs of almost every description lay in our way. Brigalow, rosewood, casuarina, a thick light-green scrub of a close-growing bush, new to us, and some scrubs of the tree as yet undescribed for want of flowers or fruit, although well known to us as a graceful, and, indeed, useful bush; of which, as an impediment, we

could not much complain; and useful, as forming excellent whip-shafts. This is the tree of unknown fruit figured in my former journal. At length, when it was growing late, I travelled eastward to make sure of the river, and, at length, regained its banks, where we found in its bed plenty of water. The surface looked bare, and the grass dry; but this day I discovered green shoots amongst it, evidently the product of recent rain, and indicating the approach of spring. On sandstone rocks, we found a plant which Sir William Hooker terms "a singular Euphorbiaceous (?) plant *, destitute of flower and fruit. Branches very thick, and they, as well as the long petioles and underside of the leaves clothed with dense white wool. Leaves a span long, cordato acuminate; the laminæ all pointing downwards, glossy green and glabrous above. Also a new *Dodonæa*, with very narrow, linear, pinnated leaves. The only hills visible, from a tree ascended by Yuranigh, during this day's journey were those to the eastward, already seen. None appeared above the horizon in any other direction. Thermometer, at sunrise, 39°; at noon, 79°; at 4 P.M., 89°; at 9, 75°. (LVIII.)

27*th July*. — The same characteristic, still distinguished our river; a variety of channels, so concatenated amongst brigalow scrub, much whereof lay dead, that it was scarcely possible to ascertain whether there was any main channel. Hitherto, I had not detected one; but this was of little consequence to us, so long as these ponds contained abundance of water. This

* *D. tenuifolia* (Lindl. MS.); glaberrima, viscosa, ramulis angulatis, foliis impari pinnatis: foliolis 3—5-jugis linearibus obtusis subalternis.

we saw in many parts of our route this day; for I kept as close as possible to the river's course, to avoid such detours as that of yesterday, and being very anxious about the river's general direction, I was glad to find it turn somewhat westward of north. After travelling thus about nine miles, I perceived a blue pic nearly due north, which I named Mount Narrien; and Yuranigh saw from a tree, that there was a range in the same direction, but very distant. This seemed likely not only to send down some additional waters to our river, but also to turn it westward. Entering, soon after, upon a plain of good grass, I looked for water; and, on finding some, encamped after a journey of about eleven miles. Latitude, 23° 9′ S. Thermometer, at sunrise, 43°; at noon, 83°; at 4 P.M., 90°; at 9, 53°. (LIX.)

28*th July*. — The brigalow scrub, still a concomitant of our river, so hemmed in the patch of plain, that I was obliged to move out of it, in a southerly direction. Even thus, however, the scrub was not to be avoided, and we were obliged to force a way through, where the still more formidable impediment of much fallen timber, rendered it almost impossible that our vehicles could pass. This dead wood seemed peculiar to that sort of brigalow, and appeared to remain unburnt, chiefly from the usually naked surface of the ground where brigalow grows. I left the party, when brought almost to a stand, and sought for a more open part, by riding northward. This rather singular river seemed to have spread over a considerable extent of surface, and much of the brigalow, however fond of water, appeared to have died of too much, on spots which had been flooded. I traversed a plain, beyond which

I found, what seemed there, the main chain of ponds or channel. There was a fine reach of water, and beside it, were the still smoking fires, water-vessels, &c., of a tribe of natives, who had disappeared. On the plain, the remains of decayed stumps of brigalow showed that there also, this tree had once grown, and that the openings were caused only by such trees perishing; as if, according to seasons, the half-dead scrub might either give place to open downs, or, that the plains might, by long succession of regular seasons, become again covered with scrub. I returned to the party halted in the scrub, and conducted it through an opening I had found, to the plain, and across it, in a N.W. direction; where, after passing through some open forest, we had again to contend with brigalow. One of the many dry channels assisted us much in seeking openings, as the bottom then consisted of smooth, firm, clay. A pond, however, obliged us to quit it, and seek our way through the wood. We arrived next at slightly undulating ground, and finally entered an open forest, where I saw the *Loranthus subfalcatus* of Sir William Hooker. I made Yuranigh climb a tree, from whence he again saw the pic seen yesterday, (the bearing of which I ascertained), and also a gap appeared in the range beside it, through which, as he thought, a river was likely to come down. The extreme westerly escarp of these hills bore 17° E. of N., so that nothing was likely to impede the continued course of our friendly river in the direction we wished. The scrub we met with on the rising ground, consisted of the verdant bushes in rosewood scrubs, and we next found brigalow all dead, with a rich crop of grass growing amongst the dead stems.

I had never seen grass, amongst brigalow, when in a healthy state. On turning northward, we next entered upon an open plain covered with good grass mixed with verdant polygonum. I selected a corner of this plain, nearest to the river, for my camp; and, on approaching its bed, found water as usual, near some old huts of the natives. Latitude, 23° 5′ 20″ S. Thermometer, at sunrise, 44°; at noon, 82°; at 4 P. M., 88°; at 9, 58°. (XL.)

29*th July*. — The scrub between our camp and the river, admitted of easy access from it to open forest ground, over which we travelled in a N.W. direction for several miles. Belts of scrub, consisting of rosewood and other acacias intervened, and, in some parts, *Triodia pungens* grew in the place of grass. But, upon the whole, the country was fine, open, park-like, and with much anthistiria, and other grasses in which a greenness was observed quite novel to us, and unexpected in these tropical regions. Amongst the shrubs, we recognised the *Cassia heteroloba*, a small yellow-flowered shrub; also a glutinous Baccharis-like plant, and a form of Eremophila Mitchellii, intermediate between the two other varieties. This was a shrub ten feet high. Another new species of the genus *Geijera* formed a tree twenty feet high, with long slender weeping branches. It was otherwise much like the *Geijera parviflora*, except that its flowers were larger.* A dwarf shrub belonging to the genus *Stenochilus*, but new, was found here †;

* *G. pendula* (Lindl. MS.); ramis gracilibus pendulis, foliis linearibus in petiolum sensim angustatis 5 uncias longis cum ramo parallelis.

† *S. salicinus* (Benth. MS.); foliis lanceolato-linearibus integerrimis apice subuncinato ramulisque canescentibus, calycis

and we met also with a large spreading tree, from which we could bring away nothing that would enable botanists to describe it, except as to the texture and nervation of the leaves, which, Sir William Hooker observes, resemble *Capparideæ;* but the fruit appeared to be sessile, and was too young and too imperfect to lead to any satisfactory conclusion. The very crows cawed differently from those near Sydney, or, (as Yuranigh observed) "talked another language." This river was not the least unique of our recent discoveries. It still consisted of a great breadth of concatenated hollows without any one continuous channel, and this character seemed to be preserved by various trees growing in the banks. When their large roots became denuded by the floods, or were washed out, or partially gave way, so that the tree fell over the stream, they presented impediments, first to the floating-wreck, and, next, to the water itself: when that collection of floating wreck became consolidated with muddy deposit, new banks so formed forced the river into new currents, working out new courses; and this appeared to give the peculiar character so uniformly observed. It seems extremely favourable for the retention of water in a country where it may be scarce; for the many ponds so formed and shaded from the sun, preserve it much better and longer, than if one continuous unobstructed channel alone, received and carried off, the water of the surface. I found the hollows we saw this day drier

foliolis brevibus lanceolatis, corollæ puberulæ inferne attenuatæ laciniis obtusis infimâ retusâ vix cæteris magis solutâ. — Very near *S. pubiflorus*, but much whiter, the flowers smaller with the lobes much more equal, the lower one much broader.

than usual; but we at length succeeded in discovering three good ponds. The foliage of the trees, with dry and naked water-worn roots, presented all the hues of an English autumn, although none of these were deciduous. This effect I was disposed to attribute to unseasonable drought, or past heat. The weather we had was delightful; for, although the thermometer in the shade rose sometimes to 90° about 4 P.M., the heat of the Bogan was still fresh in our recollection; and the frosts which, not above three weeks before, had disturbed our sleep, made this degree of heat as welcome as the flowers in May. Latitude, 22° 55′ 35″ S. Thermometer, at sunrise, 38°; at noon, 80°; at 4 P.M., 85°; at 9, 51°. (LXI.)

30*th July*.—The scrub of the river being likely to surround us, I endeavoured to pass it, and cross the river, but on examination I found the brigalow belt beyond, so serious an obstruction, that I adhered to the left bank still, and proceeded N. N. W. The woods opened into extensive plains covered with wild Indigo, as high as a horse's head, and that was skirted by a plain covered with rich grass. Beyond these, we entered an open forest where the anthistiria grew luxuriantly. I saw, from the skirts of the plain, the mass of mountains partly seen in the east for several days past, and I was able to intersect various points. We seemed to be descending to a very low country. A fine large lagoon, covered with ducks, appeared on our right. The whole country was improved both as to grass and trees. The *Myoporum dulce*, a shrub about five feet high, was perhaps a distinct species intermediate between *M. dulce* and *M. deserti*. It had the habit of the latter, but the leaves nearly of *M. dulce*. A hollow at

length indicated the river bed near us. It contained abundance of transparent water, a continuous channel, rocky bed, and, instead of brigalow, there grew on its banks a thick crop of strong grass, and much verdure. A tributary from the west cost us some trouble to cross, and soon after crossing it, I encamped. The course this day had run well to the westward. We had crossed the 147° of E. longitude, and I was very anxious to learn more of the further course of this river. I crossed it, and hastened to some rising ground, whence I perceived a flat-topped cliffy range extending from S. W. to the N. of west. It was low; the middle part, appearing highest, was probably the nearest to our camp. It was likely to turn our river too far to the northward for our purpose. Latitude, 22° 51′ 55″. Thermometer, at sunrise, 54°; at noon, 82°; at 4 P. M., 83°; at 9, 45°. (LXII.)

31*st July*.—We travelled over a rather different sort of country from that recently seen upon the river. It was still on our right, and ran in a deep, well-marked channel. I pursued a N.W. course, although the range I had seen yesterday lay across it. I thus came upon the bed of a large river from the south, very near where our little river joined it. This new river was there fully 100 yards broad, with a sandy bed. I hastened across it, and proceeded still N.W. In the bed, just above the junction of the two rivers, I found a large podded pea, the seed both in green pods and dry pods, was very sweet and edible. The pods were larger than those of Turkey beans, and contained each ten or eleven peas (Dr. L.?) Beyond the last found river, we travelled over open forest land, occasionally passing patches of rosewood

scrub on the left. When we might again see water was rather a desperate thought, for we had witnessed our abundant little river, wholly absorbed in a deep mass of dry sand, for such was the bed of the larger. At length we came upon a very spacious dry lagoon. Following this, as it appeared to be the channel of large floods from the river, we arrived at a part containing water, and, still continuing along the hard dry bank, another and another pond appeared, and I finally encamped near the last, where I saw some good grass. The course and character of the river below the junction last mentioned, remained to be ascertained. Parts of the surface in the scrub, which, before the rain, had been quite bare, now presented a crop of lichen, which bore some resemblance to the orchilla. It might have been gathered in any quantity. The ant-hills in this region, presented a different form from any to be seen in the south, consisting of slender cones of hard clay about the size and shape of sugar-loaves on an average, many being larger, or as much as $3\frac{1}{2}$ feet high, others smaller. In some places they were so numerous, as to be rather inconvenient to ride amongst, especially where the grass was long. Latitude of this camp, 22° 44′ 45″. Thermometer, at sunrise, 52°; at noon, 70°; at 4 P. M., 69°; at 9, 43°. (LXIII.)

1*st August.*—Supposing that this line of lagoons led to the river, I followed that direction westward, until it disappeared where we came upon the water brigalow. Then, turning northward, I travelled many miles in that direction, through rosewood scrubs, and over ground where the very coarse hard grass grew on red sand. The callitris and casuarina appeared amongst the trees. On a spot rather clear

of wood, Yuranigh went to the top of a callitris tree, and saw a lofty mountain somewhat to the eastward of north, and he thought he could trace the trees marking the course of the river to the westward of it. Further westward, the low range already mentioned, was still visible, and he saw that the country between the two ranges was very "deep," as he termed it, meaning very low. Upon the whole, there was reason to believe that the river pursued a course, somewhat to the westward of north. I turned in that direction, and forced our way through scrub and brush, until, after cutting through much fallen brigalow, I entered upon good grassy land, and saw the large Yarra trees before me. These grew by the river, which here looked very important, having a bed wider than that of the Barwan, with sloping grassy banks at least sixty feet high, and Yarra trees growing from the lower margin. Continuing along its banks, we soon found various large ponds of water, and in the short course of it we had to trace before we encamped, the direction was S. W. Many curious plants and trees now appeared about the banks. A rough-leaved fig tree with well-formed woolly, globular fruit; an *Alteranthera*, with very large balls of satiny white flowers, resembling *A. nodiflora;* the *Acacia Farnesiana*, a prickly tree; the narrow-leaved smooth variety of *Acacia holosericea;* and in the bed of the river, the *Acacia Simsii* (Cunn.) A broad-leaved form of *Loranthus nutans* was parasitical on trees, and the *Eurybia subspicata* of Sir W. Hooker also grew on the upper bank. A very extraordinary *Capparis* was here observed in fruit. Its leaves were as much as eight inches long, although not more than three quarters of an inch wide, and

their hard leathery texture gave them the appearance of straps. It did not afterwards occur.* The water in the river was excellent. Thermometer, at sunrise, 23°; at noon, 65°; at 4 P. M., 69°; at 9, 44°. Latitude, 22° 38′ 40″. (LXIV.)

2*d August.*—We had approached this fine river over a park-like plain, but lower down we found the banks lined with scrub. I pursued a N.W. course in passing through it, and emerged on plains and open forests alternating with scrubs. The scrubs were remarkable, as always involving dry hollows where water had lodged. The clay was then hard; but, in all these hollows, the deep impressions of naked feet of men, women, and children, remained since the bottom had consisted of mud. These numerous receptacles for water, when it is sent, attest the wisdom with which even the clods of the valley have been disposed for the benefit of the animal world. The day's journey was long, and chiefly through that sort of scrub. I was disappointed in my hope of falling in with the river, by travelling N.W. Yuranigh descried from a tree, the continuation, far to the westward, of the low range that had been already seen from a former camp. Its direction had then appeared to be nearly N. and S. The turn the river had taken westward was, therefore, favourable to my hopes, that it would continue in that direction. Its general course was found to be nearly northward. On the other hand, the high ranges in the E. seemed to terminate abruptly towards the N., so that a very

* *C. umbonata* (Lindl. MSS.); inermis, glaberrima, foliis coriaceis longissimis loratis obtusis in petiolum sensim angustatis, pedunculis solitariis (2 poll.) stipite brevioribus, fructu ovoideo umbonato.

low country appeared to be to the northward of our position then, stretching from 40° N. of W. to 40° E. of N., a full quarter circle which the course of the river almost bisected. After travelling twelve miles without seeing any thing of the river, I reluctantly turned N.E., and then E., and in the last-mentioned direction, I hit the river where it contained a fine reach of water. In the dry part of the bed, grew various curious plants in flower, all quite new to me; a species closely allied to the *Acacia deliberata* (Cunn.), and a very fine silky leaved *Trichodesma*.* A new *Velleya* was also found near this camp.† In the scrubs back from the river, the *Stenochilus curvipes* was loaded with its long tubular flowers. A small species of Acacia was perhaps a variety of *A. leucadendron* Cunn.; and we found also a curious scrubby species of *Jacksonia*.‡ Latitude, 22° 30′ 10″ S.

* *T. sericeum* (Lindl. MSS.); caule erecto sericeo setis nullis, foliis oppositis lineari-lanceolatis basi angustatis sericeopilosis, pedicellis pilosis lateralibus longis, calycis lobis lanceolatis pubescentibus basi pilosis, nucis dorso polito maculato.—Near *T. zeylanicum*, but quite distinct.

† *V. macrocalyx* (De Vriese MSS.); foliis omnibus radicalibus, oblongo-spathulatis acutis, integris, membranaceis, remote, minute et obsolete dentatis, uninerviis, glabris, subdecurrentibus, glabris; scapis radicalibus elongatis, folia vix exæquantibus; bracteis dichotomiarum vel trichotomiarum binis ternisve lanceolatis acutis vel lineari-lanceolatis, floribus 2—3nis; calycibus (involucris) ternis, magnis, membranaceis, ovatis, ellipticisque, acuminatis, basi cordatis, petiolatisque; antheræ liberæ, stigmatis indusium maximum ciliatum, labiis compressis, cochleariforme.—Folia sunt 6—12 cent. longa, 3 cent. lata, crassinervia; scapi adscendentes, inferne tenuiores, sursum parum elongati.

‡ *J. ramosissima* (Benth. MSS.) inermis, ramis angulatis ramosissimis glabriusculis, floribus subsessilibus, calycis colorati profunde divisi laciniis duabus supremis diù vel omnino cohærentibus, legumine subsessili ovato-acuto ventricoso.

Thermometer, at sunrise, 29°; at noon, 61°; at 4 P. M., 69°; at 9, 40°. (LXV.)

3d August.—Our carts had been so much jolted about and shaken, in crossing the dead timber yesterday, that I resolved to keep along the river bank this day, if the ground and woods permitted. To a certain distance from the banks, there was less fallen timber, as the natives had been accustomed there to make their fires, and roast the mussles of the river, and other food. The river was found to spread into separate channels, in which I did not readily recognise it, until I found them again united in a splendid reach of water under steep banks. The general course was by no means promising, being somewhat to the E. of N.; it was much to be apprehended that this river, too, would run to the E. coast, and become another instance of the utter want of any knowledge of the interior country, that still may prevail, long after complete surveys have been made of the lines of coast. Again we came upon wide fields of polygonum, and tracks of open forest with large lagoons. Then scrubs of brigalow obliged us to travel in the river bed, as the only open part where we could pass. That surface consisted of clay iron-stone, denuded by torrents, and the "*disjecta membra*," of a river. Ponds, water-worn banks, and timber, alive and dead, were there intermixed. Emerging from these obstructions, as from a feverish dream, we entered upon park-like scenery and good grass. The latter had been a desideratum during the last two days. We next came upon a river containing plenty of water, and coming from the N.W. I expected this would terminate our

journey along the other, and I encamped on discovering it, after a journey of ten miles. The Australian rivers have all distinguishing characteristics, which they seem to possess from their sources to their termination. That we had just quitted, had a great affection, like its upper tributary, for brigalow scrubs, and spreading into ana-branches. This last discovered river seemed quite the reverse of all this. Its channel was very uniform; the banks being covered with open forests and good grass. The bed was sandy, but contained water in abundance, so that I hoped it would lead us to higher regions, by following it upwards, to where other waters might fall in the direction of the Gulf. This river contained the Harlequin fish of the Maranòa in great abundance. Yet we had found none of these in the river to which this was a tributary, but, on the contrary, two other sorts. There was much novelty in the trees and plants. One tree in particular, growing in the bed of the river, had the thin white shining bark of the tea-tree (mimosa), and drooping leaves shaped like those of the eucalyptus; a *Hibiscus* allied to, if not the same, with *H. Lindleyi*, but not in flower; a *Cassia*, perhaps *C. coronilloides* in ripe fruit, or at least closely allied to it, occupied the dry sandy ground with *Monenteles redolens*, a silvery-headed weed; and some Cinchonad allied to Coffea, with young fruit, the size of small olives. Latitude, 22° 23′ 10″. Thermometer, at sunrise, 21°; at noon, 59°; at 4 P. M., 64°; at 9, 37°; with wet bulb, 28°. (LXVI.)

4*th August.*—We had still so much westing to make, in order to hit the head of the Gulf, that I was disposed to follow up the new river in any direction

that did not take us much to the S. The river, however, was soon found to come from the S.W. and S., so that I was obliged to cross it. I then travelled W. through open forest three miles, which brought us to undulating ground. I then turned to the W.N.W., and proceeded over ground equally open and favourable for the passage of our carts. At length, a hard ferruginous conglomerate rock, projected from the surface, and clumps of thick brigalow grew on some of the summits. On one piece of rising ground, I found a mass of rocks, a few feet higher than the rest, and from it I perceived a continuation of the slightly elevated flat-topped range, to the southward and westward. A somewhat higher but similar sort of range appeared in the east, beyond a very broad and level woody country, through which it was probable that our first-found river still pursued a northerly course. Beyond that flat, and further to the eastward, the same hills already seen were still visible, and others northward of them, just like them. There was a high summit beyond all these bearing about E. I could not discover any satisfactory line to follow in the country thus partially visible, and as the sun was near the horizon, I only continued, to go forward to a valley wherein I hoped to have found water, but was disappointed, the soil being too sandy and absorbent. There we nevertheless encamped, in Lat. 22° 19′ 45″ S. On this day's journey, I saw two of the rose-coloured paroqueets of the Barwan, none of these birds having been seen by any of the party since we crossed the Culgoa. A fragrant stenochilus, with leaves smelling exactly like mint, was found this day, and a splendid banksia in flower, also a new

*Melaleuca.** Thermometer, at sunrise, 23°; at noon, 58°; at 4 P. M., 63°; at 9, 29°; with wet bulb, 18°.

5th August. — The last-found river not having answered my expectations, we had come quite far enough from the one we had previously followed, which still might have turned N.W., where we wished it to go; although I confess the prospect was by no means promising. The doubt was still to be removed, and, after a night passed without water, the earliest dawn saw us again going forward, in a direction a little to the eastward of N. It was only after pursuing that line for seventeen miles, that we again found the river, unchanged in character, and still running northerly. This was a trying day for our animals, as they could not be watered until long after it was dark; a brigalow scrub, full of much fallen timber, having retarded and impeded the carts so that they could not be got to the water sooner. Nor had this been possible, even then, but for the fortunate circumstance of our having the light of a nearly full moon. I had preceded the party by some miles, accompanied by Yuranigh, the rest following my horse's tracks, and I had thus passed through the four miles of scrub, and reached the river early in the day. On returning, we found the party in the midst

* *M. tamariscina* (Hook. MSS.); ramosissima ramulis gracillimis copiose excavatis e foliis delapsis, foliis rameis remotis parvis ovatis acuminatis appressis, ramulinis minutissimis squamæformibus convexis obtusis imbricatis immersis, capsulis circa ramos spicatis parvis globosis. — A very singular *Melaleuca*, somewhat allied to *M. Hugelii*, Endl.: but extremely different in the very minute squamiform leaves of the copious slender branchlets, from which they fall and leave the bleached slender branchlets full of little pits or cavities in which the leaves had been, as it were, sunk.

of this scrub, and succeeded in guiding it, even by moonlight, to the pond at which we had watered our horses during the day. Many dry hollows of indurated mud appeared, as usual, in the brigalow we had passed through; and we endeavoured to lead the carts, as much as possible, through these hollows, in order to avoid the dead logs, many of which we were obliged to cut, before the carts could pass. Many deep impressions of natives' feet appeared in these clay hollows; also the tracks of emus. Yuranigh showed me several tracks where a native had been following a kangeroo's track; and he told me of a certain method adopted by the natives of killing the kangeroo during wet weather, — which is, to pursue the track, following it up day after day, until they overtake the animal, which, on being so incessantly followed, becomes at length so defenceless, that one native can despatch it with a tomahawk. According to the barometer, it appeared that this river was not now much higher above the level of the sea, than the Bogan or the Balonne. Still it spread into many channels and isolated ponds; the latter being sometimes in good grassy land, apart from the brigalow. Nothing could be more sterile than the surface where the brigalow grew; but the first indication of the river was an open space covered with luxuriant grass, and we had to ride two miles along this, before Yuranigh and I could find the river, having been guided to it chiefly by some smoke of the natives. At the first place we approached, we found two ponds of excellent water, under the shining boughs of lofty Yarra trees. Latitude, 22° 10′ 15″ S. Thermometer, at sunrise, 39°; at noon,

64°; at 4 P. M., 61°; at 9, 36°;—with wet bulb, 28°. (LXVII.)

6*th August.*—I gave the jaded cattle a day's rest, and the men thus had an opportunity to screw up and repair their carts.

7*th August.*—The brigalow scrub obliged me this day to travel along the river banks, upon which I found it pleasant to go, as they proved open and grassy. Large lagoons and reaches of water appeared in the scattered channels. At length, a deep broad reach, brim full of pure water, glittered before us. Clouds of large ducks arose from it, and larger water-fowl shrieked over our heads. A deep receding opening appeared to the north-east, as if our river had been either breaking off in that direction, or met with some important tributary from that side. I continued to travel north-west, passing through some fine open forests. The character of the country seemed changed. The grass was of a different kind, and a refreshing breeze from the north-east seemed to "smell of water," as Yuranigh expressed it. The dense line of Yarra trees appeared still to be continuous on the right, and the more I travelled westward, the more I was convinced that we still had the river at hand. We did at length approach its banks after a journey of ten miles, when we found this was a river *from* the west appearing fully as deep and important as the one we had been following, and containing ponds of water. This new tributary from the west, left no room to hope that the channel we had been pursuing would turn westward—on the contrary, it became but too probable that below the junction of this river, the channel would turn towards the N.E. It could not well be doubted that

this went to the eastern coast; but, to remove all doubt, as Yuranigh was of a different opinion, I sent Corporal Graham with him up the newly-found river, to ascertain whether it did not come from the north-west, in which case we could not expect that the other it joined would go in that direction. Their report on returning, only rendered it necessary that I should take a ride forward next morning. They said this river came from the S.W., and at two miles higher, had a very narrow channel. Lower down, it was found to join the main channel, which, below the junction, still continued northward. There, we found a beautiful new Grevillea.* The *Stenochilus pubiflorus* formed a willow-leaved shrub about twelve feet high, and in the sandy bed of the river was an *Euphorbia* very near *E. hypericifolia*, but with narrower leaves, and the ovary pubescent not glabrous. The *Dodonæa vestita*, with its hairy foliage and large shaggy fruits, clothed the sandstone surface back from the river.† Latitude, 22° 2′ 15″ S. Thermometer, at sunrise, 30°; at noon, 78°; at 4 P. M., 77°; at 9, 55°; — with wet bulb 49°. (LXVIII).

8*th August*. — With two men and Yuranigh, I pro-

* *G. Mitchelli* (Hook. MSS.); appresso-subsericesa, foliis pinnatifidis bipinnatifidisque, laciniis angustissime linearibus elongatis marginibus arcte reflexis subtus concoloribus, racemis elongatis secundis densifloris, floribus subverticillatis, perianthiis pedicellisque tomentosis, folliculis oblique ovatis tomentosis sessilibus, stylis glabris.—Allied to *G. chrysodendron*, Br., but the segments of the leaves are narrower, not golden-coloured beneath: the flowers are entirely secund: a splendid species.

† *D. vestita* (Hook. MSS.); tota densissimè pilosa, foliis pinnatis pinnis oppositis 4—5-jugis cuneatis apice lunulato-emarginatis vel incisis, rachi articulatâ articulis obovatis, capsulis profundis tetrapteris villosissimis.

ceeded first, northward by compass, for some miles, when I emerged from scrub, upon fine open downs covered with a crop of excellent grass. The soil was soft and rich, the grass *Panicum lævinode*. Small clumps of Acacias were strewed over these downs, which were very extensive, and from them I saw several rather high hills to the eastward, terminating abruptly over a low country to the northward. Supposing that the main channel would there turn round to the eastward, I proceeded north-west to examine the country. I soon entered a thick scrub of rosewood and other Acacias. I remarked the *Callistemon nervosum*, previously seen (July) with rich crimson flowers, forming a large tree, in the dry open forest, with perfectly green spikes; also, on the branches of Eucalypti, a beautiful orange coloured *Loranth*. The soil was rich, yielding, and rather bare of vegetation. Nodules of variegated limestone, or marble, appeared on the surface, showing that the improvement in the soil was owing to a change in the rocks under it. Again emerging on open plains, the country seemed to fall northward, which induced me to ride again in that direction, thinking we might meet with some river either coming from the N. W. or leading there. The open plains terminated upon a hollow full of trees, growing, as was very evident, on a lower surface. The hollows resembled those of brigalow scrub, and we soon found this tree in full possession of them. Dry channels, leading in various directions between N. W. and E. engaged my attention throughout the afternoon: indeed, they seemed interminable. At length, we detected some continuity in the hollows, leading towards the N.N.E. Yarra trees at length appeared in it, abundance of grass on

the banks, and deep dry ponds. Two crows hovering over one, raised our hopes that it contained water, as we also perceived a line of green vegetation over the margin. It was deep and full of water. Here, about 4 P. M., we were thus enabled to water our horses, and continue our ride independently of finding more water that evening. We next perceived an open forest hill on our right; but, on examining the country from it, we saw no immediate indications of the river. On re-entering the brigalow scrub, the continuity of ponds was very indistinct, and I at length lost it, as it seemed, on its turning off to the eastward, a direction in which I was unwilling to follow it at that time. I threaded the mazes of another chain of hollows, which turned in various directions between N. W. and 20° N. of E., the latter being the general course. During this unsatisfactory sort of exploration, night overtook us, where the dry and naked clay presented neither grass nor water. Our horses had come thirty miles, and it was only after considerable search, in the dark, that I found a grassy spot for our horses, and where we tied them up, and lay down to pass the night.

9th August.—We saddled them as soon as day broke, and proceeded again into the scrub; but the hollows took no longer any continuous channel, and I again travelled N. W., in which direction I entered upon a plain. Thence I perceived a low flat, and a line of trees beyond it, very much resembling those of a river, and towards this I hastened, and found the river we had followed so far, unchanged in character. The scattered ponds, and nearly northerly course, were legible proofs of its identity. We watered our horses and took some breakfast, after

which, while engaged laying down our route, one of the men observed some natives looking at us from a point of the opposite bank. I held up a green bough to one who stood forward in a rather menacing attitude, and who instantly replied to my signal of peace by holding up his bommareng. It was a brief but intelligible interview; no words could have been better understood on both sides; and I had fortunately determined, before we saw these natives, to return by tracing the river upwards. Our horses had been turned loose, the better to allow them to make the most of their time while we breakfasted. Graham got them together while I was telegraphing with the natives, some of whom I perceived filling some vessel with water, with which they retired into the woods. We saddled, and advanced to examine their track and the spot they had quitted, also that they might afterwards see our horses' tracks there, lest our green bough and subsequent return might have encouraged them to follow us. Yuranigh was burning the mutton bones we had picked; but I directed him to throw them about, that the natives might see that we neither eat their kangaroos nor emus. I found the course of the river very straight, but rather more than it had been, to the eastward of north. In some parts of the channel, lay deep reaches of water, fully a mile long; at other places, shallow hollows quite dry, seemed to be the only channel for the river's currents. We avoided brigalow scrubs, and passed the night on a grassy part of the bank, about ten miles back from the farthest point we had reached that morning.

10*th August.*—Early in the morning a moist breeze blew from the north, with low scud not very high above the trees. Higher clouds drove as rapidly from

the westward. The extremely moist air was a great novelty to us there. About 9 A.M., the sky was wholly overcast; but it finally cleared up, and the day was cool. We reached the camp about 3 P.M., having hit the river on which it was situated, two miles lower. There I found, to my surprise, that its channel was very deep and full of water, being broader than that of the main river. I was, therefore, inclined to explore its sources by proceeding upwards next day, as the direction of the northerly stream, did not promise much. The camp had just been visited by seventeen natives, apparently bent on hostile purposes, all very strong, several of them upwards of six feet high. Each of them carried three or four missile clubs. They were headed by an

old man, and a gigantic sort of bully, who would not keep his hands off our carts. They said, by signs, that the whole country belonged to the old man. They pointed in the direction in which I had gone, and to where Mr. Stephenson happened to be at the time, down in the river bed; and then beckoned to the party that they also should follow or go where I had gone, or leave that place. They were received very firmly, but civilly and patiently, by the men, and were requested to sit down at a distance, my man Brown, being very desirous that I should return before they departed; thinking the old man might have given me some information about the river, which he called "Belyando." But a noisy altercation seemed to arise between the old chief and the tallest man, about the clubs, during which the latter again

came forward, and beckoned to others behind, who came close up also. Each carried a club under each arm, and another in each hand, and from the gestures made to this advanced party, by the rest of the tribe of young men at a distance, it appeared that this was intended to be a hostile movement. Brown accordingly drew out the men in line before the tents, with their arms in their hands, and forbade the natives to approach the tents. "Nothing damps the ardour of troops so much," says General Lloyd, "as an unexpected obstacle at the moment of attack," and these strong men stood still and looked foolish, when they saw the five men in line, with incomprehensible weapons in their hands. Just then, our three dogs ran at them, and no charge of cavalry ever succeeded better. They all took to their heels, greatly laughed at, even by the rest of their tribe; and the only casualty befell the shepherd's dog, which biting at the legs of a native running away, he turned round, and hit the dog so cleverly with his missile on the rump, that it was dangerously ill for months after; the native having again, with great dexterity, picked up his club. The whole of them then disappeared, shouting through the woods to their gins. It was remarkable that on seeing the horses, they exclaimed "Yerraman," the colonial natives' name for a horse, and that of these animals they were not at all afraid, whereas they seemed in much dread of the bullocks. That these natives were fully determined to attack the white strangers, seems to admit of no doubt, and the result is but another of the many instances that might be adduced, that an open fight, without treachery, would be contrary to their habits and disposition. That they did not, on any occasion, way-

lay me or the doctor, when detached from the body of the party, may perhaps, with equal truth, be set down as a favourable trait in the character of the aborigines ; for whenever they visited my camp, it was during my absence, when they knew I was absent, and of course must have known where I was to be found. The old man had very intelligibly pointed out to Brown the direction in which this river came, *i. e.* from the S. W., and I therefore abandoned the intention of exploring it upwards, and determined to examine how it joined, and what the character of the river might be, about and below that junction, in hopes I might still obtain an interview with the natives, and learn something of the country to the north-west. Thermometer, at sunrise, 59° ; at noon, 82° ; at 4 P.M., 81° ; at 9, 62° ;—with wet bulb, 59°.

11*th August.*—Crossing this river at a favourable spot near our camp, we travelled on, eleven miles, and encamped early, on a fine reach of the main river. Here I had leisure to lay down my late ride on paper, and to connect it with the map ; whereupon I concluded, with much regret, that this river must be either a tributary to, or identical with, that which M. Leichardt saw joining the Suttor in latitude 21° 6′ S., and which he supposed to come from the west. It had supplied me with water across three degrees of latitude, and had gradually altered its course from N.W. to about 30° E. of N. In my ride I had traced it to 21° 30′ of latitude south, and no high land had appeared, as I expected, to the northward, at all likely to turn its course towards the west. I found the height of its bed, moreover, to be so little above the sea (not much more than 600 feet), that I could no longer doubt that the division between

eastern and western waters was still to the westward; and I arrived at the following conclusions:—

1st. That the river of Carpentaria should have been sought for to the westward of all the sources of the river Salvator.

2nd. That the deepest indentation as yet discovered of the division of the waters, was at the sources of that river, and corresponded with the greatest elevation indicated by the barometer (about 2500 feet); and,

3dly. That there, *i. e.* under the parallel of 25° S., the highest spinal range must extend westward, in a line of truncated cones, whereof Mount Faraday appeared to be one.

I accordingly determined to retrace our wheel-tracks back to the head of the Salvator, and to explore from thence the country to the north-west, as far as our stock of provisions and the season would permit. I had marked my camps by Roman letters cut deep in sound trees, and at this, I left the number LXIX. cut under the initials of the colony, N. S. W.; this being the number marked from the Culgoa. We had, at least, laid out a good carriage road from the colony to a river in M. Leichardt's route; which road, as far as we had marked it with our wheels, led through pastoral regions of much greater extent than all the colonists now occupied. At this farthest point traced by our wheels within the Tropics, the plants were still known to botanists, but with some interesting exceptions. We here found the *Cassia heteroloba* in flower; also the burr plant, *Calotis cuneifolia* of Brown; the *Pittosporum lanceolatum* of A. Cunningham, a shrub with yellow flowers and narrow willowy leaves; and the beautiful laurel-leaved *Geigera latifolia* was

still conspicuous among the forest trees. But here also we found a very fine new species of *Stenochilus**, a new pine-leaved *Dodonæa*, allied to the *D. pinifolia* of Swan River †, and a most singular hard-leaved shrub, with spiny foliage resembling five pointed stars, proved to be a new species of *Labichea*.‡ Thermometer, at sunrise, 36°; at noon, 71°; at 4 P.M., 70°; at 9, 35°;—with wet bulb, 30°.

12*th August*.—I reluctantly ordered my men, (who believed themselves on the high-way to Carpentaria,) to turn the horses' heads homewards, merely saying that we were obliged to explore from a higher point. The track already marked out by our party advancing, was so much easier for the draught animals, as requiring less driving, that they arrived at an early hour again at the river they formerly crossed, and travelled with ease three and a half miles further back to a lagoon, on the banks of which the grass was good, and where we therefore now encamped. The track of the large feet of the natives showed they

* *S. pubiflorus* (Benth. MS.) foliis lanceolato-linearibus elongatis integerrimis apice subuncinato novellis ramulisque tomentellis mox glabratis, calycis foliolis lanceolatis, corollæ pubescentis inferne attenuatæ laciniis oblatis infima breviter soluta.—This agrees pretty well with Brown's short diagnosis of *S. longifolius*, as well as with Cunningham's specimens so named; but those have no corolla, which Brown also had not seen, and his is a south coast plant. (Another new species with leaves like this, but very different flowers, was gathered by Sir T. Mitchell in his former expedition.)

† *D. acerosa* (Lindl. MS.); foliis tenuibus acerosis subfalcatis glandulosis, corymbis axillaribus paucifloris folio brevioribus, capsulis tetrapteris alis apice rotundatis.

‡ *L. digitata* (Benth. MS.) ramulis tomentellis, foliis subsessili bus, foliolis 3—5-digitatis lineari-oblongis spinoso-mucronatis coriaceis reticulatis terminali cæteris vix majore, antheris parum inæqualibus conformibus.

had followed us this morning, from our camp of yesterday; and a fragment of burning wood they had dropped, showed that they had this day met us in the scrub as we returned, and had gone out of our way. Even to the lagoon, their track along our route was also plainly visible. I was now, apparently to them, at their request, leaving the country; and we should soon see if their purpose in visiting our camp was an honest one, and whether their reasonable and fair demand, was really all they contemplated on that occasion. Thermometer, at sunrise, 37°; at noon, 70°; at 4 P. M., 71°; at 9, 65°.

13*th August.*—We continued back, along the old track, to beyond Camp LXVII. I then took the direction of the camp two stages back, in order to avoid the great detour formerly pursued; the camp without water, and the thick brigalow. All these we successfully avoided, passing over fine open forest land, and encountering no brigalow. We found the river on our left when we required it, and encamped on a plain near the water, and distant only a few miles from the camp two journies back from LXVII. I was guided by the bearing of 10° E. of N. We found much of the grass on fire, and heard the natives' voices although we saw none. We crossed some patches of dry swamp where the clods had been very extensively turned up by the natives, but for what purpose Yuranigh could not form any conjecture. These clods were so very large and hard that we were obliged to throw them aside, and clear a way for the carts to pass. The whole resembled ground broken up by the hoe, the naked surface having been previously so cracked by drought as to render this upturning possible without a hoe. There might be about two acres in the patch we crossed, and we

r e eived at a distance, other portions of the ground in a similar state. The river had, where we made it, a deep well-marked channel, with abundance of clear water in it, and firm accessible banks. It was still, however, enveloped in a narrow belt of brigalow. The shepherd having most imprudently taken the sheep to water when it was near sunset, lost his way in the scrub, and could not be found all night. Some thought he had fallen into the hands of the aborigines who were closely watching us; and it was obvious that had they got possession of our sheep, they could have annoyed us very seriously, or indeed, destroyed the whole party. The night was very dark, the sky having been overcast. Thermometer, at sunrise, 56°; at noon, 61°; at 4 P. M., 60; at 9, 60.

14*th August.*—Drizzling rain this morning with an easterly wind, and high barometer, reminded me of the coast rains of Sydney. At dawn, I sent Yuranigh with one of the men, both being mounted, in search of the shepherd, and they returned with him and the sheep about 8 A. M. He had been found in full march to the eastward, where he never could have fallen in with the party. His track, circling in all directions, had soon been come upon by Yuranigh in the scrub. We then proceeded, and still found a way clear of brigalow, which, once or twice during the day, seemed almost to surround us. At about seven miles from where we had encamped, we crossed the first discovered tributary from the S. W., and at a mile further on, we fell in with our old track, travelled two miles more along it, and then encamped beside a fine reach of the river. The drizzling rain continued, and I hoped the ponds at the higher range, towards which we were returning, might be replenished

by still heavier rain. An unpleasant smell prevailed every where this day, resembling that from a kitchen sewer or sink. Whether it arose from the earth, or from decayed vegetable matter upon it, I could not form any opinion; but it was certainly very different from the fragrance produced by a shower in other parts of New South Wales, even when it falls only on sunburnt grass. It was equally new and unaccountable to Yuranigh. Two proteads, probably *Grevilleas*, were found here.*

15*th August.*—We continued to return along the old track until we arrived at Camp LXV., taking the direction of the river's general course, (7° E. of S.). I travelled along its banks several miles, endeavouring to cut off a detour we had previously described. The river, however, obliged me to go so far to the westward, that I met with my former track, about midway between the two camps. We soon left that track, crossing a strip of brigalow and a rich grassy plain; beyond which, I found the river, and encamped about 3 P. M., when the rain again came on, the morning having been, until then, fair, although the sky was cloudy and overcast. Thermometer, at sunrise, 57°; at noon, 64°; at 4 P. M., 66°; at 9, 60°;—with wet bulb, 58°.

16*th August.*—The sky still clouded, seemed to promise rain in the country to which we were returning. We came to the channel of the main river, after proceeding about three miles in the direction of a turn in our route beyond next camp. The

* The one with singularly thick, firm, and rigid leaves, a foot long, linear attenuated at each extremity, pubescenti-sericeous, striated: the other with white acerose leaves pinnated in two pairs. Both were large forest trees, neither in flower nor in fruit.

channel here was broad, and occasionally filled with a good body of water. The bed was sandy, and in it grew a tree with thin loose white bark, resembling that of the mimosa or tea-tree of the colony; some of these trees were of large dimensions. There also grew, in the sandy bed of this river, a new white-flowered *Melaleuca*, resembling *M. ericifolia*, but with long mucronate leaves*; and, in the scrubby bank the *Stenochilus bignoniæflorus* formed a willow-like shrub fifteen feet high. We again came came upon our track where I intended to hit it, although we had been retarded by brigalow scrub. We thus left Camp LXIV. on the left, and finally again pitched our tents at that of LXIII. Thermometer, at sunrise, 58°; at noon, 65; at 4 P. M., 63°; at 9, 63°;—with wet bulb, 57°.

17*th August.*—The ground was covered in many parts with a lichen, the product of the late rain, and which had no root in, nor attachment to, the soil, but could be collected in handfuls, and lay quite loose in heaps, or rather in a thick layer. I could not comprehend the origin of this singular vegetable production, which might then have been gathered in any quantity. The day was cool, cloudy, and pleasant. Fine round clouds driving still from the eastward, with a high barometer (for this of Bunten stood seven millimetres higher, than it did when we had been formerly encamped on the same ground). On re-crossing the great river from S. W., we found more of the pea with large pods, it seemed to grow only on

* *M. trichostachya* (Lindl. MS.); foliis sæpius oppositis linearibus planis utrinque acutissimis, spicâ terminali laxiusculâ rachi pilosâ, calyce glabro dentibus herbaceis, phalangibus polyandris ungue petalis breviore.

the dry sand of the river bed. This was a most interesting river, and I could have wished much to have explored it upwards, had the state of my horses and provisions permitted. On its banks we had discovered various rare trees and plants seen by us nowhere else; and the pea just mentioned, which had, as Mr. Stephenson thought, valuable qualities as a laxative medicine. The bed of the river was broad and sandy; the banks were quite clear of brigalow or other scrubs, level, open, and in most parts covered with luxuriant anthistiria and wild indigo. We arrived in good time, the way being good, at Camp LXII., and there again established ourselves for the night. It was an excellent spot for the purpose, having plenty of water in rocky ponds, and abundance of grass, half green. The wind lulled, and heavy clouds of stratus appeared in the east, towards evening. Some stars were afterwards visible, and about 9 P. M., a wind from the S. E. suddenly arose, but no rain fell. Thermometer, at sunrise, 55°; at noon, 71°; at 4 P. M., 74°; at 9, 68°;—with wet bulb, 62°.

18*th August.*—The mercurial column was lower this morning, and the sky was overcast. No wind could be felt from any quarter. We moved off, at our usual hour, 7 A. M. About nine, the western portion of the sky seemed loaded with rain; the wind suddenly arose from S. W., and a heavy rain began to fall steadily, to my great joy. The soil consisted of clay, which clogged the wheels, nevertheless, we arrived, without much delay, at a large lagoon, not much more than a mile short of Camp LXI., and there, of necessity, encamped. The rain continued without intermission until the evening, turning the surface around our tents into mud, almost knee deep. Still

I rejoiced in the prospect the rain afforded, of water in the remaining part of our journey; the grand object of which was still to be accomplished, namely, the discovery of an interior river, flowing towards the Gulf of Carpentaria. Thermometer, at sunrise, 51°; at noon, 54°; at 4 P. M., 53°.

19*th August.*—The soft clay was still impassable, but the sun shone brightly in the morning, and was likely soon to put a crust upon the earth. The wind continued, however, in the same quarter, the S. W., and I had thus a little leisure to mature my plan of farther exploration in that interesting country, to the westward of the vale of Salvator Rosa. I had ascertained that the whole of that fine country so named, and all the gullies falling towards it, were on the seaward side of the dividing range, if range there was. That, southward of the high ground under the parallel of 24° or 25°, the fall of waters and of the whole country was towards the south; whereas, northward of that parallel, the fall was so decidedly in the very opposite direction, or northward, that the river we had just explored extended across three degrees of latitude, descending from a mean elevation of at least 2000 feet, to one of only 600 feet above the sea. No river of any importance came from the westward; those we had seen, coming from S. W. What then could be supposed, but that the water-shed on that side was not far distant? Nor was it less reasonable to expect to find beyond it, the heads of a river or rivers leading to the Gulf of Carpentaria. In that nook, where it seemed that the spinal range extended westward in the elongated direction of this great island, and there probably separated from whatever high land extended northward and formed a limit to the basin of

the Belyando, was therefore, to be sought the solution of this important geographical question; one result of which would probably be, the discovery of a river falling towards the north-west, to enter the Gulf of Carpentaria. The exploration of the country to which we were returning was, therefore, of the most momentous interest; and although our cattle were tired, and our time and provisions almost exhausted (the sun being likely to approach the tropic line before we could return to it), I was determined to carry the exploration so far, with whatever means could be spared from the party, even had it been necessary to have travelled on foot, or to have lived, like a native, on opossums, in order to investigate that point. Thermometer, at sunrise, 45°; at noon, 63°; at 4 P. M., 63°; at 9, 47°;—with wet bulb, 44°.

20*th August.* — Heavy clouds promised more rain, but a crust had been formed on the surface which enabled us to proceed. The day cleared up, and we encamped within two miles of Camp LX.; much of the ground passed over having been sandy and dry. We now found water in every hollow, a great blessing brought by the rain, and affording some prospect of relief from one great difficulty for some time to come. At 10 minutes past 10 P.M. a very extraordinary meteor alarmed the camp, and awoke every man in it. First, a rushing wind from the west shook the tents; next, a blaze of light from the same quarter drew attention to a whirling mass, or revolving ball of red light, passing to the southward. A low booming sound, accompanied it, until it seemed to reach the horizon, after which a sound like the report of a cannon was heard, and the concussion was such that some tin pots, standing reversed on a cart-wheel, fell

to the ground, and the boat on the dray vibrated for some minutes. The sky was very clear. Fahrenheit's thermometer 46°.

21*st August*. — Following our former route, the track led us through hollows, formerly clear of the fallen brigalow, but now rendered impassable by water, a new impediment. I was, however, most thankful for the glorious abundance of that element, the want of which had hitherto confined my route, and retarded the exploration of the country. We cheerfully sought round-about ways to avoid these new ponds. Our journey was accomplished very satisfactorily, having made two cuts to avoid the former camp (LX.), which formed an angle in the route, and much bad brigalow near Camp LIX., where we again encamped, for the sake of a piece of good grassy plain near it. The weather was most pleasant, temperate, and Englishlike, though we were still within the tropics. A sweet breeze blew from the S. W., and the degree of temperature was between 50° and 60° of Fahrenheit, the most agreeable, I believe, of any, to the human frame. There was abundance of water, and young grass was daily growing higher; many trees were also beginning to blossom. We were retiring, nevertheless, *re infectâ*, from these tropical regions, and I was impatient to arrive at the great range once more, to resume my explorations. At this camp, we found a plant, which was a wild carrot, tasting exactly like parsley. The men did not like to eat it, from the effects they had recently experienced from eating the large pea already mentioned — violent vomiting and purging; but I had no doubt whatever, that this carrot would have been found a good vegetable. The *Geijera parviflora* again attracted

attention, by the strong pungent odour of its long narrow leaves; and we here observed the *Eremophila Mitchellii*, in the form of a shrub, from ten to twelve feet high. Its wood was remarkable from a perfume like roses.

22*d August.* — The morning was beautiful, our way plainly marked and sufficiently open, although it led wholly through a scrub for twelve miles. Flowers, the product of the late rain, were beginning to deck the earth, and water lodged in every hollow. We arrived early at Camp LVIII., and encamped 300 yards beyond it, to be nearer to a plain of good grass. Thermometer, at sunrise, 25°; at noon, 69°; at 4 P.M., 72°; at 9, 43°; — with wet bulb, 40°.

23*d August.* — The route back to the next camp went too far to the westward; and I therefore endeavoured to make a direct cut back to it. We thus encountered much scrub, and twice crossed the river. A bank, or berg, of water-worn pebbles, appeared on the west side of the river; and, to the eastward, a hill was visible amongst the trees. The river channel was full of water, and seemed to have been even running, with the late rain. The whole journey was through scrub; but this was chiefly of rosewood, which is not nearly so formidable an impediment as brigalow. We encamped on the river bank before we got so far as Camp LVII., at a spot where there was grass, the ground generally about that camp being very bare, although a fresh spring was observable, which would soon alter the case. At this camp I found, on a very low bush with a small leaf, splendid specimens of the fruit of a *Capparis*, in a dry state, containing seeds. A crop of young fruit appeared also on the same

bushes. This must be a very different species from the *C. Mitchelii;* the bush seldom exceeding the height and size of a gooseberry bush, although the fruit was larger than that of the tree *Capparis*, and of a more uniform size and spherical shape. It seemed to grow only within the tropic. Thermometer, at sunrise, 28°; at noon, 73°; at 4 P. M., 75°; at 9, 44°; — with wet bulb, 41°.

24*th August.* — The fine grassy plain had afforded better food for our horses and cattle, than they had seen for some time. Keeping along its eastern side, I continued to travel until I fell in with our former track; and in passing Camp LVII., I caused the letter T to be cut above the letters N. S. W., to distinguish it as our first camp within the line of Capricorn. I left the intertropical regions with feelings of regret; the weather had favoured our undertaking, and water had become abundant. The three last mornings had been frosty; the thermometer having stood on these mornings at 25°, 28°, and 29°, respectively. Many interesting trees and shrubs were just putting forth buds, of which we might never be able to gather the flower for the botanist. We travelled from Camp LVII., along our old track, to Camp LVI., in latitude 23° 31′ 36″ S.; and there again set up our tents, having been exactly one month in the interior of tropical Australia. A pigeon this day arose from her nest in the grass near our route, and Yuranigh found in it two full fledged young ones. These being of that sort of pigeon preferable to all others for the table, *Geophaps scripta*, we took this pair in hopes it might be possible to bring them up, and, perhaps, to obtain from them a domestic brood. This bird seemed to have the shortest beak

of all the pigeon tribe, and flew more clumsily than others. It had three streaks of white about the head, assimilating it to the poultry class; and in building on the ground, it afforded another indication of its resemblance to our domestic birds. The flesh is very white, firm, yet tender. It is, perhaps, the most delicate of all birds. Thermometer, at sunrise, 29°; at noon, 75°; at 4 P. M., 76°; at 9, 46°; —with wet bulb, 42°.

25*th August.* — The former route to this camp having been very crooked from following the course of the river amongst brigalow scrub, I set out on the bearing of the next camp, and reached it by travelling in a straight line, without much impediment, having found tolerably open ground. The blue summits of mountains appearing again above the trees, were welcome to our eyes; and Mounts Beaufort and Mudge reminded me of the Persian proverb, "The conversation of a friend brighteneth the eyes." We encamped a mile on, from Camp LV., for the sake of better grass than we had left formerly at that camp. The hills adjacent consisted of gravel; and amongst the large water-worn pebbles, of which it consisted, I found basalt and trachite, neither of which rocks had been detected by me amongst the gravel of the basin of the Darling. Thermometer, at sunrise, 48°; at noon, 76°; at 4 P. M., 77°; at 9, 52°; — with wet bulb, 47°.

24*th August.* — After cutting off an angle in the old track, and so shortening the way about a mile, we pursued it back to Camp LIV.; which spot we again occupied for the night. The horses were leg-weary; but I could spare no time for rest, otherwise than by making the daily journies short, until we

could return to the foot of the dividing ranges. One of the young pigeons was found nearly dead this morning; but Yuranigh, by chafing and warming it by the fire, soon recovered it. The thermometer had been as low as 38°; but the birds had been kept in a box well covered with wool, and also by canvas. On the hill, southward of this camp, I found one tree, of the remarkable kind mentioned, as having been first seen by Mr. Stephenson, near Mount Mudge. Thermometer, at sunrise, 37°; at noon, 80°; at 4 P. M., 81°; at 9, 44°;—with wet bulb, 40°.

27*th August.*—On reaching a difficult place for the passage of carts along the rocky margin of the river, we took a new direction, more to the right, crossing the clear hill, from which, on the 23d July, I had a view of the mountains to the eastward. Then descending, we came upon plains of firm clay, whereon grew some trees of *Acacia pendula*. The rock in the hills seemed calcarious, and on a detached slab of

ferruginous sandstone, I saw a more perfect specimen of ripple marks than I had ever seen elsewhere, except on the sea-beach.

I had now an opportunity of observing, in the hills forming a low range on my right, or to the westward, that their stratification dipped toward the east, at an angle of about 25° with the horizon; on which side those slopes did not exceed that angle, whereas on the westward, they presented abrupt, precipitous sides, each terminating in two steep sides, forming an angle at the highest point. We encamped on a fine plain on the east side of that range, but westward of the river (beyond which lay our former route), and we found water in a lagoon a quarter of a mile eastward of our camp; also, in a mountain rivulet two miles south of the camp, coming from near Mount Beaufort, and some, very clear, was found in a rocky gully immediately westward of our camp. Still, the bed of the main channel was dry, and we had been obliged to seek for the water before it was found in these several directions. Thermometer, at sunrise, 41°; at noon, 79; at 4 P. M., 82°; at 9, 48°; — with wet bulb 39°.

28*th August.* — The cattle were well refreshed by the grass on the plain: a fresh growth was now apparent in it. We continued to travel due southward over the plain, and through a brigalow scrub beyond it, until we crossed, for the last time, the little river that had led us so far astray. Just beyond it, we joined our old track, at about five miles short of Camp LIII., to which we proceeded, and where we again encamped, although the pond we formerly found there had dried up. We afterwards found a good supply, at a lagoon about half a mile

lower down; from which a little dog of mine (called Procyon), had come out wet, and so made it known to us. Thermometer, at sunrise, 40° ; at noon, 81°; at 4 P. M., 76° ; at 9, 49° ; — with wet bulb, 41°.

29*th August.* — Continuing along the old track, we this day quitted the basin of the Belyando, and ascended those grassy slopes, and that range, which I had formerly taken to be the water-shed of the coast rivers. We thus crossed to the basin of another eastern river, the Nogòa; and, in quitting that of the Belyando, I have to observe, that like most other Australian rivers, it maintained a peculiar character throughout its course, with great uniformity, even after it received tributaries apparently larger than itself. All these lapsed into the same concatenated line of ponds ; at one place, spreading amidst brigalow scrub, at another, forming one well-defined deep channel. For the formation of ponds, and the retention of water, in so dry a climate, we see here something between the ordinary character of rivers, and artificial works which man must construct, when population may spread into these regions. The fallen timber of the brigalow decays very slowly, and is not liable to be burnt, like most other dead wood in open forests, because no grass grows amongst the brigalow, as in open forests. The accumulations of dead logs become clogged with river rack and the deposit of floods; to which floods these heaps present obstructions, forcing the waters into new channels, and, in their progress, scooping out new ponds, and completing the embankment of dead logs; which thus form natural dams and reservoirs to hold, under the shade of the brigalow trees, more water for a longer time than any single river channel

could retain, however sluggish its course. Thus it was, that during a season of unusual drought, we had found abundance in this river's course, across nearly $3\frac{1}{2}$ degrees of latitude. The fallen brigalow presents awkward obstructions to wheel carriages; and, as the river spreads into broad plains, and is very favourable to the growth of brigalow, the difficulty of travelling along this river is greatest, where its waters are most scattered. Experience has taught us, in such cases, to endeavour to follow the river channel as closely as possible (the general course being very straight); and thus, open grassy spots and small plains are frequently met with, beyond which nothing could be distinguished, and from which it is safest to go forward in the known general course of the chain of ponds. We again encamped under Mount Mudge, where I perceived that a projecting portion of white rock on the summit, had fallen since I had stood upon it; and that the avalanche of rock had strewed the woody side of the mountain with white fragments down to the very base. In the sheltered ravine below, a curious new *Cassia* formed a shrub six feet high.* Thermometer, at sunrise, 39°; at noon, 70°; at 4 P. M., 82°; at 9, 56°; — with wet bulb, 50°.

30*th August*. — The old track guided the party, while I preceded it to sketch one or two landscapes. A fine breeze blew from the northward, and goodly

* *C. zygophylla* (Benth. MS.) glabra vel pube tenuissimâ subcanescens, foliolis unijugis linearibus planis crassis, glandula inter foliola parva depressa, racemis petiolo brevioribus 2—4-floris. —Near *C. nemophila* Cunn.; but there appear never to be more than one pair of leaflets, the plant is smoother, the leaflets longer, and the glands different.

clouds seemed to promise rain. I completed my drawings before the arrival of the carts; and on their coming up I conducted them to a spot where we encamped, on the left bank of the creek, or opposite to camp LI., being resolved to seek a better and more direct way to the plains, than that down the bed of Balmy Creek, which we formerly found so difficult. As soon as I had chosen a spot for the tents, I took a ride, accompanied by Mr. Stephenson and Yuranigh, to explore the ravines eastward of that of Balmy Creek, and which led in a more direct line towards the plains of the Claude. We found the precipices in this direction much lower. After riding a few miles, we could ride up one of the points, and following the ridge we had ascended (which was thickly covered with brigalow), we at length got to an open forest, and once more saw the open plains before us. In returning, I selected, with Yuranigh's able assistance, a smaller valley, by which I hoped to succeed in conducting the carts next day, so as to avoid the ascent of the brigalow range. The barometer at this camp had fallen ten millimetres lower than the point at which the mercury stood formerly at the adjacent camp (marked LI.). By the side of the water-course, we found the *Acacia doratoxylon* and also the *Acacia conferta*. The valley was gay with the ultramarine blue flowers of a new species of *Hovea* *; and on rich soil we saw also the *Podolepis*

* *H. leioarpa* (Benth. MS.) fruticosa, foliis anguste oblongis sublanceolatisve integerrimis subtus reticulatis pubescentibus, venis primariis obliquis, pedicellis in pedunculo brevissimo axillari subgeminis calyce longioribus, calyce adpresse tomentoso, legumine glaberrimo. — Not unlike some forms of *H. lanceolata*, but readily distinguished, besides the shorter leaves, by the smooth fruit and

acuminata? D. C. A shrub with long curved leaves and singular zigzag stems, was ascertained to be the *Acacia macradenia*, a very striking new species; and on Balmy Creek we found also a new *Bossiæa*, with deep red flowers.* Thermometer, at sunrise, 59°; at noon, 83°; at 4 P. M., 81°; at 9, 62°; with wet bulb, 54°.

31*st August.*—Some heavy showers fell during the night, and in the morning the sky was wholly overcast. We crossed various formidable gullies, and travelled some way down the bed of Balmy Creek, then ascending by the valley through which I yesterday penetrated in my ride, we travelled southward in a tolerably direct line through the valley up to its highest heads, from one of which we contrived to draw up carts and drays along three traverses, formed by nature on the face of a rocky slope. Above this, we found a plateau of flowering shrubs, chiefly new and strange, so that Mr. Stephenson was soon loaded like a market gardener. He had found in the hollow of the little gulley by which we ascended, a variety of *Acacia decora* with leaves shorter than usual; the *Cassia zygophylla*, a very curious new species; and the *Bertya oleæfolia*, a shrub three feet high, with green flowers. On the top of the plateau grew a singular dwarf shrub, loaded with yellow flowers, and covered by strong sharp leaves resembling

the veins of the leaves, which diverge from the midrib at a very acute instead of a right angle.

* *B. carinalis* (Benth. MS.) ramulis teretibus puberulis foliosis, foliis subsessilibus subcordato-ovatis acutiusculis puberulis, pedicello calyce paullo breviore, corollæ alis vexillo longioribus carinâ multo brevioribus. — The same remarkable proportion of the petals may be seen in an unpublished species gathered by Fraser on the Brisbane river.

the curved blade of a penknife. It has been ascertained by Mr. Bentham to be an Acacia, referable to his *Acacia triptera*. A little upright bush, with glandular leaves smelling strongly of thyme, proved to be a new *Prostanthera*.* The beautiful *Acacia decora* appeared as a shrub four feet high; the *Dodonæa nobilis* was just forming its fruit; the *Dodonæa vestita* was also there; the white flowered *Myoporum Cunninghami* with its viscid branches, formed a bush about four feet high: *Pittosporum lanceolatum* was a shrub about three feet high, with yellow flowers; and here we met in abundance with the beautiful *Tecoma Oxleyi*, a kind of Bignonia, loaded with yellowish-white flowers.

There ended all our troubles with the sandstone gullies, for we soon entered open forests, and crossed a grassy valley gently sloping to the eastward, in whose bosom we found a fine deep rocky pond. Beyond that valley we arrived at open downs of the richest soil, and of an extent not to be embraced by the eye at any one point of view. The finest sorts of grass were fast springing up, and curious herbs were beginning to shoot from the rich alluvium in the vallies. We encamped on these downs, about ten miles from our former camp by the Claude, XLIX.

1*st September*. — The morning clear and frosty;

* *P. odoratissima* (Benth. MS.) viscoso-puberula foliis linearibus sublanceolatisve obtusissimis paucidentatis integrisve crassis ad axillas fasciculatis, floribus paucis axillaribus subsessilibus, calycis labiis integris inferiore minore, antherarum calcare longiore loculum superante. — Near *P. aspalathoides:* leaves two or three lines long, remarkably thick. Calyx strongly ribbed. The specimens found were past flower, having only a few fragments remaining of the corolla and stamens. The whole plant appears very viscid and retains when dry a very strong smell of thyme.

Thermometer 25°. All prospects of rain had vanished "into thin air." The scene now around us was as different as could well be imagined, from that which surrounded us at the same hour yesterday. As we proceeded, we crossed a hill quite clear of trees, which commanded a view over an extent of similar country, large enough for a county. The broken summits, just appearing above the placid horizon of undulating downs, had formerly looked like a range to us, and were certainly highly ornamental to the scenery; but no stranger could have supposed these features to have been only the highest parts of such a broken sandstone country as that from which we had just emerged. The plains, or rather, I should say, downs, for they were nowhere level but everywhere gently undulating, were first seen in white streaks high above us, when we first perceived them through the scrubs. These downs consisted of the richest sort of black mould, on which grew luxuriantly, *Anthistiria* and *Panicum lævinode*. But the surface in general was loose, resembling that of a field after it had lain long in fallow. Herbs in great variety were just emerging from the recently watered earth, and the splendid morning did ample justice to the vernal scene. The charm of a beginning seemed to pervade all nature, and the songs of many birds sounded like the orchestral music before the commencement of any theatrical performance. Such a morning, in such a place, was quite incompatible with the brow of care. Here was an almost boundless extent of the richest surface in a latitude corresponding to that of China, yet still uncultivated and unoccupied by man. A great reserve, provided by nature for the extension of his race, where economy,

art, and industry might suffice to people it with a peaceful, happy, and contented population.

These plains are much higher than the sandstone ravines, and the soil contains not only pebbles, but angular fragments of the knots and fibres of wood in a silicified state, and much encrusted with chalcedony. The component parts of the sandstone in the gullies resemble those of a sea beach. These fragments of fossil wood in rich soils of plains or downs above formations of sandstone, are found in various parts of Australia, and I have seen fossil wood from similar plains in Tasmania. The fossil wood of such plains has no appearance of having been exposed to fire. The *Acacia pendula* grows on the skirts of them, and indicates a salsolaceous soil. These circumstances are obvious to everybody, but no geologist has yet explained to us the causes of such changes as may have produced that rich black mould, on which trees, now silicified, formerly grew; or these wide plains and downs of rich earth, above a red sandstone formation. One has called the interior of Australia a "dry sea-bottom;" but this phrase admits of no easy application to such cases as these. Fragments of a ferruginous conglomerate of water-worn pebbles, apparently identical with those in the basin of the Darling, in some places accompany these angular fragments of fossil wood. We found this day a new *Eriostemon* allied to *E. brevifolium*, with small knobby fleshy leaves*; also a fine new shrubby *Eurybia*.†

* *E. rhombeum* (Lindl. MS.); ramulis pubescentibus, foliis carnosis obtuse rhombeis revolutis subtus glabris, pedicellis terminalibus unifloris tomentosis foliis brevioribus, staminibus pilosis.

† *E. subspicata* (Hook. MS.); foliis linearibus obtusis supra glabris subtus ramisque albo-tomentosis, corymbis terminalibus

Scattered plants of *Bossiæa rhombifolia* also appeared in the adjacent gullies; and *Loranthus subfalcatus* (Hook), was parasitical on trees. We encamped on the margin of the rich plain N. of Camp XLIX, and about a mile distant from it, our draught oxen being very weak and leg-weary. Thermometer, at sunrise, 25°; at noon, 67°; at 4 P. M., 73°; at 9, 44°;—with wet bulb, 40°.

2*d September*.—We recrossed the perfectly level plain formerly mentioned. We found, on reaching the Claude, that our bridge, then made, had been much damaged by a flood. The little river was still running, and it was cheering to learn thus, that rain had fallen at its sources, beyond which, I had still much to do. We lost no time in repairing our bridge, so that all things were got across safely. We ascended the undulating downs along our old track, and where many curious specimens of trees in flint, lay mixed with the rich black mould. I observed that no entire sections of trunks were cylindrical, all appearing to have been compressed so as to present a diameter of two to one. Yuranigh brought me one specimen which he said was "pine;" (Callitris), which so far confirmed what has hitherto been observed of the coniferous character of Australian fossil woods; but, from the appearance of other specimens, I am not at all convinced that these fossils are all of that description. I left these beautiful regions with feelings of regret, that the direct route to the gulf, could not be carried through them. I was rather at a loss for names of reference to these

spiciformibus, involucri squamis lineari-oblongis albis apice viridi-punctatis.

parts. I had given the name of Claude to the river; and it occurred to me, that the scenery of the Mantuan bard, which this painter has so finely illustrated with pastoral subjects, deserved a congenial name; and that this country might, therefore, be distinguished by that of the Mantuan Downs and Plains. About half-way through our former stage, I found water in ponds which had been formerly dry; and there we encamped, our animals being almost exhausted. It is one redeeming quality of brigalow scrub, that water is to be found within its recesses, at times when all other channels or sources are dry; the soil in which it grows being stiff, retentive, and usually bare of vegetation. Thermometer at sunrise, 28°; at noon, 73°; at 4 P. M., 78°; at 9, 47°; — with wet bulb, 42°.

3d September. — Another morning worthy of "Eden in her earliest hour." The thermometer 31° at daybreak, with a little dew. The notes of the magpie or *Gymnorhina*, resounded through the shady brigalow, and the rich browns and reddish greens of that prolific bush contrasted with its dense grey shades, were very beautiful. We found the Nogoa much in the same state as when we left it. No flood had come down the channel of that river. The tracks of the feet of many natives were visible along the old route, and bushes had been burnt all along the line; but it is remarkable that in no case had they injured or defaced the letters and numerals marked on trees at the various camps, nor disturbed our temporary bridges. We cut our way through a scrub of brigalow, thus passing camps XLVIII., XLVII., and XLVI., encamping at a short distance from the latter of these places. Thermometer, at sunrise, 31°;

at noon, 74°; at 4 P. M., 75°; at 9, 52°; with wet bulb, 40°.

4th September.—The surrounding grass, and also the reeds in the lake, had been very extensively burnt along our former tracks, and a green crop was springing to the great gratification and refreshment of our cattle. Formerly this splendid valley appeared to be uninhabited, but this day, proofs were not wanting that it was too charming a spot of earth to be left so. In proceeding over an open part of the plains bordering the river, we perceived a line of about twelve or fourteen natives before they had observed us. Through my glass, I saw they were painted red about the face, and that there were females amongst them. They halted on seeing us, but some soon began to run, while two very courageously and judiciously took up a position on each side of a reedy swamp, evidently with the intention of covering the retreat of the rest. The men who ran had taken on their backs the heavy loads of the gins, and it was rather curious to see long-bearded figures stooping under such loads. Such an instance of civility, I had never before witnessed in the Australian natives towards their females; for these men appeared to carry also some of the uncouth-shaped loads like mummies. The two acting as a rear guard behaved as if they thought we had not the faculty of sight as well as themselves, and evidently believed that by standing perfectly still, and stooping slowly to a level with the dry grass, when we passed nearest to them, they could deceive us into the idea that they were stumps of burnt trees. After we had passed, they were seen to enter the brigalow, and make ahead of us; by which movement I learnt that part of the tribe was still before us. Some time

afterwards, we overtook that portion when crossing an open interval of the woods; they made for the scrub on seeing us. Meanwhile columns of smoke ascended in various directions before us, and two natives beyond the river, were seen to set up a great blaze there. To the westward of the beautifully broken rocky woody range beyond Lake Salvator, a dense smoke also arose, and continued until evening; thus adding much sublimity to the effect of a gorgeous sunset, which poured its beams through the smoke between the rocky pinnacles, as I sat drawing the scene at my camp by the lake, two miles northward of XLV. Thermometer, at sunrise, 26°; at noon, 67°; at 4 P.M., 65°; at 9, 39°; — with wet bulb, 32°.

5th September. — The cooler air reminded us that we had returned to a more elevated region than that on the Belyando. This morning heavy clouds of cumulostratus promised more rain, and gave a cool day for the last effort of the jaded animals, which the driver doubted could not be driven much farther. I cut off all the roundabouts and steep pulls, where this could be done, by laying logs across such gullies as we were obliged to cross. We thus saw more of the river and its romantic scenery, which well deserved the name of a painter. No natives, nor columns of smoke, were seen this day; and I concluded that they concentrated the tribe yesterday, and had departed this morning. We finally took up a very snug position near the pyramids, in the very gorge of the mountain valley by which we had approached this country; camp XLVI. being within sight, and the swamp with the spring, at the foot of this hill on which we now encamped, as a camp of occupation during my intended absence, on an excursion with horses only, to the north-west. The genial influence

of spring had already induced many plants to show their colours, which had formerly been passed by us unnoticed. In the sandy soil, grew the purple-flowered *Chloanthes stœchadis*; the *Acacia Cunninghamii*; the pink-flowered *Cryptandra propinqua*; and a species of *Calytrix*; these two forming small shrubs, the latter from four to six feet high. A very handsome new *Boronia*, with large white and red downy flowers, here first appeared in the open forest.* The rocks were partly covered with a small white-flowered shrub, which proved to be a new species of *Leptospermum* allied to *L. pubescens*, but perfectly distinct.† At the foot of them, was found the *Aotus mollis*, a little hoary bush, with yellow black flowers; a santalaceous plant like *Choretrum*, forming a tree fifteen or twenty feet high: the *Callitris glauca* or *Cupressus glauca* of *All. Cunn.* (in Hook. Herb.). A small tree, about twenty-five feet high, proved to be a new species of Acacia, or possibly a variety of *A. Cunninghamii*, but handsomer, with larger phyllodia, longer spikes of flowers, and everywhere clothed with a soft velvety pubescence.‡ Thermometer, at sunrise, 33°; at noon, 68°; at 4 P. M., 64°; at 9, 40°; — with wet bulb, 31°.

* *B. eriantha* (Lindl. MS.); foliis pinnatis cum impari 1—3-jugis, foliolis glaberrimis linearibus retusis emarginatisque lævibus, pedunculis solitariis unifloris axillaribus foliis brevioribus, sepalis triangularibus glabris, petalis tomentosis, staminibus 8.

† *L. sericatum* (Lindl. MS.); foliis obovatis linearibus planis obtusis aveniis impunctatis utrinque sericeis, calycibus tomentosis dentibus acutis persistentibus.

‡ *A. longispicata* (Benth. MS.) pube brevi mollissima vestita, ramulis elevato-angulatis, phyllodiis amplis falcatis utrinque angustatis subcoriaceis tenuiter striato-multinervibus nervis 3—5 validioribus, spicis elongato-cylindricis densis, calyce dentato corolla 2—3-plo breviore, ovario villoso.

Sir T.L.M. del. T. Picken, lith.

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RIVER SALVATOR. (5th Sep.)

CHAP. VII.

Preparations for a ride to the north-west. — Despatch left with the party stating what had been done. — Ascend east shoulder of Mount Pluto. — Passage to the westward. — Name of the Warrego ascertained. — The river Nive. — Its course turns southward. — Cross a low range. — Plains of the Victoria discovered. — Extensive downs traversed. — River spreads into various channels. — Tributaries join it from the N. E. or right bank. — The river Alice. — Native camp. — A tribe surprised while bathing. — Lowest point of the river reached. — Return by the left bank. — Tributaries from the south. — Gowen range. — Enter outward track. — Provisions exhausted. — Ascend west shoulder of Mount Pluto. — Return to the camp at the Pyramids. — New plants collected there during my absence.

6th and 7th September. — It being necessary to rest and refresh the horses for a few days before setting out with the freshest of them, all being leg-weary, I determined to halt here four clear days; and during these two, I completed my maps, and took a few rough sketches of scenery within a few miles of the camp. The whole of the grass had been assiduously burnt by the natives, and a young crop was coming up. This rendered the spot more eligible for our camp, both because the young grass was highly relished by the cattle, and because no dry grass remained to be set fire to, which, in the case of any hostility on the part of the natives, is usually the first thing they do. Thermometer, at

sunrise, 33° ; at noon, 68° ; at 4 P.M., 64° ; at 9, 40° ; — with wet bulb, 31°.

8th and 9th September. — I employed my time these two days in writing a despatch to the governor of New South Wales, giving a detailed account of my proceedings and discoveries down to the present time ; that in the event of any misfortune befalling me or the very small party now to accompany me, this despatch should be forthcoming, as I intended to leave it at this depôt camp. On the 8th, heavy clouds gathered over us, and a fine heavy shower fell, a circumstance most auspicious for our intended ride ; but it was of brief duration ; and, although the sky continued overcast even until the evening of the 9th, no rain fell, in sufficient quantity to fill the water-courses. It was, however, enough to produce dew for some mornings to come. Thermometer, at sunrise of the 8th, 53° ; at noon, 55° ; at 4 P. M., 57° ; at 9, 50° ; — with wet bulb, 46° ; and at sunrise of the 9th, 39° ; at noon, 77° ; at 4 P. M., 70° ; at 9, 52° ; — with wet bulb, 45°.

10th September. — I set out on a fine clear morning, with two men and Yuranigh mounted, and leading two pack-horses carrying my sextant, false horizon, and a month's provisions. Returning, still up the valley, along our old track to Camp XLIII., I there struck off to the S. W., following up a similar valley, which came down from that side. This valley led very straight towards Mount Pluto, the nearest of the three volcanic cones, which I had already intersected from various points. The other two I had named Mount Hutton and Mount Playfair. These three hills formed an obtuse-angled triangle, whereof the longest side was to the north-west, and, therefore,

I expected that there the elevated land might be found to form an angle somewhat corresponding with the directions of the two shorter sides; in which case, it was probable that, to the westward of such an angle in the range, I might find what had been so long the object of these researches, viz., a river flowing to the Gulf of Carpentaria. We reached Mount Pluto, at the distance given by my former observations as far as could be ascertained by the mode of measurement I employed then; which was by counting my horse's paces. On ascending the mountain on foot, I found a deep chasm still between me and the western summit, which was not only the highest, but the only part clear of bushes. A thick and very thorny scrub had already so impeded my ascent, that the best portion of the afternoon was gone, before I could return to the horses; and I resolved, therefore, to continue my ride, and to defer the ascent and observation of angles from the summit, until my return from the unknown western country, which we were about to explore; the search for water that night being an object of too much importance to be longer deferred. We, accordingly, passed on by the southward and westward of the mountain, following a water-course, which led first N. W., then north, and next E. of N.; to where it at length joined one from the west, up which I turned, and continued the search for water until darkness obliged us to halt. During that search for water, my horse fell with me into a deep hole, so concealed and covered with long grass, that we both wholly disappeared from those following; and yet, strange to say, without either of us being in the

least hurt. We encamped where there was, at least, good grass; but—no water.

11*th September.*—Within 400 yards of the spot where we had slept, we found a small pond. The water was of that rich brown tint so well known to those with whom water is most precious, and to whom, after long custom, clear water seems, like some wines, to want body. Here we had breakfast, and we took also a bagful of water* with us. This timely supply relieved me from the necessity for following up the windings of some water-course; and I could proceed in a straight direction, westward. We passed, at first, through rather thick scrub, until, at length, I perceived a sharp pic before me, which I ascended. It consisted of trap rock, as did also the range to which it belonged, being rather a lateral feature thereof. Mount Hutton, Mount Pluto, and Mount Playfair, were all visible from it, as were also Mounts Owen and Faraday. The connections extended westward; for to the W.N.W. the broken cliffs at the head of the Salvator and the Claude, were not very distant, and these I was careful to avoid. A range immediately westward of this cone, was higher than it, and extended from Mount Playfair. To cross that range at its lowest part, which bore 26° W. of S., was our next object. We found the range covered with brigalow and other still more impervious scrubs. On the crest, the rock consisted of clay ironstone. The centigrade thermometer stood, at noon, at 30° 5′ equal to 87°, of Fahrenheit; the height above the sea we made 2032 feet. Beyond this crest, we encountered a scrub of matted vines,

* A thick flour-bag covered outside with melted mutton-fat.

which hung down like ropes, and pulled some of us off our horses, when it happened that any of these ropes were not observed in time in riding through the thicket. A very dense forest of young Callitris trees next impeded us, and were more formidable than even the vines. The day was passed in forcing our way through these various scrubs, the ground declining by a gentle slope only. We next found firmer soil underfoot, that where the Callitris scrub grew having been sandy, and we saw at length, with a feeling of relief, that only brigalow scrub was before us; we ascended gravelly hills, came upon a dry water-course, and then on a chain of ponds. Near one of these ponds, sate an old woman, beside a fire, of course, although the weather was very warm; and a large net, used for taking emus, hung on a brigalow bush close by. The men were absent, looking for food, as we partly conjectured, for little could Yuranigh make out of what she said, besides the names of some rivers, to which I could point with the hand. I was surprised to find that here, the name for water was "Narran," the name for it in the district of the Balonne being "Nadyeen," whereas the word for water amongst the tribes of the Darling is Kalli. That the "Narran" river and swamp are named from this language of tribes now dwelling much further northward, seems obvious; and, as the natives on the Darling know little of the "Narran" or its swamp, it may be inferred that there the migration of native tribes has been progressive from south to north; the highest known land in Australia being also to the southward of the Darling. The chain of ponds, according to the old woman, was named "Cùnno," and ran into the "Warregò" which, as she pointed,

was evidently the name of the river we had formerly traced downwards from near Mount P. P. King. I left the "Cùnno," and plunged into the brigalow to the northward, thus crossing a slightly elevated range, where we found a little water-course falling N.N.W. By following this downwards, we found water in it, as twilight grew obscure, and gladly halted beside it for the night, in latitude 25° S.

12*th September*. — At 7 A. M. the thermometer was 59°; our height then above the sea has been ascertained to have been 1787 feet. Continuing to follow down the brigalow creek, we found that it joined a chain of ponds running N. E., and these we traced in the contrary direction, or upwards, as far as seemed desirable. We struck off from that water-course, first to the N.W., then to the W., arriving soon at a steep low ridge of clay ironstone, which was covered thick with brigalow. We crossed that low ridge, and, at a distance of about a mile and a half beyond, met another acclivity still more abrupt and stony. This we also ascended, and found upon it a "malga" scrub: the "malga" being a tree having hard spiky dry branches, which project like fixed bayonets, to receive the charge of ourselves, horses, and flour-bags; but all which formidable array we nevertheless successfully broke through, and arrived at the head of a rocky gully, falling N.W. Down this, however, we attempted in vain to pass, and in backing out we again faced the "malga," until, seeing a flat on the right, I entered it, and there fell in with the water-course again. It led us many miles, generally in a N.W. direction, and contained some fine ponds, and entered, at length, a little river, whose banks were thickly set with large

yarra trees. The general course of this river was W.N.W., until it was joined by one coming from the N., and at the junction there was a deep broad pond of clear water. At this we watered our horses, and passed on to encamp under some rocky hills, three quarters of a mile to the N.N.W. of that junction, in latitude 24° 52′ 50″ S. The temperature at noon this day, on the highest part of the ridge we crossed, was 84°; the height there above the sea, 1954 feet; and at 3 P.M., in channel of water-course, the thermometer stood at 89°; the height there above the sea being 1778 feet.

13*th September*.—At 7 A.M. the thermometer stood at 38°; the height above the sea was found to be 1659 feet. I verily believed that *this* river would run to Carpentaria, and I called it the Nive, at least as a conventional name until the native name could be ascertained, in commemoration of Lord Wellington's action on the river of that name; and, to the tributary from the north, I gave the name of Nivelle.

Pursuing the united channel downwards, we traversed fine open grassy plains. The air was fragrant from the many flowers then springing up, especially where the natives had burnt the grass. Among them were *Morgania glabra; Eremophila Mitchellii;* a singular little *Polygonum* with the aspect of a *Tillæa;* two very distinct little *Frankenias**, and a new scabrous

* *F. scabra* (Lindl. MS.); undique scabro-tomentosa, foliis linearibus margine revolutis non ciliatis, floribus solitariis pentameris, calycibus patentim pilosis.

F. serpyllifolia (Lindl. MS.); tomentosa hispida, foliis oblongis planis longè ciliatis, floribus solitariis subcapitatis pentameris, calycibus patentim hispidis.

Haloragis with pinnatifid leaves.* The extensive burning by the natives, a work of considerable labour, and performed in dry warm weather, left tracts in the open forest, which had become green as an emerald with the young crop of grass. These plains were thickly imprinted with the feet of kangaroos, and the work is undertaken by the natives to attract these animals to such places. How natural must be the aversion of the natives to the intrusion of another race of men with cattle: people who recognise no right in the aborigines to either the grass they have thus worked from infancy, nor to the kangaroos they have hunted with their fathers. No, nor yet to the emus they kill *for* their fathers *only;* these birds being reserved, or held sacred, for the sole use of the old men and women!

The river pursued a course to the southward of west for nine miles, but it turned afterwards southward, eastward, and even to the northward of E. After tracing it thus twenty-two miles, without seeing any water in its bed (which was broad, but every where choked with sand), we were obliged to encamp, and endure this privation after a very warm and laborious day. Where the natives obtained water themselves, quite puzzled Yuranigh, for we passed by spacious encampments of theirs, and tracts they had set fire to, where trees still lay smoking.

14*th September*.—The temperature at 7 this morning was 72° of Fahrenheit; the height above the sea, of the river bed, as subsequently determined by

* *H. aspera* (Lindl. MS.) caule angulato foliis fructuque scabris, foliis alternis oppositisque linearibus acutis apice pinnatifidis, floribus distanter spicatis monoicis pendulis, stigmatibus plumosis, fructu subgloboso.

Captain King, 1470 feet. With the earliest light, I had laid down my survey of this river, by which the course appeared to have turned towards the S.E. This not being what was desired, I took a direct northerly course through the scrub, towards a hill on the left bank, whence I had seen, on our way down, a rocky gap to the N.W. in a brigalow range. After a ride of eight miles, by which we cut off the grand curve in the river's course, we arrived at this hill. I hoped to have found water near the spot, in a sharp turn in the river which I had not examined, and near which, on the day before, I had seen two emus, under a bank covered with brigalow scrub. Nor was I disappointed, for after finding traces of a recent current into the river-bed at that point, I discovered, at less than a hundred yards up, a fine pond of precious *opal*—I mean not crystal, but that fine bluey liquid which I found always so cool and refreshing when it lay on clay in the shady recesses of brigalow scrubs, a beverage much more grateful to our taste than the common "crystal spring." Here, then, we watered our impatient horses, and enjoyed a wash and breakfast—the men (two old soldiers) being *d'accord* in one sentiment of gratitude to a bountiful Providence for this water.

Like "a giant refreshed with wine," we next set out for the gap to the north-west, and passed through an open brigalow scrub, ascending very gradually, during a ride of three miles, to where I at length could discover that the fall was in the other direction. At this point, I observed the barometer, which indicated our height above the sea to be 1812 feet. Fahrenheit's thermometer stood then (5 P.M.) at 86°. The dry channel of a water-course had afforded us

an opening through the scrub, and had also guided us to the highest part of the ground. The fresh prints of the feet of three men in the smooth bare sand, told us that the same natives whose track Yuranigh had seen in the river we traced yesterday, were now going in the same direction as ourselves, and just before us; for the smell of their burning fire-sticks, and even small portions of burning embers which had dropped, made this evident. The higher ground was flat, and on it the rosewood acacia grew amongst the brigalow. The rocky gap (in a ridge) was still distant at least three miles; the sun nearly set, and not a blade of grass visible amongst the brigalow bushes. But what was all this to the romantic uncertainty as to what lay beyond! With eager steps we followed a slight channel downwards; found that it descended more rapidly than the one by which we had ascended; that it also increased, and we were guided by it into a little valley, verdant with young grass, while yet the red sky over a departed sun shone reflected from several broad ponds of water. This seemed to us a charming spot, so opportunely and unexpectedly found, and we alighted on a fine grassy flat by the margin of a small lagoon, where stood a most graceful group of bushes for shelter or shade. After sunset, the sky was overcast with very heavy clouds; the air was sultry, and we expected rain.

15*th September*.—As soon as daylight appeared I hastened towards the gap, and ascended a naked rock on the west side of it. I there beheld downs and plains extending westward beyond the reach of vision, bounded on the S.W. by woods and low ranges, and on the N.E. by higher ranges; the whole

of these open downs declining to the N. W., in which direction a line of trees marked the course of a river traceable to the remotest verge of the horizon. There I found then, at last, the realization of my long cherished hopes, an interior river falling to the N. W. in the heart of an open country extending also in that direction. Ulloa's delight at the first view of the Pacific could not have surpassed mine on this occasion, nor could the fervour with which he was impressed at the moment have exceeded my sense of gratitude, for being allowed to make such a discovery. From that rock, the scene was so extensive as to leave no room for doubt as to the course of the river, which, thus and there revealed to me alone, seemed like a reward direct from Heaven for perseverance, and as a compensation for the many sacrifices I had made, in order to solve the question as to the interior rivers of Tropical Australia. To an European, the prospect of an open country has a double charm in regions for the most part covered with primæval forests, calling up pleasing reminiscences of the past, brighter prospects for the future — inspiring a sense of freedom, especially when viewed from the back of a good horse: —

> "A steed! a steed! of matchless speede,
> A sword of metal keene —
> All else to noble minds is drosse,
> All else on earth is meane!" — *Old Song.*

I hastened back to my little party (distant a mile and a half from the gap), and immediately made them mount to follow me down the water-course, which, as I had seen from the rock, would lead us into the open country. The little chain of ponds led westward, until the boundless downs appeared through

the woods; a scene most refreshing to us, on emerging from so many thick scrubs. Our little river, after crossing much open plain, fell into another coming from E. S. E., and columns of smoke far in the N. W. showed that there was water, by showing there were inhabitants. The grass on these downs was of the richest sort, chiefly *Panicum lævinode*, and I was not sorry to recognise amongst it, *Salsolæ*, and the *Acacia pendula*, amongst the shrubs. As we followed the river downwards, the open downs appeared on the W. N. W. horizon as if interminable. This river, unlike that I had called the Nive, had no sand in its bed, which consisted of firm clay, and contained deep hollows, and the beds of long reaches, then, however, all dry, while abundance of large *unio* shells lay upon the banks, and proved that the drought was not of common occurrence. The general course of the river I found to be about W. N. W. true. We continued to follow it through its windings all day, which I certainly should not have done, but for the sake of water, as our progress downwards was thus much retarded. Towards evening, Corporal Graham discovered water in a small tributary coming from the S. E., while Yuranigh found some also in the main channel, where that tributary fell into it. We encamped on Graham's ponds, as this was called, and turned our horses loose on the wide plain, up to the knees in grass half dry, half green, that they might be the more fit "for the field to-morrow." The sky had been lowering all day, and the heat was intense; but during the night, the air was delicious for sleeping in, under heaven's canopy and protection.

16*th September*. — The "gorgeous curtains of the East" over grandly formed clouds harmonised well with my sentiments on awaking, again to trace, as if I

had been the earliest man, the various features of these fine regions of earth. At 7 A. M. the temperature was 63°; and (from observations registered then) the height above the sea has been found to be 1216 feet. Throughout the day we travelled over fine downs and plains covered with the finest grass, having the river on our right. Beyond it, we saw hills, which seemed to be of greater height in proportion as we descended with the river. Some were much broken, and appeared to present precipices on the other side. A broad valley extended westward from between the farthest of these broken ranges, which range seemed to be an offshoot from one further eastward. On examining the river, below the supposed junction of a tributary from the east, I found its character altered, forming ponds amongst brigalow trees. Water was, however, scarce. We fortunately watered our horses about 3 P. M., at the only hole we had seen that day, a small muddy puddle. The *Acacia pendula* formed a belt outside the brigalow, between the river and the open plains, and many birds and plants reminded us of the Darling; the rose cockatoo and crested-pigeon, amongst the former; *Salsolæ* and *solanum* amongst the latter. At length, we saw before us, to the westward, bold precipitous hills, extending also to the southward of west. A thunder storm came over us, and night advancing, we halted without seeing more, for that day, of the interesting country before us, and having only water enough for our own use, the product of the shower. No pond was found for the horses, although we had searched for one, many miles in the bed of the river. Still, the remains of mussel shells on the banks bore testimony that water was seldom so scarce

in this river, flowing as it did through the finest and most extensive pastoral region I had ever seen.

17*th September*.—The temperature at seven this morning was 57°; our height above the sea 1112 feet. "Like the gay birds that" awoke us from "repose" we were "content," but certainly not "careless of to-morrow's fare;" for unless we found water to-day, "to-morrow" had found us unable either to proceed or return! Trusting wholly to Providence, however, we went forward, and found a pond in the river bed, not distant more than two miles from where we had slept. In making a cut next through a brigalow scrub, towards where I hoped to hit the river, in a nearly westerly direction, I came out upon open downs, and turned again into a brigalow scrub on my right. After travelling a good many miles, N.W., through this scrub, we arrived on the verge of a plain of dead brigalow; and still pursuing the same course, we came out, at length, upon open downs extending far to the northward. I continued to ride in that direction to a clear hill, and from it I obtained a view of a range of flat-topped hills, that seemed to extend W.N.W.; the most westerly portion of these being the steep-sided mass seen before us yesterday. They now lay far to the northward, and the intervening country was partly low and woody, and partly consisted of the downs we were upon. But where was the river? Yarra trees and other indications of one appeared nearest to us in an easterly direction, at the foot of some well-formed hollows on that side the downs. Towards that point I therefore shaped my course, and there found the river—no longer a chain of dry ponds in brigalow scrub, but a channel shaded by lofty yarra trees, with open grassy banks,

and containing long reaches full of water. White cockatoos shrieked above us; ducks floated, or flew about, and columns of smoke began to ascend from the woods before us. This was now, indeed, a river, and I lost no time in following it downwards. The direction was west; then north-west, tolerably straight. Water was abundant in its bed; the breadth was considerable, and the channel was well-marked by bold lofty banks. I remarked the salt-bush of the Bogan plains, growing here, on sand-islands of this river. The grass surpassed any I had ever seen in the colony in quality and abundance. The slow flying pelican appeared over our heads, and we came to a long broad reach covered with ducks, where the channel had all the appearance of a river of the first magnitude. The old mussle shells (*unio*) lay in heaps, like cart-loads, all along the banks, but still we saw none of the natives. Flames, however, arose from the woods beyond the opposite bank, at once in many directions, as if by magic, as we advanced. At 3 P. M. Fahrenheit's thermometer in the shade stood at 90°. Towards evening, we saw part of the bed dry, and found it continuously so, as night came on. The sun had set, while I still anxiously explored the dry recesses of the channel in search of water, without much hopes of success, when a wild yell arose from the woods back from the channel, which assured us that water was near. Towards that quarter we turned, and Yuranigh soon found a fine pond in a small ana-branch, upon which we immediately halted, and took up our abode there for the night. It may seem strange that so small a number could act thus unmolested by the native tribes, but our safety consisted chiefly in the rapidity of our

movements, and their terror of strangers wholly unknown, perhaps unheard of, arriving on the backs of huge animals, or centaurs whose tramp they had only heard at nightfall. Like Burns's "Auld Nick,"

> —— "rustling through the boortrees comin'
> Wi' eerie sough!"

our passage was too rapid to admit of any design for attack or annoyance being concocted, much less, carried into effect; next night we hoped to sleep thirty miles off, where our coming would be equally unexpected by natives. Latitude, 24° 34′ 30″ S.

18*th September*. — At 7 A.M. the temperature of the air was 72°; the height of the spot above the sea, 995 feet. Keeping along the river bank for some miles, I found its general course to be about N.W.; and seeing clear downs beyond the right bank, I crossed, and proceeded towards the highest clear hill on the horizon. There I obtained a distant view of the ranges intersected yesterday, and of their prolongations. That to the northward of the river, whose general direction to the point already fixed had been 22° W. of N., there formed an angle, and continued, as far as I could judge by the eye, nearly northward. The range to the southward of the river also turned off, extending nearly to the southward. These two limits of the vast valley, thus receding from the river so as to leave it ample room to turn and wind on either side, amidst its accompanying woods, through grassy downs of great extent, obliged me to explore its course with closer attention. From another clear hill on these downs, to which I next proceeded, I thought I perceived the line of another river coming from ranges in the N.E.,

and expecting it would join that whose course we had thus far explored, I proceeded in a nearly N.W. direction over open downs towards the line of trees. I found therein a fine pond of water, the soil of the downs consisting of stiff clay. *Mesembryanthemum* and various *Salsolæ* appeared in some parts. My horses being rather jaded, I halted rather early here, and laid down my journey, protracting also the angles I had observed of the points of distant ranges. Latitude, 24° 27′ 27″ S. I found by the barometer that we were already much lower than the rivers Salvator and Claude, and the upper part, at least, of the Belyando; while we were still remote from the channel we were pursuing.

19*th September*.—The thermometer at 7 A. M. stood at 57°. The height of these ponds above the sea was 861 feet. Young, I think, has said, that a situation might be imagined between earth and heaven, where a man should hear nothing but the thoughts of the Almighty; but such a sublime position seems almost attained by him who is the first permitted to traverse extensive portions of earth, as yet unoccupied by man; to witness in solitude and silence regions well adapted to his use, brings a man into more immediate converse with the Author both of his being, and of all other combinations of matter than any other imaginable position he can attain. With nothing but nature around him; his few wants supplied almost miraculously; living on from day to day, just as he falls in with water; his existence is felt to be in the hands of Providence alone; and this feeling pervades even the minds of the least susceptible, in journeys like these. Those splendid plains where, without a horse, man seems a helpless animal, are avoided, and are said to

be shunned and disliked by the aboriginal man of the woods. Even their lonely inhabitant, the emu, seems to need both wings and feet, that he may venture across them. We travelled nearly west over plains ; then through a brigalow scrub, two miles in breadth ; emerging from which, on a perfectly level plain of very rich soil, we turned rather to the southward of west, to where the distant line of river-trees seemed most accessible. Bushes of *Acacia pendula* skirted this plain ; and, passing through them, we crossed a track of nearly half a mile wide of soft sand, evidently a concomitant feature of the river. We next traversed a belt of firm blue clay, on which a salsolaceous bush appeared to be the chief vegetation ; and, between it and the river, was another belt of sand a mile broad, on which grew a scrub of rosewood acacia. The river there ran in four separate channels, amongst various trees ; brigalow and yarra being both amongst them. I crossed these channels, and continued westward that I might ascend a hill on the downs beyond. From that eminence, no hill was visible on any part of the horizon, which everywhere presented only downs and woods. Far in the S. W. a hollow admitted of a very distant view, which terminated in downs beyond a woody valley. The course of our river appeared to be N. W., as seen by Yuranigh, from a tree we found here. In that direction I therefore proceeded ; recrossing the river, where, in a general breadth of about 400 yards, it formed five channels. The grass was more verdant here, and the ponds in these small separate channels seemed likely to contain water. We continued N. W. across fine clear downs, where we found the heat so intense, (Centigrade

thermometer, 37°, or 99° of Fahrenheit,) that I halted two hours under the shade of a small clump of trees. When we continued our ride in the afternoon, three emus that had been feeding on the downs came inquisitively forward; curiosity, apparently inspiring them with more courage than even the human inhabitants. Unfortunately for these birds, our bacon had become so impalatable that a change of diet was very desirable, and Graham, therefore, met them half-way on his horse; the quadruped inspiring more confidence in the bird. It was curious to witness the first meeting of the large indigenous bird and large exotic quadruped—such strange objects to each other! on the wide plains where either of them could

—— "overtake the south wind."

One of the emus was easily shot from the horse's side, and, that evening being the Saturday night of a very laborious week, we were not slow in seeking out a shady spot by the side of a pond in the river bed. There my men had a feast, with the exception of Yuranigh; who, although unable to eat our salt bacon, religiously abstained from eating emu flesh, although he skinned the bird and cut it up, *secundum artem*, for the use of the white men. The channel of the river was still divided here, amongst brigalow bushes. We only reached it by twilight. Thermometer, at 6 P.M., 86°. Height above the sea, 758 feet.

20*th September*. — At 7 A.M. the thermometer was 78°. Water appearing to be more constant now in the river, I ventured to pursue its general course in straighter lines, across the fine open downs, which lay to the eastward of it. Beyond these I perceived

lines of wood as belonging to another river; and, on advancing in that direction, I first encountered a great breadth of brigalow scrub; next, we entered a rosewood scrub, redolent with blossom; then an open forest, in which we found the deep well-formed channel of a river coming from the eastward. The bottom was rocky, and bore marks of a recent current. This river also spread into branches: we crossed three, and then again entered upon open downs. Next we crossed a well-defined line of deep ponds, with yarra trees, and coming from E. N. E. over the downs; and three miles further on, we crossed another coming from N. E., on which, finding a good lagoon, I encamped early, that the men might have time to cook for themselves some of the emu, and that the horses might also have some sufficient rest. Latitude, 24° 12′ 42″ S. Thermometer, at 1 P. M., 86°. Height above the sea, 724 feet.

21*st September*. — Thermometer at 6 A. M., 63°. I found that the various tributaries to the river channel had imparted to it a greater tendency westward; but we fell in with it again six miles to the westward of where we had passed the night. Its character was the same — a concatenation of ponds amongst brigalow; but these seemed better filled with water, apparently from the more decided slopes and firmer soil of the adjacent country. The course next turned considerably to the southward of west, while one ana-branch separating from it, ran about westward. I found an open plain between these, across which I travelled; until, again meeting the southern branch, we crossed it where it seemed to turn more to the northward. The day was warm, and I halted two hours under the shade of some

trees, where I laid down our journey on paper, and found we were making great progress towards Carpentaria, across a very open country. We were no longer in doubt about finding water, although in the heart of Australia, surrounded by an unbroken horizon.

On proceeding, we passed some large huts near the river, which were of a more substantial construction, and also on a better plan than those usually set up by the aborigines of the south. A frame like a lean-to roof had first been erected; rafters had next been laid upon that; and, thereupon thin square portions of bark were laid, like tiles. A fine pond of water being near, we there spancelled our horses and lay down for the night. At 5 P. M. the thermometer was at 82°. Height above the sea, 707 feet.

22*d September*. — Thermometer, at 6 A. M., 58°. This was no sandy-bedded river like others we had discovered. The bed still consisted of firm clay, and now the rich vegetation on the banks presented so much novelty, that, without the means of carrying an herbarium, I was nevertheless tempted to select a bouquet of flowers for Dr. Lindley, and carry them amongst my folded maps. The very herbage at this camp was curious. One plant supplied an excellent dish of vegetables. There were others resembling parsley, and having the taste of water-cresses with white turnip-like roots. Here grew also a dwarf or tropical *Capparis*. Among the grasses was a tawny *Erianthus*, apparently the same as that formerly seen on the banks of the Bogan, and the curious *Danthonia pectinata*, gathered in Australia Felix in 1836. There was also amongst the grasses a *Pappophorum*, which was perhaps the *P. gracile*, formerly collected in the

tropical part of New Holland by Dr. Brown; and a very remarkable new species of the same curious genus, with an open narrow panicle, and little branches not unlike those of a young oat.* The river again formed a goodly continuous channel. Its most splendid feature, the wide open plains, continued along its banks, and I set out on this, as we had indeed on all other mornings since we made the discovery, intensely interested in the direction of its course. We had not prolonged our journey very far across the plains, keeping the trees of the river we had left visible on our right, when another line of river trees appeared over the downs on our left. Thus it seemed we were between two rivers, with their junction before us, for the ground declined in that direction. And so we found it. At about seven miles from where we had slept, we arrived at the broad channel of the first river we had traced down, whose impetuous floods had left the trees half bent to the earth, and clogged with drift matter; not on any narrow space, but across a deep section of 400 yards. The rocks in the channel were washed quite bare, and crystal water lay in ponds amongst these rocks. A high gravelly bank, crowned with brigalow, formed the western margin, but no brigalow could withstand the impetuous currents, that evidently, at some seasons, swept down there. It was quite refreshing to see all clear and green, over so broad a water-worn space. The junction with the northern river took place just below, and I continued my journey, not a

* *P. avenaceum* (Lindl. MS.); aristis 9 inæqualibus scabris infra medium plumosis, paniculâ pilosâ angustâ interruptâ ramulis inferioribus demum refractis, spiculis 3-floris, glumis pubescentibus multistriatis, paleis villosis, foliis . . . . . .

little curious to see what sort of a river would be formed by these channels when united. I found the direction of the course to be about N.W., both running nearly parallel. About three miles on I approached the united channel, and found the broad, deep, and placid waters of a river as large as the Murray. Pelican and ducks floated upon it, and mussle-shells of extraordinary size lay in such quantities, where the natives had been in the habit of eating them, as to resemble snow covering the ground. But even that reach seemed diminutive when compared with the vast body of water whereof traces had, at another season, been left there; these affording evidence that, although wide, they had still been impetuous in their course. Verdure alone shone now, over the wide extent to which the waters sometimes rose. Beyond that channel lay the almost boundless plains, the whole together forming the finest region I had ever seen in Australia. Two kinds of grass grew on these plains; one of them a brome grass, possessing the remarkable property of shooting up green from the old stalk.

The bees were also new to Yuranigh, who drew my attention to their extreme smallness; not much exceeding in size a knat or mosquito. Nevertheless, he could cut out their honey from hollow trees, and thus occasionally procure for us a pleasant lunch, of a waxy compound, found with the honey, which, in appearance and taste much resembled fine gingerbread. The honey itself was slightly acid, but clear and fine flavoured.

I hoped the deep reach would have been continuous, as it looked navigable, even for steamers, but it continued so only for a few miles, beyond which the channel contained ponds only. I finally alighted

beside one of these ponds, which was so large, indeed, that the colonists would have called it a lagoon; this one being high above the river channel, on a verdant plain. As yet, we had not seen a single inhabitant of this El Dorado of Australia. At 2 P.M. thermometer 88°. Height above the sea 712 feet.

23*d* *September*. — At 7 A.M. thermometer 59°. Latitude 24° 2′ S. New flowers perfumed the dry bed of this river, and these showed, in their forms and structure, that nature even in variety is infinite. I regretted I could not collect specimens. Our only care now, was the duration of our provisions. Water was less a subject of anxiety with me now, than it had been at any period of the journey. We had made the Emu eke out our little stock, and my men (two old soldiers) were willing to undergo any privation that might enable me to prolong my ride. This day completed half the month, but I was determined to follow the course of this interesting river at least four days longer. The back of one of our pack horses had become so sore, that he would no longer endure a load; we threw away the pack saddle, and divided his load, so as to distribute it in portions, on some of the saddle horses and the other pack animal. The course of the river towards the west, and our limited time, obliged me to stride over as much of the general direction as possible. I crossed the river, and travelled across open downs. I saw the tops of its Yarra trees on my left. At about four miles, we crossed what seemed a large river, but which must have been only an ana-branch from the main stream. We next traversed a fine open down of six miles; the soil, a firm blue clay with gravel, and on this grew two varieties of grass which I had seen nowhere else. The valley

I next approached, contained the channel of a river flowing towards our river; a tributary, which evidently bore impetuous floods into it, sometimes. This also ran in three channels. I called it the Alice.

As this new river was likely to turn the main stream off to the westward or south, I travelled west by compass over vast downs, finely variegated with a few loose trees like a park, but extending on all sides to the horizon. Where I looked for the main channel, I saw rising ground of this kind; and meeting with another small river, with a stoney bed and water in it, I bivouacqued, for the day was very hot; the thermometer, at 3 P. M., 90° in the shade. The pond here was much frequented by pigeons, and a new sort of elegant form and plumage, was so numerous that five were killed at two shots. The head was jet-black, the neck milk-white, the wings fawn-colour, having lower feathers of purple. I had no means of preserving a specimen, but I took a drawing of one.* Height above the sea here, 826 feet.

24*th September*.—I continued to seek the river across extensive downs, in many parts of which dead brigalow stumps remained, apparently as if the decay of that species of scrub gave place to open ground. I turned now to the S.W., and became anxious to see the river again. At length we came upon a creek, which I followed down, first to the S.W. and next southerly, until it was time to alight, when we established our bivouac by a large lagoon in its bed, in latitude 24° 3′ 30″ S. Thermometer, at 3 P. M. 98°. Height above the sea, 688 feet.

25*th September*. — At 6 A. M. the thermometer

* By which I find it has been named *Geophaps histrionica*.

stood at 73°. We ought to have been retrogressive yesterday, according to the time calculated on for our stock of provisions; but we could not leave the river without tracing it to the furthest accesible point. We still continued, therefore, to follow the water-course which had brought us thus far, expecting at every turn to find its junction with the river, whose course had obviously turned more than usual to the southward. We fell in with a larger tributary from the N. W.; after which junction, the tributary took a more westerly direction than the minor channel which brought us to it. We thus came upon a large lagoon, beside which were the huts of a very numerous tribe of natives, who appeared to have been there very recently, as some of the fires were still burning. Well beaten paths, and large permanent huts, were seen beyond that encampment; and it was plain that we had entered the home of a numerous tribe. I should have gladly avoided them at that time, had not a sight of the river been indispensable, and the course of the creek we were upon, the only certain guide to it. Level plains extended along its banks, and I had been disappointed by the appearance of lofty Yarra trees, which grew on the banks of large lagoons. On approaching one of these, loud shrieks of many women and children, and the angry voices of men, apprised me that we had, at length, overtaken the tribe; and, unfortunately, had come upon them by surprise. "*Aya minyà!*" was vociferated repeatedly, and was understood to mean, "What do you want!" (What seek ye in the land of Macgregor!) I steadily adhered to my new plan of tactics towards the aborigines, and took not the slightest notice of them, but steadily rode

forward, according to my compass bearing. On looking back for my men, I saw one beckoning me to return. He had observed two natives, with spears and clubs, hide themselves behind a bush in the direction in which I was advancing. On my halting, they stole away, and, when a little further on, I perceived an old white-haired woman before me, on seeing whom I turned slightly to one side, that we might not frighten her or provoke the tribe. The whole party seemed to have been amusing themselves in the water during the noon-day heat, which was excessive; and the cool shades around the lagoon looked most luxuriant. Our position, on the contrary, was anything but enviable. With jaded horses scarcely able to lift a leg, amongst so many natives, whose language was incomprehensible, even to Yuranigh. I asked him whether we might not come to a parley with them, and see if they could understand him. His answer was brief; and, without turning even his head once to look at them: — "You go on!" which advice, quite according with my own notions, founded on experience, I willingly went on. Even there, in the heart of the interior, on a river utterly unheard of by white men, an iron tomahawk glittered on high in the hand of a chief, having a very long handle to it. The anxious care of the females to carry off their children seemed the most agreeable feature in the scene, and they had a mode of carrying them on the haunch, which was different from anything I had seen. Some had been digging in the mud for worms, others searching for freshwater muscles; and if the whole could have been witnessed unperceived, such a scene of domestic life amongst the aborigines had been

worth a little more risk. The strong men assumed a strange attitude, which seemed very expressive of surprise; having the right knee bent, the left leg forward, the right arm dropping, but grasping clubs; the left arm raised, and the fingers spread out. "Aya, aya, minyà!" they continually shouted; and well might they ask what we wanted! Hoping they would believe us to be Centaurs, and include the two old pack-horses in counting our numbers, I had not the slightest desire to let them know us more particularly; and so travelled on, glad, at length, to hear their "Aya minyàs" grow fainter, and that we were leaving them behind. About five miles further south, the perfume from the liliaceous banks of the river was the first indication of its vicinity. We found it full 400 yards broad, presenting its usual characteristics, — several separate channels and ponds of water; there, according to the barometer, the height above the sea was only 633 feet; the temperature at 3 P. M., in the shade, 99° of Fahrenheit. We watered our horses, crossed, and plunged into the brigalow beyond, where I meant to steal a march upon the noisy tribe; who, by that time, probably were sending to call in their hunting parties, that they might follow our track. Their mode of killing a kangaroo may best exemplify their tactics towards strangers; whose path in the same manner could be followed by day, and sat down beside at night, to be again tracked in the morning, until the object of pursuit could be overtaken. The brigalow beyond the river grew on a rising ground of sharp-edged red gravel, and, from a small opening, I saw the course of the river running nearly northward. Here, then, I turned towards the east to travel home

by ascending the left bank, with the intention to cut off the great sweep which the river described, as we had found on tracing it down; and, in hopes we should so intercept any tributaries it might receive from that side. At dusk, I met with one containing a fine lagoon, and near this I fixed my bivouac. Yuranigh most firmly objected to our sitting down close by the water, saying we might there be too easily speared by the wild natives who were then, probably, on our track; but he did not object to my bivouac on the more open plain adjacent, one man keeping a good look-out. I called these, Yuranigh's ponds. Latitude, 24° 19′ 2″ S.

26*th September*.—At 6 A. M. the thermometer stood at 61°. My horse was quite leg-weary, and I was very loath to force him on, but one day's journey further was indispensable. We traversed open plains and passed through patches of brigalow of an open kind of scrub. The surface was grassy, but very gravelly; indeed it was, in many places, so devoid of mould as to resemble a newly Macadamized road,—the fragments being much of that size, and in general of a reddish colour, consisting, for the most part, of a red siliceous compound. In a ride of twenty-six miles, we saw no country much better, and I was obliged to conclude that the left bank was by no means so good as the country on the right, or to the northward of the river. We arrived, however, by nightfall, at a goodly water-course, in which we providentially found a pond, and encamped; resolved there to rest our horses next day, (being Sunday,) and most thankful to Him to whom the day was dedicated. Latitude 24° 12′ 37″ S. Thermometer, at 6 P. M., 92°.

27*th September*.—Thermometer, at 6 A. M., 68°. On laying down my work on paper, I found we had made a most favourable cut on the way homewards, our old bivouac of the 21st inst., being about due east from us, and distant not quite fifteen miles; the great tributary from the S. E. passing between, upon which we could depend for a supply of water, if it should be required.

It would appear that the finer the climate, and the fewer man's wants, the more he sinks towards the condition of the lower animals. Where the natives had passed the night, no huts, even of bushes, had been set up; a few tufts of dry grass only, marked the spot where, beside a small fire, each person had sat folded up, like the capital letter N; but with the head reclining on the knees, and the whole person resting on the feet and thigh-joints, clasped together by the hands grasping each ankle. Their occupation during the day was only wallowing in a muddy hole, in no respect cleaner than swine. They have no idea of any necessity for washing themselves between their birth and the grave, while groping in mud for worms, with hands that have always an unpleasant fishy taint that clings strangely to whatever they touch. The child of civilization that would stain even a shoe or a stocking with one spot of that mud, would probably be whipt by the nurse: savage children are not subject to that sort of restraint. Whether school discipline may have any thing to do with the difference so remarkable between the animal spirits of children of civilised parents and those of savages, I shall make no remark; but that the buoyancy of spirit and cheerfulness of the youth amongst the savages of Australia, seem to render them agreeable companions to the men on their

hunting excursions, almost as soon as they can run about. If the naturalist looks a savage in the mouth, he finds ivory teeth, a clean tongue, and sweet breath; but in the mouth of a white specimen of similar, or indeed less, age, it is ten to one but he would discover only impurity and decay, however clean the shoes and stockings worn, or however fine the flour of which his or her food had consisted. What, then, is civilization in the economy of the human animal? one is led to inquire. A little reflection affords a satisfactory answer. Cultivated man despises the perishable substance, and pursues the immortal shadow. Animal gratification is transient and dull, compared to the acquisition of knowledge —the gratification of mind—the raptures of the poet, or the delight of the enthusiast, however imaginary. It is true that, amongst civilized men, substance is still represented by the yellow ore, and that the votaries of beauty "bend in silken slavery;" but are not beauty or gold as dust in the balance, substantial though they be, when weighed in lofty minds against glory or immortality? When the shadow he pursues is worth more, and is more enduring than the substance, well might it be said that "Man is but a shadow, and life a dream." Such were my reflections on this day of rest, in the heart of a desert, while protected from the sun's rays by a blanket, and in some uncertainty how long these dreams under it would continue undisturbed.

> "The mind is its own place, and in itself
> Can make a heaven of hell: a hell of heaven!"

Thermometer, at 6 P. M., 90°.

28*th September*.—Thermometer, at 6 A. M., 63°.

The horses were much refreshed by that day's repose, and we this morning continued our journey in an easterly direction, over downs and through open scrubs, meeting no impediment from brigalow. We crossed the various branches of a considerable tributary coming from E.S.E., the only water seen this day, besides the great river; which we met with, exactly where, according to its general course, it was to be looked for. We crossed it, and encamped on the right bank of the northern river, at the place where I had previously crossed.

This day I had discovered, from the highest parts of the downs, a range to the S.W., and was able to intersect some of the principal hills, and so determine its place and direction. I named the most westerly feature, Mount Gray; the lofty central mass, the Gowen Range, and a bold summit forming the eastern portion, Mount Kœnig. I had now obtained data sufficient to enable me to determine the extent of the lower basin of the river, by laying down the position and direction of the nearest ranges. The last-mentioned appeared flat-topped, and presented yellow cliffs like sandstone. At 6 P. M., the temperature was 81°.

29*th September*. — At 6 A. M., the thermometer was 59°. Re-crossing the river, I travelled, in a straight line, towards my camp of 19th September: thus, performing in one, the journeys of two former days. We crossed the main channel we had previously traced down, thus identifying it. The country was, in general, open; the downs well covered with grass, and redolent with the rich perfume of lilies and strange flowers, which grew all over them amongst the grass. We arrived at the spot I sought,

and there encamped. Our provisions were nearly out; the sun having reduced the men's sugar, and melted the bacon, which had been boiled before we set out. This was an unfortunate blunder. Bacon, in such warm weather, should be carried uncooked, and our's might have then been very good. The men jocosely remarked, that, although we had out-manœuvred the natives, the weather had been so hot that, nevertheless, we could not "save our bacon." Thermometer, at 5 P. M., 83°.

30*th September*.—Thermometer, at 7 A. M., 67°. I found, by my map, that I might very much shorten the homeward route to next camp (that of 18th September), by travelling towards it in a straight line across the downs. We accordingly set out on the bearing of $5\frac{1}{2}°$ S. of E., and hit the spot exactly at a distance of eighteen miles; arriving early, so as to afford some good rest to our horses. We crossed open downs chiefly, passed through a narrow belt of brigalow (about a mile wide), and twice crossed a tributary to the river, which tributary we thus discovered. The water-course on which we had again encamped, arose in open downs of fine firm clay, and it was pleasant to see a great river thus supplied by the waters collected only amongst the swelling undulations and valleys of the country through which it passed, like the rivers of Europe. The river we had discovered, seemed, in this respect, essentially different from others in Australia, which usually arise in mountains, and appear to be rather designed to convey water into regions where it is wanting, than to carry off any surplus from the surfaces over which they run.

1*st October*.—Our track back across the downs,

brought again into view the Northern range, and I now named the prominent mountain at its salient, Mount Northampton, in honour of the noble marquis at the head of the Royal Society. The range to the southward also appeared above the trees of the valley, and I gave the name of Mount Inniskillen to the salient mountain, which appeared so remarkable a feature to us on first advancing into that region, from the eastward. We again reached the river this day, after traversing the wide plains. Its woods still resounded with the plaintive cooing of a dove, which I had not seen elsewhere. At a distance, the sound resembled the distant cooy of female natives, and we at first took it for their voices until we ascertained whence these notes came. I had arrived at a fine reach of the river, and while watering the horses, preparatory to leaving its banks, (to make a short cut on our former route,) when a pair of these birds appeared on a bough over head, so near that I could take a drawing, by which I have since ascertained the bird to have been *Geopelia cuneata*.

But the river we were about to leave required a name, for no natives could be made to understand our questions, even had they been more willing than they were to communicate at all. It seemed to me, to deserve a great name, being of much importance, as leading from temperate into tropical regions, where water was the essential requisite, — a river leading to India; the "nacimiento de la especeria," or *region where spices grew:* the grand goal, in short, of explorers by sea and land, from Columbus downwards. This river seemed to me typical of God's providence, in conveying living waters into a dry parched land, aud thus affording access to open and extensive

pastoral regions, likely to be soon peopled by civilised inhabitants. It was with sentiments of devotion, zeal, and loyalty, that I therefore gave to this river the name of my gracious sovereign, Queen Victoria. There seemed to be much novelty in the plants along its banks. The shells of the fresh-water mussle (*unio*), which lay about the old fires of the natives, exceeded in size any we had seen elsewhere. I measured one, and found it six inches long, and three and a half broad. On the plains near this spot, grew a beautiful little *Acacia*, resembling *A. pendula*, but a distinct species, according to Mr. Bentham.* We crossed the open downs and our former route, hastening to make the tributary river before night. We reached the channel by sunset; the moon was nearly full, and we continued to search in the bed for water, until we again fell in with our former track, near the place where we had watered our horses on the morning of the 17th September. On hastening to the pond, we found the intense heat of the last twelve days had dried it up, and we were obliged to encamp without water; a most unpleasant privation after a ride of thirty miles, under an almost vertical sun. The river must receive a great addition below this branch from the Northampton ranges, entering probably about that great bend we had this day cut off; leaving the deep reaches formerly seen there, on our left, or to the northward. An uncommon drought had not only

* *A. Victoriæ* (Benth. MS.) glabra, glauca, ramulis teretibus, phyllodiis linearibus subfalcatis obtusis basi angustatis crassis enervibus, glandulâ prope basin immersâ, pedunculis glaberrimis gracilibus racemosis capitulo parvo 12—20-floro multoties longioribus.

dried up the waters of this river, but killed much of the brigalow scrub so effectually, that the dead trunks alone remained on vast tracts, thus becoming open downs.

2*d October*. — At 6 A. M. the thermometer gave a temperature of 59°. The height above the sea was 1081 feet. In tracing back our old track, I sent Corporal Graham to examine a part of the river channel likely to contain water, and the report of his pistol some time after in the woods, welcomer than sweetest music to our ears just then, guided us to the spot, where he had found a small pond containing enough for all our wants. For the men, having no more tea or sugar, a good drink was all that was required; the poor fellows prepared my tea not the less assiduously, although I could have had but little comfort in drinking it under such circumstances, without endeavouring to share what was almost indivisible. We this day performed a long journey, reaching our former bivouac, of the 16th September, on Graham's creek, at an early hour. Three emus were seen feeding close by; but, although several attempts were made to get near them, with a horse stalking, we could not kill any of them.

3*d October*. — Soon after we had quitted our bivouac, the emus were again seen on the plains. I could not deny the men the opportunity thus afforded them of obtaining some food; for, although they concealed their hunger from me, I knew they were living on bread and water. Graham succeeded in wounding one of the birds, which, nevertheless, escaped. He then chased a female followed by about a dozen young ones, towards us, when we caught three. It had occurred to me this morning, to mark

and number the bivouacs we had occupied thus far, for the purpose of future reference, when any other party might proceed, or be sent again, into this country. I had, therefore, cut the number 73 on a tree at this bivouac of 3d October, under the initials N.S.W. We pursued a straight course over the downs, east by compass, until we joined our old route along the water-course, from our camp near the gap, and this brought us back, at an early hour to that spot, where I marked a tree with the figures 72.

4th October. — We recrossed the brigalow range, (where the temperature, at 9 A.M., was 79°,) and alighted by the pond at the junction of the Nivelle and Nive; near where we had passed the night of the 12th September. This day we again saw the *Callitris;* a tree so characteristic of sandy soils, but of which we had not observed a single specimen in the extensive country beyond. Marked 71 on a tree.

5th October. — Soon after we left our bivouac, I saw in the grass before me, a large snake. This was rather a novelty to us, being almost the first we had seen in these northern regions of Australia. I dismounted, and went forward to strike it with a piece of wood. Yuranigh did the same, both missed it, when it unexpectedly turned upon us, took a position on higher ground beside a large tree, then descended with head erect, moving nimbly towards the horses, and the rest of the party. The deadly reptile glided straight to the forefeet of my horse, touched the fetlock with his head, but did not bite; then passed to the hind legs and did the same, fortunately the horse stood quietly. The snake darted thence towards

one of the men, who was about to throw a stick at him, and was next in the act of pursuing Yuranigh, when Graham gave him a charge of small shot, which crippled his movements until he could be despatched. This snake was of a brown colour, red spotted on the belly, about six feet long, and five inches in circumference. I had never before known any Australian snake to attack a party, but we had certainly brought the attack on ourselves. We made a good cut on our former circuitous route when tracing down the river Nive, and arrived at our former bivouac at an early hour. This was fortunate, as all the ponds, formerly full of good water, had, in the interim, dried up; and I proceeded to cross the scrubby range, by pursuing a straight direction towards Mount Pluto. But some magnetic influence so deranged my compass, that, on reaching the crest of the range, I found that mountain bore nearly east instead of N.E.N. I saw three of my fixed points, however, by which, with my pocket sextant, I could ascertain our true position which proved to be very wide of my intended course. It was, like many other accidental frustrations of my plans in this journey, an aberration that did us good, for we had thereby avoided the bad scrub formerly passed through, and also a rocky part of the range. We next descended into a valley in which, after following down a dry water-course two miles, we found a fine pond of water, exactly as the sun was setting. This day I had shot a curious bird, somewhat resembling a small turkey, in a tree. The feathers were black; the head was bare and red. This fowl was apparently of the galinaceous tribe. The flesh was delicious, and afforded a most timely dinner to the party. A

numerous body of natives had followed our former track across the rocky ranges we traversed this day, as appeared by their foot-marks, and Yuranigh also discovered, in the same manner, that three natives had this morning preceded us on our return; nevertheless we saw none of these denizens of the woods.

6th October.—Thermometer, at 6 A. M., 48°. Height above the sea, 696 feet. This day we hoped to rejoin the party at the camp of the Pyramids; but the journey was long, and it included an ascent of Mount Pluto, from which I had still to observe some important angles. I marked this bivouac, with 70 cut on a tree, the two last being, respectively marked, 71 and 72, as already stated; these numbers continuing the series from LXIX, my lowest camp on the Belyando.

The scrub is thick about these volcanic ranges, but on the downs and plains of Central Australia, that impediment disappears. My men and myself were in rags from passing through these scrubs, and we rejoiced at the prospect of rejoining, this day, our countrymen at the Pyramids. I found a fine open forest between the ponds where we had formerly passed the night, and Mount Pluto; and we crossed several water-courses, the grass on their banks being green and young, because the old grass had been burnt off by the natives. These water-courses form the highest sources of the Salvator. We were at no very considerable elevation above the sea where we had slept (696 feet), yet we found the air on the mountains much cooler than that of the interior plains. There was much Callitris in the woods passed through this day; and the soil, although well covered with grass, was sandy. I ascended Mount

Pluto by the N. W. side, where the loose fragments of trap, on a very steep slope, obstruct the growth of a thorny scrub, covering other parts of the mountain sides. The view from the summit was very favourable for my purpose, and I passed an hour and a half in taking angles on all distant points. Mount Owen and Mount Kilsyth were both visible; Buckland's Table-land in the East, and some of the recently discovered ranges in the west, were just visible across the trap-rock range, which connected Mount Playfair with Mount Hutton; which range almost shut out the view to the westward. In the S. W., some very remarkable features appeared to terminate westward, in abrupt cliffs over a low country, into which the Maranòa (as far as known), the Warrego, and the Nive, seem to carry their waters. What that country is, was a most interesting point, which I was very reluctant to leave still a mystery. No volcanic hills appeared to the westward of this trio, which thus seem to mark the place where the upheaving forces have most affected the interior structure of Australia. The temperature on Mount Pluto, at noon, was 90°; and the elevation above the sea, 2420 feet.

On descending to where I had left the horses, we mounted, and struck into the old outward track; but we had difficulty in following it, although it was not above a month old. We saw many kangaroos to the eastward of Mount Pluto, but could not get a shot at any. I had seen much smoke in the direction of our camp, and was anxious about the safety of the party left there. We reached it before sunset, and were received with loud cheers. All were well, the natives had not come near, the cattle were in high condition. Mr. Stephenson had a fine collection of

insects, and some curious plants. My man Brown had contrived to eke out the provisions so as to have enough to take us back to Mr. Kennedy. The grass looked green and luxuriant about the camp, and the spot proved a most refreshing home both to us and to our jaded horses, on whose backs we had almost constantly been for nearly a month. The party had collected specimens of *Xerotes leucocephala*; *Bossiæa carinalis*; the purple *Indigofera australis*; *Xerotes multiflora*; the *Dodonæa hirtella* of Miquel, a hairy shrub with pinnated leaves; *Evolvulus linifolius*; *Goodenia pulchella* Benth.; *Hibbertia canescens*; these had been found on the rocky ground near the camp, some on the sides, and even near the summits of the pyramids. On the sandy flats at the foot of these hills, were gathered, *Ajuga australis*; *Dampiera adpressa*, a gay, though, almost leafless herb, with blue flowers nestling in grey wool; three miles below the camp a species of *Vigna*, closely allied to *V. capensis* Walp., was found; and among the larger forest trees was a Eucalyptus, allied to, but probably distinct from, the *E. sideroxylon* A. Cunn.

The *Labichea digitata* was now in fruit; the *Jacksonia scoparia* formed a shrub, ten or twelve feet high, occupying sandy places, and having much resemblance to the common broom of Europe. The *Acacia Cunninghamii* grew about the same height; the *Grevillea longistyla* was seen on the sandstone, forming a shrub seven or eight feet high; and there also grew the pretty *Zieria Frazeri**; the *Dodonæa*

* *Z. Fraseri* (Hook. MS.); ramulis junioribus puberulis, foliis impunctatis brevissime petiolatis, foliolis lanceolatis acutis marginibus leviter revolutis subtus pallidis pubescenti-sericeis, pedun-

mollis was a small shrub six feet high, whereof the fruit was now ripe; the *Leucopogon cuspidatus*, also small. A *Pimelea* near *P. linifolia* formed a shrub, only two feet high, growing on the rocks; the *Hovea lanceolata*, grew ten feet high in similar situations; the *Leptospermum sericatum* was still abundant on the sandstone rocks, and amongst these also grew the *Pomax hirta*, a plant six inches high.

At the base of these mountains, a slight variety of *Acacia viscidula* formed a bush twelve feet high; a variety of *Boronia bipinnata* formed a small upright shrub, with flowers larger than usual; and much finer specimens were now also found, of the white and red flowered *Boronia eriantha;* the *Dodonæa peduncularis* was loaded with its fruit; the *Schidiomyrtus tenellus*, or a new species nearly allied to it, formed a shrub six feet high. A variety of *Aotus mollis*, with rather less downy leaves and rather smaller calyxes; the *Acacia longispicata*, with its silvery leaves and long spikes of yellow blossoms, acquired a stature of twelve feet, at the foot of the rocks; and small specimens of the beautiful *Linschotenia discolor*, which we had also observed, in a finer state, near Mount Pluto. The *Labichea digitata* was abundant in sheltered ravines amongst the rocks; and, also, the *Dodonæa acerosa*, loaded with its four-winged reddish fruit, formed a shrub there four feet high.

On the flats at the base of these ranges, grew the stiff, hard leaved, glutinous *Triodia pungens*, with fine erect panicles of purple and green flowers (the first occasion this, on which I had seen this plant in

culis trifloris folio brevioribus.— Very distinct from all other *Zieriæ*. Detected by Fraser on Mount Lindsay.

flower). The *Brunonia sericea* continued to appear; also a minute species of *Alternanthera*. The *Dianella strumosa* formed a coarse, sedgy herbage, relieved by its large panicles of blue flowers; and a fine species of Dogbane near *Tabernæmontana*, and probably not distinct from that genus, according to Sir William Hooker. A shrub, five feet high, which proved to be a new species of *Acacia*, also grew at the foot of the precipices*; a new and very distinct species of *Logania*†; a new *Rutidosis*, a tall herbaceous perennial‡; a fine, new, long leaved *Grevillea*, with yellow flowers.§ A woolly-leaved *Keraudrenia*, with inconspicuous flowers‖; and, in the open forest, a pretty species of

* *A. uncifera* (Benth. MS.) molliter velutino-pubescens, ramulis subteretibus, stipulis subulatis caducissimis, phyllodiis falcato-ellipticis v. oblique oblongis utrinque acutis uncinato-mucronatis minute 1—2-glandulosis, racemis polycephalis phyllodio paullo longioribus, capitulis multifloris tomentosis. — Near *A. Caleyi* and *A. vestita*. Phyllodia from an inch and a half to two inches long, half an inch broad, resembling much in shape those of *A. myrtifolia*.

† *L. cordifolia* (Hook. MS.); herbacea erecta estipulata glabra, foliis cordato-acuminatis sessilibus 3—5-nerviis, racemis corymbosis axillaribus terminalibusque in paniculam contractam terminalem foliosam magis minusve congestis.

‡ *R. arachnoidea* (Hook. MS.); elata, arachnoideo-tomentosa, foliis remotis lanceolatis acuminatis calloso-cuspidatis, panicula laxa, ramis longis polycephalis, capitulis aggregatis, involucris ovatis.— A widely distinct species from the only hitherto described species of this genus (*R. helichrysoides*), both in the leaves and flower-heads.

§ *G. juncifolia* (Hook. MS.); ramis angulatis pubescenti-sericeis, foliis rigidis angustissime linearibus elongatis semiteretibus acutis glabris marginibus revolutis, racemis ovatis multifloris, pedicellis perianthiisque sericeis, ovariis sessilibus longissime albo-sericeis, stylis glabris, folliculis oblique ovatis sericeo-tomentosis.

‖ *K. ? integrifolia* (Hook. MS.); foliis oblongo-lanceolatis apiculatis subtus pannoso-tomentosis marginibus costa nervisque

Comesperm, about five feet high, with rosy flowers, and smooth or downy stems; it was allied to *C. retusa*.*

On the rocky slopes, or crests, were found, also, various new plants which have been since described, viz. A small shrub, with leaves from three to four inches long, found to be a new species of *Conospermum*†; a small shrubby species of *Labichea*‡; an inconspicuous shrub, two feet high, was a new species of *Micrantheum*, allied to *M. ericoides*, Desf.§; a downy *Dodonæa*, very near *D. peduncularis*, but with thinner truncated leaves, and more glutinous fruit‖; and, on the edge of the mountain, grew a curious new Acacia, resembling a pine tree¶, but with

glandulosis.— In this the styles are connected at the apex, free below. The capsule is deeply 5-lobed. The anthers are remarkably curved outwards, like a horse-shoe, which is not the case in true *Keraudrenia*. —*W. I. H.*

* *C. sylvestris* (Lindl. MS.); erecta a basi divisa, caulibus pubescentibus glabrisve, foliis oblongis mucronatis, racemis corymbosis terminalibus, bracteis deciduis, corollæ lobo medio integerrimo.

† *C. sphacelatum* (Hook. MS); foliis linearibus subfalcatis sphacelato-apiculatis molliter incano-pubescentibus inferne longe attenuatis uninerviis paniculis pedunculatis corymbosis, floribus bracteisque sericeis.

‡ *L. rupestris* (Benth. MS.) glabra vel vix in partibus novellis puberula, foliis sessilibus plerisque trifoliolatis, foliolis lineari-oblongis spinoso-mucronatis coriaceis marginatis terminali lateralibus bis pluriesve longiore, antheris subæqualibus conformibus.

§ *M. triandrum* (Hook. MS.); foliis cuneatis solitariis, floribus masculis triandris.

‖ *D. pubescens* (Lindl. MS.); minutissime pubescens, viscosa, foliis brevibus apice triangularibus tridentatis truncatisque, capsulis tetrapteris pedunculatis alis rotundatis.

¶ *A. pinifolia* (Benth. MS.) glabra ramulis teretibus, phyllodiis erecto-subincurvis longe lineari-filiformibus nervo utrinque prominenti subtetragonis breviter pungenti-mucronatis, pedunculis solitariis brevissimis, capitulis multifloris, sepalis spathulatis liberis v.

Plate 9.

the stature of a shrub, and a *Grevillea*, forming a shrub seven or eight feet high.*

vix basi cohærentibus. — Very near *A. pugioniformis*, but the phyllodia are five, six, or more inches long, being longer even than in *A. calamifolia*. It differs from the latter species in the inflorescence and calyx.

* *G. longistyla* (Hook. MS.); ramis pubescentibus, foliis longissime linearibus acutis basi attenuatis margine subrevolutis supra glabris subtus albo-tomentosis, racemis oblongo-ovatis, perianthiis glandulosis, ovariis semiglobosis stipitatis sericeo-hirsutissimis, stylo longissimo glabro. — Leaves a span and more long; flowers rather large, apparently purple.

CHAP. VIII.

Singular fossils near the camp.— Interesting plants discovered. — Ascent of Mount Faraday.— Return to the Warrego.— A native old man.— Pass by Mount Owen.— The Maranoà. — Recross the minor streams.— Its tributaries.— Nondescript animal.— Possession Creek.— A horse killed by accident.— Approach the camp of Mr. Kennedy.— Find all well there. — Many plants found there.— His account of the natives' visits.— Ride to Mount Sowerby.— Fossils found there.— — The whole party finally quits the depôt camp.— Trace the Maranòa downwards.— Open downs on its banks.— Water scarce.— Requisite ponds.— Reach its junction with the Balonne.— Traces of horsemen along our old track.— The party arrives, and halts, at St. George's bridge.— Mr. Kennedy sent to reconnoitre the country in a direct line towards Mount Riddell.

7th and 8th October. — THESE two days were devoted to the completion of my maps of the late tour, and of drawings of two of the birds seen on the Victoria. Our horses required a day or two's rest, and I had enough to do in my tent, although the heat was intense.

9th October.—Once more I rode into the lower country a few miles, to take a sketch of another remarkable hill. In the afternoon I examined the sandstone caverns in the hill opposite to our camp; some very curious organic remains having been found there by one of the party during my absence. I found that these occurred on the lower side of sandstone strata, and that they had become denuded by

the decomposition of sandstone underneath. We were to leave this camp next morning. The men were on very reduced rations, and I was apprehensive that we might be disappointed in our search for water in many places where we had before encamped and found it. In the afternoon, the sky became suddenly overcast, distant thunder was heard; and the southern portion of the heavens, over the country to which we were about to return, was evidently discharging some heavy rain there. At twilight, the rain commenced to fall heavily at our camp, and continued to do so during four hours. Such a supply came most opportunely for us, and, although I could not be so vain as to suppose that the thunder rolled only for our benefit alone, I felt as thankful as though it had. This day I saw on the cavernous hill the woolly *Actinotus Helianthi*, one of the most singular of umbelliferous plants; and, on descending to the base, a white variety of the *Comesperma sylvestris*, with smooth branches: unlike the kind observed in September, it did not grow above one foot high. A small shrub grew on the rocks, a pretty little Calytrix, near *C. microphylla* A Cunn. (from Port Essington and Melville Island); but the branches, with their leaves, are more stout, and the bracts more obtuse. Sir W. Hooker supposes it to be a new species. We here found this day a woolly-leaved plant, with long branching panicles of brilliantly blue flowers, which Professor de Vriese has ascertained to be a new genus of the natural order of Goodeniads, and which he calls *Linschotenia discolor*.* Thermo-

* Linschotenia *de Vriese.*

Calyx superus, limbo obsoleto. Corollæ quinquefidæ tubo hinc fisso, lobis majoribus margine utroque auriculato-crispis, alatisve,

meter, at sunrise, 60°; at noon, 94°; at 4 P. M., 76°; at 9, 64°;—with wet bulb, 64°.

10*th October*.—We commenced our retreat with cattle and horses in fine condition, and with water in every crevice of the rocks. That in the reedy swamp near the pyramids, had a sulphureous taste, and nausea and weak-stomach were complained of by

duobus minoribus lanceolatis, interne appendice proprio cucculliformi instructis. Antheræ imberbes, cohærentes. Filamenta libera, quandoque subflexuosa. Ovarium uniovulatum; stylus inflexus; stigmatis indusium ore nudum; semen in nuce solitarium.

Genus dicatum Jano Huigenio Linschotenio, geographo, navarcho, itineratori seculi XVI., qui historiæ naturalis, imprimis vero geographiæ et rei nauticæ progressui eximie profuit.

Linschotenia Dampieræ proxime habitu et plurimis cum floris, tum habitus characteribus, paracolla cucculliforme ab omnibus Goodeniacearum generibus huc usque cognitis, diversa.

L. discolor, suffruticosa, erecta, albo-lineata, foliis alternis, petiolatis, oblongis, acutis, integris, planis, superne pallide viridibus, glaberrimis, inferne densissime albo-lanatis. Inflorescentia spicata, ramosa, griseo-lanata, floribus subsessilibus, basi bracteolatis, corollis quinquelobis, lilacinis, extus griseo-barbatis; paracorollis nigrescentibus.

Legit anno 1846, Præfectus militaris nobil. T. L. Mitchell in Nova-Hollandia subtropica.

Planta elegantissima, inter Scævolas persimilis habitu *Sc. Reinwardtii* de Vriese in *Lehm. Pl. Preiss.* videtur esse suffruticosa. Caulis est teres. Folia sunt alterna, fere 7 cent. longa et 1½ cent. lata, petiolata, petiolo ad insertionem quodammodo crassiore, fere ½ cent. longo, integerrima, utrinque acuta, nervo medio crassiore, subtus lanata, fere alutacea, albissima; superne viridia, opaca; bracteæ lineari-lanceolatæ, utraque superficie lanatæ, acutæ; rhachis elongata, fere 10—15 cent. longa, inferne albo-lanata, sursum griseo-lanata. Pedunculi communes 5—10 cent. longi, patentes, alterni, griseo-tomentosi. Flores alterni, sessiles, bracteolati, bracteolis suboppositis; calyces villosi, limbis obsoletis; corollæ persistentis lobis marginibus inflexis, externe medio calycis instar hirsutis, interne glaberrimis: cucullis corollæ badiis, convexis, uno latere hiantibus, interiori mediæque loborum parti affixis; filamenta libera, filiformia, antheræ his continuæ, glabræ. Stigma capitatum, indusio imberbe.—*De Vriese.*

some of the men. I certainly did not think the swamp a very desirable neighbour, with the thermometer sometimes above 100°, and therefore I was more desirous to retire from it. As the party returned along their former track, I went to the summit of Mount Faraday, and observed a number of useful angles for my map. Mr. Stephenson was with me, and found some new plants and insects, while I ascertained the height, by the barometer, to be 2523 feet above the sea. The plants growing there were *Commelina undulata*, *Thysanotus elatior*, *Plectranthus parviflorus*, the yellow *Vigna lanceolata*, with a villous form of *Ajuga australis*, and a little *Pilotheca*, with narrow, close-pressed leaves.* The mountain is volcanic, the broken side of the crater being towards the N.W. Some compact basalt appeared near the summit. On reaching the Warrego in the evening, we found the party had arrived there at 3 P. M., the distance travelled comprising two former days' journeys. They had also found water close to the camp, where none had been when they had been there before. Many beautiful shrubs were now beginning to bloom. The *Bursaria incana* was now covered with its panicles of white flowers; the *Ozothamnus diosmæfolius*, a shrub four feet high, was loaded with small bulbs of snow white flowers; a

* *P. ciliata* (Hook. MS.); ramulis pilosis, foliis erectis subimbricatis linearibus obtusis ciliatis dorso convexis glandulosis superne planis nudis, petalis ovali-ellipticis obtusis marginibus extus albo-pubescentibus. — Allied to *P. australis*, but different in the leaves, which are here ciliated at the margin, very glandulous on the back; and in the flowers, which are smaller, the petals more obtuse, and having a broad, white line of pubescence round the margin at the back.

downy variety of *Lotus australis*, with pink flowers*, was common on the open ground; the *Acacia podalyriæfolia* was now forming its fruit; in the open forest we found a beautiful little *Gompholobium*†; the *Hakea purpurea*, a spiny-leaved, hard shrub, with numerous crimson leaves‡, and the *Euphorbia eremophila*, an inconspicuous species of *Spurge*.§ Mr. Stephenson and I had been so busy collecting these on our way back, that we only reached the camp at sunset. Thermometer, at sunrise, 58°; at noon, 75°; at 4 P.M., 82; at 9, 62°;—with wet bulb, 59°.

11*th October*.—Following the chord of the arc described by our journeys of 30th June, and 1st July, on tracing down the Warregò, I made the furthest of the two camps, by a straight line of nine miles, passing through a fine open forest country. The pond, which formerly supplied us here, was now quite dry, but one much larger in a rocky bed was found a few hundred yards further up the river. Thermometer, at sunrise, 54°; at noon, 80°; at 4 P.M. 88°; at 9, 57°;—with wet bulb, 52°.

* *L. australis* var. *pubescens*, ramis pedunculisque pilis mollibus patentibus vestitis. G. B.

† *G. foliolosum* (Benth. MS.) foliis impari-pinnatis, foliolis 15–25 obovato-truncatis obcordatisve glabris, petiolis ramulisque pilosulis, racemis terminalibus subcorymbosis laxis paucifloris. Fruticulus ramosissimus foliolis confertis vix lineam longis.

‡ *H. purpurea* (Hook. MS.) foliis tereti-filiformibus rigidis trifidis segmentis simplicibus furcatisve mucronatis glabris, floribus purpureis pedicellisque glabris, capsulis obovatis acutis lignosis stipitatis subtuberculatis.

§ *E. eremophila* (All. Cunn. in Hook. Herb.); fruticosa, ramulis fastigiatis foliisque parvis linearibus dentato-serratis glabris, capsulis globoso-triangularibus lævibus glabris.—Collected by Allan Cunningham in Dirk Hartog's island.

12*th October*.—This day we also turned two former days' journeys into one, and arrived at Camp XXXVIII. by 2 P. M., the ponds at the intermediate camp (XXXIX.) being dry. Nevertheless, the recent rains had left some water in rocky hollows, at which we could water our horses on the way. By the river side this morning, we found a variety of the *Helipterum anthemoides*, D. C., with the leaves pubescent and the scales of the involucre paler. The silky grass, *Imperata arundinacea*, occurred in the swampy flat we crossed before we encamped. Soon after we set out in the morning, an old man was seen coming along the valley towards us, without at first seeing the party. When he did, which was not until he had come very near, he uttered a sort of scream, "*ooey!*", and ran up amongst some rocks beyond the water-course, nor would he stop, when repeatedly called to by Yuranigh. He carried a firestick, a small bag on his back, and some bomarengs under his left arm. His hair was grey but very bushy, and he looked fat. The poor fellow was dreadfully frightened, which I much regretted, for I might otherwise have obtained from him some information about the ultimate course of the Warrego, &c. We found water in one of the rocky ponds near our former encampment, but others in which some had formerly been found, were dry, and I was not without some doubt about finding water, on our way back to join Mr. Kennedy. Thermometer, at sunrise, 42°; at noon, 87°; at 4 P. M., 96°; at 9, 78°;—with wet bulb, 60°.

13*th October*.—The night was uncommonly hot, thermometer 79° here, where in June last it had been as low as 7°. The sky had been clouded, but

the morning cleared up, and we enjoyed a cool breeze in passing amongst the sandstone gullies. On arriving at the foot of Mount Owen the day became very sultry, and there was a haziness in the air. On Mount Owen Mr. Stephenson found a new species of *Vigna* with yellow flowers*, and the *Swainsonia phacoides*, conspicuous with its pink flowers. We took up our old ground over the gullies, and I went in quest of water. The ponds formerly here, had dried up, but Yuranigh found a deep one in the solid rock, containing enough for months. It was inaccessible to horses, but with a bucket we watered both these and the bullocks. The mercurial column was low, the sky became overcast, and a slight shower raised our hopes that at length rain might fall in sufficient quantity to relieve us from the difficulty about water, in returning towards Mr. Kennedy's camp. Thermometer, at sunrise, 63°; at noon, 79°; at 4 P.M., 76°; at 9, 64°;—with wet bulb, 59°.

14*th October*.—During the night several smart showers fell, and at daybreak the sky seemed set for rain. When we set off it rained rather heavily. I took a new direction, and got into a gully which led to our former track of 17th June. Crossing it, I passed into the bed of the Maranòa, and followed it down with the carts, until we arrived at the large pond in solid rock, to which I had sent the bullocks on the 18th June. Here we encamped, and I marked

* *V. lanceolata* (Benth. MS.) glabra volubilis, foliolis lanceolatis reticulatis integris v. basi hastato-lobatis, pedunculis folio multo longioribus apice paucifloris, calyce glabro campanulato dentibus tubo brevioribus, carina rostrata acuta.—Flowers smaller than in *V. villosa*, but of the same form.

a tree with the number 74, as it might be necessary on future occasions to refer to where a permanent supply of water may be found in that part of the country. Thermometer, at sunrise, 60°; at noon, 71°; at 4 P. M., 66°; at 9, 52°;—with wet bulb, 48°.

15*th October*.—Last evening the wind blew keenly, and the night was cold, the temperature very different from that experienced of late. The morning presented a thick haze and drizzling rain, this kind of weather being rather favourable for crossing the loose sandy surface, which the men dreaded, remembering how it had before affected their eyes. I at first endeavoured to travel this day along the river bank, but I found its course so tortuous, and the country on its banks so hilly and rocky, that I left it, and proceeded in a direction that would intersect the former track. We thus passed through a fine open forest, fell in with our old track at a convenient point, and found water still in the pond at the camp of 15th June, where we therefore again set up our tents. The sky had cleared up, and the air was pleasantly cool, with a fine breeze blowing from S. E. On the river bank, we observed this day the native bramble, or Australian form of *Rubus parvifolius*, L. A small nondescript animal ran before Mr. Stephenson and myself this morning. It started from a little bush at the foot of a tree, had large ears, a short black tail, ran like a hare, and left a similar track. It was about the size of a small rabbit. The death of our dogs on the Bogan, under the intense heat and drought, had been a very serious loss to us, as we found on many occasions like this; and where kangaroos, of apparently rare species, escaped from

us from our having no dogs. We were, also, from want of such dogs, much more exposed to attacks of the natives. Evening again cloudy. Thermometer, at sunrise, 45°; at noon, 64°; at 4 P. M., 67°; at 9, 57°;—with wet bulb, 50°.

16*th October*. — A clear cool morning, with a fine refreshing breeze from east, succeeded the cloudy weather of yesterday. I crossed the little river, and travelled straight towards Camp XXXVII. On the higher ground grew a heath-like bush, (*Eriostemon rhombeum*,) three or four feet high. At a distance of only nine miles, we came upon the little river beside that camp, and fell into the old track a mile on beyond it; and, early in the day, we arrived at a chain of ponds, half-way to the next camp at Possession Creek. The ponds where I went to encamp were dry; but, on following the water-course downwards, I came to its junction with the Maranòa, at half a mile from the camp, and found a large basin of water at that point. Here, the *Notelæa punctata* was no longer a low trailing bush, but a shrub ten or twelve feet high, with the appearance of a European *Phillyrea*. On the wet ground at the river bank, grew an entire-leaved variety (?) of *Plantago varia*. The wild carrot, *Daucus brachiatus*, with an annual wiry root, was also seen in the rich ground near the river. Yuranigh found more of the native tobacco, which the men eagerly asked for some of. This was a variety of the southern *Nicotiana suaveolens*, with white flowers, and smoother leaves. Thermometer, at sunrise, 37°; at noon, 70°; at 4 P. M., 76°; at 9, 51°;—with wet bulb, 42°. Height above the sea, 1315 feet. (Camp 75.)

17*th October*. — The thermometer stood as low as the freezing point this morning, and the day was cooled by a wind from the N.E. In crossing Possession Creek, we saw nothing of the formerly belligerent natives. From Camp XXXIII, I took a direct course to Camp XXXII, where we arrived early. No water remaining in the adjacent ponds, I followed the dry channel down to its junction, and found the Maranòa full of water; this point being three quarters of a mile from our camp. We had this day passed over a fine open forest country, in which were also groves of the *Acacia pendula*. The vegetation, in general, seemed drooping, from the want of rain; but the whole was available for grazing purposes. We saw, this day, plants of *Pycnosorus globosus*, in the dry forest land; and the purple-flowered *Ruellia australis*. The *Acacia spectabilis* formed a spreading bush, about eight feet high. The *Hovea leiocarpa*, and *Convolvulus erubescens*, were also found; with a new *Myriogyne* *, and a small shrub, three feet high, with narrow, blunt, glaucous leaves, tasting like rum. A small fruit, with the fragrance of an orange, proved to be a new species of *Triphasia*.†

It is much to be regretted, that the specimens gathered here of the brigalow, should have been so imperfect that they could not be described. If

* *M. racemosa* (Hook. MS.) radice perenni fusiformi superne multicipiti, caulibus decumbentibus, foliis lineari-cuneatis grosse serratis punctatis, capitulis in racemis subnudis terminalibus. — Very different from any described *Myriogyne*, in the terminal racemed capitula.

† *T. glauca* (Lindl. MS.); spinosa, foliis coriaceis integerrimis crenatisque linearibus glaucis obtusis retusisque, floribus trimeris dodecandris 2—3nis brevi-pedicellatis.

an Acacia, Mr. Bentham says, it is different from any he knows.

The vicinity of the river here affords security for a supply of water, in seasons like the present, when any contained in the smaller channels may be dried up. In the afternoon we lost a horse, which fell from a precipitous part of the bank, at the junction of the creek with the river. One man was leading four, when one horse kicked another, which, falling perpendicularly, from a height of about forty feet, was so much hurt as to be unable to rise. The folly, or rather obstinacy of the man, leading so many together, on the verge of a precipice, was contrary to particular orders previously given, and which ought to have been enforced by Graham, who was in charge. Thermometer, at sunrise, 32°; at noon, 78°; at 4 P.M., 79°; at 9, 60°; — with wet bulb, 45°.

18*th October*. — The horse, still unable to get on his legs, and apparently dying, was shot, and buried in the sand of the bed of the creek. This loss, when we were so near our depôt camp, was much to be regretted, as we should have otherwise taken back every bullock and horse, after an absence, from that camp, of four months and fifteen days. We saw not a single native about the woods or the river, and were, therefore, the more anxious to know how Mr. Kennedy and the natives had agreed at the depôt camp, now within a day's ride of us. We continued to follow our former track to Camp XXXI, and it may be remarked, to their credit, that the aborigines had not attempted to deface any of these marked trees. It might have occurred, even to them, that such marks were preparatory to the advent of more white men into their country. The fine, deep reaches in the river,

looked still full and unfailing; and a short journey to-morrow would take us to the camp of the rest of the party. We this day found a little jasmine in flower, of which Mr. Stephenson had formerly collected the seeds. It was white, not more than a foot high, with solitary white flowers, emitting a delightful fragrance, and it grew in the light sandy forest land.* A tree loaded with pods, which the natives eat, has been determined by Sir William Hooker to be the *Brachychiton populneum*, Br., or *Sterculia heterophylla* of Cunn. Here was picked up a singular little annual plant, belonging to the genus *Pimelea*, with hairy, loose spikes of minute green flowers †; and by the river we found the *Calandrinia balonensis*.

The morrow was looked forward to with impatience. Four months and a half had the main body of the party been stationary; and that was a long time to look back upon, with the expectation that it had remained undisturbed, although isolated in a country still claimed and possessed by savages. Thermometer, at sunrise, 38°; at noon, 83°; at 4 P. M., 86°; at 9, 64°; — with wet bulb, 48°.

19*th October*. — The party was early in motion along the old track. Leaving the intermediate camp to the left, we struck across the country so as to hit the track again within a few miles of the depôt camp. Old tracks of cattle, when the earth had been soft, and the print of *a shoe*, were the first traces of the

* *J. suavissimum* (Lindl. MS.); herbaceum, ramis angulatis, foliis sessilibus simplicibus alternis oppositisque lineari-lanceolatis, pedunculis solitariis unifloris supra medium bibracteatis foliis longioribus, sepalis subulatis, corollæ laciniis 5—7 acutissimis.

† *P. trichostachya* (Lindl. MS.); annua, foliis alternis linearibus pilis paucis adpressis, spicis laxis terminalibus villosissimis.

white man's existence we met with; nor did we see any thing more conclusive, until the tents on the cliffs overhanging the river were visible through the trees. We saw men, also, and even recognised some of them, before our party was observed; nor did they see us advancing, with a flag on the cart, until Brown sounded the bugle. Immediately all were in motion, Mr. Kennedy coming forward to the cliffs, while the whole party received us with cheers, to which my men heartily responded. Mr. Kennedy ran down the cliffs to meet me, and was the first to give me the gratifying intelligence that the whole party were well; that the cattle and sheep were safe and fat; and, that the aborigines had never molested them. A good stock-yard had been set up; a storehouse had also been built; a garden had been fenced in, and contained lettuce, radishes, melons, cucumbers. Indeed, the whole establishment evinced the good effects of order and discipline. Drysdale, the storekeeper, had collected many birds and plants, and had also been careful of the stores. The orphan from the Bogan, little Dicky, had grown very much, and seemed a very intelligent boy; and the little intercourse Mr. Kennedy had had with the aborigines, limited as it was, by my instructions to him, was curiously characteristic of the tact and originality of this singular race. On one occasion, when on being informed that natives were near, he had hastened to meet them, taking little Dicky with him, he found remaining only a female and her mother, a remarkably old woman, who had before concealed herself among the reeds. The daughter on his approach sung a beautiful song, rapidly running through the whole gammut. Then bowing her head,

she presented the back of it to him, and placing her stone-tomahawk in his hand, she bade him strike. Mr. Kennedy threw the tomahawk on the ground; and seeing the grey head amongst the reeds, he prevailed on the mother to come out. She was hideous in person, which was much more *affreux* from the excessive rage with which she seemed to denounce the white men; — her fiend-like eyes flashing fire, as if prophetic of the advent of another race, and the certain failure of her own.

The daughter seemed, at first, to treat lightly the ire of her aged parent, playfully patting with her finger her mother's fearfully protruding lip. Mr. Kennedy endeavoured to ascertain, through Dicky, the downward course of the river, and she seemed to express, and to point also, that the river passed southerly into the Balonne, which river she named, and even the Culgòa: she seemed to say

the name of that locality was "Mundì." Neither of these females had any covering, but the younger wore, by way of ornament, a page of last year's Nautical Almanac, suspended by a cord from her neck. The mother continuing implacable, the daughter, with a graceful expression of respect for her, and courtesy to the stranger, waved her arm for him to retire, which gesture Mr. Kennedy and Dicky immediately obeyed. At another interview, a scheme to decoy Dicky away was tried, as related thus in Mr. Kennedy's journal: — "Sunday, 26th July. Prayers were read at 11 A. M., after which, having been told by Drysdale that the natives were still near the camp, and that there was a native amongst them who could make himself more intelligible to Dicky than the rest, I had started down the river to see them to collect what information I could, and then induce them to go farther from the camp. I had not gone far before the cooys from the tents made me aware that the natives were by this time in sight. I therefore returned, and the first object that caught my eye was the bait — a gin, dancing before some admiring spectators; and behind her was a fine, lusty native advancing by great strides, as he considered the graceful movements of his gin were gaining as fast upon the hearts of the white men. On going up to him Dicky put the usual questions as to the name of the river, and its general course. His reply to the first was not very satisfactory, but our impression was that he called it Bàlun. With respect to its course, he plainly said that it joined the Balonne; repeatedly pointing in the direction of that river and then following with his hand, the various windings of this branch; repeating the while some

E. B. Kennedy, del. R. Carrick, lith.

Day & Son, Lith. to the Queen

word implying 'walk, walk,' and ending with 'Balonne.' He knew the names of the mountains Bindàngo and Bindyègo. After this conversation he took some fat, which he appeared to have brought for the purpose, and anointed Dicky by chewing it, and then spitting upon his head and face. He next whispered to him, and (as Dicky says) invited him to join them. I then motioned to the men, who were looking on at a short distance, to go to the camp; and as they obeyed, I made the same signs to the native to move in the opposite direction, which he at length did with evident reluctance and disappointment, throwing away his green bough, and continually looking back as he retired. I desired Dicky to tell him never to come near our tents, and that no white man should go to his camp."

It seems that one family only inhabits these parts, as only three huts at most were to be seen in any part of the country, either up or down the river; a very fortunate circumstance for our party, obliged to remain so long at one spot, after such a formal notice had been given to quit it, as our visitors of the 30th of May gave during my absence. Mr. Drysdale, the store-keeper, had collected an herbarium during the long sojourn of the party at that camp, which included many new plants. In August, plants had begun to blossom; and in September various novelties had been found in flower. In August, he gathered *Eurybia subspicata*, Hook. *Eurybiopsis macrorhiza;* or a species allied to it. *Acacia decora; Goodenia coronopifolia* R. Br.; *Convolvulus erubescens;* a hairy variety of *Boronia bipinnata*, with smaller flowers than usual, and most of the leaves simply pinnate. A cruciferous plant, probably new; two new species of

Eurybia and *Calotis*, *Senecio carnosulus?* D.C. An *Asperula?* with the habit of Galium. *Myoporum dulce; Veronica plebeia;* an acerose *Leucopogon;* a species of violet, with small, densely-spiked flowers (was covered with wild bees in search of its honey). A species of *Brunonia*, apparently the same as the *B. simplex* of the north bank of the Darling, but taller and less hairy. A *Nyssanthes*, apparently undescribed; *Swainsona coronillæfolia;* a small variety of *Salsola australis; Xerotes decomposita*, a hard-leaved, sedgy plant; a fine *Leucopogon*, with unilateral flowers; and another species with yellowish blossoms, both perhaps new. A pretty little grass belonging to the genus *Pappophorum*, with a blackish green colour.* A magnificent new *Acacia*, with leaves nearly a foot long.† A minute annual *Calandrinia*.‡ An *Erodium*, closely resembling the European *E. littoreum*, Arn. and Benth., from Isle of St. Lucie; it was also found by A. Cunningham in the swamps of the Lachlan. A new *Prostanthera*, with indented glandular viscid leaves.§ A beautiful ever-

* *P. virens* (Lindl. MS.); pumilum, cæspitosum, aristis 9 plumosis rigidis apice nudis, spicâ compositâ laxâ tenui villosâ, glumis pilosis, paleis sericeo-pilosis, foliis tactu scabris vaginis pilosis juxta ligulam villosis.

† *A. macradenia* (Benth. MS.); glabra, ramulis angulatis, phyllodiis elongatis subfalcatis acutiusculis basi longe angustatis marginatis crassiusculis uninervibus penniveniis nitidis glandula magna prope basin, racemis brevibus polycephalis flexuosis subpaniculatis, capitulis multifloris, calyce breviter dentato apice corollaque aureo-hispidulis, ovario tomentoso. — Near *A. falciformis* D. C. Phyllodia eight to ten inches, or near a foot long, from six to ten lines broad.

‡ *C. pusilla* (Lindl. MS.); foliis equitantibus subacinaciformibus radicalibus, caulibus simplicibus racemosis v. unifloris, floribus longè pedunculatis infimis divaricatis, floribus minutis 8-andris.

§ *P. euphrasioides* (Benth. MS.) tota viscoso-villosa, foliis

lasting plant belonging to the genus *Helipteres*.* A new *Leptocyamus*, with slender, trailing, hairy stems.† *Sida virgata* (Hook. MS.).‡ *Sida filiformis* (A. Cunn.).§ A new *Dodonæa* in the way of the *D. cuneata* of the colony, with long, slender flower stalks.‖

In September, were gathered in water-holes on the ranges, *Ranunculus sessiliflorus*, Br. in De Cand.; and near the camp the hard-leaved *Xerotes laxa; Justicia media; Evolvulus linifolius; Goodenia flagellifera* De Vr.; *Chloanthes stœchadis;* the beautiful *Acacia spectabilis*, loaded with yellow flowers, on the banks of the river S. W. of the camp. A broader haired variety

lineari-oblongis pinnatifido-dentatis ad axillas subfasciculatis, floribus paucis axillaribus breviter pedicellatis, calycis labiis integris, antherarum calcare longiore loculum superante. — The foliage and flowers look at first sight very much like those of some of the Australian *Euphrasiæ*. The leaves are about three lines long.

* *H. glutinosa* (Hook. MS.); piloso-glandulosa, viscosa, foliis angusto-linearibus cuspidato-acuminatissimis, capitulis solitariis.— Young buds rich rose-colour: full blown capitula pure white, the involucre having a slight tinge of purple.

† *L. latifolius* (Benth. MS.); molliter villosus, foliolis membranaceis oblique obovatis ovalibusque utrinque adpresse pubescentibus villosisve, calycibus subsessilibus villosis.

‡ *S. filiformis* (All. Cunn. MS.); tota stellato-tomentosa, ramis patentissimis elongatis, foliis brevissime petiolatis cordato-ovatis crenato-serratis, pedunculis axillaribus unifloris gracillimis folio triplo longioribus, calyce 5-fido petalis duplo breviore.

§ *S. virgata* (Hook. MS.); ramis elongatis virgatis stellato-tomentosis, foliis brevissime petiolatis lineari-oblongis serratis supra pubescenti-velutinis subtus calyceque 5-fido stellato-pannosis fulvescentibus, stipulis acicularibus rigidis spinescentibus, pedunculis axillaribus unifloris folio brevioribus, petalis (flavis) calyce duplo longioribus.

‖ *D. peduncularis* (Lindl. MS.); viscosa, glabra, foliis rigidis elongatis spathulatis acutis tridentatis integrisque lobo medio majore, pedicellis 1—3-filiformibus, capsulis tetrapteris viscosis alis coriaceis rotundatis.

of *Acacia pennifolia; Boerhaavia mutabilis*, Br.? *Tecoma Oxleyi; Acacia Cunninghamii*; *Carissa ovata* Br.? a spiny, zigzag, shrub with shining leaves and white flowers; *Cassia zygophylla.* A variety of *Sida pisiformis*, A. Cunn., with closer leaves and a browner pubescence; *Sida* (Abutilon) *Frazeri* Hook. var. *pumila. Keraudrenia integrifolia; Leptocyamus latifolius; Pomax hirta?* D. C., or a variety. *Eremophila Mitchellii* var.? *latifolia* (Benth. MS.). *Dodonæa acerosa*, A. *Helichrysum?* near *H. odorum* D. C., but with the leaves downy on both sides. *Pimelea colorans*, a plant found by A. Cunningham along the river Macquarie. *Stackhousia muricata*, Lindl., which is, perhaps, not distinct from *S. spatulata*, Sieb. A *Podolepis*, resembling *P. rugata* Labill. *Podolepis longipedata*, D.C. *Solanum biflorum*, a grey-leaved, dwarf, herbaceous plant. *Ranunculus plebeius*, very like an English buttercup. A *Pleurandra*, near *P. ericifolia*, probably a variety. *Ruellia australis; Pittosporum salicinum.* One of the Dodder laurels (*Cassytha pubescens*, R. Br.), a species also found near Port Jackson. *Vigna lanceolata; Xerotes longifolia*, a very common, hard-leaved plant. *Anthericum bulbosum*, R. Br. *Geranium parviflorum?* or one nearly allied to it: exactly the same species is found in Van Diemen's Land. *Helipterum anthemoides?* D.C., but smaller in all its parts. *Neptunia gracilis; Brunonia sericea; Sida*, apparently new. A new and fine species of *Mentha.** A new, round-leaved species

* *M. grandiflora* (Benth. MS.); molliter pubescens, caulibus erectis, foliis petiolatis ovatis acutiusculis dentatis planis verticillatis laxis sexfloris, calycis dentibus lanceolato-subulatis intus vix pilosis, corolla calyce subduplo longiore, staminibus exsertis. — Near *M. australis* Br., but the leaves broader and flowers larger.

of *Prostanthera*.* A new species of *Swainsona*†; *Pleurandra cistoidea* (Hook. MS.).‡ A new *Trichinium*, with conical flower-heads.§ A species of *Hibiscus*, with purple flowers.‖ A new species of *Daviesia*, with spiny, shaggy leaves.¶ Thermometer, at sunrise, 46°; at noon, 81°; at 4 P.M., 75°; at 9, 50°;—with wet bulb, 47°.

* *P. ringens* (Benth. MS.); ramulis puberulis, foliis petiolatis rhombeo-orbiculatis integerrimis utrinque opacis glandulosis, calycis glandulosi glabri labiis integris, corollæ labio superiore subgaleato, antherarum calcaribus loculo brevioribus.—Foliage nearly that of *P. rhombea*. Flowers much larger.

† *S. phacoides* (Benth. MS.); decumbens molliter pubescens, foliolis 13—15-linearibus cuneatisve, pedunculis folio longioribus apice paucifloris, legumine brevissime stipitato villoso.—A low plant with much the habit of several *Phacas* or *Astragali*. Flower yellow, smaller than in *S. coronillæfolia*.

‡ *P. cistoidea* (Hook. MS.); pilis stellatis brevibus rigidis asperis, foliis angusto-linearibus obtusis marginibus revolutis, floribus in ramos breves solitariis, staminibus sub-12 unilateralibus, filamentis infra medium inæqualiter connexis antheras longitudine æquantibus, ovario parvo globoso lanato.

§ *T. conicum* (Lindl. MS.); hirto-pubescens, caule basi diviso, ramis ascendentibus subsimplicibus, foliis lineari-lanceolatis acutis, spicâ conicâ, bracteis uninerviis mucronatis glabris, rachi tomentosâ.

‖ *H. Sturtii* (Hook. MS.); suffruticosus ubique subtus præcipue dense stellatim tomentosus, foliis petiolatis oblongo-ovatis ellipticisve obtusis grosse crenato-serratis, pedunculis axillaribus unifloris solitariis folio brevioribus, involucro monophyllo . . . . . turbinato 6—8-fido calycem 5-fidum æquante, capsulis hispidissimis.—This species was also found by Capt. Sturt in the south interior. The flowers are purple, sometimes yellowish in drying. The involucre is very remarkable, monophyllous, broad at top and 6 or 8-cleft, almost wholly concealing the calyx.—W. J. H.

¶ *D. filipes* (Benth. MS.); ramis hirsutis inermibus, foliis ovali-oblongis sublanceolatisve apice spinoso-mucronatis planis pubescentibus, pedicellis filiformibus folio demum longioribus in pedunculo brevissimo solitariis geminisve.

20*th October*.—It was necessary to halt here a day or two, that the blacksmith might have time to repair the light carts, and shoe the horses. I took a ride this day with Mr. Kennedy to a hill some miles eastward of the camp, in which he had found some remarkable fossils. The hill consisted of a red ferruginous sandstone, in parts of which were imbedded univalve and bivalve shells, pieces of water-worn or burnt wood, and what seemed fragments of bone. To some of the portions of wood, young shells adhered, but others bore, evidently, marks of fire; showing the black scarified parts, and those left untouched or unscarified, very plainly. Other portions of woods had their ends water-worn, and were full of long cracks, such as appear in wood long exposed to the sun. These specimens were, in general, silicified: but the outer parts came off in soft flakes resembling rotten bark, being equally pliant, although they felt gritty, like sand, between the teeth. This hill was rather isolated, but portions of tabular masses, forming the range of St. George's Pass, and in contact with the volcanic hill of Mount Kennedy which forms a nucleus to these cliffy ranges, being about 9 miles N. E. of this hill, to which, from its contents, I gave the name of Mount Sowerby. The weeping *Geijera pendula* again occurred in abundance near Mount Sowerby; the *Capparis lasiantha* was climbing up the rocks there, and amongst the grasses we observed a species of the genus *Lappago*, perhaps not distinct from the Indian *L. biflora*. Thermometer, at sunrise, 39°; at noon, 56°; 4 P.M., 87°; at 9, 67°; with wet bulb, 52°.

21*st October*.—I took a ride with Mr. Kennedy to

the summit to which I had attached his name, having occasion to take a back angle from it on Mount Owen, and one or two other points. I could there show him many of the distant summits to the northward of the country, I was about to lay down on my map. We rode over a fine tract of forest land, extending from the camp to the foot of the mountain, a distance of about twelve miles. On the high range grew a profusion of a beautiful little *Pterostylis*, quite new, but in the way of *P. rufa**, a single specimen of a new *Kennedya* was gathered there.† On the plains we found a curious new form of the genus *Danthonia*, much resembling wheat in ear‡, and a new *Jasmine*, with a rich perfume, resembling *I. lineare*, but with short axillary corymbs of flowers. This species has been named by Dr. Lindley after myself.§ We found also the *Solanum violaceum* with its violet flowers and orange spines. A fine wiry herbage was formed by the *Laxmannia gracilis*, now in flower, *Erythræa aus-*

* *P. Mitchellii* (Lindl. MS.); foliis omnibus radicalibus stellatis, vaginis scapi multiflori 3 remotis, sepalis setaceo-acuminatis, labelli laminâ ovato-lineari obtusâ canaliculatâ supra pilis (luteis) articulatis crinitâ.

† *K. procurrens* (Benth. MS.); foliolis 3 ellipticis ovatisve mucronulatis utrinque hirtellis subtus reticulatis, stipulis subcordato-lanceolatis acutissimis striatis, pedunculis versus apicem plurifloris petiolo multo longioribus, floribus subnutantibus. — Flowers considerably smaller than in *K. prostrata*, and petals narrower.

‡ *D. triticoides* (Lindl. MS.); culmo ramoso stricto, foliis glabris margine spinoso-scabris basi planis apice involutis, spicâ cylindraceâ distichâ secundâ, spiculis subtrifloris flore summo mutico abortiente, paleæ inferioris dorso lanatæ aristâ rectâ glumâ mucronatâ multinervi longiore.

§ *J. Mitchellii;* foliis ternatis glabris; foliolis linearibus linearilanceolatisque, ramis teretibus, corymbis axillaribus subsessilibus foliis multo brevioribus, calycibus pubescentibus subtruncatis 5-dentatis, corollæ limbo 5-fido acuto.

tialis D. C., a small-flowered species of *Centaury*, the *Dianella rara*, R. Br. and *Salvia plebeia*. Thermometer, at sunrise, 48°; at noon, 85°; at 4, P. M., 84°; at 9, 65° with wet bulb, 52.°

22*d October*.—The information Mr. Kennedy had gathered from the natives, about the final course of the river; his surveys thereof, which, even on foot, he had extended sixteen miles (eight miles each way from the camp), and the fact, that the fish of the Balonne, Cod, or *Gristes Peelii* had, at length been caught in it, all led to the conclusion that this river was no other than the tributary which on the 24th, of April I at first followed up, and afterwards halted and wrote back to Mr. Kennedy about. By following this down, the probability that we should find water seemed greater, than by returning along our old track, where we had left behind some ponds so small that we could not hope to find any water remaining, especially at two of the camps between us and Bindango, I therefore determined to follow this river downward, and to survey its course. We left the depôt camp this morning, and to avoid some overhanging cliffs on the river, we travelled first over an open tract. The camp we left, namely, XXIX, or "*Moondi*," or the "second depôt camp," will be found a valuable cattle-station or sheep-station, by the first squatter coming this way. The runs about it are very extensive; the natives few and inoffensive, and the stock-yard &c., left there, renders it very complete. I must not omit, however, to mention, that the water had become slightly brackish, but not so as to be unpalatable, or even, indeed, perceptible, except to persons unused to it. The large reach had fallen two feet since the party first occupied that station. In

other reaches lower down, that we passed during this day's journey, the water was perfectly sweet. I proceeded about thirteen miles with the light party, and encamped at the junction of a little river from the N. W. formerly crossed by me (on my ride of 23d May). A new poppy was found on the flats by the river, near *Papaver dubium;* but the leaves, when dry, became dark-green not pale; the aculei are too numerous and stout, pectant not depressed, and the flowers very small. The teams and drays did not arrive as expected, and the men with me had not brought any provisions with them. We saw natives in the woods before we encamped, and parts of the grass on fire. A beautifully worked net, laid carefully under a piece of bark, having two curiously carved stakes attached to it, was found by Mr. Kennedy, who made deep impressions of his boots in the soil near it, that the natives might see that white men had been there, and had left the net untouched. Thermometer, at sunrise, 47°; at noon, 81°; at 4 P. M., 85°; at 9, 70°; with wet bulb, 56°. Height above the sea, 1185 feet (Camp 76).

23*rd October*.—We were obliged to halt, and await the arrival of the drays, which only took place at ½ past 11, A. M. The cattle were found to be so fat and fresh, that the drivers could not get them along faster. Mr. Stephenson obtained a specimen of the dove observed by me on the Victoria. (*Geopalia cuneata*). I had heard the note in the woods, and directed his attention to it. The *Swansonia coronillæfolia* adorned the rich flats with its crimson pear-shaped blossoms, and the *Crotalaria dissitiflora*, was also in flower, but smaller than usual; more rigid, with a denser silky pubescence, and smaller, shorter leaflets. The *Sida*

(Abutilon) *Frazeri* (Hook. MS.)* and also the *Clematis stenophylla*†, were found on this part of the river. Thermometer, at sunrise, 48°; at noon, 91°; at 4 P. M., 93°; at 9, 65°; — with wet bulb, 53°.

24*th October*. — Soon after leaving the camp this morning, we entered upon an open country, the downs extending before us from the right bank of the river, the course of which was somewhat to the eastward of south. The cattle came on faster this day, and we encamped on the skirts of the plain, near a fine reach of water in the river. We were now upwards of twenty miles to the westward of Bindango, with abundance of water; whereas I had always looked back to much difficulty in returning by that route, as the ponds near it were likely to be dried up. I had seen the higher parts of these downs from the summit of Bindango, but did not then suspect that a large river was in the midst of them, whose course was so favourable for a traveller proceeding northward. The discovery of these extensive downs was an important incident in this journey, watered as they were by a fine river; especially as the country to the N. W. was open or thinly wooded, and likely to be found so

* *S.* (*Abutilon*) *Fraseri* (Hook. MS.); tota stellato-pubescens, foliis ovatis-cordatis acutis argutè crenato-serratis, petiolo folium æquante, pedunculis axillaribus solitariis unifloris apicem versus articulatis, calycis 5-partiti segmentis ovato-lanceolatis. — *Sida dumosa*, J. Backhouse MS. in Hook. Herb. (not Swartz). This has a most extensive range; having been found at Moreton Bay by Mr. Backhouse, at Brisbane River by Fraser and Smith, and in other parts of this colony by All. Cunningham.

† *C. stenophylla* Fraser in Hook. Herb. *C. occidentalis* A. Cunn. in Hook. Herb. — Very nearly allied to *C. microphylla* of De Cand. Syst. i. p. 147. but in that the carpels are said to be glabrous.

as far as the central downs and plains on the banks of the river Victoria. A new and very remarkable Ventilago was found this day.* I now again numbered the camps, continuing the series backwards, by a different character; this was numbered 77; the last, 76. The utility of these numbers along our surveyed line will be admitted, when the country is taken up, as they will not only serve to identify localities with the map, but may also enable the land-surveyors to connect local surveys with the general map of the country. The sky was overcast with thunder-clouds in the afternoon, and the mercurial column was low; but no rain fell, and a clear starry sky, at 9 P. M., admitted of our observations as usual. Thermometer, at sunrise, 53°; at noon, 85°; at 4 P. M., 83°; at 9, 58°; — with wet bulb, 47°. Height above the sea, 1295 feet. (Camp 77.)

25*th October*. — We continued in the direction of a column of smoke I had perceived yesterday, believing that there I should intersect the river, or at least find water. We found the open downs at length, hemmed in by *Acacia pendula*, growing openly; but which gave place to a scrub, as we approached some ridges. These ridges consisted of red gravel; the scrub contained callitris, casuarina, silver-leaved iron-bark, malga and brigalow, the two latter growing so thickly as to compel me to turn eastward to avoid them. This elevated rocky ground was found more extensive than I had expected, throwing down many water-

* *V. viminalis* (Hook. MS.); foliis anguste elongato-lanceolatis integerrimis nervis costa parallelis, paniculis axillaribus terminalibusque. — The other hitherto known species of the genus, have broad leaves, more or less denticulate, with patent nerves. The flowers and fruit entirely accord with those of the genus. — *W. J. H.*
"Tree 20 feet high, growing on high sandy ridges."

courses to the east and north-east; but, at length, we made the river, and encamped after a journey of $10\frac{1}{3}$ miles. It there ran through a deep valley, due south, with a broad channel, in which we found a reach of water covered with ducks. The country beyond it, to the eastward, over which our former route passed, appeared like high table-land in bluey distance; but neither of the mountains Bindango or Bindyego were visible from the country traversed by the party this day. Thermometer, at sunrise, 43°; at noon, 81°; at 4 P. M., 94°; at 9, 65°; — with wet bulb, 51°. Height above the sea, 1186 feet. (Camp 78.)

26*th October*. — A river coming into the Maranòa, about a mile from our camp, was apparently the river Amby; but without having traced its course throughout, I could not feel certain of this, after all I had seen of these rivers: I think this was the same, however. We kept the Maranòa on our left during the whole of this day's journey, and were thus able to pursue a tolerably straight line in the direction of about 20° E. of S. At length, arriving at the junction of an important tributary from the N.W., full of water, and seeing another also join from the east, I crossed the main channel and encamped on the left bank, in sight of a reach of broad blue water below the junction, of an extent which reminded us of the Balonne itself. The valley of the river seemed bounded by continuous ranges of high land, which looked in the back-ground like table-land. Recently, much grass and bushes had been burnt, along the banks of the river, by the natives; and we this day passed over a tract where the grass was still in a blaze on both sides of us. Crows and hawks hovered over the flames,

apparently intent on depriving the devouring element of whatever prey more properly belonged to them. In a dry part of the bed of the river, I met with many instances of a singular habit of the eelfish (*Jewfish*) *Plotosus Tandanus*.* I had previously observed, elsewhere, in the aquatic weeds growing in extensive reaches, clear circular openings, showing white parts of the bottom, over which one or two fishes continually swam round in circles. I now found in the dry bed, that such circles consisted of a raised edge of sand, and were filled with stones, some as large as a man's closed fist. Yuranigh told me that this was the nest of a pair of these fish, and that they carried the stones there, and made it. The general bed of the river where I saw these nests, consisted wholly of deep firm sand; and that the fish had some way of carrying or moving stones to such spots, seemed evident, but for what purpose I could not discover. Thermometer, at sunrise, 56°; at noon, 83°; at 4 P. M., 93°; at 9, 75°; — with wet bulb, 59°.

27*th October*.—We now travelled along the left bank of the river, and found the country tolerably open. The *Adriania acerifolia* grew on an islet in the river.† This still pursued a remarkably straight course, and contained abundance of water. After passing over a place where the bush was on fire, we saw a female in the act of climbing a tree. When she had ascended about eight feet, she remained stationary, looking at us without any appear-

* See Pl. 6. fig. 2. p. 44. vol. i. of Three Expeditions.

† *A. acerifolia* (*Croton acerifolium* All. Cunn. MS.); foliis cordato-ovatis trifidis segmentis acuminatis grosse inæqualiter sinuato-serratis, subtus bracteisque pubescenti-tomentosis.— Shrub three feet high. Flowers scarlet. Collected by Allan Cunningham along the Lachlan river.

ance of dismay. I continued to pursue a straightforward course, but told Yuranigh to inquire, *en passant*, what was the name of the river; to which question she replied, in his own language, "The name of that water is Maranòa:" thus confirming the name we had already understood, however indirectly, to be that of the river. It proved the accuracy of my servant Brown's ear, for it was first communicated to him, during my absence, by the old chief at Bindango. The gin appeared to be climbing in search of honey. To state that this female wore no sort of clothing, were superfluous to any reader of this journal who may have been in such interior parts of Australia. After travelling about fourteen miles, we came upon a fine reach of the river, and encamped beside it. Thermometer, at sunrise, 59°; at noon, 68°; at 4 P. M., 95°; at 9, 77°;—wet bulb, 65°. Height above the sea, 832 feet. (Camp 80.)

28*th October*.—Heavy rain was falling soon after day-break, and I most willingly sat still in my tent, hoping the rain would continue. Just in sight of it grew a picturesque tree: the half-dead, half-alive aspect presented by the same sort of tree, was not unfrequent in the Australian woods; and I was induced to sketch this specimen, as highly characteristic of the scenery. These trees, "so wither'd and so wild in their attire," generally appear under the shelter of other taller trees; have half their branches dead, the part still in foliage drooping like the willow, the leaf being very small. It is an Acacia (*A. varians*), and I was informed by Yuranigh that it is the Upas of Australia; the natives call it "Goobang," and use a bough of it to poison the fish in waterholes. They are too honest and fair in their fights to think of poisoning their weapons. The aspect of

Plate 10.

Gn. T.L.M. del. J. Carrick. lith. London, Longman & Co. 1848. Day & Son Lith.rs to the Qu

RIVER MARANÔA (28th Oct.r)

this half-dead tree is certainly characteristic of its deleterious qualities, in the wild romantic outline

resembling Shakspeare's lean, poison-selling apothecary,—

> —— "who dwelt about the very gates of death,
> Pale misery had worn him to the bones."

Some good soaking rain fell until about 10 A. M., after which we had a cool day and cloudy sky. The

rain ensured to us at least dew on the grass for a morning or two; and this, with the prospect of finding the channel dry lower down, was a great advantage. Thermometer, at sunrise, 61°; at noon, 75°; at 4 P. M., 76°; at 9, 60°;—wet bulb, 51°.

29*th October*. — A clear cool morning. We travelled this day with so much ease, that we got over twenty miles without apparent fatigue, to bullocks or horses. The necessity for travelling so far arose from the utter want of water in the river bed. The course was very direct; the country was open, and clothed with rich verdure on which our cattle could have reposed, doubtless with great satisfaction, both to themselves and drivers, had water also been at hand; but after travelling over, and measuring twenty miles, we were obliged to encamp without any. As this seemed only a branch of the river, I sent Corporal Graham to ascertain what was beyond, while I, with Yuranigh, examined this channel backwards. We found no water in either direction, but Corporal Graham discovered the main channel at a mile and a half westward from our camp, and traced it to near the junction with the ana-branch on which we were encamped. We discovered this day a club and shield, such as the natives use on the Belyando, carefully put away upon a sort of scaffold of bark, and covered with bark. The shield was made of very light wood, the face being rounded, and having been covered with a dark varnish like japan; for which the surface had been made rough by crossed lines, resembling those made on the first coat of plaster. It was evident, from the marks on this shield, that the clubs were frequently used as missiles.* Each man of the tribe

* Deposited in the British Museum (60, 61.).

that visited my camp on the Belyando, carried three or four of these, but no shields; a plain indication that they were not then armed for war against other aborigines. Thermometer, at sunrise, 36°; at noon, 68°; at 4 P.M., 73°; at 9, 49°;—with wet bulb, 40°.

30*th October*.—We were now fifty-two miles from the junction of the dry channel we crossed by the Balonne, and forty from the nearest part of our former route, in advancing into this country. The risk of want of water was worth encountering in the most direct line homewards, which was by following down this river. I travelled, as straight as the bush would allow, towards the junction; Graham examining the channel while we proceeded. No water was found where the rivers united. Having halted the small party with me, I followed one branch many miles with Yuranigh, but all we could find were some wells, dug by natives, in a part of the sandy bed; in one of which Yuranigh found, by a long bough he thrust in, that there was moisture about five feet below the surface. I returned, determined to encamp near this, and dig a well. The bullock teams had also arrived when I returned to the party, and I learnt that Drysdale, having observed that my little dog Procyon came in wet, had been led to the discovery of a lagoon about three miles back, at which the cattle had been already watered. I immediately encamped. At finding water the dog was most expert, the native next, we inferior to both. We had come about fifteen miles, and I wished to lay down the journey on the map. On doing this, I found we had at length attained a point from whence, in case of necessity, we could go as far as the Balonne, even if no water were found in the country inter-

vening, the direct distance being under forty miles. During the afternoon, a still larger lagoon was found, higher up than the first. I resolved to give the cattle a day's rest, and then to proceed prepared, by well watering them previously, to travel on to the Balonne, but not with much expectation that scarcity of water would oblige us to go so far. Thermometer, at sunrise, 34°; at noon, 70°; at 4 P.M., 78°; at 9, 60°;—with wet bulb, 46°.

31*st October*.—Two men were sent to the westward, where they found a dry sandy country with pines, the same as that seen by me on my first ride from St. George's bridge to the N.W., on the 18th of April. I was myself engaged at the camp, on my general map of the country. Thermometer, at sunrise, 33°; at noon, 81°; at 4 P.M., 84°; at 9, 51°;—wet bulb, 43°. Height above the sea, 882 feet.

1*st November*.—The cattle and horses, having been all night loose beside Drysdale's ponds, were brought in early, and we then proceeded. After travelling about eight miles, over ground bearing traces of inundation, and looking, as we proceeded, into the river channel for water, Yuranigh found a lagoon in a hollow parallel to the river, and I encamped, resolved to reduce as much as possible the distance to be traversed in uncertainty about finding water. We had, however, found rocky ridges on the left, like bergs to the river; and the voices of natives in the woods, as well as these ridges, redeemed the country from the aspect of drought. This was but a small portion of the fine pastoral country, traversed by this river, where we found the channel dry; and I think this want was compensated by many lagoons and watercourses in that back country extending to the little river from Mount Abundance, the Cogoon.

2d November.—After watering all the animals, we went forward, prepared to go on to the Balonne, even if we should meet with no water until we arrived at that river. We found, however, that the country we were to traverse was well watered. Three miles on from our camp, the country appeared quite verdant, and park-like in its woods. The channel of the river was bordered with green reeds, and contained a deep reach of sparkling water. The river took a turn to the eastward, and, in the angle formed by its again turning south, a little tributary entered it from the north, which was full of ponds of water, and had not long ceased to run. This came from the rocky tract situated between our old line of route, along the little river Cogoon near Mount First View, and the Maranòa. The water now found supplied the only link wanting in our explored line along the last mentioned river, and I had no doubt that, by crossing that country more directly towards the upper part of the Maranòa, a supply would be found at convenient stages. On crossing the little tributary (which I called Requisite Ponds), we found that the river resumed its straight course towards the Balonne; and, in latitude 27° 31′ 37″ S., we again saw green reeds and a good pond, beside which we encamped. Thermometer, at sunrise, 50°; at noon, 76°; at 4 P. M., 79°; at 9, 63°;—with wet bulb, 61°. (Camp 82.) Height above the sea, 969 feet.

3d November.—The river accompanied us but a short way this day, as I had determined to follow a straight line towards the junction with the Balonne, aware that the course of the river, for ten or twelve miles above that point, turned very much to the westward. We passed through much open forest, and over much sandy ground, on which the callitris

always appeared to predominate. Little scrub lay in our way. At length, plains again appeared before us through the trees; and, beyond them, after travelling twenty-two miles, we saw before us the river line, running north-east. We crossed it, and still continued to travel on towards the main river; but night overtook us when not far distant from it, so that we were obliged to encamp within the distance of a mile and a half, after a journey, with carts, of $26\frac{1}{2}$ miles. Here occurred the only Epiphyte observed during the expedition. It was growing in the dead parts of trees in the forest, and proved to be the *Cymbidium canaliculatum* of Brown. One of the specimens had a raceme of flowers above a foot long. The fragrant *Jasminum Mitchellii* occurred, with narrower leaves than usual, at the foot of the forest trees. *Justicia adscendens*, an inconspicuous weed, covered the plains in large tufts. The *Melaleuca trichostachya* was there; and on the plains, and in open forests, grew a woolly *Andropogon*, which appeared not to be distinct from the *A. bombycinus*. In the open forest grew, here and there, the delicate *Cæsia occidentalis*, and on the plains a small species of *Hedyotis;* a new *Calocephalus* in bunches*, and a creeping plant, with yellow flowers, since found to be a new species of *Goodenia*.† Thermometer, at

* *C. gnaphalioides* (Hook. MS.); annua erecta arachnoidea superne dichotome ramosa, foliis linearibus, capitulorum glomerulis laxiusculis corymbosis, involucri cylindracei squamis pellucidis albis.—Probably a distinct genus.

† *G. flagellifera* (de Vriese MS.); herbacea, glabra, foliis radicalibus longe petiolatis, spathulatis, flagellis elongatis: floribus radicalibus, axillaribus, longissime pedunculatis; calyce supero, quinquefido, laciniis lineari-lanceolatis, bibracteolato; corolla bilabiata flava, labio superiore fisso; filamentis et antheris liberis;

sunrise, 51°; at noon, 85°; at 4 P.M., 86°; at 9, 66°; —with wet bulb, 54°. Height above the sea, 819 feet.

4th November.—At an early hour we proceeded, and had the satisfaction soon to find our old wheel-tracks along the bank of the majestic Balonne. This truly noble river was here as broad as the Thames at Richmond; its banks were verdant with a luxuriant crop of grass, and the merry notes of numerous birds gave the whole scene a most cheering appearance; especially to us who were again upon a route connected with home, and at a point 200 miles nearer to it, than where we had last seen that route. We had since made the discovery, and completed the survey, of the lower Maranòa, a river which had brought us in a very straight direction back to this point; and by tracing this down, we had established a well watered line of route back to the fine regions we had discovered in the more remote interior. I marked a tree at this camp (83.), which mark is intended to show where this route turns towards the Maranòa; x. being marked at the next camp back along the old track. In the Balonne, huge cod-fish (*Gristes Peelii*) were caught this afternoon; indeed, we already felt comparatively at home, although still

stigmatis indusio ciliato; flagellis folii-et floriferis valde elongatis capsula prismatica, biloculari; seminibus marginatis compressis; flagellis floriferis; floribus in axilla folii ovato-rotundati, auriculati, subamplexicaulis, contentis, brevius pedunculatis.—Folia radicalia, 8—10 cent. longa, 1½—2 cent. lata, apice rotundata, subrepandula, deorsum attenuata, subdecurrentia, utrinque glaberrima, subtus pallidiora; folia flagellorum bracteiformia, ovata, subrotunda, uno vel utroque latere auriculata, alterutra auricula multo minore, floribus vero in bractearum illarum axillis, reliquis multo minoribus neque ad normam perfectis, brevius pedunculatis. Affinis species *G. hederaceæ.—De Vr.*

far from the settled districts, and strangers to all that had been passing in the world during seven months. I was busy endeavouring to complete my maps before other cares should divert my attention from the one subject that had occupied it so long. But in perusing nature's own book, I could, at leisure, think sometimes on many other subjects, and I fancied myself wiser than when I set out,—much improved in health,—bronzed and bearded; sun-proof, fly-proof, and water-proof: that is to say, proof against the want of it, "*lucus a non lucendo.*" Thermometer, at sunrise, 44°; at noon, 76°; at 4 P.M., 85°; at 9, 71°;—wet bulb, 59°. Height above the sea, 738 feet.

5th November.—We now travelled back along our old track towards Camp VIII., at St. George's Bridge, where the first depôt had been stationed; the tracks of several horsemen, returning after rain, were visible along our route, and the prints of natives' feet with them. How far these parties had been further on, along the other route by which we had advanced, we could not then ascertain. In the course of our ride this day, we came suddenly upon two females, who were so busy digging roots on a plain crossed by our track, that we were too near to admit of their running off before they perceived us; they therefore remained on the spot until we went up to them. They informed us, through Yuranigh, that "the tracks were those of five white men on horseback, who had been accompanied by natives on foot. They came there about one moon before then, and had been looking very much all about; these females could not think what for." We took up our old position, overlooking the rocky bed of the river. Pieces of old iron

had been left untouched by the natives, both at this camp, and were found on our old track in returning. As these articles were such as they could have made great use of, I considered their leaving them a proof of their good disposition towards the exploring party; and of the very favourable impression we had made formerly on the aborigines, at the interview with the assembled tribes of this river. In the scrubs adjacent, we found, for the first time, the ripe fruit of the "Quandang" (*Fusanus acuminatus*), and several shrubs in flower that we thought new to botany. Thermometer, at sunrise, 44°; at noon, 76°; at 4 P. M., 85°; at 9, 71°;—wet bulb, 59°.

CHAP. IX.

Mr. Kennedy sent to explore the Mooni ponds. — I complete the maps. — Excessive heat again. — New plants found. — Mr. Kennedy returns — after suffering much from the heat and drought. — Corporal Graham sent with despatches for the Governor of New South Wales. — The party crosses the Balonne — by St. George's Bridge. — Reaches the Mooni ponds — or river. — Tracks of cattle and horses numerous. — A white woman met with. — Cattle stations. — Heavy and continued rain retards the party. — Floods almost surround the camp. — The waters kept back by a dam of sand. — After seventeen days halt, the party proceeds. — Crosses from the Mooni to the Barwan. — A flood in the Barwan. — Passage with the boats. — Musquitoes numerous after the rain. — Stray horses join ours. — The Maal also flooded. — Cross it with the boats. — The Meei crossed. — Cross other branches of the Gwydir. — Recognise Mount Riddell. — Enter on extensive plains. — Snodgrass lagoon. — A young squatter. — Leave the party in charge of Mr. Kennedy. — Ride homewards.

5th to *9th November*. — THESE days I devoted to the protracting of angles taken on the Victoria, and the last day to writing my despatch to the Government; and on this morning (the 9th) I sent Mr. Kennedy, followed by Corporal Graham and John Douglas, to examine the country in the direction of the furthest point attained by me on my journey of 1831; that was on the Barwan (Karaula) in latitude 29° 2′ S., and bearing about 20° E. of S. from this camp. A chain of ponds, called the "Mooni" ponds, were said to water the intervening country, and I wished to

Plate II.

Sir T. L. M. del. T. Picken lith.

London, Longman & Co 1848.

Day & Son, lith.rs to the Queen.

ascertain whether they were favourable for the connection of our recently explored route, with the termination of that marked out by me in 1831, when my journey, undertaken expressly with the same objects in view, was accidentally frustrated.

Corporal Graham was to go forward to the post-office at Tamworth with the despatches, when Mr. Kennedy, having ascertained the situation of the Mooni ponds, should return. In the meanwhile, I continued to finish maps and drawings, although suffering much inconvenience from excessive heat, under a tent infested with numerous flies. The banks of the river were gay with the purple flowers of *Swainsona coronillæfolia; Fusanus acuminatus*, produced its crimson-coloured fruit, which Yuranigh brought us from the bush; the spotted bark tree, *Elæodendron maculosum*, was also in these scrubs. A yellow-flowered herbaceous plant, has been determined by Professor De Vriese to be identical with the Swan River *Goodenia pulchella*. A salt plant, greedily eaten by the cattle, proved to be a variety of the *Atriplex nummularis*, observed in February on the Macquarie. A species of *Grewia*, in fruit, appeared to be the same as the *G. Richardiana* of Walpers. The *Trichinium fusiforme* R. Br., was covered with its globular, shaggy flower-heads, in the sandy open parts of the forest. A very remarkable shrub, five or six feet high, with the foliage of a Phyllirea, and spreading branches, was loaded with short racemes of white flowers. It proved to be a plant of the natural order of Bixads, and allied to *Melicytus*, but with hermaphrodite flowers.* A submerged plant, in the water,

* *M.? oleaster* (Lindl. MS.); glaberrimus, foliis lineari-lanceolatis supra griseis subtus virentibus venosis racemis strictis multo

was found to be a new species of *Myriophyllum*, with tuberculate fruit.* *Cassia coronilloides*, a low shrub, was in flower.† A shrubby *Myoporum* put forth sweet and edible fruit.‡ A new *Elæodendron*, with small panicles of white flowers, formed a forest tree twenty feet high, remarkable for its spotted bark.§ A fir-leaved *Cassia*, with thin, sickle-leaved pods, formed a bush, from four to five feet high.‖ A new blue-flowered *Morgania*, decorated the river-bank ¶;

longioribus, floribus hermaphroditis. — Obs. *Sep.* 5. *Pet.* 5 hypog. imbricata. *St.* 5 in margine disci magni inserta. *Ovar.* ovatum 1-loc. plac. 3-par. *Stylus* simplex. *Stigma* parvum 3-dent. *Fructus* ignotus, verisim. carnosus.

* *M. verrucosum* (Lindl. MS.); foliis submersis capillaceo-multifidis emersis ternatim verticillatis ovatis pinnatifidis, floribus octandris, fructibus tuberculatis.

† *C. coronilloides* (A. Cunn. MS.); ramis subangulatis petiolisque minute puberulis, foliolis 8–10-jugis lineari-oblongis obtusiusculis glabris, glandula cylindrica inter par infimum, racemis axillaribus 2–3-floris folio multo brevioribus.—Very near *C. australis*, but the leaflets are fewer and smaller, and the subulate glands of that species are wanting.—*G. B.*

‡ *M. dulce* (Benth. MS.); ramulis lævibus, foliis anguste lanceolatis planis acutis uninervibus basi angustatis, laciniis calycinis lineari-lanceolatis acutis brevibus, corollæ limbo imberbi.—Intermediate between *M. tenuifolium* Br. and *M. deserti* Cunn.

§ *E. maculosum* (Lindl. MS.); inerme, foliis linearibus obovatis integerrimis obtusis, paniculis terminalibus ultra folia evectis.

‖ *C. circinnata* (Benth. MS.); glabriuscula, petiolis phyllodineis lineari-subteretibus, foliolis nullis, racemis phyllodio plerumque brevioribus 1–2-floris, legumine plano glabro cincinnato v. spiraliter contorto.—Phyllodia one to one and a half inch long, resembling the leaflets of *C. heteroloba*. Pod like that of several *Pithecolobia*, but not yet ripe.

¶ *M. floribunda* (Benth. MS.); dense glandulosa, cæterum glabra, ramis strictis dense foliosis foliis linearibus rarissime dentatis, pedicellis plerisque geminis folio florali multo brevioribus.—This is a very distinct species which was also gathered by Sir T. Mitchell in 1836, but my specimen was not complete enough to describe it accurately, the branches are thickly covered with

lastly, a new species of indigo*, completed the list of plants we gathered at this season at the camp over St. George's Bridge.

15*th November*.—Mr. Kennedy having been absent much longer than was expected, at length appeared on the opposite bank of the river with Douglas, both being on foot, and Douglas leading only one (strange) horse. The information Mr. Kennedy brought me was favourable to the project of uniting this route with that to the Barwan, and the (now) settled district of the Nammoy. He had found that the Mooni ran nearly north and south, and that its banks were occupied with cattle-stations to within a day's ride of our camp. This ride of discovery had, however, cost the lives of two of our horses, the bearing already mentioned as the direction given for Mr. Kennedy's guidance having been *true* and not magnetic. Pursuing that bearing *by compass*, Mr. Kennedy had ridden almost parallel to the Mooni, sixty-three miles, without hitting them, or finding water. The heat was intense, one of the horses died, and the men were very ill; when they at length reached these ponds. In returning, he had travelled by the stations, and borrowed the horse brought back, from the station nearest to us, occupied by Messrs. Hook. From these

leaves and flowers. The lower leaves are one to two inches long, the flowers blue, like those of *M. glabra*. G. B.

* *I. brevidens* (Benth. MS.) fruticosa, gracilis, pilis parvis canescens, foliolis 6–10-jugis cum impari oppositis obovatis subplanis mucronatis v. emarginatis utrinque strigosis, racemis multifloris laxis folia vix superantibus, bracteis minutis, calycis villosuli dentibus brevissimis obtusis, corolla pubescente, legumine strigilloso incurvo. — It has much the aspect of *I. micrantha* (Bunge), but the flowers are not quite so small, and the teeth of the calyx are very different.

gentlemen Mr. Kennedy had ascertained that Sir Charles Fitzroy was the new Governor.

17*th November*.—The whole party crossed the Balonne by St. George's Bridge, and I arrived, the same afternoon, with a small advanced party on the Mooni, which we made in latitude 28° 17′ 51″ S. The channel was full of water, and thus we completed the last link wanted to form a chain of communication *direct from Sydney*, to the furthest limits we had explored. The ground was imprinted with the hoofs of cattle, and we already felt as if at home. The day was one of extreme heat without any wind; the thermometer stood at 104° in the shade. Yet the horses drew the carts easily twenty-four miles and a quarter. We had passed over a country covered with excellent grass, consisting chiefly of plains and open forest, with scrubs of *Acacia pendula*, and a soil of clay. In the scrubs we found a new species of *Canthium*, a shrub ten or twelve feet high; and in the open forest *Acacia neriifolia* was observed in fruit; *Hibiscus Sturtii* Hook.; an Evolvulus related to *sericeus;* a new yellow *Crotalaria* *; and a noble new species of *Stenochilus*, with willowy leaves and large trumpet flowers.† Thermometer, at sun-

* *C. dissitiflora* (Benth. MS.); herbacea, laxe ramosa, stipulis setaceis, foliolis elliptico-oblongis rarius ovalibus obtusis supra glabris subtus ramulisque pube tenui subcanescentibus, racemis erectis oppositifoliis elongatis, floribus (ultra 20) distantibus, carinæ rostro brevi recto, ovulis numerosis, legumine breviter stipitato pubescente.—Very near to *C. senegalensis* among the *Longirostres*, but the habit is more rigid, the leaflets rather larger, the beak of the keel shorter, and the pod (which is only very young in the specimen) is borne on a short stalk.

† *S.* (*Platychilus*) *bignoniæflorus* (Benth. MS.); glaber viscosus foliis longe lanceolatis linearibusve apice subuncinato, calycis foliolis latis acutis, corollæ glabræ ventricosæ laciniis obtusissimis

rise, 62°; at noon, 103°; at 4 P. M., 104°; at 9, 81°; — with wet bulb, 67°. Height above the sea, 622 feet. (Camp 84.)

18*th November.*—The teams came in very early, not having been above one mile behind. I remained encamped there, in the expectation of some decided change of weather. The night had been oppressively hot. The season during which we had been beyond the Balonne, viz., that between the 23rd April and 5th November, was the most proper for visiting the tropical regions of Australia.

Here we found *Tricoryne elatior*, a delicate yellow-flowered plant; a species of the genus Fugosia near *F. digitata*, a plant of Senegambia, but less glabrous, and with the leaflets of the involucre much larger. *Morgania glabra*, a little erect herbaceous plant, having the appearance of being parasitical on roots; *Acacia varians*, in the open forest, in rich soil. *Anthericum bulbosum*, formerly seen on the Narran. In the thick forest, a shrub six feet high with small white flowers, *Catha Cunninghamii** (Hook. MS.), and a new species of *Vigna* very near *V. lanceolata*, though very different

infima dilatata subtriloba vix cæteris magis soluta, staminibus vix exsertis. — Leaves three to six inches long, two to six lines broad, thick and clammy. Flowers above an inch long, remarkable for the broad divisions of the corolla, and the general form much that of a *Bignonia*. This difference in the form of the corolla, would perhaps justify the placing it into a distinct genus instead of a mere section, especially as that peculiarity which gave the name of *Stenochilus* does not exist, were it not that the forms of the corolla are so different in different other species, that they will not furnish generic characters where the habit is similar.—*G. B.*

* *C. Cunninghamii* (Hook. MS.); inermis, foliis lineari-lanceolatis rigidis mucronato-acutis integerrimis subfalcatis superne latioribus basi in petiolum perbrevem attenuatis, floribus axillaribus fasciculatis, pedunculis simplicibus vel racemosis bracteolatis.

in habit.* Thermometer, at sunrise, 58°; at noon, 102°; at 4 P. M., 103°; at 9, 76°; — with wet bulb, 64°.

19*th November*. — The party moved off at an early hour. The tracks of cattle and horses became more and more numerous as we proceeded, and the channel of the little river was full of water, on which a large species of duck was very plentiful. At length we came upon the track of wheels, and followed them towards the station; which was not yet visible when our young native, Dicky, fell a shouting and laughing, drawing my attention to what certainly was a "*rara avis*" to him. This was a white woman going with pails to milk the cows, and the first white female he could ever have seen. The jeering laugh of the young savage was amusing, as he pointed to that swaddled, straw-bonneted object, as something curious in natural history, to which my attention, as he thought, would be rivetted: but the sight was, nevertheless, a welcome one to all the party. Soon two comfortable stations, one on each side of the river, appeared before us; and the neatly dressed mother of two chubby white children stood at the door of one of them. I had a memorandum from Mr. Kennedy to call at the other, to thank the owner for lending him a horse; and there I first entered again under a roof, and a most agreeable cover it did seem to me after living nearly a year under canvass, in houseless wilds. These were cattle stations, and

* *V. suberecta* (Benth. MS.); leviter pubescens, suberecta, ramosissima, foliolis lato-lanceolatis basi integris vel hastato-trilobatis, pedunculis folio subbrevioribus apice paucifloris, calycis pubescentis campanulati dentibus tubo subæquilongis, carina rostrata acuta, legumine puberulo.

both appeared to be well-laid out for the purpose, and upon a scale more substantial and worthy of it, than I had hitherto seen in squatting districts. The placing of two such stations thus near each other, is a good arrangement, not only affording better security against the depredations of natives, but also as banishing that aspect of solitude and loneliness such places in general present; and in the outset of such a life, implanting, in the still uncultivated soil, the germs of social union, on the solid basis of mutual protection.

I continued to travel some miles beyond these stations, for the sake of obtaining better grass for our cattle; and thus lengthened the journey to near twenty miles, in very warm weather, the thermometer being 104° in the shade. Thermometer, at sunrise, 58°; at noon, 102°; at 4 P. M., 104°; at 9, 75°; — with wet bulb, 63°. (Camp 85.) Latitude, 28° 30′ 51″ S.

20*th November*. — Travelling south by compass, we found a tolerably open forest, and the Mooni on our left, until we fell in with Mr. Kennedy's track on riding back. Following this (as he had been guided back by an experienced stockman), we at length crossed the Mooni, and fell into a cart-track leading southward, and at a few miles beyond where we fell into that track, we encamped on the left bank of the Mooni; a tree at this camp being marked 86. Again we saw, in the woods about this camp, the *Hylococcus sericeus* R. Br., a remarkable tree, with oblong leaves, and fruit resembling a small orange. It is a curious genus, and belongs to the poisonous order of Spurgeworts. We found here also, the *Helichrysum semipapposum* D. C.; *Acacia*

spectabilis; a new species of *Beyeria*, near *B. viscosa*, Mig.; the variety of *Cassia Sophera* (Linn.) cultivated in some botanical gardens, under the name of *C. sopherella;* a beautiful tree with pinnate leaves and spreading panicles of large white flowers, called *Thouinia australis;* the *Eucalyptus bicolor* A. Cunn. MS., a species closely allied to *E. hæmatomma* Sm., but the marginal nerve is not so close to the edge of the leaf (this is the "bastard box" of the carpenters); a fine new large-flowered *Sida* *; and it appears that the "Yarra" tree of the natives here, is a new Eucalyptus, which Sir William Hooker calls *E. acuminata.*†

Just as we sat down here, rain came on; the wind changed to S.W. and the sky looked more portentous of rainy weather than we had ever seen it on this journey. Now this was the first country in which we had any reason to dread wet weather, since we crossed the Culgoa about the beginning of April. Here rain would render the ground impassable, and inundate the country. The mercury in the barometer was falling, and so was the rain. Thermometer, at sunrise, 61°; at noon, 62°; at 4 P. M., 57°; at 9, 53°; — with wet bulb, 53°.

* *S.* (*Abutilon*) *tubulosa* (All. Cunn. MS.); tota velutino-pubescens, foliis cordato-ovatis (sinu profundo angusto) sublonge acuminatis dentato-serratis, stipulis subulatis flaccidis, pedunculis axillaribus solitariis unifloris folio brevioribus, calyce elongato tubuloso 5-fido laciniis acuminatis, petalis (flavis) vix duplo brevioribus. — *W. J. H.*

† *E. acuminata* (Hook. MS.); foliis alternis petiolatis lanceolatis longe acuminatis subaristatis penninerviis glaucis reticulatis nervis lateralibus a margine remotiusculis, floribus umbellatis (4 — 6-floris), umbellis pedunculatis, calycis tubo hemisphærico in pedicellum gracilem attenuato, calyptra conico-acuminato calycis tubum superante.

21*st November*. — The wind had shifted from E. to S.W., and the rain had set in,— to proceed was quite impossible. The coolness of a cloudy day rendered the tent much more agreeable and convenient for finishing maps in, than one under the extremely hot sunshine which mine had been recently exposed to so long at St. George's Bridge. I had now, therefore, a good opportunity of completing the maps. The great heat which had prevailed during so many successive days there, portended some such change as this; and we were thus likely to be caught in that very region so subject to inundation, which I was formerly so careful to avoid, that I endeavoured to travel so as to be within reach of a hilly country. For that reason chiefly I had proceeded into the interior, by the circuitous route of Fort Bourke.

21*st November to 7th December*. — The sky resembled that in Poussin's picture of the Deluge; and to one who had contended a whole year with scarcity of water, in regions where this coming supply had so long been due, the reflection would often occur, that this rain, if it had fallen a year sooner, might have expedited that journey very much indeed; whereas it was now very likely to retard the return of the party. This was the only spot where such a rain could have seriously impeded our progress; the waters of the great rivers were sure to come down, and we had still to traverse extensive low tracts, where, in 1831, I had seen the marks of floods on trees, which had left an impression still remaining on my mind, that I thought it very desirable then, to get my party safe out of these flats as soon as possible.

On the 28th November, or eight days after the rains set in, the Mooni waters came down, at first slowly,

but gradually filling up the channel, until they rose to such a height, as to oblige me to move three of the drays. During the night, the rising inundation began to spread over the lower parts of the surface back from the river; while the current came down with such rapidity, and, judging from marks of former inundations on the trunks of box-trees ("*Goborra*"), it appeared probable the water might reach our camp. I therefore determined to move it by daylight to a sand-hill, about a quarter of a mile back from the river. This was effected in good time, and only in time. Between the camp beside the Mooni, and that we afterwards established on the sand-hill, there was a hollow by which the rising floods would pass to an extensive tract of low ground almost surrounding our camp on the sand-hill, and which would, probably, render our passage out of that position difficult, even after the waters had subsided. I therefore employed the men in throwing up a dam across this hollow, between our hill-camp and the river, so as to prevent the inundation from passing that way. We had no better material than sand to oppose to this water; yet, by throwing up enough, we succeeded in arresting the waters there, although they rose to the height of two feet four inches on the upper side of our dam, and gave, to the country above it, the appearance of a vast lake, covering our old encampment; so that the figures 86 cut on a tree, were the only traces of it that remained above water. Our camp on the sand-hill was elevated above the sea 641 feet, or about 80 feet higher than the river. The waters continued to rise until the 2d of December, when they became stationary; and

next day they began slowly to subside. By the evening of the 5th, they had receded from the dam; and the sky, which had been lowering until the 1st, began to present clouds of less ominous form. Still the return of clear weather was slow, and accompanied by thunder-showers. Plants put forth their blossoms as soon as the sun re-appeared; amongst others, the *Didiscus pilosus* Benth.; a pretty little umbelliferous plant. *Boerhaavia* was again seen here; *Carissa ovata*, a shrub three feet high, with spiny branches, and very sweet white flowers; the *Neptunia gracilis* also, with the appearance of a sensitive plant, was seen in the open flats. It was only on the 7th that a crust had been formed on the earth, sufficiently firm for the cattle to travel upon; and we embraced the earliest opportunity of quitting that camp, where the superabundance of water had detained us seventeen days. Musquitoes now tormented us exceedingly, and had obliged us to tether the horses at night, to prevent them from straying. We this day passed over the soil without finding the wheels to sink much, until we arrived at Johnston's station, five miles from our camp, and where I had been told the ground was firm. There, on the contrary, we encountered the only two swamps at all difficult. Even the drays got through them, however, and I gladly quitted the banks of the Mooni, taking a straight direction towards the Barwan, and encamped ten miles from the former. That central ground between the Mooni and the Barwan, had brigalow growing upon it, was firm, and in some hollows we found water. A heavy thunder-shower fell at sunset, but we were on such firm soil,

that I was under no apprehension that it would have the effect of retarding our journey.

8th December. — Thermometer, at 6 A. M., 69°. Height above the sea, 782 feet. Having determined our position on the map, I now chose such a direction for our homeward route, as would form the most eligible general line of communication between Sydney and the Maranòa. It seemed desirable that this should cross the Barwan (the Karaula of my journey of 1831), some miles above the point where I had formerly reached that river; and thus avoid the soft low ground upon the Nammoy, falling into my old track about Snodgrass lagoon, or when in sight of Mount Riddell. With this view, our latitude being 28° 57′ 20″ S., longitude 149° 11′ E., I chose the bearing of S. S. E. (or rather 23½° E. of S.), for my homeward guidance; and this morning I travelled, over a good firm surface, for sixteen miles in that direction, when we arrived at the bank of the Barwan and there encamped. We had passed through some open scrub, chiefly of the rosewood kind, and crossed several small grassy plains; saw one or two patches of brigalow, but very little callitris. An improvement was visible in the quality of the grass, when we came within the distance of about two miles from the river; and open forests or plains of richer soil, its usual concomitants, plainly enough indicated the presence of the Barwan (or "Darling"). In the country we traversed, we saw no cart tracks; but the deep impressions of a few stray cattle, apparently pursued by natives, were visible throughout the scrubs. There was still a considerable flood in the river, although the water had been recently much higher, as was obvious from

Plate 12.

Sir T. L. M. del. T. Picken, lith. Longman & Co. 1848 Day & Son Lith.rs to the Queen

the state of the banks. Latitude, 28° 37′ 20″ S. Height above the sea, 590 feet.

9*th December*. — All hands were busy this morning in making preparations for crossing the Barwan. The boats were soon put together, and on reconnoitring the river in one of them, I soon found a favourable place for swimming the cattle and horses at, and which was effected without accident. The unloaded drays were next drawn through the river at the same place; which was about three hundred yards lower down the river than that at which we had encamped, and which was marked by the number 87, cut on a tree. My former camp on this river in 1831, for want of such a mark, could not be recognised. According to my surveys, it should have been fouud seventeen miles lower down the river. All our stores and equipment were carried across in the boats. These looked well in the water; their trim appearance and utility, then renewed my regret that I had not reached the navigable portion of the Victoria, and that its channel had been so empty. Perhaps more efficient portable boats never were constructed, or carried so far inland undamaged. They were creditable to the maker, Mr. Struth of Sydney. By their means, the whole party was comfortably encamped this afternoon, on the left bank of the Barwan, just before a heavy thunder-shower came down. The river had fallen several feet during the day. Thermometer, at 6 P. M., 82°.

10*th December*. — At 6 A. M. thermometer 68°. The mosquitoes were most tormenting; as was well expressed by one of the men outside my tent, who remarked to his companion, "That the more you

punishes 'em, the more they brings you to the scratch:" a tolerable pun for one of "the fancy," of which class we had rather too many in the party. The horses, although tethered and close spancelled, could not be secured, even thus. Some had broken away and strayed during the night. It was ascertained by Yuranigh, that four other strange horses were with ours, having come amongst them and led them astray. These had broken loose from a neighbouring station, whence a native came to the men I had left to await the horses at the Barwan, and took back the strange horses. I had gone forward with the party, still pursuing the same bearing, and came thus upon the "Maäl," a channel not usually deep, but, at the time, so full of water, with a very slight current in it, that here again we were obliged to employ the boats. This channel was distant 5½ miles from where we had crossed the Barwan. The bullocks were made to swim across in the yokes, drawing the empty drays through, which they accomplished very well; "*rarî nantes in gurgite vasto.*" The loads were carried in the boats, and the horses taken across, as before. The camp was established at an early hour on the left bank of the "Maal," which camp I caused to be marked 88, in figures cut on an iron bark tree. Latitude, 29° 1′ 20″ S. This seemed to be the same channel crossed by me on 5th February, 1832, at a similar distance from the main river.

11*th December.*—Thermometer, at 7 A. M., 70°. We continued to travel homewards on the same bearing; thus tracing with our wheels, a direct line of road from Sydney to the northern interior and coast. The plains were gay with the blue flowers of a new *Cyclo-*

*gyne**; a new *Canthium*, was in fruit†; and we found also a species of Malva, which Sir William Hooker has determined to be *Malva ovata* (Cav.), or scarcely differing from that species, except in the rather soft and short hairs to the calyx (not long and rigid): the two ends of the curved carpels are equal or blunt; but in *M. ovata* the upper one is longer and attenuated into a short beak. The same plant was found by Frazer along the Brisbane. The *Thysanotus elatior* was again found here; and a shrubby *cruciferous* plant, quite woody at the base, with very narrow linear setaceous pinnatifid leaves, and linear curved torulose silicules. A new *Hakea* with stout needle like leaves‡, was also found this day in the scrub. We met with no impediment for eighteen miles, when I encamped, although without reaching water enough for our cattle. I knew we could not expect to meet with any watercourse between the Barwan and the Gwydir; which latter river I wished to cross as soon as possible, in hopes then to meet with roads and inhabitants. Even cattle-tracks had again become rare in this intermediate ground, although the grass was in its best state, and most ex-

* *C. swainsonioides* (Benth. MS.); foliolis 8—11 anguste oblongis, racemis laxis dissitifloris, carina spiraliter contorta.—Habit of a *Swainsonia* or *Lessertia*. Flowers blue, as in the original Swan river species (*C. canescens*). That has not a spirally-twisted keel, but the structure is indicated both by the circinnate apex of the style, and by a slight curl at the summit of the keel.

† *C. oleifolium* (Hook. MS.); foliis obovato-oblongis obtusis glaucis basi in petiolum gracilem attenuatis, stipulis parvis acutis, fructibus didymis.

‡ *H. longicuspis* (Hook. MS.); rigida glaberrima, ramis junioribus subpubescentibus, foliis bi-triuncialibus tereti-filiformibus rigidis strictis longe mucronatis, perianthiis glabris, capsulis suboblique ovatis lignosis glabris brevi-acuminatis.

uberant abundance. We crossed much open plain, and passed through several shady forests of casuarina. A curious provision of nature for the distribution of the seeds of a parasitical plant was observed here, each seed being enclosed within a sort of pulp, like bird-lime, insoluble in water; the whole resembling a very thin-skinned berry. On this being broken, probably by birds, the bird-lime is apt to attach the seed to trees or branches, and so the parasitical growth commences. On the plains, the blue flowers of a large variety of *Morgania glabra* caught the eye: the rare and little known *Heterodendron olæfolium* of Desfontaines, a genus referred to Soapworts by Mr. Planchon. We found also this day, a new *Polymeria* with erect stems, silky leaves, and pink flowers.* Height above the sea, 554 feet.

12*th December*. — Thermometer, at 6 A.M., 67°. Passing over a similar sort of country for some miles (and through a scrub, on first leaving the camp), we at length came upon a more open country, where the ground seemed to fall southward. Cattle-tracks were again numerous, and cow-dung abundant, an article in much request with us just then, its smoke being a valuable specific for keeping off the mosquitoes, when a little of it was burnt before a tent. We next came upon more spacious plains than any we had seen southward of the Balonne; and I recognised, with great pleasure and satisfaction, the blue peak of Mount Riddell, distant 61 miles. This seemed to peep through the obscurity of fifteen laborious years, that had intervened since I had given a name to that

* *P. longifolia* (Lindl. MS.); erecta, foliis sericeo-nitentibus lineari-lanceolatis auriculatis, pedunculis unifloris foliis multo brevioribus.

summit. It now proved the accuracy of my recent survey, appearing exactly in the direction, where, according to my maps, I pointed my glass to look for it. Like the face of an old friend, which, as the Persian proverb says, "brighteneth the eyes," so this required clear eyes to be seen at all; even Yuranigh, could not at first be persuaded that it was not a cloud. This fine peak must always be a good landmark on these vast plains, and may yet brighten the eye of the traveller from India, when emerging from the level regions upon the Barwan. We next perceived at a distance, a cloud of dust raised by a numerous herd of cattle, and came upon a water-course, or branch of the Gwydir, called, I believe, the "Meei." As I wanted to cross the Gwydir, I crossed this and continued; met with another deep ditch or channel, four miles beyond the Meei; and, at three miles beyond that, another: none of these resembling the Gwydir I had formerly seen. I had ridden twenty-five miles, and hastened back to meet the carts, and encamped them just beyond the first-mentioned of these two water-courses. The heavy drays were, of course, far behind. Latitude, 29° 34′ 41″ S. Height above the sea, 553 feet.

13*th December*.—Thermometer, at 10 A. M., 70°. The drays joined us early, having performed an immense distance yesterday. This being Sunday, rest for the remainder of the day was both proper and necessary. I found we were within a less distance of Snodgrass Lagoon, than we were from the camp we had left the previous day. I expected to fall in with some road, when we reached the country to which I had formerly led the way. At sunset the sky seemed charged with rain, and the barometer had

fallen 2½ millimetres; much thunder, and but a slight shower followed, after which the sky cleared up. Heavy rain there, must have caused much difficulty and delay to the party, as we were upon low levels subject to inundation. Height above the sea, 499 feet. Thermometer, at 6 P. M., 88°.

14*th December*.—Thermometer, at 6 A. M., 76°. During the night, and at day-break, heavy rain pattered on my tent, but a streak of the blue sky appeared in the N. W., which increased; and before 7 A.M. the sun shone on the ground, and dried it so that we could proceed. We crossed a channel of the river, at three miles, which is called the "Moomings;" and still I doubted whether we had not yet to cross the main channel of the Gwydir, having seen no current in any of those channels I had crossed. I had however already crossed the latitude of the river I had formerly seen; and, coming soon to rising ground, and seeing before me the wide-spread plains of my former journey, I was convinced that the late rains had not extended to the Gwydir, and that this river had been crossed by us in these several channels. At length, I arrived at the lagoon I had named, in former times, after Colonel Snodgrass; thus terminating this journey, having travelled in a direct line the last seventy-three miles of it, to meet at this point the line from Sydney, traced by me thus far in the year 1831. Height above the level of the sea, 545 feet. Thermometer, at 7 P.M., 87°.

The temporary occupation of the country by squatters, imprints but few traces of colonization. Cattle-tracks were visible, certainly, but nothing else. No track remained along the line which I had

so many years before laboured to mark out. Having ordered some of the men to look out for a stockman, one was at length caught, and persuaded to come to my tent, but not without some apprehension that the people he had come amongst so suddenly were robbers. He was a youth, evidently of the Anglo-Saxon race, in a state of transition to the condition of an Australian stockman. His fair locks strayed wildly from under a light straw hat about the ears of an honest English face, and the large stock whip in his hand explained what he was about, — "in search of some stray cattle." He had evidently never heard of exploring expeditions, past or present; nor of such a name as "Snodgrass Lagoon." Mount Riddell was called "Cow hill," according to him. Knew there was a road to Maitland, but of Sydney he seemed to require some minutes to recal the recollection. He had come from the station of Mr. ———, where he was employed as stockman. Came out from England about six years ago with a brother. When asked if his brother was with him, he said "No." To my next question, as to the rest of his relatives, a tear was the only reply, and I pushed my inquiries no further.

16*th December*. — I left the camp, accompanied by Mr. Kennedy, and, in looking for my old route, we soon arrived at cattle stations. The lagoon was full, and the first station we saw was on the opposite bank; but having crossed some miles higher, we arrived at one, where the master and some men were busy in the stockyard, and there we were hospitably received. It was then about 2 P.M., and tea mixed with milk was set before us, with a quart pot full of fine salt, and some hard-boiled eggs. Having put into

my tea a table-spoonful of the salt, mistaking it for sugar, and there being no sugar, I had two strong reasons for not taking much tea. Fortunately for me, however, I did eat one of the hard-boiled eggs, for from that hour I was doomed to fast two days. There I bade Mr. Kennedy farewell, leaving him in charge of the party, and proceeded along a cart-track homewards, followed by John Douglas, and a led horse. Before we could arrive at the station where I intended to halt, night overtook us on a plain, with very heavy rain, and total darkness. The cart-track was no longer visible, and, after groping on some way without it, we were obliged to alight and sit in the mud, without the shelter of even a tree, until day-break. Daylight exhibited the station not above two miles off, but that did not avail us much; for, on awaking the inmates, and asking them for some breakfast, the hut-keeper shook his head, and said he had no provisions to spare. Once more I struck away from these "abodes of civilized men," to look for my old track, which had been traced along the base of the Nundawàr Range, where the bold outlines of Mounts Lindesay and Forbes hung dimly, like shadows of the past, amongst clouds lighted by beams from the rising sun. After having been long in unknown regions, time and distance seem of little consequence when we return to those previously known; and thus the whole day soon passed in looking for my former track. But I sought it in vain; and was glad at night to turn towards the banks of the Nammoy, in search of a cattle-station. Since I had first explored that country to which my wheel-tracks marked and led the way, station after station had been taken up by squatters, not by following any

line of route, but rather according to the course of the river, for the sake of water; and in such cases, the beaten track from station to station, no matter how crooked, becomes the road. Thus it is, in the fortuitous occupation of Australia, that order and arrangement may precede, and be followed only by "*chaos* come again." I arrived about sunset, at Mr. Cyrus Doyle's station near the Nammoy, where I was hospitably entertained by a man in charge of it, who rode eight miles in twenty minutes only, to borrow some tea and sugar for me, and who lived on very friendly terms with some old natives who remembered me, and my first advance into that country.

18*th December*. — At 6 A.M., Thermometer 75°. Height above the sea 750 feet. Guided by one of these natives, I reached the "great road," saw many wool drays upon it, before I arrived at Maule's creek; and I endeavoured, for a considerable time, to pass two gentlemen in a gig, and wearing veils, who were driving a lot of mares before them, and who seemed to derive amusement from making their mares keep pace with my entire horse.

The road this day traversed the luxuriant flats of the Nammoy, one of the richest districts in the colony, as the fat cattle on the banks of the river sufficiently attested. The mountains behind, afforded equally eligible runs for sheep. Nothing could surpass the beauty of the scenery, amid abundance of water, umbrageous trees, cattle, verdure, and distant mountains. I was most comfortably lodged that night at Mr. Wentworth's station on the Nammoy, elevated above the sea 1055 feet, and next day I reached the dwelling of a resident squatter, and saw a lady in a comfortable house near the very spot,

where, fifteen years before, I had taken a lonely walk by the then unknown Nammoy, the first white man permitted there to discover a "flowery desert." * I was most kindly welcomed by this family; but I asked in vain, even there, to be favoured with the perusal of a newspaper. When I expressed anxiety about my numerous family, and spoke of my long absence of a year, I observed a tear in the lady's eye, which I then thought the product of mere sensibility; but I learnt subsequently, that she was aware the newspapers she possessed, and out of sympathy withheld, would have apprised me of the death of a son, which sad tidings were only communicated to me some days after.†

* Three Expeditions, &c., vol. i. p. 54.

† He died on the 16th July, at the age of eighteen, from the want of medical aid, when surveying, in winter, the Australian Alps. His grave, trodden by cattle hoofs, is in a desolate unconsecrated spot. He had served the public, gratis, upwards of two years, as a draughtsman and surveyor.

CHAP. X.

Mr. Kennedy conducts the party to Sydney. — Proceeds of the sale of the cattle and equipment. — Applied to the refitting of a light party on horseback. — Mr. Kennedy's instructions to trace down the Victoria. — Of the Aborigines. — *Character of Yuranigh. — Impediments to their civilization.* — Of the Convicts. — *Their uses in the Colony. — Character of those of the party. — Different classes of criminals. — The unfortunate and the depraved.* — Of the present Colony of New South Wales. — *Natural state. — Capabilities. — Its temporary uses. — Ultimate colonization. — Retention of water. — New systems of agriculture requisite. — Growth of cotton and sugar along the eastern coast. — The vine and the olive. — Wheat crops. — Difficulty of access to markets. — Roads. — Projected Railways.* — Conclusion. — *Origin of this survey. — Its primary objects. — Ultimate tendency. — My responsibility to the Imperial Government. — Co-operation of the Colonial Legislature. — Final report. — Great geographical features. — The natural divisions of the territory. — Port Bowen — Capricornia. — Gulf of Carpentaria — Australindia.*

The party which I had left in charge of Mr. Kennedy near Snodgrass Lagoon arrived in the neighbourhood of Sydney on the 20th of January, and the new Governor, Sir Charles Fitzroy, kindly granted such gratuities to the most deserving of my men as I had recommended, and also sent the names to England of such prisoners as His Excellency thought deserving of Her Majesty's gracious pardon.

The sale of the cattle and equipment produced about 500*l.*; and as Mr. Kennedy volunteered his ser-

vices, when the proper season should arrive (March), to trace down the course of the river Victoria with a light party on horseback, I submitted a plan to Sir Charles Fitzroy, and obtained His Excellency's permission to send this officer to survey the river, and to apply the above-mentioned proceeds of sale in providing the equipment of his party. Mr. Kennedy finally left Sydney about the middle of March, with a party of eight men, all well mounted and leading spare horses, with two light carts carrying a stock of provisions for fourteen months. The following copy of his instructions will show what Mr. Kennedy was required to do.

Surveyor-General's Office,
Sydney, 22d February, 1847.

"Sir,

"His Excellency the Governor having been pleased to sanction my proposal for the further exploration of the river Victoria with a small party to be sent under your command; I have now the honour to enclose to you a copy of instructions by which I was guided in conducting the late expedition into the northern interior, and I have to request that you will conform thereto, as much as the following particular instructions for your especial guidance may permit.

You will as early as possible return by the road across Liverpool Plains so as to fall into the return route of the late expedition before you leave the settled districts, and in this manner you will recross the Balonne at St. George's Bridge, take the route back to Camp (83), and thence by the route along the Maranoa to Camp (XXIX), beyond which you will

proceed as hereinafter detailed, with reference to the accompanying tracing of my survey.

You will cross the Maranoa at Camp (XXIX), and continue along my return route until you reach Camp (75). I beg you will be particular so far in looking for the track of my party returning, as you will perceive by the map that many very circuitous detours may be thus avoided. But beyond Camp (75), about seven miles, you will have to leave my return track on your right, and not cross a little river there at all, but go along my old advance track to Camp (XXXIV). Thence you will proceed by Camps (XXXV) and (XXXVI), in order to approach the bed of the Warregò in the direction of my ride of 14th June, in a general N. W. direction. It is very desirable that you should keep my horse-tracks there; but this I can scarcely expect, and I can only therefore request that you will proceed as closely in that direction as you can. The bed of the Warregò may be looked for at a distance further on, equal to that of my ride of 14th June.

You will next pursue the course of the Warregò upwards towards Mount Playfair, which the accompanying map will be sufficient to guide you to. You will follow up the Cùnno Creek, leaving Mount Playfair on your right or to the eastward, and you will thus fall into the line of my horse-track about the spot where I spoke to an old native female. I wish you would then take some pains to travel in the direction of my track from the head of Cùnno through the Brigalow, which is comparatively open, in the direction of my bivouac of 11th September.

Keeping the direction of my track of next day, you will arrive at a low, but stony, ridge (A) (across which

you must be careful how you pass your carts, but it is of no breadth), and you will descend into a flat, from which you will ascend another stony ridge (B), of no greater height but more asperity than the first, and covered with fallen timber. You will have about a mile of that sort of difficulty to deal with on the higher part, but by turning then to the right, you will fall into a well watered valley, which will lead you to the Nive. In the whole of your route thus far, you can meet with no difficulty in tracing it, guided by the map, and following these instructions; but if Douglas should be with you, he will no doubt recognize the country through which he passed with me. It is very important that you should keep that route, as leading to the Victoria in a very straight direction from Sydney, and a direction in which, should your return be delayed beyond the time for which your party is to be provisioned, it is probable, that any party sent after you to your aid or assistance would proceed to look for you. After you shall have reached the Nive and Camp (77), you cannot have any difficulty in finding Camp (72) near the Gap, and from that valley you have only to follow down the watercourse to be certain that you are on my track to the Victoria, and, as you have been instructed to take an expert native with you, you ought to find still my horse's track across the downs, cutting off large bends of the river. But beyond Camps 16th September or 1st October, you must keep by the river along my route back, and not follow the circuitous track which I took through Brigalow to the westward. After about four miles by the river, you will see, by the map, that my return track again crossed the outward track over the downs, so that you may fall into the route westward of the great

northern bend of the Victoria. I fear you must depend on the latitude, pace measurement, and bearings, for ascertaining the situations of my camps of 29th September and 28th September. You will see by the map how generally straight my journeys were between these points, and how important it would be for you to know the situation of the camp of 28th September, that you may thence set out westward in the direction of my return route, instead of following the main channel throughout the very circuitous turn it then takes to the northward.

Beyond the lowest point attained by me, or the point (wherever that may be) to which you will be able to identify the accompanying map with my track, of course it will be your duty to pursue the river, and determine the course thereof as accurately as your light equipment and consequent rapid progress, may permit. You may, however, employ the same means by which I have mapped that river so far; and, for your guidance, I shall add the particulars of my method of measuring the relative distances. If you count the strokes of either of your horse's fore feet, either walking or trotting, you will find them to be upon an average, about 950 to a mile. In a field-book, as you note each change of bearing, you have only to note down also the number of paces (which soon becomes a habit); and to keep count of these, it is only necessary to carry about thirty-five or forty small pieces of wood, like dice (beans or peas would do), in one waistcoat pocket, and, at the end of every 100 paces, remove one to the empty pocket on the opposite side. At each change of bearing, you count these, adding the odd numbers to the number of hundreds, ascertained by the dice, to be counted and returned at each change of bearing to the other pocket. You should

have a higher pocket for your watch, and keep the two lower waisctoat pockets for this important purpose.

Now, to plot such a survey, you have only to take the half-inch scale of equal parts (on the 6-inch scale in every case of instruments), and allowing *ten* for a hundred, the half-inch will represent 1000 paces. You may thus lay down any broken number of paces to a true scale, and so obtain a tolerably accurate map of each day's journey. The latitude will, after all, determine finally the scale of paces; and you can, at leisure, adjust each day's journey by its general bearing between different latitudes; and, subsequently, introduce the details. You will soon find the results sufficiently accurate to afford some criterion of even the variation of the needle, when the course happens to be nearly east or west, and when, of course, it behoves you to be very well acquainted with the rate of your horse's paces, as determined by differences of latitude.

You will be careful to intersect the prominent points of any range that may appear on the horizon; and the nature of the rock also should be ascertained in the country examined: small specimens, with letters of reference, will be sufficient for this. Specimens of the grasses, and of the flower or seed of new trees, should be also preserved, with dates, in a small herbarium. But the principal object of the journey being the determination of the course of the Victoria, and the discovery of a convenient route to the head of the Gulph of Carpentaria, the accomplishment of these great objects must be steadily kept in view, without regard to minor considerations. Should the channel finally spread into an extensive bed, whether dry or swampy, you will adhere, as a general rule, to the eastern side or shore, as, in

the event of any scarcity of water, the high land known to be there will thus be more speedily accessible to you; and I am also strongly of opinion, that you would cross in such a route more tributaries from the east than from the west.

On arriving at or near the Gulph of Carpentaria, I have particularly to caution you against remaining longer than may be unavoidable there, or, indeed, in any one place, in any part of your route, where natives may be numerous.

Having completed (at least roughly) the map of your general route, it will be in your power in returning, to take out detours, and cut off angles, by previously ascertaining the proper bearings for doing so; and when so returning, it would be convenient to number your camps, that the route and the country may be better described by you, and recognised afterwards by others. These numbers may be cut in common figures on trees; and if, as I hope, you should reach the Gulph, you can commence them there: you may prefix C to each number commencing with 1, thus avoiding any confusion with the numbers of my numbered camps on the Victoria.

On returning to the colony, you will report to me, or to the officer in charge of the Survey Department, the progress and results of your journey.

I have the honour to be,

Sir,

Your obedient servant,

T. L. MITCHELL,

Surveyor-General.

E. B. C. Kennedy, Esq. J. P.
Assistant Surveyor,
Sydney.

Of the Aborigines.

There is no subject connected with New South Wales, or Australia, less understood in England than the character and condition of the aboriginal natives. They have been described as the lowest in the scale of humanity, yet I found those who accompanied me superior in penetration and judgment to the white men composing my party. Their means of subsistence and their habits, are both extremely simple; but they are adjusted with admirable fitness to the few resources afforded by such a country, in its wild state. What these resources are, and how they are economised by the natives, can only be learnt by an extensive acquaintance with the interior; and the knowledge of a few simple facts, bearing on this subject, may not be wholly devoid of interest.

Fire, grass, kangaroos, and human inhabitants, seem all dependent on each other for existence in Australia; for any one of these being wanting, the others could no longer continue. Fire is necessary to burn the grass, and form those open forests, in which we find the large forest-kangaroo; the native applies that fire to the grass at certain seasons, in order that a young green crop may subsequently spring up, and so attract and enable him to kill or take the kangaroo with nets. In summer, the burning of long grass also discloses vermin, birds' nests, &c., on which the females and children, who chiefly burn the grass, feed. But for this simple process, the Australian woods had probably contained as thick a jungle as those of New Zealand or America, instead of the open forests in which the white men

now find grass for their cattle, to the exclusion of the kangaroo, which is well-known to forsake all those parts of the colony where cattle run. The intrusion therefore of cattle is by itself sufficient to produce the extirpation of the native race, by limiting their means of existence; and this must work such extensive changes in Australia as never entered into the contemplation of the local authorities. The squatters, it is true, have also been obliged to burn the old grass occasionally on their runs; but so little has this been understood by the Imperial Government that an order against the burning of the grass was once sent out, on the representations of a traveller in the south. The omission of the annual periodical burning by natives, of the grass and young saplings, has already produced in the open forest lands nearest to Sydney, thick forests of young trees, where, formerly, a man might gallop without impediment, and see whole miles before him. Kangaroos are no longer to be seen there; the grass is choked by underwood; neither are there natives to burn the grass, nor is fire longer desirable there amongst the fences of the settler. The occupation of the territory by the white race seems thus to involve, as an inevitable result, the extirpation of the aborigines; and it may well be pleaded, in extenuation of any adverse feelings these may show towards the white men, that these consequences, although so little considered by the intruders, must be obvious to the natives, with their usual acuteness, as soon as cattle enter on their territory. The foregoing journal affords instances of the habits of the natives in these respects. Silently, but surely, that extirpation of aborigines is going forward in grazing

districts, even where protectors of aborigines have been most active; and in Van Diemen's Land, the race has been extirpated, even before that of the kangaroos, under an agency still more destructive.

It would be but natural, even admitting these aboriginal inhabitants to be, as men, "only a little lower than the angels," that they should feel disposed, when urged by hunger, to help themselves to some of the cattle or sheep that had fattened on the green pastures kept clear for kangaroos from time immemorial by the fires of the natives and their forefathers; but such cases have been, nevertheless, of rare occurrence, partly because much human life has been sacrificed to the manes of sheep or cattle. No orders of the local government can prevent the perpetration of these atrocities. Government Orders have been put forth in formal obedience to injunctions from home, and the policy of the local authorities has not been influenced by less humane motives.

It would ill become me to disparage the character of the aborigines, for one of that unfortunate race has been my "guide, companion, councillor, and friend," on the most eventful occasions during this last Journey of Discovery. Yuranigh was small and slender in person, but (as the youth Dicky said, and I believed,) he was of most determined courage and resolution. His intelligence and his judgment rendered him so necessary to me, that he was ever at my elbow, whether on foot or horseback. Confidence in him was never misplaced. He well knew the character of all the white men of the party. Nothing escaped his penetrating eye and quick ear. His brief but oracular sentences were found to be

sage, though uttered by one deemed a *savage;* and his affection and kindness towards the little native Dicky seemed quite paternal. The younger was the willing servant of the elder; who obliged him to wash and clean himself before he allowed him to sleep near him. Yuranigh was particularly clean in his person, frequently washing, and his glossy shining black hair, always well-combed, gave him an uncommonly clean and decent appearance. He had promised himself and Dicky a great reception on returning to Sydney, and was perhaps disappointed. Dicky had never before seen houses, and Yuranigh took much delight in showing him the theatre, and whatever else was likely to gratify his curiosity.

The boy was all questions and observation. I was at a loss how to make these natives comfortable; or suitably reward their services. The new Governor kindly granted the small gratuity asked for Yuranigh, and Dicky became a favourite in my family. Both these natives loathed the idea of returning to the woods, as savages; and, as if captivated with the scenes of activity around them, both expressed a desire "to work and live like white men." This shows that, when treated on a footing of equality, as these had been in my party, the Australian native *might* be induced to take part in the labours of white men; but at the first annoyance, the old freedom of the bush seems to overmaster their resolutions, and attracts them back to it. Yuranigh was engaged (for wages, and under regular agreement,) as stockman to a gentleman who had cattle in the north, and he took an affecting leave of my family. I carried Dicky to my house in the country, with the intention of having him educated there with my children, pro-

vided *a tutor could be found*, which seemed doubtful when I left the colony. It has been long a favourite project with me, to educate an aboriginal native, as a husband for Ballandella, and that their children should form, at least, one civilized family of the native race, upon which the influence of education and religious principles might be fairly tried. This has never yet been done, although the experiment is one of much interest. It seems scarcely practicable, except by withdrawing the married couple to another country, where the children might be educated, and kept clear of all predilections for a life in the woods. I thought of sending such a pair to some congenial climate, such as the South of Europe, where they should be taught the whole art of cultivating the grape, fig, and olive, as well as the management of other productions of similar latitudes in that hemisphere. They might return to Australia with their family in ten or twelve years; when, in speaking a different language from those about them, they would be less open to the influences that interpose between the employers and the employed in that colony; while the utility of their employment might be of some benefit to it. Were this experiment to succeed, the decent and comfortable condition afforded by industry might raise the aborigines in their own estimation, and inspire them with hope to attain to a state of equality with the white men, which, without having some such examples set before them, must seem to them unattainable. The half-clad native finds himself in a degraded position in the presence of the white population: a mere outcast, obliged to beg a little bread. In his native woods, the "noble savage" knows no such degrading necessity.—All there participate in,

and have a share of, Nature's gifts. These, scanty though they be, are open to all. Experience here has proved, and the history of the aborigines of other countries has shown, the absurdity of expecting that any men, "as free as Nature first made man," will condescend to leave their woods, and come under all the restraints imposed by civilisation, purely from choice, unless they can do so on terms of the most perfect equality. Surely it behoves the nation so active in the suppression of slavery to consider betimes, in taking up new countries, how the aboriginal races can be preserved; and how the evil effects of spirituous liquors, of gunpowder, and of diseases more inimical to them than even slavery, may be counteracted.

Of the Convicts.

The prisoners who had hitherto formed the bulk of all the exploring parties previously led by me into the interior of New South Wales, were chosen chiefly from amongst men employed on the roads, who had acquired good recommendations from their immediate overseers; but, on this last occasion, the men forming the party were for the most part chosen from amongst those still remaining in Cockatoo Island, the worst and most irreclaimable of their class.

The concentration of convicts in that island was intended, I believe, to follow out the Norfolk Island system, keeping the men under rigorous surveillance, and making them work at their respective trades, or as labourers. Even there, so near to Sydney, that labour, so available to lay the foundations of a colony, might have been employed with great advantage, in constructing a naval arsenal and hospital for our

seamen on the Indian station, with a dry dock attached to it for the repair of war-steamers. Such a dock has been long a desideratum at Sydney, and private enterprize might, ere this time, have embarked in a work so essential to an important harbour, had not the Government always possessed the means of cheaply constructing such a work by convict labour, and been thus able at any time to have entered into such competition as might have been very injurious to a private speculator. At Cockatoo Island, blacksmiths, shoemakers, wheelwrights, were at work in their various avocations; all the shoes, for both the men and horses of the expedition, were made there; also one half of the carts, which proved equally good as the other portion, although that was made by the best maker in the colony, a celebrated man.

The eagerness evinced by all these men, so confined in irons on Cockatoo Island, to be employed in an exploring expedition, was such that even the most reckless endeavoured to smooth their rugged fronts, and seemed to wish they had better deserved the recommendation of the superintendent. The prospect of achieving their freedom, by one year of good behaviour in the interior, was cheering to the most depressed soul amongst these prisoners. All pressed eagerly forward with their claims and pretensions, which, unfortunately for the knowing ones, were strictly investigated by Mr. Ormsby the superintendent, and Captain Innes, the visiting magistrate. The selection of such as seemed most eligible was at length made, after careful examination of the phrenological developments and police history of each; and it was not easy to find one without a catalogue of offences, filling a whole page of police-office annals.

Still there were redeeming circumstances, corroborated by physical developments, sufficient to guide me in the selection of a party from amongst these prisoners. With them, I mixed one or two faithful Irishmen, on whom I knew I could depend, and two or three of my old followers on former journeys, who had become free.

This party of convicts, so organized, with such strong inducements to behave well, and so few temptations to lead them astray, may be supposed to have afforded a favourable opportunity for studying the convict character. It may be asked by some, how such a party could have been made to yield submissive obedience for so long a period as a year, away from all other authority, than mere moral controul. This was chiefly because these men were placed in a position where it was so very clearly for their own interest to conduct themselves properly. Accordingly, the greater number, as on all former expeditions, gave the highest satisfaction, submitting cheerfully to privations, enduring hardships, and encountering dangers, apparently willing and resolved to do anything to escape from the degraded condition of a convict. But still there were a few, amounting in all to six, who, even in such a party, animated by such hopes, could not divest themselves of their true character, nor even disguise it for a time, as an expedient for the achievement of their liberty. These men were known amongst the rest as the "flash mob." They spoke the secret language of thieves; were ever intent on robbing the stores, with false keys (called by them *screws*). They held it to be wrong to exert themselves at any work, if it could be avoided; and would not be seen to en-

deavour to please, by willing co-operation. They kept themselves out of sight as much as possible; neglected their arms; shot away their ammunition contrary to orders; and ate in secret, whatever they did kill, or whatever fish they caught. Professing to be men of "the Fancy," they made converts of two promising men, who, at first, were highly thought of, and although one of them was finally reclaimed, a hero of the prize ring, it was too obvious that the men, who glory in breaking the laws, and all of whose songs even, express sentiments of dishonesty, can easily lead the unwary and still susceptible of the unfortunate class, into snares from which they cannot afterwards escape if they would. Once made parties to an offence against the law, they are bound as by a spell, to the order of flash-boys, with whom it is held to be base and cowardly to act "upon the square," or *honestly* in any sense of the word; their order professing to act ever "upon the cross." These men were so well-known to the better disposed and more numerous portion of the party, that the night-guards had to be so arranged, as that the stores or the camp should never be entirely in their hands. Thus a watch was required to be set as regularly over the stores, when the party was close to Sydney, as when it was surrounded by savage tribes in the interior.

Between the "flash men" and the other men of the party, there was a wide difference. An old man to whom they once offered some stolen flour, refused it, saying, "I have been led into enough of trouble in my younger days, by flash friends, and now I wish to lead a quiet life." Convicts, in fact, consist of two distinctly different classes: the

one, fortunately by far the most numerous, comprising those whose crime was the result of impulse; the other class consisting of those whose principle of action is dishonesty; whose trade is crime, and of whose reformation, there is much less hope. The offenders of the one class, repented of their crime from the moment of conviction; those of the other, know no such word in their vocabulary. The one, is still "a thing of hope and change;" and would eagerly avail himself of every means afforded him to regain the position he had lost; the other, true to his "order," will "die game."

For the separation of the wheat from the chaff, a process by no means difficult, the colony of New South Wales was formerly well adapted. The ticket of leave granted to the deserving convict was one of the most perfect of reformatory indulgences; each individual being known to the authorities, and liable, on the least misconduct, to be sent to work on the public roads. The colony of New South Wales has been the means of restoring many of our unfortunate countrymen to positions in which they have shown that loyalty, industry, public spirit, and patriotism, are not always to be extinguished in the breasts of Englishmen, even by fetters and degradation. It is to be regretted that a more vigilant discrimination had not interposed a more marked line between those convicts deserving emancipation, and those whose services are still wanted on the roads and bridges of the colony.

Of the Colony of New South Wales.

There is no country in which labour appears to be more required to render it available to, and habitable

by, civilised men, than New South Wales or Australia. Without labour, the inhabitants must be savages, or, at least, such helpless people as we find the aborigines. The squatters' condition is intermediate, temporary, and one of necessity. That country without navigable rivers, intersected by rocky ranges, and subject to uncertain seasons, is unfavourable to agriculture and trade; to social intercourse, and to the moral and physical prosperity of civilised man.

With equal truth, it may be observed, that there is no region of earth susceptible of so much improvement, solely by the labour and ingenuity of man. If there be no navigable rivers, there are no unwholesome savannas; if there are rocky ranges, they afford, at least, the means of forming reservoirs of water; and, although it is there uncertain when rain may fall, it is certain that an abundant supply does fall; and the hand of man alone is wanting to preserve that supply and regulate its use. In such a clime, and under such a sun, that most important of elements in cultivation, water, could thus be rendered much more subservient to man's use than it is in other warm regions, where, if the general vegetation be more luxuriant, the air is less salubrious. Sufficient water for all purposes of cultivation, health, and enjoyment, is quite at the command of art and industry in this most luxuriant of climates. Thus, the peculiar disadvantages Australia presents in her wild state, are such as would greatly enhance the value of such a country under the operation of human industry. In such a climate, for instance, an abundance of water would be found a much greater luxury when retained, distributed, and adjusted, by such means, to man's uses, than where an abundance is but

the natural product of cloudy skies and frequent rains. Where natural resources exist, but require art and industry for their development, the field is open for the combination of science and skill, the profitable investment of capital, and the useful employment of labour. Such is New South Wales.

But the age of such adaptations there is still to come. The future is too much speculated upon; hence no system of agriculture has been yet adjusted to the peculiarities of climate and soil. Instead of studying and adopting the agriculture of similar climates, and the arts by which deficiencies in similar latitudes have from time immemorial been corrected: irrigation, for instance, has not been yet attempted; the natural fertility of the soil has alone been relied on, to compensate, in favourable seasons, for the deficiencies of others, not favourable, perhaps, for the growth of wheat or barley, but the best imaginable for that of other kinds of productions. So generally available is the structure of the country for the reservation of water by dams, that a small number of these might be made to retain as much of the surface water as might even impart humidity to the atmosphere. This is because the channels of rivers are in general confined by high banks, within which many, or indeed most of them, might be converted by a few dams into canals. To such great purposes convict labour ought to have been applied, had it been possible to have allowed colonization and transportation to work together. But the undulations of the land present everywhere facilities for constructing reservoirs, which heavy showers would fill, and thus afford means sufficient for the purposes of irrigation, were not labour now too scarce there, to admit

of the progress of colonization in a manner suitable to the spirit of the age, and character of the nation.

The rich lands along the eastern coast, under a lofty range which supplies abundance of water for the purposes of irrigation, are well adapted for the cultivation of cotton and sugar, and, with labour, nothing could prevent these regions from being made extensively productive of both articles. Of the vine and the olive *, it remains to be ascertained whether some parts of the country may not be made as productive as Andalusia, for instance, is, in the same parallel of latitude, in the opposite hemisphere. The want of hands alone retards the development of every branch of production derivable from industry in these regions.

Settled districts, back from the coast, at elevations of 1000 feet and upwards, have produced abundant crops of wheat of very superior quality; and, but for the non-completion of the roads between these districts and the capital, in consequence of the withdrawal of convict labour, the progress of agriculture in its adaptation to the soil and climate, and, as a field for the employment of British immigrants, had been much more advanced than it is there.

The roads which were opened by the above means, or proposed to be opened, have become almost impassable, or remain wholly so; and it is, therefore, the less surprising that the colonists look to the possible introduction of railways with much interest.

* Five months ago, soon after my return to England, I gave to the Society of Arts two bottles of olive oil, the first samples ever produced, I believe, in Australia. The oil was made by Mr. Kid, superintendent of the Botanic garden at Sydney, from olives grown there, and seemed very clear and good.

In a country like that around Sydney, where extensive tracts of inferior land must be traversed by roads in order to arrive at lands which are productive and settled, the value and importance of a railway would be greatly enhanced; and calculations have been made to show that a railway between Sydney and the southern districts would pay, even from the traffic at present along that line. The town of Goulburn, 124 miles from Sydney, in an open undulating country, at a considerable height above the sea, is rapidly growing into importance; and, by making either a good road or a railway, between that town and Sydney, access would be gained to very extensive tracts of valuable territory, easily traversed, and to which Goulburn is a sort of centre.

On the whole, it may be said that the difficulty of access to the best lands, from the want of good roads to them from the principal port, has, of late years, greatly impeded the introduction of immigrants to the rural districts, and added to the population of Sydney many individuals who had been brought to the colony at the public expense, for the assistance of settlers in the country.

Conclusion.

The employment of convicts on useful public works was, twenty years ago, a primary object with the government of New South Wales. The location of settlers on their grants by the measurement of their farms, then much in arrear, and the division of the territory into counties, hundreds, and parishes, in order to complete the deeds of grant to settlers, altogether rendered necessary a general survey of the

colony, which work I commenced in 1827, *ex officio*, and, pursuant to Royal Instructions, sent to the colony in 1825. The time between the years 1827 and 1837 was the most prosperous in the history of the colony of New South Wales, when convicts made good roads, farms were measured up, and the country was surveyed and divided into counties. Colonization extended rapidly to the shores of the southern ocean, and Australia Felix was made known to the British public.

The survey touched the limits of the then unknown country, for the direction of great roads from a centre could not be considered permanent, however limited the colony, without such consideration of their ultimate tendency as could only be given with a knowledge of the whole intervening country. My plans of exploration have been governed by these views and objects, and the journey recorded in these pages was intended to complete the last of three lines radiating from Sydney. One led across the Blue mountains to Bathurst and the western interior as far as the land seemed worth exploring; another by Goulburn to Australia Felix and the southern coast; and, lastly, this, the third general route, to the northern shores at the nearest point, the head of the Gulf of Carpentaria,—from which I trust that by this time my assistant Mr. Kennedy will have returned to Sydney.

Held responsible by the Government for the performance of such a duty*, I have endeavoured to work out its views with that unity of plan which must result from a mathematical principle, and which

* Appendix, Letter No. 30/1252., page 431.

has enabled me to bring to a satisfactory conclusion, after the lapse of many years, and in the face of considerable difficulty, an undertaking commenced at the command of my Sovereign, and under the auspices of the British Government. That the Royal Instructions were originally intended for the benefit of the colony of New South Wales is best evinced by the fact that this journey of survey and exploration has been undertaken on the petition of the Legislative Council of the Colony, and performed wholly at the expense of the colony of New South Wales.

It now remains for me to submit my final "Report," or, in other words, to point out how the geographical knowledge thus acquired may be available for the economical extension of that colonisation which the expansive energies of this great nation seem to require. New South Wales may be benefited, it is true, by the establishment of any additional market on the eastern coast, for her produce; and by a road to the Gulf of Carpentaria; but a timely knowledge of the structure of the interior was necessary to enable the Government to determine on the sites most eligible for centres of colonisation required along the coast.

It is now ascertained that a great range separates the coast settlements from the open pastoral country of the interior, as far as the parallel of 25° south. That there it breaks off at the lofty plateau of Buckland's Table Land, which overlooks a much lower country in the north;—a country but lightly wooded, watered by good rivers, and which affords an easy access to extensive pastoral regions in the interior, without the intervention of any such formidable

barrier between that interior open country and the coast, as the great range nearer the actual colony.

Precisely on that part of the coast, to which the united channels of the water lead, a harbour has been surveyed and approved of by competent naval officers. These geographical facts, therefore, render it easy to define one situation more favourable than any other that might be found along that coast, for the nucleus of a colony, and which would divide almost equally the whole coast line between Sydney and Cape York. I allude to Port Bowen, near Broad Sound; and the river Nogoa, which has been (I believe) called lower down, the Mackenzie. A port on that part of the coast, at the entrance within the reefs, would be advantageous to steam navigation. The occupation of the fine country on the rivers Victoria, Salvator and Claude, must depend on some such sea-port for supplies; and on the occupation of that back-country must again, in a great measure, depend the establishment of a direct line of communication between Sydney and the Gulf of Carpentaria.

At the head of that gulf, admitting that a practicable and direct line of route can be opened to it, the country, and the sea adjacent, may soon require attention. By timely examination and good arrangement, a commodious place of embarkation may be established there, which might, by degrees, become an important town; where horses might be shipped and conveyed by a short passage to India, free from the hazards of Torres Straits. It would appear from the brief but intelligible description by Captain Flinders, that Wellesley Islands, or Sweer's Island, being both higher than the main land, might be connected with it, by some permanent work, and thus

afford a good port for steamers, and shelter and anchorage for other ships. According to the interesting narrative of Captain Stokes, the temperature is remarkably low, and convict labour might there be very usefully employed upon such works.

The head of the Gulf of Carpentaria, being that part of the Indian Ocean nearest to Sydney, has appeared of more importance to the colonists, since steam navigation became regular between England and the Indian archipelago. Then it became more desirable for the colonists to know the nature of the interior country between their capital and that northern coast. The interior has been found very open and accessible; the fine country at the head of the Victoria must soon be occupied, and thus divide the whole distance into two equal parts, each of these not much exceeding the distance between Sydney and Melbourne, in Australia Felix; between which places mail-carriages now run twice a week.

Thus, while, by the extension of geographical research, the proper fields for colonization are laid open for selection, and prepared for timely arrangements on the part of the Imperial Government; the colonists of New South Wales have promoted the general interests of their fellow subjects at home, by the developement of the resources of the territory around them.

He "who measured out the sea in the hollow of his hand, and weighed the earth in a balance," has determined, by the condition of these two elements, the situation of the Gulf, and that of the great break in the East Coast range — the one affording the nearest access to an important sea, the other the easy way to a rich interior land. I would, with

deference to Him, " who led Israel like a flock," and me in safety through the Australian wilds, distinguish the two regions by timely descriptive names on the map I now lay before the public; Capricornia, to express the country under the tropics, from the parallel of 25° South, where nature has set up her own land-marks, not to be disputed: Australindia, the country on the shores of the most southern part of the Indian archipelago; which two regions may be made conterminous according to natural limits, when such limits can be accurately ascertained.

EASTERN AUSTRALIA
with recent discoveries.
GULF OF CARPENTARIA
Groote Eylandt
Sir Edw. Pellew's Group
Wellesley's Islands
AUSTRALINDIA
C. Grenville
C. Weymouth
C. Melville
Princess Charlotte's Bay
C. Flattery
Endeavour R.
Bougainvilles Reef
Diana's Bank
Trinity Bay
Tregrossies Islets
Palm Isles
Halifax Bay
The Great Barrier Reefs
Cumberland Islands
Vines R.
Repulse Bay
Broad Sound
Port Bowen
CAPRICORNIA
Tropic of Capricorn
C. Capricorn
Harvey's Bay
C. Sandy I.
Wide Bay
Moreton B.
Stradbroke I.
Pt. Danger
C. Byron
Evans R.
Shoal B.
Glasshouse Bay
Condamine R.
Fort Bourke
Tryal B.
Smoky C.
Port Macquarie
Manning R.
Port Stephens
Newcastle
Broken Bay
Port Jackson
SYDNEY
Shoalhaven
Jervis Bay
Bateman Bay
Twofold Bay
C. Howe
Port Phillip
Melbourne
Portland Bay
Cape Otway
Wilson's Promt.
Kents groupes
Kings I.
BASS' STRAIT
Pyramid
Great I.
C. Barren I.
Banks Strait
Launceston
VAN DIEMENS LAND
Hobart Town
Adventure B.
Kangaroo I.
Spencers Gulf
Adelaide
Encounter B.
Lacepede B.
Yorke's Peninsula
R. Murray
Murrumbidgee R.
Lachlan R.
Darling R.
Macquarie R.
Bogan R.
Castlereagh R.
Gwydir R.
Peel R.
Namoy R.
Barwan R.
Gwydir R.
Balonne R.
Maranoa R.
Culgoa R.
Barcoo R.
Victoria R.
Nogoa R.
Boyne R.
Burnett R.
Mary R.
Wide Bay
Glasshouse Bay
Moreton B.
Stradbroke I.
Pt. Danger
C. Byron
Evans R.
Shoal B.
Tryal B.
Smoky C.
Port Macquarie
Manning R.
Port Stephens
Newcastle
Broken Bay
Port Jackson
SYDNEY
Shoalhaven
Jervis Bay
Bateman Bay
Twofold Bay
C. Howe
Melbourne
Port Phillip

APPENDIX.

THE COLONIAL SECRETARY TO THE SURVEYOR-GENERAL OF NEW SOUTH WALES.

No. 30/1252.

Colonial Secretary's Office, October 28. 1830.

Sir,

I have the honour, by the direction of His Excellency the Governor, to inform you that the Right Honourable the Secretary of State has been pleased to signify the King's instructions for the discontinuance of the office of the Commissioners appointed to survey and value the lands of the Colony, and His Majesty's commands that the performance of their duties is for the future to be entrusted to the Surveyor-General, who, with the aid of the Assistant Surveyors, will be held responsible for all arrangements connected with the survey and division of the territory.

I have the honour to be,
Sir,
Your most obedient servant,
ALEX. M'LEAY.

To T. L. Mitchell, Esquire,
Surveyor-General.

A

SYSTEMATICAL LIST

OF

THE PRINCIPAL PLANTS

COLLECTED IN THE FOREGOING JOURNEY.

*Those marked * are new.*

Ferns.

Adiantum hispidulum, 204. 212.
——— assimile, 204. 212.
Nothochlæna distans, 212.
Grammitis rutæfolia, 212.
Cheilanthes tenuifolia, 212.
Doodia caudata, 212.
Platyzoma microphyllum, 236.

Grasses.

Aristida calycina, 33.
Arundo Phragmites, 124.
* Anthistiria membranacea, *Lindl.* 88.
——— australis *passim.*
——— sp. 97.
Andropogon sericeus, 62.
——— bombycinus, 378.
——— sp. 117.
Bromus australis, 61.
* Chloris sclerantha, *Lindl.* 31.
——— acicularis *Lindl.* 33.
Dactyloctenium radulans, 88.
Danthonia pectinata, 319.
——— * triticoides *Lindl.* 365.
Erianthus, fulvo aff. 62.
Imperata arundinacea, 60. 349.
Lappago biflora, 364.
Neurachne Mitchelliana, 33.
Perotis rara, 139.
Panicum lævinode 60. *and passim.*
Pappophorum gracile, 319.
——— * avenaceum *Lindl.* 320.
——— * virens, *Lindl.* 360.
——— * flavescens, *Lindl.* 34.
* Stipa scabra, *Lindl.* 31.
* Sporobolus pallidus, *Lindl.* 187.
Triodia pungens, 177. 340.
Triraphis mollis, 88.

Sedges.

Cyperus, sp. bulbosa. 124.
——— sp. 120.
Kyllinga monocephala, 100.

Miscellaneous Endogens.

Damasonium ovalifolium, 31.
Xerotes laxa, 361.
——— leucocephala, 198.
Cymbidium canaliculatum, 378.
* Pterostylis Mitchellii, *Lindl.* 3
Commelina undulata, 347.
Thysanotus elatior, 347.
Tricoryne elatior, 387.
Laxmannia gracilis, 365.
Dianella rara, 366.
——— strumosa, 341.

GYMNOGENS.

Zamia, 209.
Callitris sp. n. 187.
——— glauca, 298.
——— pyramidalis, 93.

SPURGEWORTS (*Euphorbiaceæ*).

* Adriania acerifolia, *Hooker*, 371.
——— *heterophylla, *Hooker*, 124.
Beyeria, sp. n. 390.
Bertya oleæfolia, 290.
Euphorbia hypericifolia? 265.
———* eremophila, *A. Cunn.* 348.
Hylococcus sericeus, 389.
* Micrantheum triandrum, *Hooker*, 342.
Phyllanthus simplex? 106.

CUCURBITS.

Cucumis pubescens, 110.

BIXADS (*Flacourtiaceæ*).

* Melicytus? oleaster, *Lindl.* 383.

FRANKENIADS.

* Frankenia scabra, *Lindl.* 305.
——— * serpyllifolia, *Lindl.* 305.

CAPPARIDS.

* Capparis umbonata, *Lindl.* 257.
——— *loranthifolia, *Lindl.* 220.
——— lasiantha, 102.
——— Mitchellii, 36.
Cleome flava, 127.

STERCULIADS.

Brachychiton populneum, 355.
* Delabechea rupestris *Mitchell*, 155.

BYTTNERIADS.

* Keraudrenia integrifolia, *Hooker*, 341.

MALLOWWORTS.

Hibiscus Lindleyi? 260.
——— * Sturtii, *Hooker*, 363.
Fugosia digitata? 387.
——— sp. 64.
Malva ovata, 397.
* Sida Frazeri, *Hooker*, 368.
—— pisiformis, 362.
—— * virgata, *Hooker*, 361.
—— filiformis, *A. Cunn.* 361.
—— tubulosa, *Cunn.* 390.
—— sp. n. 103.

LINDENBLOOMS (*Tiliaceæ*).

Grewia Richardiana, 383.

MILKWORTS (*Polygalaceæ*).

* Comesperma sylvestris, *Lindl.* 342.

SOAPWORTS (*Sapindaceæ*).

Thouinia australis, 390.
* Dodonæa acerosa, *Lindl.* 273.
——— * filifolia, *Hooker*, 241.
——— * hirtella, 191.
——— * mollis, *Lindl.* 212.
——— * peduncularis, *Lindl.* 340. 361.
——— * pubescens, *Lindl.* 342.
——— * tenuifolia, *Lindl.* 248.
——— * trigona, *Lindl.* 236.
——— * triangularis, 219.
——— * vestita, *Hooker*, 265.

DILLENIADS.

Pleurandra ericifolia, 362.
——— * cistoidea, *Hooker*, 363.
Hibbertia canescens, 339.

CROWFOOTS (*Ranunculaceæ*).

Clematis stenophylla, 368.
Ranunculus plebeius, 362.
——— sessiliflorus, 361.

PITTOSPORADS.

* Bursaria incana, *Lindl.* 224.
* Pittosporum salicinum, *Lindl.* 97.
——— lanceolatum, 272.

EPACRIDS.

Leucopogon cuspidatus, 226.

Citronworts (*Aurantiaceæ*).
* Triphasia glauca, *Lindl.* 353.

Rueworts (*Rutaceæ*).
* Boronia bipinnata, *Lindl.* 225.
——— * eriantha, *Lindl.* 298.
* Eriostemon rhombeum, *Lindl.* 293.
* Geijera parviflora, *Lindl.* 102.
——— * latifolia, *Lindl.* 236.
——— * pendula, *Lindl.* 251.
Heterodendron oleæfolium, 398.
* Pilotheca ciliata, *Hooker*, 347.
* Phebalium glandulosum, *Hooker*, 199.
* Zieria Frazeri, *Hooker*, 339.

Cranesbills (*Geraniaceæ*).
Geranium parviflorum? 362.
Erodium littoreum? 360.

Purslanes (*Portulacaceæ*).
* Calandrinia balonensis, *Lindl.* 148.
——— * pusilla, *Lindl.* 360.

Buckwheats (*Polygonaceæ*).
Polygonum acre, 149.
——— junceum, 85.

Nyctagos.
Boerhaavia mutabilis, 362.

Amaranths.
Amaranthus undulatus, 102.
Alternanthera nodiflora, 35.
——— sp. 341.
Nyssanthes? 360.
* Trichinium semilanatum, *Lindl.* 45.
——— lanatum, 33. 88.
——— * conicum, *Lindl.* 363.
——— fusiforme, 383.
——— alopecuroideum, 88. 91.

Chenopods.
Ambrina carinata, 127.
* Atriplex nummularia, *Lindl.* 64.
——— elæagnoides, 29
Atriplex semibaccata, 23.
* Chenopodium auricomum, *Lindl.* 94.
Enchylæna tomentosa, 102.
Kochia brevifolia, 33. 67.
——— * thymifolia, *Lindl.* 56.
——— * lanosa, *Lindl.* 88.
——— * villosa, *Lindl.* 91.
Rhagodia parabolica, 53.
Salsola australis, 24, &c.
Sclerolæna uniflora, 72.
* Suæda tamariscina, *Lindl.* 239.

Ficoids.
Mesembryanthemum, sp. 315.

Daphnads.
Pimelea linifolia? 340.
——— * trichostachya, *Lindl.* 355.
——— colorans, 362.
Exocarpus aphylla, 118.
——— spartea, 135.

Proteads.
* Conospermum sphacelatum, *Hooker*, 342.
* Grevillea Mitchellii, *Hooker*, 265.
——— * juncifolia, *Hooker*, 341.
——— floribunda, 212.
——— * longistyla, *Hooker*, 343.
——— sp. 276.
* Hakea longicuspis, *Hooker*, 397.
——— * purpurea, *Hooker*, 348.

Dodder laurels (*Cassythaceæ*).
Cassytha pubescens, 362.

Leguminous plants.
Acacia conferta, 174. 289.
——— Cunninghamii, 204.
——— doratoxylon, 289.
——— delibrata, 258.
——— decora, 359.
var. 223.
——— * excelsa, *Benth.* 225.
——— Farnesiana, 256.
——— falcata, 221.

Acacia holosericea, 256.
——— Simsii, 256.
——— leucadendron, 258.
——— * longespicata, *Benth.* 298.
——— ixiophylla, 204.
——— leptoclada, var. 95.
——— * macradenia, *Benth.* 360.
——— neriifolia, 386.
——— pendula, *passim.*
——— pennifolia, 361.
——— podalyriifolia, 221.
——— * pinifolia, *Benth.* 342.
——— stenophylla, 81.
——— spectabilis, 353.
——— salicina, 56.
——— triptera, 291.
——— * varians, *Benth.* 132.
——— * Victoriæ, *Benth.* 333.
——— * uncifera, *Benth.* 341.
——— viscidula, 340.
* Aotus mollis, *Benth.* 236.
* Bossiæa carinalis, *Benth.* 290.
——— rhombifolia, 294.
* Cassia circinata, *Benth.* 384.
——— * coronilloides, *Cunn.* 384.
——— * zygophylla, *Benth.* 288.
——— sophera, 390.
——— occidentalis, 378.
——— heteroloba, 251.
* Crotalaria dissitiflora, *Benth.* 386.
——— * Mitchellii, *Benth.* 120.
* Cyclogyne swainsonioides, *Benth.* 397.
* Daviesia filipes, *Benth.* 363.
* Erythrina vespertilio, *Benth.* 218.
* Gompholobium foliosum, *Benth.* 348.
Hardenbergia monophylla, 236.
Hovea lanceolata, 212.
——— * leiocarpa, *Benth.* 289.
* Indigofera brevidens, *Benth.* 385.
——— hirsuta, 122.
* Jacksonia ramosissima, *Benth.* 258.
——— scoparia, 339.
* Kennedya procurrens, *Benth.* 365.
Labichea rupestris, *Benth.* 342.
* Labichea digitata, *Benth.* 273.
* Leptocyamus latifolius, *Benth.* 361.
* Lotus lævigatus, *Benth.* 62.
——— australis, var. 348.
Neptunia gracilis, 362.
* Psoralea eriantha, *Benth.* 131.
Sesbania aculeata? 106.
* Swainsona phacoides, *Benth.* 363.
Vigna, an capensis? 339.
——— * lanceolata, *Benth.* 350.
——— * suberecta, *Benth.* 388.

Roseworts.
Rubus parvifolius, 351.

Loosestrifes (*Lythraceæ*).
Lythrum Salicaria, 62.

Rhamnads.
Alphitonia excelsa, 201.
Cryptandra propinqua, 223.
* Ventilago viminalis, *Hooker*, 369.

Spindle trees (*Celastraceæ*).
* Catha Cunninghamii, *Hooker*, 387.
* Elæodendron maculosum, *Lindl.* 384.

Stackhousiads.
Stackhousia muricata, 362.

Dogbanes (*Apocynaceæ*).
Carissa ovata, 393.
Tabernæmontana, sp. 341.
* Doobàh, 85.

Loganiads.
* Logania cordifolia, *Hooker*, 341.

Gentianworts.
Erythræa australis, 366.

Oliveworts.
Notelæa punctata, 352.

Nightshades (*Solanaceæ*).
Nicotiana suaveolens, 64.
Solanum ellipticum, 215.
——— furfuraceum, 212.
——— biflorum, 362.
——— violaceum, 365.
——— sp. 85.

Bindweeds.
* Polymeria longifolia, 398.
Convolvulus erubescens, 353.
Evolvulus, sericeo aff., 386.
——— linifolius, 339.

Leadworts.
Plumbago zeylanica, 219.

Ribworts (*Plantaginaceæ*).
Plantago varia, 352.

Jasminworts.
* Jasminum suavissimum, *Lindl.* 355.
——— lineare, 94.
——— * Mitchellii, *Lindl.* 365.

Ehretiads.
Halgania, sp. 24.

Borageworts.
* Trichodesma sericeum, *Lindl.* 258.

Brunoniads.
Brunonia sericea, 341.
——— simplex ? 360.
——— * simplex, *Lindl.* 82.

Labiates.
Ajuga australis, var., 236. 347.
* Mentha grandiflora, *Benth.*, 362.
Moschosma polystachya, 137.
Plectranthus parviflorus, 347.
* Prostanthera odoratissima, *Benth.*, 291.
——— * ringens, *Benth.*, 363.
——— * euphrasioides, *Benth.*, 360.
Teucrium racemosum, 31.
——— argutum, 198.
Salvia plebeia, 366.

Verbenes.
Chloanthes stœchadis, 298.
Vitex, sp. n., 212.

Myoporads.
* Eremophila Mitchelli, *Benth.*, 31.
* Myoporum dulce, 253.
——— Cunninghamii, 214.
* Stenochilus pubiflorus, *Benth.*, 273.
——— * salicinus, *Benth.*, 251.
——— * curvipes, *Benth.*, 221.
——— * bignoniæflorus, *Benth.*, 386.

Bignoniads.
Tecoma Oxleyi, 291.

Acanthads.
Justicia media, 31. 89. 361.
——— ascendens, 97.
Ruellia australis, 353.

Figworts (*Scrophulariaceæ*).
Morgania floribunda, 62. 384.
Veronica plebeia, 360.

Goodeniads.
Dampiera adpressa, 339.
Goodenia pulchella, 339.
——— * flagellifera, *De Vriese*, 378.
——— coronopifolia, 359.
——— geniculata, 72.
* Linschotenia bicolor, *De Vriese*, 340. 345.
* Velleya macrocalyx, *De Vriese*, 258.

Composites.
Brachycome, heterodontæ prox., 62.
* Calotis scapigera, *Hooker*, 75.
——— cuneifolia, 28.

* Calocephalus gnaphalioides, *Hook.*, 378.
* Eurybia subspicata, *Hooker*, 293.
Eurybiopsis macrorhiza, 359.
Erechthites arguta, 225.
* Ethulia Cunninghami, *Hooker*, 62.
* Flaveria australasica, *Hooker*, 118.
Helichrysum bracteatum, 79.
——— * ramosissimum, *Hook.*, 83.
——— semipapposum, 389.
——— odorum ? 362.
Helipteres anthemoides, 349.
——— * glutinosa, *Hook.*, 361.
Minuria heterophylla, 64.
Monenteles redolens, 263.
* Myriogyne racemosa, *Hook.*, 353.
Ozothamnus diosmæfolius, 347.
Podolepis acuminata ? 289.
——— rugata ? 362.
——— longipedunculata, 362.
Pycnosorus globosus, 353.
Rutidosis helichrysoides, 78.
——— * arachnoidea, *Hook.*, 341.
Senecio carnosulus? 360.
——— Cunninghami, 45.
——— brachylænus, 62.
Sphæranthus hirtus 212.

Hippurids (*Haloragaceæ*).

* Haloragis aspera, *Lindl.*, 306.
——— * glauca, *Lindl.*, 91.
* Myriophyllum verrucosum, *Lindl.* 384.

Myrtle blooms (*Myrtaceæ*).

Angophora lanceolata, 81.
* Callistemon nervosum, *Lindl.* 235.
Eucalyptus sideroxylon, 339.
——— * acuminatus, *Hook.* 390.
Eucalyptus pulverulento aff. 91.
——— * melissiodorus, *Lindl.* 235.
——— * citriodorus, *Hooker*, 235.
——— * populifolius, *Hooker*, 204.
——— bicolor, 390.
——— * viminalis, *Hooker*, 157.
* Leptospermum sericatum, *Lindl.* 298.
* Melaleuca trichostachya, *Lindl.* 277.
——— * tamariscina, *Hooker*, 262.
Schidiomyrtus tenellus, 340.
* Tristania angustifolia, *Hook.* 198.

Cinchonads.

Canthium sp. 386.
——— * oleifolium, *Hooker*, 397.
Pomax hirta, 340.

Stellates.

Asperula? 360.

Umbellifers.

Actinotus Helianthi, 345.
Daucus brachiatus, 235.
Didiscus pilosus, 593.

Sandalworts (*Santalaceæ*).

Fusanus acuminatus, 105.
Santalum oblongatum 101.

Loranths.

* Loranthus linearifolius, *Hook.* 102.
——— * aurantiacus, *Hook.* 101.
——— * subfalcatus, *Hooker*, 224.
——— * nutans, *Cunn.* 158.

*** The routes of the party advancing are coloured red on the maps; those by which it returned, blue.

London, Feb. 15. 1848.

THE END.

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