

line there is more lasting honour to be gained than in fighting the battles of the Old Country against half-armed savages. No time is more opportune for such a demonstration than the present, when the Colonies are so prominently before the public of the world. We have shown the rapid progress of our commerce and the vastness of our resources. We have proved that in manly sports we can hold our own with all comers; now let us show that the old Anglo-Saxon love of adventure is strong within us, and that although during our infancy we were content to share the benefits of scientific work, in our manhood we are ready to share the toil.

The scientific world is anxious to see a renewal of Antarctic exploration, and nothing would be more gratifying to them, nothing will be more calculated to give the world an earnest of our desire to help, than for Australia to take up this work. Certain it is that it would be a standing disgrace to Australia if she took no part in the exploration of the seas that wash her own coasts. And if Australia determines to undertake this work, I trust that this time Tasmania will act with them.

REMARKS REGARDING COAL SEAM OPENED OUT
BY MR. BROCK AT COMPTON, OLD BEACH.

By R. M. JOHNSTON, F.L.S.

Mr. Brock has recently sunk a shaft to a seam of coal, which he discovered indications of at sea margin a little north of Mount Direction.

The seam, about two feet thick, exists under hard laminated blue and grey shales containing abundant impressions of the following Mesozoic fossil plants:—

Thinnfeldia	obtusifolia	<i>R. M. Johnston</i>
Phyllothea	Hookeri	<i>M' Coy</i>
	Australis	
Pterophyllum	Risdonensis	<i>R. M. Johnston</i>
Zeugophyllites	elongatus	<i>Morris, very abundant</i>

The shaft is sunk on the southern slope of the rounded hill, capped with variegated sandstones, opposite Austin's Ferry, which rises to a height of about 300 feet. The sandstones, evidently, at one time had spread over the coal seam with associated shales, and all seem to dip slightly in a westerly direction—that is, towards the Mesozoic rocks of a similar character situated on the western shore of the Derwent. Towards the east, the sandstones either abut against or are overlain by greenstones, forming the eastern slope of the same isolated ridge. Beds of a similar character ex-

tend throughout the lower levels towards the Jordan and Brighton.

From the character of the beds and their fossil contents, they may have formed part of the Richmond group.

The following contains particulars of the section sunk by Mr. Brock at Compton:—

SECTION OF BROCK'S COAL SHAFT AT COMPTON, OLD BEACH.

(a)	Sandstone...	...	...	...	—
}	Sand	...	...	...	8·9
	Clay	...	...	...	6·0
	Grey shale	...	...	...	12·0
(b)	Hard laminated blue and grey shales, with impressions of <i>Zeugophyllites</i> <i>elongatus</i> , <i>Phyllothea Hookeri</i> , and <i>Thinnfeldia obtusifolia</i>	...	...	...	6·0
}	Red friable shales	...	...	...	5·0
	Carbonaceous shales	...	...	...	0·3
(c)	Coal	...	...	...	2·0
}	Carbonaceous shales	...	...	...	0·3
	(d)	Grey friable clay...	...	...	40·3
}	With <i>P. Hookeri</i>...	...	...	...	—

REMARKS ON THE LONGFORD COAL BASIN.

By ROBT. M. JOHNSTON, F.L.S.

The Norwich coal seams near Longford, opened out by Mr. Mason and others, have only been discovered recently, although the existence of the Mesozoic Coal Measure Sandstones in the immediate neighbourhood—notably at Hadspen—had long been known.

The exact extent of this basin of coal has not yet been determined. A glance at the geological sketch map, coloured yellow, shows that nearly the whole of the plains north of the Western Tiers, drained by the Tamar and its tributaries, are superficially composed of sedimentary deposits belonging to an ancient lake or water system of Palæogene age (Lower Tertiary), which deposits were minutely described by the writer in 1873 and 1874, and termed the Launceston Tertiary Basin.*

These Tertiary rocks, with their accompanying intrusive sheets of basalt, together with deposits of tuffs, overlie and conceal the rocks of Mesozoic and Palæozoic age, as in parts of the Derwent Valley Basin.

Rocks of Mesozoic and Upper Palæozoic age are to be found everywhere bordering this ancient Tertiary Lake Basin, and even near its centre, as at Hadspen, Corra Lynn,

*Proc. Roy. Soc. Tas., 1873, pp. 39-47; 1874, pp. 53-62.