

and, for the first three miles which I examined, inclined nearly at the same angle, upon an average about 24° S.S.W. Within this space, or between *d* and *g*, all the upright trees hitherto found occur; but the same set of strata is still continuous, with a gradually lessening dip, many miles farther to the south.

If we assign a thickness of four or five miles to this regular succession of carboniferous strata, which, as I shall afterwards show, must have been originally quite horizontal, our estimate will probably be rather under than over the mark. For the first mile south of the grindstones, or from *c* to *d*, I observed no coal in the cliffs, after which the first of the upright trees appears at *d*, at the distance of about six miles from Minudie. Then followed a series of coal-bearing strata, consisting of white freestone, bituminous shale, micaceous sandstone, sandy clays, blue shale, and clays with and without nodules of ironstone, all resembling the carboniferous rocks of Europe. They occupy a range of coast about two miles long, the vertical height of the cliffs being from 150 to 200 feet; and about nineteen seams of coal have been met with, which vary in thickness from two inches to four feet. At low tide, we had not only the advantage of beholding a fine exposure of the edges of these beds in the vertical precipices, but also a horizontal section of the same on the beach at our feet.

The beds through which erect trees, or rather the trunks of trees, placed at right angles to the planes of stratification, are traceable, have a thickness of about 2500 feet; and no deception can arise from the repetition of the same beds owing to shifts or