

pied, so splendid in its aspect, and yet so simple in its organisation, must have differed from that which now embellishes the earth and charms our eyes! It certainly possessed the advantage of size and rapid growth; but how poor it was in species—how uniform in appearance! No flowers yet adorned the foliage or varied the tints of the forests. Eternal verdure clothed the branches of the Ferns, the Lycopods, and Equiseta, which composed to a great extent the vegetation of the age. The forests presented an innumerable collection of individuals, but very few species, and all belonging to the lower types of vegetation. No fruit appeared fit for nourishment; none would seem to have been on the branches. Suffice it to say that few terrestrial animals seem to have existed yet; animal life was apparently almost wholly confined to the sea, while the vegetable kingdom occupied the land, which at a later period was more thickly inhabited by air-breathing animals. Probably a few winged insects (some coleoptera, orthoptera, and neuroptera) gave animation to the air while exhibiting their variegated colours; and it was not impossible but that many pulmoniferous mollusca (such as land-snails) lived at the same time.

But, we might ask, for what eyes, for whose thoughts, for whose wants, did the solitary forests grow? For whom these majestic and extensive shades? For whom these sublime sights? What mysterious beings contemplated these marvels? A question which cannot be solved, and one before which we are overwhelmed, and our powerless reason is silent; its solution rests with Him who said, "Before the world was, I am!"

The vegetation which covered the numerous islands of the Carboniferous sea consisted, then, of Ferns, of Equisetaceæ, of Lycopodiaceæ, and dicotyledonous Gymnosperms. The *Annularia* and *Sigillariæ* belong to families of the last-named class, which are now completely extinct.

The *Annulariæ* were small plants which floated on the surface of fresh-water lakes and ponds; their leaves were verticillate, that is, arranged in a great number of whorls, at each articulation of the stem with the branches. The *Sigillariæ* were, on the contrary, great trees, consisting of a simple trunk, surmounted with a bunch or panicle of slender drooping leaves, with the bark often channelled, and displaying impressions or scars of the old leaves, which, from their resemblance to a seal, *sigillum*, gave origin to their name. Fig. 41 represents the bark of one of these *Sigillariæ*, which is often met with in coal-mines.

The *Stigmaria* (Fig. 42), according to palæontologists, were roots of *Sigillariæ*, with a subterranean fructification; all that is known of