

a large number of the genera occurring in the succeeding Carboniferous system.

Goeppert does not include in his enumeration the plants from the Devonian of Gaspé, described by the author in 1859,* having seen only an abstract of the paper at the time of writing his memoir, nor does he appear to have any knowledge of the plants of this age described by Lesquereux in Rogers's "Pennsylvania." These might have added ten or twelve species to his list, some of them probably from the Lower Devonian. It is further to be observed that a few additional species had also been recognised by Peach in the Old Red Sandstone of Scotland.

But from 1860 to the present time a rich harvest of specimens has been gathered from the Gaspé sandstones, from the shales of southern New Brunswick, from the sandstones of Perry in Maine, and from the wide-spread Erian areas of New York, Pennsylvania, and Ohio. Nearly all these specimens have passed through my hands, and I am now able to catalogue about a hundred species, representing more than thirty genera, and including all the great types of vascular Cryptogams, the Gymnosperms, and even one (still doubtful) Angiosperm. Many new forms have also been described from the Devonian of Scotland and of the Continent of Europe.

Before describing these plants in detail, we may refer to North America for illustration of the physical conditions of the time. In a physical point of view the northern hemisphere presented a great change in the Erian period. There were vast foldings of the crust of the earth, and great emissions of volcanic rock on both sides of the Atlantic. In North America, while at one time the whole interior area of the continent, as far north as

* "Journal of the Geological Society of London," also "Canadian Naturalist."