In the Molasse of Switzerland, there are many similar deposits affording sometimes Coal of considerable purity, formed during the second, or *Miocene* period of this series, and usually containing fresh water shells. Such are the Lignites of Vernier near Geneva, of Paudex and Moudon near Lausanne, of St. Saphorin near Vevay, of Kæpfnach near Horgen on the lake of Zurich, and of Œningen near Constance.

The Brown-coal at Œningen forms thin beds of little importance for fuel, but very perfect remains of vegetables are dispersed in great abundance through the marly slates and limestone quarries which are worked there, and afford the most perfect history of the vegetation of the *Miocene* Period, which has yet come within our reach.\*

as thin as paper (Papier Kohle) and are composed entirely of a congeries of many kinds of leaves. Henderson mentions the leaves of two species of Poplar, resembling the P. tremula and P. balsamifera, and a Pine, resembling the Pinus abies as occurring in the Surturbrand of Iceland.

Although we have followed Mr. Brongniart in referring the deposits here enumerated to the first, or *Eocene* period of the Tertiary series, it is not improbable that some of them may be the products of a later era, in the *Miocene* or *Pliocene* periods. Future observations on the Species of their animal and vegetable remains will decide the exact place of each, in the grand Series of the Tertiary formations.

\* I have recently been favoured by Professor Braun of Carlsruhe, with the following important and hitherto unpublished catalogue, and observations on the fossil plants found in the