

is found in the *Traité de Paléontologie végétale* (Paris, 1869-74), by Philipp Schimper, who was Director of the Museum in Strasburg, and a Professor in the University. Schimper handled the material essentially from a botanical standpoint, but was also an admirable exponent of the geological relations and significance of fossil plants.

August Schenk, for a long time (1868-91) Professor of Botany in Leipzig, exerted a very great influence on the advance of palæophytology in Germany. His detailed works were devoted to an investigation of the flora of the French Keuper, and more especially to the plant forms from the passage-beds between the Keuper and Lias. These appeared before 1868, while Schenk was still Professor of Botany in Würzburg. After his removal to Leipzig he came more into touch with Berlin influences, and he undertook the investigation of the large collection of fossil floras which had been brought from China by Baron von Richthofen and Count Széchenyi. Other materials examined by him were the silicified woods from the Nubian sandstones, fossil wood from Cairo, the plant remains from the Muschelkalk of Recoaro and from the Weald formation of England.

While all these were of the nature of special researches, a work of more general interest is Schenk's systematic treatment of the fossil plants in Zittel's *Handbook of Palæontology*. After the death of Schimper, who had only completed the cryptogams and cycads, Schenk undertook in 1881 the continuation of this work. By means of the critical method which he carried out uniformly throughout his classification of flowering plants in Zittel's handbook, and from which the works of the highest authorities, such as Unger, Heer, Von Ettingshausen, and Saporta, were not spared, Schenk practically initiated a reform in palæophytology. He showed how many of the fossil genera and species had been based on insufficient grounds of distinction, and how often miserably preserved fossil remains, whose identification was impossible, had been used for the erection of new genera or made the basis of some wonderful new hypothesis. Many of the special papers on fossil plants had been contributed by authors with insufficient botanical training, and were in consequence an untrustworthy foundation for any inductive reasoning regarding the past periods of vegetation and their climatic conditions.

Schenk was also very dubious about the value of Ettings-