

Williamson
Calamites

[FROM THE AMERICAN JOURNAL OF SCIENCE, VOL. XXXVI, JULY, 1888.]

6. *On the Organization of the Fossil Plants of the Coal Measures.—Part XIV. The true fructification of the Calamites*; by W. C. WILLIAMSON.—In this short memoir Prof. Williamson gives his reasons for still believing that the strobile described by him in 1869 from the Upper-foot coal in Strinesdale, near Saddleworth, Lancashire, not only was, as he then stated, the fruit of a true Calamites, but that it was the only one that had thus far been discovered. After waiting seventeen years additional specimens having the same structure at last came to light. These led him to reinvestigate the whole subject and to figure anew all the specimens in his cabinet. The chief reason for believing in the true Calamitean character of these specimens is that the peduncle of the strobilus presents in every case substantially the same essential characters as the stems of Calamites, the structure of which is very different from that of any of the other Carboniferous plants that have been made known. Although somewhat modified to adapt itself for the growth of the large sporangia of the higher portions of the spike, these peduncles still clearly exhibit the internodal canals and characteristic medullary cavity of Calamites, characters so distinctive as to make it extremely doubtful that they could have belonged to any other plant. The

great wonder is, considering the abundance of *Calamites* everywhere in the coal measures, that its fruits should be of such rare occurrence. It is needless to say that these fruits are strictly cryptogamic, and contain spores only.

L. F. W.

7. *Einleitung in die Paläophytologie vom botanischen Standpunkt aus*. Bearbeitet von H. GRAFEN ZU SOLMS-LAUBACH. Leipzig, 1887.—This work, although it bears evidence of wide research and much original investigation, is nevertheless, to the working paleophytologist, something of a disappointment. What is needed is a logical and systematic presentation of the best results of all the numerous and widely scattered investigations into the meaning of the multiform structures and objects that have been studied and separately made known. Count Solms-Laubach has proved by this work that he possesses the qualifications for conducting such an enterprise, but has preferred, German fashion, to give it the form of an original investigation and a decidedly subjective stamp, for which he was not qualified by a life-long devotion to the subject, such as gives so great weight and value to the researches of Williamson, Renault, and Schenk. The book, moreover, lacks entirely the symmetry and evenness of treatment so much to be desired at this time in paleobotany, and plainly shows that its author was impelled rather by the impulse to probe to the bottom a few such questions as chanced specially to interest him, leaving other equally essential ones nearly or quite untouched. But it should not be inferred that this work is devoid of value. To him who desires to attack the problems of paleobotany it will be found to contain a thorough and exhaustive treatment of many of the most knotty and puzzling questions, and it has the great merit of furnishing a clear guide to the entire literature of every subject treated.

The interest manifested by so excellent a botanist in paleontology is a hopeful sign as tending to reconcile the two departments, and while, there is danger that the recent appointment of Count Solms-Laubach to the botanical chair made so celebrated by De Bary may not leave him time to continue the work to which this book is confessedly only an "Introduction," the science of botany proper is to be congratulated on having in such a prominent place one who is fully capable of weighing the facts furnished by the geological history of plants.

L. F. W.

8. *Das Anlitz der Erde* von EDUARD SUESS. Vol. ii, 704 pp., 8vo. Vienna, 1888. (F. Dempsy).—The first volume of the great work by Professor Suess, noticed in this Journal in 1884, 1885 (xxvii, 151, xxix, 418), covered, first, the discussion of the movements in the exterior crust of the earth and, secondly, of the mountain systems. The second volume, now published, is devoted to the great oceans, treating of them first geographically as at present developed, and later with regard to the extent of the seas during the successive geological periods, from the paleozoic down to the changes of level noted in historic times and more broadly with respect to the cause of the oceanic depressions. The different fea-