CONE-LIKE STROBILI ATTACHED TO A PHYLLOTHECA-LIKE FOLIAGE.

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(Plates i.- ii.)

Many years have elapsed since the late Professor Sir F. McCoy drew attention to what he considered the inflorescence of *Phyllotheca*, notwithstanding that he misunderstood its nature. Since 1847, the year in which McCoy wrote, Heer and Schmalhausen have both described strobili, believed by them to be the reproductory condition of this interesting and widely distributed Permo-Carboniferous plant. The announcement has lately been made that Professor R. Zeiller has, or is about to publish, additional information afforded by specimens from Asia Minor.

To render the account of the little fossils now under consideration clear, it will be necessary to review the descriptions of the parts referred to by the authors mentioned.

McCoy's infloresence consisted of a "portion of a branch with the joints more approximate than on other parts of the plant, their length being scarcely equal to their diameter; the sheaths are the exact length of the internodes, and fringed on their upper margin with a dense little whorl of (I think two-celled) anthers." To judge by the figure only, I am inclined to say that the inflorescence consisted of a stem giving support to stalked structures bearing sporangiophores, without the intervention of intermediate sterile bracts, thus approximating to the strobilus of Equisetum.

Mr. Schmalhausen figured two forms of fructification somewhat different from one another, as those of *Phyllotheca deliquescens*, Göpp. One of these consists of a loose strobilus in the form of a stem bearing clusters of peltate and stalked appendages (sporangiophores), between whorls of sterile leaves or bracts. The other figure differs from the first in so far that sterile bracts alternating with the fruit-bearing organs appear to be absent. On the first

¹ McCoy-Ann. Mag. Nat. Hist., xx., 1847, p. 155.

 $^{^2}$ Schmalhausen—Beiträge Jura-Flora Russlands, 1879, p. 68, pl. ix., figs. 16-17.

³ Loc. cit., figs. 16, 16a.

⁴ Loc. cit., fig. 17.