central medulla in which thin walled fundamental tissue predominates, and a somewhat rigid, or at least firmer, outer zone.

THE CORTEX. No proper cortical structure is represented in these specimens. The outer limits of the sections are defined by more or less broken down strands of sclerenchyma cells, with surrounding parenchyma tissue, making it clear that a certain amount of structure has been removed; and this accords with what has already been noted in specimens of Myelopteris, that "the tissue layers outside the sclerenchyma strands are very rarely preserved."[7] In this case the thin surface layers of coal already described are in all probability to be regarded as representing the cortical structure, which must have been chiefly or wholly parenchymatous in character, and of small radial volume.

THE SUB-CORTICAL LAYER.—The outer, continuous zone, 1.5^{mm} thick as already described, has its macroscopic differentiation from the medulla explained by the large amount of fibrous elements which it contains. Owing to the presence of these elements, and the peculiar way in which they are distributed, they have served not only to protect one another, but they have also served to prevent the effect of compression from falling with full force upon the intervening fundamental structure which in consequence, has often retained its structural features in an exceptionally perfect manner (*figs.* 1 and 2).

PARENCHYMA.—The ground tissue, for the greater part, is much altered by decay and compression, so that all structural features, especially in the central area, have been pretty completely eliminated. Occasionally, however, when protected by earlier infiltration and petrifaction, or by the resisting character of the accompanying strands of hard sclerenchyma, this part of the structure has been preserved in a very beautiful manner (*figs.* 1 and 2). From these areas it is possible to determine the fact that this tissue consists of very variable, but chiefly large and thin walled elements of such a character as to remind me very forcibly of the fundamental structure in many of the larger ferns.

[7] Solms-Laubach: Foss. Bot. 162.