2211/29/174

Fallowfield Manchester Dec 8/78

My Dear Dr Dawson

I have again & again tried to sit down & write to you but some more immediately pressing duty has caused me to defer the pleasure. - First of foremost, I handed the cambrian fossils over to our friend Plant who was delighted with them & who has a packet of Oldhamia & other objects ready to be sent off to you & which will come by the hand of a friend about to cross the Atlantic. Second I have been working out my Dicty ox, low & Daddy, low with excellent results. but in the proofs I discover that I have fallen into an error in my paper on the Exogenous Stems of the Coal-measures. - After a world of labour

I have ascertained that all my specimens with Sternbergian piths have been Dadoxylons. Dictyoxylon has after all been more of a soft-wooded plant but with large medullary rays and an exogenous growth of a very remarkable character. It branches in a way altogether different from other plants. The branches are few in number but after leaving the vascular zone they run for a considerable distance outside that zone through the inner cortical layer before penetrating the latter. But they ultimately penetrate both &

the outer layer emerge at the surface. I have also found, for the first time a beautiful little petiole or rachis of a fern.

The little interior figure is composed of true spiral vessels. I am preparing a new memoir on Stigmaria of which I have got some grand specimens. Every description of its internal organisation yet published is erroneous. It has magnificent medullary rays - and the vascular bundles going off to the rootlets have an origin in the vascular circle altogether different to what you see described in books — The remark is equally applicable to the pith which I have at last discovered.

Williamson.

I have also got a magnificent section, since you were here of a calamite giving off one of its Real branches. They prove, as I have always asserted to be the case, to be very small & slender. Each branch emerges from the interior of one woody wedge alone, as I described in my Calamopitus paper - and its woody Zone, exclusive of its bark, is not more than 1½ times the diameter of the woody wedge from which it springs - even where it emerges from the stem. They have formed irregular and uninterrupted verticils: not regular ones. - Now I have sent you a thoroughly egotistical letter - so pray return the compliment in the same style. Mrs W. sends kindest regards. Sophy was married in September & appears very happy - Write soon and believe me to be ever

Most sincerely Your
W C. Williamson