

OHIO GEOLOGICAL SURVEY,

Columbus, O., August 5th 1882.

Professor Dawson,

My dear Sir,

I am in receipt of your postal card of the 2^d inst.

I take great pleasure in sending forward a small package of samples of the black slate forms of which I have written to you. I trust that you will find time to examine them soon and to communicate to me your general judgment in regard to them.

I confess that questions have been raised in my mind since writing you as to the very important point whether the stems *sc.* that I have been finding were not recent. The sporangia are in many cases attached, but I am not now sure that the connection is organic

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I satisfied Dr. Lesquereux that it was a real connection, but he has given over microscopic work and would not care to pronounce a public judgment.

Prothallid forms of a lower growth were what he took the forms to be, possibly, but I shall be glad to see your original judgment confirmed. One of the specimens sent suggests a lepidodendroid arrangement of the sporangia. I do not know how far the quincuncial arrangement extends in the family. In fact, I am but an indifferent botanist in any division, and of the forms in question I am altogether ignorant.

The geology involved interests me very much. I send you samples of the shale from the bottom

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of the formation, from the middle and from the top, taken from points that are 200 miles apart,

I subjoin a list of the specimens sent. I could not give you good representations of the spores attached to the stems, but you can see the character of the facts in what I have enclosed,

- No. 1. Conifera like forms - Recent?
- " 2. Network of vegetable stems, Summit
- " 3. Brownish stems - with sporangia?
- " 4. Resinous crusts - made up of sporangia
- " 5. Marking like pin scratches. Common.
- " 6. Large sporangia - Middle of formation
- " 7. Small Sporangia - Bottom of formation

With great respect -

Edward Orin.

ETHNOLOGICAL SURVEY

Spencer's
Des

Orton

Chy/82

1882

Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.