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- **9**. Sternbergia, pith of the same, natural size; 9a, discigerous tissue of the same.
- 10. Another stem, probably Coniferous, with Sternbergia pith.
- 11. Woody tissue of prostrate Sigillaria : 11a, bast-tissue of the same.
- 12. Woody issue of a Sigillaria; 12 a, medullary ray.
- 13. Tissuo of a Sternbergia similar to fig. 9.
- 14, 15, 16. Discigerous tissue of erect trees (Sigillariæ) in mineral charcoal.

PLATE IX.

- Fig. 17. Calamodendron approximatum, east of pith; 17a, 17b, discigerous and scalariform tissue of the same.
 - 18. Calamodendron invested with woody tissue: A, pith; B, woody eylinder; 18a, cross section; 18b, cross section, magnified, showing compression of the tissue; 18c, discigerous and pseudo-scalariform tissue of the same.
 - 19. Portion of a multiporous vessel of a true *Calamites*, magnified to the same scale with figs. 17a & 17b.
 - 20. Stem of erect *Calamodendron* (S. Joggins, Nova Scotia), showing its external surface, one-third nat. size.
 - 21. Base of stem of *Calamites* (S. Joggins), showing rhizoma, reduced.
 - 22. Node of *Calumites*, showing scars of verticillate branchlets and of radial processes.

PLATE X.

- Fig. 23. Radial section of stem of Sigillaria of the type of S. Brownii, Dawson, restored, natural size: a, pith; b, woody eylinder; c, cellular inner bark; d, fibrous bark; e, outer cortical layer.
 - 24. Radial section of the woody cylinder, magnified (letters as above); and portions of the tissues more highly magnified below: b1, inner pseudo-sealariform cylinder; b2, 3, 4, discigerous outer cylinder.
 - 25. Radial section, more highly magnified, showing one of the radiating bundles of vessels (this section has been inverted); 25*a*, single pseudo-scalariform vessel from radiating bundle.
 - 26. Tangential section of the same stem, showing the woody fibres and one of the radial bundles, and the medullary rays.
 - 27. Tangential section showing woody fibres and medullary rays, more highly magnified.
 - 28. Radial arrangement of woody fibres, magnified.
 - 29. Fibres or elongated cells of the bark (d).

Note.—All the drawings of separate fibres and vessels in the above figures are on one scale.