tinct evidence of the organic character of the wedge-shaped fronds. It is from the Utica shale, and elsewhere in the Siluro-Cambrian. It is just possible, as suggested by Hall, that this plant may be of higher rank than the Algæ.

The genus *Palæophycus* of Hall includes a great variety of uncertain objects, of which only a few are probably true Algæ. I have specimens of fragments similar to his *P. virgatus*, which show distinct carbonaceous films, and others from the Quebec group, which seem to be cylindrical tubes now flattened, and which have contained spindle-shaped sporangia of large size. Tortuous and curved flattened stems, or fronds, from the Upper Silurian limestone of Gaspé, also show organic matter.

Respecting the forms referred to *Licrophycus* by Billings, containing stems or semi-cylindrical markings springing from a common base, I have been in great doubt. I have not seen any specimens containing unequivocal organic matter, and am inclined to think that most of them, if not the whole, are casts of worm-burrows, with trails radiating from them.

Though I have confined myself in this notice to plants, or supposed plants, of the Lower Palæozoic, it may be well to mention the remarkable Cauda-Galli fucoids, referred by Hall to the genus *Spirophyton*, and which are characteristic of the oldest Erian beds. The specimens which I have seen from New York, from Gaspé, and from Brazil, leave no doubt in my mind that these were really marine plants, and that the form of a spiral frond, assigned to them by Hall, is perfectly correct. They must have been very abundant and very graceful plants of the early Erian, immediately after the close of the Silurian period.

We come now to notice certain organisms referred to Algæ, and which are either of animal origin, or are of higher grade than the sea-weeds. We have already dis-