somewhat tufaceous in character, as if the layers, which are unfossiliferous, had been deposited from solutions.

In other parts of the district, along the coast of Durham, large tracts of the limestone consist of vast numbers of ball-shaped agglutinated masses, large and small, and I have observed in limestone caverns, in pools of water surcharged with bicarbonate of lime, that sometimes precipitation takes place on a small scale producing similar nodular bodies. It is notable also that when broken in two, many of the balls are seen to have a radiated acicular structure, that is to say, from the centre rudely crystalline-looking bodies all united, radiate to the circumference. In other places we find numerous bodies radiating in a series of rays that gradually widen from the centre, and are unconnected at their outer ends, which remind the spectator of radiating corals. There is, however, nothing organic about them, and I do not doubt that they owe their growth to some kind of crystalline action going on at the time that the limestone was being formed.

The occurrence of gypsum in the marly strata of the Permian series, helps to the conclusion that they were all deposited in inland waters, for it is impossible to conceive of pure sulphate of lime having been thrown down from solution in the ocean.

In these views I do not stand alone, for similar conclusions are held by Dr. Sterry Hunt, as shown in Sir William Logan's 'Geology of Canada,' and Professor Dana in his 'Manual of Geology.'

The chemical argument is not, however, what first led me to suspect that the Permian Magnesian Limestone was deposited chiefly from solution, in an inland salt sea, but rather the poverty and dwarfed character of the fauna alone, while I soon saw that the chemical