

## CHAPTER IX.

### *THE GROWTH OF COAL.*

MY early boyhood was spent on the Coal formation rocks and in the vicinity of collieries; and among my first natural history collections, in a childish museum of many kinds of objects, were some impressions of fern leaves from the shales of the coal series. It came to pass in this way that the Carboniferous rocks were those which I first studied as an embryo geologist, and much of my later work has consisted in collecting and determining the plants of that ancient period, and in studying microscopic sections of coals and fossil woods accompanying them. For this reason, and because I have published so much on this subject, my first decision was to leave it out of these Salient Points: but on second thoughts it seemed that this might be regarded as a dereliction of duty; more especially as some of the conclusions supposed to be the best established on this subject have recently been called in question.

Had I been writing a few years ago, I might have referred to the mode of formation of coal as one of the things most surely settled and understood. The labours of many eminent geologists, microscopists and chemists in the old and the new worlds had shown that coal nearly always rests upon old soil-surfaces penetrated with roots, and that coal beds have in their roofs erect trees, the remains of the last forests that grew upon them. Logan and the writer have illustrated this in the case of the series of more than eighty successive coal beds exposed at the