level. This forest appears to have extended eastward, as stumps of trees and roots may be seen at low-water at a considerable distance from the coast.

West of the line A A A there is an important change in the mineral productions; from thence to the line c c c the lower secondary strata appear, and most of the principal coal districts in England occur between the lines A A A and c c c. It is remarkable, that few if any regular metallic veins are found in this division. The lower secondary strata are also continued west of the line c c c, through the midland and northern countries, but rocks of the transition series occasionally appear in this part of our island. A very extensive coal district occurs in that part of South Wales bordering the Bristol Channel. On the east of the line c c c it may be remarked, that the strata generally incline or dip to the south-east; west of this line they are more irregular, and dip in various directions.

West of the part composed of the lower secondary strata, and coloured green, we meet with rocks of the primary and transition classes, in which metallic ores are found; they constitute the alpine parts of England, passing through Cornwall and Devoushire, into North Wales, and the north-west parts of Yorkshire and Lancashire, and through Westmoreland and Cumberland, into Scotland. This part is coloured red; rocks of the primary class occur chiefly in the parts-distinguished by dark lines.

Near the center of England, at Charnwood Forest in Leicestershire, and at the Malvern Hills in Worcestershire and Herefordshire, the primary rocks pierce through the secondary strata, and compose two small districts of primitive country, surrounded by secondary strata. Also in the counties of Derbyshire and in the West Riding of Yorkshire, and part of Cumberland and Westmoreland, rocks of transition or mountain limestone rise to a considerable elevation from beneath the secondary strata, which occur east and west of them; some of these limestone mountains are rich in metallic ores. Along the line E E beds of rock-salt and the principal springs of brine are situated.

It must be kept in mind when observing this map, that the tertiary strata lie upon the secondary, and the secondary upon the transition and primary rocks. Now, if the tertiary and secondary strata had both extended to the western counties, it is obvious that we could have had no knowledge of the existence of the lower series but by boring or sinking through the upper series; and the aggregate thickness of these exceeds the power of the miner to pierce through. The tertiary strata, however, only cover a part of the secondary, and the secondary do not cover the whole of the lower scries; so that in travelling westward, we come immediately upon the lower strata in succession, as they rise from underneath each other; for, as I before observed, the general inclination or dip of the beds is towards the south-east. The action of the sea upon our coasts and cliffs, has ex-