

LECTURE IV.

1. Introductory remarks.
2. Secondary formations.
3. The chalk formation.
4. Chalk and flint.
5. Flint nodules.
6. Organic remains in flint.
7. Sulphuret of iron.
8. Mæstricht beds.
9. St. Peter's mountain.
10. *Mosæsauros* of Mæstricht.
11. Lower group of the chalk.
12. Organic remains of the chalk.
13. Fossil vegetables.
14. Fossil zoophytes.
15. Radiaria and crinoidea.
16. Echinites.
17. Shells of the chalk.
18. Cephalopoda.
19. The belemnite.
20. The nautilus.
21. The ammonite, or cornu ammonis.
22. Turrilite, hamite, &c.
23. Spirolinites.
24. Infusoria in flint.
25. Crustacea of the chalk.
26. Fishes of the chalk—sharks.
27. Fossil salmon, or smelt.
28. *Macropoma*, and other fishes of the chalk.
29. Reptiles of the chalk.
30. Review of the chalk formation.
31. Geology of the south-east of England.
32. Geological phenomena between London and Brighton.
33. The wealden.
34. Wealden of the Sussex coast.
35. Pounceford.
36. Sub-division, and extent of the wealden.
37. Quarries of Tilgate forest.
38. Rippled sandstone.
39. Wealden of the Isle of Wight.
40. Isle of Purbeck.
41. Petrified forest of the Isle of Portland.
42. Modern submerged forest.
43. Fossils of the wealden.
44. Fossil vegetables—ferns.
45. Clathraria and endogenites.
46. Seed-vessels.
47. Fossil shells.
48. Sussex marble.
49. Fossil cypris.
50. Fishes.
51. Reptiles of Tilgate forest.
52. Fossil turtles.
53. Fossil crocodiles.
54. The Swanage crocodile.
55. The plesiosaurus.
56. The megalosaurus.
57. The iguanodon.
58. The Maidstone iguanodon.
59. Size of the iguanodon.
60. The hylæosaurus.
61. Flying reptiles.
62. Fossil birds.
63. The country of the iguanodon.
64. Sequence of geological changes.
65. Retrospect of geological mutations.

1. **INTRODUCTORY REMARKS.**—The knowledge we have acquired from our investigation of the phenomena described in the previous lectures, will materially facilitate our geological progress, by enabling