

## LECTURE FIFTH.

The Lias of the Hill of Eathie—The Beauty of its Shores—Its Deposits, how formed—Their Animal Organisms indicative of successive Platforms of Existences—The Laws of Generation and of Death—The Triassic System—Its Economic and Geographic Importance—Animal Footprints, but no Fossil Organisms, found in it—The Science of *Ichuology* originated in this fact—Illustrated by the appearance of the Compensation Pond, near Edinburgh, in 1842—The Phenomena indicated by the Footprints in the Triassic System—The Triassic and Permian Systems once regarded as one, under the name of the New Red Sandstone—The Coal Measures in Scotland next in order of Succession to the Triassic System—Differences in the Organisms of the two Systems—Extent of the Coal Measures of Scotland—Their Scenic Peculiarities—Ancient Flora of the Carboniferous Period—Its Fauna—Its Reptiles and Reptile Fishes—The other Organisms of the Period—Great Depth of the System—The Processes by which during countless Ages it had been formed.

THE Lias forms, as I have already had occasion to remark, the base of the great Oolitic system. I dealt in my last address with the productions, vegetable and animal, of those long ages of the world's history which the various deposits of this system represent, and attempted a restoration of some of its more striking scenes, as they must have existed of old in what is now Scotland. But in glancing once more at the Lias, we must pass from the living to the dead, from the vital myriads that once were, to the cemetery that contains their remains. I shall select as my example a single Liassic deposit of Scotland, but in several respects one of the most remarkable,—that of Eathie, on the shores of the Moray Firth, about four miles from the town of Cromarty. And in visiting it in its character as a great burial-ground,—the final resting-place, not only of perished individuals, but also of extinct tribes and races, and in scanning its strangely sculptured monuments, roughened with