

occurs, (for we occasionally meet with wide gaps in the scale, must be buried at an unapproachable depth. It led in Scotland — in the northern county of Sutherland — to an unprofitable working for many years of a sulphureous lignite of the inferior Oolite, far above the true Coal Measures. The attempt I have just been describing was made in a locality as far beneath them. There is the scene of another and more modern attempt in the same district, on the shores of the Moray Frith, in a detached patch of Lias, where a fossilized wood would no doubt be found in considerable abundance but no continuous vein even of lignite. And it is related by Dr. Anderson, of Newburgh, that a fruitless and expensive search after coal has lately been instituted in the Old Red Sandstone beds which traverse Strathearn and the Carse of Gowrie, in the belief that they belong not to the Old, but to the *New* Red Sandstone — a formation which has been successfully perforated in prosecuting a similar search in various parts of England. All these instances — and there are hundreds such — show the economic importance of the study of fossils. The Oolite has its veins of apparent coal on the coast of Yorkshire, and its still more amply developed veins — one of them nearly four feet in thickness — on the eastern coast of Sutherlandshire; the Lias has its coniferous fossils in great abundance, some of them converted into a lignite which can scarce be distinguished from a true coal; and the bituminous masses of the Lower Old Red, and its carbonaceous markings, appear identical, to an unpractised eye, with the impressions on the carboniferous sandstones, and the bituminous masses which they, too, are occasionally found to enclose. Nor does the mineralogical character of its middle beds differ in many cases from that of the lower members of the *New* Red Sandstone. I have seen the older rock in the north