

generally through the Alps; near Aigle, on the south-east of Vevey, it assumes the character of red compact marble similar to that of Salzburg; and at Roche, in the same neighbourhood, it is full of organic remains resembling those of the English coral rag; but from the compact nature of the matrix in which they are imbedded, these are visible only on the surface of the weathered blocks. This last observation may be applied also to a large proportion of the younger alpine limestone beds in the Tyrol and Salzburg, in which the organic remains are for the most part concealed by the extreme compactness of the stone; but, when apparent, are referable to the same classes with the oolite fossils of England. Such remains are distinctly visible at Nafels, near Glarus, in Switzerland, and at Halstad, in Salzburg; where also the limestone becomes partially oolitic.

The lias (like all the other formations in the Alps) is destitute of its alternating beds of clay, but maintains its position between the oolite and new red sandstone. At the salt mines of Bex, it reposes immediately on the upper bed of saliferous gypsum, where it is a dark-blue compact limestone, and contains ammonites, nautilites, terebratulites, and many bivalves identical with those of the lias of England.

At Halstad, it occupies a similar position between the oolite and red marly sandstone that covers the saliferous limestone, and is full of ammonites, belemnites, and other lias fossils. At Seefeld, near Inspruck, it contains fish similar to those which occur in the English lias at Lyme Regis. And at Mischelle, near Trent, it may be seen dividing the oolite from the red marle and new red sandstone.

In the central parts of Germany, the lias stretches from the Raue Alp (a continuation of the Jura chain) through Wurtemberg to Nurembourg, Gotha Wurtzbourg and Cobourg, occupying the greater part of the lower country between the mountains of the Black forest, Bergstrasse, and Vosges on the west, and the Bohemer Wald and Thuringer Wald. It does not appear that any decided oolites occur in this tract, but its details have never been fully examined. In the north of Germany, the lias may be traced surrounding the Hartz, and stretching on the north of the Erzgebirge, reposing on the red marle; it is described by Mr. Freisleben under the appellation of *muschel kalkstein*. Oolites here occur associated with it, but in no greater quantity.

In Russia, the lias certainly occurs near Moscow, but we have no distinct particulars concerning the secondary formations of that vast country.

The tracts of these formations in England, France, Germany, and Russia, may be considered as parts of a continuous series