

and Swindon, to Wotton Bassett ; turns south to Seend and Westbury ; appears about Wincaunton and Sturminster, passes under the Dorsetshire chalk, and reappears near Weymouth and in the isle of Portland.

The minute flexures, irregularities, and breaks in the ranges of these formations, can only be understood by consulting a good geological map ; but the preceding notices will suffice to show how remarkable is the effect, in the geology of England, of their parallel courses from sea to sea—from Yorkshire to Dorsetshire. In this respect their ranges are of great importance, offering to the inquiring mind a proof of the long succession of quiet processes by which the bed of the sea was gradually filled with a regular series of varying deposits—alternations of chemical and mechanical products—and afterwards, it is almost certain, gradually lifted so as to change with a certain regularity the ancient boundary of the sea. The Wealden formation, in this, as in all else, contrasts very strongly with the truly marine deposits. It makes no part of this parallel series, but lies principally in Kent and Sussex, occupying all the drainage of the Medway above Yalding, the upper branches of the Mole, Wey, Arun, and Adur, and the Ouse. From near Beachy Head to near Hythe and Ashford, the whole breadth of the Weald of Kent and Sussex is formed on these rocks, which are therefore happily named. Detached portions occur in the isle of Purbeck and in the vale of Wardour in Wiltshire, and analogous accumulations near Boulogne and Beauvais.

On the continent of Europe the oolitic rocks appear connected by direction in Normandy with those of England, and the series there is extremely similar and not less fully developed. The figure of the geographical area occupied by these rocks in France and Germany is so singularly ramified as almost to defy description. One portion surrounds the basin of Paris in a course from Caen by Mortagne near Angers, Saumur, Poitiers, Chatellerauld, Bourges, Auxerre, Bar le Duc, Mezières, spreading to Luxemburg, Metz, Nancy, and Dijon,