

limestones connected with the new trap-rocks in Baffin's Bay.

2. That the Neptunian, primitive, and transition rocks, now forming islands of various magnitudes, were in all probability at one time connected together, and formed a more continuous mass of land than at present ; and that on these formations were deposited the secondary limestones, sandstones, gypsum, and coal, and upon these again the tertiary rocks, and the still newer *shell-clay* of Spitzbergen : That these various kinds of primary, transition, secondary, and tertiary rocks and alluvial clays were raised above the level of the sea at different times through the agency of the igneous and volcanic rocks.

3. That in the course of time the land was broken up,—either suddenly or by degrees, or partly by sudden and violent action, and partly by the long-continued agency of the atmosphere and the ocean,—into its present insular form ; and that, consequently, the secondary and tertiary formations were formerly in these regions more extensively distributed than at present.

4. That previously to the deposition of the coal formation, as in Melville Island and in Jameson's Land, the previously-existing, or older hills, supported a vegetation resembling that which at present characterizes the tropical regions. The fossil corals in the limestones, corals of which the prototypes are at present met with in the hot seas of the tropical regions, also intimate that, before, during, and after the deposition of the coal-formation, the waters of the Arctic ocean were so constituted as to support polyparia, or corals, resembling those of the present equatorial seas.