

It has long been a favourite subject of discussion whether the Falls were once situated seven miles farther north, or at Queenston. The ideal bird's-eye view given in the frontispiece may assist the reader who has not visited the spot to form a tolerably correct general notion of the geographical configuration of this country, which is very simple. The view has been constructed from a sketch published by Mr. Bakewell, in Loudon's Magazine for 1830, into which the geological representation of the rocks, as they appear on the surface and in the ravine of the Niagara, has been introduced from the State Survey by Mr. Hall.* The platform, in a depression of which Lake Erie is situated, is more than 330 feet above Lake Ontario, and the descent from a higher to a lower level is sudden and abrupt at the escarpment called the Queenston heights. The strata throughout this whole region are nearly horizontal, but they have a gentle dip to the south of 25 feet in a mile. This inclination is sufficient to cause the different groups of rock to crop out one from beneath the other, or come up to the surface in parallel zones, which may be traced for a great distance east and west through the state of New York and Canada. (See Map.) They all consist of different members of the Silurian series, the uppermost or newest being those nearest to Lake Erie. (See section fig. 4., p. 37.) In the bird's-eye view, the Niagara is seen bounded by

* Mr. Bakewell gave me his original sketches in 1841, and I conceived the idea of combining his pictorial view with a geological representation of the rocks before I gave a lecture on the Niagara district at Boston, in October, 1841, in which, and in planning some of the other diagrams, and in discussing the theory of recession, I was assisted by Mr. Hall.