

slate and associated quartz rocks, from Bray to Waterford, and a much larger tract in the south of Ireland, from Dungarvon to Dingle Bay. Detached masses occur about Dingle and in Tipperary.

The Isle of Man is principally composed of slaty rocks.

Nearly the whole of the lake district of Cumberland, Westmoreland, and Lancashire, is formed of clay slate, and grauwacke. Charnwood forest, considerable parts of Anglesea, an immense crescent stretching from Great Orme's Head, by Ruthin, Welshpool, Rhayader, Llandovery, and St. David's Head, belong to this system, as well as a band on the north of Devon, and, with the exception of igneous rocks, almost all Cornwall and Devon, south of a line from Tintagel, by Launceston to Exeter.

On the continent of Europe, Brittany, the Ardennes, the Harz, parts of Norway; in Africa, the ranges of Atlas; in America, the Alleghanies contain considerable portions of this class of rocks.

*Physical Geography.*—The slate system, though but a very inferior feature along the Grampian ranges of Scotland, rises to great importance in the south of Ireland, and forms the most elevated points of land in England and Wales. Supported by granite, and mixed with igneous masses, the slaty rocks of the English lakes rise to more than 3000 feet in height (Sca fell is 3160, Skiddaw 3022), and present a variety of outline, and intricacy of combination, which, in connection with clear lakes and considerable waterfalls, leave to Switzerland little superiority, except that beauty and grandeur imparted by their mighty summits of snow, which is perfectly inconceivable to an English tourist, who might shudder by his fireside at the very mention of a wintry view of Helvellyn.

Each of the slate formations of Cumbria has its own characters of scenery: broad swelling forms accompany the Skiddaw rocks; enormous crags and fearful precipices, with broken waterfalls, characterise the middle division, and the upper has, generally, a number of ser-