an easy gradation to the phenomena which mark the former violence of the now silent fires of Auvergne, the Euganean Hills, and Hungary. The relation of these to the basaltic streams of Ireland and Scotland is clear enough as far as relates to the general agency; but the determination of the period when these igneous rocks were formed is difficult. Etna may have begun to burn as soon or even sooner than the now decaying lavas were poured from the craters of Auvergne, the Eifel, and Hungary; and the mere fact of igneous rocks being associated with particular strata, is no criterion of their antiquity. We must therefore endeavour to combine the history of the tertiary volcanic products with those of later and earlier date, in a general discussion of the effects of subterranean heat, which we propose to place after the description of the superficial aqueous deposits, which are intimately related to the tertiary products.

Post-tertiary and Modern Deposits.

(*Syn.* "*Diluvium*," *and* "*Alluvium*."—"*Superficial Deposits*.")

Since the tertiary formations were completed in most parts of Europe and America, the energies of nature have gone on to accumulate over them and earlier deposits a great quantity of additional matter, under many varied circumstances. It is often extremely difficult to say, whether certain aggregations of sand, gravel, and shells, are of tertiary date, or the productions of later times: enormous heaps of pebbles and bones lie in particular situations, and are evidently of great antiquity; but whether of the tertiary era or not, requires much care in determining. Certain lacustrine deposits, full of shells, marls, peat, and bones of stags, cannot, by a hasty glance, be known from tertiary strata collected from ancient lakes. But, upon farther and closer scrutiny, geologists have generally agreed to think that a whole series of deposits, partly marine, partly terrestrial,