

and bosses. They run as straight, curved, or branching ribbons, usually not exceeding a foot in thickness. They are finer in texture than the rock which they traverse. Close examination of them shows that, instead of being sharply defined by a definite junction line with the inclosing rock, they are welded into that rock in such a way that they cannot easily be broken along the plane of union. This welding is found to be due to the mutual protrusion of the component crystals of the vein and of the surrounding rock—a structure sometimes admirably revealed under the microscope. Veins of this kind evidently point to some process whereby, into rents formed in the deeply buried and at least partially consolidated or possibly pasty or jelly-like mass, there was an injection of similar material from some still unsolidified part of the mass with a transfusion or exosmosis of some of the crystallizing minerals along the mutual boundaries. Such veins are to be distinguished from the true Segregation-veins, which are irregular bands usually of more coarsely crystalline material not infrequently to be seen in intrusive sheets, wherein the constituent minerals have crystallized out in a much more conspicuous form than in the main mass of the surrounding rock along certain lines or around particular centres. These are probably due to some kind of segregation from the surrounding mass, though the conditions under which it took place have not yet been satisfactorily explained.²⁸ Segregation-veins occur among the crystalline schists and even in sedimentary rocks which have been crushed and metamorphosed, as in the felspathic Torridon Sandstone of Loch Carron.

²⁸ For some illustrations see *Trans. Roy. Soc. Edin.* xxxv. 1888, pp. 113, 115, 118, 131.