again in the Isle of Man, and in the counties of Dublin and Wicklow in Ireland. Blocks of granite are found in the beds of some of the rivers in the northwest part of Yorkshire, and in clay pits in Lancashire and Cheshire, at a great distance from any granite mountains. Most of the granitic rocks on Charnwood Forest are of that kind denominated sienite.* Among the English localities of granite, I have recently ascertained, that both granite and imperfect gneiss rise to the surface near Bedworth in Warwickshire, evidently a continuation of the Charnwood granite.

Granite sometimes forms veins, shooting up into the superincumbent rocks. This is a fact of some geological importance, as it seems to indicate, either that the granite has been in a state of fusion, the heat of which has softened and rent the upper rocks, and forced up the granite, in a melted state, into these fissures; or else, that the granite and the rocks resting immediately upon it were both in a fluid state at the same time, and are contemporaneous. A remarkable instance of granitic veins in argillaceous schistus at Mousehole in Cornwall is described in Dr. Thomson's Annals of Philosophy, May, 1814. "The schistus is of a greyish colour, rather hard, but breaks in large fragments in the direction of the strata. The granite is of a fine grain, and the felspar is of a light flesh colour, and contains but a small portion of mica. At the junction, numerous veins of granite may be traced, from the rock of granite into the schist. Some of these veins may be observed upwards of fifty yards, till they are lost in the sea, and in point of size, vary from a foot and a half to less than an inch. It may deserve notice, that, as the felspar is of a flesh colour, it is impossible for any observer to consider them as quartz veins: one of these large veins is dislocated, and heaved several feet by a cross course. Quartz and fragments of schistus, having the appearance of veins, are found in the granite veins. At one place there is a very curious and satisfactory phænomenon. One of these veins of granite, after proceeding, vertically, some distance, suddenly forms an angle, and continues in a direction nearly horizontal for several feet, with schistus both above and below it. This appearance most completely destroys one of the theories suggested for the explanation of similar veins at St. Michael's Mount, viz. that a ridge of projecting granite had been left, and schistus deposited afterwards on its sides."

In 1816 I visited the place, which is close by the sea-side, at low water, and observed some appearances which I believe have not hith-

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* According to Brogniart, granite, siente and porphyry, are frequently, observed, graduating into each other in some parts of France; and he forms this conclusion: "En étudiant les granites d'un grand nombre de pays pour tâcher de distinguer clairment les anciens granites des nouveaux, on trouve presque peu de pays granitiques, qu'on puisse rapporter avec certitude à cette ancienne et primitive formation des granites." *Journal des Mines, Mars*, 1814.