ARCTIC GEOLOGY.

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ica-slate, e exhibit ncture as ho latter f Britain proof of position, ie world. minerals g on the ntry, we or more ave been cryolite, rmalines splendid vite, and ere does ead, tin, occur in plays of

opatite, calcarcous spar, fluor spar, and of other simple CHAP. XIIL minerals on the west coast, which have been a source ores and of so much instruction and delightful contemplation to spars. the scientific observer, may in some future voyage present themselves in the newly discovered countries to the eye of the naturalist. The specimens of transition clay-slate picked up by him prove the existence of rocks of that class in Greenland, and thus add a new feature to its geognosy; for Gieseeke does not enumerate any of the slates he met with as belonging to the transition series. This fact is also a farther proof of the wide distribution of these rocks; and shows, in opposition to certain speculative views, that they are not confined to a few narrow corners of the globe, but, like granite and gneiss, may be considered as occurring in most extensive tracts of country, and ought therefore to be associated with the universal formations. We do not know any other examples of these rocks having been found in so high a latitude.

The secondary rocks in that country are referable to Secondary two formations, one aqueous or Neptunian, the other rocks Plutonic or igneous; the former class belong to the first secondary sandstone, or coal formation,-the latter to the secondary trap and porphyry series. The first does not occur on the west coast, and was met with for the first time in Greenland by Scoresby. It is the same as that which abounds all around Edinburgh; in short, it is that important formation in which are situated all the great coal-mines in Scotland and England. It was seen only in Jameson's Land, where it forms the princi-Jameson's Land, pal deposit, and gives to that district its peculiar characters ; thus affording another example of the connexion between the features which distinguish the surface of a country and its geognostical composition. This formation always contains impressions and casts of plants which have a tropical aspect,-a circumstance of high interest, especially when combined with the Arctic situation of the coal. The corresponding formation in Melville Island, in latitude 75°, where the summer

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