and variation of temperature, particularly on the extremes of temperature, whethen as regards cold or heat, and sometimes its distribution in the different months of the year. Thus, in a country whose climate is remarkable for excessive cold or heat, such vegetables can alone live in a state of nature, as are capable of enduring such extremes. But it may still be possible, in such a country, if the interval between the extremes be considerable, to cultivate by art such plants, as if left to themselves, would neither survive nor propogate their species.

The distribution of heat in the different months of the year, has perhaps the greatest effect on the distribution of plants. A cool summer and moderate winter is generally found in the neighbourhood of the Occan, which has a tendency to preserve an equability of temperature. A hot summer and cold winter may produce a similar mean temperature, but will always produce a very different vegetation. Annual plants which pass the winter in the torpid state of seeds, and which have been already explained to be, in this state, little injured by variation of temperature, are most abundant in countries having the greatest extremes of temperature-Perennial plants prefer the Temperate Zones; and plants with deciduous leaves can suit themselves better to extremes of temperature, while evergreens prefer a greater equability of temperature. Yet every country, with a well marked and distinct natural boundary of mountain, sea, or desert, has, generally, a vegetation peculiar to itself, even although placed in the same degree of latitude ; and, even in the same country, we do find plants confined to one region, without being able to assign any plausible scientific reason for their occurence. Plants that require a long and moderate heat depend on the average summer temperature ; those that require a short but great heat. on the temperature of the warmest month ; and those that dislike great cold, on that of the coldest month. Climate then decides the natural habitation or range of plants. The difference of the mean temperature of summer and winter is nothing at the Equator, and gradually encreases with the latitude. The extreme difference of the seasons is greatest where the mean annual temperature is low ; as along a great range of the American Coasts, owing to the cold winds from the Polar Regions. The extremes of temperature are much felt also in the interior of large continents, and little felt in some Islands at a distance from them, or on the shores of large Islands, or continents themselves, for instance, the western shores of Europe and America. In the Polar Begi ns the temperature is much regulated by the melting of the ice in summer, which lowers it, and by the freezing of the water iu winter, which, by giving out great heat raises it considerably. Were it not for this wise provision of omnipotence, neither plants nor animals could exist in those dreary and inhospitable regions.

In the Temperate Regions, the distribution of plants depends more on the mean temperature of the summer season,— in the Equinoctial, on the mean temperature of the whole year. The aco ylidonous class of plants proportionally encrease in number as we proceed from the Equator to the Poles, with the single exception of the Felices (Ferns) which however are generally mountain-ous plants in the Tropical Regions,