

warmth, the same *temperature*, as it is called : and *that* always and everywhere is the same, or nearly the same, as the average warmth of the climate of the place. Forty or fifty feet deep in the ground, a thermometer here, in this spot,* would always mark the same degree, 49° that is, or seventeen degrees above the freezing point. Under the equator, at the same depth, it always stands at 84° , which is our *hot summer* heat, but which there is the average heat of the whole year. And this is so everywhere. Just at the surface, or a few inches below it, the ground is warm in the daytime, cool at night : at two or three feet deep the difference of day and night is hardly perceptible, but that of summer and winter is considerable. But at forty or fifty feet this difference also disappears, and you find a perfectly fixed, uniform degree of warmth, day and night ; summer and winter ; year after year.

(13.) But when we go deeper, as, for instance, down into mines or coal-pits, this one broad and general fact is always observed,—everywhere, in all countries, in all latitudes, in all climates, wherever there are mines, or deep subterranean caves,—the deeper you go, the hotter the earth is found to be. In one and the same mine, each particular depth has its own particular degree of heat, which never varies : but the lower always the hotter ; and that not by a trifling, but what may well be called an astonishingly rapid rate of increase,—about a degree of the thermometer additional warmth for every 90 feet of additional depth, which is about 58° per mile !—so that,

* At Hawkhurst in Kent.