

productiveness of the soil and the healthfulness of the climate. An eminent London physician expressed it as his opinion that if all the trees and shrubs were removed from the two or three thousand acres of parks, and from the gardens and private grounds of that great metropolis, in one year the bills of mortality would show an increase of deaths to the extent of more than fifty per cent. If we consider that there are ordinarily in London over 1,000 deaths a week, or nearly 60,000 a year, that the deaths by cholera in 1849, during the worst period of the visitation, were at no time over 500 a week, we see the bearing and influence of trees—according to the opinion quoted—on the health and longevity of the inhabitants of a crowded city. We might as reasonably expect that land animals could live without air, or fish without water, as that there could be a pure and healthy atmosphere where there are few or no trees or rapidly growing plants, or where, in an extended region, animal life vastly preponderates over vegetable life.

Nature is under all circumstances constantly attempting to keep up that just equilibrium which conduces to the good of the whole. Life is motion, death "cold obstruction." The sea haming its winds and tides, and natural streams runs. Wherever there is a stagnant pool by accident, or through the carelessness or bad management of man. Nature at once sets to work, to correct the evil. A green slime, which is vegetation, covers the surface of the pool, and consumes the poisonous gases generated by the stagnant water. Circumstances having produced an abundance of food for plants, plants appear, seemingly by a miraculous creation to consume it. This is in obedience to a law of nature, as beneficent as it is unerring. The history and geography of the world supply numerous instances in which the absence or

destruction of vegetation, and particularly of trees, has rendered a country uninhabitable because unhealthy. The Pontine marshes are a well-known example. In the time of the Cæsars all central Italy had a due proportion of forests, and the country was healthy and fertile, and supported a large population. Now that the forests are cut off, the dry land is arid and barren, and the marches send forth a malaria that kills almost every person that comes within reach of its exhalations. This poisonous malaria is contained in carbonic acid ammoniacal gas and watery vapor, which are the real food of plants, less than one-fourth part of which is composed of the organic matter contained in the soil. The rest is derived from the atmosphere. A single sunflower consumes daily 22 ounces of water; and one acre of sunflowers consumes three million pounds during the four principal growing month. A well stocked orchard will, in the same time, consume five million pounds. The family of the superintendent of the National observatory at Washington, (Lieut. Maury) were subject to agues and fevers every Summer, the effect of the exhalation of marshes on the bank of the Potomac. The learned lieutenant planted, one spring, a large bed of sunflowers. The aerial scavengers consumed the miasmatic constituents of the atmosphere and for the first time since the place was inhabited the residents escaped the chills and fevers. The effect was no more mysterious than is the absence of cholera where buzzards, frequent showers, or the activity of man has destroyed or removed the filth of a crowded city. A field of hops, cabbages, or Indian Corn, or a nursery of trees, would doubtless have produced the same result. Experiments have shown that scarcely one-half the amount of water consumed by growing plants is supplied by rain, the